

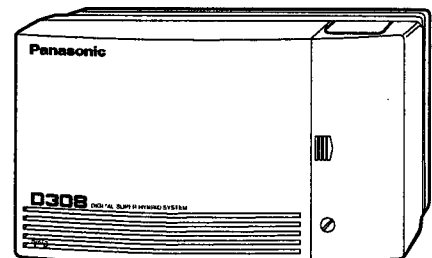
Digital Super Hybrid System

Panasonic

I N S T A L L A T I O N M A N U A L

*Please read this manual before connecting the
Digital Super Hybrid System.*

MODEL NO.
KX-TD308



Thank you for purchasing this Panasonic Model
KX-TD308, Digital Super Hybrid System.

System Components

| | Model | Description |
|---------------------------|--------------|--|
| Service Unit | KX-TD308 | Digital Super Hybrid System (Main Unit) |
| Telephone | KX-T7220 | Digital proprietary telephone |
| | KX-T7230 | Digital proprietary telephone with display |
| | KX-T7235 | Digital proprietary telephone with large display |
| | KX-T7250 | Digital proprietary telephone |
| | KX-T7130 | Proprietary telephone with display |
| | KX-T7020 | Proprietary telephone |
| | KX-T7030 | Proprietary telephone with display |
| | KX-T7050 | Proprietary telephone |
| Optional Equipment | KX-TD30870 | 4-SLT Extension Expansion Card |
| | KX-TD3089 1 | Caller ID / DISA / FAX Detection Card |
| | KX-T30865 | Doorphone |

System Components Table

Attention

- Keep the unit away from heating appliances and electrical noise generating devices such as fluorescent lamps, motors and televisions. These noise sources can interfere with the performance of the Digital Super Hybrid System.
- This unit should be kept free of dust, moisture, high temperature (more than 40°C / 104°F) and vibration, and should not be exposed to direct sunlight.
- Never attempt to insert wires, pins, etc. into the vents or other holes of this unit.
- If there is any trouble, disconnect the unit from the telephone line. Plug the telephone directly into the telephone line. If the telephone operates properly, do not reconnect the unit to the line until the trouble has been repaired. If the telephone does not operate properly, chances are that the trouble is in the telephone system, and not in the unit.
- Do not use benzine, thinner, or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth.

WARNING

THIS UNIT MAY ONLY BE INSTALLED AND SERVICED BY QUALIFIED SERVICE PERSONNEL.

WHEN A FAILURE OCCURS WHICH RESULTS IN THE INTERNAL PARTS BECOMING ACCESSIBLE, DISCONNECT THE POWER SUPPLY CORD IMMEDIATELY AND RETURN THIS UNIT TO YOUR DEALER.

DISCONNECT THE TELECOM CONNECTION BEFORE DISCONNECTING THE POWER CONNECTION PRIOR TO RELOCATING THE EQUIPMENT, AND RECONNECT THE POWER FIRST.

THIS UNIT IS EQUIPPED WITH AN EARTHING CONTACT PLUG. FOR SAFETY REASONS THIS PLUG MUST ONLY BE CONNECTED TO AN EARTHING CONTACT SOCKET WHICH HAS BEEN INSTALLED ACCORDING TO REGULATIONS.

THE POWER SUPPLY CORD IS USED AS THE MAIN DISCONNECT DEVICE, ENSURE THAT THE SOCKET-OUTLET IS LOCATED / INSTALLED NEAR THE EQUIPMENT AND IS EASILY ACCESSIBLE.

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

The serial number of this product may be found on the label affixed to the bottom of the unit. You should note the model number and the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft.

MODEL NO.:

SERIAL NO.:

Attention

When you ship the product

Carefully pack and send it prepaid, adequately insured and preferably in the original carton. Attach a postage-paid letter, detailing the symptom, to the outside of the carton. DO NOT send the product to the Executive or Regional Sales offices. They are NOT equipped to make repairs.

Product service

Panasonic Servicenters for this product are listed in the servicenter directory. Consult your authorized Panasonic dealer for detailed instructions.

For your future reference

DATE OF PURCHASE _____
NAME OF DEALER _____
DEALER'S ADDRESS _____

Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
8. This product is equipped with a three wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by people walking on it.

Important Safety Instructions

10. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
12. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. **When** the power supply cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. **If** the product does not operate normally by following the operating instructions. Adjust only those controls, that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - E. **If** the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance.
14. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
15. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

Telephone Company and F.C.C. Requirements and Responsibilities

1. Notification to the Telephone Company

Customers, before connecting terminal equipment to the telephone network, shall upon request of the Telephone Company, inform the Telephone Company of the particular line(s) to which such connection is made, the F.C.C. registration number (see the label on the bottom of the **unit**) and ringer equivalence number (REN) of the registered terminal equipment.

The REN is useful in determining the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the **REN's** of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

2. Connection to Telephone Line

This unit must not be connected to a coin operated line. If you are on a party line, check with your local telephone company.

3. Incidence of Harm to the Telephone Lines

Should terminal equipment cause harm to the telephone network, the telephone company shall, where practical, notify the customer that temporary discontinuance of service may be required.

However, where prior notice is not practical, the telephone company may temporarily discontinue service forthwith, if such action is reasonable in the circumstances. In case of such unnotified temporary discontinuance of service, the telephone company shall:

- (a) Promptly notify the customer of such temporary discontinuance of service.
- (b) Afford the customer the opportunity to correct the situation which gave rise to the temporary discontinuance.
- (c) Inform the customer of the right to bring a complaint to the Federal Communication Commission pursuant to the procedures set out in Subpart E of Part 68 of FCC Telephone Equipment Rules.

4. Compatibility of the Telephone Network and Terminal Equipment

(a) Availability of telephone interface information.

Technical information concerning interface parameters and specifications not specified in FCC Rules, including the number of Ringers which may be connected to a particular telephone line, which is needed to permit Terminal Equipment to operate in a manner compatible with Telephone Company communications facilities, shall be provided by the Telephone Company upon customer's request.

Telephone Company and F.C.C. Requirements and Responsibilities

(b) Changes in Telephone Company Communications Facilities, Equipment, Operations and Procedures.

The Telephone Company may make changes in its communications facilities, equipment, operations or procedures, where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations in FCC Part 68.

If such changes can be reasonably expected to render any customer Terminal Equipment incompatible with Telephone Company Communications Facilities, or require modification or alteration of such Terminal Equipment, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing, to allow the customer an opportunity to maintain uninterrupted service.

Notify the Telephone Company

Installation must be performed by a qualified professional installer.

Before connecting this equipment to any telephone, call the telephone company and inform them of the following:

- Telephone numbers to which the system will be connected
- Make Panasonic
- Model KX-TD308
- FCC Registration No. found on the bottom of the unit
- Ringer Equivalence No. **0.4B**
- Facility Interface Code **02LS2**
- Service Order Code **9.0F**
- Required Network Interface Jack..... RJ 14 C

Note :

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Telephone Company and F.C.C. Requirements and Responsibilities

Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

When programming emergency numbers and/or making test calls to emergency numbers:

1. Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
2. Perform such activities in the off-peak hours, such as early morning hours or late evenings.

Introduction

This Installation Manual provides technical information for the Panasonic Digital Super Hybrid System, KX-TD308. It is designed to serve as an overall technical reference for the system and includes a description of the system, its hardware and software, features and services and environmental requirements.

This manual contains the following sections:

Section 1, System Outline.

Provides general information on the system including system capacity and specifications.

Section 2, Installation.

Contains the basic system installation and wiring instructions, as well as how to install the optional cards and units.

Section 3, Features.

Describes all the basic, optional and programmable features in alphabetical order. It also provides information about the programming required, conditions, connection references, related features and operation for every feature.

Section 4, System Programming.

Provides step-by-step programming instructions for a proprietary telephone.

Section 5, List.

Lists tone/ring tone and default values of system programming.

Section 6, Troubleshooting.

Provides information for system and telephone troubleshooting.

NOTE

The following documents may be used in conjunction with **this** manual:

- User Manual for KX-TD308 System, DIGITAL Proprietary Telephones and Standard Telephones.
- Programming Tables
The programming tables are designed to be used as a hard copy reference for entering user-programmed data.

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Section 1

System Outline

This section provides general information on the system, including system capacity and specifications.

1.1 System Highlights

System Capacity

| | Basic System | Module Expansion |
|--------------|--------------|------------------|
| Outside line | 3 | — |
| Extension | 8 | — |
| XDP | 4 | 4 |

EXtra Device Port (XDP)

Four extension jacks in the KX-TD308 support the connection of a digital proprietary telephone and a single line device. The two devices per jack have different extension numbers and are treated as two completely different extensions.

Paralleled Telephone Connection

Every jack in the system also supports the parallel connection of a proprietary telephone and a single line device. They share the same extension number and are considered by the system to be one extension.

Super Hybrid System

This system supports the connection of digital and analog proprietary telephones, and single line devices such as standard telephones, fax machines, and data **terminals**.

Digital Proprietary Telephones (DPT)

The system supports four different models of digital proprietary telephones which cover the range from a monitor set to a large display handsfree version.

Programming System

The system is programmed from a proprietary telephone.

Voice Mail Integration

The system supports Voice Processing Systems with in-band DTMF signaling as well as DPT integration. The Panasonic Voice Processing System provides automated attendant, voice mail, interview and custom services.

Automatic Route Selection (ARS)

Automatically selects the pre-programmed least expensive route for outgoing toll calls.

1.1 System Highlights

Caller ID

Allows the user to see the name or telephone number of a caller on the telephone display before answering a call.

Trunk (Outside Line) Answer From Any Station (TAFAS)

Ringing occurs over the external paging system; call can be answered from any station.

Remote Station Lock Control

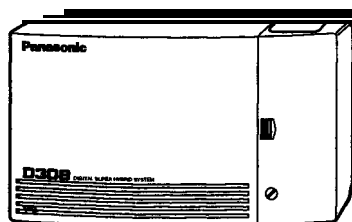
Allows an operator to lock an extension so that outgoing calls cannot be made.

Uniform Call Distribution (UCD)

Allows incoming calls to be distributed uniformly to a specific group of extensions.

1.2 Basic System Construction

The KX-TD308 Digital Super Hybrid System has a basic capacity of three outside lines and eight extensions. It is capable of supporting Panasonic digital and analog proprietary telephone, and single line devices such as standard telephones and fax machines. To expand its capabilities the system can be equipped with optional components or customer-supplied peripherals such as external speaker and external music source (e.g., radio).



1.3 Proprietary Telephones

The following Panasonic proprietary telephones are available with this system.

| Proprietary Telephone | Description |
|------------------------------|--|
| KX-T7220 | Digital, speakerphone, 24 Flexible CO |
| KX-T7230 | Digital, display, speakerphone, 24 Flexible CO |
| KX-T7235 | Digital, large display, speakerphone, 12 Flexible CO |
| KX-T7250 | Digital, monitor, 6 Flexible CO |
| KX-T7130 | Display, speakerphone, 12 Flexible CO, 12 PF |
| KX-T7020 | Speakerphone, 12 Flexible CO, 4 PF |
| KX-T7030 | Display, speakerphone, 12 Flexible CO, 4 PF |
| KX-T7050 | Monitor, 12 Flexible CO, 4 PF |
| KX-T7055 | Monitor, 3 Flexible CO, 3 PF |

Note : Flexible CO : Flexible CO button (programmable)
PF : Programmable Feature button

1.4 Options

1.4.1 4-SLT Extension Expansion Card (KX-TD30870)

Adds four **eXtra** Device Port extensions to jacks 5 through 8, for a maximum of eight digital extensions plus eight single line device extensions. The basic configuration already supports digital proprietary telephones on jacks 5 through 8.

1.4.2 Caller ID / DISA / FAX Detection Card (KX-TD30891)

This card supports the following:

Caller ID: Receives the Caller ID Service from the Central Office.

A specified standard telephone with Caller ID service can display the information. Display proprietary telephones can display caller's information which has been stored in the system according to the Caller ID service.

Direct Inward System Access (DISA):

One of the system features. An outgoing message greets the external caller and provides information so that the caller can access extensions directly.

Facsimile detection:

When the system receives a facsimile transmission signal by DISA, it automatically connects the specified facsimile extension.

1.5 Specifications

1.51 General Description

| | | |
|------------------------|--|--|
| System Capacity | Outside lines | 3 max. |
| | Extensions | 8 max. (12 max. with eXtra Device Port, 16 max. with eXtra Device Port and 4-SLT Extension Expansion Card) |
| Control Method | CPU: 8 bit CPU Control ROM: 768 KB, Control RAM 128 KB | |
| Switching | Non Blocking PCM Time Sharing Switch | |
| Power Supplies | Primary | 120 VAC, 60 Hz (0.7 A) |
| | Secondary | Circuit Volt: +5V, +15V, +30V |
| Dialing | Dial Pulse (DP) 10 pps, 20 pps, Tone (DTMF) Dialing, DTMF-DP | |
| Connector | Outside lines | 6-pin Modular Connector (RJ25C) |
| | Extensions/Doorphone | SO-pin (Amphenol 57JE series or the equivalent) |
| | Pager/Music Source | EIAJ RC-6701 A plug (two-conductor ø 2.5mm in diameter) |

Extension Connection Cable

| | |
|---|---|
| Standard telephones | 1 pair wire (T, R) |
| KX-T7220, KX-T7230, KX-T7235, KX-T7250 | 1 pair wire (D 1, D2) or 2 pair wire (T, R, D 1, D2) for XDP |
| KX-T7020, KX-T7030, KX-T7050, KX-T7055, KX-T7130 | 2 pair wire (T, R, D 1, D2) |

SMDR (Station Message Detail Recording)

| | |
|------------------|--|
| Interface | Serial Interface (RS-232C) (D-SUB, 9-pin) |
| Output Equipment | Printer |
| Detail Recording | Date, Time, Extension Number, Outside Line Number, Dialed Number, Call Duration, Account Code, Caller ID, Ring Duration |

1.5 Specifications

1.5.2 Characteristics

Station Loop Limit KX-T7220 / KX-T7230 / KX-T7235 / KX-T7250 / KX-T7020 /
KX-T7030 / KX-T7050 / **KX-T7055** / KX-T7130 40 ohms
Standard Telephone 600 ohms including set
Doorphone 20 ohms

Minimum Leakage Resistance 15,000 ohms

Maximum Number of Station Instruments per Line
1 for **KX-T7220**, KX-T7230, **KX-T7235**,
KX-T7250, KX-T7 130, KX-T7020, KX-T7030,
KX-T7050, KX-T7055 or standard telephone
2 by Parallel or **eXtra** Device Port Connection of a
proprietary telephone and a standard telephone

Ring Voltage 80 Vrms at 25 Hz depending on the
Ringing Load

Central Office Loop Limit 1,600 ohms max.

Environmental Requirements 0 – 40 °C / 32 – 104 °F, 10 – 90% relative humidity

Hookswitch Flash Timing Range 204 – 1,000 milliseconds

1.5 Specifications

1.5.3 System Capacity

Lines, Cards, Station Equipment

| Item | Max. Quantity |
|--|----------------------|
| Service Units | 1 |
| Outside Lines | 3 |
| Extension Jacks | 8 |
| Station Terminals | 16 |
| 4-SLT Extension Expansion Card | 1 |
| Caller ID/DISA/FAX Detection Card | 1 |
| Doorphone | 1 |
| Door Opener | 1 |
| External Pager | |
| External Music Source | 1 |

System Data

| Item | Max. Quantity |
|-------------------------|---|
| Operators | 2 |
| System Speed Dialing | 100 |
| One-Touch Dialing | 24 per extension (proprietary telephone) |
| Station Speed Dialing | 10 per extension |
| Call Park areas | 10 |
| Absent Messages | 9 |
| Toll Restriction Levels | 8 |
| Extension Groups | 8 |
| Class of Service levels | 8 |
| Message Waitings | 16 |
| UCD Groups | 8 |

Section 2

Installation

This section contains the basic system installation and wiring instructions, as well as how to install the optional cards and units.

2.1 Before Installation

Please read the following notes concerning installation and connection before installing the system and terminal equipment.

Safety Installation Instructions

When installing telephone wiring, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.

Installation Precautions

This system is designed for wall mounting only. Avoid installing in the following places. (Doing so may result in malfunction, noise, or discoloration.)

1. In direct sunlight and hot, cold, or humid places. (Temperature range: 0°C – 40°C / 32°F – 104°F)
2. Sulfuric gases produced in areas where there are thermal springs, etc. may damage the equipment or contacts.
3. Places in which shocks or vibrations are frequent or strong.
4. Dusty places, or places where water or oil may come into contact with the system.
5. Near high-frequency generating devices such as sewing machines or electric welders.
6. On or near computers, telexes, or other office equipment, as well as microwave ovens or air conditioners. (It is preferable not to install the system in the same room with the above equipment.)
7. Install at least 1.8 m (6 feet) away from radios and televisions. (Both the system and Panasonic proprietary telephones)
8. Do not obstruct area around the system (for reasons of maintenance and inspection — be especially careful to allow space for cooling above and at the sides of the system).

Wiring Precautions

Be sure to follow these instructions when wiring the unit:

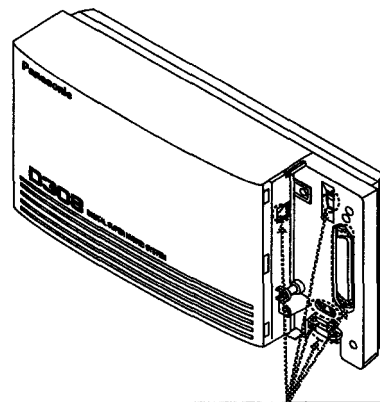
1. Do not wire the telephone cable in parallel with an AC power source, computer, telex, etc. If the cables are run near those wires, shield the cables with metal tubing or use shielded cables and ground **the** shields.

2.1 Before Installation

2. If cables are run on the floor, use protectors to prevent the wires from being stepped on. Avoid wiring under carpets.
3. Avoid using the same power supply outlet for computers, telexes, and other **office** equipment. Otherwise, the system operation may be interrupted by the induction noise from such equipment.
4. Please use one pair telephone wire for extension connection of (telephone) equipment such as standard telephones, data terminals, answering machines, computers, voice processing systems, etc., except Panasonic proprietary telephones (e.g. **KX-T7230**, **KX-T7235**).
5. Unplug the system during wiring. After all of the wiring is completed, plug in the system.
6. Mis-wiring may cause the system to operate improperly. Refer to Section 6.1.1 “Installation” and Section 6.1.2 “Connection”.
7. If an extension does not operate properly, disconnect the telephone from the extension line and then connect again, or turn off the Power Switch of the system and then on again.
8. The system is equipped with a 3-wire grounding type plug. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
9. Outside lines should be installed with lightning protectors. For details, refer to Section 2.3.2 “Outside Line Connection – Installing Lightning Protectors”.

Warning:

Static sensitive devices are used. To protect printed circuit boards from static electricity, do not touch connectors indicated to the right. To discharge body static, touch ground or wear a grounding strap.



Warning: Static sensitive connectors

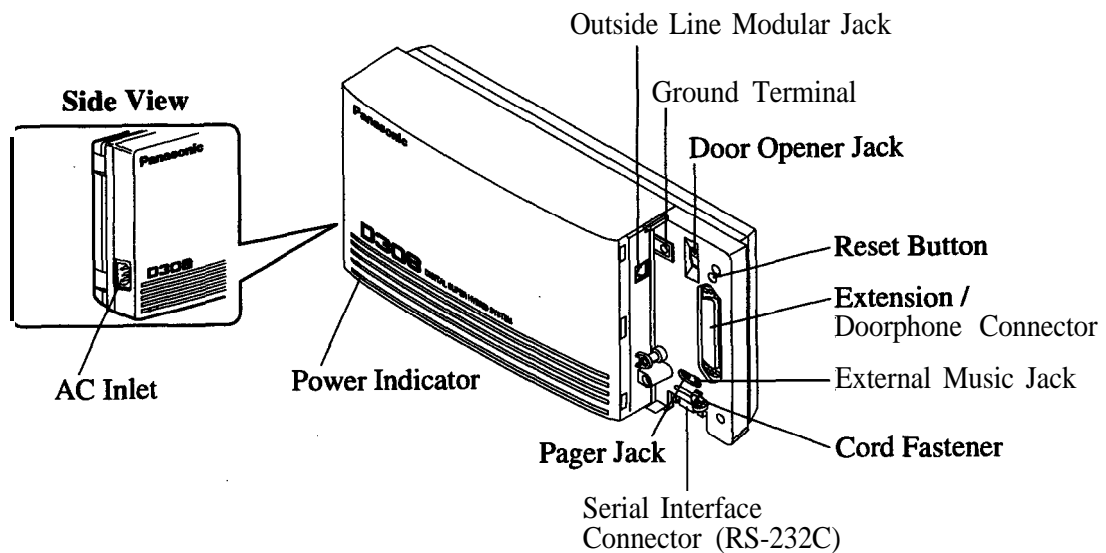
2.2 Installation of the Main Unit

2.2.1 Unpacking

Unpack the box and check the items below:

| | |
|-----------------------------|-------|
| Main Unit | one |
| AC Cord | one |
| Template | one |
| Screws (Wall Mounting) | three |
| Screw (Extension Connector) | one |
| Pager Connector | one |
| Music Source Connector | one |

2.2.2 Location of Interfaces

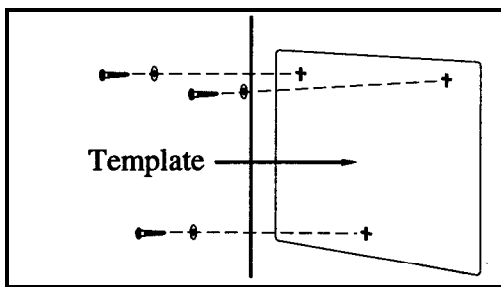


2.2.3 Wall Mounting

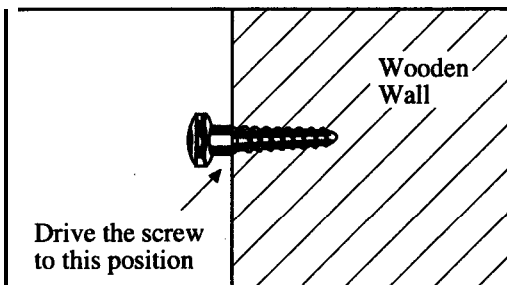
This set is designed for wall mounting only. The wall where the main unit is to be mounted must be able to support the weight of the main unit. If screws other than the ones supplied are used, use screws with the same diameter as the ones enclosed.

Mounting on Wooden Wall

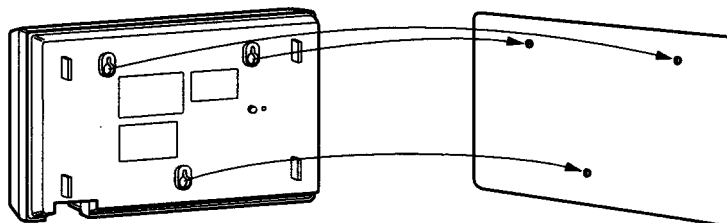
1. Place the template (included) on the wall to mark the screw positions.



2. Install the screws (included) into the wall.

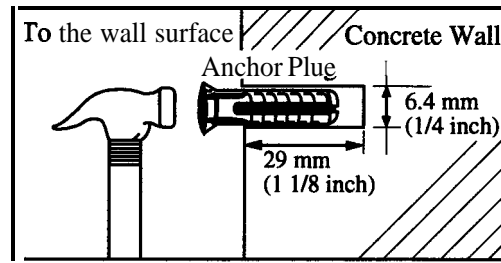


3. Hook the main unit on the screw heads.

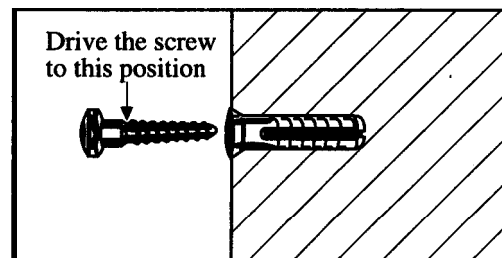


Mounting on Concrete or Mortar Wall

1. Place the template (included) on the wall to mark the screw positions.
2. Drill holes and drive the anchor plugs (user-supplied) with a hammer, flush to the wall.




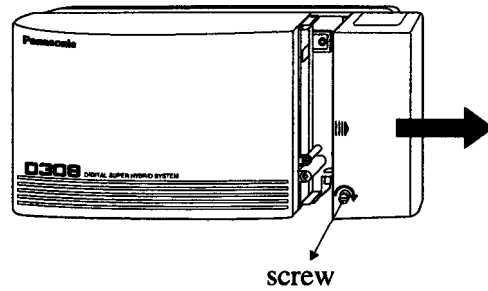
3. Install the screws (included) into the anchor plugs.



4. Hook the main unit on the screw heads.

2.2.4 Opening Front Cover

1. Loosen the screw.
2. Slide the front cover toward the right while pressing the  mark.



Note The screw cannot be removed from the system.

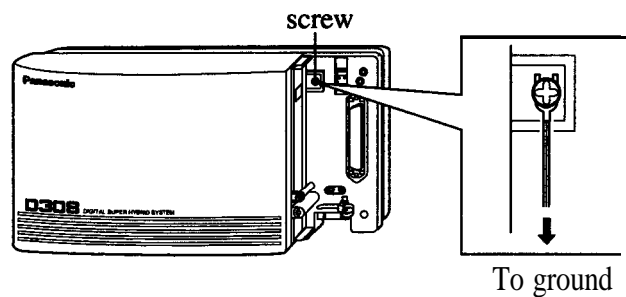
2.2.5 Frame Ground Connection

2.2.5 Frame Ground Connection

IMPORTANT!!!

Connect the frame of the main unit to ground.

1. Loosen the screw.
2. Insert the grounding wire.
3. Tighten the screw.
4. Connect the grounding wire to ground.



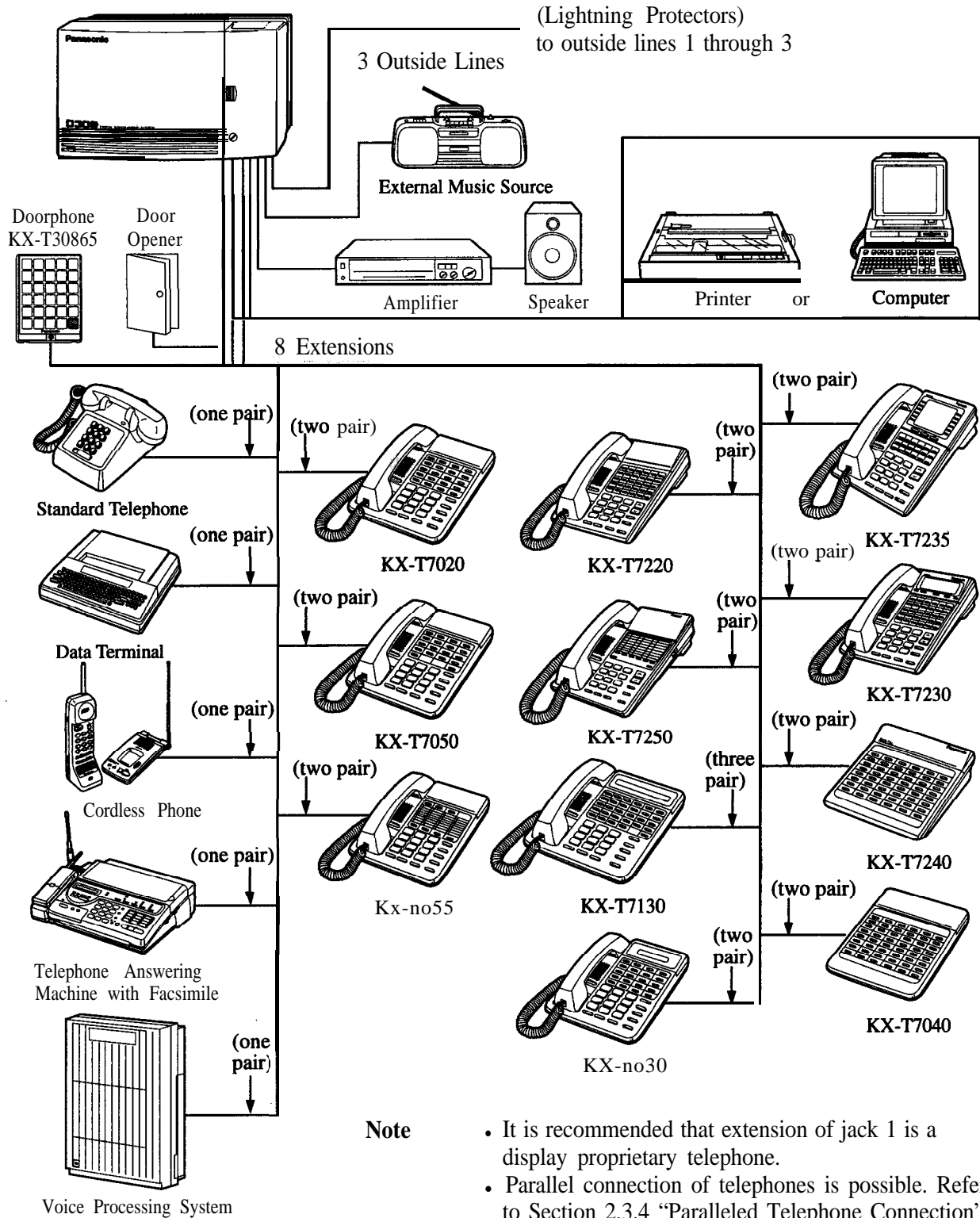
In most of North America, the ground provided by the “Third wire ground” at the commercial power outlet will be satisfactory. However, in a small percentage of cases this ground may be installed incorrectly. Therefore, the following test procedure should be performed.

Test Procedure

1. Obtain a suitable voltmeter and set it for a possible reading of up to 250 VAC.
2. Connect the meter probes between the two main AC voltage points on the wall outlet. The reading obtained should be 108-132 VAC.
3. Move one of the meter probes to the 3rd prong terminal (GND).
Either the same reading or a reading of 0 volt should be obtained.
4. If a reading of 0 volt at one terminal and a reading of **108- 132 VAC** at the other terminal is not obtained, the outlet is not properly grounded.
This condition should be corrected by a qualified electrician (per article 250 of the National Electrical Code).
5. If a reading of 0 volt at one terminal and a reading of **108- 132 VAC** at the other terminal is obtained, then set the meter to the “**OHMS/RX1**” scale, place one probe at the GND Terminal and the other probe at the terminal which gave a reading of 0 volt.
A reading of less than 1 ohm should be obtained.
If the reading is not obtained the outlet is not adequately grounded, see a qualified electrician.

2.3 Connection

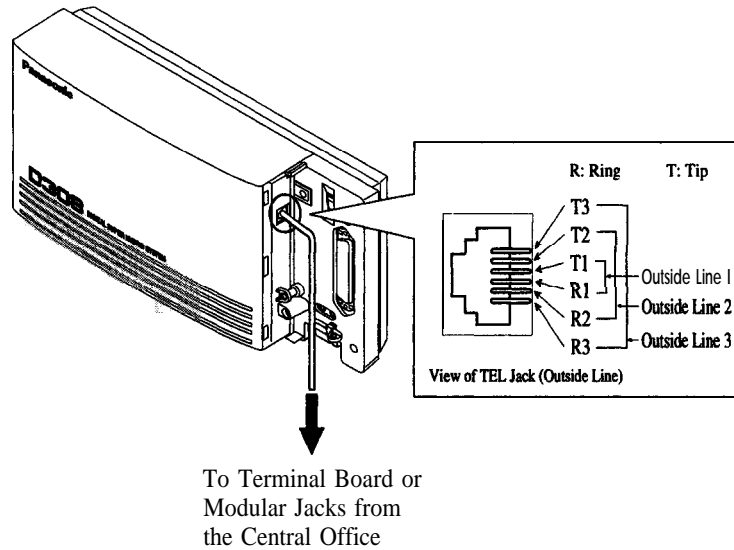
2.3.1 System Connection Diagram



2.3.2 Outside Line Connection

Connection

1. Insert the modular plugs of the telephone line cords (6-conductor wiring) into the modular jacks on the system.
2. Connect the line cord to the outside line jack and the terminal board or the Central Office jack.



2.3.2 Outside Line Connection

Installing Lightning Protectors

A lightning protector is a device to be installed on an outside line to prevent a dangerous surge from entering the building and damaging equipment.

A dangerous surge can occur if a telephone line comes in contact with a power line. Trouble due to lightning surges has been showing a steady increase with the development of electronic equipment.

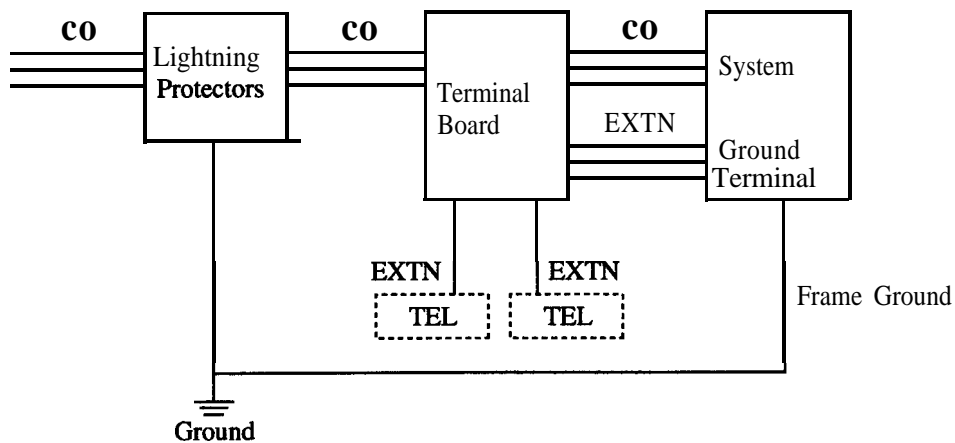
In many countries, there are regulations requiring the installation of a lightning protector. A lightning strike to a telephone cable which is 10 m (33 feet) above ground can be as high as **200,000** volts.

This system should be installed with lightning protectors. In addition, grounding (connection to earth ground) is very important for the protection of the system.

Recommended lightning protectors

- TELESPIKE BLOK MODEL TSB (TRIPPE MPG. CO.)
- SPIKE BLOK MODEL **SK6-0** (TRIPPE MPG. CO.)
- Super **MAX™** (PANAMAX)
- **MP1** (ITW LINK)

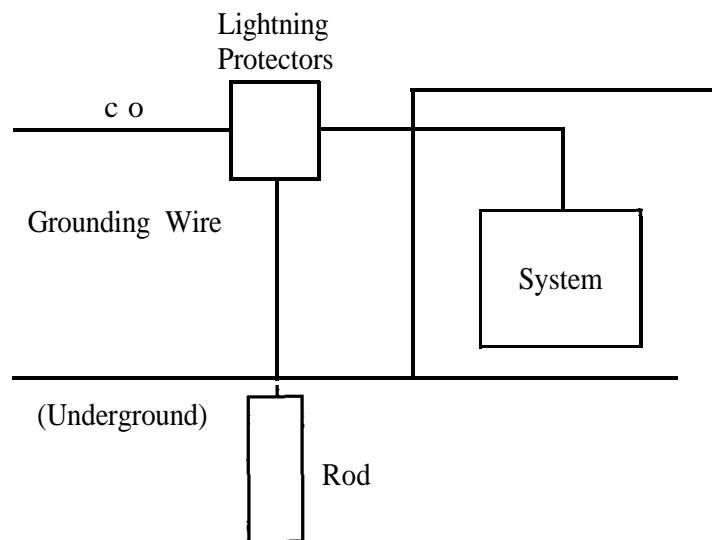
Installation



CO: Central Office (Outside line)
EXTN: Extension line
TEL: Telephone

2.3.2 Outside Line Connection

Installation of an Earth Rod



- 1) Installation location of the earth rodNear the protector
- 2) Check obstructions..... None
- 3) Composition of the earth rod Metal
- 4) Depth of the earth rod..... More than 50 cm
(20 inches)
- 5) Size of the grounding wire Thickness is more
than 16 AWG

- Note**
- **The** above figures are recommendations only.
 - The **length** of earth rod and **the** required **depth** depend on the composition of the soil.

2.3.3 Extension Connection

Extension jacks 1 through 4 are for all kinds of telephones. Extension jacks 5 through 8 are only for digital proprietary telephones. To make extension jacks 5 through 8 usable for all kinds of telephones, a 4-SLT Extension Expansion Card (**KX-TD30870**) must be installed.

Telephone Wiring

The maximum length of the extension line cord (twisted cable) which connects the system and the extension is as follows:

| | Diameter of the line | Max. length |
|------------------------------|----------------------|--------------------------|
| Standard Telephone | 22AWG | 1798m (5900 feet) |
| | 24AWG | 1128m (3700 feet) |
| | 26AWG | 698m (2290 feet) |
| Proprietary Telephone | 22AWG | 360m (1180 feet) |
| | 24AWG | 229m (750 feet) |
| | 26AWG | 140m (460 feet) |

2 or 4-conductor wiring is required for each extension as listed below. There are four pins for possible connection: “T”, “R”, “D1” and “D2”.

T: Tip D1: Low
R: Ring D2: High

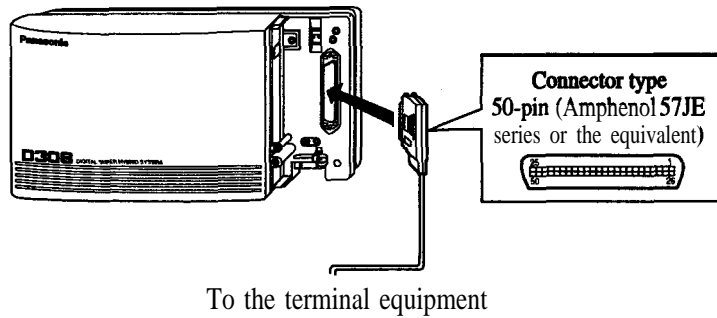
| Telephone | Wiring |
|--|--|
| Standard telephones | 1 pair wire (T, R) |
| Digital proprietary telephone (e.g., KX-T7230, KX-T7235) | 1 pair wire (D1, D2) or 2 pair wire (D1, D2, T, R) for eXtra Device Port |
| Analog proprietary telephone (e.g., KX-T7030, KX-T7130) | 2 pair wire (D1, D2, T, R) |

- Note**
- **If a KX-TD30870 is installed**
Note the jack numbers for the facsimile and standard telephone which have Caller ID service.
 - If a telephone or answering machine with an A-AI relay is connected to the system, set the A-AI relay switch of the telephone or answering machine to the **OFF** position.

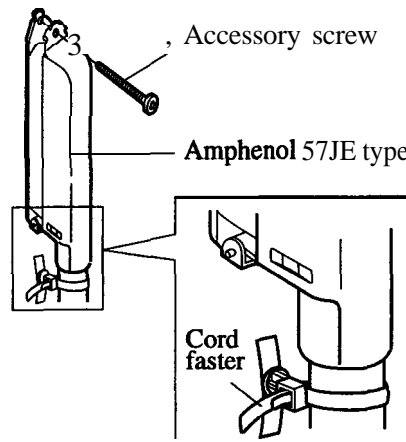
2.3.3 Extension Connection

Connection

1. Insert the 50-pin connector to the Extension Jack as shown.
2. Connect the wire cords to the appropriate connector pins and the terminal equipment. Refer to the Telephone Wiring and Pin Number Chart (page 2- 14).



- Note
- To fix the **Amphenol 57JE** type (screw-attach type 50-pin connector) to the Extension Jack. To attach the **Amphenol 57JE** type (plug) to the connector, drive the accessory screw into the upper part. Fasten the **Amphenol** cable with the cord faster.



2.3.3 Extension Connection

Pin Number Chart

| Pin no. | Cable Color | EXTN. 1-4 | |
|-----------|----------------|---------------|-----------|
| 26 | WHT-BLU | Jack No. 1 | T |
| 1 | BLU-WHT | | R |
| 27 | WI-IT-ORN | | D1 |
| 2 | ORN-WHT | Jack No. 2 | D2 |
| 28 | WHT-GRN | | |
| 3 | GRN-WI-IT | | |
| 29 | WHT-BRN | Jack No.2 | T |
| 4 | BRN-WHT | | R |
| 30 | WHT-SLT | | D1 |
| 5 | SLT-WHT | | D2 |
| 31 | RED-BLU | | - |
| 6 | BLU-RED | | |
| 32 | RED-ORN | Jack No.3 | T |
| 7 | ORN-RED | | R |
| 33 | RED-GRN | | D1 |
| 8 | GRN-RED | | D2 |
| 34 | RED-BRN | | - |
| 9 | BRN-RED | | |
| 35 | RED-SLT | Jack No.4 | T |
| 10 | SLT-RED | | R |
| 36 | BLK-BLU | | D1 |
| 11 | BLU-BLK | | D2 |
| 37 | BLK-ORN | | |
| 12 | ORN-BLK | | |

| Pin no. | Cable Color | EXTN. 5-8/Doorphone | |
|-----------|----------------|---------------------|-----------|
| 38 | BLK-GRN | | T |
| 13 | GRN-BLK | | R |
| 39 | BLK-BRN | Jack No.5 | D1 |
| 14 | BRN-BLK | | D |
| 40 | BLK-SLT | | - |
| 15 | SLT-BLK | | |
| 41 | YEL-BLU | | T |
| 16 | BLU-YEL | | R |
| 42 | YEL-ORN | Jack No.6 | D1 |
| 17 | ORN-YEL | | D2 |
| 43 | YEL-GRN | | - |
| 18 | GRN-YEL | | |
| 44 | YEL-BRN | | T |
| 19 | BRN-YEL | | R |
| 45 | YEL-SLT | Jack No.7 | D1 |
| 20 | SLT-YEL | | D2 |
| 46 | VIO-BLU | | - |
| 21 | BLU-VIO | | |
| 47 | VIO-ORN | | |
| 22 | ORN-VIO | R | |
| 48 | VIO-GRN | Jack No.8 | D1 |
| 23 | GRN-VIO | | D2 |
| 49 | VIO-BRN | | |
| 24 | BRN-VIO | | |
| 50 | VIO-SLT | Doorphone | T |
| 25 | SLT-VIO | | R |

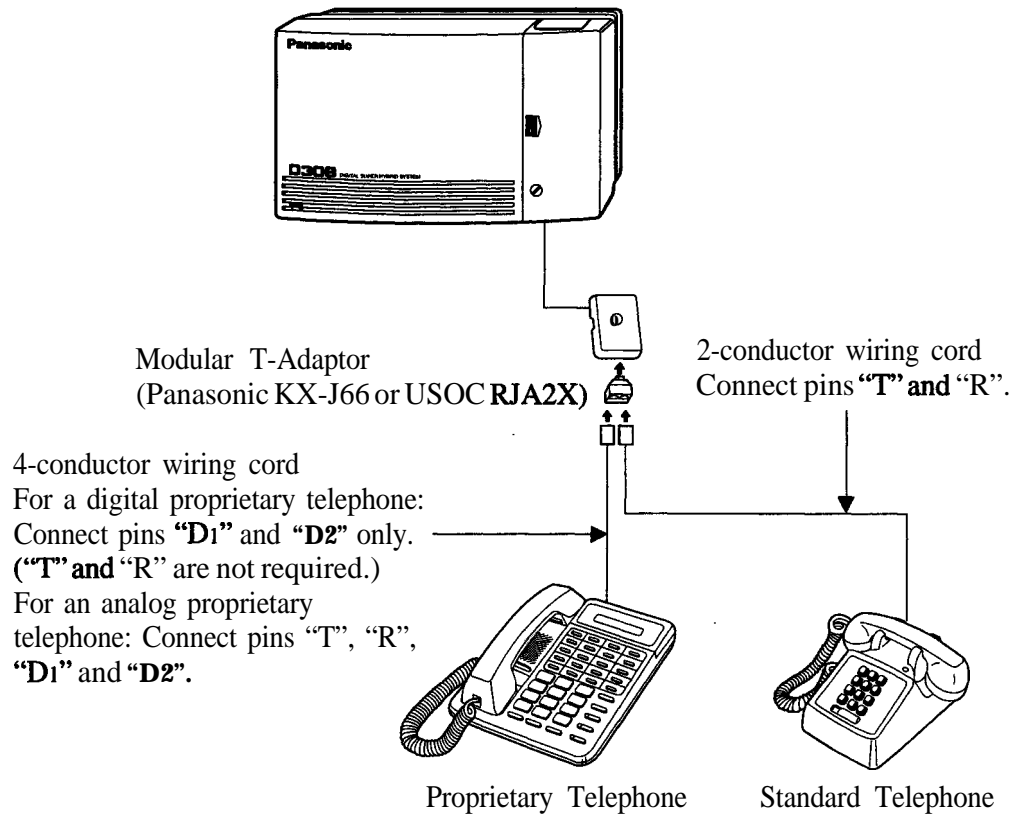
Note • The shaded pins are only available if a KX-TD30870 4-SLT Extension Expansion Card is installed.

2.3.4 Paralleled Telephone Connection

for a Proprietary Telephone and a Standard Telephone

Any standard telephone can be connected in parallel with a proprietary telephone as follows:

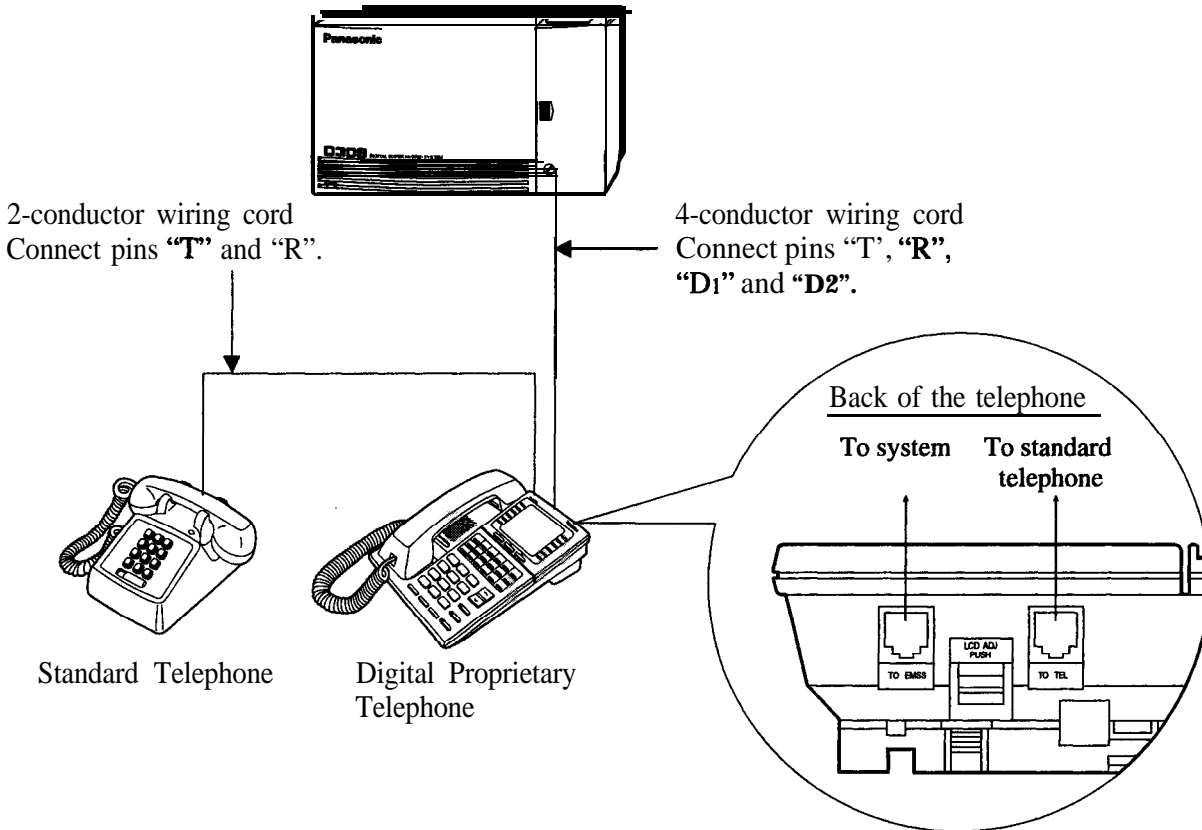
Method 1: Using a Modular T-Adaptor



2.3.4 Paralleled Telephone Connection

for a Proprietary Telephone and a Standard Telephone

Method 2: For Digital Proprietary Telephones only



- Note**
- Not only a standard telephone but a single line device such as an answering machine, a facsimile or a modem (personal computer) etc. can be connected in parallel with a proprietary telephone.
 - If a standard telephone with a Caller ID feature is connected in parallel, the Caller ID feature will not function.

Feature References

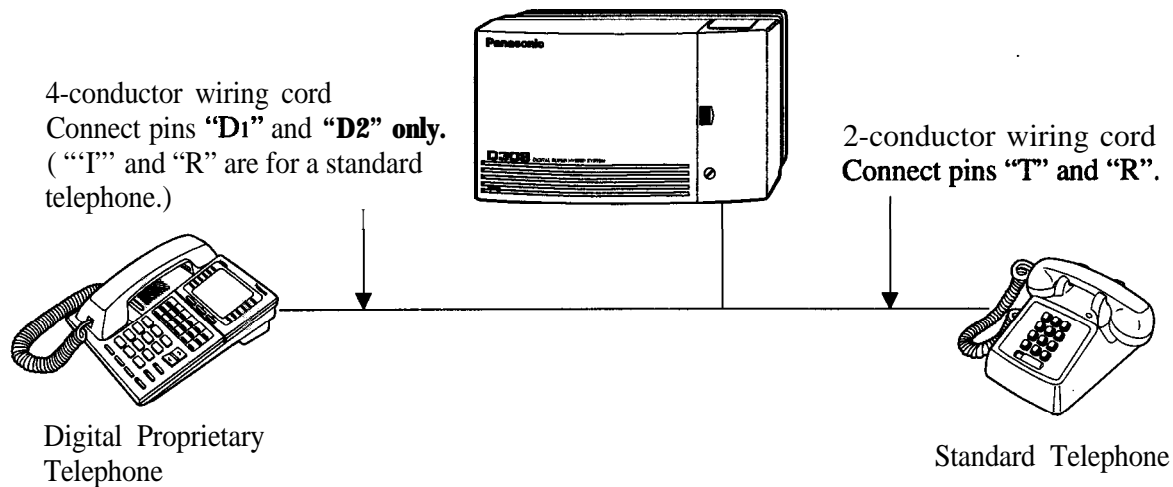
Section 3, Features
Paralleled Telephone

2.3.5 EXtra Device Port (XDP) Connection

for a Digital Proprietary Telephone and a Standard Telephone

A digital proprietary telephone (KX-T7220, KX-T7230, XX-T7235, or KX-T7250) and a standard telephone can be connected to the same extension jack yet have different extension numbers (eXtra Device Port feature). System Programming is required for this jack.

Method 1



Method 2

Section 2.3.4 “Paralleled Telephone Connection, Method 2: for Digital Proprietary Telephone only” is also available for XDP connection.

Programming References

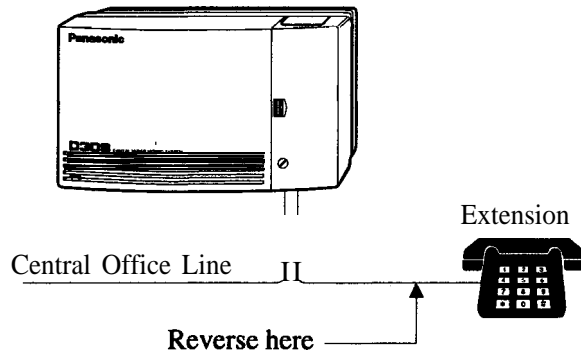
Section 4, System Programming
[600] EXtra Device Port

Feature References

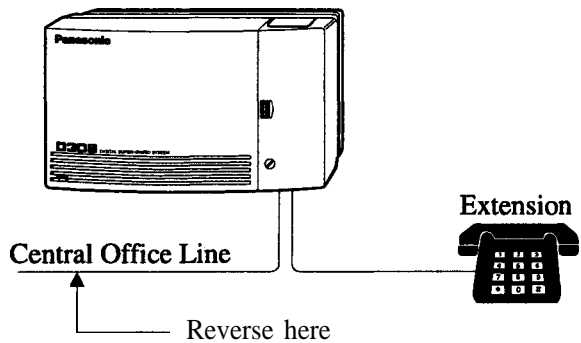
Section 3, Features
EXtra Device Port (XDP)

2.3.6 Polarity Sensitive Telephone Connection

If your telephone is polarity sensitive+ follow the procedure below:



1. Complete all the required extension wiring.
2. Confirm that dialing can be done from all the extensions using a touch-tone telephone. If dialing fails, the polarity between the extension and the system must be reversed.
3. Reverse as shown.
4. Unplug the system.
5. Connect all outside lines.
6. Confirm that dialing can be done on the following extension using a tone telephone.
Extension (T, R) of jack **1•••Outside line 1**
If dialing fails, the polarity between the system and the outside line must be reversed.



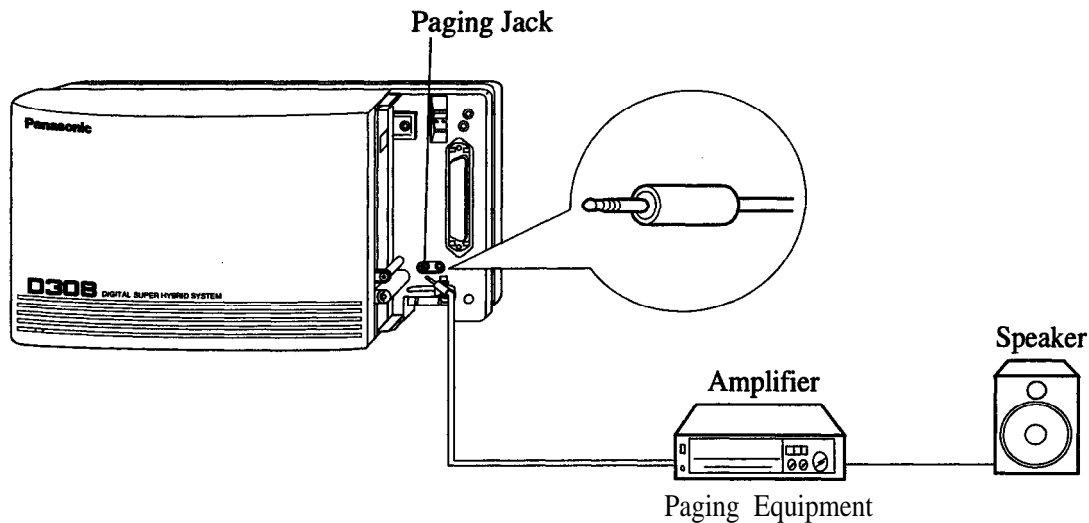
7. Reverse as shown.
8. Every time an extension telephone is replaced, repeat the above procedure.

2.3.7 External Pager (Paging Equipment) Connection

One external pager (user-supplied) can be connected to the KX-TD308 as illustrated below.

Use an EIAJ RC-6701 A plug (two-conductor, ϕ 2.5mm in diameter).

- Output impedance: 600 Ω
- Maximum length of the cable**
AWG 18 – 22: Under 10 m (33 feet)



- Note**
- To adjust the sound level of the pager, use the volume control on the amplifier.

Programming References

Section 4, System Programming

[804] External Pager BGM

[805] External Pager Confirmation Tone

Feature References

Section 3, Features

Background Music (BGM) – External Paging – External

Paging – All

Trunk (Outside Line) Answer From Any Station

2.3.8 External Music Source Connection

One music source such as a radio (user-supplied) can be connected to the **KX-TD308** as illustrated below.

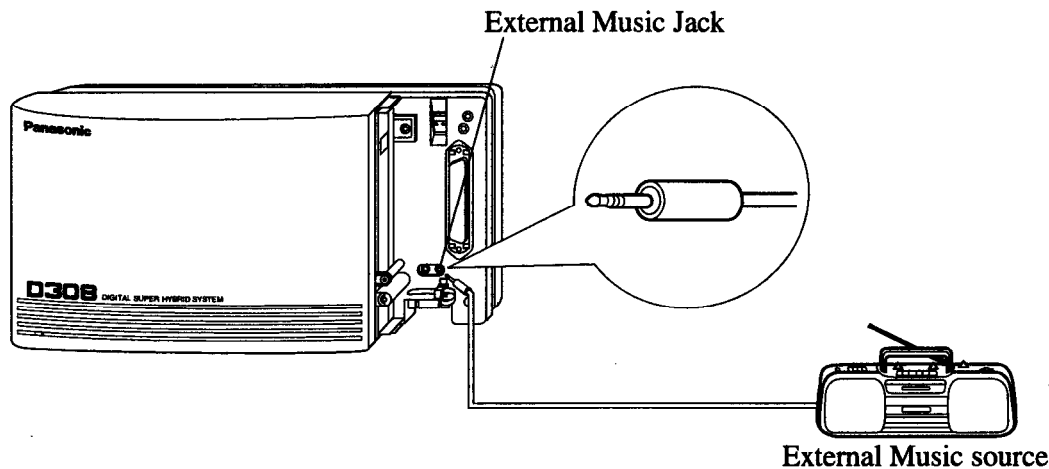
Insert the plug to the earphone / headphone jack on the external music source.

Use an EIAJ RC-6701 A plug (two-conductor, \varnothing 2.5mm in diameter).

- Input impedance: 8 Ω

Maximum length of the cable

AWG 18 – 22: Under 10 m (33 feet)



- Note**
- System Programming of music sources used for Music on Hold and Background Music is required.
 - To adjust the sound level of the Music on Hold, use the volume control on the external music source.

Programming References

Section 4, System Programming

[803] Music Source Use

[990] System Additional Information, Field (20)

Feature References

Section 3, Features

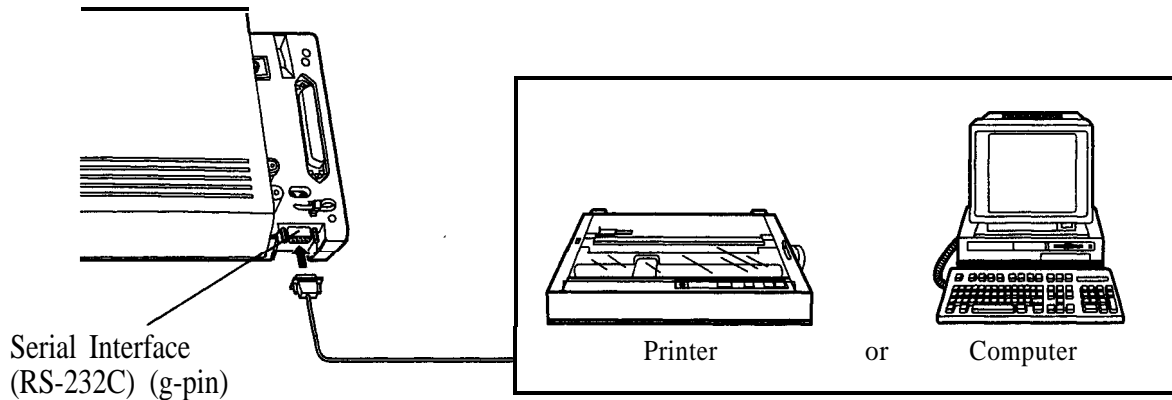
Background Music (BGM)
Music on Hold

Background Music (BGM) – External

2.3.9 Printer and PC Connection

A user-supplied printer or personal computer (PC) can be connected to the system. These are used to print out or refer to the SMDR call records and system programming data.

Connect the printer cable or the PC cable to the Serial Interface (RS-232C) connector. The cable must be shielded and the maximum length is 2 m (6.5 feet).



Arrange cables so that the printer will be connected to the system as shown in the chart on the following page.

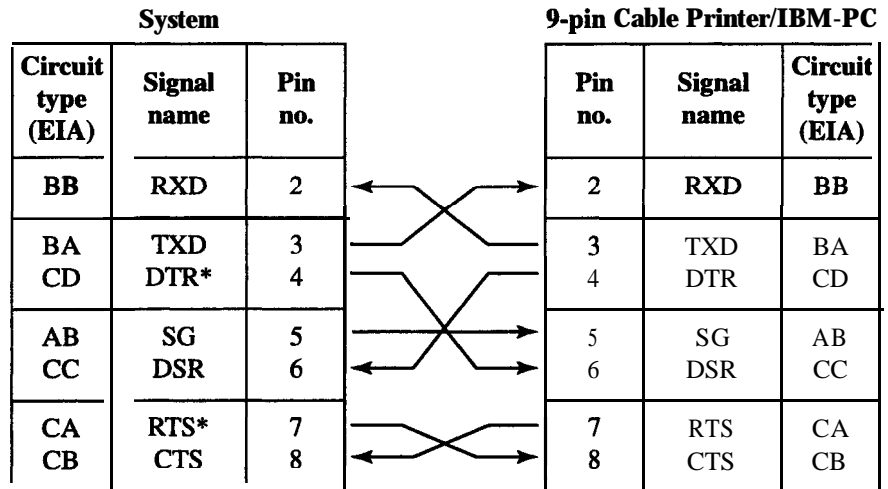
The pin configuration of Serial Interface (RS-232C) Connector is as follows:

| Pin no. | Signal name | | Circuit type | |
|---------|-------------|---------------------|--------------|------------|
| | | | EIA | CCITT |
| 2 | RXD | Received Data | B B | 104 |
| 3 | TXD | Transmitted Data | BA | 103 |
| 4 | DTR | Data Terminal Ready | CD | 108.2 |
| 5 | SG | Signal Ground | AB | 102 |
| 6 | DSR | Data Set Ready | CC | 107 |
| 7 | RTS | Request To Send | CA | 105 |
| 8 | CTS | Clear To Send | CB | 106 |

2.3.9 Printer and PC Connection

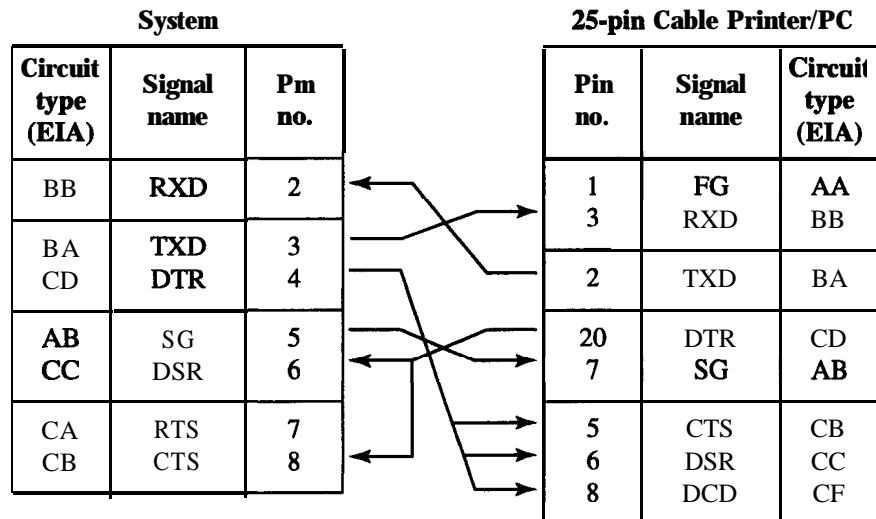
Connection Chart for Printer / IBM Personal Computer with KX-TD308

If you connect a printer or an IBM-PC with a 9-pin cable, follow the chart below.



* RTS (7-pin) and DTR (4-pin) are connected on the board.

If you connect a printer or a PC with a 25-pin cable, follow the chart below.



2.3.9 Printer and PC Connection

Serial Interface (RS-232C) Signals

Frame Ground: FG

Connects to the unit frame and the earth ground conductor of the AC power cord.

Transmitted Data: SD (TXD) (output)

Conveys signals from the unit to the printer. A “Mark” condition is held unless data or BREAK signals are being transmitted.

Received Data: RD (RXD) (input)

Conveys signals from the printer.

Request to Send: RS (RTS) (output)

This lead is held ON whenever DR (DSR) is ON.

Clear To Send: CS (CTS) (input)

An ON condition of circuit CS (CTS) indicates that the printer is ready to receive data from the unit. The unit does not attempt to transfer data or receive data when circuit CS (CTS) is OFF.

Data Set Ready: DR (DSR) (input)

An ON condition of circuit DR (DSR) indicates the printer is ready. Circuit DR (DSR) ON does not indicate that communication has been established with the printer.

Signal Ground: SG

Connects to the DC ground of the unit for all interface signal.

Data Terminal Ready: ER (DTR) (output)

This signal line is turned ON by the unit to indicate that it is ON LINE. Circuit ER (DTR) ON does not indicate that communication has been established with the printer. It is switched OFF when the unit is OFF LINE.

Data Carrier Detect: CD @CD) (input)

The ON condition is an indication to data terminal (DTE) that the carrier signal is being received.

Programming References

Section 4, System Programming

[800] SMDR Incoming/Outgoing Call Log Printout

[801] SMDR Format

[802] System Data Printout

[806] Serial Interface (RS-232C) Parameters

Feature References

Section 3, Features

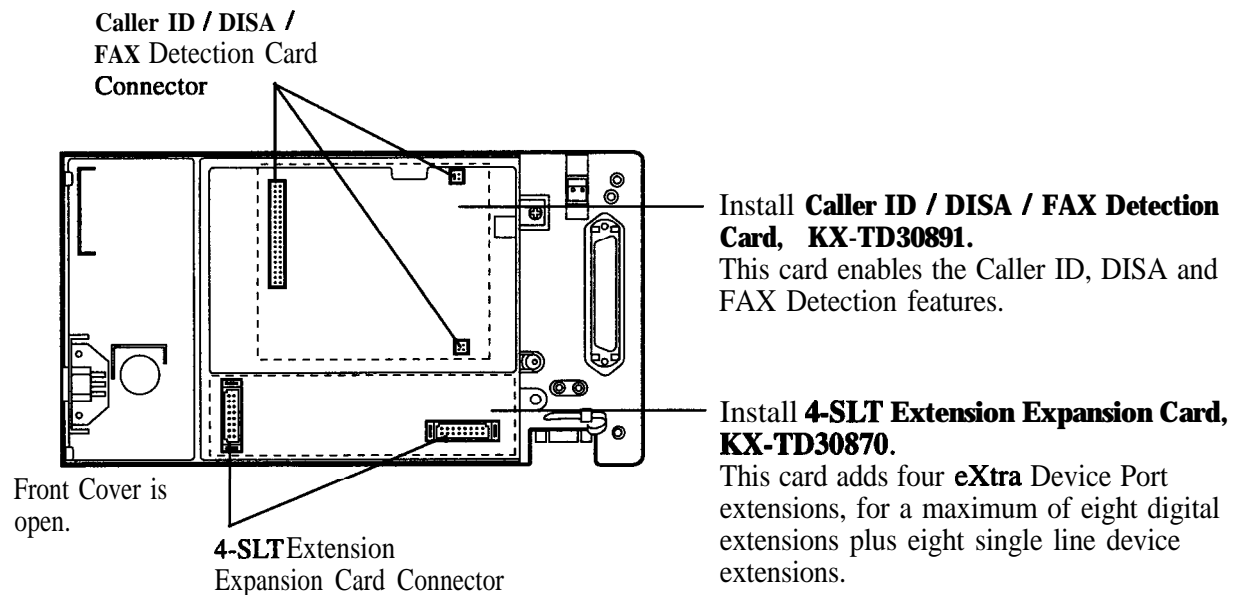
Station Message Detail Recording (SMDR)

2.4 Installation of Optional Cards

2.4.1 Location of Optional Cards

The location of the optional cards is shown below.

Precaution To protect the printed circuit boards (P-boards) from static electricity, do not touch parts on the P-boards in the main unit and on the optional cards.



2.4.2 4-SLT Extension Expansion Card / Caller ID / DISA / FAX Detection Card Installation

One 4-SLT Extension Expansion Card (KX-TD30870) and one Caller ID / DISA / FAX Detection Card (KX-TD3089 1) can be installed to the system.

4-SLT Extension Expansion Card adds four eXtra Device Port extensions to jacks 5 through 8, for a maximum of eight digital extensions plus eight single line device extensions. The basic configuration already supports digital proprietary telephones on jacks 5 through 8.

Caller ID / DISA / FAX Detection Card supports the following.
Caller ID: Receives the Caller ID Service from the Central Office.

A specified standard telephone with Caller ID service can display the information. Display proprietary telephones can display caller's information which has been stored in the system according to the Caller ID service.

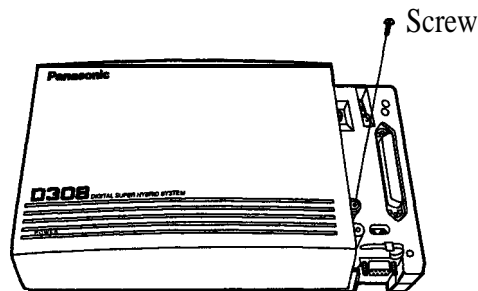
Direct Inward System Access (DISA):

One of the system features. An outgoing message greets the external caller and gives information so that the caller can access the extensions directly.

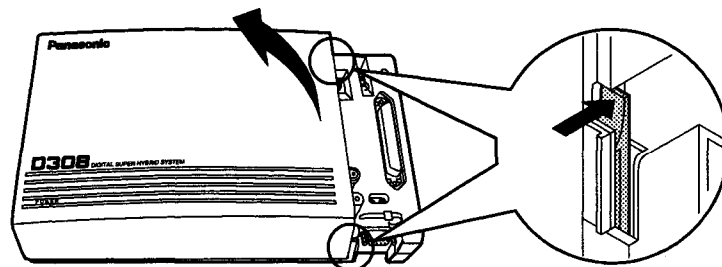
Facsimile detection:

When the system receives a facsimile transmission signal by DISA, it automatically connects the specified facsimile extension.

1. Loosen the screw.

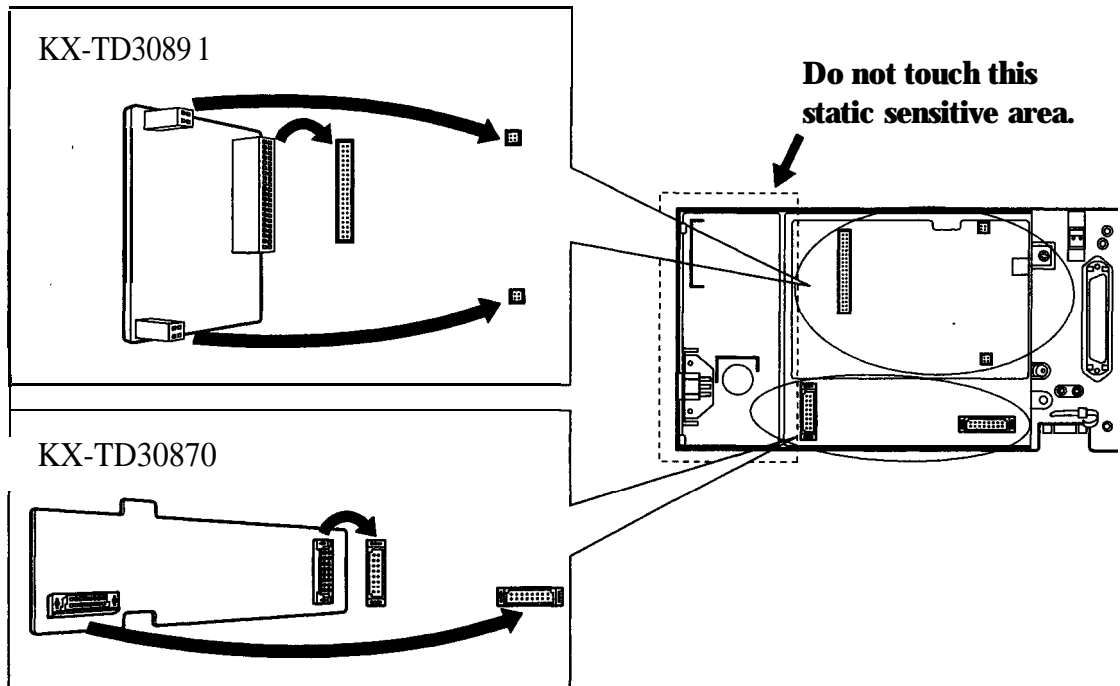


2. Remove the cover by pressing both tabs and lifting up.

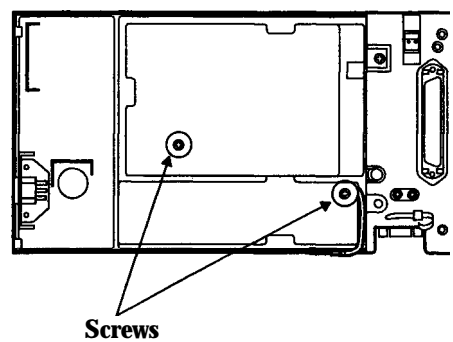


2.4.2 4-SLT Extension Expansion Card / Caller ID / DISA / FAX Detection Card Installation

3. Attach the optional card to the marked connector.



4. Tighten the screws.



5. Replace the cover.

2.4.3 Doorphone and Door Opener Connection

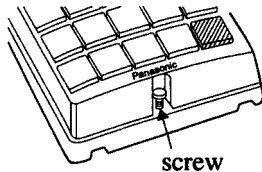
One doorphone (KX-T30865) and one door opener (user-supplied) can be installed.

The maximum cable length

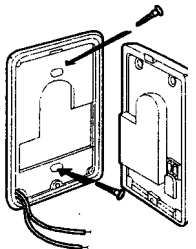
The maximum length of the doorphone and door opener line cord which connects to the system is as follows:

| | Diameter of the line | Max. length |
|-------------|----------------------|-----------------|
| Doorphone | 22AWG | 180m (590 feet) |
| | 24AWG | 113m (370 feet) |
| | 26AWG | 70m (230 feet) |
| Door Opener | 22AWG | 180m (590 feet) |

Installing the Doorphone





1. Loosen the screw to separate the doorphone into two halves.



2. Install the base cover to the wall with two screws.

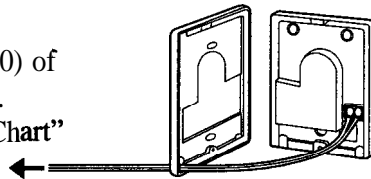
Note **Two** kinds of screws are included. Please choose the appropriate one depending on your wall type:

 Type 1: When the doorphone plate has been fixed to the wall.

 Type 2: When you wish to install the doorphone directly to the wall.

3. Connect the wires to the screws located in the front cover.

Connect the wires to the pins (no.25 and 50) of the extension connector. (See the "Pin Number Chart" on page 2- 14.)



4. Secure both halves together and re-install the screw.

2.5 Auxiliary Connection for Power Failure Transfer

Power Failure Transfer connects a specific standard telephone to a selected outside line in the event of system power failure, as follows:

Outside Line 1 – Extension (T, R) Jack 1

Connection of outside line 1 and the respective extension require no auxiliary connection.

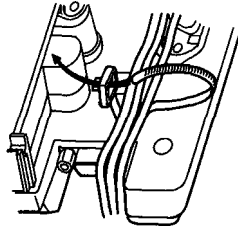
- Note**
- In the event of a power failure, system memory is protected by a factory-provided lithium battery. There is no memory loss except the memories of Camp-on, Saved Number Redial, Last Number Redial, Call Park and Message Waiting.
 - The system changes the current connection to this connection automatically when the power supply stops.
 - If DC power is available from backup batteries if AC power fails, the system does not change the current connection to the above connection.

Feature References

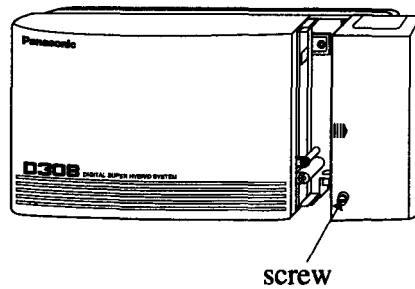
Section 3, Features
Power Failure Transfer

2.6 Closing the Front Cover

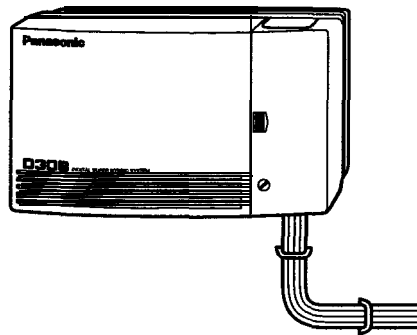
1. Fasten all the cables and cords with the cord fastener.



2. Replace the cover and tighten the screw.



3. Tie together all of the connected cords and attach them to the wall so that the cords cannot be pulled out of the system.

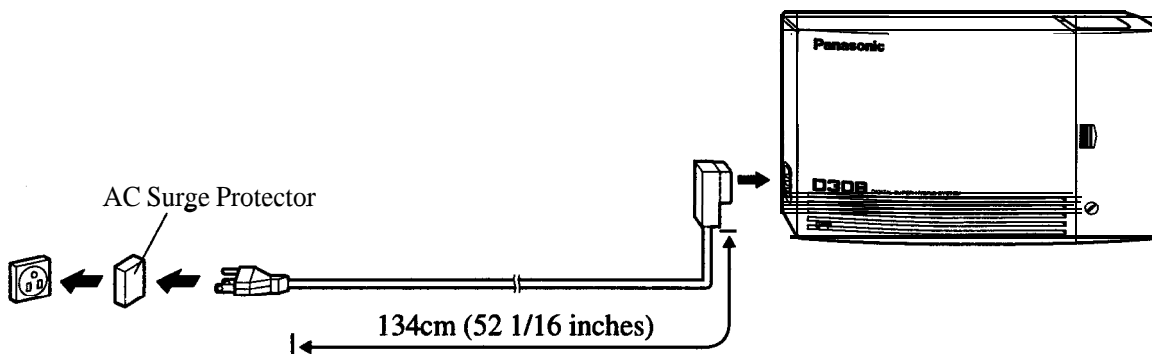


2.7 Starting the System for the First Time

Plug the AC cord into the system AC Inlet and an AC outlet, (The power indicator lights.)

Avoid using the same AC outlet for office equipment and this system. Use a dedicated AC outlet only.

CAUTION: The power supply cord is used as the main disconnect device, ensure that the socket-outlet is located/installed near the equipment and is easily accessible.



2.8 System Restart

After starting the system, if the system does not operate properly, restart the system.

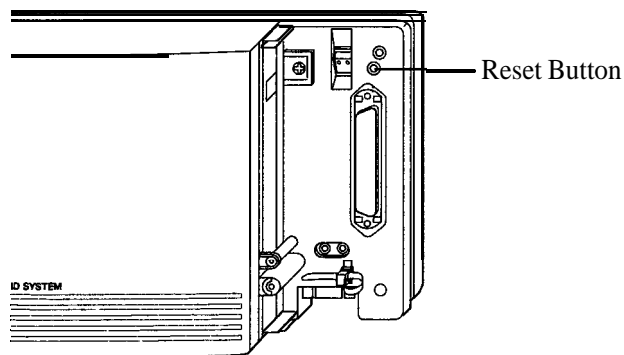
Before restarting the system, try the system feature again to confirm whether there definitely is a problem or not.

System Restart causes the following:

1. Camp-on is cleared.
2. Calls on Hold are terminated.
3. Calls on Exclusive Hold are terminated.
4. Calls in progress are terminated.
5. Call Park is cleared.

Other data is not cleared by System Restart.

1. Press the Reset Button with a pointed tool.



Notice If the system still does not operate properly, please see Section 6.1.4 “Using the Reset Button”.

2.9 System Data Clear

After storing or changing the system programming data, it is possible to clear your programming data stored in the system, if required. The system will restart with the default setting.

1. Restart the system using program [900] “System Data Clear”.

Programming References

Section 4, System Programming

[900] System Data Clear

Section 3

Features

This section describes every basic, optional, and programmable feature in alphabetical order. It also provides information about the conditions, connection references, programming required, related features, and operation for every feature.

Absent Message Capability

Description

Once set, this feature provides a message on the display of the calling extension to show the reason for the called extension's absence. Nine messages can be programmed as desired which are available for every extension user. There are six pre-programmed default messages. Setting or canceling a message can be done by individual extension users but only callers **with** a display telephone can view **the** message.

Conditions

- Six default messages, which are changeable, are shown below. The “%” means a parameter to be entered when assigning a message at individual extension.
 - (1) Will Return Soon
 - (2) Gone Home
 - (3) At Ext %% (extension number)
 - (4) Back at %% : %% (hour : minute)
 - (5) Out Until %% / %% (month / day)
 - (6) In a Meeting
- An extension user can select only one message at a time. The selected message is displayed every time the user goes off-hook:

Programming References

Section 4, System Programming
[008] Absent Messages
[100] Flexible Numbering, Absent message

Feature References

None

Operation References

-User Manual

DPT Features, Standard Telephone Features
Absent Message Capability

Account Code Entry

Description

An Account Code is used to identify incoming and outgoing outside calls for accounting and billing purposes. The account code is appended to the Station Message Detail Recording (SMDR) call record. For incoming outside calls, account codes are optional. For outgoing outside calls, there are three modes available to enter an account code: Verified-All Calls mode; Verified Toll Restriction Override mode; and Option mode. One mode is selected for each extension on a Class of Service basis.

In Verified-All Calls mode, the user must always enter a pre-assigned account code when making any of the following calls unless it has previously been stored in memory.

- Call Forwarding – to Outside Line
- Last Number Redial
- Line Access
- One-Touch Dialing
- Pickup Dialing
- Saved Number Redial
- Station Speed Dialing
- System Speed Dialing

In Verified-Toll Restriction Override mode, the user can enter a pre-assigned account code only when the user needs to override toll restriction.

In Option mode, the user can enter any account code if needed.

Conditions

- An account code can be stored into Memory Dialing (System / Station Speed Dialing; One-Touch Dialing; Pickup Dialing; Call Forwarding – to Outside Line).
- The Account button may be used in place of the feature number. A flexible button on the proprietary telephone set can be programmed as the Account button.
- Account code entry after **CPC** detection must be done within 15 seconds. Otherwise, SMDR call record is activated and entry becomes impossible afterwards.
- If disconnection signal is selected in program [990], field (3), the Verified-All Calls extension is allowed to make an outside call using the same line with Flash function.
- In any mode, emergency dial numbers stored in program [334] “Emergency Dial Number Set” can be dialed out without an account code entry.

Programming References

Section 4, System Programming
 [005] Flexible CO Button Assignment
 [100] Flexible Numbering, Account code entry
 [105] Account Codes
 [508] Account Code Entry Mode
 [990] System Additional Information, Fields (3), (46)
Station Programming.....User Manual
 Flexible CO Button Assignment – Account Button

Feature References

Section 3, Features
 Toll Restriction Override by Account Code Entry

Operation References -User Manual

DPT Features, Standard Telephone Features
 Account Code Entry

Alternate Calling – Ring / Voice

Description

This system offers two methods of Intercom Calling – Ring-Calling and Voice-Calling. Ring-Calling informs the called party of an incoming call with a ring tone, while the Voice-Calling uses the calling party’s voice. The proprietary telephone user can select ring tone or voice calling by Station Programming. If the user selects Voice-Calling, the calling party can talk to the user immediately after the confirmation tone. The calling extension user can change the called extension user’s pre-set method (ring tone or voice) by pressing “*” after dialing the extension number. By doing so, Ring-Calling is switched to Voice-Calling, or vice versa, at the called extension.

Conditions

Standard telephone users receive calls with Ring-Calling only.

Programming References

Station Programming.....User Manual
 Intercom Alert Assignment

Feature References

Section 3, Features
 Handsfree Answerback

Operation References -User Manual

DPT Features, Standard Telephone Features
 Alternate Calling — Ring / Voice

Answering, Direct Outside Line'

Description Allows the proprietary telephone user to answer an incoming call by simply pressing the appropriate CO button without lifting the handset or pressing the SP-PHONE / MONITOR button.

Conditions This feature permits the user to specify the desired line to be answered if multiple incoming lines are ringing.

Programming References
No programming required.

Feature References **Section 3, Features**
Outside Line Connection Assignment

Operation References **DPT Features**
-User Manual Answering, Direct Outside Line

Automatic Callback Busy (Camp-On)

Description Allows the caller to be informed when the called party or the selected outside line becomes free.
Automatic Callback – Extension
If the caller answers the callback ringing, the called extension automatically starts ringing.
Automatic Callback – Outside Line
If the caller answers the callback ringing, the line is automatically selected to allow the user to make an outside call.

Conditions

- If the callback ringing is not answered in four rings (within 10 seconds) the callback is canceled.
- More than one extension user can set this function to one extension or outside line at the same time.

Programming References
Section 4, System Programming
[100] Flexible Numbering, Automatic callback busy cancel

Feature References None

Operation References **DPT Features, Standard Telephone Features**
-User Manual Automatic Callback Busy (Camp-On)

Automatic Configuration†

Description

The system sends the VPS data which contains the extension number configuration information. The VPS automatically creates mailboxes with this data (Quick Setup).

Conditions

- The data is transmitted to the VPS via the lowest jack port.
- To activate this feature with a KX-TD308 connected to one of the following **VPSs**, specific programming is required.

| Model | Software Version |
|-----------|------------------|
| KX-TVS100 | up to VA2250 |
| KX-TVS75 | up to VB2230 |
| KX-TVS200 | up to VC2100 |

- 1) Assign KX-TD816 as the PBX type for the VPS.
- 2) The number of digits for the mailbox number and extension number must be the same (default: the mailbox number-three digits, the extension number – two digits). If they do not match, reset the VPS with the reprogrammed number of digits.

Programming References

No programming required.

Feature References

None

Operation References

Not applicable.

Automatic Hold by CO Button

Description

This feature, if programmed, allows a proprietary telephone user to hold a current outside call by pressing another CO button. While talking to an outside party, pressing a CO button for an incoming or outgoing call provides an automatic hold for the current call.

Conditions

- If Automatic Hold mode is disabled, pressing a CO button disconnects the current call. (Default=Disable)
- It is possible to return to the held party by pressing the corresponding CO button.

Programming References

Section 4, System Programming
[108] Automatic Hold by CO / DSS Button

Feature References

None

Operation References

Not applicable.

Automatic Route Selection (ARS)

Description

Automatic Route Selection (ARS) is a system programmable feature that automatically selects the least expensive route available at the time an outgoing outside call is made. Preprogramming eliminates dialing the access code of the least expensive carrier. All the user has to do is dial the feature number for ARS, and the number. The appropriate outside line is selected and the access code is added before the number is outpulsed.

Conditions

- A Toll Restriction check is done before ARS is applied.
- ARS works according to the selected dialing plan. Thus, if the user dialed number is not found in the dialing plan (Leading Digit Tables), the dialed number is sent out by a Local Access (Automatic line access) Code.
- ARS is not applied to a call specifying an outside line. In other words, it is possible to make an outside call by assigning an outside line directly (ARS Override).
- This feature also applies to Call Forwarding – to Outside Line.

Programming References

Section 4, System Programming

[100] Flexible Numbering, Automatic line access / ARS

[312] ARS Mode

[313] ARS Time

[314]–[321] ARS Leading Digit Entry for Plans 1 through 8

[322]–[329] ARS Routing Plans 1 through 8

[330] ARS Modify Removed Digit

[331] ARS Modify Added Number

Programming Example

The following is an example to show how to program ARS so that the user can call **the** XYZ Company via the least expensive line.

Step **1**. Program ARS to work when the feature number for ARS is dialed by the user. Use the program **[3 12]** ARS Mode to enable the feature.

Step 2. Store the telephone number of the outside party that will use the ARS feature. For example, if XYZ Company's telephone number is "**1-234-567-8910**" (not including the line access code), store the leading digits of the number "1234567890" (max. 10 digits). To store the numbers, use one of the programs **[314]** through **[321]** ARS Leading Digit Entry for Plans 1 through 8 (Leading Digit Tables 1 through 8). The following assumes that we have selected Leading Digit Table 1 to store the number. Remember that Table number 1 matches Route Plan Table 1.

Example: Program Address [3 14] Leading Digit Table 1

| Location | Entry |
|----------|------------|
| 01 | 1234567890 |
| 02 | |
| . | |
| . | |
| . | |
| 100 | |

Table 1

Step 3. Check all **carriers** available to call the stored telephone number and their outside lines. Suppose there are three carriers available to call the XYZ Company and each carrier's line is assigned to an outside line (group) as follows:

- Carrier E — Outside Line 1
- Carrier F — Outside Line 2
- Carrier G — Outside Line 3

Then check the fee charged by each carrier:

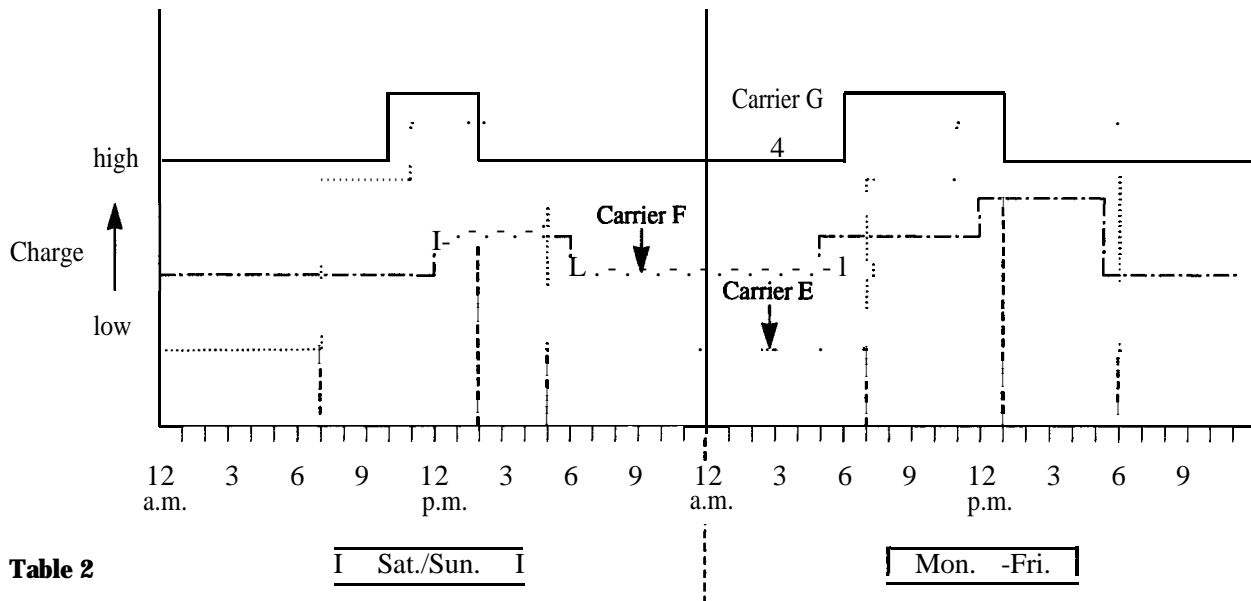


Table 2

As shown in Table 2, the least costly route varies with the day of the week and the time of day. To select the least expensive line at a certain time, split the day into three zones as follows:

| Sat. / Sun. | Mon. -Fri. |
|---------------------------|---------------------------|
| (1) 7:00 a.m. - 2:00 p.m. | (1) 7:00 a.m. - 1:00 p.m. |
| (2) 2:00 p.m. - 5:00 p.m. | (2) 1:00 p.m. - 6:00 p.m. |
| (3) 5:00 p.m. - 7:00 a.m. | (3) 6:00 p.m. - 7:00 a.m. |

To program the time zones above, use the program [313] “ARS Time”. Four time zones (Time-A, Time-B, Time-C, Time-D) are provided. Enter the starting hour for each zone.

Example: Program Address [313] ARS Time Table

| Sat. / Sun. | | Mon. – Fri. | |
|-------------|-----------|-------------|-----------|
| Time Zones | Entry | Time Zones | Entry |
| Time-A | 7:00 a.m. | Time-A | 7:00 a.m. |
| Time-B | 2:00 p.m. | Time-B | 1:00 p.m. |
| Time-C | 5:00 p.m. | Time-C | 6:00 p.m. |
| Time-D | Disable | Time-D | Disable |

← Enter the starting time of each zone. If a zone is not necessary, select “Disable”.

Table 3

Step 4. Determine the priority of the outside lines in each time zone. The table below shows the carrier and outside lines selected for each priority and time zone:

| | Time -A | Time -B | Time -C |
|--|---------------------|---------------------|---------------------|
| Least Costly Carrier / Outside Line (Priority 1) | Carrier F/2 | Carrier F/ 2 | Carrier E/ 1 |
| Next Less Costly Carrier / Outside Line (Priority 2) | Carrier E/1 | Carrier G/ 3 | Carrier F/ 2 |
| Most Costly Carrier / Outside Line (Priority 3) | Carrier G/ 3 | Carrier E/ 1 | Carrier G/3 |

Table 4

To have the system use the priorities shown above, use one of the programs [322] through [329] “ARS Routing Plans 1 through 8” (Route Plan Tables 1 through 8).

As we have already selected Leading Digit Table 1, select Route Plan Table 1. Enter the outside line numbers in order of priority. If the specified outside line requires digit modification, assign the appropriate digit modification table number (1 to 8).

This table is required to have the system automatically add a specific carrier access code to the user-dialed number.

Example: Program [322] Route Plan Table 1

| | Time -A | | Time -B | | Time -C | | Time -D | |
|------------|----------|----------|---------|--------|----------|----------|---------|--------|
| | CO | Modify | CO | Modify | CO | Modify | CO | Modify |
| Priority 1 | 2 | 2 | 2 | 2 | 1 | 1 | | |
| Priority 2 | 1 | 1 | 3 | 3 | 2 | 2 | | |
| Priority 3 | 3 | 3 | 1 | 1 | 3 | 3 | | |

Table 5

CO: Outside Line
Modify: Modification Table Number

Step 5. Create a Digit Modification Table. Carriers E, F and G match the outside lines and Modification Tables as follows and have the following Access Codes:

| Carrier | CO | Mod. Table | Access Code |
|---------|----|------------|-------------|
| E | 1 | 1 | 1-0-333 |
| F | 2 | 2 | 1-0-555 |
| G | 3 | 3 | 1-0-666 |

Table 6

According to Table 6, enter the Access Codes in the respective Modification Tables using programs [330] “ARS Modify Removed Digit” and [331] “ARS Modify Added Number” as follows:

Example: Program [330] Digit Modification Tables

Modification Table 1

| | |
|--------|-------|
| Remove | 0 |
| Add | 10333 |

Modification Table 2

| | |
|--------|-------|
| Remove | 0 |
| Add | 10555 |

Modification Table 3

| | |
|--------|-------|
| Remove | 0 |
| Add | 10666 |

← Enter the number of digits to be deleted.

← Enter the digits to be added.

If Modification Table 1 is applied, the user-dialed number “9-1-234-567-8910” is modified to “9-10333-1-234-567-8910” to access the least expensive Carrier E.

Similarly, if Modification Table 2 is applied, it is modified to “9-10555-1-234-567-8910” to access Carrier F.

Use the “Removed Digit” program when it is necessary to delete some leading digits from the user-dialed number. For example, if the user manually dials a Carrier Access Code but the carrier is not the least expensive, modification is required. For example, to delete “10333” from the beginning of the user-dialed number and add “10555”, enter “5” in the “Removed Digit” program. Enter “10555” in the “Added Number” program. When “9-10333-1-234-567-8910” is dialed,

9-10333-1-234-567-8910.



The five digits are deleted and “10555” is added.

“10555-1-234-567-8910” is sent to the outside line.

Feature References

Section 3, Features

Line Access, Automatic

Operation References

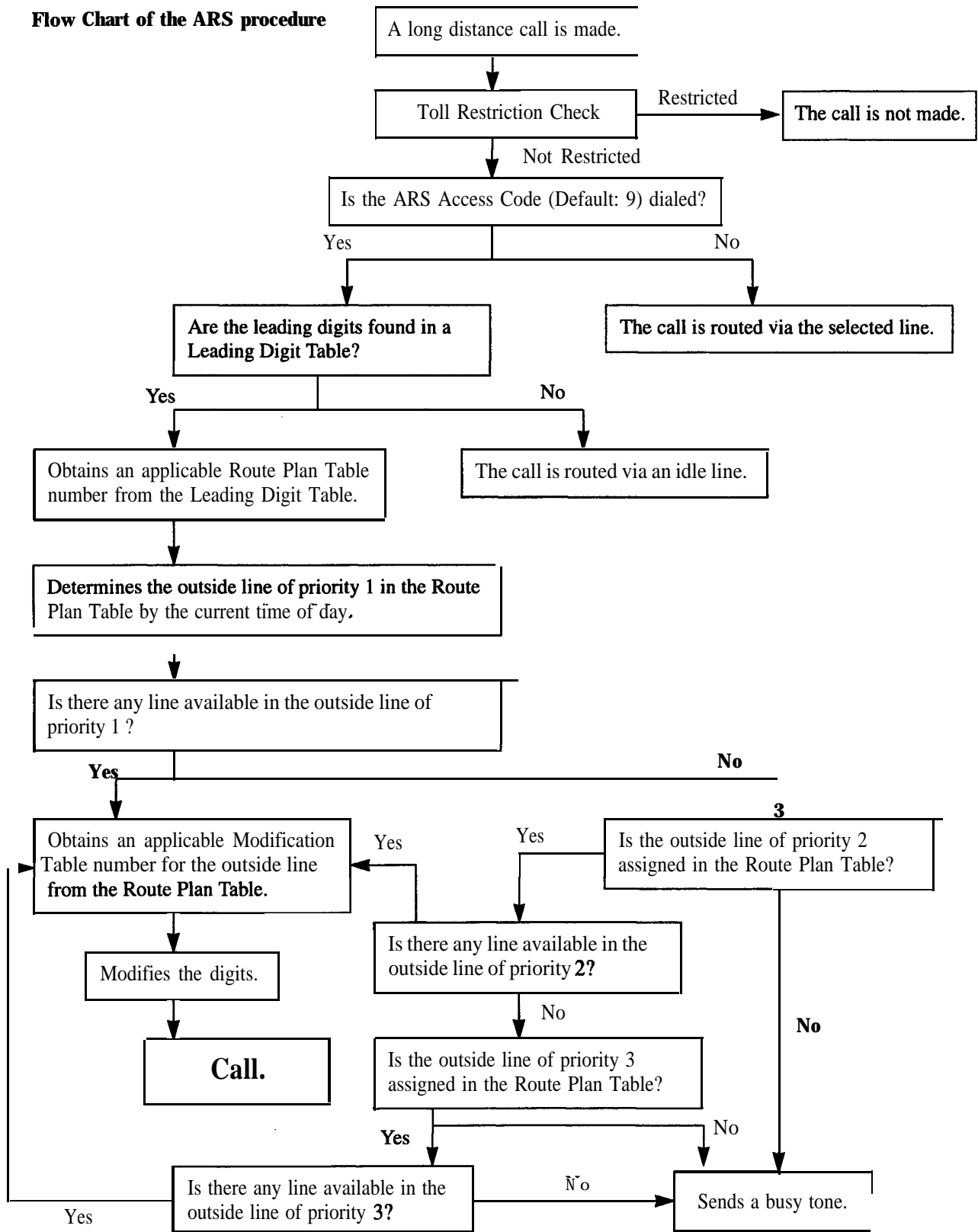
-User Manual

DPT Features, Standard Telephone Features

Outward Dialing – Line Access, Automatic

3 Features

Flow Chart of the ARS procedure



Automatic Station Release

Description

After going off-hook, if an extension user fails to dial any digits within a specified time period, the user will be disconnected from the line after reorder tone is sent. To get a-line again, the user must go back on-hook and then off-hook.

Conditions

This function works in the following cases:

When making a call

- (1)The first digit has not been dialed within 10 seconds.
- (2)After a digit is dialed, the next one is not dialed within five seconds (Intercom call only).

Programming References

Section 4, System Programming

[207] First Digit Time

[208] Inter Digit Time

Feature References

None

Operation References

Not applicable.

Background Music (BGM)

Description Allows the proprietary telephone user to listen to background music from the monitor speaker on the telephone.

- Conditions**
- . It is required to connect a user-supplied external music source, such as a radio. One external music source can be connected to the system.
 - . The music source is used for BGM and/or Music on Hold. It is also possible to disable the BGM and/or Music on Hold.
 - . The music is interrupted when you go off-hook.

Connection References

Section 2, Installation
2.3.8 External Music Source Connection

Programming References

Section 4, System Programming
[803] Music Source Use
[990] System Additional Information, Field (20)

Feature References **Section 3, Features**
Music on Hold

Operation References **DPT Features**
-User Manual Background Music (BGM)

Background Music (BGM) – External

Description

Background music (BGM) can be broadcast in your office through the external pagers. The BGM can be turned on and off by the operator or manager.

Conditions

- It is required to connect an external pager and an external music source. The pager and the external music source are user-supplied items. One pager and one external music source can be installed to the system.
- Each pager can be programmed to send BGM or not.
- Priority of access to external pager is: (1)TAFAS; (2)Paging; (3)BGM. Higher priorities will override the BGM.

Connection References

Section 2, Installation

2.3.7 External Pager (Paging Equipment) Connection

2.3.8 External Music Source Connection

Programming References

Section 4, System Programming

[100] Flexible Numbering, Background music – external

[803] Music Source Use

[804] External Pager BGM

[990] System Additional Information, Field (20)

Feature References

Section 3, Features

Background Music (BGM)

Operation References -User Manual

Operator / Manager Service Features

Background Music (BGM) — External

Bilingual Display

Description Provides the display proprietary telephone user with either an English or French display. Either display **can** be selected by Station Programming.

Conditions None

Programming References
Station Programming.....User Manual
Bilingual Display Selection

Feature References None

Operation References Not applicable.

Busy Lamp Field

Description The LED (Light Emitting Diode) indicators of the DSS (Direct Station Selection) buttons, each of which corresponds to a selected extension, tell whether the corresponding extensions are idle or busy.

Conditions

- This function is available for flexible CO buttons assigned as DSS buttons on proprietary telephones.
- A DSS button indicator lights red if the corresponding extension is busy.

Programming References
Section 4, System Programming
[005] Flexible CO Button Assignment
Station Programming..... User Manual
Flexible CO Button Assignment – Direct Station Selection (DSS) Button

Feature References Section 3, Features
Button, Direct Station Selection (DSS)

Operation References Not applicable.

Busy Station Signaling (BSS)

Description

When attempting to call a busy extension (ringing or having a conversation), Busy Station Signaling allows you to signal the user on the phone to answer your call. The called extension user hears a Call Waiting tone and is able to answer the call.

Conditions

- This feature only works if the called extension has activated Call Waiting. If Call Waiting is activated, the caller will hear **ringback** tone; if not, the caller will hear a reorder tone.
- If the called party is provided with the Off-Hook Call Announcement (OHCA) function, the caller can announce the call through the speaker.

Programming References

Section 4, System Programming

[990] System Additional Information, Field (37)

Feature References

Section 3, Features

Call Waiting

Off-Hook Call Announcement
(OHCA)

Operation References -User Manual

DPT Features, Standard Telephone Features

Busy Station Signaling (BSS)

Button, Direct Station Selection (DSS)

Description DSS button permits the proprietary telephone user one-touch access to other extension users.

- Conditions**
- A flexible CO button on a proprietary telephone can be assigned as a DSS button using either System or Station Programming.
 - Once a button is assigned as a DSS button, it provides Busy Lamp Field (BLF) status.
 - The mode of a DSS button can be programmed to disconnect the outside line and calls the extension or hold and transfers the call to the extension (One-Touch Transfer by DSS Button).

Programming References

Section 4, System Programming
 [005] Flexible CO Button Assignment
 [108] Automatic Hold by CO / DSS Button
 Station Programming.....User Manual
 Flexible CO Button Assignment – Direct Station Selection (DSS) Button

Feature References

Section 3, Features
 Busy Lamp Field One-Touch Transfer by DSS Button

Operation References

-User Manual
 Basic Operation
 Making Calls
 DPT Features
 Call Transfer – to Extension

Button, Flexible

Description

The use of Flexible Buttons is determined by either System or Station Programming. The following two types of Flexible Buttons are provided on analog or digital proprietary telephones (APT/DPT):

- Flexible CO buttons
- Programmable Feature (PF) buttons (provided on APT only)

The table below shows all of the features which can be assigned to Flexible Buttons.

| Button Features to be assigned | CO (APT / DPT) | PF (APT) |
|-----------------------------------|-------------------|-------------|
| Direct Station Selection (DSS) | ✓ | |
| Single-CO | ✓ | |
| Live Call Screening? | ✓ | |
| Live Call Screening Cancel† | ✓ | |
| Log-In / Log-Out | ✓ | |
| Loop-CO | ✓ | |
| Message Waiting | ✓ | |
| Phantom Extension | ✓ | |
| Two-Way Record? | ✓ | |
| Two-Way Transfer? | ✓ | |
| Account Code Entry | ✓ | ✓ |
| Conference | ✓ | ✓ |
| FWD/DND | ✓ | ✓ |
| One-Touch Dialing | ✓ | ✓ |
| Saved Number Redial | ✓ | ✓ |
| Voice Mail Transfer | ✓ | ✓ |

“✓” indicates that the feature is available.

Conditions

- An outside line can only appear on one Single-CO button of any given telephone. A station can only appear on one DSS button of any given telephone.
- Incoming and outgoing calls on the line are shown on the button in the following priority.
Single-CO > Loop-CO

3 Features

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
Station Programming User Manual
Flexible CO Button Assignment

Feature, References

Section 3, Features
Buttons on Proprietary Telephones

Operation References

Not applicable.

Button, Loop-CO (L-CO)

Description

All outside lines can be assigned to a flexible CO button on a proprietary telephone (PT). The assigned button serves as a **Loop-CO (L-CO)** button. An incoming call on any outside line arrives at the L-CO, unless there is a S-CO button associated with the line or unless the button is already in use. To make an outside call, the PT user simply press the dedicated L-CO button.

Conditions

- No L-CO button is originally provided on a PT. A flexible CO button can be assigned as an L-CO button in either System or Station Programming.
- It is possible to assign more than one L-CO button on a PT.
- Pressing the L-CO button provides the same operation as dialing an automatic line access code. This results in Automatic Line Access or Automatic Route Selection (ARS), if programmed.
- Immediate, delayed, no ringing or no incoming call (disable) can be selected on an extension-outside line basis.
- **The** digital PT user can choose a desired ringer frequency for each L-CO button by System or Station Programming.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

[400] Outside Line Connection Assignment

[603]–[604] **DIL** 1 :N Extension and Delayed Ringing — Day / Night

[605]–[606] Outgoing Permitted Outside Line Assignment — Day / Night

Station Programming User Manual

Flexible CO Button Assignment – Loop-CO (L-CO) Button

Ring Tone Selection for CO Buttons

Feature References

Section 3, Features

Answering, Direct Outside Line

Line Access, Direct

LED Indication, Outside Line

Ring Tone Selection, Delayed

Line Access, Automatic

Ring Tone Selection for CO Buttons

Operation References **Basic Operation**

-User Manual

Making Calls

Receiving Calls

DPT Features

Outward Dialing – Line Access, Automatic

Button, Single-CO (S-CO)

Description

A Single-CO (S-CO) button is an outside line access button. This allows the proprietary telephone user to access a specific line by pressing a S-CO button. An incoming call can be directed to an S-CO button.

Conditions

- The default setting for CO buttons is changeable. (Flexible CO Button)
- An S-CO button provides outside line status.
- If Automatic Route Selection (ARS) is set, it is overridden by an outgoing call made by pressing the S-CO button.
- Incoming calls appear on the proprietary telephone, when an extension is assigned as the incoming call destination and a S-CO **and/or** L-CO button is assigned.
- Immediate,, delayed, no ringing or no incoming call (disable) can be selected on an extension-outside line basis.
- The digital PT user can choose a desired ringing tone type for the S-CO button by System or Station Programming.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

[400] Outside Line Connection Assignment

[603]–[604] DIL 1 :N Extension and Delayed Ringing — Day / Night

[605]–[606] Outgoing Permitted Outside Line Assignment — Day / Night

Station Programming.....User Manual

Flexible CO Button Assignment – Single-CO (S-CO) Button

Ringing Tone Selection for CO Buttons

Feature References

Section 3, Features

Answering, Direct Outside Line

LED Indication, Outside Line

Line Access, Direct

Line Access, Individual

Ringing, Delayed

Ringing Tone Selection for CO Buttons

Operation References Basic Operation

-User Manual

Making Calls

Receiving Calls

DPT Features

Outward Dialing – Line Access, Individual

Buttons on Proprietary Telephones

Description

Proprietary telephones are provided with the feature / line access buttons listed below:

KX-T Proprietary Telephones:

| Buttons | 7020 | 7030 | 7050 | 7055 | 7130 | 7220 | 7230 | 7235 | 7250 |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| AUTO ANSWER / MUTE † | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | |
| AUTO DIAL / STORE † | ✓ | ✓ | ✓ | ✓! | ✓ | ✓ | ✓ | ✓ | ✓! |
| CO † * | ✓(12) | ✓(12) | ✓(12) | ✓(3) | ✓(12) | ✓(24) | ✓(24) | ✓(12) | ✓(6) |
| CONF † | I ✓ | ✓ | ✓! | ✓! | ✓ | ✓ | ✓ | ✓ | |
| FLASH | I ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Function | | | | | | | | ✓(10) | |
| FWD / DND † | I ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | |
| HOLD | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| INTERCOM † | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MESSAGE † | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MONITOR | | | ✓† | ✓ | | | | | ✓ |
| PAUSE | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| PF (Programmable Feature) | ✓(4) | ✓(4) | d(4) I | d(3) | ✓(12) | | | | |
| PROGRAM | | | | | | ✓ | ✓ | ✓ | ✓ |
| REDIAL | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| SAVE | | | | | ✓ | | | | |
| SHIFT † | | | | | | | ✓ | ✓ | |
| Soft | | | | | | | ✓(3) | ✓(3) | |
| SP-PHONE † | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | |
| TRANSFER | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| VOLUME | | | | | | ✓ | ✓ | ✓ | ✓ |

✓ : The button is provided on the designated telephones.

† : The button is provided with an LED (Light Emitting Diode).

* : The buttons which can be changed to function as a feature button are called flexible buttons.

! : The button is provided without an LED.

(x) : Shows the number of buttons only if multiple buttons are provided.

The functions of the listed buttons are described below:

AUTO ANSWER / MUTE: This dual function button is used for extension auto-answer and microphone mute during a conversation.

AUTO DIAL / STORE: Used for System Speed Dialing and storing program changes.

CO (Central Office line): Can make or receive an outside call or can be re-assigned to a different CO or to various feature buttons.

CONF (Conference): Used to establish a three-party conference.

FLASH: Allows you to disconnect the current call and originate another call without hanging up (Flash). Sends a flash signal to the

Central Office or host PBX to access their features (External Feature Access).

Function: Used to perform the displayed function / operation.

FWD / DND (Call Forwarding / Do Not Disturb): Used to program Call Forwarding, set Do Not Disturb.

HOLD: Used to place a call on hold.

INTERCOM: Used to make or receive intercom calls.

MESSAGE: Used to send a message or display current message.

MONITOR: Used for a handsfree operation.

PAUSE: Inserts a pause in a speed dial number. With an analog proprietary telephone, it is used as the PROGRAM button.

PF (Programmable Feature): This flexible button can be programmed to be a One-Touch Dialing, FWD/DND, SAVE, Account, CONF (Conference) or Voice Mail Transfer button, as desired.

PROGRAM: Used to enter / exit the Programming mode. With the KX-T7220 and KX-T7250, it can also be used as the PAUSE button.

REDIAL: Used for Last Number or Automatic Redial.

SAVE: Used to store a dialed telephone number for Saved Number Redial.

SHIFT: Used to access the second level of Soft button function.

Soft: Pressing a Soft button performs the function / operation appearing on the bottom line of the display.

SP-PHONE (Speakerphone): Used for a handsfree operation. Pressing the button causes the telephone to switch between handset and handsfree operation.

TRANSFER: Transfers a call to another extension or external destination.

VOLUME: Used to adjust the ringer, speaker, handset and headset volume and the display contrast.

Conditions

- Certain buttons are equipped with light indicators (LED's) to show line or feature status.
- CO buttons can be classified according to the following three types: Single-CO (S-CO) button / Loop-CO (L- CO) button

Programming References

Section 4, System Programming
 [005] Flexible CO Button Assignment
 Station Programming.....User Manual
 Flexible CO Button Assignment

Feature References None

Operation References Refer to respective operating instructions.
-User Manual

Caller ID

Description

Provides the display proprietary telephone user with a caller's information, such as his / her name and telephone number, on the outside line assigned to receive Caller ID service calls. Additionally, a special standard telephone, which has a Caller ID feature, can receive the Caller ID service from the Central Office and display the caller's information (Internal Caller ID).

Conditions

- Up to 100 Caller ID entry numbers can be stored in a table called "Caller ID Table" in the system. Each entry can consist of a caller's telephone number and name.
- If neither the telephone number nor the name is stored in the Caller ID Table, the number sent from Caller ID service is displayed.
- If the network provides a single message, the system searches for the name **from** the number in the Caller ID Table and displays both of them.
- It is required to assign the outside lines which a Caller ID service is offered by a Central Office.
- It is required to assign the extension to have the Internal Caller ID service.
- The display DPT (KX-T7230 or KX-T7235) user can record the information of the call received by Caller ID (Call Log, Incoming feature).
- An analog proprietary telephone will show either the name or the number. To alternate the display, press the * key.
- If an outside line name is assigned, the user can select the initial display, Caller ID, or outside line name by Station Programming.
- An optional Caller ID / DISA / FAX Detection Card must be installed for the system.
- If a standard telephone with a Caller ID feature is connected in parallel, the Caller ID feature will not function.

Connection References

Section 2, Installation

2.4.2 **4-SLT** Extension Expansion Card / Caller ID/DISA/FAX Detection Card Installation

Programming References

Section 4, System Programming

[110] Caller ID Code Set

[11 1] Caller ID Name Set

[125] Area Code Assignment

[126] Caller ID Modification for Local Call

[127] Caller ID Modification for Long Distance Call

[128] Internal Caller ID Extension Assignment
[406] Caller ID Assignment
[417] Outside Line Name Assignment
[990] System Additional Information, Field (30)
Station Programming.....User Manual
Initial Display Selection

Feature References Section 3, Features
 Call Log, Incoming

Operation References DPT Features
-User Manual Call Information/Log, Incoming
 Call Log, Incoming

CALL FORWARDING FEATURES – SUMMARY

Description

Call forwarding features enable you to have your calls forwarded to a specified destination. You may specify the circumstances under which your calls are forwarded. The following Call Forwarding features are available:

Call Forwarding – All Calls

Call Forwarding – Busy

Call Forwarding – Busy / No Answer

Call Forwarding – Follow Me

Call Forwarding – No Answer

Call Forwarding – to Outside Line

Call Forwarding – All Calls

Description

This feature is used when you want all your calls to be automatically r-e-directed to another extension.

Conditions

- Types of calls which are forwarded by this feature are:
 - Outside calls – DIL 1: 1; DISA; Intercept Routing
 - Intercom calls – Extension; Transfer
- There can only be one stage of Call Forwarding, if a call is forwarded to an extension which is also in Call Forwarding. In this case, Station Hunting can be activated for the forwarded call.
- Although calls are forwarded, Message Waiting is not. The MESSAGE button indicator is lit on the originally called extension.
- If an extension in Call Forwarding is also in a Hunt group, a call directed to the extension is forwarded. Station Hunting still applies for calls directed to other extensions in the Hunt group.
- Both the Call Forwarding and DND functions can be set at the same time, but cannot work at the same time.
- Pressing the **FWD/DND** button while on-hook allows the user to enable or disable the Call Forwarding or DND function. If the user sets both functions, alternating the mode is also available by pressing the **FWD/DND** button.
- A Floating Station cannot be programmed as the forwarded destination.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

[100] Flexible Numbering, Call forwarding / do not disturb

Station Programming User Manual

Flexible CO Button Assignment – FWD/DND Button

Feature References None

operation References **DPT Features, Standard Telephone Features**
-User Manual Call Forwarding — All Calls

Call Forwarding – Busy

Description A call directed to your extension is forwarded to another extension if your telephone is busy.

- Conditions**
- Types of calls which are forwarded by this feature are:
 Outside calls – DIL 1: 1; DISA; Intercept Routing
 Intercom calls – Extension; Transfer
 - There can only be one stage of Call Forwarding, if a call is forwarded to a station which is also in Call Forwarding. In this case, Station Hunting is activated for the forwarded call.
 - Although calls are forwarded, Message Waiting is not. The MESSAGE button indicator is lit on the originally called extension.
 - If an extension in Call Forwarding is also in a Hunt group, a call directed to the extension is forwarded. Station Hunting still applies for calls directed to other extensions in the Hunt group.
 - Both the Call Forwarding and DND functions can be set at the same time, but cannot work at the same time.
 - Pressing the **FWD/DND** button while on-hook allows the user to enable or disable the Call Forwarding or DND function. If the user sets both functions, alternating the mode is also available by pressing the **FWD/DND** button.
 - A Floating Station cannot be programmed as the forwarded destination.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
[100] Flexible Numbering, Call forwarding / do not disturb
Station Programming User Manual
Flexible CO Button Assignment – **FWD/DND** Button

Feature References None

Operation References **DPT Features, Standard Telephone Features**
-User Manual Call Forwarding — Busy

Call Forwarding – Busy / No Answer

Description

Your calls are forwarded to another extension if your extension is busy or you do not answer the call within a pre-determined time.

Conditions

- Types of calls which are forwarded by this function are:
 Outside calls – DIL 1: 1; DISA; Intercept Routing
 Intercom calls – Extension; Transfer
- This function operates the same way as Call Forwarding – Busy and Call Forwarding – No Answer.
- There can only be one stage of Call Forwarding if a call is forwarded to a station which is also in Call Forwarding. In this case, Station Hunting is activated for the forwarded call.
- Although calls are forwarded, Message Waiting is not. The MESSAGE button indicator is lit on the originally called extension.
- If an extension in Call Forwarding is also in a Hunt group, a call directed to the extension is forwarded. Station Hunting still applies for calls directed to other extensions in the Hunt group.
- Both the Call Forwarding and DND functions can be set at the same time, but cannot work at the same time.
- Pressing the **FWD/DND** button while on-hook allows the user to enable or disable the Call Forwarding or DND function. If the user sets both functions, alternating the mode is also available by pressing the **FWD/DND** button.
- A Floating Station cannot be programmed as the forwarded destination.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

[100] Flexible Numbering, Call forwarding / do not disturb

[202] Call Forwarding – No Answer Time

Station Programming.....User Manual

Flexible CO Button Assignment – **FWD/DND** Button

Feature References

Section 3, Features

Call Forwarding – Busy

Call Forwarding – No Answer

Operation References -User Manual

DPT Features, Standard Telephone Features

Call Forwarding — Busy / No Answer

Call Forwarding – Follow Me

| | |
|---|---|
| Description | If you forget to set Call Forwarding – All Calls before you leave your desk, this allows you to set the same function from the destination extension. |
| Conditions | <ul style="list-style-type: none">• Same as the conditions of Call Forwarding – All Calls.• It is programmable to enable or disable this feature on Class of Service basis. |
| Programming References | Section 4, System Programming [005] Flexible CO Button Assignment [100] Flexible Numbering, Call forwarding / do not disturb [991] COS Additional Information, Field (2) Station ProgrammingUser Manual Flexible CO Button Assignment – FWD / DND Button |
| Feature References | Section 3, Features Call Forwarding – All Calls |
| Operation References -User Manual | DPT Features, Standard Telephone Features Call Forwarding — Follow Me |

Call Forwarding – No Answer

| | |
|--------------------|---|
| Description | Calls to your extension are forwarded to another extension if you do not answer the call in a pre-determined time. |
| Conditions | <ul style="list-style-type: none">. Types of calls which are forwarded by this function are:<ul style="list-style-type: none">Outside calls – DIL 1: 1; DISA; Intercept RoutingIntercom calls – Extension; Transfer• This function operates if an incoming call is not answered in a specific period of time. Therefore, this function also applies if your extension is busy and cannot answer the incoming call within the time.. There can only be one stage of Call Forwarding if a call is forwarded to a station which is also in Call Forwarding. In this case, Station Hunting is activated for the forwarded call.• Although calls are forwarded, Message Waiting is not. The MESSAGE button indicator is lit on the originally called extension.• If an extension in Call Forwarding is also in a Hunt group, a call directed to the extension is forwarded. Station Hunting still applies for calls directed to other extensions in the Hunt group. |

- . Both the Call Forwarding and DND functions can be set at the same time, but cannot work at the same time.
- Pressing the **FWD/DND** button while on-hook allows the user to enable or disable the Call Forwarding or DND function. If the user sets both functions, alternating the mode is also available by pressing the **FWD/DND** button.
- A Floating Station cannot be programmed as the forwarded destination.

Programming References

Section 4, System Programming .

[005] Flexible CO Button Assignment

[100] Flexible Numbering, Call forwarding / do not disturb

[202] Call Forwarding – No Answer Time

Station Programming User Manual

Flexible CO Button Assignment – FWD/DND Button

Feature References

None

Operation References

DPT Features, Standard Telephone Features

-User Manual

Call Forwarding — No Answer

Call Forwarding – to Outside Line

Description

Calls directed to your extension will be sent to an external destination. The outside telephone number must be pre-programmed.

Conditions

- Types of calls which are forwarded by this function are:
 Outside calls – DIL 1: 1; DISA
 Intercom calls – Extension; Transfer
- The forwarding extension’s Toll Restriction, Automatic Route Selection (ARS) and Account Code Entry requirements still apply.
- Although calls are forwarded, Message Waiting is not. The MESSAGE button indicator is lit on the originally called extension.
- If an extension in Call Forwarding is also in a Hunt group a call directed to the extension is forwarded. Station Hunting still applies for calls directed to other extensions in the Hunt group.
- Both the Call Forwarding and DND functions can be set at the same time, but cannot work at the same time.
- Pressing the **FWD/DND** button while on-hook allows the user to enable or disable the Call Forwarding or DND function. If the user sets both functions, alternating the mode is also available by pressing the **FWD/DND** button.

- Class of Service programming determines the extensions that are able to perform this function.
- If an extension is limited by the program [502] “Extension-to-Outside Line Call Duration Limit” according to its Class of Service, the extension is unable to forward an outside call to an outside line.
- If a call between an extension and an outside party is established by this feature, the duration of the call period can be restricted depending on the setting of the system timer. If a call between two outside parties is established by this feature, the duration of the call is determined by another system timer. An alarm tone is generated to both outside parties 15 seconds before the time-out. The call is disconnected at the time-out.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
[100] Flexible Numbering, Call forwarding / do not disturb
[205] Extension-to-Outside Line Call Duration Time
[206] Outside-to-Outside Line Call Duration Time
[502] Extension-to-Outside Line Call Duration Limit
[504] Call Forwarding to Outside Line
Station Programming User Manual
Flexible CO Button Assignment – FWD/DND Button

Feature References

Section 3, Features
Limited Call Duration

Operation References

-User Manual

DPT Features, Standard Telephone Features
Call Forwarding — to Outside Line

Call Hold – Intercom

Description

This is used to place an intercom call on hold. The held call can be retrieved by the user who held it or by any other extension.

Conditions

- Only one intercom call can be placed on hold at each telephone at one time (up to ten calls in the system – Call Park). With a proprietary telephone, outside calls and one intercom call can be placed on hold at the same time. With a standard telephone, either one outside or intercom call can be held.
- If a call on hold is not retrieved within a specific period of time, Hold Recall is emitted.
- Music is sent to the party on hold, if available (Music on Hold).

Programming References

Section 4, System Programming

[100] Flexible Numbering, Call hold

[200] Hold Recall Time

Feature References

Section 3, Features

Call Park

Music on Hold

Hold Recall

Operation References

-User Manual

DPT Features, Standard Telephone Features

Call Hold

Call Hold – Outside Line

Description

Allows the extension user to put an outside call on hold. The held call can be retrieved by the user who held it or by any other extension.

Conditions

- With a standard telephone, the user can hold only one call whether it is an extension or outside call.
- Music is sent to the party on hold, if available (Music on Hold).
- If a call on hold is not retrieved in a specific period of time, Hold Recall is emitted.
- If an outside party is placed on hold and not retrieved within 30 minutes, it is automatically disconnected.

Programming References

Section 4, System Programming

[100] Flexible Numbering, Call hold

[200] Hold Recall Time

Feature References

Section 3, Features

Hold Recall

Music on Hold

Operation References

-User Manual

DPT Features, Standard Telephone Features

Call Hold

Call Hold, Exclusive – Intercom

Description

Allows the proprietary telephone user to prevent other extension users from retrieving a held intercom call. Only the user who held the call can retrieve it.

Conditions

- Only one intercom call can be placed on Call Hold or Exclusive Call Hold at a time.
- If a call on hold is not retrieved in a specific period of time, Hold Recall is emitted. After Hold Recall is emitted, the held call can be retrieved from any extension.
- Music is sent to the party on hold, if available (Music on Hold).

Programming References

Section 4, System Programming
[200] Hold Recall Time

Feature References

Section 3, Features
Hold Recall

Music on Hold

Operation References DPT Features

-User Manual

Call Hold, Exclusive

Call Hold, Exclusive – Outside Line

Description Allows the proprietary telephone user to prevent other extension users from retrieving a held outside call. Only the user who held the call can retrieve it.

- Conditions**
- If a call on hold is not retrieved in a specific period of time, Hold Recall is emitted. After Hold Recall is emitted, the held call can be retrieved from any extension.
 - If an outside party is placed on hold and not retrieved in 30 minutes, it is automatically disconnected.
 - Music is sent to the party on hold, if available (Music on Hold).

Programming References
Section 4, System Programming
[200] Hold Recall Time

Feature References Section 3, Features
Hold Recall Music on Hold

Operation References DPT Features
-User Manual Call Hold, Exclusive

Call Hold Retrieve – Intercom

Description Allows the extension user to retrieve a call that has been placed on hold by another extension.

Conditions Confirmation tone is sent to the user when the hold is retrieved by the feature number. Eliminating the tone is programmable.

Programming References
Section 4, System Programming
[100] Flexible Numbering, Call hold retrieve – intercom
[990] System Additional Information, Field (16)

Feature References Section 3, Features
Call Hold – Intercom

Operation References DPT Features, Standard Telephone Features
-User Manual Call Hold Retrieve

Call Hold Retrieve – Outside Line

Description

Allows the extension user to retrieve a specified outside call that has been placed on hold by another extension.

Conditions

A confirmation tone is sent to the user when the hold is retrieved by entering the feature number. Eliminating the tone is programmable.

Programming References**Section 4, System Programming**

[100] Flexible Numbering, Call hold retrieve – outside line

[990] System Additional Information, Field (16)

Feature References**Section 3, Features**

Call Hold – Outside Line

Operation References

-User Manual

DPT Features, Standard Telephone Features

Call Hold Retrieve

calling Party Control (CPC) Signal Detection

Description

The Calling Party Control (CPC) Signal is an on-hook indication (disconnect signal) sent from the outside line when the telephone is hung up at the other end. To maintain efficient utilization of outside lines, the system monitors their state and when CPC Signal is detected from a line, the system disconnects the line and alerts the extension with a reorder tone.

Conditions

- CPC Signal Detection is enabled or disabled on incoming and outgoing outside calls by System Programming.
- Generally CPC Signal Detection works on incoming outside calls, and does not work on outgoing outside calls (except once they are placed on Call Hold, Exclusive Call Hold or Consultation Hold). In this case, if the extension user remains off-hook after the completion of an outgoing outside call, the system does not release all the switches used to establish the connection. The connected outside line will continue to be in use. **To prevent** this, it is programmable to make CPC Signal Detection work on outgoing outside calls. (Note: Some Central Offices may send CPC-like signals during the dialing sequence and an attempt to make a call may be terminated. If your CO does not send such signals, it is recommended to make CPC Signal Detection work on outgoing outside calls.)
- If your Central Office does not send CPC-like signals, it is effective to limit the dialed numbers during a call by the program [991] “COS Additional Information”; Class of Service to prevent unauthorized calls.
- If a CPC Signal is detected during a Conference call, the line is disconnected and the remaining two parties resume the call.
- If a CPC Signal is detected during a call between a DISA caller and an extension or an outside party, the line is disconnected.

Programming References

Section 4, System Programming
[405] CPC Signal Detection Incoming Set
[415] CPC Signal Detection Outgoing Set
[991] COS Additional Information, Field (1)

Feature References None

Operation References Not applicable.

Call Log, Incoming

Description

If the display digital proprietary telephone (KX-T7230 or **KX-T7235**) user cannot answer a call, the telephone automatically records the caller's information. The user can also record the caller's information manually, even after answering the call. Moreover, the user can call back the caller by checking the call log. This is available if a telephone receives incoming outside calls with a Caller ID service. A maximum of 15 calls per telephone can be logged.

The displayed information is as follows:

- The receiving outside line number and name
- The party's phone number and name
- The date and time the call was made
- The sequence number and number of times called

Conditions

- It is necessary to assign your area code first before you use the Caller ID feature.
- The call is registered at the time **DPT** finishes ringing. If a call is directed to multiple **DPTs**, the call is registered at the **DPT** that has the smallest jack number of the ringing **DPTs**. However, if the telephone which is connected to the smallest jack is not a **DPT**, the call is not registered.
- Information is also recorded even if a transferred call (unscreened) is not answered.
- When the call log is full (i.e. 15 calls are stored), the user can select to overwrite the data, replacing the oldest call with the newest one at his / her extension (Call Log, Incoming).
- The telephone user can lock the display of the unit so that incoming call information is not shown on the display. The operator can cancel the lock in case the user forgets the lock code,
- The system automatically modifies the incoming caller's number in a pre-programmed way for local or long distance calls. The modified number will be recorded for calling back.

<Preparation example>

[125] "Area Code Assignment" : 201

[126] "Caller ID Modification for Local Call" :

delete – 3 digits, add – blank

[127] "Caller ID Modification for Long Distance Call" :

delete – 0 digit, add – 1

| | Caller's number provided by CO | Recorded caller's number |
|---------------------|-----------------------------------|-----------------------------------|
| Local call: | 2011234567 | 1234567 (modified by [126]) |
| Long distance call: | 7 149876543 | 17 149876543 (modified by [127]) |

3 Features

C

Connection References

Section 2, Installation

2.4.2 4-SLT Extension Expansion Card / Caller ID/DISA/FAX Detection Card Installation

Programming References

Section 4, System Programming

[100] Flexible Numbering, Call log, incoming / Call log lock, incoming

[110] Caller ID Code Set

[111] Caller ID Name Set

[125] Area Code Assignment

[126] Caller ID Modification for Local Call

[127] Caller ID Modification for Long Distance Call

[406] Caller ID Assignment

[417] Outside Line Name Assignment

Feature References

Section 3, Features

Caller ID

Operation Reference -User Manual

DPT Features

Call Log, Incoming

Call Log Lock, Incoming

Operator / Manager Service Features

Call Log Lock Control, Incoming

Call Park

Description

Allows the extension user to place a held call into a system parking area. This releases the user from the parked call to perform other operations. The parked call can be retrieved by any extension user.

Conditions

- The system contains ten parking areas, each of which has its own call park number. Up to ten calls can be parked at the same time in the system.
- If a parked call is not retrieved in a specific period of time, Call Park Recall occurs. If a parked call is an outside call, it is possible to select whether Call Park Recall will go to the initiating extension or to Operator 1 by System Programming. If a parked call is an intercom call, Call Park Recall will return to the initiating extension.
- If a parked call is not retrieved in 30 minutes, it is automatically disconnected.
- A confirmation tone is sent to the user when the parked call is retrieved. Eliminating the tone is programmable.

Programming References

Section 4, System Programming

[100] Flexible Numbering, Call park / call park retrieve

[219] Call Park Recall Time

[990] System Additional Information, Fields (11), (16)

Feature References

None

Operation References

-User Manual

DPT Features, Standard Telephone Features

Call Park

Call Pickup, Directed

Description Allows an extension user to answer a call ringing at any other extension.

- Conditions**
- . Doorphone calls can be picked up from extensions that are not programmed to answer doorphone calls.
 - A confirmation tone is sent to the user when the call is picked up. Eliminating the tone is programmable.
 - You can pick up a call by pressing a flashing DSS button assigned on a proprietary telephone.

Programming References

Section 4, System Programming
[100]Flexible Numbering, Call pickup, directed
[990]System Additional Information, Field (16)

Feature References None

Operation References **DPT Features, Standard Telephone Features**
-User Manual Call Pickup, Directed

Call Pickup, Group

Description Allows an extension user to answer a call that is ringing at another telephone, if **the** call is ringing within the user's extension group.

- Conditions**
- The user can pick up an incoming outside, intercom, or doorphone call.
 - The priority of Group Call Pickup is as follows:
Outside call > Transferred call > Extension call > Doorphone call
 - . Group Call Pickup starts with the lowest jack number.
 - A confirmation tone is sent to the user when the call is picked up. Eliminating the tone is programmable.

Programming References

Section 4, System Programming
[100]Flexible Numbering, Call pickup, group
[990]System Additional Information, Field (16)

Feature References None

Operation References **DPT Features, Standard Telephone Features**
-User Manual Call Pickup, Group

Call Pickup, Outside Line

Description Allows an extension user to answer an incoming outside call that is ringing at another telephone.

Conditions

- Call Pickup starts with the lowest CO number.
- A confirmation tone is sent to the user when the call is picked up. Eliminating the tone is programmable.

Programming References

Section 4, System Programming
 [100] Flexible Numbering, Call pickup, outside line
 [990] System Additional Information, Field (16)

Feature References None

Operation References **DPT Features, Standard Telephone Features**
 -User Manual Call Pickup, Outside Line

Call Pickup Deny

Description Allows the user to prevent other extensions from picking up calls ringing at his / her extension by using the call pickup features.

Conditions Distinctive Dial Tone is sent to the user on the extension with this feature when the user goes off-hook.

Programming References

Section 4, System Programming
 [100] Flexible Numbering, Call pickup deny

Feature References **Section 3, Features,**
 Call Pickup, Directed Call Pickup, Outside Line
 Call Pickup, Croup

Operation References **DPT Features, Standard Telephone Features**
 -User Manual Call Pickup Deny

Call Splitting

Description Allows the extension user to alternate between two other parties. Placing the current call on hold allows the user to have a conversation with the other party.

Conditions Call Splitting is impossible during Doorphone Call or Paging.

Programming References No programming required.

Feature References None

Operation References **DPT Features, Standard Telephone Features**
-User Manual Call Splitting

CALL TRANSFER FEATURES – SUMMARY

| | |
|--------------------|---|
| Description | <p>Call Transfer features allow the user to transfer a call to another party. This operation can be screened or unscreened. Screened call transfer is used when you want to announce the call to the other party before completing the transfer. Unscreened call transfer immediately releases the caller to the called party. An intercom or an outside call can be transferred to an extension or to an outside party by:</p> <ul style="list-style-type: none"> Call Transfer, Screened – to Extension Call Transfer, Screened – to Outside Line Call Transfer, Unscreened – to Extension |
|--------------------|---|

Call Transfer, Screened – to Extension

| | |
|--|---|
| Description | Allows the extension user to voice-announce to the extension and transfer the call. |
| Conditions | The destination extension must have a CO button which is common to the outside line in use by the transferring party. |
| Programming References | <p>Section 4, System Programming [990] System Additional Information, Field (1)</p> |
| Feature References | None |
| Operation Reference -User Manual | <p>DPT Features, Standard Telephone Features Call Transfer — to Extension</p> |

Call Transfer, Screened – to Outside Line

Description Allows the proprietary telephone user to voice-announce to the external party and transfer the call.

- Conditions**
- Class of Service programming determines the extensions that are able to perform this.
 - If a call between two external parties is established by this feature, the duration of the call period is restricted by a system timer. Hold Recall is generated to the extension who transferred the call 50 seconds before the time-out. Also Hold Alarm tone is generated to both outside parties 15 seconds before the time-out. The call is disconnected at the time-out unless the extension restores the conference.

Programming References

Section 4, System Programming
[205] Extension-to-Outside Line Call Duration Time
[206] Outside-to-Outside Line Call Duration Time
[502] Extension-to-Outside Line Call Duration Limit
[503] Call Transfer to Outside Line
[990] System Additional Information, Field (1)

Feature References **Section 3, Features**
Hold Recall

Operation Reference **DPT Features, Standard Telephone Features**
-User Manual Call Transfer — to Outside Line

Call Transfer, Unscreened – to Extension

Description

Allows the user to transfer an intercom or outside call directly to an extension party. After dialing the destination extension, the user replaces the handset while listening for the **ringback** tone.

Conditions

- If the destination party does not answer within the transfer recall time, the call will return to the user or Operator 1. You can select either one by system programming.
- This function is possible when the destination is sending **ringback** or busy tone. If the destination is busy, Camp-On Transfer occurs.
- The ringing signal pattern follows the regular ringing pattern depending on the party being transferred: outside or extension call ringing.
- If music on hold is enabled, music is sent to the caller while being transferred. It is system-programmable whether to send **ringback** tone or music on hold to the caller by program [990], Field (1).
- The destination extension must have a CO button which is common to the outside line in use by the transferring party.

Programming References

Section 4, System Programming
[201] Transfer Recall Time
[990] System Additional Information, Fields (1), (11)

Feature References

None

Operation References -User Manual

DPT Features, Standard Telephone Features
Call Transfer — to Extension

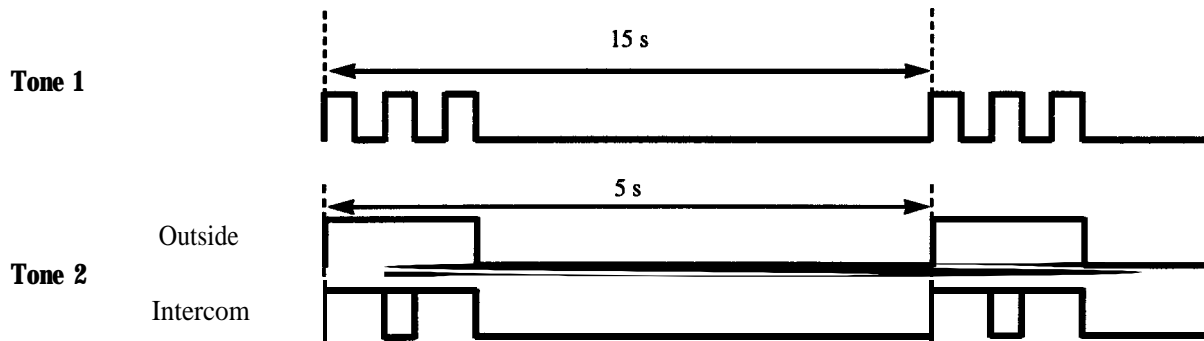
Call Waiting

Description

During a conversation, a call waiting tone informs the user of another incoming call that is waiting. He or she can answer the second call by disconnecting or placing the current call on hold. Call waiting tone can be activated or deactivated by dialing the appropriate feature number.

Conditions

- The call waiting tone is generated when an outside call (except a DISA call or doorphone call) is received, or when an extension caller executes Busy Station Signaling.
- Setting Data Line Security temporarily cancels Call Waiting which has been turned on by an extension user.
- For proprietary telephone users, two types of call waiting tone are provided to prevent them from missing the tone as shown below:
A proprietary telephone user can select the desired type by Station Programming.



Programming References

Section 4, System Programming
 [100] Flexible Numbering, Call waiting set / cancel
Station Programming User Manual
 Call Waiting Tone Type Assignment

Feature References

Section 3, Features
 Busy Station Signaling (BSS)

Operation References

-User Manual

DPT Features, Standard Telephone Features
 Call Waiting

Call Waiting from Central Office

| | |
|---|--|
| Description | During a conversation, a call waiting tone offered by your Central Office informs the user of another incoming call that is waiting. He or she can answer the second call by placing the current call on hold. |
| Conditions | None |
| Programming References | No programming required. |
| Feature References | None |
| Operation References -User Manual | DPT Features, Standard Telephone Features Call Waiting from Central Office |

Class of Service (COS)

Description COS is used to define the features which are allowed for a group of extensions. Each extension is assigned a COS number. Eight Classes of Service are available.

Conditions

- The programmable items are shown below:
 - (1) Forwards a call to an outside party
 - (2) Transfers a call to an outside party
 - (3) Overrides Do Not Disturb of the called extension
 - (4) Account Code Entry operation – verified - all calls / verified - toll restriction override / option
 - (5) Executive Busy Override
 - (6) Executive Busy Override Deny
 - (7) Outgoing call restriction level (Day mode / Night mode) – 1 through 8
 - (8) Restriction of outside call duration
 - (9) The number of permitted dialing digits during an outside call
 - (10) Call Forwarding – Follow Me
- The extension user can use all of the COS functions of their own extension at another extension by entering a working COS password (Walking COS) .

Programming References

Section 4, System Programming
[500]–[501] Toll Restriction Level — Day / Night
[502] Extension-to-Outside Line Call Duration Limit
[503] Call Transfer to Outside Line
[504] Call Forwarding to Outside Line
[505] Executive Busy Override
[506] Executive Busy Override Deny
[507] Do Not Disturb Override
[508] Account Code Entry Mode
[601] Class of Service
[991] COS Additional Information

Feature References

Section 3, Features
Walking COS

Operation References Not applicable.

Conference

Description

The system supports three-party conference calls, including outside or inside parties. During a two-party conversation, the extension user can add a third party to their conversation, thereby establishing a conference.

Conditions

- Possible conference combinations are: 1-inside and 2-outside; 2-inside and 1-outside; and 3-inside.
- Up to six conference calls are allowed simultaneously.
- A three-party call is also established by Executive Busy Override or Privacy Release.
- When a two-party call is changed to a three-party call or vice versa, a confirmation tone is sent to all three parties. Eliminating the tone is programmable.
- The third party must have a CO button which is common to the outside line used by the original parties.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
[990] System Additional Information, Field (13)
Station Programming.....User Manual
Flexible CO Button Assignment – Conference (CONF) Button

Feature References

Section 3, Features
Conference, Unattended

Operation References -User Manual

DPT Features, Standard Telephone Features
Conference

Conference, Unattended

Description

When a proprietary telephone user is in a conference with two outside parties, the user can leave the conference to allow the other two parties to continue conversation. This is called an Unattended Conference. The user may return to the conference, if desired.

Conditions

- An Unattended Conference can be established when the extension is allowed to transfer a call to an outside line.
- **The** duration of an unattended conference is restricted by a system timer. Hold Recall results to the extension user who left **the** conference 50 seconds before the time-out. An alarm tone is generated to **both** outside parties 15 seconds before the time-out. **The** call is disconnected at the time-out unless the extension returns to the call.

Programming References

Section 4, System Programming

[206] Outside-to-Outside Line Call Duration Time

[502] Extension-to-Outside Line Call Duration Limit

[503] Call Transfer to Outside Line

Feature References

Section 3, Features

Conference

Limited Call Duration

Hold Recall

Operation References -User Manual

DPT Features

Conference, Unattended

Confirmation Tone

Description

At the end of many different functions the system confirms the success of the operation by sending a confirmation tone to the extension user through the speaker of the telephone.

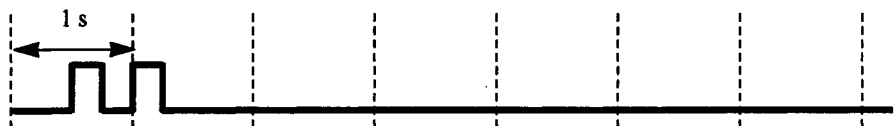
Confirmation tone 1:

- (a) Indicates that the new setting differs from the previous setting.
- (b) Set or cancel the Electronic Station Lockout.



Confirmation tone 2:

- (a) Indicates that the new setting is identical to the previous setting.
- (b) In addition, sent when various features are successfully performed or accessed. (e.g. Call Hold; Automatic Callback Busy)
- (c) Sent when accessing external paging equipment. (e.g. Paging – All; Paging – External) Confirmation tone from external pagers can be enabled or disabled.



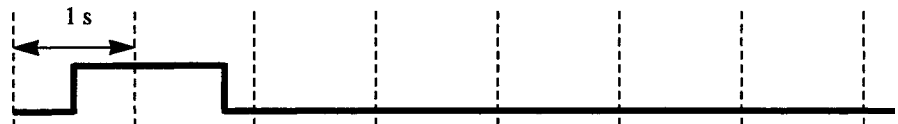
Confirmation tone 3:

Sent when a conversation is established just after dialing.

For example, when accessing the following features by the feature numbers:

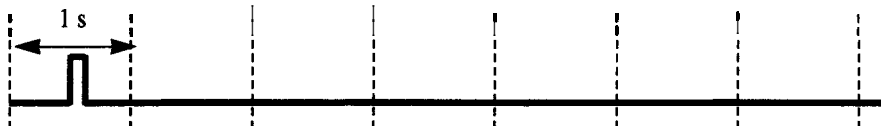
- Call Park Retrieve
- Call Pickup
- Hold Retrieve
- Paging / Paging Answer
- TAFAS Answer

This tone can be eliminated by System Programming so that the user can start talking instantly.



Confirmation tone 4:

Sent when moving from a two-party call to a three-party call, and vice versa. (These are caused by Executive Busy Override, Conference, or Privacy Release.) It is possible to eliminate this tone by System Programming.



Conditions

Confirmation Tone 1 and 2 are provided to reconfirm the assigned feature.

Programming References

Section 4, System Programming
[805] External Pager Confirmation Tone
[990] System Additional Information, Fields (13), (16)

Feature References None

Operation References Not applicable.

Consultation Hold

Description

Allows the extension user to place a call on hold temporarily to transfer it, make a Conference call, or perform Call Splitting. The held call can be retrieved from other extensions.

Conditions

- With a proprietary telephone, Consultation Hold is established by pressing TRANSFER or CONF button. With a standard telephone, it is established by pressing the hookswitch lightly.
- With a standard telephone, the user **can** hold a call only to transfer it.
- Doorphone calls and paging calls cannot be placed on Consultation Hold.
- A new incoming call will not arise at the extension which is keeping a call on Consultation Hold. The extension is regarded as busy.
- If a calling party is placed on hold, music is sent to the party, if available. (Music on Hold)
- If a call on hold is not retrieved in a specific period of time, Transfer Recall starts.
- If an outside call is placed on hold and not retrieved in 30 minutes, it is automatically disconnected.

Programming References

Section 4, System Programming

[201] Transfer Recall Time

[990] System Additional Information, Fields (2), (5)

Feature References

Section 3, Features

Call Splitting

Call Transfer, Screened – to
Extension

Call Transfer, Screened – to
Outside Line

Call Transfer, Unscreened

Conference

Conference, Unattended

Music on Hold

Operation References Not applicable.

Data Line Security

Description

Data Line Security is a function that can be set on individual extensions. Once set, communication between the extension and the other end is protected from signals such as Call Waiting, Hold Recall and Executive Busy Override. Data equipment or a facsimile may be connected to an extension jack so that the user can perform data communications. During communication, Data Line Security maintains secure data transmission against tones or interruptions from other extensions.

Conditions

- Assigning Data Line Security always offers conversation privacy unless Privacy Release is executed.
- If one extension in a conversation has set Data Line Security, it applies to the both extensions.

Programming References

Section 4, System Programming
[100] Flexible Numbering, Data line security

Feature References

None

Operation References - User Manual

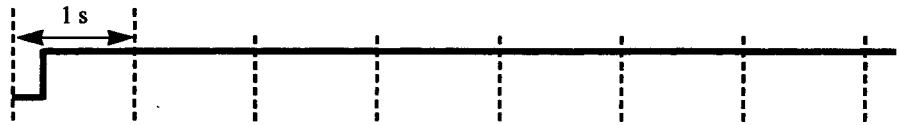
DPT Features, Standard Telephone Features
Data Line Security

Dial Tone, Distinctive

Description

Four types of dial tone patterns are available to give information about features activated on the telephone set.

Dial tone 1: Normal dial tone. None of the features, listed below are activated.



Dial tone 2: Emitted when any one of the features below are set.

- Absent Message Capability
- Background Music (BGM) (for proprietary telephones only)
- Call Forwarding
- Call Pickup Deny
- Call Waiting
- Data Line Security
- Do Not Disturb (DND)
- Electronic Station Lockout
- Executive Busy Override Deny
- Pickup Dialing
- Timed Reminder



Dial tone 3: Emitted when performing Account Code Entry. Also sounds when answering Timed Reminder call.



Dial tone 4: Emitted when messages are waiting for extension.



Conditions None

Programming References No programming required.

Feature References None

Operation References Not applicable.

Dial Type Selection

Description

Allows you to select the desired dialing mode for each outside line regardless of originating call extension (rotary or tone).

There are three dialing modes available:

DTMF (Dual Tone Multi-Frequency) Mode

The dialing signal from an extension, either tone or rotary, is converted to tone dialing. DTMF signals are transmitted to the outside line.

Pulse Dial (Rotary) Mode

The dialing signal from an extension, either tone or rotary, is converted to rotary dialing. Rotary pulses are transmitted to the outside line.

Call Blocking Mode

Set this mode on outside lines that can receive both tone and rotary, but under contract with the Central **Office** for rotary only. When dialing to a line using a touch-tone telephone, only rotary is sent to the Central Office.

Conditions

- It is possible for the extension user to temporarily convert the pre-assigned rotary dialing mode to DTMF mode (Pulse to Tone Conversion). DTMF mode cannot be changed to rotary.
- In case an outside line can receive both DTMF and pulse signals and is contracted for **DTMF** with a Central Office, DTMF mode should be selected for the line. If it is contracted for rotary mode, Call Blocking mode should be selected for the line.
- If a line is assigned Pulse Dial mode, select an appropriate pulse speed, pulse break ratio, and inter-digit pause for the line, if necessary. If a line is assigned DTMF, select an appropriate DTMF duration for the line, if necessary.
- After a held call is retrieved, the dial mode goes back to the one originally programmed on the outside line.

Programming References

Section 4, System Programming

[402] Dial Mode Selection

[403] Pulse Speed Selection

[404] DTMF Time

[990] System Additional Information, Fields (17), (21)

Feature References **Section 3, Features**

End-to-End DTMF Signaling
(Tone Through)

Pulse to Tone Conversion

Operation References Not applicable.

Direct In Lines (DIL)

Description

Enables an incoming outside call to go directly to one or more answering points.

DIL 1: 1 puts an incoming outside call to a single destination.

Assignable destinations are: (1) extension; (2) external pager; or (3) DISA message. This outside line can be used by multiple extension users to make calls but can be used by only one extension to receive calls.

DIL 1:N puts an incoming outside call to multiple destinations.

Assignable destinations are extensions only. This outside line can be used by multiple extension users to make and receive calls.

Both DIL 1: 1 and 1 :N can have different destinations for day and night modes (Night Service).

Conditions

- If an outside line is programmed for both DIL 1: 1 and DIL 1 :N, it is regarded as a DIL 1:1 line.
- DIL 1:1 to an external pager causes the pager to sound when receiving incoming calls (TAFAS feature). DIL 1: 1 to DISA message allows an external caller to access the system directly (DISA feature).

Programming References

Section 4, System Programming

[407]–[408] DIL 1: 1 Extension — Day / Night

[603]–[604] DIL 1 :N Extension and Delayed Ringing — Day / Night

Feature References

None

Operation References Not applicable.

Direct Inward System Access (DISA)

Description

External callers can call extensions in the system. An outgoing message greets the caller and gives information about how to access an extension.

An outgoing message can be recorded by the operator or manager. External callers can also call extensions using a pre-assigned one digit number (DISA built-in auto attendant number).

Conditions

- . The following items are required for the DISA feature:
 - (1) An optional Caller ID / DISA / FAX Detection Card must be installed.
 - (2) The Floating Station number of the DISA message should be assigned as the DIL 1: 1 destination. This assigns the DISA line and the message accessed by external callers.
 - (3) The DISA message should be recorded by the operator or manager.
- A DISA call is answered after a **ringback** tone is returned to the caller after the DISA Delayed Answer Time expires. The caller can dial during the message.
- The floating number of a DISA message may be selected as the destination of Intercept Routing.
- This system can store up to nine programmable DISA built-in auto attendant numbers. Each number must be one digit.
- The DISA built-in auto attendant number may be the same as the first digit of other numbers (extension number, floating number, etc.). To avoid confusion, the system waits for the second digit for a preprogrammed amount of time (default: 1 second). If the timer expires, the system assumes that the first digit is a DISA built-in auto attendant number.
- The outgoing message time is 16 seconds.

Connection References

Section 2, Installation

2.4.2 4-SLT Extension Expansion Card / Caller ID/DIM/FAX Detective Card Installation

Programming References

Section 4, System Programming

To enable DISA feature

[100] Flexible Numbering, Outgoing message

[405] CPC Signal Detection Incoming Set

[407]–[408] DIL 1: 1 Extension — Day / Night

[415] CPC Signal Detection Outgoing Set

[815] DISA Built-in Auto Attendant

[990] System Additional Information, Fields (31), (32), (34)

To set DISA timer values

[213] DISA Delayed Answer Time

[218] DISA AA Wait Time

To enable the Intercept Routing feature

[203] Intercept Time

[409]–[410] Intercept Extension — Day / Night

Feature References

Section 3, Features

Intercept Routing

Outgoing Message (OGM)

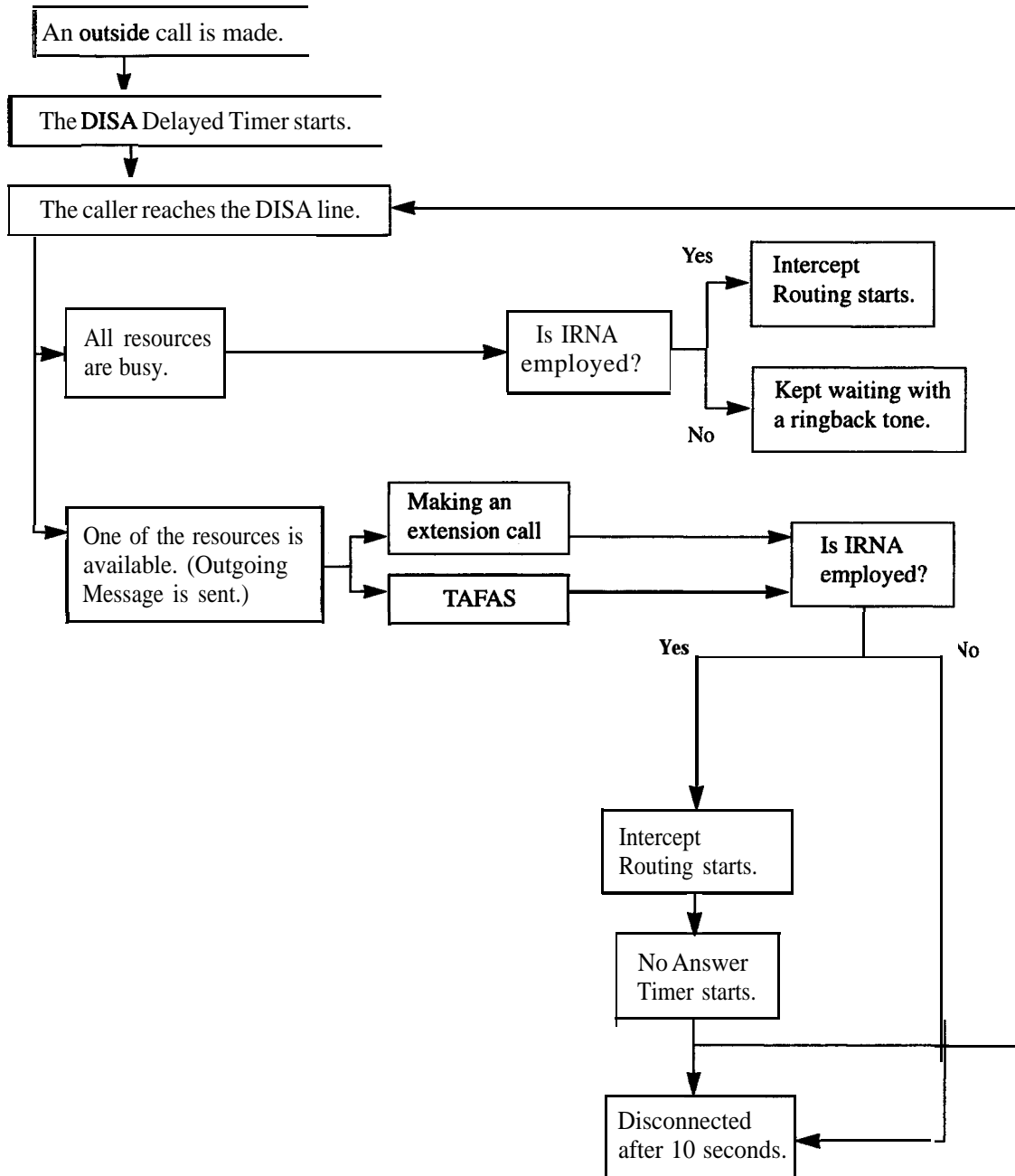
Operation References

-User Manual

DPT Features, Standard Telephone Features

Direct Inward System Access (DISA)

Flow chart of possible cases and results for DISA calls



Display, Call Information

Description

The display proprietary telephone shows the user the following call information:

Extension number and name

These are shown when calling or when called by an extension user and during an established intercom call.

A display example: **12: Smith**

Dialed telephone number

This is shown when dialing the telephone number.

A display example: 91234567890

Number or name of the caller

These are shown if the Caller ID feature is available.

Display examples: CO 3: 1234567890

CO 3: Panasonic

Outside Line number and name

This is shown when receiving an outside call.

A display example: CO 3: **AB COMPANY**

Call duration

This is shown during an established outside call. The display remains for five seconds after the call is finished.

A display example: CO 2 **0:02'28**

Conditions

- Extension numbers and names are programmable. If no extension name is stored, only the extension number is displayed.
- The display shows no intercom call duration.
- The outgoing outside call duration starts when the programmable timer expires.

Programming References

Section 4, System Programming

[003] Extension Number Set

[004] Extension Name Set

[212] Call Duration Count Start Time

[417] Outside Line Name Assignment

Feature References

Section 3, Features

Caller ID

Operation References

Not applicable.

Display, in Idle

Description Offers the display proprietary telephone user a display of either the present time and date or the self-extension number and name. This is displayed while on-hook.

Conditions

- There are two display types:
Display example 1: Day of the week, Month, Day, Time (AM / PM)

TUE MAY16 12:00P

Display example 2: self-extension number, name

12: Tony Viola

- Pressing “*” while on-hook allows you to alternate the display.
- The current date and time are set by System Programming.

Programming References

Section 4, System Programming
[000] Date and Time Set

Feature References None

Operation References Appendix
-User Manual Display Examples

Display, Self-Extension Number

Description Allows the display proprietary telephone user to display their own jack number and extension number in Station Programming mode.

Conditions

Display example
If the jack number is 2 and the extension number is 12:

Jack2<=>EXT12

Programming References

Station ProgrammingUser Manual
Self-Extension Number Confirmation

Feature References None

Operation References Not applicable.

Display Contrast Adjustment

Description Allows the display proprietary telephone user to adjust the display contrast.

Conditions The adjusting method depends on the type of proprietary telephone (PT) you have. For a digital PT, Soft buttons and the Volume button are used to sharpen the contrast to one of three levels. For an analog PT, a sliding lever on the telephone (CONTRAST selector) is used to select one of three available levels.

Programming References

Configuration User Manual
Display Contrast Adjustment (KX-T7230 and KX-T7235 only)

Feature References None

Operation References Not applicable.

Do Not Disturb (DND)

Description Allows an extension user to appear busy to incoming outside or extension calls. This can be set or canceled by the extension user.

- Conditions**
- If your proprietary telephone (PT) is not supplied with the **FWD/DND** button, it can be assigned on a flexible button.
 - DND does not work for the following calls: recalls for hold / Timed Reminder alarm or calls directed by Intercept Routing.
 - A PT user in DND mode can answer a call by pressing the button showing the arrival of the call.
 - An extension in DND mode can be called by other extension users who are allowed to override DND in their Class of Service (Do Not Disturb Override).
 - Both the Call Forwarding and DND functions can be set at the same time, but cannot work at the same time.
 - Pressing the **FWD/DND** button while on-hook allows the user to enable or disable the Call Forwarding or DND function. If the user sets both functions, alternating the mode is also available by pressing the **FWD/DND** button.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
[100] Flexible Numbering, Call forwarding / do not disturb
Station Programming User Manual
Flexible CO Button Assignment – **FWD/DND** Button

Feature References **Section 3, Features**
Do Not Disturb (DND) Override

Operation References **DPT Features, Standard Telephone Features**
-User Manual Do Not Disturb (DND)

Do Not Disturb (DND) Override

Description

Permits the pre-assigned extension user to call another user who has set the Do Not Disturb feature. Dialing “1” enables the caller to override the DND programmed on the called extension’s telephone and causes the telephone to ring.

Conditions

Class of Service (COS) programming determines the extension users who can perform DND Override.

Programming References

Section 4, System Programming
[507] Do Not Disturb Override

Feature References

Section 3, Features
Do Not Disturb (DND)

Operation References -User Manual

DPT Features, Standard Telephone Features
Do Not Disturb (DND) Override

Door Opener

Description **Allows** the extension users to unlock the door for a visitor from their telephones. The door can be unlocked by extension users who have been programmed to receive doorphone calls. However, while engaged on a doorphone call, any extension user can open the door from the telephone to let the visitor in.

- Conditions**
- It is necessary to install a user-supplied door opener on the door to be opened. One door opener can be installed.
 - The door opener will open the door even if a doorphone is not installed.

Connection References
 Section 2, Installation
 2.4.3 Doorphone and Door Opener Connection

Programming References
 Section 4, System Programming
 [100] Flexible Numbering, Door opener
 [607]–[608] Doorphone Ringing Assignment — Day / Night

Feature References **Section 3, Features**
 Doorphone Call

Operation References **DPT Features, Standard Telephone Features**
-User Manual Doorphone Call

Doorphone Call

Description

If a visitor presses the doorphone button, pre-assigned extensions are rung. The extension who answers the call can talk to the visitor. It is possible for any extension user to call- a door-phone.

Conditions

- One doorphone can be installed.
- It is necessary to program the extensions that can receive calls from each doorphone during day **and** night mode.
- If no extension user answers an incoming door-phone call within 30 seconds, the call stops ringing and is canceled.
- While engaged on a doorphone call, any extension user can open the door from the telephone to let the visitor in (Door Opener). This requires a user-supplied door opener.
- If the doorphone call is placed on hold, the Music on Hold is not available.

Connection References

Section 2, Installation

2.4.3 Doorphone and Door Opener Connection

Programming References

Section 4, System Programming

[100] Flexible Numbering, Doorphone call

[607]–[608] Doorphone Ringing Assignment — Day / Night

Feature References

Section 3, Features

Door Opener

Operation References

DPT Features, Standard Telephone Features

-User Manual

Doorphone Call

Electronic Station Lockout

Description

Allows the extension user to lock their station so that other users cannot make outgoing outside calls. Any 3-digit numeric code can be used to lock the station. The same code is used to unlock it.

Conditions

- Making intercom calls and receiving intercom or outside calls are permitted on the locked station.
- Remote Station Lock Control overrides Electronic Station Lockout. If the operator or manager sets Remote Station Lock on a station that has already been locked by the station user, the user cannot unlock it.
- It is programmable to allow the press of the FLASH button during an outside call on the locked station.

Programming References

Section 4, System Programming
[100] Flexible Numbering, Electronic station lockout
[990] System Additional Information, Field (15)

Feature References

Section 3, Features
Remote Station Lock Control

Operation References

-User Manual

DPT Features, Standard Telephone Features
Electronic Station Lockout

Emergency Call

Description

Allows the extension user to dial out a pre-assigned emergency number after seizing the outside line.

Conditions

- Up to ten emergency numbers can be stored. “911” is already stored by the default setting.
- Emergency number is allowed to call even in the following cases;
 - in Account Code – Verified (All Calls, Toll Restriction Override) mode
 - in any toll restriction level
 - in Electronic Station Lockout

Programming References

Section 4, System Programming
[334] Emergency Dial Number Set

Feature References

None

Operation Reference -User Manual

DPT Features, Standard Telephone Features
Emergency Call

End-to-End DTMF Signaling (Tone Through)

Description

DTMF signaling is required for access to special network services offered by some telephone companies. This system allows the proprietary telephone user to send DTMF signals to the line during an established call.

Conditions

- If the dial type of the line is assigned to DTMF, Tone Through mode is established automatically after the dialing sequence is finished and the call is established.
- If the dial type of the line is assigned to dial pulse, Tone Through mode is established after the dialing sequence is finished and the “*#” buttons are pressed (Pulse to Tone Conversion).
- This function also applies to extension and conference calls.

Programming References

No programming required.

Feature References

Section 3, Features
Dial Type Selection

Pulse to Tone Conversion

Operation References

Not applicable.

Executive Busv Override – Extension

Description

Allows the pre-assigned extension user to interrupt an existing extension call, either between two inside parties or between an outside and an inside party, to establish a three-party conference call. It is possible for extension users to prevent **this** function from being executed by another extension user (Executive Busy Override Deny).

Conditions

- Class of Service programming determines the extension users who can perform Executive Busy Override and Executive Busy Override Deny.
- This feature does not work if the extension has set Executive Busy Override Deny or Data Line Security.
- When a two-party call is changed to a three-party call and vice versa, a confirmation tone is sent to all three parties. This tone can be eliminated by System Programming.

Programming References

Section 4, System Programming
[100] Flexible Numbering, Executive busy override deny
[505] Executive Busy Override
[506] Executive Busy Override Deny
[990] System Additional Information, **Field** (13)

Feature References

Section 3, Features
Conference

Operation References -User Manual

DPT Features, Standard Telephone Features
Executive Busy Override — Extension

Executive Busy Override – Outside Line

Description

Allows the proprietary telephone user to interrupt an existing outside call, either between two outside parties or between an outside and an inside party, to establish a three-party conference call. It is possible for extension users to prevent this function from being executed by another extension user (Executive Busy Override Deny).

Conditions

- Class of Service programming determines the extension users who can perform Executive Busy Override and Executive Busy Override Deny.
- The pre-assigned extension users can interrupt any outside line even if access to the line is not allowed by System Programming.
- This feature does not work if the extension has set Executive Busy Override Deny or Data Line Security.
- When a two-party call is changed to a three-party call and vice versa, a confirmation tone is sent to all three parties. This tone can be eliminated by System Programming.

Programming References

Section 4, System Programming

[100] Flexible Numbering, Executive busy override deny

[505] Executive Busy Override

[506] Executive Busy Override Deny

[990] System Additional Information, Field (13)

Feature References

Section 3, Features

Conference

Operation References

-User Manual

DPT Features

Executive Busy Override — Outside Line

3 Features

Extension Group

Description The system supports eight extension groups. Any member of an extension group can pick up a call directed to another group member (Group Call Pickup) or can make a voice announcement to another group member (Paging – Group). In addition, the Station Hunting function can be enabled for each extension group.

- Conditions**
- Every extension should belong to an extension group but cannot belong to more **than** one group.
 - A floating number can be assigned to each extension group.

Programming References

- Section 4, System Programming
- [106] Station Hunting Type
- [602] Extension Group Assignment
- [813] Floating Number Assignment

Feature References

- Section 3, Features
- Call Pickup, Group Station Hunting
- Paging – Group

Operation References Not applicable.

External Feature Access

Description

Allows the extension user to have access to the features of a host PBX, **Centrex** or Central Office, such as Call Waiting, etc. This is performed by putting the current party on hold and sending a flash signal.

Conditions

- This feature is effective only during an outside call. However if the FLASH feature (Disconnection signal) is activated by System Programming, this feature does not work.
- The flash time must be assigned as required by the **Centrex**, host PBX or outside line.
- With a proprietary telephone, the FLASH button or the feature number is used to perform this function. With a standard telephone, the feature number cannot be used when the user already has a Consultation Hold.
- During outside calls, a FLASH stored in System Speed Dialing, Station Speed Dialing or One-Touch Dialing functions as External Feature Access, not as Flash.

Programming References

Section 4, System Programming
[100] Flexible Numbering, External feature access
[413] Flash Time
[990] System Additional Information, Field (3)

Feature References

Section 3, Features
Flash Host PBX Access

Operation References

-User Manual

DPT Features, Standard Telephone Features
External Feature Access

Extra Device Port (XDP)

Description

EXtra Device Port (XDP) expands the number of telephones available in the system by allowing an extension jack to contain two telephones. A digital proprietary telephone (DPT) and a standard telephone can be connected to the **same** jack but have different extension numbers so that they can act as completely different extensions.

Conditions

- XDP requires previous programming of the individual jack. Enable XDP mode for the desired jack by System Programming. Immediately after changing the assignment, the changed setting may not work for a maximum of eight seconds.
- If an analog proprietary telephone (APT) and a standard telephone are connected to an XDP-enabled jack, neither telephones will work.
- If XDP is disabled for the jack, DPT and a standard telephone may be used as Paralleled Telephones. APT and a standard telephone also can be used as Paralleled Telephones.

Connection References

Section 2, Installation

2.3.5 EXtra Device Port (XDP) Connection

Programming References

Section 4, System Programming

[600] EXtra Device Port

Feature References

Section 3, Features

Paralleled Telephone

Operation References Not applicable.

Facsimile Detection

Description When the system receives a facsimile transmission signal by Direct Inward System Access (DISA), it automatically connects the specified facsimile extension.

- Conditions**
- It is required to assign **the** extension which can receive the facsimile data by System Programming.
 - An optional Caller ID / DISA / FAX Detection Card must be installed.

Connection References

Section 2, Installation

2.4.2 4-SLT Extension Expansion Card / Caller ID/DIM/FAX Detection Card Installation

Programming References

Section 4, System Programming

[129] Facsimile Transmission Extension

Feature References

Section 3, Features

Direct Inward System Access (DISA)

Operation References None

Flash

Description

The FLASH button is used to allow a proprietary telephone user to disconnect the current call and originate another call without hanging up first.

Conditions

- If External Feature Access is enabled by System Programming, this function does not work for an outside call.
- Pressing the FLASH button re-starts the conversation duration, outputs an SMDR record, inserts the automatic pause, and checks toll restriction level again.

Programming References

Section 4, System Programming

[414] Disconnect Time

[990] System Additional Information, Fields (3), (39)

Feature References

Section 3, Features

External Feature Access

Operation References

-User Manual

DPT Features

Flash

Flexible Numbering

Description

The numbers used for the access codes of system features and the numbers used for extension numbers are not fixed. They can be set as required, provided there are no conflicts. Feature numbers can be from one to three digits, utilizing numbers “0 through 9” as well as “*” and “#”. Extension numbers can be two to four digits in length. Any number can be set as the leading first or second digit. If one digit is assigned as the leading digit, some extensions have 2-digit numbers and some have 3-digit numbers. If two digits are assigned as the leading digits, some have 3-digit numbers and some have 4-digit numbers.

Flexible Feature Numbers

| NUMBER | FEATURE | DEFAULT |
|---------|--|---------|
| 01 | 1 st hundred extension block | 1 |
| 02 | 2nd hundred extension block | 2 |
| 03 – 16 | 3rd through 16th hundred extension block | None |
| 17 | Operator call | 0 |
| 18 | Automatic line access / ARS | 9 |
| 19 | Outside line access | 8 |
| 20 | System speed dialing | * |
| 21 | Station speed dialing | 3* |
| 22 | Station speed dialing programming | 30 |
| 23 | Doorphone call | 31 |
| 24 | Paging – external | 32 |
| 25 | Paging – external answer / TAFAS answer | 42 |
| 26 | Paging – group | 33 |
| 27 | Paging – group answer | 43 |
| 28 | Call pickup , outside line | 4* |
| 29 | Call pickup, group | 40 |
| 30 | Call pickup , directed | 41 |
| 31 | Call hold | 50 |
| 32 | Call hold retrieve – intercom | 51 |
| 33 | Call hold retrieve – outside line | 53 |
| 34 | Last number redial | # |
| 35 | Call park / call park retrieve | 52 |
| 36 | Account code entry | 49 |
| 37 | Door opener | 55 |
| 38 | External feature access | 6 |
| 39 | Station feature clear | 790 |
| I 40 | Message waiting | I 70 I |
| 41 | Outgoing message | 36 |

3 Features



Flexible Feature Numbers (contd)

| NUMBER | FEATURE | DEFAULT |
|---------|----------------------------------|---------|
| 42 | Call forwarding / do not disturb | 710 |
| 43 | Call pickup deny | 720 |
| 44 | Data line security | 730 |
| 45 | Call waiting | 731 |
| 46 | Executive busy override deny | 733 |
| 47 | Pickup dialing | 74 |
| 48 | Answer message | 750 |
| 49 | Timed reminder | 76 |
| 50 | Electronic station lockout | 77 |
| 51 | Night service mode | 78 |
| 52 | Parallel telephone mode | 39 |
| 53 | Background music – external | 35 |
| 54† | LCS password | 799 |
| 55 | Call log, incoming | 56 |
| 56 | Call log lock, incoming | 57 |
| 57 | Timed reminder, remote | 7* |
| 58 | Log-in / log-ou | 45 |
| 59 | Automatic callback busy cancel | 46 |
| 60 | Walking COS | 47 |
| 61 | Reserved | — |
| 62 | System working report | 794 |
| 63 – 70 | Quick dial location numbers 1-8 | None |
| 71 | Reserved | None |

Default feature numbers are shown above.

In addition to the flexible feature numbers above, fixed feature numbers are provided.

†: Available when the Digital Super Hybrid System is connected to a Digital Proprietary Telephone capable Panasonic Voice Processing System (one that supports digital proprietary telephone integration; e.g. KX-TVS 100).

Fixed Feature Numbers

| FEATURE | DEFAULT |
|---|---------|
| While busy tone is heard | |
| Automatic Callback Busy | 6 |
| Busy Station Signaling (BSS) | 1 |
| Executive Busy Override | 2 |
| Off-Hook Call Announcement (OHCA) | 1 |
| While Do Not Disturb tone is heard | |
| Do Not Disturb Override | 1 |
| While calling or talking | |
| Account Code Delimiter | # / 99 |
| Alternate Calling – Ring / Voice | * |
| Conference | 3 |
| Door Open | 5 |
| Pulse to Tone Conversion | * # |
| When the set is on-hook | |
| Background music on / off | 1 |
| Day / night mode display | # |
| Date and time display / self-extension number and name display switching | * |

Conditions

- Flexible feature numbers can only be dialed during dial tone.
- The following are examples of feature number conflicts:
Examples: 1 and **11**, 0 and **00**, 2 and **21**, 10 and **101**, 32 and 321, etc.
- Some flexible feature numbers require additional digits to make the feature active. For example, to set Call Waiting, the feature number for “Call Waiting” must be followed by “1” and to cancel it, the same feature number should be followed by “0”.

Programming References

Section 4, System Programming
[003] Extension Number Set
[100] Flexible Numbering

Feature References None

Operation References Not applicable.

Floating Station

Description

You can assign virtual extension numbers for resources to make them appear as extensions. These numbers are defined as floating numbers (FN). The following resources can have floating numbers:

- (1) External paging instruments: used for **TAFAS** feature.

One **FN** is available.

The FN can be assigned as:

- a) **DIL** 1: 1 destination
- b) DISA destination
- c) Intercept Routing destination

- (2) Extension groups: used for Station Hunting feature.

Eight **FNs** are available.

These **FNs** can be assigned as:

- a) DIL 1: 1 destination
- b) DISA destination
- c) Intercept Routing destination
- d) Intercom call destination

- (3) DISA message: used for DISA feature. One FN is available.

The FN can be assigned as:

- a) **DIL** 1: 1 destination
- b) Intercept Routing destination

Conditions

Floating numbers cannot be used for setting a feature such as Call Forwarding, etc.

Connection References

Section 2, Installation

2.4.2 **4-SLT** Extension Expansion Card / Caller ID/DISA/FAX Detection Card Installation

Programming References

Section 4, System Programming

[100] Flexible Numbering, 1st through 16th hundred extension blocks

[813] Floating Number Assignment

Feature References

None

Operation References. Not applicable.

Full One-Touch Dialing

Description

Allows the proprietary telephone user to make a call or have access to a system service with one button. There is no need to turn the SP-PHONE / MONITOR button on before pressing the button, which is required for One-Touch Dialing. The handsfree operation is automatically provided by pressing an One-Touch Dialing button, DSS button, **REDIAL** button or SAVE button.

Conditions

- It is necessary to program automatic handsfree dial mode.
- This feature is also available with DSS buttons on a DSS Console.
- This feature is also available with the large display operation of **KX-T7235** (Special Features of the **KX-T7235**).

Programming References

Station programming User Manual
 Full One-Touch Dialing Assignment

Feature References

Section 3, Features
 Button, Direct Station
 Selection (DSS)
 One-Touch Dialing

Redial, Last Number
 Reclial, Saved Number
 Special Features of the **KX-T7235**

Operation References **DPT Features**

-User Manual Full One-Touch Dialing

Handset / Headset Selection

Description The system supports the use of headsets on proprietary telephones.

- Conditions**
- The headset is an user supplied item.
 - To set headset mode on a digital proprietary telephone (PT), use Station Programming. To set headset mode on an analog PT, use the handset / headset selector provided on the set and / or on the headset.

Programming References

Station Programming.....User Manual
Handset/Headset Selection

Feature References None

Operation References None

Handsfree Answerback

Description

Allows the speakerphone telephone user to talk to a caller without lifting the handset, if the user has set handsfree answerback mode. If the user receives an intercom call in this mode, handsfree conversation is established immediately after the user hears a beep tone and the caller hears a confirmation tone.

Conditions

- Handsfree answerback mode is set or canceled by pressing the AUTO ANSWER button.
- This feature does not work for calls from outside parties or doorphone calls.
- Handsfree Answerback set on a telephone overrides the Ring / Voice Intercom Alerting mode preset on the telephone; Handsfree conversation mode is established as soon as a confirmation tone is sent.

Programming Reference

No programming required.

Feature References

Section 3, Features
Alternate Calling – Ring / Voice

Operation References

DPT Features
-User Manual Handsfree Answerback

Handsfree Operation

Description

Allows the proprietary telephone user to dial and to talk to the other party without lifting the handset. Pressing an appropriate button provides handsfree mode.

Conditions

- This function can be utilized by pressing a button listed below when the SP-PHONE / MONITOR button indicator is off:
SP-PHONE button; MONITOR button; INTERCOM button; CO button
- The **KX-T7050** and the **KX-T7250** can be used for handsfree dialing operations, etc., but cannot be used for a handsfree conversation.
- A single press of an One-Touch Button, DSS button, REDIAL button or a SAVE button also provides the handsfree mode if Full One-Touch Dialing is activated.

Programming References

No programming required.

Feature References

Section 3, Features
Full One-Touch Dialing

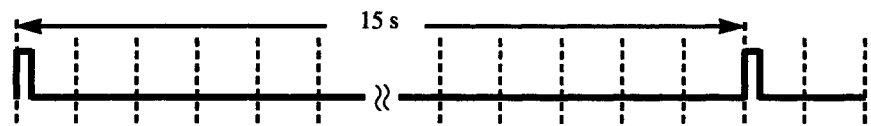
Operation References **DPT Features**

-User Manual Handsfree Operation

Hold Recall

Description

Prevents a call on hold from being kept waiting longer than a pre-determined time. If the timer expires, ringing or an alarm tone is generated as a reminder to the user who held the call. If the user is on-hook and its speaker-phone is off, the phone will ring. If the user is off-hook or in speakerphone mode when the timer expires, an alarm tone is sent from the built-in speaker of a proprietary telephone (PT) or from the handset receiver of a standard telephone at **15-second** intervals.



Conditions

- Hold Recall can be disabled by programming.
- The display PT flashes the indication of the held party for five seconds at **15-second** intervals synchronized with the tone.
- Alarm tone is sent as follows:

Programming References

Section 4, System Programming
[200] Hold Recall Time

Feature References

Section 3, Features

Call Hold – Intercom
Call Hold – Outside Line

Call Hold, Exclusive – Intercom
Call Hold, Exclusive – Outside
Line

Operation References Not applicable.

Host PBX Access

Description

The system may be installed behind an existing host PBX. This is performed by connecting a line from the host to an outside line in the Digital Super Hybrid System.

Conditions

- To enable Host PBX Access, put the host PBX line in an outside line group. The user accesses the host PBX by selecting that outside line.
- A Host PBX Access Code is required to access outside lines of the host PBX.
- A pause, if programmed, can be inserted between the user-dialed Host PBX Access Code and the following digits (Automatic Pause Insertion). Program the pause time required by the Host PBX for that outside line group.
- Access to the host PBX during a conversation is also possible (External Feature Access).

Programming References

Section 4, System Programming

[411] Host PBX Access Codes

[412] Pause Time

Feature References

Section 3, Features

External Feature Access

Pause Insertion, Automatic

Operation References Not applicable.

Intercept Routing

Description

Provides automatic redirection of incoming **outside** calls. There are two types of Intercept Routing. In the first case, a call cannot be placed on the called party. This is called Rerouting. In the second case, the call is not answered within a programmed time period. This is called Intercept Routing – No Answer (IRNA).

Conditions

- Intercept Routing applies to DIL 1: 1, DIL 1 :N, DISA, TAFAS, Call Forwarding, and Station Hunting.
- The final destination of intercepted calls must be programmed for day and for night modes. There are three possible destinations:
 - 1) an extension
 - 2) an external pager
 - 3) a DISA outgoing message
- If the destination is in Do Not Disturb, Do Not Disturb does not function and the call is placed there.

Programming References

Section 4, System Programming

[203] Intercept Time

[409]–[410] Intercept Extension — Day / Night

Feature References

None

Operation References

Not applicable.

Intercom Calling

Description Allows the extension user to call another extension user within the system.

- Conditions**
- Extension numbers are assigned to all extensions by System Programming. An extension number is programmed to be two, three, or four digits.
 - Names can be given to extension numbers by System Programming. An extension number and a name, if programmed, is shown on the display PT during an intercom call.
 - DSS buttons permit one-touch access to an extension and provide Busy Lamp Field.
 - **KX-T7235** user can make an extension call with an extension dialing directory on the display.
 - After dialing an extension number, the user will hear one of the following:
 - **Ringback** tone: indicates the other extension is being called.
 - Confirmation tone: indicates the user can perform Voice Calling.
 - Busy tone: indicates the other extension is busy.
 - Do Not Disturb tone: indicates the other extension has DND assigned.

Programming References

- Section 4, System Programming**
- [003] Extension Number Set
- [004] Extension Name Set
- [005] Flexible CO Button Assignment
- [100] Flexible Numbering, 1st through 16th hundred extension blocks
- Station Programming** User Manual
- Flexible CO Button Assignment – DSS Button

Feature References

- Section 3, Features**
- Busy Lamp Field Button, Direct Station Selection (DSS)

Operation References

- DPT Features, Standard Telephone Features**
- User Manual Intercom Calling

LED Indication, Intercom

Description

The LED (Light Emitting Diode) indicator of the INTERCOM button indicates the line condition with a variety of lighting patterns. This allows the user to see the current state of the intercom line. The table below shows the lighting patterns and the intercom line conditions.

| INTERCOM Button | Intercom Status |
|-------------------------|--|
| Off | Idle |
| Green On | Intercom call / Conference established |
| Green slow flashing | Intercom call hold |
| Green moderate flashing | Intercom call exclusive hold / Consultation hold |
| Green rapid flashing | Incoming intercom / doorphone call |

Conditions

None

Programming References

No programming required.

Feature References

Section 3, Features
Busy Lamp Field

Operation References

Not applicable.

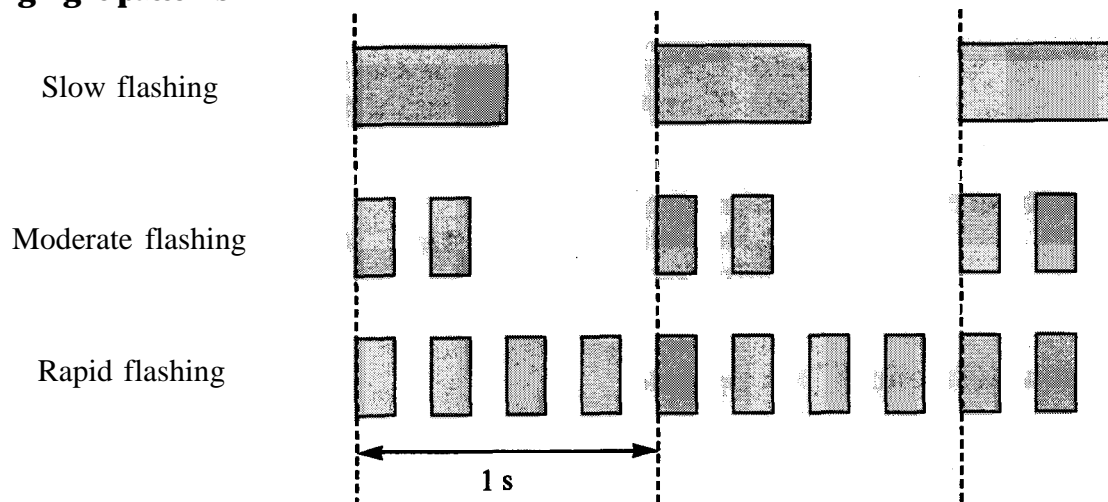
LED Indication, Outside Line

Description

The LED (Light Emitting Diode) indicators of the buttons associated with outside lines show the line conditions with a variety of lighting patterns. This allows the user to see which lines are idle and which lines are in use. The table below shows the lighting pattern for different line conditions.

| LED Indicator | Outside Line Status |
|-------------------------|---|
| Off | Idle |
| Green On | I-use |
| Green slow flashing | I-hold |
| Green moderate flashing | I-Exclusive Hold / Outside-to-outside line call / Unattended Conference |
| Green rapid flashing | Hold Recall / Privacy Release possible / Incoming call |
| Red On | Other-use / Log-Out |
| Red slow flashing | Other-hold |

Flashing light patterns



Conditions

- Red slow flashing indication appears on the S-CO button only.
- The indication of Privacy Release appears on the S-CO button only.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

Station Programming.....User Manual

Flexible CO Button Assignment – Loop-CO (L-CO) Button,

Single-CO (S-CO) Button

Feature References **Section 3, Features**
Button, Loop-CO (L-CO) Button, Single-CO (S-CO)

Operation References Not applicable.

Limited Call Duration

Description Limited Call Duration is a system programmable feature that disconnects an outside call when a specified timer expires. A warning tone is sent to the extension user 15 seconds, 10 seconds, and 5 seconds before the time-limit. Limiting the call duration can be activated or deactivated by Class of Service (COS) for each extension.

Conditions

- Any outside call except outside-to-outside line call is limited by this feature. For outside-to-outside line calls, Outside-to-Outside Line Call Duration is activated.
- It is programmable to select the limited call, either incoming and outgoing call or outgoing call only.

Programming References
Section 4, System Programming
[205] Extension-to-Outside Line Call Duration Time
[502] Extension-to-Outside Line Call Duration Limit
[990] System Additional Information, Field (12)

Feature References **Section 3, Features**
Call Forwarding -to Outside Line Conference, Unattended
Call Transfer, Screened – to
Outside Line

Operation References Not applicable.

Line Access, Automatic

Description

Allows the extension user to dial the automatic line access number and access an idle line from the outside line assigned for the extension. The proprietary telephone user can use the Loop-CO button in place of the access number.

Conditions

- This feature functions with Automatic Route Selection (ARS), if ARS is activated. If so, the least expensive route is automatically selected.
- Each extension is subject to System Programming items for outside lines available to access.
- The outside line hunting sequence is determined by System Programming.
- This feature requires a CO button (L-CO or S-CO) assignment on a proprietary telephone (**PT**). Dialing the line access code selects a CO button on a **PT** according to the priority:
S-CO > L-CO (on a hunted outside line)
- If Idle Line Preference – Outgoing is set on the telephone, the user can access an idle line only by going off-hook.
- The system waits for a programmed time before dialing after an outside line is seized.

Programming References

Section 4, System Programming
[100] Flexible Numbering, Automatic line access / ARS
[103] Automatic Access Outside Line Assignment
[211] Dial Start Time
[400] Outside Line Connection Assignment
[605]–[606] Outgoing Permitted Outside Line Assignment — Day / Night

Feature References

Section 3, Features
Outside Line Connection Assignment – Outgoing

Operation References -User Manual

DPT Features, Standard Telephone Features
Outward Dialing – Line Access, Automatic

Line Access, Direct

Description

Allows the proprietary telephone user to select an outside line by pressing an idle CO button, which automatically establishes the **handsfree** operation mode and allows the user to perform On-Hook Dialing. The user need not press the SP-PHONE button, MONITOR button nor **lift** the handset.

Conditions

- There are two types of CO buttons which can be programmed on an extension: Single-CO button and Loop-CO button.
- Each extension is subject to System Programming items for outside lines available to access.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

[211] Dial Start Time

[400] Outside Line Connection Assignment

[605]–[606] Outgoing Permitted Outside Line Assignment — Day / Night

Station Programming User Manual

Flexible CO Button Assignment – Loop-CO (L-CO) Button,
Single-CO (S-CO) Button

Feature References

Section 3, Features

Button, Loop-CO (L-CO)
Button, Single-CO (S-CO)

Outside Line Connection
Assignment – Outgoing

Operation References

-User Manual

DPT Features

Outward Dialing – Line Access, Automatic / Line Access, Individual

Line Access, Individual

Description

Allows the proprietary telephone user one-button access to an outside line without having to dial a line access code.

Conditions

- Each extension is subject to System Programming items for outside lines available to access.
- This feature requires a Single-CO (S-CO) button assignment on a proprietary telephone.
- The system waits for a programmed time before dialing after an outside line is seized.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

[211] Dial Start Time

[400] Outside Line Connection Assignment

[605]–[606] Outgoing Permitted Outside Line Assignment

— Day / Night

Station Programming.....User Manual

Plexible CO Button Assignment – Single-CO (S-CO) Button

Feature References

Section 3, Features

Button, Single-CO (S-CO)

Outside Line Connection
Assignment – Outgoing

Operation References

-User Manual

DPT Features

Outward Dialing – Line Access, Individual

Line Preference – Incoming (No Line / Prime Line / Ringing Line)

Description

A proprietary telephone user can select the method used to answer incoming calls from the following three line preferences:

(1) No Line Preference

No line is selected when you go off-hook. You must select a line to answer an incoming call.

(2) Prime Line Preference

You can assign a prime line beforehand and answer a call on **that** line, when multiple calls are received simultaneously.

(3) Ringing Line Preference

When you go off-hook, you can answer the call ringing at your telephone.

Conditions

- Setting a new line preference feature cancels the previous setting.
- If Prime Line Preference is selected and an incoming call arrives from a line other than the prime line, it cannot be answered just by going **off-hook**. The Prime Line should be assigned to the Single-CO button.
- If Ringing Line Preference is selected, going off-hook does not answer a line programmed for “no ring” even though there is an incoming call. Going off-hook during the delay time does not answer a line programmed for “delayed ringing”.
- A standard telephone is always set to Ringing Line Preference and cannot be changed.

Programming References

Station Programming User Manual
 Preferred Line Assignment – Incoming

Feature References

None

Operation References

Basic Operation
 -User Manual Receiving Calls

Line Preference – Outgoing (Idle Line / No Line / Prime Line)

Description

A proprietary telephone user can select a desired outgoing line preference to originate calls from the following three line preferences:

(1) Idle Line Preference:

When you go off-hook, you are connected to an idle line. An idle line is automatically selected from the pre-assigned lines.

(2) No Line Preference:

No line is selected when you go off-hook. You must select a line to make a call.

(3) Prime Line Preference:

When you go off-hook, you are connected to the pre-assigned line. Assign a line as your prime line beforehand.

Conditions

- Setting a new line preference feature cancels the previous setting.
- To set Prime Line Preference, one prime line is selected from intercom or outside lines.
- The outside lines used by users must be connected by programming.
- To select Idle Line Preference, outside lines available for the user should be programmed. Also outside lines available for Automatic Line Access should be assigned.
- The user can override the Idle / Prime Line Preference temporarily to select a specific line. To select it, press the desired line access button (INTERCOM or CO button) before going off-hook or pressing the **SP-PHONE / MONITOR** button; or if Full One-Touch Dialing is enabled, press One-Touch Dialing, DSS, REDIAL, or SAVE button.

Programming References

Section 4, System Programming

[005] Flexible CO Button Assignment

[103] Automatic Access Outside Line Assignment

[400] Outside Line Connection Assignment

[605]–[606] Outgoing Permitted Outside Line Assignment — Day / Night

Station Programming.....User Manual

Flexible CO Button Assignment – Loop-CO (L-CO) Button,
Single-CO (S-CO) Button

Preferred Line Assignment – Outgoing

Feature References

Section 3, Features

Outside Line Connection Assignment – Outgoing

Operation References **Basic Operation**

-User Manual

Making Calls

Live Call Screening (LCS)†

Description

Allows a digital proprietary telephone user to monitor their voice mailbox while an incoming caller is leaving a message and, if desired, intercept the call. The voice mailbox can be monitored in one of two ways — Hands-free Mode or Private Mode.

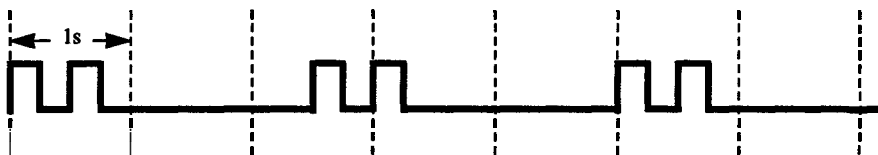
Hands-free Mode

The voice mailbox is monitored through the built-in speaker of the proprietary telephone.

Private Mode

The proprietary telephone emits an alert tone when callers are connected to the voice mailbox. To monitor the call, the user goes off hook with the handset or speakerphone.

Alert Tone



To intercept the call in either Hands-Free or Private mode, press **the** LCS button.

A standard telephone, which is connected with a proprietary telephone in parallel, can be also used to monitor a recording message. Be sure that Live Call Screening on the connected proprietary telephone has been activated.

This feature is useful when you are out with a portable handset of a cordless telephone (standard telephone). The handset emits an alert tone to let you know that a message is being recorded. To intercept the call, flash the hookswitch.

Conditions

- **When the** extension user is having a conversation, a call waiting tone is sent. **The** user can put **the** existing call on hold before accessing LCS.
- A flexible CO and DSS button **can** be assigned as a Live Call Screening button.
- To prevent unauthorized monitoring, a three-digit password must be set by **the** LCS user. If the user forgets their password, it can be cleared by the operator or manager.
- Each extension can be programmed to either close the mailbox or keep recording the conversation after the call is intercepted.

3 Features

L

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
[6 10] Live Call Screening Recording Mode Assignment
Station Programming User Manual
Flexible CO Button Assignment — Live Call Screening (LCS) Button
Live Call Screening (LCS) Cancel Button
Live Call Screening Mode Set

Feature References None

Operation References DPT Features
-User Manual Live Call Screening (LCS)

Lockout

Description If one party in a conversation goes on-hook, they are both disconnected from the speech path automatically. This feature applies to extension and outside calls. A reorder tone is sent to the off-hook party before it is disconnected.

Conditions In the case of a standard telephone, if nothing is dialed within a certain period of time after the other party goes on-hook, a reorder tone is sent to the standard telephone and then is disconnected from the speech path.

ProgrammingReferences No programming required.

Feature References None

Operation References DPT Features, Standard Telephone Features
-User Manual Lockout

Log-In / Log-Out

Description

Assigns an extension to join (log-in) or leave (log-out) a hunting, ring or UCD group. Extensions in log-out status will not receive calls by Station Hunting but will receive other calls, unlike the DND feature.

Conditions

- There should be at least one extension that is in log-in status.
- The lighting patterns and status of the Log-In/Log-Out button are shown below.

| lighting pattern | Outside Line Status | |
|------------------|------------------------|-------------------|
| | UCD | Station Hunting |
| Red on | Log-Out | Log-Out |
| Red flashing | Log-In (waiting calls) | |
| Off | Log-In (no calls) | Log-In (no calls) |

Programming References

Section 4, System Programming

[100] Flexible Numbering, Log-in / log-out

Station Programming.....User Manual

Flexible CO Button Assignment – Log-In / Log-Out Button

Feature References

Section 3, Features

Station Hunting

Uniform Call Distribution (UCD)

Ring Group

Operation References

-User Manual

DPT Features, Standard Telephone Features

Log-In / Log-Out

Manager Extension

Description

One extension in the system can be assigned as the system manager. **This** extension can perform System Programming and the following manager services:

- Clearing the Call Log Lock
- Clearing the Live Call Screening Password
- Printing / clearing the System Working Report
- Recording and playing the outgoing message
- Switching Day / Night mode manually
- Setting / canceling / confirming the Timed Reminder (Wake-up Call) remotely
- Setting / clearing the Remote Station Lock
- Setting the Background Music – External on and off

Conditions

- Besides the manager extension, the extension that is connected to jack 1 is able to perform System Programming.
- If eXtra Device Port mode is activated at the manager extension, the proprietary telephone user is regarded as the manager.

Programming References

Section 4, System Programming
[006] Operator / Manager Extension Assignment

Feature References

None

Operation References

-User Manual

Operator / Manager Service Features

Message Waiting

Description

The system supports the ability to inform the called party of a message waiting. The user, with a MESSAGE button, knows there is a message if the LED **of the** MESSAGE button is lit red. If the button is not provided or assigned, the called party hears a special dial tone, when he / she goes off-hook. Pressing the lit MESSAGE button also means to call back the called party or listen to the messages which are stored in the mailbox of the Voice Processing System.

Conditions

- For the proprietary telephone which is provided with a no MESSAGE button, a flexible CO button can be assigned as the MESSAGE button either by System or Station Programming.
- Canceling the message can be performed from the extension sending it or **from** the extension receiving it.
- The system supports a maximum of 16 simultaneous messages.
- Messages are always left on the original extension. It is not sent to a Call Forwarding or Station Hunting destination.
- For standard telephone users, the message waiting ring tone can be generated as notification. The message waiting ring interval time is programmable by System Programming (default: 0=no ring).
- The message waiting ring type can be changed in program **[990]**, Field **(40)**.

Programming References

Section 4, System Programming
 [OOS] Flexible CO Button Assignment
 [**100**] Flexible Numbering, Message waiting
 [216] Message Waiting Ring Interval Time
 [990] System Additional Information Fields (**9**), (40)
Station Programming.....User Manual
 Flexible CO Button Assignment – Message Waiting (MESSAGE) Button

Feature References

Section 3, Features
 Dial Tone, Distinctive Voice Mail Integration

Operation References

-User Manual

DPT Features, Standard Telephone Features
 Message Waiting Voice Mail Integration

Microphone Mute

- Description** Allows the proprietary telephone user to turn off the microphone, for privacy reasons.
- Conditions**
- This is effective for the microphone only; only your voice will be muted during a handsfree conversation.
 - The user can hear the other party's voice during Microphone Mute.
- Programming References** No programming required.
- Feature References** None
- Operation References** **DPT Features**
-User Manual Microphone Mute

Mixed Station Capacities

- Description** This system supports a wide range of telephone sets, not only Digital Proprietary Telephones (DPT) and Analog Proprietary Telephones (APT) in the Digital Super Hybrid System, but also single line rotary telephones (10 pps / 20 pps, employing dial pulse signals) and single line push-button dialing telephones (touch tone). The super hybrid method used in this system allows any telephone to be connected to an extension modular jack without an adaptor.
- Conditions** If a telephone is replaced by another one, the stored data (such as feature button storage) is preserved for the new one.
- Connection References** **Section 2, Installation**
2.3.3 Extension Connection
- Programming References** No programming required.
- Feature References** None
- Operation References** Not applicable.

Music on Hold

Description

While a party is on hold, music is automatically generated.

Conditions

- Operations such as Call Hold, Exclusive Call Hold or Consultation Hold generates Music on Hold. In case of Call Transfer, it is possible to assign either Music on Hold or **ringback** tone is generated.
- It is necessary to connect a user-supplied external music source such as a radio to the system. One external music source can be connected to the system.
- The music source is used for Music on Hold and/or BGM. It is also possible to disable the Music on Hold and/or BGM.

Connection References

Section 2, Installation

2.3.8 External Music Source Connection

Programming References

Section 4, System Programming

[803] Music Source Use

[990] System Additional Information, Fields (1), (20)

Feature References

Section 3, Features

Background Music (BGM)

Operation References Not applicable.

Night Service

Description

The system supports both Night and Day modes of operation. The system operation for originating and receiving calls can be different for day and night modes. The system operation for restricting toll calls can be arranged separately to prevent unauthorized toll calls at night.

Switching of the Day / Night Mode

Day / Night mode can be switched either automatically at a pre-assigned time or manually by the operator or manager at any time desired.

Automatic Night Service: If you select automatic switching mode, your system will **switch the Day / Night mode at the programmed time** each day. The **starting time** of the Day / Night mode can be set for each day.

Manual Night Service: If you select manual switching mode, the operator or manager can switch the Day / Night mode by dialing the feature number.

Conditions

The following programming items may be assigned in a different way for the day mode and night mode:

[407]–[408] DIL 1: 1 Extension — Day / Night

[409]–[410] Intercept Extension — Day / Night

[500]–[501] Toll Restriction Level — Day / Night

[603]–[604] DIL 1 :N Extension and Delayed Ringing
— Day / Night

[605]–[606] Outgoing Permitted Outside Line Assignment
— Day / Night

[607]–[608] Doorphone Ringing Assignment — Day / Night

Programming References

Section 4, System Programming

[100] Flexible Numbering, Night service mode

[101] Day / Night Service Switching Mode

[102] Day / Night Service Starting Time

Feature References

None

Operation References

-User Manual

DPT Features, Standard Telephone Features

Night Service

Operator / Manager Service Features

Night Service On / Off

Off-Hook Call Announcement (OHCA)

Description

OHCA allows you to inform a busy extension that another call is waiting by talking through the built-in speaker of the called party's proprietary telephone. If the existing call is using the handset, the second conversation is made with the speakerphone so that the called party can talk to two parties independently. OHCA is performed the same way as Busy Station Signaling (BSS). It depends on the telephone type used by the called party whether BSS or OHCA is activated by the operation. If the called telephone is a KX-T7235, OHCA becomes active.

Conditions

- This feature works only if the called extension has set Call Waiting. If this is not set, the caller will hear a reorder tone.
- The KX-T7235 user can select to activate BSS instead of OHCA by system programming.

Programming References

Section 4, System Programming
[100] Flexible Numbering, Call waiting
[990] System Additional Information, Field (37)

Feature References

Section 3, Features
Call Waiting

Operation References

DPT Features
-User Manual Off-Hook Call Announcement (OHCA)

One-Touch Dialing

Description One-Touch Dialing offers the proprietary telephone (PT) user **one-touch** access to a desired party or system feature. This is activated by storing an extension number, telephone number or a feature number (up to 16-digits) in an One-Touch Dialing button. The number of buttons available depends on the type of PT. One-Touch Dialing buttons can be programmed to flexible CO buttons.

- Conditions**
- It is possible to store an account code into an One-Touch Dialing button.
 - It is possible to assign an One-Touch Dialing button for direct access to Voice Mail.
 - Speed Dialing, One-Touch Dialing, manual dialing, Last Number Redial and Saved Number Redial **can** be used together.
 - It is possible to store a number consisting of 17 digits or more by dividing it and storing it in two One-Touch Dialing buttons. In this case, a line access code should be stored in the first button.
 - If Full One-Touch Dialing is enabled, there is no need to go off-hook, before pressing the One-Touch Dialing button.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
Station Programming User Manual
Flexible CO Button Assignment – **One-Touch** Dialing Button
Full One-Touch Dialing Assignment

Feature References **Section 3, Features**
Full One-Touch Dialing

Operation References **DPT Features**
-User Manual One Touch Dialing

One-Touch Transfer by DSS Button

Description

This feature, if programmed, allows the proprietary telephone user to hold an outside call and quickly transfer it to an extension.

While talking to an outside party, pressing a DSS button on the proprietary telephone provides automatic hold and transfer. There is no need to press the TRANSFER button. The extension starts ringing immediately.

Conditions

- One-Touch Transfer cannot be performed when there is another call on Consultation Hold.
- If One-Touch Transfer mode is disabled, the user transfers an outside call by pressing the TRANSFER button followed by the DSS button.

Programming References

Section 4, System Programming
[108] Automatic Hold by CO / DSS Button

Feature References

Section 3, Features
Button, Direct Station Selection (DSS)

Operation References DPT Features

-User Manual Call Transfer — to Extension

Operator

Description

The system supports up to two operators. Any extension can be designated as an operator.

The extension assigned as an operator has the ability to perform the following operations:

- Clearing the Call Log Lock
- Clearing the Live Call Screening Password
- Printing / clearing the System Working Report
- Recording and playing the outgoing message
- Switching Day / Night mode manually
- Setting / canceling / confirming the Timed Reminder (Wake-up Call) remotely
- Setting / clearing the Remote Station Lock
- Setting the Background Music – External on and off

Conditions

- If **eXtra** Device Port mode is activated at the operator's extension, the proprietary telephone user is regarded as the operator.
- The operator can be assigned as the destination of **Transfer Recall and Call Park Recall by System Programming**.

Programming References

Section 4, System Programming
[006] Operator / Manager Extension Assignment
[100] Flexible Numbering, Operator call
[990] System Additional Information, Field (11)

Feature References

None

Operation References

-User Manual

Operator / Manager Service Features

Operator Call

Description

Allows the extension user to call an extension operator by dialing the feature number, if at least one operator is assigned. There can be one or two extensions assigned as Operator 1 and 2.

Conditions

When an operator call (default: 0) is made, the call is connected to Operator 1 first, and then Operator 2 if Operator 1 is busy. Through System Programming, it is possible to change the routing so that Operator 1 and Operator 2 are called simultaneously when the operator is called.

Programming References**Section 4, System Programming**

[006] Operator / Manager Extension Assignment

[100] Flexible Numbering, Operator call

[990] System Additional Information, Field (44)

Feature References

None

Operation References

-User Manual

DPT Features, Standard Telephone Features

Operator Call

Outgoing Message (OGM)

Description

Allows the extension assigned as an operator or manager to record an outgoing voice message. This message is played when a caller accesses the DISA feature. After recording the message, the operator or manager can also play it back for confirmation.

Conditions

- A Caller ID / DISA / FAX Detection Card is required to program the OGM.
- **The** maximum recording time for OGM is 16 seconds.

Connection References

Section 2, Installation
2.4.2 4-SLT Extension Expansion Card / Caller ID/DISA/FAX Detection Card Installation

Programming References

Section 4, System Programming
[100] Flexible Numbering, Outgoing message
[990] System Additional Information, Field (34)

Feature References

Section 3, Features
Direct Inward System Access Timed Reminder
(DISA)

Operation References

-User Manual Operator / Manager Service Features
Outgoing Message (OGM)

Outside Line Connection Assignment

Description This allows you to specify the outside lines connected to your system which prevents an extension user from originating an outside call by selecting a line which is not connected. An idle line is selected from the connected ones when an extension user makes an Automatic Line Access.

Conditions

- If the user tries to make a call **with** a disconnected line, a reorder tone sounds to indicate that **the** line is out of use.
- This is effective for all outgoing calls including **DISA**.

Programming References

Section 4, System Programming
[400] Outside Line Connection Assignment

Feature References None

Operation References Not applicable.

Outside Line Connection Assignment – Outgoing

Description Allows you to assign the outside line to an extension user which is used for outgoing calls. This feature is useful to prevent unauthorized toll calls.

Conditions

- **When** an extension user tries to make an outside call on a disallowed outside line, a reorder tone is sent to indicate **that the** user cannot use **the** outside line.
- Day and Night Service are individually programmed. (Night Service)

Programming References

Section 4, System Programming
[605]–[606] Outgoing Permitted Outside Line Assignment — Day /
Night

Feature References None

Operation References Not applicable.

PAGING FEATURES – SUMMARY

Description

Paging allows you to make a voice announcement to many people at the same time. Your message is announced over the built-in speakers of proprietary telephones and / or external speaker (external pager). The paged person can answer your page from a nearby telephone. Making and answering a page is possible from either a proprietary or standard telephone. You can do paging with a call on hold in order to transfer the call (Paging and Transfer). Paging features are classified as follows:

Paging – All

Paging – External

Paging – Group

Paging – All

Description

Allows you to make a voice announcement from the speakers of the proprietary telephones and from the external paging devices (external pagers). If one of the paged persons answers your page, you can talk to the person through the connected line.

Conditions

- A confirmation tone is sent to extensions, when the page is made or answered. Eliminating the tone is programmable.
- A confirmation tone is sent from external pagers, before the voice announcement. Eliminating the tone is programmable.
- A ringing or busy extension cannot receive a page.

Connection References

Section 2, Installation

2.3.7 External Pager (Paging Equipment) Connection

Programming References

Section 4, System Programming

[100] Flexible Numbering, Paging – external, Paging – external answer / TAFAS answer, Paging – group, Paging – group answer

[805] External Pager Confirmation Tone

[990] System Additional Information, Field (16)

Feature References None

Operation References DPT Features, Standard Telephone Features
-User Manual Paging — All
 Paging — ANSWER
 Paging and Transfer

Paging – External

Description Allows you to make a voice announcement using an external paging device (external pager). One pager can be connected. Any telephone user can answer your Paging – External.

Conditions

- Previous connection of an external pager is required.
- External pagers can be used for TAFAS, Paging – External, or Background Music (BGM) – External in this order. For example, if Paging – External is overridden by TAFAS, reorder tone is returned to the performer of the Paging – External. If BGM is overridden by a higher priority, it is interrupted and starts again when the higher priority is finished.
- A confirmation tone is sent to the extensions and external pager, when the paging is made or answered. Eliminating the tone is programmable.
- A confirmation tone is sent from external pagers before the voice announcement. Eliminating the tone is programmable.

Connection References
 Section 2, Installation
 2.3.7 External Pager (Paging Equipment) Connection

Programming References
 Section 4, System Programming
 [100] Flexible Numbering, Paging – external, Paging – external answer /
 TAFAS answer
 [805] External Pager Confirmation Tone
 [990] System Additional Information, Field (16)

Feature References None

Operation References DPT Features, Standard Telephone Features
-User Manual Paging — External
 Paging — ANSWER
 Paging and Transfer

Paging – Group

Description

Allows you to select an extension group and make a voice announcement. All the proprietary telephones in the group will receive the page. If a member of the paged group answers your paging, you can talk to the person through the connected line.

Conditions

- To select all groups page all extensions.
- A confirmation tone is sent when the page is made or answered
Eliminating the tone is programmable.

Programming References

Section 4, System Programming

[100]Flexible Numbering, Paging – group, Paging – group answer

[990]System Additional Information, Field (16)

Feature References

Section 3, Features

Extension Group

Operation References

-User Manual

DPT Features, Standard Telephone Features

Paging — Group

Paging — ANSWER

Paging and Transfer

Paralleled Telephone

Description

Any proprietary telephone can be connected in parallel with a standard telephone. The following two combinations of telephones are available:

- (1) APT + Standard Telephone (an analog proprietary telephone and a standard telephone/device)
- (2) DPT + Standard Telephone (a digital proprietary telephone and a standard telephone/device)

When a parallel connection is made, an extension user can make and answer a call using either telephone.

Conditions

- The proprietary telephone (PT) can be used to perform normal operations whether or not the standard telephone is enabled.
- In the DPT + standard telephone combination, if one telephone goes off-hook while the other telephone is on a call, the call is switched to the former.
- In the APT + standard telephone combination, if one telephone goes off-hook while the other telephone is on a call, a three-party call is established. If one user goes on-hook, the other user continues the call.
- When receiving a call;
 - The standard telephone is activated; Both the **PT** and the standard telephone will ring except when the **PT** is in Handsfree Answerback mode or Voice Alerting mode.
 - The standard telephone is deactivated; **PT** rings but the standard telephone does not ring. However, the standard telephone can answer the phone.
- When the standard telephone is in operation, the display and LED indicator on the paired PT will work in the same way as if the **PT** is in operation.
- If APT + standard telephone are used, the extension user cannot originate a call from the standard telephone if the APT is:
 - playing BGM
 - in programming mode
 - receiving a paging announcement over the built-in speaker.
- If **eXtra** Device Port feature is available, a **DPT+** standard telephone can act as completely different extensions.
- Call Waiting tone can be heard only by PT.
- If a standard telephone with a Caller ID feature is connected in parallel, the Caller ID feature will not function.

Connection References

Section 2, Installation

2.3.4 Paralleled Telephone Connection

3 Features

Programming References

Section 4, System Programming

[100] Flexible Numbering, Parallel telephone mode

Feature References

Section 3, Features

EXtra Device Port (XDP)

Operation References

-User Manual

DPT Features, Standard Telephone Features

Paralleled Telephone Connection

Pause Insertion, Automatic

Description

This function is used to insert a pre-assigned pause between the outside line access number, the host PBX, **Centrex** or carrier access code and dialed digits.

Conditions

- This feature requires previous programming of an outside line access number, host PBX, **Centrex** and special carrier access codes as well as assignment of the pause duration.
- This feature works for Speed Dialing, One-Touch Dialing, Last Number Redial, Saved Number Redial, Pickup Dialing, Call Forwarding – to Outside Line as well as for ordinary calls.
- Pressing the PAUSE button in dialing number inserts a pause for a pre-assigned time.

Programming References

Section 4, System Programming

[100] Flexible Numbering, Automatic line access / ARS, Outside line access

[311] Special Carrier Access Codes

[411] Host PBX Access Codes

[412] Pause Time

Feature References

Section 3, Features

Host PBX Access

Toll Restriction

Operation References

Not applicable.

Phantom Extension

Description

Allows the system to route calls to a phantom extension. A call to a phantom extension arrives at extensions that have the corresponding Phantom Extension button. A Phantom Extension button can be assigned by Station Programming.

Conditions

- **Types** of calls whose destination can be the phantom extension are:
 Outside calls – DIL 1:1; DISA; IRNA
 Intercom calls – Extension; Transfer
- You can call the phantom extension by pressing the Phantom Extension button or by dialing the phantom extension number. If several extensions have the same phantom extension number, they will ring simultaneously.
- A phantom number must be assigned by System Programming before assigning the Phantom Extension button by Station Programming.
- There is a maximum of 16 phantom numbers. Each number has two to four digits, consisting of numbers 0 **through 9**.
- The phantom number cannot be used for feature settings such as Call Forwarding.
- The lighting patterns and status of the Phantom Extension button are shown below.

| Lighting pattern | Phantom Extension Status |
|----------------------|-----------------------------|
| Off | Idle |
| Red on | Calling a phantom extension |
| Green rapid flashing | Incoming call |

- A DSS button can be assigned as the Phantom Extension button so that the operator can use the button for transferring a call.

Programming References

Section 4, System Programming
 [124] Phantom Extension Number Assignment
Station Programming.....User Manual
 Flexible CO Button Assignment – Phantom Extension Button

Feature References

None

Operation References

-User Manual

DPT Features, Standard Telephone Features
 Phantom Extension

Pickup Dialing

Description Allows an extension user to make an outgoing call by going **off-hook**, if the user has previously stored the telephone number. This feature is also known as Hot Line.

- Conditions**
- A rotary dial telephone without the “#” button cannot program this feature. For programming the phone number, temporarily replace a rotary dial telephone with a pulse telephone with the “#” button.
 - The user uses a feature number to activate or deactivate pickup dialing.
 - If the feature is activated and the user goes off-hook, a dial tone is generated for the waiting time and then dialing starts. During the waiting time the user can dial another party, overriding the Pickup Dialing function.
 - If the user answers an incoming call or retrieves a call on hold, the Pickup Dialing feature does not work.
 - If the proprietary telephone is provided with a PF 12 button, the stored number in the PF12 button is common with the one for Pickup Dialing.

Programming References

Section 4, System Programming
[100] Flexible Numbering, Pickup dialing
[204] Pickup Dial Waiting Time

Feature References None

Operation References **DPT Features, Standard Telephone Features**
-User Manual Pickup Dialing (Hot Line)

Power Failure Restart

Description

When turning back on the electricity, the system restarts the stored data automatically. Before restarting, the system records the error log if necessary.

Conditions

- In the event of a power failure, system memory is protected by a factory-provided lithium battery. There is no memory loss except the memories of Camp-On and Call Park.

Programming References

No programming required.

Feature References

None

Operation References

Not applicable.

Power Failure Transfer

Description

If a power failure should happen, or during a system-off-line state, a specific extension telephone instrument is automatically connected to a specific outside line. This provides outside line conversation between the following extension and outside line:

CO 1 is connected to extension jack number 1

A standard telephone can work in case of a power failure. Connect a standard telephone to the above extension jack.

Conditions

- All other conversations except for the above combination are disconnected during a power failure.
- Only the outside line conversation can operate. All other features do not work.

Connection References

Section 2, Installation

2.3.2 Outside Line Connection

2.3.3 Extension Connection

2.5 Auxiliary Connection for Power Failure Transfer

Programming References

No programming required.

Feature References

Section 3, Features

Power Failure Restart

Operation References

Not applicable.

Privacy, Automatic

Description By default all conversations established on outside lines, extension lines and doorphone lines have privacy activated.

Conditions Automatic privacy may be temporarily released for a three-party conference, which is established either by Executive Busy Override or Privacy Release.

Programming References No programming required.

Feature References Section 3, Features
Executive Busy Override – Executive Busy Override –
Outside Line Extension
Privacy Release

Operation References Not applicable.

Privacy Release

Description Allows the proprietary telephone user to release Automatic Privacy for an existing call in order to establish a three-party call. During a conversation with an outside party on a CO button, the user can allow another extension party to join the conversation by pressing the CO button.

Conditions When a two-party call is changed to a three-party call or vice versa, a confirmation tone is sent to all three parties. Eliminating the tone is programmable.

Programming References Section 4, System Programming
[990] System Additional Information, Field (13)

Feature References Section 3, Features
Privacy, Automatic

Operation References DPT Features
-User Manual Privacy Release

Pulse to Tone Conversion

Description This feature allows the extension user to change from pulse dial to tone (DTMF) dial so that the user can access special services such as computer-accessed long distance calling or voice mail services.

- Conditions**
- This feature works only on outside lines set to Pulse Dialing mode or Call Blocking mode.
 - Dial Type Selection provides selection of a dial mode for each outside line.
 - **This** feature is unavailable to DISA callers.
 - Changing tone to pulse is not possible.

Programming References

Section 4, System Programming

[402] Dial Mode Selection

Feature References

Section 3, Features

Dial Type Selection

Operation References **-User Manual**

DPT Features, Standard Telephone Features

Pulse to Tone Conversion

Quick Dialing

Description

Quick Dialing offers the extension user one-touch access to a desired party. This is enabled by storing an extension number or a telephone number up to 16-digits as a quick dial number.

Conditions

- Up to eight quick dial numbers can be stored.
- For example, Quick Dialing is convenient for room service calls in a hotel.
- You must assign a feature number first in program [100] “Flexible Numbering”, and then a quick dial number in program [009] “Quick Dial Number Set” in order for Quick Dialing to be effective.
Example: If you want to assign the extension number 11 in quick dial number 3;
 - 1) Change or clear the feature numbers which have “3” in the first digit in program [100].
 - 2) Assign “3” in the selection number 63 (Quick dial location number 1) in program[100].
 - 3) Assign “11” in location number 1 (the same location number as the quick dial location number 1 in program [100]) in program [009].Now you can dial quick dial number 3 to call extension 11.

Programming References

Section 4, System Programming
[009] Quick Dial Number Set
[100] Flexible Numbering, Quick dial location numbers 1-8

Feature References

None

Operation Reference

-User Manual

DPT Features, Standard Telephone Features
Quick Dialing

Redial, Automatic

Description

This is a special feature for proprietary telephones, that provides automatic redialing of the last dialed number, saved number or call log number, if the called party is busy. If the Last Number Redial, Saved Number Redial or Call Log operation is performed handsfree, the telephone set will hang up and try again after a pre-determined period of time.

Conditions

- Redial Repeat Time and Interval Time can be changed by System Programming.
- Pressing FLASH allows the system to cancel this feature.
- If any dialing operation is done during Automatic Redial, this function is finished.
- This feature is not available with **KX-T7055** or **KX-T7250**.

Programming References

Section 4, System Programming
[209] Automatic Redial Repeat Times
[210] Automatic Redial Interval Time

Feature References

Section 3, Features
Call Log, Incoming
Redial, Last Number
Redial, Saved Number
Special Features of the **KX-T7235**
– Call Log, Outgoing

Operation References

DPT Features
.-User Manual
Redial, Automatic

Redial. Last Number

Description

Every telephone in the system automatically saves the last telephone number dialed to an outside line and allows the extension user to dial the same number again.

Conditions

- With a proprietary telephone, **REDIAL** button is used to carry out Last Number Redial. With a standard telephone, the feature number is used.
- The memorized telephone number is replaced by a new one if at least one digit sent to an outside line is dialed. Dialing an outside line access code alone does not change the memorized number.
- Certain types of proprietary telephones allow automatic redial with more than one feature (Automatic Redial).

Programming References

Section 4, System Programming
[100] Flexible Numbering, Last number redial

Feature References

Section 3, Features
Redial, Automatic

Operation References -User Manual

DPT Features, Standard Telephone Features
Redial, Last Number

Redial, Saved Number

Description

Allows the proprietary telephone user to save a telephone number and redial the number afterwards. The user can store it while in conversation on an outside line. The saved number can be redialed until another number is stored.

Conditions

- Certain types of proprietary telephones (**PT**) allow automatic redial with more than one feature (Automatic Redial).
- If **the** SAVE button is not provided on your **PT**, it is possible to assign a flexible button to be the SAVE button.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
Station Programming.....User Manual
Flexible CO Button Assignment – SAVE Button

Feature References

Section 3, Features
Button, Flexible
Redial, Automatic

Operation References -User Manual

DPT Features
Redial, Saved Number

Remote Station Lock Control

- Description** The operator and manager are given the privilege of controlling Electronic Station Lockout on any station.
- Conditions** Remote Station Lock Control is superior to Electronic Station Lockout. If Station Lockout has already been set by the extension user and Remote Station Lock is set by the operator or manager, canceling the lock is only possible by the operator or manager.
- Programming References** No programming required.
- Feature References** **Section 3, Features**
Electronic Station Lockout
- Operation References** **Operator / Manager Service Features**
-User Manual Remote Station Lock Control

Reverse Circuit

- Description** This feature can be used to detect a reversal of outside line polarity from **the Central Office** when trying to make an outside line call. This is useful for determining the start and completion of outside line calls.
- Programming References** **Section 4, System Programming**
[416] Reverse Circuit Assignment
- Feature References** None
- Operation References** Not applicable.

Ring Group

Description All extensions in a ring group ring simultaneously by dialing the floating number of the extension group. A ring group can be a Station Hunting type.

- Conditions**
- Types of calls whose destination can be the ring group are:
 - Outside calls – DIL 1: 1; DISA; IRNA
 - Intercom calls – Extension; Transfer
 - The floating number of the extension group is used for all other hunting types, Circular, Termination, Voice Mail (VM), Automated Attendant (AA) and Uniform Call Distribution (UCD).

Programming References

Section 4, System Programming
[106] Station Hunting Type
[602] Extension Group Assignment
[813] Floating Number Assignment

Feature References Section 3, Features
Floating Station Station Hunting

Operation References Not applicable.

Ringling, Delayed

Description If Direct In Lines (DIL) 1:N is established, a telephone set is originally set to ring instantly. **This** setting can be changed to delayed ringing, no ringing or no incoming calls (disable) on an outside line number basis.

- Conditions**
- This feature does not apply to DISA or DIL 1:1 calls.
 - If delayed, no ringing or no incoming calls (disable) is assigned to an extension, the extension can answer an incoming call during no ring or the delay time by pressing the flashing button.

Programming References

Section 4, System Programming
[603]–[604] DIL 1 :N Extension and Delayed Ringing — Day/Night

Feature References Section 3, Features
Direct In Lines (DIL)

Operation References Not applicable.

Ringling, Discriminating

Description

Allows the extension user to identify the incoming call by the ringing pattern. (See Section 5.1 “Tone / Ring Tone”.)

Conditiqns

- When there are multiple incoming calls and the extension goes from off-hook to on-hook, the calls are rung according to the following priority:
 - <1> Consultation Hold Recall
 - <2> An incoming call from a line in which the Prime Line Preference – Incoming function has been set (with a proprietary telephone only)
 - <3> Call Waiting
 - <4> Incoming calls; Hold Recall; Transfer Recall; Unattended Conference Recall
- If multiple incoming calls arrive at an on-hook extension simultaneously, priority as to which calls should be rung is generally on a “first-come, first-serve” basis. In the case of proprietary telephones (**PT**), however, when the **Prime** Line Preference – Incoming function has been set, this line takes precedence.
- Incoming TAFAS calls can be identified by ringing signals sent out from the external pager. The ringing pattern is the same as the outside calls.
- The digital PT user can select a desired tone frequency for each CO button.

Programming References

No programming required.

Feature References

Section 3, Features
Ringing Tone Selection for CO Buttons

Operation References

Not applicable.

Ringling Tone Selection for CO Buttons

Description

Allows the digital proprietary telephone user to select the desired ringer frequency for each CO button. This distinguishes different incoming outside calls.

Conditions

There are eight ringer frequencies available. One of them can be assigned to a CO button that is assigned as each of the following buttons: **Single-CO** or **Loop-CO** button. It is not possible to assign a ringer frequency to any other button.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
Station Programming..... User Manual
Ringling Tone Selection for CO Buttons

Feature References

None

Operation References

Not applicable.

Secret Dialing

Description Allows an extension user to conceal all or part of a registered telephone number that normally appears on the display. The user can hide Station Speed Dialing (special display feature for **KX-T7235** only), System Speed Dialing or One-Touch Dialing numbers assigned to flexible CO buttons. When a display telephone user makes a call to the telephone number that is set to Secret Dialing, all or part of the number does not appear on the display.

- Conditions**
- When storing a number, press the INTERCOM button at the beginning and the end of the number to be concealed.
 - You can conceal one or more parts of a telephone number.
 - The concealed part will be printed out by SMDR.

Programming References

Section 4, System Programming
[001] System Speed Dialing Number Set
Station Programming.....User Manual
Flexible CO Button Assignment – One-Touch Dialing Button

Feature References

Section 3, Features
One-Touch Dialing System Speed Dialing
Special Features of the **KX-T7235**
— Station Speed Dialing

Operation References DPT Features
-User Manual Secret Dialing

Special Features of the KX-T7235

The KX-T7235 features a large display that allows the user to originate calls or to access system facilities with ease. The display prompts the user with information related to the desired feature. Examples of this special function are shown below:

Call Log, Outgoing
Extension Dialing
Station Speed Dialing
System Feature Access Menu
System Speed Dialing

Call Log, Outgoing-----

| | |
|-------------------------------|--|
| Description | Provides a display of the last dialed telephone numbers and allows the user to perform redialing the number by pressing the associated button. |
| Conditions | If the call log is full, the oldest telephone number will be eliminated when a new number is dialed. |
| Programming References | No programming required. |
| Feature References | None |
| Operation References | Special Display Features (- for KX-T7235) |
| -User Manual | Call Log, outgoing |

Extension Dialing

Description Provides a display of extension names and numbers. The user can call an extension by pressing the associated function button.

Conditions System Programming of extension numbers and names is required.

Programming References

- Section 4, System Programming
- [003] Extension Number Set
- [004] Extension Name Set
- [100] Flexible Numbering, 1st through 16th hundred extension blocks

Feature References None

Operation References Special Display Features (- for KX-T7235)
-User Manual Extension Dialing

Station Speed Dialing

Description A list of the names and telephone numbers stored in One-Touch Dialing is displayed, allowing the user to make a one-touch call by **name** without knowing the number.

- Conditions**
- It is necessary to program One-Touch Dialing Numbers and Names into the 10 function buttons **F1** through **F10**.
 - It is programmable to select the initial display for names and numbers.

Programming References

- Section 4, System Programming
- [990] System Additional Information, Field (19)
- Station Programming.....User Manual
- Station Speed Dialing **Number** / Name Assignment(**KX-T7235** only)

Feature References Section 3, Features
One-Touch Dialing

Operation References Special Display Features (- for KX-T7235)
-User Manual Station Speed Dialing

System Feature Access Menu

Description

This feature provides a display of the system **features** available at **any** time and allows the user to have access to the desired features.

Conditions

- The features available are:
 - Absent Message Capability
 - Automatic Callback Busy (Camp-On) (cancel)
 - Call Forwarding (set / cancel)
 - Call Park
 - Call Pickup (access / deny)
 - Call Log, Incoming
 - Call Log Lock, Incoming
 - Data Line Security
 - Do Not Disturb (set / cancel)
 - Door Opener
 - Doorphone Call
 - Electronic Station Lockout
 - Executive Busy Override Deny
 - Live Call Screening (LCS) (password set)
 - Log-In / Log-Out
 - Message Waiting
 - Paging (access / answer)
 - Paralleled Telephone
 - Pickup Dialing (Hot Line)
 - Station Feature Clear
 - Timed Reminder
 - Walking COS
- In addition to the features above, the operator and manager can display the following features:
 - Background Music (BGM) – External
 - Night Service
 - Outgoing Message
 - Timed Reminder, Remote (Wake-Up Call)

Programming References

No programming required.

Feature References

None

Operation References

Special Display Features (- for KX-T7235)
 -User Manual System Feature Access Menu

System Speed Dialing

Description

A list of the names stored in System Speed Dialing is displayed. This allows the user to dial by name without knowing the telephone number. All the user needs to do is to press the button associated with the desired name.

Conditions

- The numbers and names for System Speed Dialing must be programmed.
- If a name is not stored for a number, it is not displayed and cannot be called with this feature.

Programming References

Section 4, System Programming
[001] System Speed Dialing Number Set
[002] System Speed Dialing Name Set

Feature References

Section 3, Features
System Speed Dialing

Operation References -User Manual

Special Display Features (- for KX-T7235)
System Speed Dialing

Station Feature Clear

Description

Allows the extension user to cancel the functions set on the user's own telephone. The following functions will be canceled by this feature:

- Absent Message Capability – The message set on the telephone

- Automatic Callback Busy (Camp-On)

- Background Music that has been turned on

- Call Forwarding

- Call Log, Incoming – Over-stored mode

- Call Pickup Deny

- Call Waiting enabled

- Data Line Security

- Do Not Disturb (DND)

- Executive Busy Override Deny

- Log-Out status

- Message Waiting – All the messages that have been left by other extension users

- Paralleled Telephone enabled

- Pickup Dialing

- Timed Reminder

Conditions

None

Programming References

Section 4, System Programming

[100] Flexible Numbering, Station feature clear

Feature References

None

Operation References

-User Manual

DPT Features, Standard Telephone Features

Station Feature Clear

Station Hunting

Description

If a called extension is busy, Station Hunting redirects the incoming call to an idle member of the extension group. Idle extensions are automatically searched according to the programmed type. Six hunting types are available as follows:

Circular hunting: The extensions are searched until an idle one is found, regardless of the jack number.

Termination hunting: The extensions are searched until reaching the extension which has the highest jack number in the group.

VM hunting: All the VM ports are searched until an idle one is found to permit VM Service.

AA hunting: All the AA ports are searched until an idle one is found to permit AA Service.

Ring Group hunting: All the extensions in the ring group ring simultaneously.

UCD hunting: All the extensions in UCD group are searched in a circular way.

One of the hunting types is selected for each extension group.

To leave the hunting group temporarily, use the Log-Out function.

To re-join, use the Log-In function.

Conditions

- If all the searched extensions are busy, a busy tone is sent to the caller.
- If the called extension has set Do Not Disturb, Call Forwarding or Log-Out, Station Hunting skips the extension.
- If UCD is set, the Hunting is performed as a setting of UCD.

Programming References

Section 4, System Programming

[106] Station Hunting Type

[602] Extension Group Assignment

Feature References

Section 3, Features

Extension Group

Log-In / Log-Out

Ring Group

Uniform Call Distribution (UCD)

Voice Mail Integration

Operation References Not applicable.

Station Message Detail Recording (SMDR)

Description

Station Message Detail Recording (SMDR) automatically records detailed call information for outside calls. A printer connected to the Serial Interface (RS-232C) port can be used to print incoming and outgoing outside calls as well as print a hard copy of System Programming. To print out the record of System Programming items that have been assigned, use the program [802] "System Data Printout". To print the call records, use the program [800] "SMDR Incoming / Outgoing Call Log Printout", which allows you to print out the following records:

- Record all outgoing outside calls or outgoing toll calls.
- Record all incoming outside calls.

An example of a printed call record:

| Date | Time | Ext | CO | Dial Number | Ring | Duration | Acccode | CD |
|----------|---------|-----|-----|---------------------------|------|----------|------------|-----|
| 06/24/93 | 10:03AM | 11 | 1 | 1234567890123456789012345 | | 00:05'12 | 1234567890 | |
| 06/24/93 | 10:07AM | 13 | 2 | <I> | | 00:00'56 | | |
| 06/24/93 | 10:08AM | 14 | 1 | <I> | | 00:00'20 | 431211 | |
| 06/24/93 | 10:08AM | 15 | 1 | <I> | | 00:10'01 | 431211 | TR |
| 06/24/93 | 10:09AM | 18 | 1 | 10222P1-202-346-7890 | | 00:09'18 | 001 | FW |
| 06/24/93 | 10:10AM | 13 | 2 | <I> | | 00:01'24 | | |
| 06/24/93 | 10:11AM | 18 | 1 | <I> | | 00:00'24 | | |
| 06/24/93 | 10:11AM | 18 | 2 | 0924312111 | | 00:03'02 | | |
| 06/24/93 | 10:20AM | 12 | 3 | <I>4312111 | | 00:21'46 | | |
| . | . | . | . | . | . | . | . | . |
| . | . | . | . | . | . | . | . | . |
| . | . | . | . | . | . | . | . | . |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

Example of SMDR printout format:

Explanation

- (1) Date : shows the date of the call as Month / Day / Year.
- (2) Time : shows the end time of a call as Hour:Minute / AM or PM.
- (3) Ext : shows the extension number, floating number, etc. that engaged in a call.
- (4) CO : shows the outside line number used for the call.

(5) Dial Number

Outgoing call: shows the other party's telephone number (maximum 25 digits). Valid digits are 0 through 9, *, #, P (if PAUSE button is pressed), or the mark "=" (if a host PBX access code is entered).

Received call: shows <I>. If a Caller ID is assigned to the other party, it shows <I>, number and name.

(6) Ring : shows the ring duration of the incoming call in Minutes / Seconds.

(7) Duration : shows the duration of the call in Hours / Minutes / Seconds.

(8) **Acc Code** (Account Code): shows the account code appended to the call.

(9) CD (Condition Code): shows call handling type with the following codes:

TR: Transfer

FW: Call Forwarding to Outside Line

RC: Received an incoming call

AN: Answered an incoming call

NA: Unanswered an incoming call

Conditions

- Connect a printer to the Serial Interface (RS-232C) connector of the main unit. After connecting a printer, do not press the RETURN key, if provided on the printer, for 10 seconds.
- When programmed for outgoing toll calls only, printing occurs only for calls which start with the numbers stored in any Denied Code Table from levels 2 to 6. If ARS is employed, not the user-dialed but the modified number is checked against these tables.
- This system can store information up to 100 calls. If more calls are originated or received, previous records are deleted starting with the oldest one.
- It is possible to select the SMDR format for an incoming call with Caller ID, the caller's number only or caller's number and name, by program [990], Field (41).
- It is possible to select whether the SMDR prints out received incoming calls (RC) and answered incoming calls (AN) information by program [990], Field (42).
- This data is not deleted when you reset the system.
- If the system clock is not set by System Programming or if the calendar IC is out of order, the date and time are not printed out.
- If FLASH is manually sent out during a conversation, the call record is printed and a new record is started.

Connection References

Section 2, Installation
2.3.9 Printer and PC Connection

Programming References

Section 4, System Programming
[000] Date and Time Set
[212] Call Duration Count Start Time
[800] SMDR Incoming / Outgoing Call Log Printout
[801] SMDR Format
[802] System Data Printout
[806]–[807] Serial Interface (RS-232C) Parameters
[990] System Additional Information, Fields (41), (42)

Feature References None

Operation References Not applicable.

Station Programming

Description Allows the proprietary telephone (PT) user to customize the extension to their needs. The following programming items are available:

For the PT (**KX-T7220; KX-T7230; KX-T7235; KX-T7250; KX-T7 130; KX-T7020; KX-T7030; KX-T7050**)

- Call Waiting Tone Type Assignment
- Flexible CO Button Assignment
- Full One-Touch Dialing Assignment
- Intercom Alert Assignment
- Preferred Line Assignment – Incoming / Outgoing
- Station Programming Data Default Set

For digital PT (**KX-T7220; KX-T7230; KX-T7235; KX-T7250**) only,

- Handset / Headset Selection
- Live Call Screening Mode Set
- Ringing Tone Selection for CO Buttons

For display PT (RX-T7230; **KX-T7235; KX-T7 130; KX-T7030**) only,

- Bilingual Display Selection
- Initial Display Selection
- Self-Extension Number Confirmation

For digital large display PT (**KX-T7235**) only,

- Station Speed Dialing Number / Name Assignment

For the operator and manager’s extension PT only,

- Call Log Lock Control, Incoming
- Live Call Screening Password Control
- Remote Station Lock Control

Detailed information and programming instructions are described in the User Manual, Station Programming.

Conditions During Station Programming, the **PT** is considered to be in busy status.

Programming References

- Station Programming User Manual
- Operator / Manager Service Features User Manual
- Call Log Lock Control, Incoming
- Live Call Screening Password Control
- Remote Station Lock Control

Feature References None

Operation References Not applicable.

Station Programming Data Default Set

Description

Allows the proprietary telephone user to return all the following items programmed on the telephone to default setting.

| Programming Items | Default |
|--|-----------------|
| Bilingual Display Selection | English Display |
| Call Waiting Tone Type Assignment | Tone 1 |
| Full One-Touch Dialing Assignment | On |
| Handset / Headset Selection | Handset |
| Initial Display Selection | Caller ID |
| Intercom Alert Assignment | Tone Call |
| Live Call Screening Mode Set | Hands-free |
| Preferred Line Assignment – Incoming | Ringing Line |
| Preferred Line Assignment – Outgoing | Intercom Line |

Station Programming is used to set or cancel these items at individual telephones.

Conditions

None

Programming References

Station Programming.....User Manual
 Station Programming Data Default Set

Feature References

Section 3, Features
 Station Programming

Operation References Not applicable.

Station Speed Dialing

Description

Allows an extension user to store frequently dialed numbers in order to place a call with abbreviated dialing. It is performed by dialing the feature number and a speed dial number from 0 through 9. Up to 10 numbers can be stored in each telephone.

Conditions

- Station Speed Dialing can be followed by manual dialing to supplement the dialed digits.
- You may make a call with One-Touch Dialing button, instead of Station Speed Dialing.
- The standard telephone may be replaced with a proprietary telephone (PT) temporarily to store one-touch dialing into memory. The Function Buttons **F1** through **F10** correspond to speed dial numbers as follows:

| | |
|---------------|----------------|
| F1 — 0 | F6 — 5 |
| F2 — 1 | F7 — 6 |
| F3 — 2 | F8 — 7 |
| F4 — 3 | F9 — 8 |
| F5 — 4 | F10 — 9 |

Programming References

Section 4, System Programming

[100] Flexible Numbering, Station speed dialing, Station speed dialing programming

Feature References

Section 3, Features

One-Touch Dialing

Operation References

-User Manual

DPT Features, Standard Telephone Features

Station Speed Dialing

System Data Default Set

| | |
|-------------------------------|--|
| Description | This system permits re-initialization of system-programmed data. If all the programmed data is cleared, the system will restart with the default setting. |
| Conditions | The default setting for each programming item is listed in Section 5.2, "Default Values". |
| Programming References | Section 4, System Programming [900] System Data Clear |
| Feature References | None |
| Operation References | Section 2, Installation 2.9 System Data Clear |

System Programming with Proprietary Telephone

Description

This system can be programmed with a proprietary telephone (PT). Proprietary telephones available for System Programming are: **KX-T7235**; **KX-T7230**; **KX-T7 130**; and **KX-T7030** (Display Proprietary Telephones).

Two extensions are allowed to perform System Programming. The available extensions are:

- (1) An extension that is connected to jack 1.
- (2) An extension that is assigned as a manager.

For more information and programming instructions, refer to Section 4, "System Programming".

Conditions

- During System Programming the system operates normally.
- During System Programming the extension is considered to be busy.
- The display on the **PT** permits interactive programming.
- Access to System Programming is allowed only one at a time.
- To access system administration, a valid password must be entered. The password is factory-programmed and **can** be changed.

Programming References

Section 4, System Programming
[006] Operator / Manager Extension Assignment
[107] System Password

Feature References None

Operation References Not applicable.

System Speed Dialing

Description

This feature supports 100 abbreviated dial numbers that are available to all users. A system speed dial number is dialed out by pressing the **AUTO** button and a **2-digit code (00 through 99)**. It is possible to store one hundred 24-digit telephone numbers per system (**maximum**).

Conditions

. Overriding Toll Restriction for System Speed Dialing can be activated or deactivated by system programming.

[For proprietary telephone users only]

- Speed Dialing, One-Touch Dialing, manual dialing, Last Number Redial and Saved Number Redial can be used in combinations.

[For standard telephone users only]

- If a stored feature number includes “* ” or “#”, rotary single line telephones cannot use it.

Programming References

Section 4, System Programming

[001] System Speed Dialing Number Set

[002] System Speed Dialing Name Set

[100] Flexible Numbering, System speed dialing

[300] TRS Override for System Speed Dialing

Feature References

Section 3, Features

Toll Restriction Override for System Speed Dialing

Operation References

DPT Features, Standard Telephone Features

-User Manual

System Speed Dialing

System Working Report

Description

The Digital Super Hybrid System automatically records the system's working status condition. A printer connected to the Serial Interface (RS-232C) port can be used to print the recorded data. The recorded data can be printed out by the operator or manager.

Recorded contents are as follows:

1. Date of record
 - The date and time when cleared
 - The date and time when printed out
2. Incoming calls
 - The number of incoming calls
 - The number of answered incoming calls
 - The ratio of answered calls to incoming calls

$$\frac{\text{Number of answered calls}}{\text{Number of incoming calls}} \times 100 (\%)$$

- The average time from receipt of call to answer of the incoming and answered calls
 - The average talk duration of the answered calls
3. Outgoing calls
 - The number of requested accesses
 - The number of successful accesses
 - The ratio of successful accesses to requested accesses

$$\frac{\text{Number of successful accesses}}{\text{Number of requested accesses}} \times 100 (\%)$$

- The average duration of the dialed calls

These records can be deleted by the operator or manager and new data will be recorded thereafter.

Conditions

- Connect a printer to the Serial Interface (RS-232C) connector to the main unit.
- Referring and deleting the system working report can be done using a serial interface.

Connection References

Section 2, Installation
2.3.9 Printer and PC Connection

Programming References

Section 4, System Programming

[100] Flexible Numbering, System working report

[806] Serial Interface (RS-232C) Parameters

Feature References

Section 3, Features

Station Message Detail Recording (SMDR)

Operation References

Operator / Manager Service Features

-User Manual

System Working Report

Time-out, Variable

Description

Provides timers to control various features or functions.
The following timers are programmable:

System Timer Items

| | Range |
|--|---------------------|
| Automatic Redial Interval Time | nx 10s, n:3 – 120 |
| Automatic Redial Repeated Times | 1 – 30 times |
| Call Forwarding – No Answer Time-Out | 1 – 12 rings |
| Call Park Recall Time | 3 – 48 rings |
| DISA AA Wait Time | 1 - 5 s |
| DISA Delayed Answer Time | 0 – 6 rings |
| Extension-to-Outside Call Duration Time | 1 – 64 min |
| Hold Recall Time | 0-240 s |
| Intercept Routing Time-Out | 3 – 48 rings |
| Message Waiting Ring Interval Time | 0-64 min |
| Outside Line Dial Starting Time | nx 100 ms, n:0 – 40 |
| Outside-to-Outside Line Call Duration Time | 1 – 64 min |
| Pickup Dialing Waiting Time | 1 - 5 s |
| SMDR Duration Count Starting Time | 0 - 60 s |
| Timed Reminder Alarm Ring Time | 30-240 s |
| Toll Restriction First Digit Time-Out | 5 - 1 2 0 s |
| Toll Restriction Inter-digit Time-Out | 5 - 30 s |
| Transfer Recall Time | 0 – 48 rings |

Outside Line Group Timer Items

| | |
|-----------------------|---------------------------|
| Disconnect Time | 1.5 / 4.0 s |
| Hookswitch Flash Time | Disable / 80 / 96 / 112 / |

200 / 300 / 400 / 500 /

| | |
|------------|-------------------------|
| | 600 / 700 / 800 / 900 / |
| | 1000 / 1100 / 1200ms |
| Pause Time | 1.5 / 2.5 / 3.5 / 4.5 s |

Outside Line Timer Items

| | |
|---|-----------------------|
| CPC Signal Detection Time (Incoming) | Disable / 100 / 200 / |
| ms | 300 / 400 / 500 / 600 |
| DTMF Digit Time | 80 / 160 ms |

Extension Timer Items

| | |
|-----------------------|---------------------------|
| Delayed Ringing Count | Disable / Immediate / |
| | 1 / 3 / 6 rings / No ring |

Voice Mail Integration Timer Items

| | |
|---|-------------------------|
| DTMF Signal Duration | 80 / 160 ms |
| DTMF Signal Waiting Time after VPS Answer | 0.5 / 1.0 / 1.5 / 2.0 s |
| DTMF Signal Waiting Time after VPS calls Extension | 0.5 / 1.0 / 1.5 / 2.0 s |

Programming References

Section 4, System Programming

- [200] Hold Recall Time
- [201] Transfer Recall Time
- [202] Call Forwarding – No Answer Time
- [203] Intercept Time
- [204] Pickup Dial Waiting Time
- [205] Extension-to-Outside Line Call Duration Time
- [206] Outside-to-Outside Line Call Duration Time
- [207] First Digit Time
- [208] Inter Digit Time
- [209] Automatic Redial Repeat Times
- [210] Automatic Redial Interval Time
- [211] Dial Start Time
- [212] Call Duration Count Start Time
- [213] DISA Delayed Answer Time
- [216] Message Waiting Ring Interval Time.
- [217] Timed Reminder Alarm Ring Time
- [218] DISA AA Wait Time
- [219] Call Park Recall Time
- [404] DTMF Time
- [405] CPC Signal Detection Incoming Set
- [412] Pause Time
- [413] Flash Time
- [414] Disconnect Time
- [603]–[604] DIL 1 :N Extension and Delayed Ringing — Day/Night
- [990] System Additional Information, Fields (6) through (8)

Feature References None

Operation References Not applicable.

Timed Reminder

Description Each telephone can be set to generate an alarm tone at a preset time as a wake up tone or reminder. This feature can be programmed to be active once only or daily.

- Conditions**
- Be sure that the system clock works.
 - Setting a new time clears the preset time.
 - The alarm continues for a programmed period of time (default: 30 seconds). To stop it, lift the handset or, with a proprietary telephone, press any button.
 - There is no limit for the number of the extensions who **can** set the Timed Reminder at the same time.
 - SMDR automatically records the detailed Timed Reminder information (date, time, extension number, **start/no** answer). It is programmable to be printed out when the Timed Reminder starts **and** the alarm is not answered.

Programming References

Section 4, System Programming

[100] Flexible Numbering, Timed reminder

[217] Timed Reminder Alarm Ring Time

[990] System Additional Information, Field (45)

Feature References None

Operation References **DPT Features, Standard Telephone Features**
-User Manual Timed Reminder

Timed Reminder, Remote (Wake-Up Call)

Description

Allows the operator and manager to remotely set, cancel and confirm the wake-up call for an extension.

Conditions

- When either an operator/manager or the extension sets a new time, the pre-set time is cleared.
- There is no limit for the number of the extensions that can set the Timed Reminder at the same time.
- SMDR automatically records the detailed Timed Reminder information (date, time, extension number, start/no answer). It is programmable to be printed out when the Timed Reminder starts and the alarm is not answered. An example of a printed Timed Reminder record is shown below.

| Date | Time | Ext | CO | Dial Number | Ring | Duration | Acc code | CD |
|----------|---------|-----|----|-------------------------------|------|----------|----------|----|
| 06/24/96 | 10:03AM | 1 | 3 | Timed Reminder / Start | | | | |
| 06/24/96 | 10:04AM | 1 | 3 | Timed Reminder / No Answer | | | | |

Programming References

Section 4, System Programming

[100] Flexible Numbering, Timed reminder, remote

[990] System Additional Information, Field (45)

Feature References

Section 3, Features

Timed Reminder

Operation References

-User Manual

Operator / Manager Service Features

Timed Reminder, Remote (Wake-Up Call)

Toll Restriction

Description

Toll Restriction is a system programmable feature that, in conjunction with the assigned Class of Service, can prohibit certain extension users from placing unauthorized toll calls.

Every extension is programmed to belong to one of eight Classes of Service. Each Class of Service is programmed to have a toll restriction level for day mode and night mode.

There are eight toll restriction levels available. Toll restriction level 1 is the highest level and the level 8 is **the lowest**. That is, level 1 allows all toll calls and levels 7 and 8 disallows all toll calls. Levels 2 through 6 are used to restrict calls by combining pre-programmed deny and excepted code tables.

Denied Code Tables

An outgoing outside call made by an extension with a toll restriction level between 2 and 6 is first checked against the selected Denied Code Tables. If the leading digits of the dialed number (not including the line access code) are not found in the table, the call is made. There are five system programs for Denied Code Tables: **[301]-[305] TRS Denied Code Entry for Levels 2 through 6**: Each program is used to make up a Denied Code Table for Levels 2 through 6 respectively.

Complete every table by storing numbers that are to be prohibited. These numbers are defined as denied codes. Each table can store up to 20 denied codes, each consisting of a maximum of ten digits.

Excepted Code Tables

These tables are used to override a programmed denied code. A **call** denied by the selected Denied Code Tables is checked against the selected Excepted Code Tables, and if a match is found, the call is made.

There are five system programs for these tables:

[306]-[310] TRS Excepted Code Entry for Levels 2 through 6: Each program is used to make up an Excepted Code Table for Levels 2 through 6.

Complete every table by storing numbers that are exceptions to the denied codes. These numbers are defined as excepted codes. Each table can store up to five excepted codes, each consisting of a maximum of ten digits.

Extra Table

100 extra codes can be entered in one of Denied or Excepted Code Table. There is a maximum of either 120 entries for Denied Code Table or 105 entries for Excepted Code Table.

Applicable Denied and Excepted Code Tables depend on the assigned toll restriction level of an extension as follows:

| | Denied Code Tables | Excepted Code Tables |
|---------|---------------------------|-------------------------------|
| Level 1 | None | None |
| Level 2 | Table for Level 2 | Tables for Levels 2 through 6 |
| Level 3 | Tables for Levels 2 and 3 | Tables for Levels 3 through 6 |
| Level 4 | Tables for Levels 2 to 4 | Tables for Levels 4 through 6 |
| Level 5 | Tables for Levels 2 to 5 | Tables for Levels 5 through 6 |
| Level 6 | Tables for Levels 2 to 6 | Tables for Level 6 |
| Level 7 | None | None |
| Level 8 | None | None |

[Explanation]

Level 1: allows all calls.

Level 2: denies codes stored in the Denied Code Table for Level 2 except the codes stored in Excepted Code Tables for Levels 2 through 6.

Level 3: denies codes stored in the Denied Code Tables for Levels 2 and 3 except the codes stored in Excepted Code Tables for Levels 3 through 6.

Level 4: denies codes stored in the Denied Code Tables for Levels 2 through 4 except the codes stored in Excepted Code Tables for Levels 4 through 6.

Level 5: denies codes stored in the Denied Code Tables for Levels 2 through 5 except the codes stored in Excepted Code Tables for Levels 5 and 6.

Level 6: denies codes stored in the Denied Code Tables for Levels 2 through 6 except the codes stored in Excepted Code Table for Level 6.

Level 7: allows intercom calls only.

Level 8: allows operator calls only.

Example of Toll Restriction programming

Here is an example to explain the procedure for Toll Restriction programming.

1. Determining the application

Determine the dialing numbers that should be denied for levels 2 through 6. (Levels 1, 7 and 8 are fixed and do not require programming.)

[Entry Example]

| Level | Denied Code | Excepted Code |
|-------|---|----------------------------|
| 2 | 011 | None |
| 3 | 011 976 lxxx976 | None |
| 4 | 011 976 lxxx976 0 | None |
| 5 | 011 976 lxxx976 0 411 lxxx555 | None |
| 6 | 011 976 lxxx976 0 411 lxxx555 1 x0 xl | 911 1911 800 1800 |

Note: "x" substitutes a digit.

2. Programming

(1) [500]-[501] Toll Restriction Assignment

Assign a toll restriction level to each Class of Service (COS).

[Example]

| COS | Level (Day) | Level (Night) |
|-----|-------------|---------------|
| 1 | 1 | 6 |
| 2 | 2 | 6 |
| : | : | |
| 8 | 8 | 8 |

(2) [301]-[305] Denied Code Table Entry

Depending on the application, enter the denied codes in the associated tables. You can use numeric characters and the wild card character “*”.

| Level-2 Denied Code Table | | Level-3 Denied Code Table | | Level-4 Denied Code Table | |
|---------------------------|------|---------------------------|------------|---------------------------|------|
| Location | Code | Location | Code | Location | Code |
| 01 | 001 | 01 | 976 | 01 | 0 |
| : | | 02 | 1* * * 976 | : | |
| : | | : | | : | |
| 20 | | 20 | | 20 | |

| Level-5 Denied Code Table | | Level-6 Denied Code Table | |
|---------------------------|------------|---------------------------|------|
| I Location I | Code | I Location I | Code |
| 01 | 411 | 01 | 1 |
| 02 | 1* * * 555 | 02 | * 0 |
| : | | 03 | * 1 |
| 20 | | : | |
| | | 20 | |

(3) [306]-[310] Excepted Code Table Entry

Depending on the application, enter the excepted codes in the associated tables. You can use numeric characters and the wild card character “*”.

| Level-6 Excepted Code Table | |
|-----------------------------|------|
| Location | Code |
| 1 | 911 |
| 2 | 1911 |
| 3 | 800 |
| 4 | 1800 |
| 5 | |

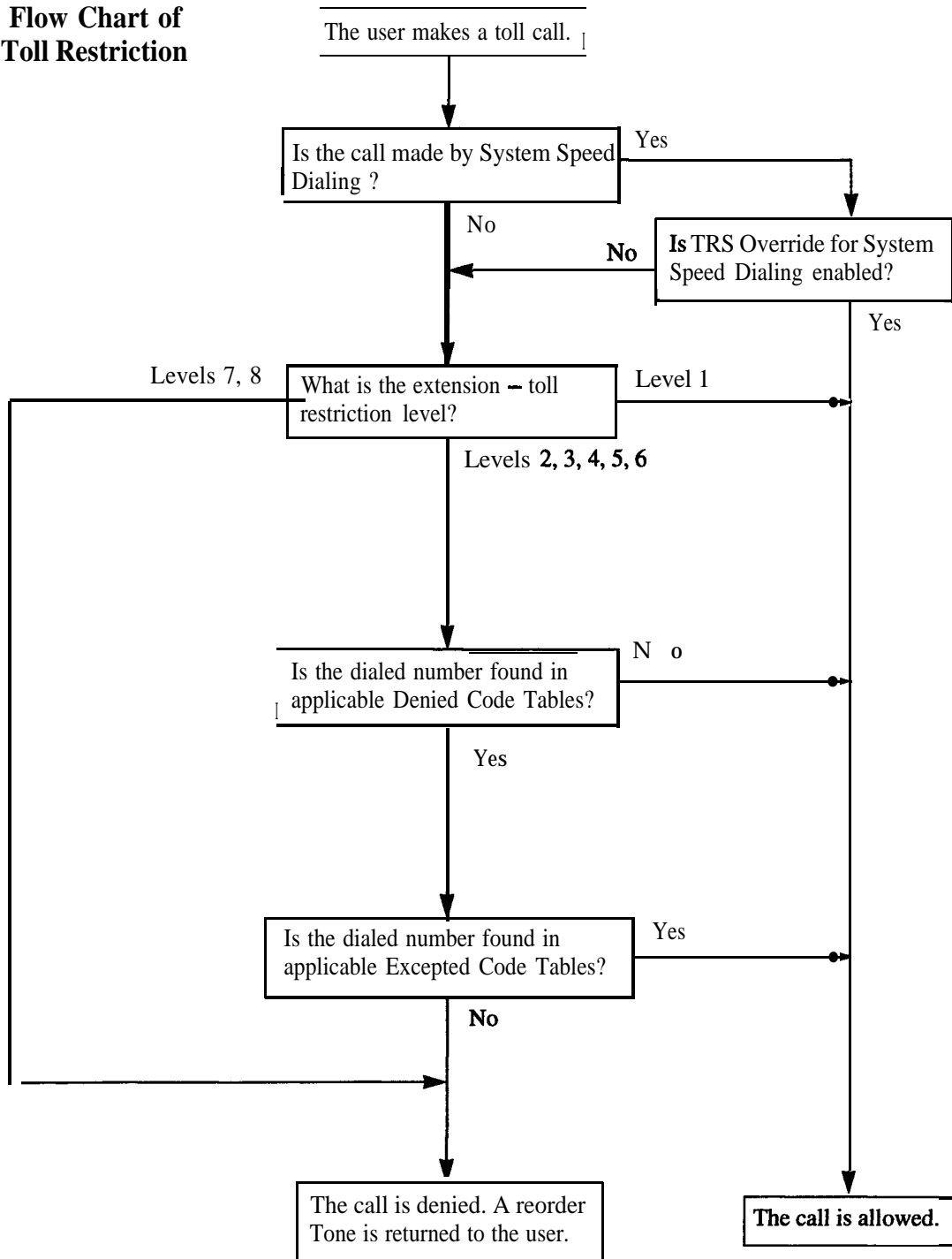
[Explanation]

If your Toll Restriction Level is 6;

a) You cannot make a call whose toll call number is “201”, because the number whose second digit “0” is one of the Denied Codes for Level 6.

b) You can make a call whose toll call number is “800”. Though the number whose second digit “0” is one of the Denied Codes for Level 6, the number “800” is one of the Excepted Codes for Level 6. The Excepted Codes override the Denied Codes.

Flow Chart of Toll Restriction



Conditions

- Toll restriction checks are applied to the following:
 - (1) Automatic Route Selection (ARS)
 - (2) Account Code Entry
 - (3) Dial Access, Automatic
 - (4) Line Access, Individual
 - (5) Special Carrier Code Entry
 - (6) System Speed Dialing
- Emergency numbers the Police or Fire Department should be stored in Program [334] “Emergency Dial Number Set” so that they are excepted from toll restriction.
- If a stored Host PBX access code or a stored carrier code is found in the dialed number, a toll restriction check starts for the subsequent telephone number.
- Toll restriction for System Speed Dialing can be canceled for the whole system.
- It is programmable whether the “*” or “#” the user dials is to be checked or not on the Toll Restriction code. This is useful to prevent unauthorized calls which could be possible through certain Central Office exchange systems.
- It is programmable to allow the press of the FLASH button, during an outside call on the extensions in Levels 7 and 8.

Programming References

Section 4, System Programming

[207] First Digit Time

[208] Inter Digit Time

[300] TRS Override for System Speed Dialing

[301]–[305] TRS Denied Code Entry for Levels 2 through 6

[306]–[310] TRS Excepted Code Entry for Levels 2 through 6

[311] Special Carrier Access Codes

[332] Extra Entry Table Selection

[333] TRS Entry Code Assignment for Extra Table

[500]–[501] Toll Restriction Level — Day / Night

[601] Class of Service

[990] System Additional Information, Fields (14), (15)

Feature References

Section 3, Features

Toll Restriction for Special
Carrier Access

Toll Restriction Override by
Account Code Entry

Toll Restriction Override for
System Speed Dialing

Operation References

Not applicable.

Toll Restriction for Special Carrier Access

Description If your system has access to multiple telephone companies, access to a specific company requires a carrier access code preceding the telephone number. Toll Restriction on these calls is activated by storing the carrier codes (maximum 20). If a stored carrier code is found in the dialed number, a toll restriction check starts for the subsequent telephone number.

Conditions A carrier access code is followed by Automatic Pause Insertion. It is possible to select the pause time in System Programming.

Programming References

Section 4, System Programming
[311] Special Carrier Access Codes
[412] Pause Time

Feature References **Section 3, Features**
Toll Restriction

Operation References Not applicable.

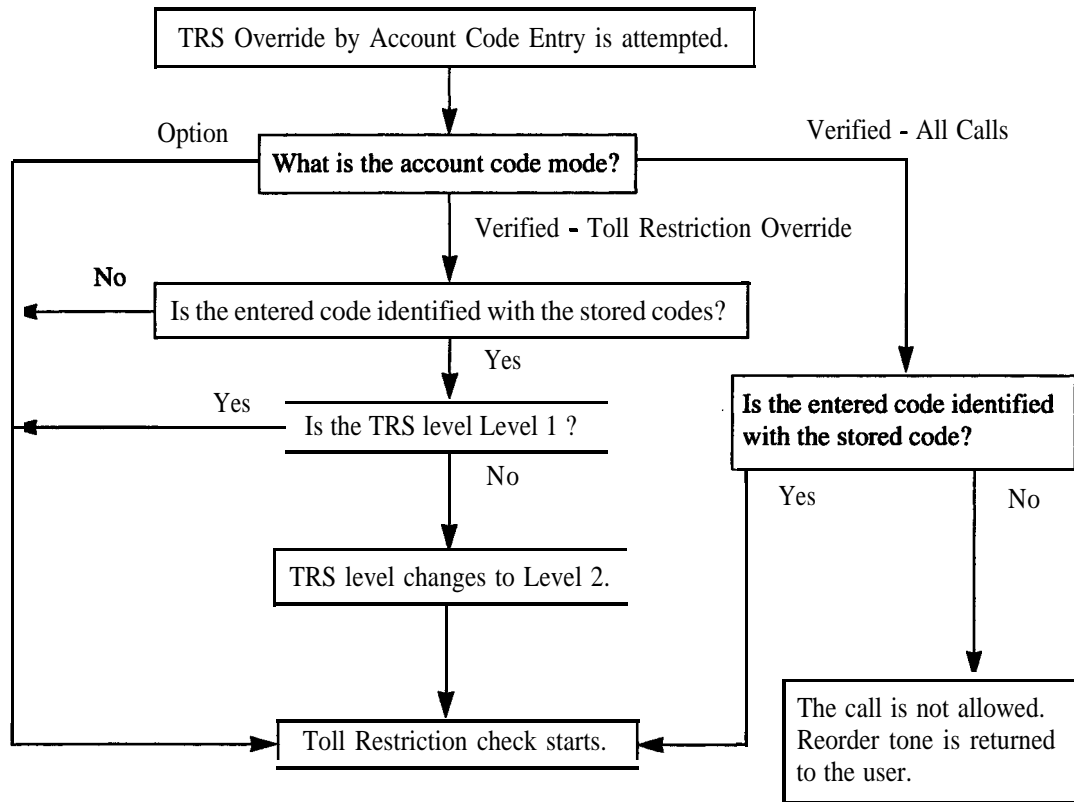
Toll Restriction Override by Account Code Entry

Description Allows the extension user to override toll restriction temporarily to make a toll call from a toll-restricted telephone. The user can carry out this feature by entering the appropriate account code before dialing the telephone number.

Conditions

- The toll restriction level of the user is set to level 2 by this feature. This can be used by extension users assigned a toll restriction level from 3 through 6. Levels 1 and 2 are not changed.
- A Class of Service which is assigned Account Code Entry – Verified Toll Restriction Override permits the class members to override their toll restrictions.
- Up to 20 account codes can be programmed for Verified Account code operation. These are used for Toll Restriction Override.
- If the user does not enter any account code or enters an invalid account code, an ordinary toll restriction check is done.

Flow Chart of TRS Override by Account Code Entry



Programming References

Section 4, System Programming

[100] Flexible Numbering, Account code entry

[508] Account Code Entry Mode

Feature References

Section 3, Features

Account Code Entry

Toll Restriction

Operation References

-User Manual

DPT Features, Standard Telephone Features

Toll Restriction Override — Toll Restriction Override by Account Code Entry

Toll Restriction Override for System Speed Dialing

Description Allows you to cancel Toll Restriction in System Speed Dialing. Normally, calls originated by System Speed Dialing are restricted depending on the extension's toll restriction level. Once this function is activated, it permits all extension users to make System Speed Dialing calls without restrictions.

Conditions None

Programming References

Section 4, System Programming
[300] TRS Override for System Speed Dialing

Feature References

Section 3, Features
System Speed Dialing Toll Restriction

Operation References

DPT Features, Standard Telephone Features
-User Manual Toll Restriction Override – Toll Restriction Override for System Speed Dialing

Trunk (Outside Line) Answer From Any Station (TAFAS)

Description

A tone signal is sent through the external pager when an incoming outside call is received. Any extension user can answer the call.

Conditions

- Connect a user-supplied external paging device. One external pager can be installed.
- A floating number of a pager is programmable.
- TAFAS can be used in the following cases:
 - a) The floating number of an external pager is assigned as the DIL 1: 1 destination. In this case all incoming calls on the specified line will be signaled.
 - b) A DISA caller dials the floating number of an external pager.
 - c) The floating number of an external pager is assigned as the Intercept Routing destination. In this case incoming calls redirected to the destination will be signaled.
- A confirmation tone is sent to the user before being connected to the caller. Eliminating the tone is programmable.

Connection References

Section 2, Installation

2.3.7 External Pager (Paging Equipment) Connection

Programming References

Section 4, System Programming

[100] Flexible Numbering, Paging – external answer / TAFAS answer

[813] Floating Number Assignment

[990] System Additional Information, Field (16)

Feature References

Section 3, Features

Floating Station

Operation References

-User Manual

DPT Features, Standard Telephone Features

Trunk (Outside Line) Answer From Any Station (TAFAS)

Two-way Recording into Voice Mail†

Description

Allows the proprietary telephone user to record a conversation into one's mailbox or another mailbox, while talking on the phone.

Note:

When you record Two-Way telephone conversations, you should inform the other party that the conversation is being recorded. Use the Two-Way Record button to record into your own mailbox. Use the **Two-Way** Transfer button to record into someone else's mailbox.

Conditions

- A flexible CO button **can** be assigned as a Two-Way Record button or a **Two-Way** Transfer button.
- When all of the voice mail ports are busy, pressing the **Two-Way** Record button sends an alarm tone.
- When all of the voice mail ports are busy, pressing the Two-Way Transfer button followed by an extension number sends an alarm tone.

Programming References

Section 4, System Programming
[005] Flexible CO Button Assignment
Station Programming..... User Manual
Flexible CO Button Assignment — **Two-Way** Record Button,
Two-Way Transfer Button

Feature References

None

Operation References

DPT Features
-User Manual Two-Way Recording into Voice Mail

†: Available when the Digital Super Hybrid System is connected to a Digital Proprietary Telephone capable Panasonic Voice Processing System (one that supports digital proprietary telephone integration; e.g. **KX-TVS100**).

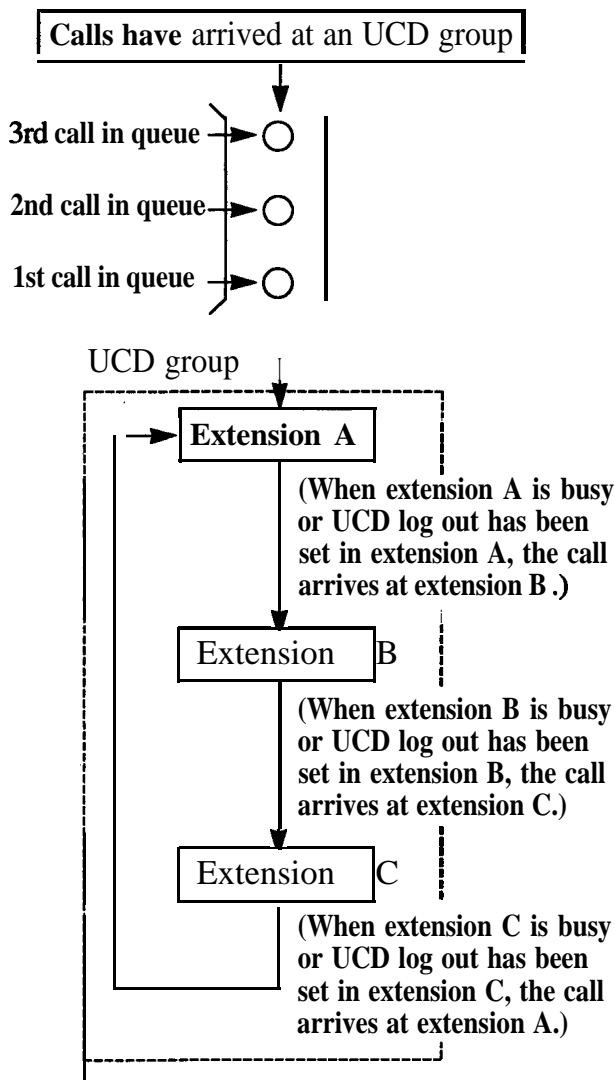
Uniform Call Distribution (UCD)

Description

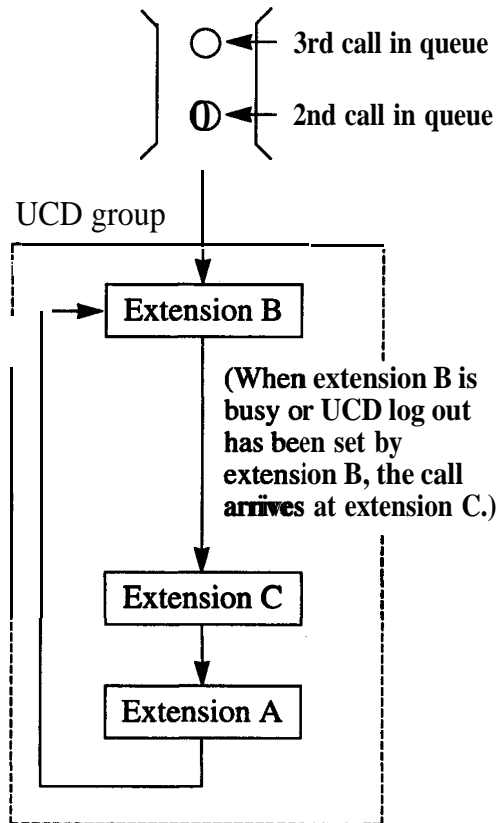
Allows incoming calls to be distributed uniformly to a specific group of extensions called an UCD group. Calls to an UCD group hunt for an idle station in a circular way. **This UCD feature is particularly helpful when a certain extension receives a high volume of calls compared with other extensions.**

If all extensions in an UCD group are busy or not available, the incoming outside call will be handled by the UCD Time Table. An outline sketch of UCD is shown below.

- (1) When a number of calls have arrived at an UCD group, the 1st call arrives at extension A first.



- (2) When the 1st call arrives at extension A, the 2nd call arrives at extension B.



- (3) When the 2nd call arrives at extension C, the 3rd call will arrive at extension A.

Conditions

- UCD can be used in the following cases:
 - a) The floating number of UCD is assigned as the DIL 1: 1 destination.
 - b) The floating number of UCD is assigned as the Intercept Routing destination.
 - c) The floating number of UCD is dialed from an extension.
 - d) The floating number of UCD is dialed from DISA.
- This feature requires assignment of an UCD group in System Programming. An extension cannot belong to two or more UCD groups.
- The floating number can be assigned on an UCD group basis. The UCD group is based on the extension group.
- It is possible to set the log-in or log-out status on an extension basis. An UCD call can arrive at an extension in log-in status within the UCD group, but cannot arrive at extensions in log-out status. If the extension would like to leave the group temporarily, the extension sets the log-out status by the feature number to prevent UCD calls being sent to his/her extension. When the extension re-joins the group, the extension sets the log-in status.
- There should be at least one extension that is in log-in status.

Programming References

Section 4, System Programming

[106] Station Hunting Type

[602] Extension Group Assignment

[813] Floating Number Assignment

Feature Reference

Section 3, Features

Extension Group

Station Hunting

Log-In / Log-Out

Operation References

-User Manual

DPT Features, Standard Telephone Features

Uniform Call Distribution (UCD)

User Programming (Manager Programming)

Description User Programming (Manager Programming) can be programmed by the end user. Programs [000] through [009] can be changed by the user.

Conditions None

Programming References
User Programming (Manager Programming) User Manual

Feature References None

Operation References Not applicable.

Voice Mail Integration

Description

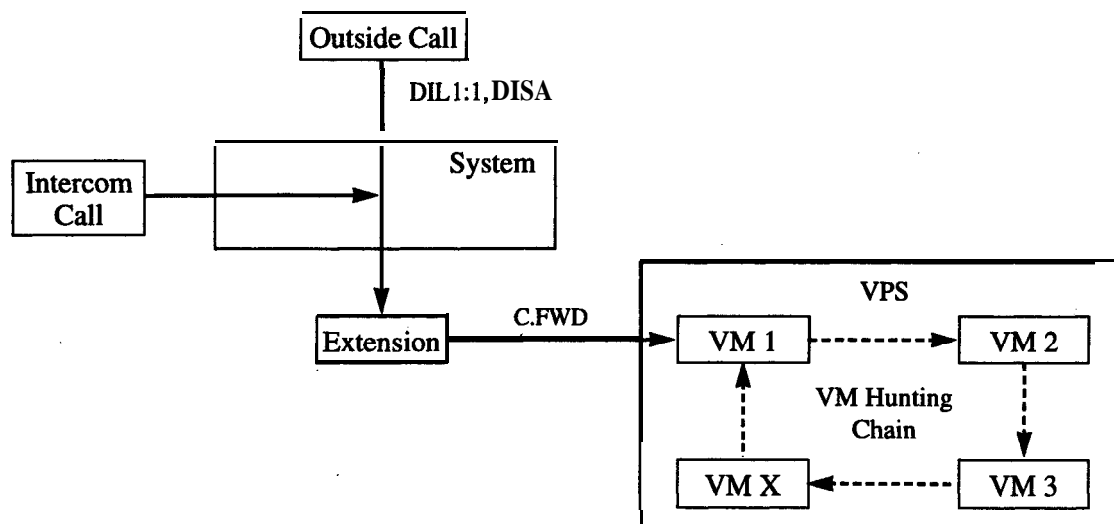
This system can accommodate Voice Processing System (VPS) equipment, which offers the user Voice Mail and Automated Attendant Services. If an extension user has set the Call Forwarding destination to the VPS, the calling party will be forwarded to the VPS and can leave a voice message in the mailbox of the extension. When a call is transferred to the VPS by Call Forwarding or Intercept Routing – No Answer features, the mailbox number is sent to the VPS automatically with DTMF signaling (Follow On ID). Up to four extension jacks can be connected to VPS as extensions in the system.

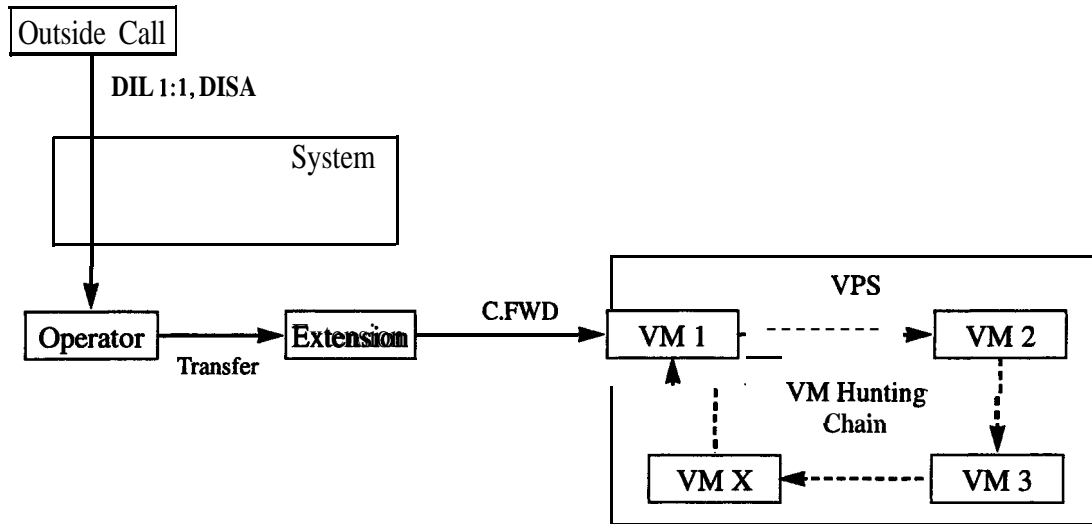
System Explanation

1. Voice Mail Service

1.1 Call Forwarding to VM

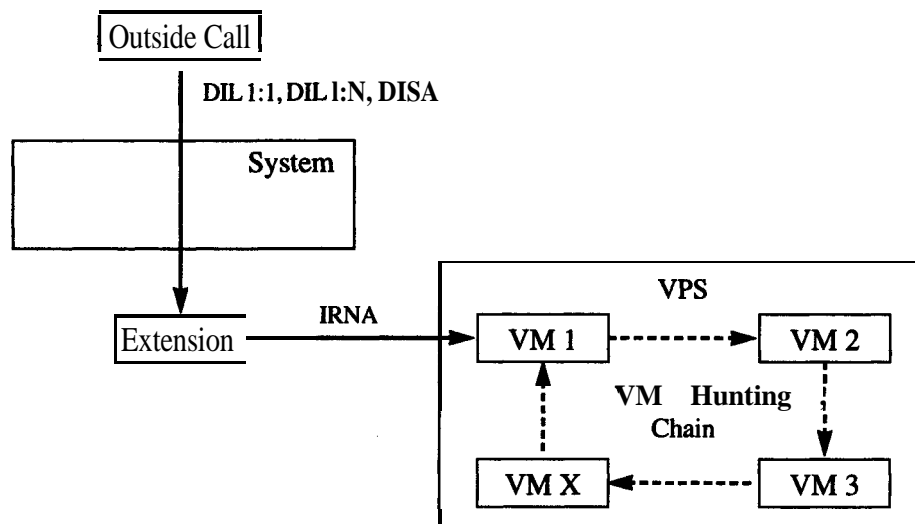
If an extension user sets Call Forwarding (C. FWD) whose destination is the VPS, an incoming call is forwarded to the VPS under the proper conditions. The system sends to the VPS a mailbox number of the corresponding extension at that time. Therefore the calling party can leave his / her message in the mailbox of the desired extension without knowing the mailbox number.





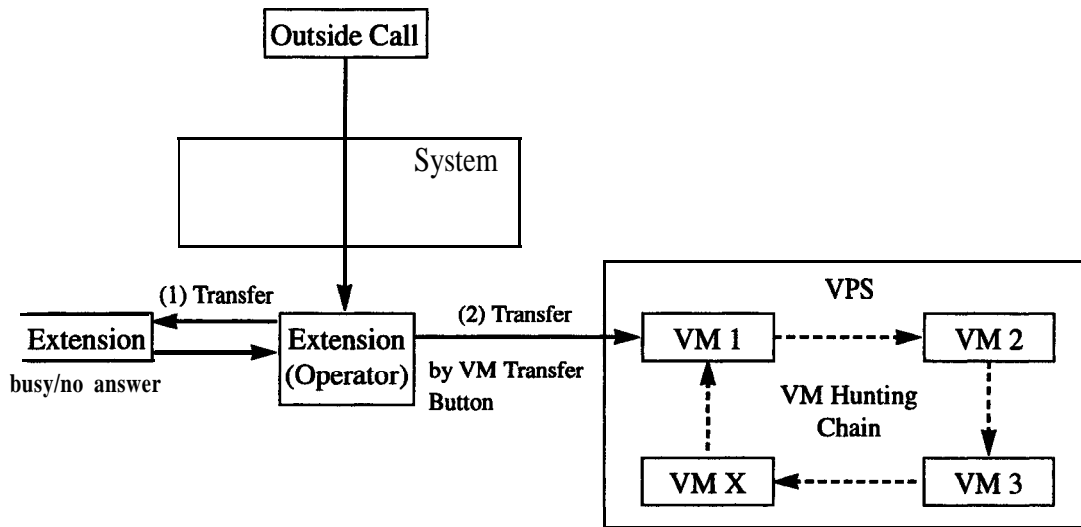
1.2 Intercept Routing to VM

If an outside line is set as Intercept Routing – No Answer (IRNA) whose destination is the VPS, an outside call is forwarded to the VPS under the proper conditions. The system sends to the VPS a mailbox number of the corresponding extension at that time. Therefore the calling party can leave his / her message in the mailbox of the desired extension without knowing the mailbox number.



1.3 Transferring to VM

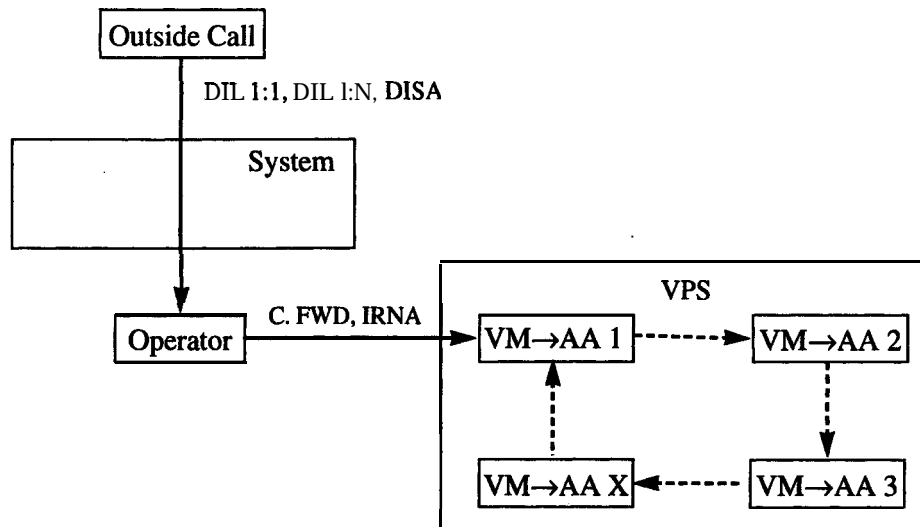
The extension user can transfer an outside call to the VPS so that calling party can leave his / her message in the mailbox of the desired extension. The extension user should use the Voice Mail (VM) Transfer button, when transferring a call to the VPS. Pressing this button and entering the extension number allows the extension user to transfer the call to the mailbox of the corresponding extension.



1.4 Changing from VM to Automated Attendant (AA)

The Automated Attendant Service is automatically activated in the following cases:

- 1) The incoming call is not answered by the operator and IRNA is activated.
- 2) The operator is assigned as a destination of **DIL 1: 1** and the operator sets the Call Forwarding to VPS.



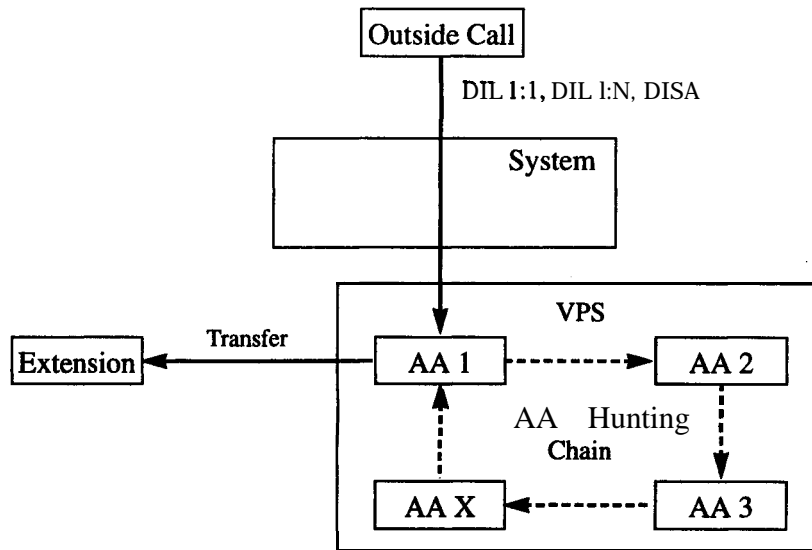
1.5 Listening to a Recorded Message

If the VPS receives a message, the VPS can turn on the MESSAGE button indicator of the corresponding telephone as notification to the user of the telephone. (Panasonic **KX-TVS** series can do this.) The VPS notifies the extension user that there is a message waiting in his / her mailbox. When the MESSAGE button indicator is lit, pressing the button allows the extension user to play back the stored message.

2. Automated Attendant (AA) Service

2.1 AA to Extension

AA receives and answers an outside call and offers services such as transferring to a specified extension or the corresponding mailbox by the DTMF signaling, which is sent from the calling party.



Conditions

- To activate this feature with a **KX-TD308** connected to one of the following **VPSs**, specific programming is required.

| Model | I Software Version I |
|------------------|----------------------|
| KX-TVS100 | up to VA2250 |
| XX-TVs75 | up to VB2230 |
| KX-TVS200 | UD to VC2100 |

- Assign **KX-TD8** 16 as the PBX type for the VPS.
 - The number of digits for the mailbox number and extension number must be the same (default: the mailbox number – three digits, the extension number – two digits). If they do not match, reset the VPS with the reprogrammed number of digits.
- A VPS can be assigned as the destination of the following features.
 - Call Forwarding – All Calls
 - Call Forwarding – Busy
 - Call Forwarding – Busy / No Answer
 - Call Forwarding – No Answer
 - Intercept Routing – No Answer

In these functions, the caller to the extension need not know the mailbox number of the called extension because the code is automatically transmitted to the VPS (Follow On ID function). If a DIL 1 :N call is transferred to the VPS by IRNA, your system transmits the mailbox number of the lowest jack number of the receiving extensions.

- A mailbox number is a respective extension number by default. The mailbox number can be changed, only if program [990] “System Additional Information, Field (18)” is set to “free”.
- Pressing the Voice Mail Transfer button and dialing the extension number allows the extension user to transfer to the corresponding mailbox. In this case, Follow On ID function is available.

- The Voice Mail extension should be set to Data Line Security to achieve proper recording.
- The Voice Mail extension can execute the Busy Station Signaling (BSS) function to the ringing extension.

Connection References

Section 2, Installation

2.3.3 Extension Connection

Programming References

Common

Section 4, System Programming

[005] Flexible CO Button Assignment

[100] Flexible Numbering, Call forwarding / do not disturb, Message waiting

[113] VM Status DTMF Set

[114] VM Command DTMF Set

[407]–[408] DIL 1: 1 Extension — Day / Night

[409]–[410] Intercept Extension — Day / Night

[603]–[604] DIL 1 :N Extension and Delayed Ringing — Day / Night

[609] Voice Mail Access Codes

[990] System Additional Information, Fields (6) through (9), (18)

Station Programming......**User Manual**

Flexible CO Button Assignment – MESSAGE Button,
Voice Mail (VM) Transfer Button

For VM Service

Section 4, System Programming

[106] Station Hunting **Type** (Select Voice Mail Hunting.)

[990] System Additional Information, Field (35)

For AA Service

Section 4, System Programming

[106] Station Hunting Type (Select Automated Attendant Hunting.)

[990] System Additional Information, Fields (24), (36)

Feature References

Section 3, Features

Call Forwarding – All Calls

Call Forwarding – No Answer

Call Forwarding – Busy

Intercept Routing

Call Forwarding – Busy / No Answer

Station Hunting

Operation References -User Manual

DPT Features, Standard Telephone Features

Voice Mail Integration

Voice Mail Transfer

Voice Mail Integration for Digital Proprietary Telephoned

Description

A Digital Proprietary Telephone capable Panasonic Voice Processing System can be connected to a Digital Super Hybrid System (DSHS) in a tightly integrated fashion. The system sends the VPS data which contains **the** extension number configuration information and the VPS automatically creates mailboxes with **this** data (Automatic Configuration — Quick Setup).

Conditions

- A maximum of one VPS can be connected to each DSHS cabinet.
- A maximum of two DSHS jacks can be connected to a digital proprietary telephone capable VPS. Because a digital proprietary telephone connection supports up to two simultaneous voice calls, only one DSHS jack needs to be connected for every two VPS ports.
- Connect the jacks and ports in ascending order. In other words, the lowest number DSHS jack used for VPS connection must be connected to the lowest number VPS port.
- The VPS data is transmitted to the VPS via the lowest jack port.

Programming References

Section 4, System Programming
[117] Voice Mail Number Assignment
[118] Voice Mail Extension Number Assignment
[119] Voice Mail Extension Group Assignment
[610] Live Call Screening Recording Mode Assignment

Feature References

Section 3, Features
Voice mail Integration

Operation References

Not applicable.

†: Available when the Digital Super Hybrid System is connected to a Digital Proprietary Telephone capable Panasonic Voice Processing System (one that supports digital proprietary telephone integration; e.g. KX-TVS 100).

Volume Control – Speaker / Handset Receiver / Headset / Ringer

Description

Allows the proprietary telephone user to change the following as desired:

- Handset receiver volume
- Headset volume
- Ringer volume
- Speaker volume

Conditions

The control method depends on the telephone type:

- With a digital proprietary telephone, press the volume control button (VOLUME A / v **UP** / **DOWN**) to select a desired volume level. However the ringer volume of **KX-T7220** and **KX-T7250** is selected with Ringer Volume Selector (OFF / LOW / HIGH).
- With other proprietary telephones, slide the following levers located on the left side of the telephone.

Volume Control (MIN – MAX)

Handset Headset

Volume Selector (NORMAL / MID / HIGH)

Ringer Volume Selector (**OFF** / LOW / HIGH)

Programming References

No programming required.

Feature References

None

Operation References Configuration

-User Manual

Volume Control – Handset Receiver/Headset/Ringer/Speaker

walking cos

Description Allows a user who is not at their own telephone to use all of the COS functions of their extension. At another extension, the user dials the walking COS password, and for the duration of the call, the COS of the extension is changed to the COS of their own extension.

Conditions None

Programming References

Section 4, System Programming
[**100**] Flexible Numbering, Walking COS
[**121**] Walking COS Password
[**601**] Class of Service

Feature References **Section 3, Features**
Class of Service (COS)

Operation References **DPT Features, Standard Telephone Features**
-User Manual Walking COS

Section 4

System Programming

This section provides step-by-step programming instructions
for a proprietary telephone.

4.1 General Programming Instructions

Default Setting

This system has a default factory setting. If any of the programming needs to be changed, you will find the necessary information in Section 3, “Features”. This makes the system very simple to install and customize as required by the customer. Any required changes can be written in “Programming Tables”.

Required Telephone Set

One of the following telephone sets is required for System Programming:

- Digital Proprietary Telephone (DPT): KX-T7235, KX-T7230
- Analog Proprietary Telephone (APT): KX-T7 130, KX-T7030

Extensions Used for Programming

Connect one of the above-mentioned telephone sets to either of the following:

- Jack number 1
- Jack programmed as a manager extension

To assign the manager extension, see Section 4.2 [006] “Operator / Manager Extension Assignment”.

User Programming (Manager Programming)

Manager programming items are allowed for any display proprietary telephone user in the system. See Section 4.1.4 “User Programming”.

4.1.1 Using Proprietary Telephones

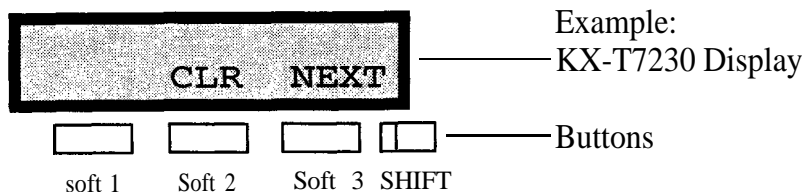
Soft Buttons and SHIFT Button on the Display DPT

Three soft buttons are provided just below the display on the display of Digital Proprietary Telephones (DPT). The functions of these soft buttons vary as the programming procedures advance step by step. Those functions that are currently assigned to the buttons are shown on the lower line of the display. (See “Viewing the Display” on page 4-6 for more information on the display lines.)

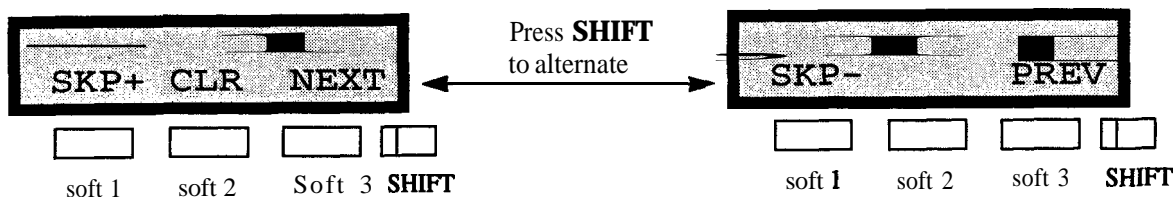
If the SHIFT button indicator is on, two functions are available with each soft button. To alternate between the two functions, press the **SHIFT** button on the right side of the display.

Soft button variations

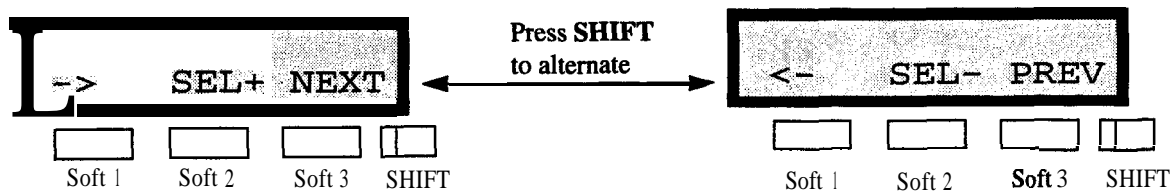
Type 1



Type 2

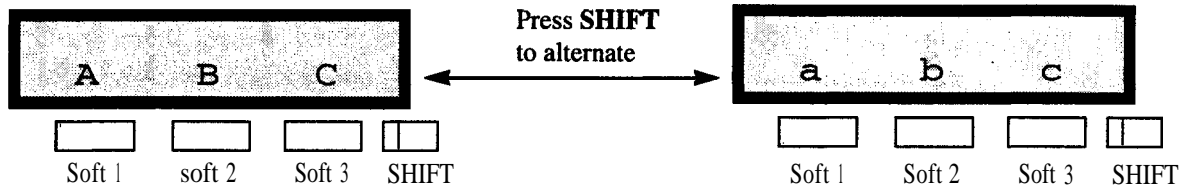


Type 3

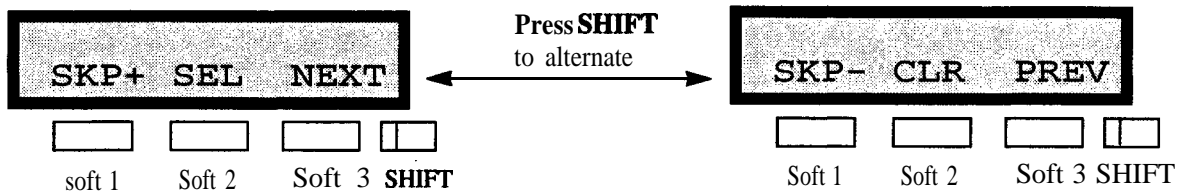


4.1.1 Using Proprietary Telephones

Type 4



Type 5



You can use either the soft buttons or the overlay buttons. (For overlay buttons, refer to “Using the Overlay” below.)

Throughout programming you will see instructions such as “Press PREV”. If you use soft buttons, this means press **SHIFT**, release SHIFT and then press **Soft 3**. The (PREV) function is performed.

Note If you use soft buttons and if programming instructions tell you to press the following buttons, you may press soft buttons shown below.

| Instructions | Soft button |
|---------------|--------------------|
| SELECT | SEL+, SEL-, or SEL |
| CLEAR | CLR |

Using the Overlay

A programming overlay is packed **with** the telephone at the factory. This overlay should be used at all times while in programming mode since the functions of the telephone keys change while in programming mode as follows: (The original functions are in parentheses.)

4.1.1 Using Proprietary Telephones

During Normal Operation

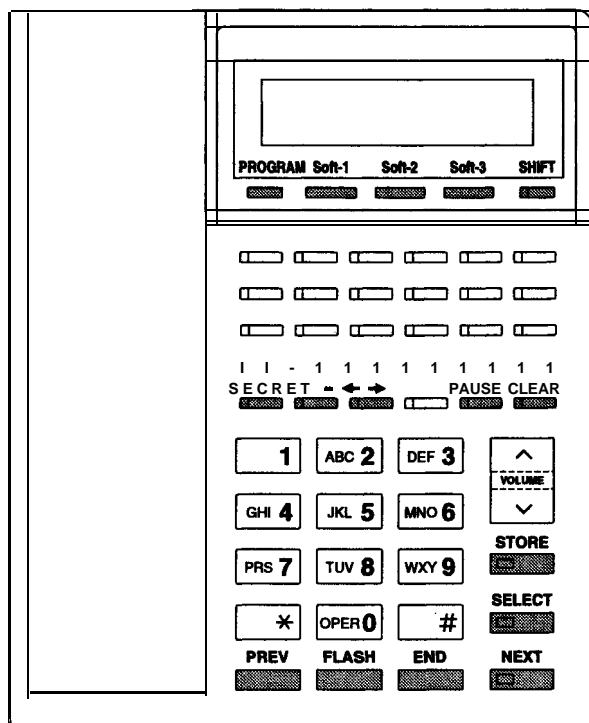
(PAUSE)
 (SP-PHONE)
 (REDIAL)
 (AUTO ANSWER / MUTE)
 (FLASH)
 (TRANSFER)
 (FWD/DND)
 (CONF)
 (INTERCOM)
 (AUTO DIAL / STORE)
 (HOLD)

During Programming

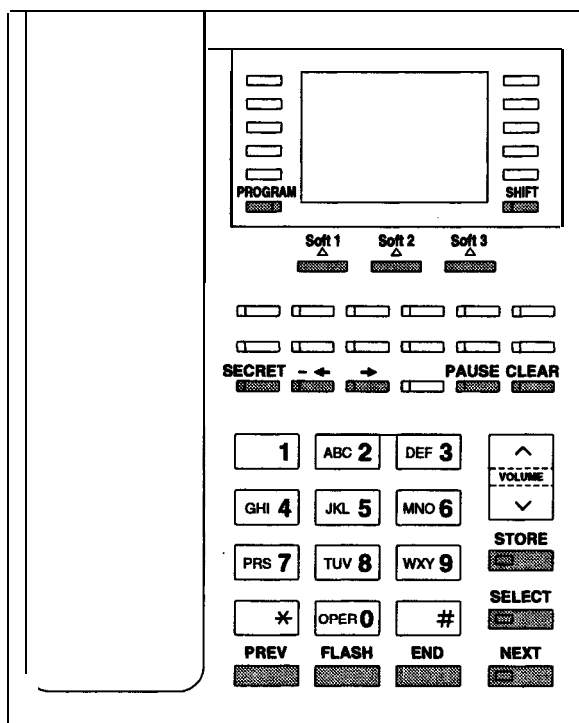
PAUSE / PROGRAM
 NEXT
 PREV (PREVIOUS)
 SELECT
 FLASH
 CLEAR
 →
 - / ←
 SECRET
 STORE
 END

Location of Controls with the Overlay

The pictures below show the functions of the buttons of the KX-T7235 and KX-T7230 while in programming mode.



KX-T7230



KX-T7235

4.1.1 Using Proprietary Telephones

Viewing the Display

The display gives you helpful information, such as what you should do now, what you have done, etc..

The **KX-T7230** and the **KX-T7235** both utilize two information lines for programming. The upper line is called the Message Line and the lower one is called the Function Line.

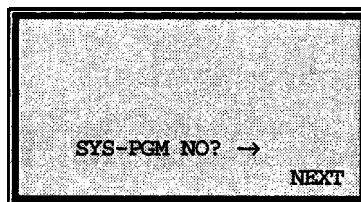
The Message Line (upper) shows you what you should do or what you should select. It also allows you to confirm what you have just entered. The display capacity is 16 digits. If your entry exceeds the capacity, you can shift the display by pressing **➡** or **⬅** button.

The Function Line (lower) shows the current function of the soft buttons. These functions change with the programming procedures.



KX-T7230 Display

← Message Line
← Function Line



KX-T7235 Display

← Message Line
← Function Line

Before entering the programming mode

Before entering programming mode, confirm that:

- Your telephone is on-hook.
- No calls are on hold at your telephone.

Entering the programming mode

Press **PROGRAM** (or **PAUSE**) + * + # and enter your **System Password (default=1234)**.

- The display shows the Initial Message: **SYS-PGM NO? ->**

- Note**
- *If your telephone set does not have a **PROGRAM** button, substitute it with the **PAUSE** button.*
 - If nothing is entered in five seconds after the **PROGRAM** (or **PAUSE**) button is pressed, it is cancelled.
 - **The** System Password entered is not shown on **the** display. **The** System Password can be changed by System Programming. Refer to Section 4.3 [107] ‘System Password’.
 - During the programming mode, your extension is treated as a busy extension.
 - Only one proprietary telephone can be in programming mode at any one time.

4.1.2 Programming Methods

Advancing to the next stage

When “**SYS-PGM NO? →**” is displayed, you can select one of the following:

- To go to program [000], press the **NEXT** button.
- To go to another program, enter the 3-digit program address.

Rotatiod of jack number

Each jack of the Digital Super Hybrid System supports the connection of a digital proprietary telephone and a single line device with different extension numbers (**eXtra** Device Port: XDP function). To program this function it is necessary to assign two parts for each jack. The first part of jack one is 1-1. The second part of jack one is 1-2. The first part of jack two is 2-1 and so on. The **NEXT** and **PREV** buttons can be used to move from jack to jack as required in programs [003], [004] and [601] through [609].

Example;



Note The first part of a jack is for a **DPT** of a XDP-assigned jack. The second part is for a single line device. Program [600] “**EXtra** Device Port” assigns which jacks are **XDP**.

Storing your data

Press **STORE** to store your data.

- The **STORE** indicator lights red and a **confirmation** tone is emitted.

* **Confirmation tone (one beep)**

After pressing **STORE**, you will hear a beep. This informs you that storage is completed.

* **Alarm tone (three beeps)**

If you hear this alarm, your entry is not valid.

Making another selection within the same program address

- To make the next higher selection, press **NEXT**.
- To make the previous selection, press **PREV**.
- To make a specific selection, press **SELECT** and then enter the number.

4.1.2 Programming Methods

Going to another program address

After pressing **STORE**, you can go to another program with either of the following two methods:

- (1) • To go to the next larger program address:
Press **Soft 1 (SKP+)** or **VOLUME v (DOWN)**.
 - To go to the next smaller program address:
Press **SHIFT + Soft 1 (SKP-)** or **VOLUME A (UP)**.
- (2) To go to a specific program address:
Press **END**, then enter the Program Address.

Method (1) is useful when you **want** to perform a series of programs consecutively. For example, to change the programming in addresses [000] to [008], use this method. You can move from [000] to [001], from [001] to [002], and so on by pressing the **SKP+** or **VOLUME v**. You can move in reverse order from [008] to [007], etc. by pressing the **SKP-** or **VOLUME A**. This method can also be used to move between neighboring program groups: For example, you can move between the program addresses [008] and [100], [116] and [200], and so on. Also, you can move between the smallest program address [000] and the largest one [991].

Method (2) is useful when you wish to jump to another program address. For example, you have just finished with program [006] and now you want to go to program [301]. Neither **SKP+ / VOLUME v** nor **SKP- / VOLUME A** is convenient in this case. So you should press **END** and enter 301.

| |
|--|
| Note The following programming instructions assume that you have already entered the programming mode and that you will use Method (2). |
|--|

Confirming the entries

You may review the stored programming without making any changes.

Going back to the operation mode

Two ways are available to go back to the operation mode:

- (1) Lift the handset while in programming mode.
- (2) When the Initial Message: **SYS-PGM NO? →** is displayed, press the **PROGRAM (or PAUSE)** button.
(To display the Initial Message, press **END**.)

4.1.3 Entering Characters

You can enter characters to store names for speed dial numbers, extension numbers, etc., by using the dialing key pad and the buttons.

Each of the twelve dialing keys on the dialing key pad has seven characters assigned. See the Combination Tables below.

| Step 1. Press \ Step 2. Press | Soft 1 (SHIFT) | Soft 2 (SHIFT) | Soft 3 (SHIFT) |
|-------------------------------|----------------|----------------|----------------|
| 1 | Q q | Z z | ! ? |
| 2 | A a | B b | C c |
| 3 | D d | E e | F f |
| 4 | G g | H h | I i |
| 5 | J j | K k | L l |
| 6 | M m | N n | 0 o |
| 7 | P p | R r | S s |
| 8 | T t | U u | V v |
| 9 | W w | X x | Y y |
| 0 | . | , | ; |
| * | / + | - = | < > |
| # | \$ % | & @ | () |

Combination Table 1

* Press SHIFT to alternate between capital and lower case letters.

| Pressing SELECT (Times) \ Keys | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|--------------------------------|---|----|---|---|---|---|---|
| 1 | 1 | Q | q | Z | z | ! | ? |
| 2 | 2 | A | a | B | b | C | c |
| 3 | 3 | D | d | E | e | F | f |
| 4 | 4 | G | g | H | h | I | i |
| 5 | 5 | J | j | K | k | L | l |
| 6 | 6 | M | m | N | n | O | o |
| 7 | 7 | P | p | R | r | S | s |
| 8 | 8 | T | t | U | u | V | v |
| 9 | 9 | W | W | X | x | Y | y |
| 0 | 0 | . | . | , | , | : | : |
| * | * | / | + | - | = | < | > |
| # | # | \$ | % | & | @ | (|) |

Combination Table 2

Note The alphabetical characters correspond to the letters shown on the twelve dialing keys on the proprietary telephone. (except Q, q, Z, z and other symbols)

4.1.3 Entering Characters

Please see the following example which shows how to select a desired character.

For example, to select the letter “M”:

Select either of the following two methods:

- (1) Using the **SHIFT** and **Soft** buttons (for display DPT only)
* See Combination Table 1.
 1. Press 6. (“M” belongs to “6”.)
 - The Function Line shows: M N O
 2. Press the **Soft 1 (M)** button.
(Press **SHIFT** to display the lower case of the above letters.)
- (2) Using the **SELECT** button
* See Combination Table 2.
 1. Press 6. (“M” belongs to “6”.)
 2. Press the **SELECT** button once.
 - Pressing the **SELECT** button an appropriate number of times gives you the desired letter. Pressing **SELECT** twice gives the letter “m”, pressing three times gives “N”, and so on.

Example of entering characters: to enter “Mike”:

Using method (1)

* See Combination Table 1.

1. Enter 6.
2. Press **Soft 1 (M)**.
3. Enter 4.
4. Press **sm**.
5. Press **Soft 3 (i)**.
6. Enter 5.
7. Press **Soft 2 (k)**.
8. Enter 3.

The display shows:

| | | |
|---|---|---|
| 6 | | |
| M | N | O |

| | | |
|---|---|---|
| M | | |
| M | N | O |

| | | |
|----|---|---|
| M4 | | |
| G | H | I |

| | | |
|----|---|---|
| M4 | | |
| g | h | i |

| | | |
|----|---|---|
| Mi | | |
| g | h | i |

| | | |
|-----|---|---|
| Mi5 | | |
| j | k | l |

| | | |
|-----|---|---|
| Mik | | |
| j | k | l |

| | | |
|------|---|---|
| Mik3 | | |
| d | e | f |

4.1.3 Entering Characters

9. Press **Soft 2 (e)**.

| | |
|---|------|
| | Mike |
| d | e f |

Using method (2)

* See Combination Table 2.

The display shows:

- | | |
|------------------------------------|-------------|
| 1. Enter 6. | 6 |
| 2. Press SELECT . | M |
| 3. Enter 4. | M4 |
| 4. Press SELECT six times. | Mi |
| 5. Enter 5. | Mi5 |
| 6. Press SELECT four times. | Mik |
| 7. Enter 3. | Mik3 |
| 8. Press SELECT four times. | Mike |

- Notes**
- To erase all the letters, press **CLEAR**.
 - To erase the last letter, press **←**.

4.1.4 User Programming Mode

Some programming items are accessible by any display proprietary telephone user in the system.

The programming items are listed below:

- [000] Date and Time Set
- [001] System Speed Dialling Number Set
- [002] System Speed Dialling Name Set
- [003] Extension Number Set
- [004] Extension Name Set
- [005] Flexible CO Button Assignment
- [006] Operator/Manager Extension Assignment
- [008] Absent Message
- [009] Quick Dial Number Set

Entering the user programming mode

You can access these programs by entering the User Programming Mode as follows:

Before entering the mode, confirm that:

- Your telephone is on-hook.
- No calls are on hold at your telephone

Press PROGRAM (or PAUSE) + * + * and enter the User Password (default: 1234)

After entering the mode, perform the same programming steps as the system programming steps in each program address.

- Note**
- *If your telephone set does not have a PROGRAM button, substitute it with the PAUSE button.*
 - If nothing is entered **in five** seconds after **the PROGRAM (or PAUSE) button** is pressed, it is cancelled.
 - The User Password is not shown on the display. The password can be changed by system programming. Refer to Section 4.3 [120] “User Password”.
 - During the programming mode, your extension is treated as a busy extension.
 - Only one proprietary telephone can be in programming mode at any one time.

4.1.5 Programming Example

The following programming instructions assume that you have already entered the programming mode and that you will employ method (2) on page 4-8.

Example: Program [001] “System Speed Dialing Number Set”

| Sample of Description | Explanation |
|---|--|
| <p>001⁽¹⁾ 4.2 Manager Programming@</p> <p><i>System Speed Dialing Number Set⁽³⁾</i></p> <hr/> <p>Description⁽⁴⁾ Used to program the System Speed Dial numbers. These numbers are available to all extension users. There are 100 numbers from 00 through 99.</p> <p>Selection⁽⁵⁾ • Speed dial number: 00 through 99 • Telephone number: 24 digits (max.)</p> <p>Default⁽⁶⁾ All speed dial numbers – Not stored</p> <p>Programming⁽⁷⁾</p> <ol style="list-style-type: none"> 1. Enter 001.⁽⁸⁾ Display: 001 SYS SPD DIAL⁽⁹⁾ 2. Press NEXT.⁽¹⁰⁾ Display: SPD Code?+''' 3. Enter a speed dial number. To enter speed dial number 00, you can also press NEXT. Display example: 00:Not Stored⁽¹²⁾ 4. Enter a telephone number. ⁽¹³⁾ To delete the current entry, press CLEAR. ⁽¹⁴⁾ To change the current entry, press CLEAR and the new number. 5. Press STORE.“” 6. To program another speed dial number, press NEXT or PREV, or SELECT and the desired speed dial number.⁽¹⁶⁾ 7. Repeat steps 4 through 6. ⁽¹⁷⁾ 8. Press END. ⁽¹⁸⁾ | <ol style="list-style-type: none"> (1) Program address: This address is printed at the top of every page to allow you to quickly find the desired program. (2) Running title: tells you which group the program belongs to. (3) Program title. (4) Provides a more detailed description of the program. (5) Shows you choices that you can assign. (6) Shows you the default (factory setting). (7) Shows you programming procedures step by step. <ul style="list-style-type: none"> • While programming, use the overlay. • Before starting to program, enter the programming mode. (See “Entering the programming mode” on page 4-6.) (8) Enter the program address. (9) The display shows the program title. If your telephone has soft buttons, the lower line shows the functions that are currently assigned to them. (10) Press either Soft 3 (NEXT) shown on the display or the NEXT shown on the overlay. (11) The message line advises you to enter a speed dial number. (12) If the telephone number has already been stored, the number is displayed. (13) Enter the telephone number that you want to store. Your entry is displayed as you enter the digits. (14) Pressing CLEAR erases the whole entry. (15) Your entry is now stored. The indicator lights red and a confirmation tone lets you know that storage is complete. (16) Select the best way for you to store another speed dial number. Pressing the NEXT / PREV allows you to select the next higher / lower speed dial number. You can also keep pressing them until the desired one is displayed. If you press SELECT |

4.1.5 Programming Example

| Sample of Description | Explanation |
|--|---|
| <p>001 4.2 Manager Programming</p> <p><i>System Speed Dialing Number Set (contd.)</i></p> | <p>and the desired speed dial number, the selected code is displayed.</p> <p>(17) You can continue to program another entry.</p> |
| <p>Conditions ⁽¹⁹⁾ . Each speed dial number has a maximum of 24 digits. The valid characters are 0 through 9, * and # keys, FLASH, PAUSE, SECRET and - (hyphen) buttons.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p>Feature References ⁽²⁰⁾ Section 3, Features Special Features for KX-T7235 — System Speed Dialing System Speed Dialing</p> | <p>(18) After you have stored all your entries, finish this program by pressing END. After pressing END you can go to any program address you desire. You can return to the Initial Message mode any time by pressing END.</p> <p>To go to the next larger program address, do not press END but press Soft 1 (SKP+) or VOLUME ∇ .</p> <p>To go to the next smaller program address, do not press END but press SHIFT + Soft 1 (SKP-) or VOLUME ▲ .</p> <p>(19) Tells you what you should notice or consider when doing the programming.</p> <p>(20) Lists all of the features related to the programming. These features are described in Section 3.</p> |

Programming Structure

| Program Address | Programming Group | Description |
|-----------------|--------------------------|--|
| [000] – [009] | Manager Programming | These programs may be accessed by the system manager of the customer to meet frequent changes requested by the customer. |
| [100] – [129] | System Programming | Entire system programming. |
| [200] – [219] | Timer Programming | Flexible system timer setting. |
| [300] – [334] | TRS / ARS Programming | Assignment of Toll Restriction and ARS. |
| [400] – [417] | Outside Line Programming | Setting of outside line and outside line group values. |
| [500] – [508] | COS Programming | Setting of Class of Service (COS). |
| [600] – [610] | Extension Programming | Setting of extension values. |
| [800] – [815] | Resource Programming | Assignment of customer-supplied peripherals connected to the system. |
| [900] – [991] | Option Programming | Used to answer the user's requirements or troubles, if needed. |

Date and Time Set

NOTICE

It is assumed that you have read Section 4.1 “General Programming Instructions”. Soft button usage is explained in that section, therefore no references will be made to them in the following instructions. The soft buttons can be used in place of the overlay keys at any time.

Description

Sets the current date and time. A 12 hour clock or 24 hour clock can be selected.

Selection

- **Year: 00 through 99**
- **Month: Jan. through Dec.**
- **Day: 1 through 31**
- **Day of the week: SUN / MON / TUE / WED / THU / FRI / SAT**
- **Hour: 1 through 12**
- **Minute: 00 through 59**
- **AM/PM**
- **Clock hour: 12 or 24**

Default

'97 Jan. 1 WED 12:00 AM 12

Programming

1. Enter 000.

Display: 000 DATE / TIME

2. Press **NEXT**.

Display example: '97 Jan. 1 WED

3. Enter the **year**.

To change the current entry, press **CLEAR** and enter the new year.

4. Press **➡** .

5. Keep pressing **SELECT** until the desired month is displayed.

6. Press **➡** ,

7. Enter the **day**.

To change the current entry, press **CLEAR** and enter the new day.

8. Press **➡** .

Date and Time Set (contd.)

9. Keep pressing **SELECT** until the desired day of the week is displayed.

10. Press **STORE**.

11. Press **NEXT**.

Display example: 12:00 PM 24

12. Enter the **hour**.

To change the current entry, press **CLEAR** and enter the new hour.

13. Press **➡** .

14. Enter the **minute**.

To change the current entry, press **CLEAR** and enter the new minute.

15. Press **➡** .

16. Press **SELECT** for AM or PM.

17. Press **➡** .

18. Press **SELECT** for 12 or 24 (clock hour).

19. Press **STORE**.

20. Press **END**.

Conditions

- After changing an entry, you can press **STORE**. You do not have to perform the rest of the steps.
- To return to a previous **field**, press **⬅** in steps 4 through 9 and steps 13 through 18.
- If you hear an alarm after pressing **STORE**, check that the date is valid.
- The clock starts immediately after the **STORE** button is pressed.
- You **cannot** leave an entry empty.
- Program [990] “System Additional Information, Field (30)” is used to enable the automatic time adjustment by Caller ID information once a day.

Feature References

Section 3, Features
Display, in Idle

System Speed Dialing Number Set

| | |
|--------------------|---|
| Description | Used to program the System Speed Dial numbers. These numbers are available to all extension users. There are 100 numbers from 00 to 99. |
| Selection | <ul style="list-style-type: none">• Speed dial number: 00 through 99• Telephone number: 24 digits (max.) |
| Default | All speed dial numbers – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 001. <code>Display: 001 SYS SPD DIAL</code>2. Press NEXT. <code>Display: SPD Code?+</code>3. Enter a speed dial number. To enter speed dial number 00, you can also press NEXT. <code>Display example: 00:Not stored</code>4. Enter a telephone number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number.5. Press STORE.6. To program another speed dial number, press NEXT or PREV, or SELECT and the desired speed dial number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• Each speed dial number has a maximum of 24 digits. The valid characters are 0 through 9, *, and # keys, and the FLASH, PAUSE, SECRET and – (hyphen) buttons.<ul style="list-style-type: none">– To store the flash signal, press FLASH. Note: The stored flash will only be effective during an established call. (Refer to Section 3 “External Feature Access”.)– To store a hyphen, press the “-” button.– To store a pause, press PAUSE. (Refer to Section 3 “Pause Insertion, Automatic”.) |

System Speed Dialing Number Set (contd.)

- To store a feature number to convert pulse signals to DTMF signals, press the * and # keys.
(Refer to Section 3 “Pulse to Tone Conversion”.)
- To prevent displaying of all or part of the number, press SECRET before and after the confidential parts of the number, or your entry is not stored. (Refer to Section 3 “Secret Dialing”.)
- If you are storing an external number, include the line access code (9, 81 through 83) before the number. When dialing, pause is automatically inserted after the code.
- If you are storing an account code, enter the account code before the line access code.
(Refer to Section 3 “Account Code Entry”.)
- It is possible to store a number consisting of 25 digits or more by storing it in two speed dial numbers. The line access code should be stored in the **first** speed dial number.
- To access another speed dial number in steps 3 through 6, press SELECT and start with step 3.
- To display parts of the number which have scrolled off the display, press **▶** or **◀**.
- Program [002] “System Speed Dialing Name Set” is used to name the speed dial numbers.

Feature References**Section 3, Features**

Special Features of the **KX-T7235** — System Speed Dialing
System Speed Dialing

System Speed Dialing Name Set

| | |
|---------------------------|---|
| Description | Assigns names to the system speed dial numbers assigned in program [001] “System Speed Dialing Number Set”. The large display telephone (KX-T7235) shows the stored name during System Speed Dialing. |
| Selection | <ul style="list-style-type: none">• Speed dial number: 00 through 99• Name: 10 characters (max.) |
| Default | All speed dial numbers – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 002. <code>Display: 002 SYS SPD NAME</code>2. Press NEXT. <code>Display: SPD Code?+</code>3. Enter a speed dial number. To enter speed dial number 00, you can also press NEXT. <code>Display example: 00:Not stored</code>4. Enter a name. For entering characters, see Section 4.1.3 “Entering Characters”. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new name.5. Press STORE.6. To program another speed dial number, press NEXT or PREV, or SELECT and the desired speed dial number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• Speed dial numbers are programmed in program [001] “System Speed Dialing Number Set”.• Each name has a maximum of 10 characters.• To go to another speed dial number in steps 3 through 6, press SELECT and start with step 3. |
| Feature References | Section 3, Features Special Features of the KX-T7235 — System Speed Dialing |

Extension Number Set

| | |
|--------------------|---|
| Description | Assigns an extension number to each extension. |
| Selection | <ul style="list-style-type: none">• Jack number: 1 through 8 (-1 / -2) (-1 = first part, -2 = second part)• Extension Number: 2 through 4 digits |
| Default | Jack 1-1 through 8-1 = 11 through 18; Jack 1-2 through 8-2 = 21 through 28 |
| Programming | <ol style="list-style-type: none">1. Enter 003. Display: 003 EXT NUMBER2. Press NEXT. Display: Jack NO?+3. Enter a jack number. To enter jack number 1, you can also press NEXT. To select the second part (-2), press NEXT after entering the jack number. Display: #1-1:EXT114. Enter an extension number. To change the current entry, press CLEAR and enter the new number.5. Press STORE.6. To program another jack, press NEXT or PREV, or SELECT and the desired jack number.7. Repeat steps 4 through 6.8. Press END. |

Extension Number Set (contd.)

Conditions

- There is a maximum of 16 extension numbers. Each extension number can be two, three, or four digits, consisting of 0 **through 9**. The ***** and **#**keys cannot be used.
- An extension number is invalid if the first or second digits do not match with the program **[100]** “Flexible Numbering, (01) – (16) 1st through 16th hundred extension blocks” setting. If one digit is assigned as the leading digit, some extensions have two digits and some have three digits. If two digits are assigned, some have three digits and some have four digits.
- Two extension numbers can be assigned per jack. If XDP is disabled for the jack in program **[600]** “Extra Device Port”, the extension number of the second part (X-2) is not available. (X=jack number)
- For an explanation of jack numbering, see “Rotation of jack number” on page 4-7.
- A double entry or incompatible entry is invalid including the program **[117]** “Voice Mail Extension Number Assignment” and **[813]** “Floating Number Assignment”. Valid entry examples are: 10 and 11; 10 and 110. Invalid entry examples are: 10 and 106; 210 and 21.
- Program **[004]** “Extension Name Set” is used to name the extension numbers.

Feature References

Section 3, Features

Display, Call Information

EXtra Device Port (XDP)

Flexible Numbering

Intercom Calling

Special Features of the **KX-T7235** — Extension Dialing

Extension Name Set

| | |
|---------------------------|--|
| Description | Assigns names to the extension numbers programmed in program [003] “Extension Number Set”. |
| Selection | <ul style="list-style-type: none"> • Jack number: 1 through 8 (-1 / -2) (-1 = first part, -2 = second part) • Name: 10 characters (max.) |
| Default | All jacks – Not stored |
| Programming | <ol style="list-style-type: none"> 1. Enter 004. Display: 004 EXT NAME SET 2. Press NEXT. Display: Jack NO?+ 3. Enter a jack number. To enter jack number 1, you can also press NEXT. To select the second part (-2), press NEXT after entering a jack number. Display: #1-1:Not Stored 4. Enter a name. For entering characters, see Section 4.1.3 “Entering Characters”. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new name. 5. Press STORE. 6. To program another jack, press NEXT or PREV, or SELECT and the desired jack number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • There is a maximum of 16 names. Each name has a maximum of 10 characters. • Program [003] “Extension Number Set” is used to assign extension numbers. • For an explanation of jack numbering, see “Rotation of jack number” on page 4-7. |
| Feature References | Section 3, Features Display, Call Information Intercom Calling Special Features of the KX-T7235 — Extension Dialing |

*Flexible CO Button Assignment***Description**

Used to determine the use of the flexible CO buttons on proprietary telephones from a centralized telephone.

Selection

- Jack number: **1 through 8**
- Button Code (plus parameter, if required):

| Button Code | Parameter |
|--|--|
| 0 (Single-CO) | 1 through 3 (Outside line number) |
| 1 (DSS) | 2 through 4 digits (Extension number) |
| 2 (One-Touch) | 16 digits max. (Telephone number) |
| 3 (Message Waiting) | None |
| 4 (FWD/DND) | None |
| 5 (Save) | None |
| 6 (Account) | None |
| 70 (Conference) | None |
| 71 (Log-In/Log-Out) | None |
| 72 (Phantom) | None |
| 8 (Voice Mail Transfer) | 2 through 4 digits (Extension number) |
| 90 (Two-Way Record)[†] | 2 through 4 digits (Extension number) |
| 91 (Two-Way Transfer)[†] | 2 through 4 digits (Extension number) |
| 92 (Live Call Screening)[†] | None |
| 93 (Live Call Screening Cancel)[†] | None |
| * (Loop-CO) | None |
| CO (ringer frequency) | 1 through 8 (ring tone type number) |

Default

All jacks – CO buttons 1 through 3 = Single-CO 1 through 3;
 Ring tone type 2
 Others = Not stored

Programming

1. Enter 005.
 Display: 005 FLEXIBLE CO
- 2 . Press **NEXT**.
 Display: Jack NO?+
- 3 . Enter a **jack number**.
 To enter jack number 1, you can also press **NEXT**.
 Display: PT-PGM Mode

[†]: Available when the Digital Super Hybrid System is connected to a Digital Proprietary Telephone capable Panasonic Voice Processing System (one that supports digital proprietary telephone integration; e.g. **KX-TVS100**).

Flexible CO Button Assignment (contd.)

4. Press the CO **button** which is changed to another button.
The display shows the contents pre-assigned to the button.
Display example: CO-1
5. Enter a **button code** (plus **parameter**, if required).
To change the parameter, press **CLEAR** and **enter** the new parameter.
6. Press **STORE**.
7.
 - To program another CO button of the same jack, repeat steps 4 through 6.
 - To program another jack, press **SELECT** and repeat steps 3 through 6.
8. Press **END**.

Canceling

1. Perform the same procedures as steps 1 through 4 above.
2. Enter 2.
3. Press **STORE**.
4. **Press END.**

Conditions

- A centralized telephone is a telephone connected to jack 1 or a jack programmed as a manager extension in program[006]“Operator / Manager Extension Assignment”.
- The number of the CO buttons available depends on the telephone type. (Refer to Section 3 “Buttons on Proprietary Telephones”.) To program 24 CO buttons, use the proprietary telephone, **KX-T7230**.
- If you press the same CO button again in step 5, you can select a desired ringer frequency for the CO button from eight types of ring tones. When you enter the tone type number (1 through **8**), you will hear the selected tone type until STORE is pressed. This selection is possible only for the CO buttons that have been assigned to Single-CO or Loop-CO.

Feature References**Section 3, Features**

Button, Flexible

Buttons on Proprietary Telephones

Operator /Manager Extension Assignment

| | | | | | |
|----------------------------|--|----------------------------|--|-------------------|----------|
| Description | Assigns the jack number for a manager and/or operators. The manager extension can perform System Programming and manager services. The operators have the ability to perform operator services. | | | | |
| Selection | <ul style="list-style-type: none">• OPE-1 (operator 1) / OPE-2 (operator 2) / MNGER (manager)• Jack number: 1 through 8 | | | | |
| Default | Operator 1 – Jack 1; Operator 2 and Manager – Not stored | | | | |
| Programming | <ol style="list-style-type: none">1. Enter 006. Display: 006 OP-1, 2, MGR2. Press NEXT to program operator 1. Display: OPE-1:Jack1 To program another item, you can also keep pressing NEXT or PREV until the desired one is displayed.3. Enter a jack number. To assign no operator or manager, press CLEAR. To change the current entry, press CLEAR and enter the new jack number.4. Press STORE.5. To program another item, press NEXT or PREV.6. Repeat steps 3 through 5.7. Press END. | | | | |
| Conditions | <ul style="list-style-type: none">• Up to two operators and a manager can be programmed.• If the assigned jack is in eXtra Device Port mode, the proprietary telephone jack is treated as the manager / operator extension.• If there is no operator or manager, press CLEAR in step 3. | | | | |
| Feature References | <table><tr><td>Section 3, Features</td><td></td></tr><tr><td>Manager Extension</td><td>Operator</td></tr></table> | Section 3, Features | | Manager Extension | Operator |
| Section 3, Features | | | | | |
| Manager Extension | Operator | | | | |

Absent Messages

| | |
|--------------------|--|
| Description | Used to program the absent messages. An absent message, if set by the station user, is displayed on the calling extension's telephone to show the reason for the user's absence. |
| Selection | <ul style="list-style-type: none"> • Message number: 1 through 9 • Message: 16 characters (max.) |
| Default | <ul style="list-style-type: none"> 1: Will Return Soon 2: Gone Home 3: At Ext %% 4: Back at %%%:%% 5: Out Until %%/%% 6: In a Meeting 7 through 9: Blank (not stored) |
| Programming | <ol style="list-style-type: none"> 1. Enter 008. Display: 008 ABSENT MSG. 2. Press NEXT. Display: MSG NO?+ 3. Enter a message number. To enter message number 1, you can also press NEXT. Display example: MSG1:Will Return 4. Enter the message. For entering characters, see Section 4.1.3 "Entering Characters". To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new message. 5. Press STORE. 6. To program another message, press NEXT or PREV, or SELECT and the desired message number. 7. Repeat steps 4 through 6. 8 . Press END. |

Absent Messages (contd.)

Conditions

- There is a maximum of nine messages. Messages 1 through 6 are programmed at the factory but can be changed. Each message has a maximum of 16 characters.
- You can enter a maximum of seven “%” characters per message which can be programmed at each user’s extension. The station user can enter **0 through 9, *** and # for the % characters. If the user enters digits less than the number of “%” characters, it is recommended to fill the remaining “%” characters with “#” or “*”.
- If there are 4-digit extension numbers available in your system, add one “%” to Message 3.
- To display parts of the message which have scrolled off the display, press **▶** or **◀**.

Feature References

Section 3, Features
Absent Message Capability

Quick Dial Number Set

Description

Stores up to eight quick dial numbers.

Selection

- Location number: **1 through 8**
- Desired number: **16 digits (max.)**

Default

All location numbers – Not stored

Programming

1. Enter 009.
`Display: 009 QUICK DIAL`
2. Press **NEXT**.
`Display: Location NO?+`
3. Enter a **location number**.
To enter location number 1, you can also press NEXT.
`Display example: 1:Not Stored`
4. Enter a **desired number**.
To delete the current entry, press CLEAR.
To change the current entry, press CLEAR and enter the new number.
5. Press **STORE**.
6. To program another location, press **NEXT** or **PREV**, or **SELECT** and the desired **location number**.
7. Repeat steps 4 through 6.
8. Press **END**.

Conditions

- A maximum of sixteen digits, consisting of 0 **through 9**, can be assigned to a quick dial number.
- Before programming, assign a feature number for each location first in program [100] “Flexible Numbering”.

Feature References

Section 3, Features
Quick Dialing

Flexible Numbering

- Description** Assigns the leading digits of extension numbers and feature numbers for system features.
- Selection**
- Selection number: **01 through 71** (See “Feature Number List” on pages 4-3 1 and 4-32 for the corresponding features.)
 - Feature number: **1 or 2 digits** (for selection numbers 01 through 16);
1 through 3 digits (for selection numbers 17 through 7 1)

Default See “Feature Number List” on pages 4-3 1 and 4-32.

- Programming**
1. Enter **100**.
Display: 100 FLEX. NUMBER
 2. Press **NEXT**.
Display: Select NO?+
 3. Enter a **selection number**.
To enter selection number 01, you can also press NEXT.
Display example: 01. 1-EXT BL:1
 4. Enter the **feature number**.
To delete the feature number, press CLEAR.
To change the current entry, press CLEAR and enter the new number.
 5. Press **STORE**.
 6. To program another selection, press **NEXT** or **PREV**, or **SELECT** and the desired **selection number**.
 7. Repeat steps 4 through 6.
 8. Press **END**.

To remove all the feature numbers except selection numbers (01) through (16) 1st through 16th extension blocks;

- 1 . Enter **100**.

Flexible Numbering (contd.)

2. Press **NEXT**.

3. Enter 00.

Display: All Feature CLR?

4. Press **STORE**.

5. Press **END**.

Conditions

- Each extension block has one or two digits, consisting of 0 **through 9**. Assign the leading digits for extension numbers of the respective blocks.
- Assignment of extension blocks defines the limits for programs [003] “Extension Number Set” and [8 13] “Floating Number Assignment”.
- Each feature number has one through three digits, consisting of 0 **through 9**, *, and #.
- If * or # is included in a feature number, dial pulse telephone users cannot access the feature.
- Double entry and incompatible combinations are invalid. Valid entry examples: 30 **and** 3 1,210 and 211. Invalid entry examples: 5 and 5, 30 and 301.
- If you delete a feature number, the feature cannot be used by dialing operation.
- You can remove all the feature numbers except selections (01) through (16).
- To clear an extension block (01) through (16), it is required to change the corresponding numbers assigned in program [003] “Extension Number Set” and program [813] “Floating Number Assignment”.

Feature References**Section 3, Features**

Flexible Numbering

Flexible Numbering (contd.)

Feature Number List

| N u m b e r | Feature | Default |
|--------------------|--|----------------|
| 01 | 1 st hundred extension block | 1 |
| 02 | 2nd hundred extension block | 2 |
| 03-16 | 3rd through 16th hundred extension block | None |
| 17 | Operator call | 0 |
| 18 | Automatic line access / ARS | 9 |
| 19 | Outside line access | 8 |
| 20 | System speed dialing | * |
| 21 | Station speed dialing: | 3* |
| 22 | Station speed dialing programming | 30 |
| 23 | Doorphone call | 31 |
| 24 | Paging -- external | 32 |
| 25 | Paging -- external answer / TAFAS answer | 42 |
| 26 | Paging -- group | 33 |
| -- | Paging -- group answer | 43 |
| 29 | Call pickup, outside line | 4* |
| | Call pickup, group | 40 |
| 30 | Call pickup, directed | 41 |
| 31 | Call hold | 50 |
| 32 | Call hold retrieve -- intercom | 51 |
| 33 | Call hold retrieve -- outside line | 53 |
| 34 | Last number redial | # |
| 35 | Call park / call park retrieve | 52 |
| 36 | Account code entry | 49 |
| 37 | Door opener | 55 |
| 38 | External feature access | 6 |
| 39 | Station feature clear | 790 |
| 40 | Message waiting | 70 |
| 41 | Outgoing message | 36 |
| 42 | Call forwarding / do not disturb | 710 |
| 43 | Call pickup deny | 720 |
| 44 | Data line security | 730 |
| 45 | Call waiting | 731 |
| 46 | Executive busy override deny | 733 |
| 47 | Pickup dialing | 74 |
| 48 | Absent message | 750 |
| 49 | Timed reminder | 76 |
| 50 | Electronic station lockout | 77 |
| 51 | Night service mode | 78 |
| 52 | Parallel telephone mode | 39 |
| 53 | Background music -- external | 35 |

Flexible Numbering (contd.)

Feature Number List (contd)

| Number | Feature | Default |
|---------|---------------------------------|---------|
| 54 | LCS password | 799 |
| 55 | Call log, incoming | 56 |
| 56 | Call log lock, incoming | 57 |
| 57 | Timed reminder, remote | 7* |
| 58 | Log-in / log-out | 45 |
| 59 | Automatic callback busy cancel | 46 |
| 60 | Walking COS | 47 |
| 61 | Reserved | None |
| 62 | System working report | 794 |
| 63 – 70 | Quick dial location numbers 1-8 | None |
| 71 | Reserved | None |

Day /Night Service Switching Mode

| | |
|---------------------------|---|
| Description | This program is used to determine if night mode is set automatically or manually. |
| Selection | Manual / Auto (automatic) |
| Default | Manual |
| Programming | <ol style="list-style-type: none">1. Enter 101. Display: 101 DAY/NT AUTO2. Press NEXT. Display example: D/N Mode:Manual3. Keep pressing SELECT until the desired selection is displayed.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• If automatic switching is assigned, day / night mode is switched at the time programmed in [102] “Day / Night Service Starting Time”.• The operator and manager can switch the day / night mode at any time. |
| Feature References | Section 3, Features Night Service |

Day / Night Service Starting Time

Description Sets the starting time on a day of the week basis, when automatic day / night switching is programmed in program [101] “Day / Night Service Switching Mode”.

Selection

- Day of the week selection number:
1 (Sunday) / **2** (Monday) / **3** (Tuesday) / **4** (Wednesday) /
5 (Thursday) / **6** (Friday) / **7** (Saturday) / ***** (every day of the week)
- Hour: **1 through 12 / Disable** (no switching)
- Minute: **0 through 59**
- *AM/PM**

Default Every day of the week – Day – 9:00 AM / Night – 5:00 PM

Programming

1. Enter 102.
 Display: 102 DAY/NT CLOCK
2. Press **NEXT**.
 Display: Day of Week?+
3. Enter **the day of the week selection number**.
 To select Sunday, you can also press NEXT.
 Display example: Sun-Day: 9:00 AM
 To select night mode, press NEXT.
 Display example: Sun-Nig: 5:00 PM
4. Enter the **hour**.
 To set no switching, keep pressing SELECT until “Disable” is displayed and go to step 9.
 If SELECT is pressed, the display shows the previous entry. If the previous setting was “Disable”*, press SELECT to enter the starting time.
 To change the current entry, press CLEAR and enter the new time.
5. Press **➡** .
6. Enter the **minute**.
 To change the current entry, press CLEAR and enter the new minutes.
7. Press **➡** .

Day /Night Service Starting Time (contd.)

8. Press **SELECT** for AM or PM.
9. Press **STORE**.
10. To program another day / night mode or day of the week, press **NEXT** or **PREV**, or **SELECT** and the **day of the week selection number**.
11. Repeat steps 4 through 10.
12. Press **END**.

Conditions

- To select the desired day, you may keep pressing **NEXT** in step 3. To assign every day of the week to one selection, press the ✖ key in step 3. In this case, the display shows the contents programmed for Sunday.
- If day / night switching is not desired, select “Disable” in step 4.
- You **cannot** leave the entry empty.

Feature References

Section 3, Features
Night Service

Automatic Access Outside Line Assignment

| | | |
|---------------------------|---|-----------------------------------|
| Description | Assigns the sequence in which outside lines will be accessed when in Automatic Line Access mode. When a user dials the feature number for automatic line access (default=9) or presses the L-CO button, an idle line is searched for in the programmed outside line order. | |
| Selection | • Outside line number: 1 through 3 in desired order | |
| Default | 123 | |
| Programming | <ol style="list-style-type: none"> Enter 103. <p style="text-align: center;">Display: 103 AUTO CO</p> Press NEXT. <p style="text-align: center;">Display example': Access:123</p> Enter the outside line numbers in priority from top to bottom. <p style="text-align: center;">To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new order.</p> Press STORE. Press END. | |
| Conditions | • Automatic Line Access feature works only if the Automatic Route Selection mode is turned off in program [312] "ARS Mode". | |
| Feature References | Section 3, Features Line Access, Automatic Line Access, Direct | Line Preference – Outgoing |

Account Codes

| | |
|---------------------------|---|
| Description | Assigns the account codes for Account Code Entry, Verified – All Calls and Verified – Toll Restriction Override modes. If Verified – All Calls is assigned in program [508] “Account Code Entry Mode”, an account code is required to make an outside call. If Verified – Toll Restriction Override is assigned, an account code is only required for a toll call and overrides toll restriction. |
| Selection | <ul style="list-style-type: none">• Location number: 01 through 20• Account code: 10 digits (max.) |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 105. Display: 105 ACCT CODES2. Press NEXT. Display: Location NO?+3. Enter a location number. To enter location number 01, you can also press NEXT. Display example: 01:Not stored4. Enter an account code. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new account code.5. Press STORE.6. To program another location, press NEXT or PREV, or SELECT and the desired location number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• Each verifiable account code has a maximum of 10 digits, consisting of 0 through 9.• Program [508] “Account Code Entry Mode” is used to select the Account Code Entry mode.• Account codes having “99” in any part or ending with “9” are invalid, as ‘99’ is used as a delimiter when entering an account code. |
| Feature References | Section 3, Features Account Code Entry Toll Restriction Override by Account Code Entry |

Station Hunting Type

| | |
|--------------------|---|
| Description | Used to enable or disable hunting and set the Station Hunting type for each extension group. There are six Station Hunting types available: Circular, Termination, Voice Mail (VM), Automated Attendant (AA), Ring Group and Uniform Call Distribution (UCD). If circular hunting is assigned for a group, all of the extensions in the group are searched until an idle one is found. If termination hunting is assigned, searching stops at the extension which has the largest jack number in the group. If VM hunting is assigned, all of the VM ports of an extension group are searched until an idle one is found which permits Voice Mail Service. If AA hunting is assigned, all of the AA ports of an extension group are searched until an idle one is found which permits AA Service. If Ring Group is assigned, all of the extensions in the ring group ring simultaneously. If UCD is assigned, group members are hunted in a circular way. |
| Selection | <ul style="list-style-type: none"> • Extension group number: 1 through 8, * (* =all extension groups) • Disable (no hunting) / Terminate (termination) / Circular / VM (voice mail) / AA (automated attendant) / RING / UCD |
| Default | All extension groups – Disable |
| Programming | <ol style="list-style-type: none"> 1. Enter 106. Display: 106 STATION HUNT 2. Press NEXT. Display: EXT GRP NO?+ 3. Enter an extension group number. To enter extension group number 1, you can also press NEXT. Display example: Group1:Disable 4. Keep pressing SELECT until the desired selection is displayed. 5. Press STORE. 6. To program another extension group, press NEXT or PREV, or SELECT and the desired extension group number. 7. Repeat steps 4 through 6. 8. Press END. |

station Hunting Type (contd.)

Conditions

- Program [602] ‘Extension Group Assignment’ is used to assign the extension group members.
- The system supports a maximum of four jacks for connection to a Voice Processing System as VM or AA ports.

Feature References

Section 3, Features

Ring Group
Station Hunting

Uniform Call Distribution (UCD)
Voice Mail Integration

System Password

| | |
|---------------------------|--|
| Description | Assigns the password required for entering System Programming mode. |
| Selection | Password: 4 through 7 digits |
| Default | 1234 |
| Programming | <ol style="list-style-type: none">1. Enter 107. <code>Display: 107 SYS PASSWORD</code>2. Press NEXT. <code>Display: Password:1234</code>3. Enter a password. To change the current entry, press CLEAR and enter the new password.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• The password can be from four to seven digits long. The valid numbers are from 0 through 9.• If less than four digits are entered, they are not stored.• You cannot leave the entry empty. |
| Feature References | Section 3, Features System Programming with Proprietary Telephone |

Automatic Hold by CO / DSS Button

| | |
|---------------------------|---|
| Description | Enables or disables automatically holding an outside call when a DSS button or a CO button on a proprietary telephone is pressed. Through this assignment, each button acts as follows: <ul style="list-style-type: none">— Pressing the DSS button holds an outside call and quickly transfers it to an extension without pressing the TRANSFER button.— Pressing another CO button holds the current outside call. |
| Selection | <ul style="list-style-type: none">• Button: DSS or CO• Enable / Disable |
| Default | DSS button – Enable, CO button – Disable |
| Programming | <ol style="list-style-type: none">1. Enter 108. <code>Display: 108 AUTO HOLD</code>2. Press NEXT to program the DSS button. <code>Display example: DSS XFER:Enable</code>3. Keep pressing SELECT until the desired selection is displayed.4. Press NEXT to program the CO button. <code>Display example: CO Hold :Disable</code>5. Keep pressing SELECT until the desired selection is displayed.6. Press STORE.7. Press END. |
| Conditions | <ul style="list-style-type: none">• This assignment applies to all DSS and CO buttons on all proprietary telephones in the system. |
| Feature References | Section 3, Features Automatic Hold by CO Button One-Touch Transfer by DSS Button |

| | |
|---------------------------|---|
| Description | Sets the identification code of the calling party (Caller ID Code) to utilize Caller ID Service provided by a specific central office (CO). If an ID Code transmitted from CO is found in the Caller ID Code Table, the caller's ID Code or a name given to the code in program [11 1] "Caller ID Name Set" is displayed on the telephone, allowing the called party to recognize the caller. |
| Selection | <ul style="list-style-type: none"> • Location number: 001 through 100 • Caller ID Code: 11 digits (max.) |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none"> 1. Enter 110. Display: 110 CALLER ID # 2. Press NEXT. Display: Location NO?+ 3. Enter a location number. To enter location number 001, you can also press NEXT. Display example: 001:Not Stored 4. Enter a Caller ID Code. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new code. 5. Press STORE. 6. To program another location, press NEXT or PREV, or SELECT and the desired location number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • Each Caller ID Code has a maximum of 11 digits, consisting of 0 through 9. • Program [11 1] "Caller ID Name Set" is used to give names to Caller ID Codes. If an ID Code is given a name, the called party's telephone shows the name in place of the ID Code. • Program [406] "Caller ID Assignment" is used to enable Caller ID Service on an outside line basis. |
| Feature References | Section 3, Features Caller ID |

Caller ID Name Set

| | |
|---------------------------|---|
| Description | With Caller ID Service, the calling party is displayed either by its ID Code or by its name. If the name display is required, use this program to give a name to a caller ID Code stored in program [1 10] “Caller ID Code Set”. |
| Selection | <ul style="list-style-type: none">• Location number: 001 through 100• Caller ID Name: 15 characters (max.) |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 111. Display: 111 CALLER NAME2. Press NEXT. Display: Location NO?+3. Enter a location number. To enter location number 001, you can also press NEXT. Display example: 001:Not Stored4. Enter a Caller ID Name. For entering characters, see Section 4.1.3 “Entering Characters”. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new name.5. Press STORE.6. To program another location, press NEXT or PREV, or SELECT and the desired location number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• Caller ID Name corresponds to the Caller ID Codes stored in program [1 10] “Caller ID Code Set”.• Each name has a maximum of 15 characters. |
| Feature References | Section 3, Features Caller ID |

*VM Status DTMF Set***Description**

Sets the DTMF signals transmitted to your Voice Processing System (VPS) to inform the VPS of the VPS ports states quickly: The following signals are sent to the VPS with the assigned DTMF signals:

- RBT** (ringback tone) : This signal is sent when calling an extension.
- BT** (busy tone) : This is sent when the called extension is busy.
- ROT** (reorder tone) : This is sent when the dialed number is invalid.
- DND** (DND tone) : This is sent when the other extension has DND assigned.
- Answer** : This is sent when the other extension answers the call.
- Disconnect** : This is sent when the other extension hangs up.
- Confirm** (confirmation tone) :
This is sent when the feature number for “Message Waiting Lamp” is valid.
- FWD VM RBT** (FWD to VM **ringback** tone) :
Not available (reserved).
- FWD VM BT** (FWD to VM busy tone) :
This is sent when the called extension has set Call Forwarding to VPS.
- FWD EXT RBT** (FWD to extension **ringback** tone) :
Not available (reserved).

Selection

- **RBT / BT / ROT / DND / Answer / Disconnect / Confirm / FWD VM RBT / FWD VM BT / FWD EXT RBT**
- DTMF signal number: 3 **digits (max.)**

Default

RBT – 1; BT – 2; ROT – 3; DND – 4; Answer – 5; Disconnect – #9
Confirm – 9; FWD VM RBT – 6; FWD VM BT – 7; FWD EXT RBT – 8

Programming

1. Enter **113**.
 Display: 113 VM DTMF SET
2. Press **NEXT** to program **ringback** tone status.
 To program another status; keep pressing **NEXT** until the desired status is displayed.
 Display example: RBT :1

VM Status DTMF Set (contd.)

3. Enter a **DTMF signal number**.
To delete the current entry, press **CLEAR**.
To change the current entry, press **CLEAR** and enter the new number.
4. Press **STORE**.
5. To program another selection, keep pressing **NEXT** or **PREV** until the desired selection is displayed.
6. Repeat steps 3 through 5.
7. Press **END**.

Conditions

- A DTMF signal number can have a maximum of three digits, consisting of **0** through **9**, *****, **#** and **PAUSE**.
- The DTMF signals are sent to the extensions in the extension group that is assigned as "VM" or "AA" in program [**106**] "Station Hunting Type".

Feature References

Section 3, Features
Voice Mail Integration

*VM Command DTMF Set***Description**

Sets the DTMF command signals transmitted to your Voice Processing System (VPS). There are four commands available: Leave Message; Get Message; Automated Attendant Service; Voice Mail Service. These commands are used in the following ways:

(A) If your VPS is used for Voice Mail (VM) Service(1) Call Forwarding: / Intercent Routing to Voice Mail

If a call is forwarded to the VPS, your system will send a mailbox number to the VM port. This allows the caller to leave a message without knowing the mailbox number.

• Required entries (selections):

LV-MSG (Leave Message): This command is transmitted to a VM port if a call is forwarded or intercepted and rerouted to the port.

AA-SVC (Automated Attendant Service): If AA Service is set to “Start” in program [990], field (10), the “AA-SW” command is sent to a VM port if an incoming outside call is answered by the VM port.

- Other programming required (program addresses): [106];[602];[609];[990], field (10); [990], field (18)

(2) Hearing: the message at the extension

If the VPS receives a message and lights the MESSAGE button indicator of the dialed telephone, the telephone user can hear the message by pressing the MESSAGE button.

• Required entries (selections):

GETMSG (Get Message): This command is transmitted to a VM port when the message receiver presses the MESSAGE button.

VM-SVC (Voice Mail Service): The “VM-SVC” command is a code transmitted preceding the “GETMSG” command above.

This is effective to switch to VM port when an AA port lights the MESSAGE indicator.

- Other programming required (program addresses): [609];[990], field (18)

(B) If your VPS is used for Automated Attendant (AA) Service

An AA port answers an incoming outside call to provide AA services, such as call transfer, receiving a message.

• Required entries (selections):

VM-SVC (Voice Mail Service): The “VM-SVC” command is a code transmitted before the “LV-MSG” code if an operator transfers a call to an extension and then it is forwarded to an AA port so that the AA port can be switched to the VM port temporarily.

- Other programming required (program addresses): [106],[602]

VM Command DTMF Set (contd.)

| | |
|---------------------------|--|
| Selection | <ul style="list-style-type: none">• LV-MSG / GETMSG / AA-SVC / VM-SVC• DTMF signal number: 16 digits (max.) |
| Default | LV-MSG – H; GETMSG – * H; AA-SVC – #8 ; VM-SVC – #6 |
| Programming | <ol style="list-style-type: none">1. Enter 114. Display: 114 VM DTMF CMD2. Press NEXT to program the LV-MSG command. To program another command, keep pressing NEXT until the desired command is displayed. Display example: LV-MSG:H3. Enter a DTMF signal number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number.4. Press STORE.5. To program another selection, keep pressing NEXT or PREV until the desired selection is displayed.6. Repeat steps 3 through 5.7. Press END. |
| Conditions | <ul style="list-style-type: none">• A command signal number can have a maximum of 16 digits, consisting of 0 through 9, *, #, FLASH and PAUSE.• The FLASH button is available only for LV-MSG and GETMSG commands to store "H" which means "Home Position".• If "H" is stored for "LV-MSG", a mailbox number programmed in program [609] "Voice Mail Access Codes" or an extension number will be sent to the VM port (Follow On ID function). If certain codes are required before and after the ID code, insert "II" between the codes, as "aaaHbbb". If nothing is stored, it will operate as "II".• If "* H" is stored for "GETMSG", a mailbox number programmed in program [609] "Voice Mail Access Codes" or an extension number will be sent to the port succeeding the "*". |
| Feature References | Section 3, Features Voice Mail Integration |

ROM Version Display

Description

Confirms the version of ROM of the system.

Display example: P011A30101A

 | |
Version Date

Programming

1. Enter **116**.

 Display: 116 ROM VERSION

2. Press **NEXT**.

 The display shows the ROM version of the system.

3. Press **END**.

Conditions

. **The** out-of-service system number is unacceptable.

Feature References

None

Voice Mail Number Assignment †

| | |
|---------------------------|--|
| Description | Assigns the jack number corresponding to the voice mail port for data transmission to the Voice Processing System. The voice mail port is expandable to two ports. |
| Selection | <ul style="list-style-type: none">• Jack number: 2 through 8 |
| Default | All jacks — Blank |
| Programming | <ol style="list-style-type: none">1. Enter 117. <code>Display: 117 VMS PORT ASN</code>2. Press NEXT. <code>Display example: M:# #</code>3. Enter a jack number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new jack number.4. Press ➡ to enter another jack number.5. Repeat steps 3 through 4 to enter another jack number.6. Press STORE.7. Press END. |
| Conditions | <ul style="list-style-type: none">• Neither Jack number 1 nor the manager extension can be assigned as a voice mail port jack. The voice mail port jack cannot be assigned to a manager extension.• The jack numbers correspond to the voice mail port in numerical order. Example: Stored jack numbers: Jacks 2, 3 Jack 2=Voice mail numbers 1, 2; Jack 3= Voice mail numbers 3, 4 |
| Feature References | None |

†: Available when the Digital Super Hybrid System is connected to a Digital Proprietary Telephone capable Panasonic Voice Processing System (one that supports digital proprietary telephone integration; e.g. KX-TVS 100).

Voice Mail Extension Number Assignment †

| | |
|---------------------------|---|
| Description | Assigns the extension number for the voice mail number. These numbers can be used the same way extension numbers are used for station access. |
| Selection | <ul style="list-style-type: none"> • Voice mail number (VM): 1 through 4 • Extension Number: 2 through 4 digits |
| Default | VM-1=295, VM-2=296, VM-3=297, VM-4=298 |
| Programming | <ol style="list-style-type: none"> 1. Enter 118. Display: 118 VM EXT # 2. Press NEXT. Display: VM NO?+ 3. Enter a voice mail number. To enter voice mail number 1, you can also press NEXT. Display: VM-1:#2-1:295 4. Enter an extension number. To change the current entry, press CLEAR and enter the new number. 5. Press STORE. 6. To program another voice mail number, press NEXT or PREV, or SELECT and the desired voice mail number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • You cannot leave an entry empty. • Double entries and incompatible entries for extension numbers are invalid. • The display shows “VM-X:#Y-1:ZZZ” in step 3. “X” means the voice mail number. “Y” means the jack number of the voice mail port programmed in [117] “Voice Mail Number Assignment”. “-1” of Y-1 means the first part of jack number in digital line. Y-2 means the second number of the jack number in digital line. |
| Feature References | Section 3, Features Voice Mail Integration for Digital Proprietary Telephones |

Voice Mail Extension Group Assignment †

Description Assigns each voice mail number to a voice mail extension group number.

- Selection**
- Voice mail number (**VM**): **1 through 4, ***
(* =all voice mail number)
 - Voice mail extension group number (**EXG**) = **1 through 8**

Default All voice mail numbers = EXG 1

- Programming**
1. Enter **119**.
Display: 119 VM EXT GROUP
 2. Press **NEXT**.
Display: VM NO?+
 3. Enter a **voice mail number**.
To enter voice mail number 1, you can also press **NEXT**.
Display example: VM-1:#2-1:EXG1
 4. Enter the **voice mail extension group number**.
To delete the current entry, press **CLEAR**.
To change the **current** entry, enter the new number.
 5. Press **STORE**.
 6. To program another voice mail number, press **NEXT** or **PREV**, or **SELECT** and the desired voice mail number.
 7. Repeat steps 4 through 6.
 8. Press **END**.

- Conditions**
- The display shows “VM-X:#Y-1 :EXG Z” in step 3.
“X” means a voice mail number. “Y” means the jack number of the voice mail port programmed in [117] “Voice Mail Number Assignment”.
“-1” of Y-1 means the **first** part of jack number in digital line.
“Y-2” means the second part of the jack number in digital line.

Feature References **Section 3, Features**
Voice Mail Integration for Digital Proprietary Telephones

†: Available when the Digital Super Hybrid System is connected to a Digital Proprietary Telephone capable Panasonic Voice Processing System (one that supports digital proprietary telephone integration; e.g. **KX-TVS100**).

User Password

| | |
|--------------------------|--|
| Description | <p>Assigns the password required for entering the User Programming mode.</p> <p>In the User Programming Mode, any display digital proprietary telephone user in the system can set the following programs:</p> <ul style="list-style-type: none"> [000] Date and Time Set [001] System Speed Dialing Number Set [002] System Speed Dialing Name Set [003] Extension Number Set [004] Extension Name Set [005] Flexible CO Button Assignment [006] Operator/Manager Extension Assignment [008] Absent Messages [009] Quick Dial Number Set |
| Selection | Password: 4 through 7 digits |
| Default | 1234 |
| Programming | <ol style="list-style-type: none"> 1. Enter 120. <code>Display: 120 USR PASSWORD</code> 2. Press NEXT. <code>Display example: Password:1234</code> 3. Enter a password. To change the current entry, press CLEAR and enter the new password. 4. Press STORE. 5. Press END. |
| Conditions | <ul style="list-style-type: none"> • The password can be from four to seven digits long. Valid numbers are from 0 to 9. • If less than four digits are entered they will not be stored. • You cannot leave the entry empty. |
| Feature Reference | <p>Section 3, Features User Programming (Manager Programming)</p> |

Walking COS Password

| | |
|---------------------------|---|
| Description | Assigns the password required for Walking COS. |
| Selection | Password: 4 through 7 digits |
| Default | 1234 |
| Prograniming | <ol style="list-style-type: none">1. Enter 121. Display: 121 COS PASSWORD2. Press NEXT . Display example: Password:12343. Enter a password. To change the current entry, press CLEAR and enter the new password.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• The password can be from four to seven digits long. Valid numbers are from 0 to 9.• If less than four digits are entered, they will not be stored.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Walking COS |

Phantom Extension Number Assignment

| | |
|---------------------------|--|
| Description | Assigns the phantom extension numbers. Each number will be assigned to a flexible CO or DSS button and used as a Phantom Extension button. |
| Selection | <ul style="list-style-type: none"> • Location number: 01 through 16 • Phantom extension number: 2 through 4 digits |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none"> 1. Enter 124. Display: 124 PHANTOM # 2. Press NEXT. Display: Location NO?+ 3. Enter a location number. To enter location number 01, you can also press NEXT. Display example: 01:Not Stored 4. Enter a phantom number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number. 5. Press STORE. 6. To program another location, press NEXT or PREV, or SELECT and the desired location number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • Each phantom number has two to four digits, consisting of numbers 0 through 9. • The first one or two digits of the phantom extension numbers are subject to program [100] “Flexible Numbering, (01) through (16) 1 st through 16th hundred extension blocks”. • Phantom extension numbers and other extension numbers should be unique. Double entry and incompatible entry for these numbers are invalid. Valid entry example: 10 and 11, 10 and 110; Invalid entry example: 10 and 106,210 and 21. To avoid making an invalid entry, check the other extension numbers in programs [003] “Extension Number Set”, [118] “VM Extension Number Assignment” and [8 13] “Floating Number Assignment”. |
| Feature References | Section 3, Features Phantom Extension |

Area Code Assignment

| | |
|--------------------------|---|
| Description | Assigns the area code which is necessary when using the Caller ID feature. By assigning your area code, the system records the caller's phone number modified by programs [126] "Caller ID Modification for Local Call" and [127] "Caller ID Modification for long distance call". |
| Selection | Area code: 1 through 6 digits |
| Default | Blank |
| Programming | <ol style="list-style-type: none">1. Enter 125. Display: 125 AREA CODE2. Press NEXT. Display example: Area Code:2013. Enter an area code. To change the current entry, press CLEAR and enter the new area code.4. Press STORE.5. Press END. |
| Conditions | The area code can be six digits long. Valid numbers are from 0 to 9 . |
| Feature Reference | Section 3, Features Call Log, Incoming Caller ID |

Caller ID Modification for Local Call

Description

Assigns removed digits from the received caller's number of a local call, and adds number to make the final number which serves as the Caller **ID** number. The system records the modified caller's number to the incoming call log list so that the extension user can call back the caller.

Digits are removed from or added to the beginning of the received digits.

Selection

- Number of digits to be deleted: 0 **through** 9 (0=no deletion)
- Number to be added: 4 **digits (max.)**

Default

Deleted number – 3; Added number – blank

Programming

1. Enter 126.
 Display: 126 CID LOCAL
2. Press **NEXT**.
 Display example: Del,Add:3,
3. Enter **the number of digits to be deleted**.
 To change the current entry, press CLEAR and enter the new number.
4. Press **➡** to program the number to be added, if required.
5. Enter **the number to be added**.
 To change the current entry, press CLEAR and enter the new number.
6. Press **STORE**.
7. Press **END**.

Conditions

The added number has a maximum of 4 digits, consisting of 0 **through** 9, * and #.

Feature Reference

Section 3, Features
 Call Log, Incoming
 Caller ID

Caller ID Modification for Long Distance Call

| | |
|--------------------------|--|
| Description | Assigns removed digits from the received caller's number of a long distance call, and adds number to make the final number which serves as the Caller ID number. The system records the modified caller's number to the incoming call log list so that the extension user can call back the caller. Digits are removed from or added to the beginning of the received digits. |
| Selection | <ul style="list-style-type: none">• Number of digits to be deleted: 0 through 9 (0=no deletion)• Number to be added: 4 digits (max.) |
| Default | Deleted number – 0; Added number – 1 |
| Programming | <ol style="list-style-type: none">1. Enter 127. <code>Display: 127 CID LD</code>2. Press NEXT. <code>Display example: Del,Add:0,1</code>3. Enter the number of digits to be deleted. To change the current entry, press CLEAR and enter the new number.4. Press ➡ to program the number to be added, if required.5. Enter the number to be added. To change the current entry, press CLEAR and enter the new number.6. Press STORE.7. Press END. |
| Conditions | The added number has a maximum of 4 digits, consisting of 0 through 9, * and #. |
| Feature Reference | Section 3, Features Call Log, Incoming Caller ID |

Internal Caller ID Extension Assignment

| | |
|---------------------------|---|
| Description | Assigns the extension which can receive the Caller ID service from the Central Office. The extension should be a single line telephone which has the Caller ID feature. |
| Selection | Extension number: 2 through 4 digits |
| Default | Not Stored |
| Programming | <ol style="list-style-type: none">1. Enter 128. Display: 128 CID EXT2. Press NEXT. Display example: CID: Not Stored3. Enter an extension number. To delete the extension number, press CLEAR. To change the current entry, press CLEAR and enter the new number.4. Press STORE.5. Press END. |
| Conditions | None |
| Feature References | Section 3, Features Caller ID |

Facsimile Transmission Extension

| | |
|---------------------------|--|
| Description | Assigns the extension which can receive the facsimile data when the system receives a facsimile transmission signal by Direct Inward System Access (DISA). |
| Selection | Extension number: 2 through 4 digits |
| Default | Not Stored |
| Programming | <ol style="list-style-type: none">1. Enter 129. <code>Display: 129 FAX TRANS</code>2. Press NEXT. <code>Display example: FAX: Not Stored</code>3. Enter an extension number. To delete the extension number, press CLEAR. To change the current entry, press CLEAR and enter the new number.4. Press STORE.5. Press END. |
| Conditions | None |
| Feature References | Section 3, Features Direct Inward System Access (DISA) |

Hold Recall Time

| | |
|---------------------------|---|
| Description | Assigns the length of the hold recall timer. This timer is used to alert an extension that a call has been held for an extended period of time. |
| Selection | Time (seconds): 0 through 240 (0=Hold Recall disabled) |
| Default | 60s |
| Programming | <ol style="list-style-type: none">1 . Enter 200. <code>Display: 200 HOLD RECALL</code>2. Press NEXT. <code>Display example: Time: 60 sec</code>3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• Select “0” if Hold Recall is not required.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Hold Recall |

Transfer Recall Time

| | |
|---------------------------|---|
| Description | Sets the number of rings before transfer recall occurs. If a transferred call is not answered after the programmed number of rings, the call returns to the original caller. |
| Selection | Number of rings: 0 through 48 (0=Transfer Recall disabled) |
| Default | 12 rings |
| Programming | <ol style="list-style-type: none">1. Enter 201. <code>Display: 201 TRAN RECALL</code>2. Press NEXT. <code>Display example: Time:12 rings</code>3. Enter the number of rings. To change the current entry, press CLEAR and enter the new number of rings.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• Select "0" if Transfer Recall is not required.• One ring is equivalent to five seconds.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Call Transfer, Unscreened – to Extension |

Call Forwarding – No Answer Time

| | |
|---------------------------|---|
| Description | Sets the number of rings for Call Forwarding – No Answer feature. If a call is not answered after the programmed number of rings, the call is forwarded to the destination. |
| Selection | Number of rings: 1 through 12 |
| Default | 3 rings |
| Programming | <ol style="list-style-type: none">1. Enter 202. <code>Display: 202 CALL FWD-NA</code>2. Press NEXT. <code>Display example: Time: 3 rings</code>3. Enter the number of rings. To change the current entry, press CLEAR and enter the new number of rings.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• One ring is equivalent to five seconds.• This timer is also used for Intercept Routing. If an incoming DISA call to the Intercept Routing destination is not answered before this timer expires, the call will be disconnected.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Call Forwarding – Busy / No Answer Call Forwarding – No Answer |

Intercept Time

| | |
|---------------------------|---|
| Description | Sets the number of rings for Intercept Routing – No Answer (IRNA) feature. If a call is not answered after the programmed number of rings, the call is redirected to the programmed station., |
| Selection | Number of rings: 3 through 48 |
| Default | 12 rings |
| Programming | <ol style="list-style-type: none">1. Enter 203. <code>Display: 203 INTERCEPT</code>2. Press NEXT. <code>Display example: Time:12 rings</code>3. Enter the number of rings. To change the current entry, press CLEAR and enter the new number of rings.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• One ring is equivalent to five seconds.• Programs [409]–[410] “Intercept Extension — Day / Night” are used to program the destination of Intercept Routing on an outside line basis in day and night modes.• If the original extension has set Call Forwarding – No Answer, Intercept Timer starts after Call Forwarding.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Intercept Routing |

Pickup Dial Waiting Time

| | |
|---------------------------|---|
| Description | Sets the number of seconds for Pickup Dialing. If the telephone user lifts the handset, the programmed party is called when the time expires. |
| Selection | Time (seconds): 1 through 5 |
| Default | 1 s |
| Programming | <ol style="list-style-type: none">1. Enter 204. <code>Display: 204 PICKUP DIAL</code>2. Press NEXT. <code>Display example: Time:1 sec</code>3. Enter the time. To change the current entry, enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• This time gives the user an opportunity to dial digits before the automatic dialing process takes place. |
| Feature References | Section 3, Features Pickup Dialing |

Extension-to-Outside Line Call Duration Time

| | |
|---------------------------|--|
| Description | Sets the maximum time allowed for a conversation with an outside party. If an outside call is originated or answered by a programmed extension user and the timer expires, the call is disconnected. |
| Selection | Time (minutes): 1 through 64 |
| Default | 10 min |
| Programming | <ol style="list-style-type: none">1. Enter 205. Display: 205 EXT-CO TIME2. Press NEXT. Display example: Time:10 min3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• This time-out applies to extensions to which Limited Call Duration is assigned by program [502] "Extension-to-Outside Line Call Duration Limit".• This time cannot be set to zero or be left empty. |
| Feature References | Section 3, Features Limited Call Duration |

Outside-to-Outside Line Call Duration Time

| | |
|---------------------------|--|
| Description | Sets the maximum time allowed for a conversation between two outside parties. When the timer expires, the Outside-to-Outside Line call is disconnected. |
| Selection | Time (minutes): 1 through 64 |
| Default | 10 min |
| Programming | <ol style="list-style-type: none">1. Enter 206. <code>Display: 206 CO-CO TIME</code>2. Press NEXT. <code>Display example: Time:10 min</code>3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• You cannot leave the entry empty. |
| Feature References | Section 3, Features Call Forwarding – to Outside Line Call Transfer, Screened – to Outside Line Conference, Unattended Direct Inward System Access (DISA) |

First Digit Time

| | |
|---------------------------|--|
| Description | Sets the maximum time allowed between the start of an outside dial tone and the first digit dialed on an outgoing outside call. If an extension user fails to dial any digits during this time, the DTMF receiver is released. |
| Selection | Time (seconds): 5 through 120 |
| Default | 10 s |
| Programming | <ol style="list-style-type: none">1. Enter 207. Display: 207 1ST DIGIT T2. Press NEXT. Display example: Time: 10 sec3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• This timer is used for toll restriction checking.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Toll Restriction |

Inter Digit Time

| | |
|---------------------------|---|
| Description | Assigns the maximum time allowed between digits on an outgoing toll call. If an extension user fails to dial any digits during this time, the DTMF receiver is released. This timer applies until the Toll Restriction check is completed. |
| Selection | Time (seconds): 5 through 30 |
| Default | 10 s |
| Programming | <ol style="list-style-type: none">1. Enter 208. <code>Display: 208 INTER DIGIT</code>2. Press NEXT. <code>Display example: Time:10 sec</code>3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• This timer is used for toll restriction checking.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Toll Restriction |

Automatic Redial Repeat Times

| | |
|---------------------------|--|
| Description | Sets the number of times Automatic Redial is tried. Automatic redialing of the last dialed or saved number is done up to the specified number of times. |
| Selection | Number of times: 1 through 30 |
| Default | 15 times |
| Programming | <ol style="list-style-type: none">1. Enter 209. <code>Display: 209 AUTO RD QTY</code>2. Press NEXT. <code>Display example: Attempt:15</code>3. Enter the number of times. To change the current entry, press CLEAR and enter the new number of times.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• Program [210] “Automatic Redial Interval Time” is used to set the interval time between Automatic Redial attempts.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Redial, Automatic |

Automatic Redial Interval Time

| | |
|---------------------------|---|
| Description | Sets the interval time between Automatic Redial attempts. |
| Selection | Time (seconds): 3 through 120 (X 10 is the actual time) |
| Default | 40 s |
| Programming | <ol style="list-style-type: none">1. Enter 210. Display: 210 REDIAL TIME2. Press NEXT. Display example: Time: 40 sec3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• You enter a number from 3 through 120. The actual time is 10 times your input.• Program [209] “Automatic Redial Repeat Times” is used to set the number of times Automatic Redial is tried.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Redial, Automatic |

Dial Start Time

| | |
|---------------------------|---|
| Description | Sets the number of milliseconds the system waits before dialing after an outside line is seized. |
| Selection | Time (milliseconds): 0 through 40 (X 100 is the actual time) |
| Default | 500 ms |
| Programming | <ol style="list-style-type: none">1. Enter 211. <code>Display: 211 DIAL START</code>2. Press NEXT. <code>Display example: Time: 500 msec</code>3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• You enter a number from 0 through 40. The actual time is a 100 times your input.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Line Access, Automatic Line Access, Direct Line Access, Individual |

Call Duration Count Start Time

| | |
|---------------------------|--|
| Description | Sets the number of seconds the system waits between the end of dialing and the start of the SMDR timer for outgoing toll calls. When the system has sent out all the digits to the central office and this timer expires, the system starts counting the call. A display telephone shows the elapsed time of the call. The starting time and the duration of a call are recorded in the SMDR record. |
| Selection | Time (seconds): 0 through 60 |
| Default | 0 s |
| Programming | <ol style="list-style-type: none">1. Enter 212. <code>Display: 212 CALL TIMER</code>2. Press NEXT. <code>Display example: Time: 0 sec</code>3. Enter the time. To change the current entry, press CLEAR and enter the new time.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• The timer starts counting after all the digits are dialed. This timer does not apply to incoming calls. The timer for incoming calls starts immediately.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Display, Call Information Station Message Detail Recording (SMDR) |

DISA Delayed Answer Time

| | |
|---------------------------|---|
| Description | Assigns the number of rings between a call received and the answer by the DISA feature. |
| Selection | Number of rings: 0 through 6 |
| Default | 1 ring |
| Programming | <ol style="list-style-type: none">1. Enter 213. Display: 213 DISA ANSWER2. Press NEXT. Display example: Time:1`rings3. Enter the number of rings. To change the current entry, enter the new number of rings.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• One ring is equivalent to five seconds.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Direct Inward System Access (DISA) |

Message Waiting Ring Interval Time

| | |
|---------------------------|--|
| Description | Sets the Message Waiting ring interval time for a standard telephone. |
| Selection | Time (minutes): 0 through 64 |
| Default | 0 min (no ring) |
| Programming | <ol style="list-style-type: none"> Enter 216. Display: 216 MW RING TIME Press NEXT. Display example: Interval: 0 min Enter the time. To change the current entry, press CLEAR and enter the new time. Press STORE. Press END. |
| Conditions | <ul style="list-style-type: none"> When the interval time is set to “0”, the telephone does not ring for Message Waiting notification. Selecting the message waiting ring type, 3 quick rings or 2 normal rings, in program [990] “System Additional Information, Field (40)” is available. If you prefer soft ringing, select “3 quick rings”. In this case, there may be some kinds of telephones which do not ring. |
| Feature References | Section 3, Features Message Waiting |

Timed Reminder Alarm Ring Time

| | |
|---------------------------|---|
| Description | Sets the number of seconds the Timed Reminder alarm rings. |
| Selection | Time (seconds): 30 through 240 |
| Default | 30 s |
| Programming | <ol style="list-style-type: none">1. Enter 217. <code>Display: 217 TIMED REMIND</code>2. Press NEXT. <code>Display example: Reminder: 30sec</code>3. Enter the time. To change the current entry, enter the new time.4. Press STORE.5. Press END. |
| Conditions | None |
| Feature References | Section 3, Features Timed Reminder Timed Reminder, Remote (Wake-Up Call) |

DISA AA Wait Time

| | |
|---------------------------|--|
| Description | Sets the number of seconds the system waits for a second digit entry. If the timer expires, the system assumes that the first digit is a DISA built-in auto attendant number if assigned in program [815] “DISA Built-in Auto Attendant”. |
| Selection | Time (seconds): 1 through 5 |
| Default | 1 sec |
| Programming | <ol style="list-style-type: none">1. Enter 218. <code>Display: 218 DISA AA WAIT</code>2. Press NEXT. <code>Display example: Time:1 sec</code>3. Enter the time. To change the current entry, enter the new time.4. Press STORE.5. Press END. |
| Conditions | None |
| Feature References | Section 3, Features Direct Inward System Access (DISA) |

Call Park Recall Time

| | |
|---------------------------|--|
| Description | Sets the number of rings before call park recall occurs. Call park recall is used to alert an extension that a call has been parked for an extended period of time. |
| Selection | Number of rings: 0 through 48 (0=Call Park Recall disabled) |
| Default | 12 rings |
| Programming | <ol style="list-style-type: none">1. Enter 219. <code>Display: 219 PARK RECALL</code>2. Press NEXT. <code>Display example: Time:12 rings</code>3. Enter the number of rings. To change the current entry, press CLEAR and enter the new number of rings.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• One ring is equivalent to five seconds.• Select "0" if Call Park Recall is not required.• You cannot leave the entry empty. |
| Feature References | Section 3, Features Call Park |

TRS Override for System Speed Dialing

| | |
|---------------------------|---|
| Description | Allows you to enable toll restriction override for System Speed Dial Numbers. If this is enabled, all extension users can make System Speed Dialing calls with no restriction. |
| Selection | Enable / Disable |
| Default | Disable |
| Programming | <ol style="list-style-type: none">1. Enter 300. <code>Display: 300 TRS SPEED DL</code>2. Press NEXT. <code>Display example: Override:Disable</code>3. Keep pressing SELECT until the desired selection is displayed.4. Press STORE.5. Press END. |
| Conditions | Select “Enable” for toll restriction override; Select “Disable” for toll restriction. |
| Feature References | Section 3, Features Toll Restriction Override for System Speed Dialing |

4.5 TRS / ARS Programming 301-305

TRS Denied Code Entry for Levels 2 through 6

| | |
|---------------------------|---|
| Description | These allow you to specify the numbers which are toll-restricted for each toll restriction level as follows: Program [301]: restricts levels 2 through 6 Program [302]: restricts levels 3 through 6 Program [303]: restricts levels 4 through 6 Program [304]: restricts levels 5 through 6 Program [305]: restricts level 6 |
| Selection | <ul style="list-style-type: none">• Location number: 01 through 20• Toll call number: 10 digits (max.) |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter a program address (301 through 305). Display example: 301 TRS DENY L-22. Press NEXT. Display: Location NO?+3. Enter a location number. To enter location number 01, you can also press NEXT. Display example: 01:Not Stored4. Enter a toll call number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number.5. Press STORE.6. To program another location, press NEXT or PREV, or SELECT and the desired location number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• There is a maximum of 20 toll call numbers which can be restricted for each program. Each number has a maximum of ten digits, consisting of 0 through 9, and *. The character “*” can be used as a wild card character.• Programs [306]–[310] “TRS Excepted Code Entry for Levels 2 through 6” are used to assign exceptions to these numbers. Programs [500]–[501] “Toll Restriction Level — Day / Night” are used to set the toll restriction value for each COS. |
| Feature References | Section 3, Features Toll Restriction |

306-310 4.5 TRS / ARS Programming

TRS Excepted Code Entry for Levels 2 through 6

| | |
|---------------------------|--|
| Description | <p>These allow you to assign numbers which are exceptions to the toll restriction specified in programs [301] through [305] as follows:</p> <ul style="list-style-type: none">Program [306]: applies to level 2Program [307]: applies to levels 2 through 3Program [308]: applies to levels 2 through 4Program [309]: applies to levels 2 through 5Program [310]: applies to levels 2 through 6 |
| Selection | <ul style="list-style-type: none">• Location number: 1 through 5• Exceptional number: 10 digits (max.) |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter a program address (306 through 310). Display example: 306 TRS ALLOW 22. Press NEXT. Display: Location NO?+3. Enter a location number. To enter location number 1, you can also press NEXT. Display example: 1:Not Stored4. Enter an exceptional number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number.5. Press STORE.6. To program another location, press NEXT or PREV, or SELECT and the desired location number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | There is a maximum of five numbers for each program. Each number has a maximum of ten digits, consisting of 0 through 9 , and * . The character “ * ” can be used as a wild card character. |
| Note | <i>Store your emergency numbers in program [310].</i> |
| Feature References | Section 3, Features Toll Restriction |

Special Carrier Access Codes

| | |
|---------------------------|---|
| Description | Assigns special carrier numbers. This allows the system to recognize the user-dialed special carrier number in order to insert the necessary pause and to apply toll restriction. |
| Selection | <ul style="list-style-type: none">• Location number: 01 through 20• Special carrier number: 7 digits (max.) |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 311. Display: 311 CARRIER #2. Press NEXT. Display: Location NO?+3. Enter a location number. To enter location number 01, you can also press NEXT. Display example: 01:Not Stored4. Enter a special carrier number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number.5. Press STORE.6. To program another location, press NEXT or PREV, or SELECT and the desired location number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | Each carrier number has a maximum of seven digits, consisting of 0 through 9, and *. The character "*" can be used as a wild card character. |
| Feature References | Section 3, Features Pause Insertion, Automatic Toll Restriction for Special Carrier Access |

ARS Mode

| | |
|---------------------------|---|
| Description | Allows you to turn on or off the Automatic Route Selection (ARS) mode. ARS, if enabled, selects the least expensive route to be used for an outside call. |
| Selection | On/Off |
| Default | Off |
| Programming | <ol style="list-style-type: none">1. Enter 312. <code>Display: 312 ARS MODE SET</code>2. Press NEXT. <code>Display example: ARS:Off</code>3. Press SELECT until the desired selection is displayed.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• If “Off” is selected, the Automatic Line Access feature functions instead of ARS.• Programs[313] through[331]are used to program ARS. |
| Feature References | Section 3, Features Automatic Route Selection (ARS) Line Access, Automatic |

ARS Time

| | |
|--------------------|--|
| Description | Assigns times for the four ARS time schedules. It is possible to split a day into four time zones (maximum) so that the least expensive line is selected for that time. According to the service hours and charges offered by your carriers, enter the starting time of each zone. |
| Selection | <ul style="list-style-type: none"> • Day of the week: 1 (Mon) / 2 (Tue) / 3 (Wed) / 4 (Thu) / 5 (Fri) / 6 (Sat) / 7 (Sun) / * (all days) • Time schedule: A / B / C / D • Time (hour) : 1 through 12 / Disable (no schedule) *AM/PM |
| Default | All days of the week : A – 8:00 AM; B – 5:00 PM; C – 9:00 PM; D – Disable |
| Programming | <ol style="list-style-type: none"> 1. Enter 313. Display: 313 ARS TIME SET 2. Press NEXT. Display: Day of week?+ 3. Enter the day of the week. Display example: MON-A: 8:00 AM To program another time schedule, keep pressing NEXT or PREV until the desired time schedule is displayed. 4. Enter the hour. To set no schedule (Disable), press SELECT and go to step 6. If “Disable” is selected, pressing SELECT shows the previous stored hour. To change the current entry, press CLEAR and enter the new hour. 5. Press ➡ to select AM / PM. 6. Press SELECT for AM or PM. 7. Press STORE. 8. To program another time schedule, keep pressing NEXT or PREV until the desired time schedule is displayed. 9. Repeat steps 4 through 8. 10. Press END. |

ARS Time (contd.)

Conditions

- Enter a starting time for each time schedule. Select “Disable” for idle schedules.
- You cannot leave an entry empty.
- To assign all days of the week, press the * key in step 3. In this case, the display shows the contents programmed for Monday.

Feature References**Section 3, Features**

Automatic Route Selection (ARS)

4.5 TRS / ARS Programming 314 - 321

ARS Leading Digit Entry for Plans 1 through 8

Description By entering numbers into each leading digit plan (programs below) you are starting the process to determine which outside line will be used to route the call.

Program: [314] [315] [316] [317] [318] [319] [320] [321]

Plan: 1 2 3 4 5 6 7 8

These eight plans are used to analyze the number which the user dials and decide the route plan for the call. If the user-dialed number is registered in Plan 1, then Routing Plan 1 is selected for the call. ARS Leading Digit Entry for Plans 1 through 8 match ARS Routing Plans 1 through 8 (programs [322] through [329]) respectively.

Selection

- Location number: **01 through 50**
- Leading digit number: **10 digits (max.)**

Default All locations – Not stored

Programming

1. Enter a **program address (314 through 321)**.
Display example: 314 ARS LEAD D-1
2. Press NEXT.
Display: Location NO?+
3. Enter a **location number**.
To enter location number 01, you can also press NEXT.
Display example: 01:Not Stored
4. Enter a **leading digit number**.
To delete the current entry, press CLEAR.
To change the current entry, press CLEAR and enter the new number.
5. Press STORE.
6. To program another location, press NEXT or **PREV**, or **SELECT** and the desired **location number**.
7. Repeat steps 4 through 6.
8. Press END.

3 1 4 - 3 2 1 4.5 TRS / ARS Programming

ARS Leading Digit Entry for Plans 1 through 8 (contd.)

Conditions

Each number has a maximum of ten digits, consisting of **0 through 9**, and *****. The character “*****” can be used as a wild card character (i.e., “do not care” digit). The system scans all the ARS Leading Digit Plans simultaneously from left to right. The scan ends as soon as the dialed number matches a table entry. When using a wild card character, it is important to use one in each digit position that must be scanned. For example, to differentiate local and long distance calls with the same leading digits: Plan 1) 1-***; Plan 2) 1-215. Note that three wild card digits were used to ensure that the system scanned the first four digits. A shorter string of “*”’s would send all the calls to the Plan 1 carrier.

Feature References

Section 3, Features

Automatic Route Selection (ARS)

4.5 TRS / ARS Programming 322-329

ARS Routing Plans 1 through 8

| | |
|--------------------|--|
| Description | Assigns the outside line and modification plan to be used for each route plan and time schedule. Program: [322] [323] [324] [325] [326] [327] [328] [329] Plan: 1 2 3 4 5 6 7 8 |
| Selection | <ul style="list-style-type: none">• Time schedule: A / B / C / D• Outside line number: 1 through 3• Modification table number: 1 through 8 |
| Default | All time schedules – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter a program address (322 through 329). Display example: 322 ARS ROUTE 12. Press NEXT to program time schedule A. To program another time schedule, keep pressing NEXT or PREV until the desired time schedule is displayed. Display example: A:C M ,C M ,C M3. Enter an outside line number. To delete the current entry, press CLEAR. To change the current entry, enter the new number.4. Press ➡ to enter the paired modification table number.5. Enter a modification table number. To delete the current entry, press CLEAR. To change the current entry, enter the new modification table number.6. Press ➡ to enter the next priority outside line number.7. Repeat steps 3 through 6 to enter other outside line numbers and modification table numbers.8. Press STORE.9. To program another time schedule, keep pressing NEXT or PREV until the desired time schedule is displayed.10. Repeat steps 3 through 9.ii. Press END. |

322-329 4.5 TRS / ARS Programming

ARS Routing Plans 1 through 8 (contd.)

Conditions

- Up to three outside lines and modification plans can be assigned for each time schedule. The outside line number and modification table number must be entered together. The highest priority outside line number and modification table number is entered first (left to right).
- Programs [330] “ARS Modify Removed Digit” and [331] “ARS Modify Added Number” are used to make up the eight Modification Tables.

Feature References

Section 3, Features
Automatic Route Selection (ARS)

ARS Modify Removed Digit

| | |
|---------------------------|---|
| Description | Determines how the dialed number should be modified before transmitting to the central office . You can delete the digits from the beginning of the dialed number. |
| Selection | <ul style="list-style-type: none">• Modification table number: 1 through 8• Number of digits to be deleted: 0 through 9 (0=no deletion) |
| Default | All modification tables – 0 |
| Programming | <ol style="list-style-type: none">1. Enter 330. <code>Display: 330 ARS REMOVE</code>2. Press NEXT. <code>Display: Modify Table?+</code>3. Enter a modification table number. To enter table number 1, you can also press NEXT. <code>Display example: 1:0</code>4. Enter the number of digits to be deleted. To change the current entry, enter the new number.5. Press STORE.6. To program another modification table, press NEXT or PREV, or SELECT and the desired modification table number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• There is a maximum of eight Modification Tables: You can only delete 1 digit of a number in each table. |
| Feature References | Section 3, Features Automatic Route Selection (ARS) |

ARS Modify Added Number

| | |
|---------------------------|--|
| Description | Determines how the dialed number should be modified before transmitting to the central office . Assigned numbers are added to the beginning of the dialed number. |
| Selection | <ul style="list-style-type: none"> • Modification table number: 1 through 8 • Number to be added: 20 digits (max.) |
| Default | All modification tables – Not stored |
| Programming | <ol style="list-style-type: none"> 1. Enter 331. Display: 331 ARS ADD #'S 2. Press NEXT. Display: Modify Table?+ 3. Enter a modification table number. To enter table number 1, you can also press NEXT. Display example: 1: 4. Enter the number to be added. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number. 5. Press STORE. 6. To program another modification table, press NEXT or PREV, or SELECT and the desired modification table number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • There is a maximum of eight Modification Tables, each of which can be given a number to be added. • Each number has a maximum of 20 digits, consisting of 0 through 9, *, #, and PAUSE. |
| Feature References | Section 3, Features Automatic Route Selection (ARS) |

Extra Entry Table Selection

| | |
|---------------------------|--|
| Description | Selects the code table which enables an extra 400 entries within Denied or Except Code Table. |
| Selection | <ul style="list-style-type: none">• Deny / Except• Level number: 2 through 6 |
| Default, | Except - 2 |
| Programming | <ol style="list-style-type: none">1. Enter 332. <code>Display: 332 TRS EXTRA +</code>2. Press NEXT. <code>Display example: Table:Except-2</code>3. Keep pressing SELECT until the desired selection is displayed.4. Press ➡ to enter a level number.5. Enter a level number. <code>Display` example: Table:Except-3</code>6. Press STORE.7. Press END. |
| Conditions | <ul style="list-style-type: none">• There is a maximum of either 120 toll call numbers for Denied Code Table or a maximum of 105 toll call numbers for Excepted Code Table. |
| Feature References | Section 3, Features Toll Restriction |

TRS Entry Code Assignment for Extra Table

| | |
|---------------------------|--|
| Description | This program allows you to specify the numbers for extra Denied or Excepted Code Table for expansion. |
| Selection | <ul style="list-style-type: none"> • Location number: 001 through 100 • Toll call number: 10 digits (max.) |
| Default | All locations – Not stored |
| Programming | <ol style="list-style-type: none"> 1. Enter 333. Display: 333 TRS EXTRA - 2. Press NEXT. Display: Location NO?+ 3. Enter a location number. To enter location number 001, you can also press NEXT. Display example: 001:Not Stored 4. Enter a toll call number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number. 5. Press STORE. 6. To program another location number, press NEXT or PREV, or SELECT and the desired location number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • There is a maximum of either 120 toll call numbers for Denied Code Table or a maximum of 105 toll call numbers for Excepted Code Table. Each number has a maximum of ten digits, consisting of 0 through 9, and *. The character “*” can be used as a wild card character. |
| Feature References | Section 3, Features Toll Restriction |

Emergency Dial Number Set

| | |
|---------------------------|--|
| Description | Stores up to ten emergency call numbers. Emergency numbers are not subject to toll restriction, Account Code – Verified mode or Electronic Station Lockout. |
| Selection | <ul style="list-style-type: none">• Location number: 01 through 10• Emergency number: 7 digits (max.) |
| Default | Location 01 = 911, Other location = Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 334. Display: 334 EMERGENCY #2. Press NEXT. Display: Location NO?+3. Enter a location number. To enter location number 01, you can also press NEXT. Display example: 01:9114. Enter an emergency number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number.5. Press STORE.6. To program another location, press NEXT or PREV, or SELECT and the desired location number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• Each emergency number has a maximum of seven digits, consisting of 0 through 9. |
| Feature References | section 3, Features Automatic Route Selection (ARS) Toll Restriction |

Outside Line Connection Assignment

| | |
|---------------------------|--|
| Description | Used to identify the outside lines which are connected to the system. This prevents users from originating a call to a line which is not connected. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Connect / No Connect |
| Default | All outside lines – Connect |
| Programming | <ol style="list-style-type: none">1. Enter 400. Display: 400 CO CONNECT2. Press NEXT. Display: CO Line NO?+3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1:Connect4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. |
| Feature References | Section 3, Features Outside Line Connection Assignment |

Dial Mode Selection

- Description** Each outside line can be programmed for DTMF, **pulse** (rotary) or call blocking. This program assigns your choice to each line.
- DTMF:** The dialing signals from an extension, either tone or pulse, are converted to tone signals and transmitted to the outside line.
- Pulse:** The dialing signals from an extension, either tone or pulse, are converted to pulse signals and transmitted to the outside line.
- Call blocking:** If your central office can receive both DTMF and pulse signals but you are contracted for pulse, select this mode. When dialing on the line with a touch tone telephone, only the pulse signals are sent to the outside line.
- Selection**
- Outside line (CO) number: **1 through 3, *** (* =all outside lines)
 - **DTMF / Pulse / C. Block** (call blocking)
- Default** All outside lines – DTMF
- Programming**
1. Enter 402.
Display: 402 DIAL MODE
 2. Press NEXT.
Display: CO Line NO?+
 3. Enter **an outside line number**.
To enter outside line number 1, you can also press NEXT.
Display example: CO1:DTMF
 4. Keep pressing **SELECT** until the desired selection is displayed.
 5. Press **STORE**.
 6. To program another outside line, press NEXT or **PREV**, or **SELECT** and the desired **outside line number**.
 7. Repeat steps 4 through 6.
 8. Press **END**.

Dial Mode Selection (contd.)

Conditions

- To assign all lines to one selection, press the ***** key in step 3. In this case, the display shows the contents programmed for outside line 1.
- If DTMF is assigned, set the DTMF time of the line in program **[404]** “DTMF time”.
- If pulse or call blocking is assigned, set the pulse speed of the line in program **[403]** “Pulse Speed Selection”, and set the pulse break ratio and inter-digit pause in program **[990]** “System Additional Information, Field (17)” and in “Field (2 1)”, if necessary.

Feature References

Section 3, Features

Dial **Type** Selection

Pulse Speed Selection

| | |
|---------------------------|--|
| Description | An outside line set for pulse or call blocking mode in program [402] “Dial Mode Selection” can have two pulse rates, 10 pps (low) and 20 pps (high). This program sets the pulse speed for each outside line set to pulse or call blocking mode. |
| Selection | <ul style="list-style-type: none"> • Outside line (CO) number: 1 through 3, * (* =all outside lines) • 10 pps / 20 pps |
| Default | All outside lines – 10 pps |
| Programming | <ol style="list-style-type: none"> 1. Enter 403. Display: 403 PULSE SPEED 2. Press NEXT. Display: CO Line NO?+ 3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1:10pps 4. Keep pressing SELECT until the desired selection is displayed. 5. Press STORE. 6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. • The pulse speed required is determined by the CO or PBX line. • Program [990] “System Additional Information, Field (17) and Field (21)” are used to select a pulse break ratio and inter-digit pause, if needed. |
| Feature References | <p>Section 3, Features Dial Type Selection</p> |

DTMF Time

| | |
|---------------------------|--|
| Description | An outside line set to DTMF mode in program [402] “Dial Mode Selection” can have two settings. This program sets the duration of the DTMF signals sent to an outside line to DTMF mode. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Time (milliseconds): 80 / 160 |
| Default | All outside lines – 80 ms |
| Programming | <ol style="list-style-type: none">1. Enter 404. <code>Display: 404 DTMF TIME</code>2. Press NEXT. <code>Display: CO Line NO?+</code>3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. <code>Display example: CO1: 80msec</code>4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1.• The DTMF time required is determined by the outside line or PBX line. |
| Feature References | Section 3, Features Dial Type Selection |

CPC Signal Detection Incoming Set

| | |
|---------------------------|---|
| Description | Assigns the expected minimum duration of the CPC Signal on incoming outside calls. If this is programmed, the system disconnects the line when the CPC Signal is detected. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Time (milliseconds): Disable (no detection) / 100 / 200 / 300 / 400 / 500 / 600 |
| Default | All outside lines – 400 ms |
| Programming | <ol style="list-style-type: none">1. Enter 405. <code>Display: 405 CPC INCOMING</code>2. Press NEXT. <code>Display: CO Line NO?+</code>3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. <code>Display example: CO1:400msec</code>4. Keep pressing SELECT until the desired time is displayed.5. Press STORE.6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1.• You may disable CPC Signal Detection for an outside line.• Program [415] “CPC Signal Detection Outgoing Set” is used to program CPC Signal Detection for outgoing outside calls. |
| Feature References | Section 3, Features Calling Party Control (CPC) Signal Detection Direct Inward System Access (DISA) |

Caller ID Assignment

Description Enables the Caller ID feature for the outside lines to which a Caller ID Service is offered by a Central Office by contract.

Selection

- Outside line (CO) number: **1 through 3, *** (* =all outside lines)
- **Enable / Disable**

Default All outside lines – Disable

Programming

1. Enter 406.
Display: 406 CALLER ID CO
2. Press NEXT.
Display: CO Line NO?+
3. Enter **an outside line number**.
To enter outside line number 1, you can also press NEXT.
Display example: CO1:Disable
4. Keep pressing **SELECT** until the desired selection is displayed.
5. Press STORE.
6. To program another outside line, press **NEXT** or **PREV**, or **SELECT** and the desired **outside line number**.
7. Repeat steps 4 through 6.
8. Press **END**.

Conditions

- To assign all outside lines to one selection, press the ***** key in step 3. In this case, the display shows the contents programmed for outside line 1.
- The following programs are used to program Caller ID feature: [1 10] “Caller ID Cede Set” and [11 1] “Caller ID Name Set”.

Feature References Section 3, Features
Caller ID

4.6 Outside Line Programming 407-408

DIL 1:1 Extension — Day /Night

Description The Direct In Lines (**DIL**) 1: 1 feature allows incoming outside calls to be directed to a specific extension. When an outside line is assigned as DIL 1: 1, it is necessary to assign the destination. These programs specify the extension number for day or night mode.

Selection

- Outside line (CO) number: **1 through 3, *** (* =all outside lines)
- Extension number: **2 through 4 digits / Disable** (no DIL 1: 1)

Default All outside lines – Disable — Day /Night

Programming

1. Enter a **program address (407 for day or 408 for night)**.
Display example: 407 DIL 1:1 DAY
2. **Press NEXT.**
Display: CO Line NO?+
3. Enter **an outside line number.**
To enter outside line number 1, you can also press NEXT.
Display example: CO1:Disable
4. Enter **an extension number.**
To change the current entry, press CLEAR and enter the new number.
To disable. DIL 1: 1, press CLEAR.
5. Press **STORE.**
6. To program another outside line, press **NEXT** or **PREV**, or **SELECT** and the desired **outside line number.**
7. Repeat steps 4 through 6.
8. **Press END.**

Conditions

- To assign all outside lines to one selection, press the ***** key in step 3. In this case, the display shows the contents programmed for outside line 1.
- You set the extension numbers in program [003] “Extension Number Set” or floating numbers of pager and DISA message in program [813] “Floating Number Assignment”.
- If an outside line is also programmed for **DIL 1 :N** in programs [603]–[604]“**DIL 1 :N Extension and Delayed Ringing — Day/Night**”, it is regarded as a **DIL 1: 1** line.

Feature References Section 3, Features
Direct In Lines (DIL) Night Service
Direct Inward System Access (DISA)

409-410 4.6 Outside Line Programming

Intercept Extension — Day /Night

| | |
|---------------------------|---|
| Description | Intercept Routing provides an automatic redirection of calls which cannot or have not been answered. These programs set the destination in both day and night modes for each outside line. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Extension number: 2 through 4 digits / Disable (no Intercept Routing) |
| Default | All outside lines – Disable — Day / Night |
| Programming | <ol style="list-style-type: none">1. Enter a program address (409 for day or 410 for night). Display example: 409 INTERCEP DAY2. Press NEXT. Display: CO Line NO?+3. Enter the outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1:Disable4. Enter an extension number. To change the current entry, press CLEAR and enter the new number. To disable Intercept Routing, press CLEAR.5. Press STORE.6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• You set the extension numbers in program[003] “Extension Number Set” or floating numbers of pager and DISA message in program[813] “Floating Number Assignment”.• To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1.• Program [401] ‘Outside Line Group Assignment’ is used to assign each outside line to an outside line group. |
| Feature References | Section 3, Features Intercept Routing |

Host PBX Access Codes

| | |
|--------------------|--|
| Description | Assigns Host PBX or Centrex access codes. If the system is installed behind a host PBX or a Centrex system, an access code is required to make an outside / Centrex call or to access Centrex features. Up to four codes can be stored for an outside line assigned to the line. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Access code: 1 or 2 digits, four different entries (max.) |
| Default | All outside lines – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 411. Display: 411 HOST PBX #'S2. Press NEXT. Display: CO Line NO?+3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1: , , ,4. Enter an access code. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new access code. Display example: CO1:01, , ,5. To enter more access codes for the same outside line, press ▶ and enter the access codes until all the required entries are completed. Display example: CO1:01,08,10,226. Press STORE.7. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.8. Repeat steps 4 through 7.9. Press END. |

Host PBX Access Codes (contd.)

Conditions

- This program is only required if a host PBX or **Centrex** line is connected to the system.
- There is a maximum of four access codes per outside line. Each code has one or two digits, consisting of 0 through 9, and *.
- If conflicting access codes (such as 8 and 81) are stored for the same outside line, the 1-digit code (8) only will be in effect.
- When the programmed codes are dialed, Automatic Pause Insertion and Toll Restriction are applied to the calls. The programmed pause time (in program [412] "Pause Time") is automatically inserted after the access code.
- To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1.

Feature References**Section 3, Features**

External Feature Access

Pause Insertion, Automatic

Host PBX Access

Pause Time

| | |
|---------------------------|--|
| Description | Assigns the length of the pause time. The programmed pause time is automatically inserted after a line access code or a host PBX access code programmed in [411] “Host PBX Access Codes” or manually inserted if the PAUSE button is pressed by the user. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Time (seconds): 1.5 / 2.5 / 3.5 / 4.5 |
| Default | All outside lines – 1.5 s |
| Programming | <ol style="list-style-type: none">1. Enter 412. <code>Display: 412 PAUSE TIME</code>2. Press NEXT. <code>Display: CO Line NO?--+</code>3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. <code>Display example: CO1:1.5sec</code>4. Keep pressing SELECT until the desired time is displayed.5. Press STORE.6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. |
| Feature References | Section 3, Features Host PBX Access Pause Insertion, Automatic |

Flash Time

| | |
|---------------------------|--|
| Description | Assigns the length of the flash time. If your system is installed behind a host PBX or Centrex line, External Feature Access (EFA) is necessary to obtain their services. To enable it, select a required hooking signal sending time for the outside line. |
| Selection | <ul style="list-style-type: none"> • Outside line (CO) number: 1 through 3, * (* =all outside lines) • Time (milliseconds): Disable (no EFA) / 80 / 96 / 112 / 200 / 300 / 400 / 500 / 600 / 700 / 800 / 900 / 1000 / 1100 / 1200 |
| Default | All outside lines – 600 ms |
| Programming | <ol style="list-style-type: none"> 1. Enter 413. Display: 413 FLASH TIME 2. Press NEXT. Display: CO Line NO?+ 3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1: 600msec 4. Keep pressing SELECT until the desired time is displayed. 5. Press STORE. 6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • You may disable EFA, if not required. The Flash feature will be in effect in place of EFA. Program [414] “Disconnect Time” is used to select the time required for the Flash feature. • The flash time required is determined by the central office or the host PBX lines. • To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. |
| Feature References | Section 3, Features External Feature Access |

Disconnect Time

| | |
|---------------------------|--|
| Description | Determines the amount of time between successive accesses to the same outside line. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Time (seconds): 1.5 / 4.0• Time (seconds): 1.5 / 4.0 |
| Default | All outside lines – 1.5 s |
| Programming | <ol style="list-style-type: none">1. Enter 414. <code>Display: 414 DISCONNECT</code>2. Press NEXT. <code>Display: CO Line NO?+</code>3. Enter an outside line number. To program outside line number 1, you can also press NEXT. <code>Display example: CO1:1.5sec</code>4. Keep pressing SELECT until the desired time is displayed.5. Press STORE.6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• The disconnect time must be longer than the requirements of the central office or the host PBX.• To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. |
| Feature References | Section 3, Features Flash |

CPC Signal Detection Outgoing Set

| | |
|---------------------------|--|
| Description | Enables or disables CPC Signal Detection during the time between the originated outside call and the established outside call. If this is enabled, the system disconnects the line with the time set in program [405] “CPC Signal Detection Incoming Set” when the CPC Signal is detected. |
| Selection | <ul style="list-style-type: none"> • Outside line (CO) number: 1 through 3, * (* =all outside lines) • Enable (detection) / Disable (no detection) |
| Default | Disable |
| Programming | <ol style="list-style-type: none"> 1. Enter 415. Display: 415 CPC OUTGOING 2. Press NEXT. Display: CO Line NO?+ 3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1:Disable 4. Keep pressing SELECT until the desired selection is displayed. 5. Press STORE. 6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • Some central offices (CO) may send CPC-like signals during the dialing sequence and an attempt to make a call may be terminated. If your CO is such a type, select “Disable”. • Program [405] “CPC Signal Detection Incoming Set” is used to set CPC Signal Detection Time. • To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. |
| Feature References | <p>Section 3, Features</p> <p>Calling Party Control (CPC) Signal Detection</p> <p>Direct Inward System Access (DISA)</p> |

Reverse Circuit Assignment

| | |
|---------------------------|--|
| Description | Enables or disables to detect Reverse Circuit. |
| Selection | <ul style="list-style-type: none">• Outside line (CO) number: 1 through 3, * (* =all outside lines)• Regular (no detection) / Reverse (detection) |
| Default | Regular |
| Programming | <ol style="list-style-type: none">1. Enter 416. Display: 416 REV. CURRENT2. Press NEXT. Display: CO Line NO?+3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1:Regular4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To &sign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. |
| Feature References | Section 3, Features Reverse Circuit |

Outside Line Name Assignment

| | |
|---------------------------|---|
| Description | Assigns names of the company or customer to each outside line so that the operator or extension user can find the destination which the caller is trying to reach before answering. If Caller ID is assigned, each extension can select either the initial display, Caller ID or line name. |
| Selection | <ul style="list-style-type: none"> • Outside line (CO) number: 1 through 3, * (* =all outside lines) • Name: 10 characters (max.) |
| Default | All outside lines – Not stored |
| Programming | <ol style="list-style-type: none"> 1. Enter 417. Display: 417 CO LINE NAME 2. Press NEXT. Display: CO Line NO?+ 3. Enter an outside line number. To enter outside line number 1, you can also press NEXT. Display example: CO1:Not Stored 4. Enter a name. For entering characters, see Section 4.1.3 “Entering Characters”. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new name. 5. Press STORE. 6. To program another outside line, press NEXT or PREV, or SELECT and the desired outside line number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • There is a maximum of 24 names. Each name has a maximum of 10 characters. • To assign all outside lines to one selection, press the * key in step 3. In this case, the display shows the contents programmed for outside line 1. • You can select the initial display, caller ID or outside line name, by Station Programming. |
| Feature References | Section 3, Features Display, Call Information |

Toll Restriction Level — Day /Night

| | | |
|---------------------------|--|------------------|
| Description | Each extension must be assigned a Class of Service (COS). These programs set the toll restriction value for each COS in day or night mode. | |
| Selection | <ul style="list-style-type: none"> • COS number: 1 through 8, * (* =all COS) • Level number: 1 through 8 | |
| Default | COS 1 through 7 – Level 1 — Day /Night; COS 8 – Level 7 — Day /Night | |
| Programming | <ol style="list-style-type: none"> 1. Enter a program address (500 for day or 501 for night). Display example: 500 TRS DAY LVL 2. Press NEXT. Display: COS NO?+ 3. Enter a COS number. To enter COS number 1, you can also press NEXT. Display example: COS1:1 4. Enter a level number. To change the current entry, press CLEAR and enter the new number. 5. Press STORE. 6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number. 7. Repeat steps 4 through 6. 8. Press END. | |
| Conditions | <ul style="list-style-type: none"> • To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1. • Program [601] “Class of Service” is used to assign a Class of Service to each extension. | |
| Feature References | Section 3, Features Night Service | Toll Restriction |

Extension-to-Outside Line Call Duration Limit

| | | | | | |
|---|--|-----------------------------------|------------------------|---|-----------------------|
| Description | This program allows you to restrict the duration of outside calls on a Class of Service (COS) basis. | | | | |
| Selection | <ul style="list-style-type: none"> • COS number: 1 through 8, * (* =all COS) • Disable (no limit) / Enable (limit) | | | | |
| Default, | All COS – Disable | | | | |
| Programming | <ol style="list-style-type: none"> 1. Enter 502. Display: 502 EXT-CO TIMER 2. Press NEXT. Display: COS NO?+ 3. Enter a COS number. To enter COS number 1, you can also press NEXT. Display example: COS1:Disable 4. Keep pressing SELECT until the desired selection is displayed. 5. Press STORE. 6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number. 7. Repeat steps 4 through 6. -8. Press END. | | | | |
| Conditions | <ul style="list-style-type: none"> • An outside call originated or answered by the programmed extension user is disconnected when the time specified in program [205] “Extension-to-Outside Line Call Duration Time” expires. • Extensions in limited classes cannot establish an outside-to-outside call, that is, cannot transfer / forward an outside call to another CO line or perform an Unattended Conference. • To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1. • Program [601] “Class of Service” is used to assign a Class of Service to each extension. • Program [990] “System Additional Information, Field (12)” is used to program Limited Call Duration to be done for outgoing calls only. | | | | |
| Feature References | <p>Section 3, Features</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Call Forwarding – to Outside Line</td> <td style="width: 50%;">Conference, Unattended</td> </tr> <tr> <td>Call Transfer, Screened – to Outside Line</td> <td>Limited Call Duration</td> </tr> </table> | Call Forwarding – to Outside Line | Conference, Unattended | Call Transfer, Screened – to Outside Line | Limited Call Duration |
| Call Forwarding – to Outside Line | Conference, Unattended | | | | |
| Call Transfer, Screened – to Outside Line | Limited Call Duration | | | | |

Call Transfer to Outside Line

| | |
|---------------------------|--|
| Description | This program determines which Classes of Services (COS) are allowed to perform the Call Transfer to Outside Line function. |
| Selection | <ul style="list-style-type: none">• COS number: 1 through 8, * (* =all COS)• Enable / Disable |
| Default | All COS – Disable |
| Programming | <ol style="list-style-type: none">1. Enter 503. <code>Display: 503 CALL XFER CO</code>2. Press NEXT. <code>Display: COS NO?+</code>3. Enter a COS number. To enter COS number 1, you can also press NEXT. <code>Display example: COS1:Disable</code>4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1.• Program [601] “Class of Service” is used to assign a Class of Service to each extension. |
| Feature References | Section 3, Features Call Transfer, Screened – to Outside Line |

Call Forwarding to Outside Line

| | |
|---------------------------|---|
| Description | This program determines which Classes of Services (COS) are allowed to perform the Call Forwarding to Outside Line function, |
| Selection | <ul style="list-style-type: none"> • COS number: 1 through 8, * (* =all COS) • Disable / Enable |
| Default | All COS – Disable |
| Programming | <ol style="list-style-type: none"> 1. Enter 504. Display: 504 CALL F'WD CO 2. Press NEXT. Display: COS NO?--+ 3. Enter a COS number. To enter COS number 1, you can also press NEXT. Display example: COS1:Disable 4. Keep pressing SELECT until the desired selection is displayed. . 5. Press STORE. 6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1. • Program [601] “Class of Service” is used to assign a Class of Service to each extension. |
| Feature References | <p>Section 3, Features Call Forwarding – to Outside Line</p> |

Executive Busy Override

| | |
|---------------------------|---|
| Description | Determines which Classes of Services (COS) are allowed to perform Executive Busy Override – Extension / Outside Line. Executive Busy Override allows the user to interrupt an established call. |
| Selection | <ul style="list-style-type: none">• COS number: 1 through 8, * (* =all COS)• Disable / Enable |
| Default | All COS – Disable |
| Programming | <ol style="list-style-type: none">1. Enter 505. <code>Display: 505 EXEC BSY OR</code>2. Press NEXT. <code>Display: COS NO?+</code>3. Enter a COS number. To enter COS number 1, you can also press NEXT. <code>Display example: COS1:Disable</code>4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1.• Program [601] “Class of service” is used to assign a Class of Service to each extension. |
| Feature References | Section 3, Features Executive Busy Override – Extension Executive Busy Override – Outside Line |

Executive Busy Override Deny

| | |
|---------------------------|---|
| Description | This program is used to determine which Classes of Services (COS) are allowed to deny Executive Busy Override. Executive Busy Override Deny allows the user to prevent Executive Busy Override – Extension / Outside Line from being executed by another extension user. |
| Selection | <ul style="list-style-type: none">• COS number: 1 through 8, * (* =all COS)• Disable / Enable |
| Default | All COS – Enable |
| Programming | <ol style="list-style-type: none">1. Enter 506. Display: 506 EXEC BSY DNY2. Press NEXT. Display: COS NO?+3. Enter a COS number. To enter COS number 1, you can also press NEXT. Display example: COS1:Enable4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1.• Program [601] “Class of Service” is used to assign a Class of Service to each extension. |
| Feature References | Section 3, Features Executive Busy Override – Extension Executive Busy Override – Outside Line |

Do Not Disturb Override

| | |
|---------------------------|---|
| Description | This program determines which Classes of Services (COS) are allowed to perform Do Not Disturb (DND) Override. |
| Selection | <ul style="list-style-type: none">• COS number: 1 through 8, * (* =all COS)• Disable / Enable |
| Default | All COS – Disable |
| Programming | <ol style="list-style-type: none">1. Enter 507. <code>Display: 507 DND OVERRIDE</code>2. Press NEXT. <code>Display: COS NO?+</code>3. Enter a COS number. To enter COS number 1, you can also press NEXT. <code>Display example: COS1:Disable</code>4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1.• Program [601] “Class of Service” is used to assign a Class of Service to each extension. |
| Feature References | Section 3, Features Do Not Disturb (DND) Override |

Account Code Entry Mode

| | |
|---------------------------|---|
| Description | <p>There are three account code modes: Option, Verified-All Calls and Verified-Toll Restriction Override. This program determines the mode to be used by each Class of Service (COS).</p> <p>Option mode: The user can enter any account code, if needed.</p> <p>Verified – All Calls mode: The user must always enter a preassigned account code to make an outside call.</p> <p>Verified – Toll Restriction Override mode: The user must enter a pre-assigned account code when the user needs to override toll restriction.</p> |
| Selection | <ul style="list-style-type: none"> • COS number: 1 through 8, * (* =all COS) • Option / Verify – All (Verified-All Calls) / Verify – Toll (Verified-Toll Restriction Override) |
| Default | All COS – Option |
| Programming | <ol style="list-style-type: none"> 1. Enter 508. Display: 508 ACC CODE OPT 2. Press NEXT. Display: COS NO?+ 3. Enter a COS number. To enter COS number 1, you can also press NEXT . Display example: COS1:Option 4. Keep pressing SELECT until the desired selection is displayed. 5. Press STORE. 6. To program another COS, press NEXT or PREV, or SELECT and the desired COS number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • To assign all COS to one selection, press the * key in step 3. In this case, the display shows the contents programmed for COS 1. • Program [105] “Account Codes” is used to define the Account Codes for the Verified modes. • Program [601] “Class of Service” is used to assign a Class of Service to each extension. |
| Feature References | <p>Section 3, Features Account Code Entry Toll Restriction Override by Account Code Entry</p> |

EXtra Device Port

| | |
|---------------------------|---|
| Description | EXtra Device Port (XDP) allows a standard telephone to be connected to the same jack as a digital proprietary telephone (DPT). This program assigns which jacks are XDP. The standard telephone and DPT of the programmed jack work as independent extensions. |
| Selection | <ul style="list-style-type: none">• Jack number: 1 through 8, * (* =all jacks)• Disable / Enable |
| Default | All jacks – Disable |
| Programming | <ol style="list-style-type: none">1. Enter 600. <code>Display: 600 XDP PORT</code>2. Press NEXT. <code>Display: Jack NO?+</code>3. Enter a jack number. To enter jack number 1, you can also press NEXT . <code>Display example: #1:Disable</code>4. Keep pressing SELECT until the desired selection is displayed.5. Press STORE.6. To program another jack, press NEXT or PREV, or SELECT and the desired jack number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• To assign all jacks to one selection, press the * key in step 3. In this case, the display shows the contents programmed for Jack 1.• Immediately after changing your assignment, the changed setting may not work for a maximum of eight seconds. |
| Feature References | Section 3, Features EXtra Device Port (XDP) |

Class of Service

| | |
|---------------------------|---|
| Description | Programs each extension for Class of Service (COS). The COS determines the call handling abilities of each extension. |
| Selection | <ul style="list-style-type: none"> • Jack number: 1 through 8, * (-1 / -2), (* =all jacks, -1 = first part, -2 = second part) • COS number: 1 through 8 |
| Default | All jacks-1/2 – COS 1 |
| Programming | <ol style="list-style-type: none"> 1. Enter 601. Display: 601 COS # 2. Press NEXT. Display: Jack NO?+ 3. Enter a jack number. To enter jack number 1, you can also press NEXT. To select the second part (-2), press NEXT after entering a jack number. Display example: #1-1: COS1 4. Enter a COS number. To change the current entry, enter the new number. 5. Press STORE. 6. To program another jack, press NEXT or PREV, or SELECT and the desired jack number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • There is a maximum of eight Classes of Service. Every extension must be assigned to a Class of Service and is subject to the COS Programming of programs [500] through [508] and [991]. • For an explanation of jack numbering, see “Rotation of jack number” on page 4-7. • To assign all jacks to one COS, press the * key in step 3. In this case, the display shows the contents programmed for Jack 1. |
| Feature References | Section 3, Features Class of Service (COS) |

Extension Group Assignment

Description Assigns each extension to an extension group. Extension groups are used for Group Call Pickup, Station Hunting, and Paging – Group.

Selection

- Jack number: **1 through 8, * (-1 / -2)**,
(* =all jacks, -1 = first part, -2 = second part)
- Extension group number: **1 through 8**

Default All jacks- 1/2 – Extension group 1

Programming

1. Enter 602.
Display: 602 EXT GROUP #
2. **Press NEXT.**
Display: Jack NO?+
3. Enter a **jack number.**
To enter jack number 1, you can also press NEXT.
To select the second part (-2), press NEXT after entering the jack number.
Display example: #1-1:EXG1
4. Enter the **extension group number.**
To change the current entry, enter the new extension group number.
5. Press **STORE.**
6. To program another jack, press **NEXT** or **PREV**, or **SELECT and the desired jack number.**
7. Repeat steps 4 through 6.
8. **Press END.**

Conditions

- There is a maximum of eight extension groups. Each extension can only belong to one group.
- For an explanation of jack numbering, see “Rotation of jack number” on page 4-1.
- To assign all jacks to one extension group, press the * key in step 3. In this case, the display shows the contents programmed for Jack 1.

Feature References

| | |
|----------------------------|-----------------|
| Section 3, Features | |
| Call Pickup, Group | Paging – Group |
| Extension Group | Station Hunting |

DIL 1:N Extension and Delayed Ringing — Day /Night

Description

A DIL 1 :N line can be assigned to ring more than one extension. All incoming calls from the programmed outside lines are directed to the specified extensions. These programs assign the extensions and the notification method for each outside line in both day and night modes.

Selection

- Jack number: **1 through 8, * (-1 / -2)**,
(* =all jacks, -1 = first part, -2 = second part)
- Outside line (CO) number: **1 through 3, * (* =all outside lines)**
- **Disah** (disable) / **Immdt** (immediate ringing) / **1RNG** (1 ring delay) / **3RNG** (3 ring delay) / **6RNG** (6 ring delay) / **NoRNG** (no ring)

Default

All jacks-1/2 – all outside lines – Immediate ringing — Day / Night

Programming

1. Enter a **program address (603 for day or 604 for night)**.
Display example: 603 DIL 1:N DAY
2. **Press NEXT.**
Display: Jack NO?+
3. Enter a **jack number**.
To enter jack number 1, you can also press **NEXT**.
To select the second part (-2), press **NEXT** after entering a jack number.
Display example: #1-1:CO1:Immdt
4. Enter **the outside line number**.
You can also keep pressing **➡** or **⬅** until the desired outside line number is displayed.
5. Keep pressing **SELECT** until the desired selection is displayed.
6. **Press STORE.**
7. To program another jack, press **NEXT** or **PREV**, or **SELECT** and the desired **jack number**.

4.8 Extension Programming **603-604**

DIL 1:N Extension and Delayed Ringing — Day / Night (contd.)

8. Repeat steps 4 through 7.
9. **Press END.**

Conditions

- An extension can be assigned as **the** destination of as many outside lines as required.
- For an explanation of jack numbering, see “Rotation of jack number” on page 4-7.
- To assign all jacks or all outside lines to one selection, press the ***** key in step 3 or step 4. In these cases, the display shows the contents programmed for Jack 1 or for outside line 1.
- There are six notification methods:
 - (1) Immediate ringing: rings immediately
 - (2) 1 ring delay
 - (3) 3 ring delay
 - (4) 6 ring delay
 - (5) No ring: only the indicator flashes
 - (6) Disable: no incoming call
- When you change the jack number by pressing NEXT or PREV, the outside line number is not changed. Example **#3-1:CO3.....Press NEXT.....#3-2:CO3**

Feature References

Section 3, Features

Direct In Lines (DIL)

Ringling, Delayed

Night Service

Outgoing Permitted Outside Line Assignment — Day / Night

Description

Determines the outside lines which can be accessed by an extension in both day and night modes. The extension users can make outgoing outside calls using the assigned outside lines.

Selection

- Jack number: **1 through 8, *** (-1 / -2),
(* =all jacks, -1 = first part, -2 = second part)
- Outside line (CO) number: **1 through 3, *** (* =all outside lines)
- **Enabl** (enable) / **Disab** (disable)

Default

All jacks-1/2 – all outside lines – Enable — Day / Night

Programming

1. Enter a **program address (605 for day or 606 for night)**.
Display example: 605 CO DAY OUT
2. **Press NEXT.**
Display: Jack NO?+
3. Enter a **jack number**.
To enter jack number 1, you can also press **NEXT**.
To select the second part (-2), press **NEXT** after entering a jack number..
Display example: #1-1:CO01:Enabl
4. Enter **the desired outside line number**, or keep pressing **▶** or **◀** until the desired outside line is displayed.
To change the current entry, enter the new number.
5. Keep pressing **SELECT** until the desired selection is displayed.
6. **Press STORE.**
7. To program another jack, press **NEXT** or **PREV**, or **SELECT** and the desired **jack number**.
8. Repeat steps 4 through 7.
9. **Press END.**

4.8 Extension Programming 605-606

Outgoing Permitted Outside Line Assignment — Day /Night (contd.)

Conditions

- . For an explanation of jack numbering, see “Rotation of jack number” on page 4-7.
- To assign all jacks or all outside lines to one selection, press the * key in step 3 or 4. In these cases, the display shows the contents programmed for Jack 1 or outside line 1.
- To assign no outside line for an extension, press CLEAR in step 4.

Feature’ References



Section 3, Features

Outside Line Connection Assignment – Outgoing
Night Service

Doorphone Ringing Assignment — Day /Night

| | |
|---------------------------|---|
| Description | These programs assign the extensions which will ring when a doorphone call is received during the day and night modes. Programmed extensions are also allowed to open the door. |
| Selection | <ul style="list-style-type: none"> • Jack number: 1 through 8, * (-1 / -2), (* =all jacks, -1 = first part, -2 = second part) • Enable / Disable |
| Default | Jack 1-1- Enable; Other jacks – Disable — Day / Night |
| Programming | <ol style="list-style-type: none"> 1. Enter a program address (607 for day or 608 for night). Display example: 607 DOOR SET DAY 2. Press NEXT. Display: Jack NO?+ 3. Enter a jack number. To enter jack number 1, you can also press NEXT . To select the second part (-2), press NEXT after entering a jack number. Display example: #1-1:Enable 4. Keep pressing SELECT until the desired selection is displayed. 5. Press STORE. 6. To program another jack, press NEXT or PREV, or SELECT and the desired jack number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • For an explanation of jack numbering, see “Rotation of jack number” on page 4-7. • To assign all jacks to one selection, press the * key in step 3. In this case, the display shows the contents programmed for Jack 1. • One doorphone can be installed for the system. |
| Feature References | Section 3, Features Door Opener Night Service Doorphone Call |

Voice Mail Access Codes

| | |
|---------------------------|---|
| Description | Assigns a mailbox number for each extension, only if program [990] “System Additional Information, Field (18)” is set to “free”. |
| Selection | <ul style="list-style-type: none">• Jack number: 1 through 8, (-1 / -2), (-1 = first part, -2 = second part)• Mailbox number: 16 digits (max.) |
| Default | All jacks – Not stored |
| Programming | <ol style="list-style-type: none">1. Enter 609. Display: 609 V-MAIL CODES2. Press NEXT. Display: Jack NO?+3. Enter a jack number. To enter jack number 1, you can also press NEXT. To select the second part (-2), press NEXT after entering a jack number. Display example: #1-1:Not Stored4. Enter a mailbox number. To delete the current entry, press CLEAR. To change the current entry, press CLEAR and enter the new number.5. Press STORE.6. To program another jack, press NEXT or PREV, or SELECT and the desired jack number.7. Repeat steps 4 through 6.8. Press END. |
| Conditions | <ul style="list-style-type: none">• For an explanation of jack numbering, see “Rotation of jack number” on page 4-7.• The system supports a maximum of four jacks for connection to a Voice Processing System as the Voice Mail or Automated Attendant ports.• Each mailbox number has a maximum of 16 digits, consisting of 0 through 9, *, #and PAUSE.• To display parts of the mailbox number which have scrolled off the display, press  or . |
| Feature References | Section 3, Features Voice Mail Integration |

Live Call Screening Recording Mode Assignment †

| | |
|---------------------------|--|
| Description | Assigns whether to close the mailbox or keep recording the conversation after a call is intercepted. |
| Selection | <ul style="list-style-type: none"> • Jack number: 1 through 8, * (* =all jacks) • Stop Rec / Keep Rec |
| Default | All jacks – Stop Rec (Stop recording) |
| Programming | <ol style="list-style-type: none"> 1. Enter 610. Display: 610 LCS REC.MODE 2. Press NEXT. Display: Jack NO?+ 3. Enter a jack number. To enter jack number 1, you can also press NEXT. Display example: #1:Stop Rec 4. Keep pressing SELECT until the desired selection is displayed. 5. Press STORE. 6. To program another jack number, press NEXT or PREV, or SELECT and the desired jack number. 7. Repeat steps 4 through 6. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • For an explanation of jack numbering, see “Rotation of jack number” on page 4-7. • To assign all jacks to one selection, press the * key in step 3. In this case, the display shows the contents programmed for jack 1. |
| Feature References | Section 3, Features Live Call Screening (LCS) Voice Mail Integration for Digital Proprietary Telephones |

SMDR Incoming / Outgoing Call Log Printout

| | |
|---------------------------|---|
| Description | Used to determine which calls will produce an SMDR printout. |
| Selection | <ul style="list-style-type: none">• Outgoing calls: All (all calls) / Toll (toll calls only) / Off (no printing)• Incoming calls: On (all calls) / Off (no printing) |
| Default, | Outgoing calls – All; Incoming calls – On |
| Programming | <ol style="list-style-type: none">1. Enter 800. <code>Display: 800 SMDR IN/OUT</code>2. Press NEXT to program outgoing calls. <code>Display: Outgoing:All</code>3. Keep pressing SELECT until the desired selection is displayed.4. Press STORE.5. Press NEXT to program incoming calls. <code>Display: Incoming:On</code>6. Keep pressing SELECT until the desired selection is displayed.7. Press STORE.8. Press END. |
| Conditions | <ul style="list-style-type: none">• It is necessary to connect a printer to the Serial Interface (RS-232C) port provided on the system.• After connecting a printer, do not press the RETURN key, if provided on the printer, within 10 seconds. Otherwise, the usage of the Serial Interface port is changed to system programming and printing will not occur.• If “Toll” is selected, the system will print out all the calls starting from the numbers stored in programs [301]–[305] “TRSDenied Code Entry for Levels 2 through 6”. |
| Feature References | Section 3, Features Station Message Detail Recording (SMDR) |

SMDR Format

| | |
|---------------------------|---|
| Description | Used to match the SMDR output to the paper size being used in the printer. Page length determines the number of lines per page. Skip perforation determines the number of lines to be skipped at the end of every page. |
| Selection | <ul style="list-style-type: none"> • Page length (lines): 4 through 99 • Skip perforation (lines): 0 through 95 |
| Default | Page length – 66; Skip perforation – 0 |
| Programming | <ol style="list-style-type: none"> 1. Enter 801. Display: 801 SMDR FORMAT 2. Press NEXT to program page length. Display example: Page Length:66 3. Enter the page length. To change the current entry, press CLEAR and enter the new page length. 4. Press STORE. 5. Press NEXT to program skip perforation. Display example: Skip Perf: 0 6. Enter the skip perforation. To change the current entry, press CLEAR and enter the new skip perforation. 7. Press STORE. 8. Press END. |
| Conditions | <ul style="list-style-type: none"> • The page length should be four lines or more longer than the skip perforation length. • A title is positioned on the first three lines on every page. • The programmed format becomes valid only if the Serial Interface (RS-232C) cable is connected. If a printer is already connected, disconnect it and connect again. Otherwise the former format becomes valid. |
| Feature References | Section 3, Features Station Message Detail Recording (SMDR) |

System Data Printout

Description

Starts or stops printing the system data. All or a specific range of the current system-programmed data is printed out. The ranges are as follows:

Manager : Manager Programming [000] through [009]
System : System Programming [100] through [129]
Timers : Timer Programming [200] through [219]
TRS/ARS : TRS/ARS Programming [300] through [334]
Outside line : CO Line Programming [400] through [417]
c o s : COS Programming [500] through [508]
Extension : Extension Programming [600] through [610]
Resource : Resource Programming [800] through [815]
Option : Option Programming [990] through [991]

Selection

- Printout range number:
* (All) / 0 (Manager) / 1 (System) / 2 (Timer) /
3 (TRS/ARS) / 4 (Outside line) / 5 (COS) /
6 (Extension) / 8 (Resource) / 9 (Option)
- **start / stop**

Default

Not applicable.

Programming

1. Enter 802. .
Display: 802 SYSTEM DATA
2. **Press NEXT.**
Display: Enter range?+
3. Enter a **printout range number** or * for "All".
Display: Print-Out:Start
4. Press **STORE** to start printing.
Printing starts.
To stop printing, press **SELECT** and go to step 4.
When printing is completed, the display shows:
Display: Print-Out:Finish
5. **Press STORE.**
Display: Print-Out:Stop
6. Press **END.**

System Data Printout (contd.)

Conditions

- It is necessary to connect a printer to the Serial Interface (RS-232C) port provided on the system.
- You may stop printing by pressing the **END** button while records are being printed out.
- You cannot restart the printout while records are being output.

Feature References**Section 3, Features**

Station Message Detail Recording (SMDR)

Music Source Use

| | |
|---------------------------|---|
| Description | Used to determine the music source use for Music on Hold and Background Music (BGM). |
| Selection | <ul style="list-style-type: none">• Hold / BGM• Enable / Disable |
| Default | Hold and BGM – Enable |
| Programming | <ol style="list-style-type: none">1. Enter 803. <code>Display: 803 MUSIC SOURCE</code>2. Press NEXT to program Music on Hold. <code>Display example: Hold:Enable</code>3. Keep pressing SELECT until the desired selection is displayed.4. Press STORE.5. Press NEXT to program BGM. <code>Display example: BGM :Enable</code>6. Keep pressing SELECT until the desired selection is displayed.7. Press STORE.8. Press END. |
| Conditions | <ul style="list-style-type: none">• The music source is a user-supplied item. One music source can be installed.• Program [804] “External Pager BGM” is used to enable / disable BGM for each external pager. |
| Feature References | Section 3, Features Background Music (BGM) Music on Hold Background Music (BGM) – External |

External Pager BGM

| | |
|---------------------------|---|
| Description | Used to determine which external pagers will receive Background Music (BGM). BGM – External is turned on and off by the operator or manager. |
| Selection | • Disable (sends no BGM) / Enable (sends BGM) |
| Default. | All external pagers – Disable |
| Programming | <ol style="list-style-type: none">1. Enter 804. <code>Display: 804 EXTERNAL BGM</code>2. Press NEXT. <code>Display example: Pager:Disable</code>3. Keep pressing SELECT until the desired selection is displayed.4. Press STORE.5. Press END. |
| Conditions | <ul style="list-style-type: none">• The external pager is a user-supplied item. One external pager can be installed for the system.• Program [006] “Operator / Manager Extension Assignment” is used to assign an extension as Operator 1.• Program [803] “Music Source Use” is used to select the music source to be used for BGM. |
| Feature References | Section 3, Features Background Music (BGM) – External |

External Pager Confirmation Tone

| | |
|---------------------------|--|
| Description | Used to remove the confirmation tone for external pager. The default setting sends confirmation tone 2 to the external pager before paging is broadcast. This programming applies to all the external pager. |
| Selection | On/Off |
| Default | On |
| Programming | <ol style="list-style-type: none">1. Enter 805. <code>Display: 805 EX PAGE TONE</code>2. Press NEXT. <code>Display example: Tone:On</code>3. Keep pressing SELECT until the desired selection is displayed.4. Press STORE.5. Press END. |
| Conditions | The external pager is a user-supplied item. One external pager can be installed to the system. |
| Feature References | Section 3, Features Confirmation Tone Paging – All Paging – External |

Serial Interface (RS-232C) Parameters

| | |
|--------------------|---|
| Description | <p>Assigns the communication parameters for the Serial Interface (RS-232C) interface.</p> <p>New line code: Select the code for your printer or personal computer. If your printer or personal computer automatically feeds lines with a carriage return, select “CR”. If not, select “CR+LF”.</p> <p>Baud rate: A baud rate code indicates the data transmission speed from the system to the printer or personal computer.</p> <p>Word length: A word length code indicates how many bits compose a character.</p> <p>Parity: A parity code indicates what type of parity is used to detect an error in the string of bits composing a character. Make an appropriate selection depending on the requirements of your printer or personal computer.</p> <p>Stop bit: A stop bit code indicates the end of a bit string which composes a character. Select an appropriate value depending on the requirements of your printer or personal computer.</p> |
| Selection | <ul style="list-style-type: none"> • New line code: CR+LF / CR (CR=Carriage Return, LF=Line Feed) • Baud rate (baud): 150 / 300 / 600 / 1200 / 2400 / 4800 / 9600 • Word length (bits): 7 / 8 • Parity bit: None / Mark / Space / Even / Odd • Stop bit length (bits): 1 / 2 |
| Default | <p>New line code = CR+LF; Baud rate = 9600; Word length = 8; Parity bit = Mark; Stop bit = 1</p> |
| Programming | <ol style="list-style-type: none"> 1. Enter 806. Display example: 806 RS232 PORT 2. Press NEXT to program new line code. Display example: NL-Code:CR+LF 3. Keep pressing SELECT until the desired selection is displayed. 4. Press STORE. 5. Press NEXT to program baud rate. Display example: Baud Rate:9600 6. Keep pressing SELECT until the desired selection is displayed. 7. Press STORE. |

Serial Interface (RS-232C) Parameters (contd.)

8. Press **NEXT** to program word length.
Display example: Word **Length:8bits**
9. Keep pressing **SELECT** until the desired selection is displayed.
10. Press **STORE**.
11. Press **NEXT** to program parity bit.
Display example: Parity:Mark
12. Keep pressing **SELECT** until the desired selection is displayed.
13. Press **STORE**.
14. Press **NEXT** to program stop bit.
Display example: Stop Bit:1bit
15. Keep pressing **SELECT** until the desired selection is displayed.
16. Press **STORE**.
17. Press **END**.

Conditions

- The following combinations are invalid.

| Parity | Word Length | Stop Bit |
|--------|-------------|----------|
| Mark | 8 | 2 |
| Space | 8 | 1 |
| Space | 8 | 2 |

- The program address of the out-of-service system port is unacceptable.

Feature References

Section 3, Features
Station Message Detail Recording (SMDR)

Floating Number Assignment

| | |
|--------------------|---|
| Description | Assigns the floating numbers for External Pager, DISA message, and extension groups. These numbers can be used the same way extension numbers are used for station access. |
| Selection | <ul style="list-style-type: none"> • Floating station: Pager / DISA / E-Group 1 through 8 • Floating number: 2 through 4 digits |
| Default | Pager=196; DISA=198 ; E-Group1=191; E-Group 2= 192; E-Group 3= 193; E-Group 4= 194; E-Group 5=291; E-Group 6=292; E-Group 7=293; E-Group 8=294 |
| Programming | <ol style="list-style-type: none"> 1. Enter 813. Display: 813 FLOATING # 2. Press NEXT to program Pager 1. Display example: Pager1 :EXT196 To program another floating station, keep pressing NEXT or PREV until the desired floating station is displayed. 3. Enter a floating number. To change the current entry, press CLEAR and enter the new floating number. 4. Press STORE. 5. To program another floating station, keep pressing NEXT or PREV until the desired floating station is displayed. 6 . Repeat steps 3 through 5. 7. Press END. |
| Conditions | <ul style="list-style-type: none"> • A floating number is composed of two to four numerical digits, 0 through 9. • The first one or two digits of the floating numbers are subject to program [100]“Flexible Numbering, (01) through (16) 1st through 16th hundred extension blocks”. |

Floating Number Assignment (contd.)

- Floating numbers and extension numbers should be unique. Double entry and incompatible entry for these numbers are invalid. Valid entry example: 10 and **11**, **10** and 110; Invalid entry example: 10 and 106, **210 and 21**.

To avoid making an invalid entry, check the other extension numbers in programs **[003]** “Extension Number Set”, **[118]** “VM Extension Number Assignment” and **[124]** “Phantom Extension Number Assignment”. The default of each extension number is as follows:

[003] Extension Number Set

11 through **18**, **21** through 28

[118] VM Extension Number Assignment

295 through 298

[124] Phantom Extension Number Assignment

Not assigned.

- You cannot leave an entry empty.

Feature References

Section 3, Features

Floating Station

DISA Built-in Auto Attendant

| | |
|---------------------------|---|
| Description | Assigns the DISA built-in auto attendant number. The extension number and the floating number can be assigned as a one digit number and used as a DISA built-in auto attendant number. |
| Selection | <ul style="list-style-type: none">• DISA built-in auto attendant number: 0 through 9• Extension number / Floating number: 2 through 4 digits |
| Default | Disable |
| Programming | <ol style="list-style-type: none">1. Enter 815. Display: 815 DISA AA2. Press NEXT. Display example: Dial NO?+3. Enter a DISA built-in auto attendant number. To enter DISA AA number 0, you can also press NEXT. Display example: Dial 0:EXT1124. Enter an extension or floating number. To change the current entry, press CLEAR and enter the new floating number. Display example: Dial 0:EXT1125. Press STORE.6. To program another DISA AA number, press NEXT or PREV, or SELECT and the desired DISA AA number.7. Repeat steps 3 through 6.8. Press END. |
| Conditions | This system can store up to nine programmable DISA built-in auto attendant numbers. |
| Feature References | Section 3, Features Direct Inward System Access (DISA) |

System Data Clear

| | |
|---------------------------|--|
| Description | Clears the system data which you have programmed. The system will re-start with the default setting. |
| Programming | <ol style="list-style-type: none">1. Enter 900. Display: 900 SYS-DATA CLR2. Press NEXT. Display: Data Clear?3. Press STORE. |
| Conditions | None |
| Feature References | None |

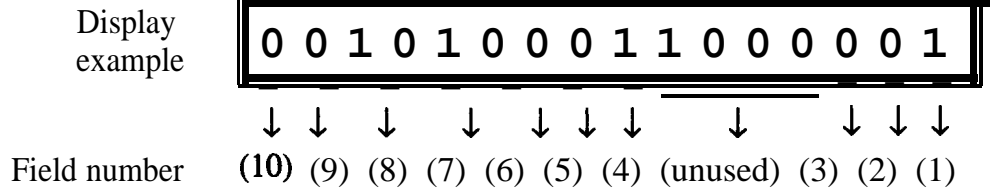
System Additional Information

Description

Adds the following programming items, if required:

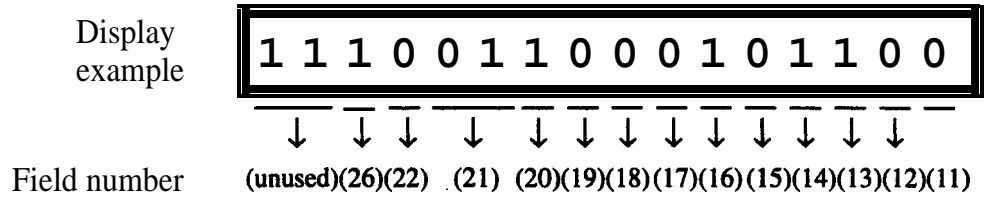
Area 01

There are 9 fields available in Area 1 as follows:



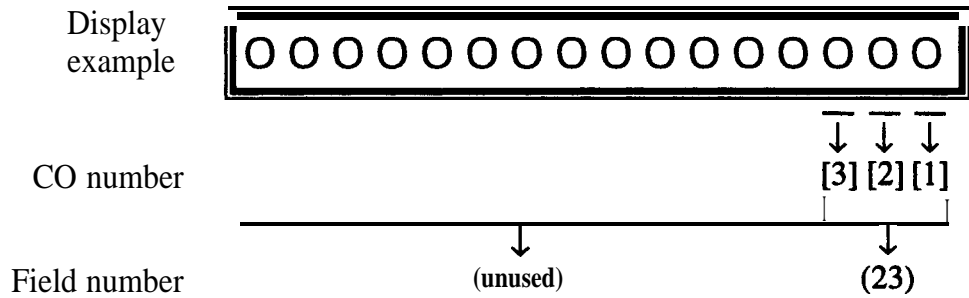
Area 02

There are 13 fields available in Area 2 as follows:



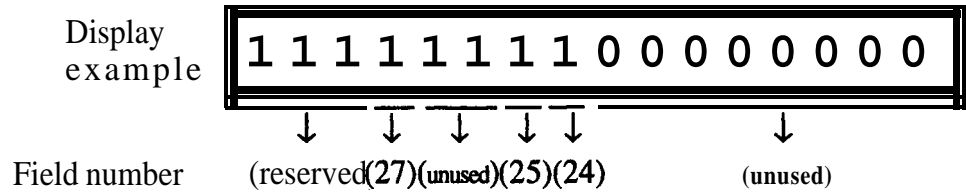
Area 03

[1] through [3] below match outside lines 1 through 3

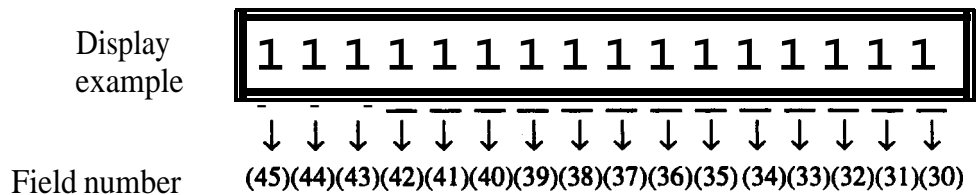


System Additional Information (contd.)

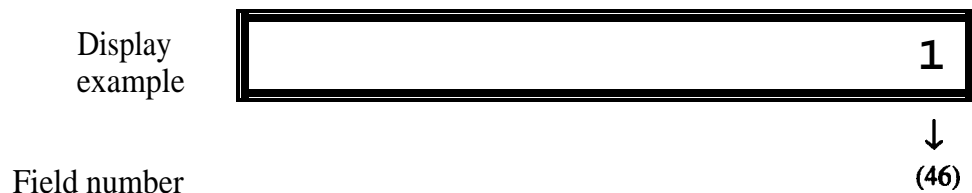
Area 04 There are 3 fields available in Area 4 as follows:



Area 05 There are 16 fields available in Area 5 as follows:



Area 06 There is 1 field available in Area 6 as follows:



System Additional Information (contd.)

Explanation for Area 1

| Field | Description | Selection | Default | References |
|-------|--|--|---------|--|
| (1) | Sound source during transfer. | 0 : ringback tone 1 : Music on Hold | 1 | <ul style="list-style-type: none"> • CALL TRANSFER FEATURES • Music on Hold |
| (2) | Result of pressing the hookswitch lightly and then placing down the handset (during an outside call; standard telephones only). | 0 : Consultation Hold 1 : disconnection | 0 | Consultation Hold |
| (3) | Result of pressing the FLASH button on proprietary telephones (during an outside call). | 0 : disconnection signal 1 : External Feature Access | 0 | *External Feature Access *Flash |
| (4) | Enables or disables the dial tone between obtaining an outside line and dialing the phone number when using the one-touch dial, redial or speed dial function. | 0 : disable 1 : enable | 1 | None |
| (5) | Result of pressing the hookswitch lightly (standard telephones only). | 0 : Consultation Hold 1 : disconnection | 0 | Consultation Hold |
| (6) | Sets the duration of the DTMF signals sent to the Voice Processing System (VPS) ports. | 0 : 80 ms 1 : 160ms | 0 | Voice Mail Integration |
| (7) | Sets the time the system waits before sending DTMF signals (such as a mailbox number) to VPS after VPS answers a call. | 00 : 0.5 s 01 : 1.0 s 10 : 1.5s 11 : 2.0 s | 10 | Voice Mail Integration |
| (8) | Sets the time the system waits before sending DTMF signals (programmed in [113]) to VPS after the VPS calls an extension. | 00 : 0.5 s 01 : 1.0s 10 : 1.5s 11 : 2.0 s | 10 | Voice Mail Integration |
| (9) | Assigns whether the system or the VPS turns off the Message Waiting lamp when the user hears a message recorded in a mailbox. | 0 : system 1 : vPs | 0 | <ul style="list-style-type: none"> • Message Waiting • Voice Mail Integration |
| (10) | Unused | | | |

Explanation for Area 2

| Field | Description | Selection | Default | References |
|-------|--|--|---------|---|
| (11) | If an outside party is transferred or parked and unanswered, assigns whether Transfer Recall or Call Park Recall occurs at the transfer or call park initiating extension or at Operator 1. | 0 : initiating extension 1 : Operator 1 | 0 | <ul style="list-style-type: none"> • Call Park • Call Transfer, Unscreened – to Extension |
| (12) | If Limited Call Duration is enabled in program [502] “Extension-to-Outside Line Call Duration Limit”, assigns if Limited Call Duration is done for both outgoing and incoming calls or for outgoing calls only. | 0 : both calls 1 : outgoing calls only | 0 | Limited Call Duration |
| (13) | Allows you to remove confirmation tone 4. By default, a beep tone is emitted when a three-party conference is started / ended. | 0 : disable 1 : enable | 1 | Confirmation Tone |
| (14) | Determines if the dialed “*” and “#” will be checked by Toll Restriction. This assignment is required for certain central offices (CO) to prevent toll fraud. Some COs ignore the user-dialed “*” and “#”. If your CO is such a type, select “0” (no check). | 0 : no check 1 : check | 1 | Toll Restriction |
| (15) | Unused | | | |
| (16) | Allows you to remove Confirmation Tone 3. This tone is sent when a conversation is established just after dialing the feature number for accessing the following features : Call Pickup, Paging, Paging Answer, TAFAS Answer, Hold Retrieve and Call Park Retrieve. | 0 : disable 1 : enable | 1 | Confirmation Tone |
| (17) | An outside line set to pulse or call blocking mode in program [402] “Dial Mode Selection” can have two settings. This assigns the pulse break ratio during dial pulsing. Select an appropriate ratio depending on the standard in your country. | 0 : 60 % 1 : 67 % | 0 | Dial Type Selection |
| (18) | Assigns if an extension’s mailbox number is substituted by the extension number or it is programmable (free). If a call is forwarded or rerouted to the VPS, this system automatically transmits the mailbox number to the VPS to specify the user’s mailbox. To make it programmable, select “1 (free)”, then assign the number in program [609] “Voice Mail Access Codes”. | 0 : extension number 1 : free | 0 | Voice Mail Integration |

System Additional Information (contd.)

Explanation for Area 2 (contd)

| Field | Description | Selection | Default | References |
|-------|--|---|---------|--|
| (19) | Determines the initial display of a digital large display proprietary telephone (KX-T7235) in Station Speed Dialing. | 0 : names 1 : numbers | 0 | Special Features of the KX-T7235 — Station Speed Dialing |
| (20) | Determines the source of Music Source 1 for Music on Hold and BGM. Internal music source is not available for your system. | 0 : internal music source 1 : external music source | 1 | <ul style="list-style-type: none"> • Background Music (BGM) • Background Music (BGM) – External • Music on Hold |
| (21) | Selects inter-digit pause for pulse dialing. | 00 : 630 ms 01 : 830 ms 10 : 1030ms | 01 | None |
| (22) | Selects intercom dial tone frequency. | 0 : normal 1 : distinctive | 0 | None |
| (26) | Selects the extension-hooking signal detection time. | 0 : 84-1000 ms 1 : 200-1000 ms | 1 | None |

Explanation for Areas 3 and 4

| Field | Description | Selection | Default | References |
|-------|--|------------------------------|---------|------------------------|
| (23) | This field is provided to assign PAD Switch Control (volume control of received calls on an outside line). This can be assigned per outside line. The outside line numbers [1] through [3] correspond to outside lines 1 through 3 respectively. | 0 : 0 dB 1 : -3 dB | 0 | None |
| (24) | Prevents or allows a call originated by an AA port of VPS to another AA port. | 0 : prevent 1 : allow | 1 | Voice Mail Integration |
| (25) | Prevents or allows sending pulse dialing signals during an outside call. | 0 : prevent 1 : allow | 1 | None |
| (27) | Enables or disables the outside line pulse feedback tone. | 0 : disable 1 : enable | 1 | None |

Explanation for Area 5

| Field | Description | Selection | Default | References |
|-------|--|---|---------|--|
| (30) | Enables or disables the automatic time adjustment by Caller ID information once a day by the first call received after 3:00AM . | 0 : enable 1 : disable | 1 | Caller ID |
| (31) | Have an option to restrict the DISA outside-to-outside line extending time. 10 attempts are allowed. | 0 : 10 times 1 : no limitation | 1 | Direct Inward System Access (DISA) |
| (32) | Enables or disables retry by dialing “*” during DISA outside-to-outside line calling. | 0 : disable 1 : enable | 1 | DISA |
| (33) | Selects the result when a call from DISA arrives at a DND extension or a busy, extension which disabled Call Waiting. | 0 : IRNA 1: busy tone is sent | 1 | DISA |
| (34) | Sets the time the system waits for IRNA after the OGM. | 0 : immediately 1: after 10 seconds | 1 | Outgoing Message (OGM) |
| (35) | Selects the result when an outside call is routed by Call Forwarding to a voice mail port which is in AA service mode. (For both Inband and DPT Integration) disable: AA service mode enable : The mode will change to the VM service mode and a Follow-On ID is sent. When the voice mail port is in VM service mode, this program is not affected. | 0 : disable 1 : enable | 1 | Voice Mail Integration |
| (36) | Selects the result when an outside call is routed to a voice mail port by IRNA . (For both Inband and DPT Integration) When the voice mail port is in VM service mode, enable : VM service mode disable: The mode will change to the AA service mode. (Only when Inband) When the voice mail port is in AA service mode; enable : The mode will change to the VM service mode and a Follow-On ID is sent. disable : AA service mode | 0 : enable 1 : disable | 1 | Voice Mail Integration |
| (37) | Selection of the OHCA or BSS function for KX-T7235 telephones. | 0 : BSS 1: OHCA | 1 | Off-Hook Call Announcement (O H C A) |
| (38) | Enables or disables dial tone 2 when an extension sets programmable extension features such as Call Waiting. | 0 : disable 1: enable | 1 | None |

System Additional Information (contd.)

Explanation for Area 5 (contd)

| Field | Description | Selection | Default | References |
|-------|--|---|----------|---|
| (39) | Determines the result when pressing the FLASH button during an outside call (When Field 3=0). Flash: Disconnects and accesses the same outside line. Terminate: Terminates the outside line and accesses the intercom. It is convenient to route the outside call according to ARS if ARS is active. | 0 : Terminate 1 : Flash | 1 | Flash |
| (40) | Selects the message waiting ring type: 3 quick rings or 2 normal rings, for standard telephones. | 0: 3 times by 40ms 1: 2 times by 280ms | 1 | Message Waiting |
| (41) | Selects the SMDR format for an incoming call with Caller ID. The caller's number only or caller's number and name is selected. | 0 : <Incoming> + caller no. 1 : <I> + caller no. + name | 1 | Station Message Detail Recording (SMDR) |
| (42) | Enables or disables the SMDR printout for RC (when an incoming call occurs) and AN (when an incoming call is answered). | 0 : enable 1 : disable | 1 | SMDR |
| (43) | Selects the result when a call from DISA is invalid. | 0 : IRNA 1: reorder tone is sent | 1 | None |
| (44) | Selects the result of pressing "0" (default); calls operators 1 and 2 at the same time or Operator 1 first and then Operator 2 if Operator 1 is busy. | 0 : Operators 1 and 2 simultaneously 1 : Operator 1 first and then Operator 2 | 1 | Operator Call |
| (45) | Enables or disables the SMDR printout when the Timed Reminder starts and the alarm is not answered. | 0 : enable 1 : disable | 1 | Timed Reminder |

Explanation for Area 6

| Field | Description | Selection | Default | References |
|-------|--|--|---------|--------------------|
| (46) | Programs whether or not the account code is printed out in the SMDR. | 0 : not printed out 1: printed out | 1 | Account Code Entry |

System Additional Information (contd.)

| | |
|---------------------------|--|
| Selection | <ul style="list-style-type: none">• Area code: 01 (area 1) / 02 (area 2) / 03 (area 3) / 04 (area 4) / 05 (area 5) / 06 (area 6)• Field number : 1 through 46• Selection: See “Selection” on pages 4- 144 through 4- 148. |
| Default | See “ Default ” shown above. |
| Programming | <ol style="list-style-type: none">1. Enter 990. Display: 990 SYS ADD DATA2. Press NEXT. Display: Area NO?--+3. Enter an area code (01 through 06). Display example: 00101000110000014. Keep pressing ➡ or ⬅ to move the cursor to the desired field.5. Enter your selection (0 or 1). To change the current entry, press STORE and enter the new selection.6. To program another field, repeat steps 4 and 5.7. Press STORE.8. To program another area, press SELECT and the desired area code.9. Repeat steps 4 through 8.10. Press END. |
| Conditions | None |
| Feature References | See “ References ” on pages 4-144 through 4- 148. |

COS Additional Information

Description

- (1) Sets the number of digits allowed to dial out during an outside call on a Class of Service (COS) basis. If an outside party hangs up and the extension user tries to dial out still on the outside line, the system will disconnect the line at the time the assigned digits are dialed. This program can be added if the CPC Signal Detection is not provided by the outside line.
The Field (1) shown below is used to enter your selection.
- (2) Enables or disables Call Forwarding – Follow Me feature on a COS basis.
The Field (2) below is used to enter your selection.

Display example

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|--------------|--|--|--|--|--|--|--|--|--|--|--|----------|-----|-----|--|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | ↓ | ↓ | ↓ | |
| Field number | | | | | | | | | | | | (unused) | (2) | (1) | |

Selection

- COS number: 1 through 8, * (* =all COS)
- Field number: 1 or 2
- Selection for field (1):
 0000: no limit / 0001: 1 digit / 0010: 2 digits / 0011: 3 digits /
 0100: 4 digits / 0101: 5 digits / 0110: 6 digits / 0111: 7 digits /
1000: 8 digits / 1001: 9 digits / 1010: 10 digits / 1011: 11 digits /
 1100: 12 digits / 1101: 13 digits / 1110: 14 digits / 1111: 15 digits
- Selection for field (2): 0 : disable / 1 : enable

Default

Field 1: All COS – **0000** / Field 2: All COS – 1

Programming

- 1 . Enter 991.
 Display: 991 COS ADD DATA
- 2 . **Press NEXT.**
 Display: COS NO?+
3. Enter a COS number .
 Display example: 1111111111110000
4. Keep pressing **➡** or **⬅** to move the cursor to the desired field.

COS Additional Information (contd.)

5. Enter your **selection (0 or 1)**.
To change the current entry, press **STORE** and the new selection.
6. To program another field, repeat steps 4 and 5.
7. Press **STORE**.
8. To program another COS, press **SELECT** and the desired **COS number**.
9. Repeat steps 4 through 8.
10. Press **END**.

Conditions

None

Feature References

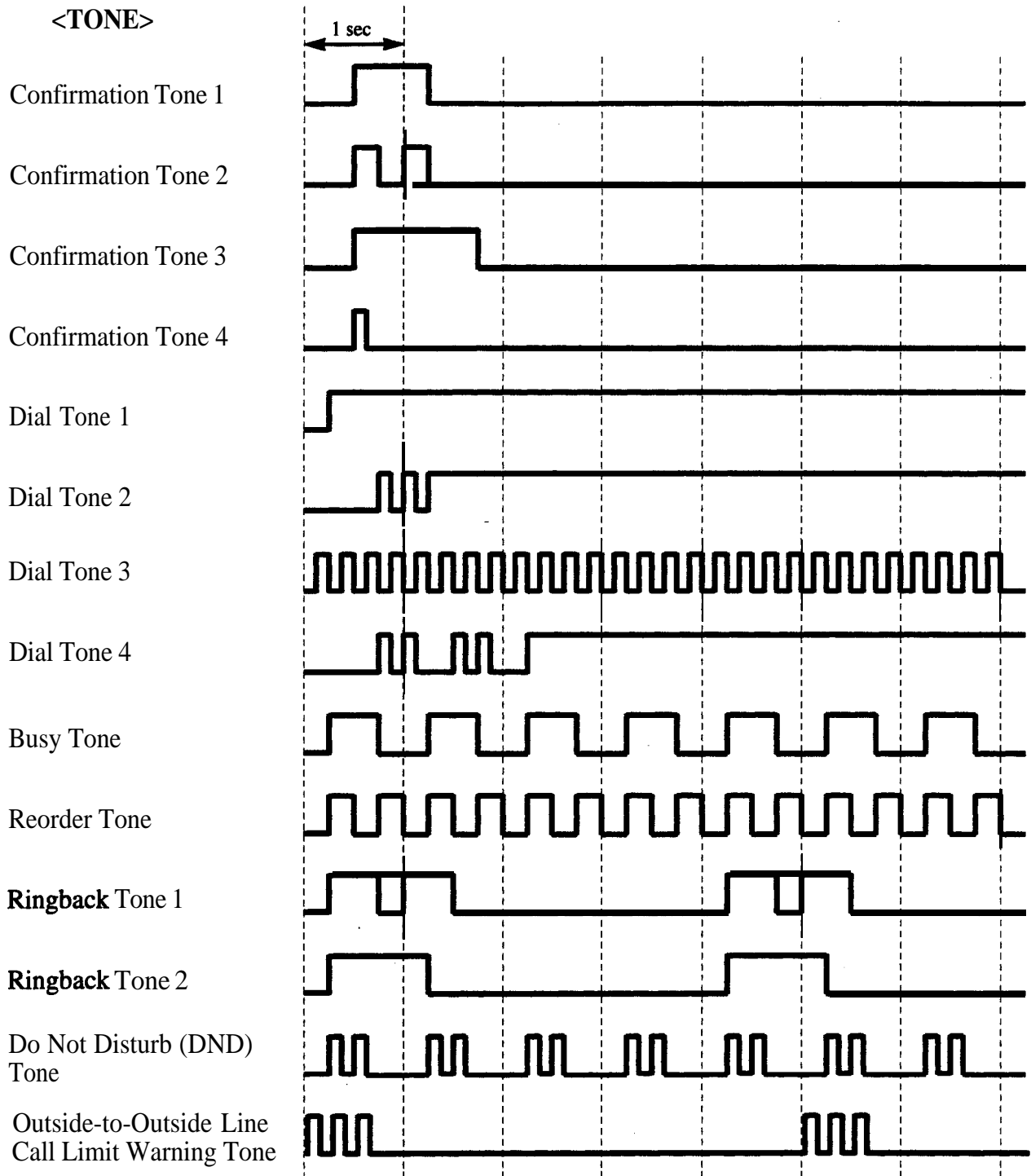
Section 3, Features
Call Forwarding – Follow Me
Calling Party Control (CPC) Signal Detection
Class of Service (COS)

Section 5

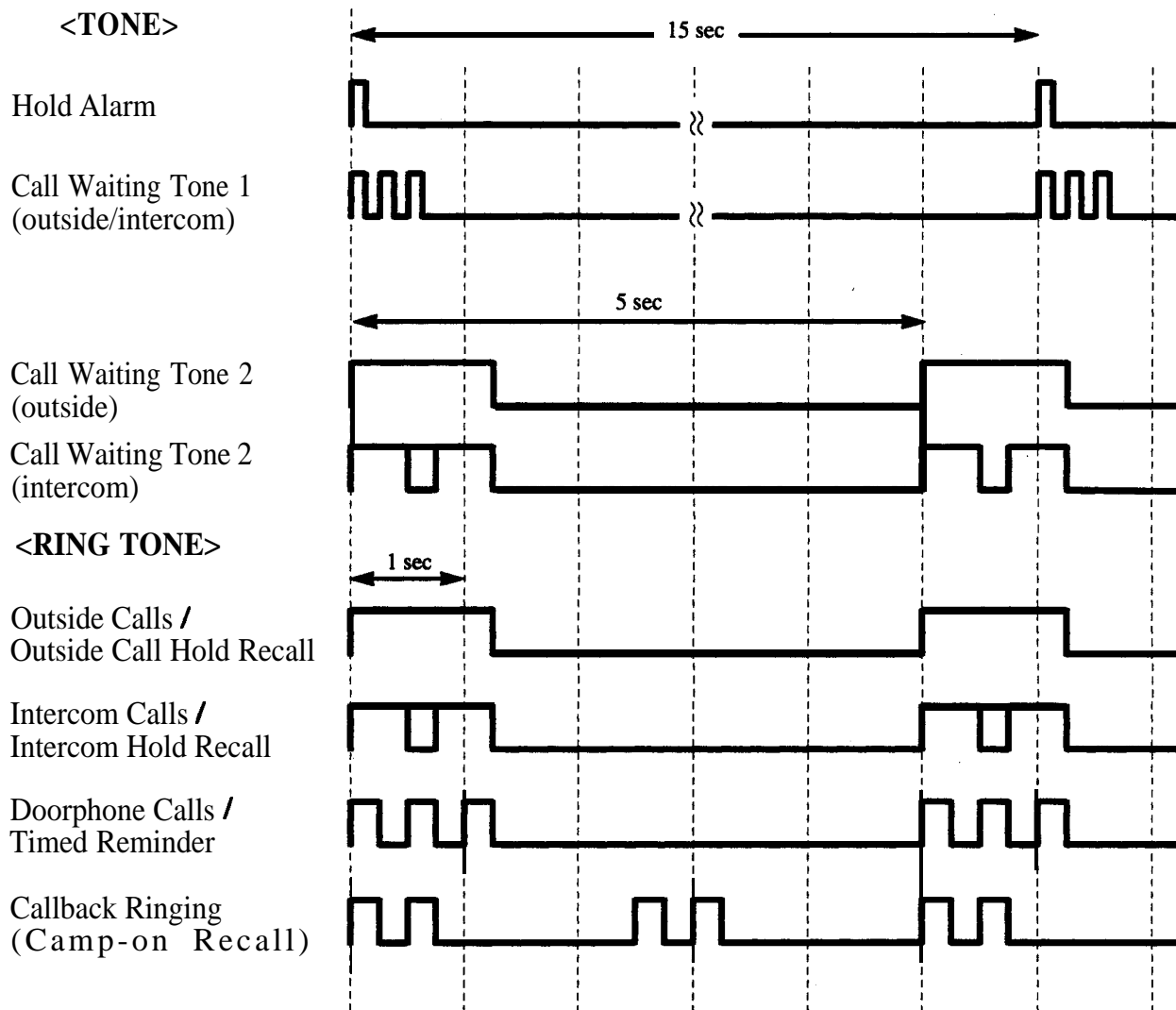
List

This section lists the tone, ring tone and default values of system programming.

5.1 Tone / Ring Tone



5.1 Tone / Ring Tone



5.2 Default Values

| ADDRESS | PROGRAM | DEFAULT |
|----------------------------|---|---|
| Manager Programming | | |
| [000] | Date and Time Set | '97 Jan. 1 WED 12:00 AM 12 |
| [001] | System Speed Dialing Number Set | Not Stored |
| [002] | System Speed Dialing Name Set | Not Stored |
| [003] | Extension Number Set | Jack 1-1 through 8-1=11 through 18 Jack 1-2 through 8-2=21 through 28 |
| [004] | Extension Name Set | Not Stored |
| [005] | Flexible CO Button Assignment | All Jacks – CO button 1 through 3 = Single CO 1 through 3, Others = Not Stored; Ring tone type 2 |
| [006] | Operator / Manager Extension Assignment | Operator 1=Jack 1; Operator 2 and Manager=Unassigned |
| [008] | Absent Messages | 1: Will Return Soon; 2: Gone Home; 3: At Ext %%; 4: Back at %%%%; 5: Out Until %%%/%%%; 6: In a Meeting; 7 through 9: Not Stored |
| [009] | Quick Dial Number Set | Not Stored |
| System Programming | | |
| [100] | Flexible Numbering | See page 4-3 1 and 4-32. |
| [101] | Day / Night Service Switching Mode | Manual |
| [102] | Day / Night Service Starting Time | Every Day of the Week – Day=9:00 am / Night=5:00 pm |
| [103] | Automatic Access Outside Line Assignment | 123 |
| [105] | Account Codes | Not Stored |
| [106] | Station Hunting Type | All Extension Groups=Disable |
| [107] | System Password | 1234 |
| [108] | Automatic Hold by CO / DSS Button | DSS Button=Enable; CO Button=Disable |
| [110] | Caller ID Code Set | Not Stored |
| [111] | Caller ID Name Set | Not Stored |
| [113] | VM Status DTMF Set | RBT=1; BT=2; ROT=3; DND=4; Answer=5; Disconnect=#9; Confirm =9; FWD VM RBT=6; FWD VM BT=7; FWD EXT RBT=8 |
| [114] | VM Command DTMF Set | LV-MSG=H; GETMSG= * H; AA-SVC=#8; VM-SVC=#6 |
| [116] | ROM Version Display | Not Applicable |
| †[117] | Voice Mail Number Assignment | Not Stored |
| †[118] | Voice Mail Extension Number Assignment | VM-1=295; VM-2=296; VM-3=297; VM-4=298 |
| †[119] | Voice Mail Extension Group Assignment | All Voice Mail Numbers=EXG 1 |

5.2 Default Values

| ADDRESS | PROGRAM | DEFAULT |
|------------------------------|--|--|
| [120] | User Password | 1234 |
| [121] | Walking COS Password | 1234 |
| [124] | Phantom Extension Number Assignment | Not Stored |
| [125] | Area Code Assignment | Not Stored |
| [126] | Caller ID Modification for Local Call | Deleted Number=3; Added Number=Not Stored |
| [127] | Caller ID Modification for Long Distance Call | Deleted Number=0; Added Number=1 |
| [128] | Internal Caller ID Extension Assignment | Not Stored |
| [129] | Facsimile Transmission Extension | Not Stored |
| Timer Programming | | |
| [200] | Hold Recall Time | 60 s |
| [201] | Transfer Recall Time | 12 rings |
| [202] | Call Forwarding – No Answer Time | 3 rings |
| [203] | Intercept Time | 12 rings |
| [204] | Pickup Dial Waiting Time | 1 s |
| [205] | Extension-to-Outside Line Call Duration Time | 10 min |
| [206] | Outside-to-Outside Line Call Duration Time | 10 min |
| [207] | First Digit Time | 10 s |
| [208] | Inter Digit Time | 10 s |
| [209] | Automatic Redial Repeat Times | 10 times |
| [210] | Automatic Redial Interval Time | 40 s |
| [211] | Dial Start Time | 500 ms |
| [212] | Call Duration Count Start Time | 0 s |
| [213] | DISA Delayed Answer Time | 1 ring |
| [216] | Message Waiting Ring Interval Time | 0 min (no ring) |
| [217] | Timed Reminder Alarm Ring Time | 30 s |
| [218] | DISA AA Wait Time | 1 s |
| [219] | Call Park Recall Time | 12 rings |
| TRS / ARS Programming | | |
| [300] | TRS Override for System Speed Dialing | Disable |
| [301]–[305] | TRS Denied Code Entry for Levels 2 through 6 | Not Stored |
| [306]–[310] | TRS Excepted Code Entry for Levels 2 through 6 | Not Stored |
| [311] | Special Carrier Access Codes | Not Stored |

5.2 Default Values

| ADDRESS | PROGRAM | DEFAULT |
|---------------------------------|---|---|
| [312] | ARS Mode | Off |
| [313] | ARS Time | Every Day of the Week: Time-A=8:00 am; Time-B=5:00 pm; Time-C=9:00 pm; Time-D=Disable |
| [314]–[321] | ARS Leading Digit Entry for Plans 1 through 8 | Not Stored |
| [322]–[329] | ARS Routing Plans 1 through 8 | Not Stored |
| [330] | ARS Modify Removed Digit | All Modification Tables=0 (digits) |
| [331] | ARS Modify Added Number | Not Stored |
| [332] | Extra Entry Table Selection | Except-2 |
| [333] | TRS Entry Code Assignment for Extra Table | Not Stored |
| [334] | Emergency Dial Number Set | Location 01=991; Others=Not Stored |
| Outside Line Programming | | |
| [400] | Outside Line Connection Assignment | All Outside Lines=Connect |
| [402] | Dial Mode Selection | All Outside Lines=DTMF |
| [403] | Pulse Speed Selection | All Outside Lines=10 pps |
| [404] | DTMF Time | All Outside Lines=80 ms |
| [405] | CPC Signal Detection Incoming Set | All Outside Lines=400 ms |
| [406] | Caller ID Assignment | All Outside Lines=Disable |
| [407]–[408] | DIL 1: 1 Extension-Day/Night | All Outside Lines=Disable-Day/Night |
| [409]–[410] | Intercept Extension-Day/Night | All Outside Lines=Disable-Day/Night |
| [411] | Host PBX Access Codes | Not Stored |
| [412] | Pause Time | All Outside Lines=1.5 s |
| [413] | Flash Time | All Outside Lines=600 ms |
| [414] | Disconnect Time | All Outside Lines=1.5 s |
| [415] | CPC Signal Detection Outgoing Set | Disable |
| [416] | Reverse Circuit Assignment | Regular |
| [417] | Outside Line Name Assignment | Not Stored |
| COS Programming | | |
| [500]–[501] | Toll Restriction Level-Day/Night | COS 1 through 7=Level 1-Day/Night; COS 8=Level 7—Day/Night |
| [502] | Extension-to-Outside Line Call Duration Limit | All COS=Disable |
| [503] | Call Transfer to Outside Line | All COS=Disable |
| [504] | Call Forwarding to Outside Line | All COS=Disable |
| [505] | Executive Busy Override | All COS=Disable |
| [506] | Executive Busy Override Deny | All COS=Enable |
| [507] | Do Not Disturb Override | All COS=Disable |
| [508] | Account Code Entry Mode | All COS=Option |

5.2 Default Values

| ADDRESS | PROGRAM | DEFAULT |
|------------------------------|--|--|
| Extension Programming | | |
| [600] | EXtra Device Port | All Jacks=Disable |
| [601] | Class of Service | All Jacks-1/2=COS 1 |
| [602] | Extension Group Assignment | All Jacks-1/2=Extension Group 1 |
| [603]–[604] | DIL 1:N Extension and Delayed Ringing-Day/Night | All Jacks-1/2=All Outside Lines= Immediate Ringing-Day/Night |
| [605]–[606] | Outgoing Permitted Outside Line Assignment-Day/Night | All Jacks-1/2=All Outside Lines=Enable—Day/Night |
| [607]–[608] | Doorphone Ringing Assignment -Day/Night | Jack 1-l=Enable; Other Jacks=Disable -Day/Night |
| [609] | Voice Mail Access Codes | Not Stored |
| [617] | Live Call Screening Recording Mode Assignment | All Jacks=StopRec |
| Resource Programming | | |
| [800] | SMDR Incoming / Outgoing Call Log Printout | Outgoing Calls=All; Incoming Calls=On |
| [801] | SMDR Format | Page Length=66; Skip Perforation=0 |
| [802] | System Data Printout | Not Applicable |
| [803] | Music Source Use | Hold and BGM=Enable |
| [804] | External Pager BGM | All External Pagers=Disable |
| [805] | External Pager Confirmation Tone | On |
| [806] | Serial Interface (RS-232C) Parameters | New Line Code=CR+LF; Baud Rate=9600; Word Length=8; Parity Bit=Mark; Stop Bit=1 |
| [813] | Floating Number Assignment | Pager=196; DISA=198; E-Group 1=191; E-Group 2=192; E-Group 3= 193; E-Group 4= 194; E-Group 5=29 1; E-Group 6=292; E-Group 7=293; E-Group 8=294 |
| [815] | DISA Built-in Auto Attendant | Disable |
| Optional Programming | | |
| [900] | System Data Clear | Not Applicable |
| [990] | System Additional Information | See pages 4-144 through 4-148. |
| [991] | COS Additional Information | See page 4- 150. |

†: Available when the Digital Super Hybrid System is connected to a Digital Proprietary Telephone capable Panasonic Voice Processing System (one that supports digital proprietary telephone integration; e.g. **KX-TVS100**).

Section 6

Troubleshooting

This section provides information for system and telephone troubleshooting.

6.1 Troubleshooting

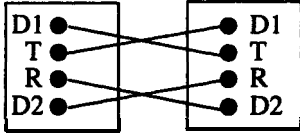
6.1.1 Installation

| PROBLEM | PROBABLE CAUSE | POSSIBLE SOLUTION |
|--|---|---|
| Extension does not operate. | Bad printed circuit board (Extension Card). | Exchange printed circuit board for another printed circuit board. |
| | Bad connection between the system and extension. | Take the extension and plug it into the same extension port using a short telephone cord. If the telephone does not work, the connection between the system and the extension must be repaired. |
| | A telephone with an A-AI relay is connected. | Use a 2 wire cord. Set the A-AI relay switch of the telephone to the "OUT" or "OFF" position. |
| | Bad extension. | Take the extension and plug it into another extension port that is working. If the telephone does not work, replace the phone. |
| Improper reset operation. | | Press the Reset Button. |
| Noise in external paging. | Induced noise on the wire between the system and the amplifier. | Use a shielded cable as the connection wire between the system and amplifier. A short shielded cable is recommended. |
| Volume distortion from external music source. | Excessive input level from external music source. | Decrease the output level of the external music source by using the volume control on the music source. |
| Speed Dialing or One-Touch Dialing does not function. | Bad programming. | Enter the outside line access number (9, 81 through 83) into programming . |

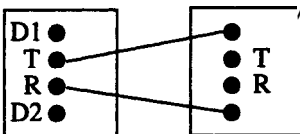
6.1 Troubleshooting

6.1.2 Connection

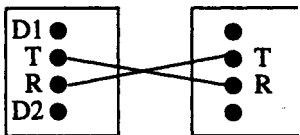
Connection between the system and a proprietary telephone:

| <p>Can you dial an extension?</p> | <p>No</p> | CAUSE | SOLUTION |
|-----------------------------------|-----------|--|--|
| | | <p>The T/R is connected to the D1/D2.</p>  <p style="text-align: center;">KX-TD308 extension</p> | <p>Use the correct cord (inner 2 wires are for T/R and the outer 2 wires are for D1/D2).</p> |

Connection between the system and a standard telephone:

| <p>Yes</p> | <p>No</p> | CAUSE | SOLUTION |
|------------|-----------|---|--|
| | | <p>The T/R is connected to the D1/D2.</p>  <p style="text-align: center;">KX-TD308 extension</p> | <p>Use the correct cord (inner 2 wires are for T/R).</p> |

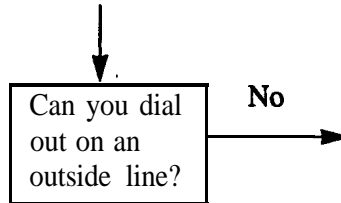
Connection between the system and a standard telephone that is **polarity-sensitive**:

| <p>(Continued on the following page.)</p> | <p>No</p> | CAUSE | SOLUTION |
|---|-----------|--|--|
| | | <p>The "T" is connected to the "R".</p>  <p style="text-align: center;">KX-TD308 extension</p> | <p>Reverse the connections of the T/R.</p> |

6.1 Troubleshooting

Connection between the central office and the system:

(Continued from the previous page.)



| CAUSE | SOLUTION |
|--|--|
| <p>Outside lines are connected to the T2/T1.</p> <p>Outside line KX-TD308</p> | <p>Reconnect the outside lines to the T1/R1 or T2/R2 of the telephone jack using 2-conductor wiring.</p> |
| <p>Outside lines are connected to the T2/R1.</p> <p>Outside line KX-TD308</p> | |

6.1.3 Operation

| PROBLEM | PROBABLE CAUSE | POSSIBLE SOLUTION |
|---|--|--|
| <ul style="list-style-type: none"> When using the speakerphone mode with a proprietary telephone KX-T7 130 or KX-T7030, nothing is audible. When using the speakerphone/monitor mode with a DPT, KX-T7220/KX-T7230/KX-T7235/KX-T7250, nothing is audible. | <ul style="list-style-type: none"> The HANDSET / HEADSET selector of the KX-T7130 or KX-T7030 is set to the "HEADSET"* position. * The "HEADSET"* mode is selected by Station Programming, "Handset/Headset Selection". | <ul style="list-style-type: none"> When the headset is not used, set the HANDSET / HEADSET selector to the "HANDSET" position. When the headset is not used, select the "HANDSET" mode by Station Programming. |
| The unit does not ring. | The Ringer Volume Selector is set to "OFF". | Set to "HIGH" or "LOW". |

6.1 Troubleshooting

| PROBLEM | PROBABLE CAUSE | POSSIBLE SOLUTION |
|--|---|---|
| During a power failure, extensions connected to jack numbers 1 do not operate. | <ul style="list-style-type: none"> • A DPT or APT is connected to the jack. • The dialing mode (tone or pulse) is improper. | <ul style="list-style-type: none"> • Disconnect the DPT or APT and connect a standard telephone. • Set the Tone / Pulse switch to the other position. |
| Originating an outside call, Call Transfer, or Conference cannot be performed. | The corresponding CO button does not exist on the proprietary telephone. | Program the CO button. See Section 4.2 [005] "Flexible CO Button Assignment". |

6.1.4 Using the Reset Button

If the system does not operate properly, use the Reset Button. Before using the Reset Button, try the system feature again to confirm whether there definitely is a problem or not.

Pressing the Reset Button causes the following:

1. Camp-on is cleared.
2. Calls on Hold are terminated.
3. Calls on Exclusive Hold are terminated.
4. Calls in progress are terminated.
5. Call Park is cleared.

All other data stored in memory is not cleared.

Operation

If the system does not operate properly,

1. Press the Reset Button with a pointed tool.

When **the** power supply stops, certain extension is automatically connected straight to specific outside line:

Extension (T, R) of jack number 1CO 1

Connect a standard telephone to the above extension jack.

**Matsushita Consumer Electronics
Company, Division of Matsushita
Electric Corporation of America**
One Panasonic Way, Secaucus,
New Jersey 07094

**Panasonic Saks Company (“PSC”),
Division of Matsushita Electric of
Puerto Rico, Inc.**
Ave. 65 de Infantería, Km. 9.5,
San Gabriel Industrial Park, Carolina,
Puerto Rico 00985