

INSIDE TRACK USER GUIDE

Issue 2, September 1998

Part Number 835.1442

Notice

This Inter-Tel *Inside Track User Guide* is released by INTER-TEL INTEGRATED SYS-TEMS, INC. as a guide for system installers and users. It provides information necessary to properly install, program, operate, and maintain the system.

The contents of this guide, which reflect current INTER-TEL standards and which document software version 827.8010, are subject to revision or change without notice. Software packages released after the publication of this guide will be documented in addenda to the guide or succeeding issues of the guide.

If additional information is required, please contact your dealer or service representative.

Table Of Contents

Table Of Contents	V
Limited Warranty	viii
Microsoft Windows License	ix
Welcome To Inside Track	1
Introduction	1
Overview	2
About This User Guide	3
Inside Track And Your Telephone System	4
Available Report Types	5
Equipment Requirements	7
Personal Computer (PC)	7
Call Record Storage Sources	8
Buffer Box	8
PollCat Buffer Box Specifications	9
Physical Dimensions	9
RS-232 Connectors	9
Pause Button	9
Fuse	10
DIP Switches	10
Light-Emitting Diodes (LEDs)	10
Optional Memory Expansion Chips	11
Optional Tandem Unit	11
Optional Modem Connection	11
CRB Unit Specifications	12
Physical Dimensions	12
RS-232 Connectors	12
"Almost Full" Audible Alarm	13
Light-Emitting Diode (LED) Indicators	13
DIP Switches	13
ILB Unit Specifications	15
Physical Dimensions	15
RS-232 Connectors	15
Light-Emitting Diode (LED) Indicators	16

DIP Switches	16
AXXESSORY Talk PC and Axxent Talk	18
Communications Parameters	18
Inter-Tel NetSolutions	19
RS-232 Connectors	20
Guidelines for Making an RS-232 Connection	21
Data Pins (required)	21
Ground Pins (required)	22
Control and Status Pins (requirements vary among manufacturers)	23
Telephone System RS-232 Connector Pin Out	25
AXXESS RS-232 Modular Jack Pin Out	25
Axxent DB9F Connector Pin Out	26
PCDPM DB9F Connector Pin Out	27
DB9F Pin Out	27
PC DB9M/DB25M Connector Pin Out	28
DB9M Pin Out	28
DB25M Pin Out	28
Buffer Box DB25 Connector Pin Out	29
DB25 Pin Out to PC	29
DB25 Pin Out to PBX	30
MODEM DB25F Connector Pin Out	31
DB25F Pin Out	31
Hardware Installation	33
Buffer Box	33
Installing the Software Key	33
Installing the PollCat Buffer Box	34
Installing the Optional Tandem Unit	36
Installing the CRB Unit	38
Installing the ILB Unit	40
Clearing and Testing the Memory	42
For PollCat, Tandem, and CRB unit	42
For ILB Unit	42
Installing Additional Memory	44
Installing the Optional Modem	46
AXXESSORY Talk PC and Axxent Talk	47
Making Your Own Custom Cable	47
Using AXXESS/Axxent Universal RS-232 Kit	47
Software Installation	49
Installing The Inside Track Software	49

Using Inside Track	51
Guidelines For Preparing and Printing Reports	51
To Program Reports	51
To Generate And Print Reports	51
Toolbar And Pull-Down Menus	52
Location Pull-Down Menu	53
System Pull-Down Menu	55
Windows Pull-Down Menu	58
Help Pull-Down Menu	58
Location Programming Window	59
Programming SMDA Reports	64
To Program A Report	65
Sample Report Formats	68
To Select SMDR Databases	74
To Sort Report Information	75
To Select Report Criteria	77
Ranges	77
Call Types	81
To Copy Reports	83
To Print Reports	85
Print Command	85
Printer Setup	87
To Preview Reports	88
Programming SMDR And Enhanced Databases	90
To Program, Create, Or Delete SMDR Databases	91
Programming An Existing Or New Database	93
Getting An Accurate Date Recording	94
Downloading Call Records From A Buffer, RS-232 Connection,	
Or Raw Files	95
To Program, Create, Or Delete Enhanced Databases	98
Account Code Association	102
Account Codes Data	104
Extensions Data	105
Location Look-up Data	106
Trunk Data	108
Programming Preferences	109
To Program Buffer Settings	109
To Program RS-232 Settings	
Using Raw Files	
Selecting A Raw File Directory	114

Deleting Raw Files	116
Replacement Parts	117
Ordering Parts	117
Index	119

Limited Warranty

Inter-Tel Integrated Systems, Inc. warrants the physical diskette(s) and physical documentation enclosed herein (but not any diskettes or documentation distributed by you) to be free of defects in materials and workmanship for a period of sixty days from the purchase date. If Inter-Tel Integrated Systems receives notification within the warranty period of defects in materials or workmanship, and such notification is determined by Inter-Tel Integrated Systems to be correct, Inter-Tel Integrated Systems will replace the defective diskette(s) or documentation. DO NOT RETURN ANY PRODUCT UNTIL YOU HAVE CONTACTED YOUR DEALER. YOUR DEALER WILL BE RESPONSIBLE FOR OBTAINING RETURN AUTHORIZATION.

The entire and exclusive liability and remedy for breach of this Limited Warranty shall be limited to replacement of defective diskette(s) or documentation and shall not include or extend to any claim for or right to recover any other damages, including but not limited to, loss of profit, data, or use of the software, or special, incidental, or consequential damages or other similar claims, even if Inter-Tel Integrated Systems has been specifically advised of the possibility of such damages. In no event will Inter-Tel Integrated System's liability for any damages to you or any other person ever exceed the lower of suggested list price or actual price paid for the license to use the software, regardless of any form of the claim.

THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THIS LIMITED WARRANTY. Specifically, Inter-Tel Integrated Systems makes no representation or warranty that software is fit for any particular purpose and any implied warranty of merchantability is limited to the sixty-day duration of the Limited Warranty covering the physical diskette(s) and documentation only (and not the software) and is otherwise expressly and specifically disclaimed.

This Limited Warranty does not apply to any products damaged by improper handling, normal wear and tear, accidents, lightning damage, negligence, or improper use or maintenance and does not apply to products altered without authorization by Inter-Tel Integrated Systems.

This Limited Warranty gives you specific legal rights; you may have others which vary from state to state. Some states do not allow the exclusion of incidental or consequential damages, or the limitation on how long an implied warranty lasts, so some of the above may not apply to you.

Microsoft Windows License

Note: The following information is provided by Microsoft Corporation, regarding their licensing policies.

The Inside Track software operates in a graphics environment called *Microsoft Windows*, created by Microsoft Corporation. An extension of the MS-DOS operating system, *Microsoft Windows* gives a standard look and feel to the Inside Track software and all other *Windows* applications.

The Inside Track package contains all the software necessary to generate reports. You must run the Inside Track software under *Microsoft Windows* version 3.1 or higher.

With *Microsoft Windows*, you can take advantage of these additional features of the *Windows* environment:

- Running multiple applications: You can run several applications under *Windows* at one time and easily switch between them, creating an integrated work environment.
- Data exchange between applications: You can transfer data between the Inside
 Track software and other standard DOS applications as well as other Windows applications.
- **Windows** control of the DOS environment: From the *Windows* environment you have easy access to all *Windows* and non-*Windows* applications, files, directories, and disks, and control all DOS-related tasks such as directory or file management and formatting disks.

To run the Inside Track software with other applications under *Microsoft Windows*, you need to license and install *Microsoft Windows* version 3.1 or higher.

Refer to your Microsoft Windows documentation for warranty and operating information.



Welcome To Inside Track

Introduction

Thank you for purchasing Inter-Tel's Inside Track software package. This exciting new product allows you to create customized call management and accounting reports from your telephone system's call record data. You can use these reports to manage your calling costs, analyze system traffic, and track employee productivity.

The software, which is loaded on your personal computer (PC) and operates under Microsoft Windows, uses the call records from your telephone system to sort and create the desired reports. These call records are generated by the Station Message Detail Recording (SMDR) feature on your telephone system.

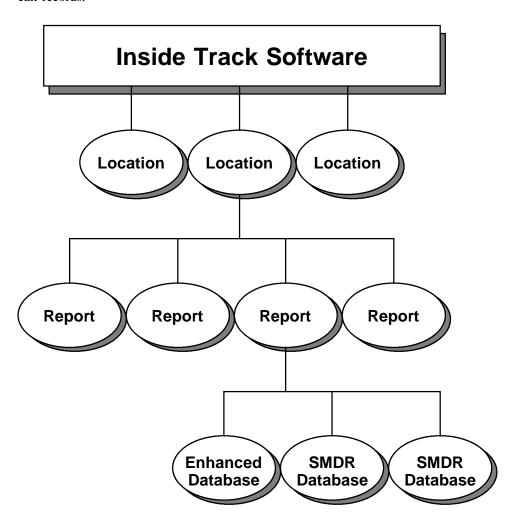
The SMDR call records are stored in a buffer box connected to your telephone system. Or, if you have an Inter-Tel AXXESS or Axxent telephone system, the SMDR call records can be stored on the optional AXXESSORY Talk PC or Axxent Talk hard disk instead. Inter-Tel NetSolutions customers can also get call record data from the NetSolutions office.

The SMDR call records (whether they are stored in a buffer box, on an AXXESSORY Talk PC, or with Inter-Tel NetSolutions) are then transferred to your PC where you can use the Inside Track software to sort the data and generate various reports.

Note: On telephone systems with wide and narrow SMDR formats, use the *wide* format to allow the Inside Track to properly process the records.

Overview

As shown in the diagram below, the Inside Track software can contain information for several "locations," which are each made up of several reports. Each report is then made up of one or more SMDR databases (and can include an enhanced database) that contain call records.



About This User Guide

This user guide provides all of the information you will need to install and use Inside Track. It includes information on the following:

- Inside Track And Your Telephone System
- Available Report Types
- Equipment Requirements
- Call Record Storage Sources
 - Buffer Box
 - AXXESSORY Talk PC
 - Inter-Tel NetSolutions
- Hardware Installation
- Software Installation
- Using Inside Track
- Replacement Parts

Inside Track And Your Telephone System

The Inside Track software can be used with the SMDR call records from the following Inter-Tel Integrated Systems, Inc. and Premier Telecom Products, Inc. telephone systems:

Inter-Tel Telephone Systems

- IMX 1224/2460
- IMX 2448
- IMX 256
- IMX 416/832
- GMX-48
- GX-120
- GMX-152D
- GMX 256
- GMX 416/832
- Inter-Tel Axxent
- AXXESS

Note: The new version 2.0 Inside Track software (part number 827.8854) is not compatible with the earliest releases of AXXESS 5.0 software (versions: 5.000, 5.010, 5.020, and 5.030). *In order to use this software on an AXXESS system, you must upgrade your AXXESS software to version 5.040 or higher.*

Premier Telephone Systems

- ESP
- ESPMDX
- ESPDX

Note: On telephone systems with wide and narrow SMDR formats, use the *wide* format to allow the Inside Track to properly process the records. Other SMDR formatting (such as whether equal access and toll digits are included in the dialed number), should be set up in the telephone system to meet the customer's reporting needs. The Inside Track uses the call data exactly as it is stored by the telephone system.

Available Report Types

The reports can be customized to add as much detail as you like. For example, the description, tenant group, and department information for each extension number can be included in the reports. This "enhanced" information allows you to generate a complete profile of your telephone system's users. And, if desired, two or more sets of SMDR call records can be combined to generate a single summary report. Reports can be generated to include any combination of the following information:

- Account Code
- Account Code Description
- Call Cost
- Call Elapsed Time
- Call Start Time
- Call Type
- Date
- Location Of Telephone Number Called
- Station Description
- Station Extension
- Station Username
- Telephone Number
- Tenant/Department
- Trunk Description
- Trunk Number

Call records can be arranged using the report templates with up to three "sort keys" (stations, trunks, etc.) that determine what information is presented. The report templates are as follows:

- Detailed by Time (default): This lists the call records in the report by the time of the call. It details calls by date and time, breaking the calls into sections using the first sort key.
- Detailed by Time with Subheaders: This is the same as the Detailed by Time report, except that report has subsections using the second sort key.
- *Summary:* This report type gives summary totals for calls in each section. Sections are determined by the first sort key.
- Summary with Subheaders: This is the same as Summary report, except that totals are given for subsections. The subsections are determined by the second sort key.
- Summary by Number: This lists the call records by number of calls placed to specific telephone numbers. The totals are listed in sections determined by the first sort key.
- Station by Number with Subheaders: This is the same as Station by Number report, except that report sections are divided by the first sort key and then subdivided by the second sort key.
- Summary Totals: This combines data to present total call cost, duration, and number of calls for the selected sort key (such as account codes).
- *Totals Summary:* This report type gives a list of the total number of calls made by each extension, the duration of those calls, and an approximate call cost, in other words this report give you a condensed version of the "Summary" report.

The customized reports can be printed on paper, displayed on your PC's monitor, or saved to a file on a floppy disk or on your PC's hard disk.



Equipment Requirements

Personal Computer (PC)

To use the Inside Track software, your PC must have the following minimum requirements:

- IBM-compatible
- 80386 or higher microprocessor
- Microsoft Windows 3.1, Windows 95, or Windows NT 4.0 (It does not run under Windows NT 3.51, because 3.51 is not compatible with the software security key.)
- 2 megabytes (MB) RAM (4MB recommended)
- 45MB available hard disk space (5MB for the software and 40MB recommended for data manipulation)

Note: The exact amount of hard disk space needed for data manipulation depends on the size of the files being sorted.

- 3½-inch (1.44MB) double-sided/high-density floppy disk drive (5¼-inch disks are also available)
- If connecting directly to the buffer box, an available COM port (RS-232 serial communications port)
- If connecting to the buffer box via modem, an internal or external modem
- Parallel port
- · Optional printer

The Inside Track software is designed for single-user applications. If the software is installed on a PC that is part of a local area network (LAN), two procedures must be followed: (1) Downloads must be performed on the PC that is connected to the buffer box. (2) Downloads must be performed in single-user mode (i.e., only one user can download from a particular buffer box at one time). Raw files can be programmed to automatically store on the network during the download. Once the download is complete, the data files may then be shared on the network.

Call Record Storage Sources

Your telephone system's SMDR call records can be stored using any of the following methods:

- The SMDR call records can be stored in a buffer box connected to your telephone system.
- If you have an Inter-Tel AXXESS or Axxent telephone system, the SMDR call records can be stored on the optional AXXESSORY Talk PC or on the Axxent Talk hard disk.
- Inter-Tel NetSolutions customers can receive call record data on a floppy disk from the NetSolutions billing system.

Buffer Box

Unless you have an AXXESS or Axxent System equipped with an AXXESSORY Talk PC or Axxent Talk (respectively), or you will be using data from Inter-Tel NetSolutions only, your telephone system must have an SMDR call record buffer box attached to it. The buffer box originally being used was the PollCat (Pollable Call Accounting Terminal) buffer box manufactured by Western Telematic for Inter-Tel (contact your dealer for purchasing information). However, this was replaced by one of two new buffer box models: CRB-256K or ILB-512K. The new CRB (call record buffer) unit and ILB (in-line buffer) unit are similar in design and function to the original PollCat unit. See page 12 for CRB unit specifications and page 15 for ILB unit specifications.

PollCat Buffer Box Specifications

The PollCat buffer box is a solid-state storage system designed for call record data collection. It uses a double-data compression method to store more than double the amount of characters that could normally be stored in its RAM (random access memory). A replaceable lithium battery protects memory for up to sixty days in the event of a power failure. The PollCat buffer box attaches to the telephone system using an RS-232 port. Refer to page 34 for instructions on connecting the PollCat buffer box to your telephone system.

To ensure that the buffer box is connected properly to your telephone system, you may want your local telephone dealer to perform the installation.

Physical Dimensions

The PollCat buffer box has the following dimensions:

```
Height 2.0 in. (5.0 cm.)

Width 10.5 in. (26.25 cm.)

Depth 7.0 in. (17.5 cm.)

Weight 3.0 lbs. (1.35 kg.)
```

RS-232 Connectors

The PollCat buffer box has two RS-232 connectors. The connector labeled PBX is connected to your telephone system. The connector labeled COMPUTER is connected to your PC or to an external modem. Refer to RS-232 Connectors section, page 20, for detailed RS-232 information.

Pause Button

The PAUSE button on the front of the PollCat buffer box allows you to halt the data being transferred to your PC. Data coming from the telephone system to the PollCat buffer box cannot be halted unless the RS-232 cable is removed or unless the memory in the PollCat buffer box is full.

When the PAUSE button is pressed to halt data, the LED under the button is lit. When the button is pressed again, the data transmission resumes and the LED is unlit.

If necessary, the memory in the PollCat buffer box can be cleared and tested by pressing the PAUSE button while turning on the AC power switch (see page 42 for instructions).

The memory-clearing procedure should only be performed during the initial installation, after changing the lithium battery, or after installing memory expansion chips.

Fuse

There is a 125mA, 250VAC, slow-acting fuse on the back of the PollCat buffer box to protect it against shock hazards.

DIP Switches

The DIP switches on the back of the PollCat buffer box are used to select the bit rate (bps), parity type, and X-ON/X-OFF option.

There are two independent bit rate settings on the PollCat buffer box, one for the connection to the telephone system and one for the connection to your PC (or an external modem). The PollCat buffer box can communicate with the telephone system at 300, 1200, 2400, or 9600 bps. It can communicate with your PC at 300, 600, 1200, 2400, 4800, or 9600 bps. Parity can be odd or even; however, X-ON/X-OFF should be disabled.

Light-Emitting Diodes (LEDs)

There are five light-emitting diodes (LEDs) on the front of the PollCat buffer box. The LEDs are used to indicate the following information:

- **Power On:** This LED lights when the unit is receiving AC power. The power cord and power switch are located on the back of the unit.
- **% Full:** The flash rate of this LED indicates approximately how full the memory is. When the memory is empty, the LED is unlit. When the memory is between 0% and 10% full, the LED flashes once before pausing. When the memory exceeds 10%, the LED flashes twice up to 20% full, three times up to 30% full, and so on. For example, if the memory is 43% full, the LED flashes five times, then pauses for a second before flashing five times again. If the memory is full (100%), the LED is solidly lit.
 - On GMX-48, GX-120, GMX-152D, IMX 2448, IMX 1224/2460, and ESP telephone systems, this LED may flash once even though the memory is actually empty.
- **80% Full:** When memory is 80% full, this LED is lit to indicate that the memory is almost full and that a download should be performed.
- **PBX Data:** This LED flashes whenever the unit is receiving information from your telephone system (even if the PollCat buffer box is turned off). This allows you to verify that the unit is properly connected to the telephone system and that call records are being transferred. If this LED is continually lit, it may indicate a cable or telephone system port problem.

• **Send Data:** This LED flashes whenever information is being transferred from the PollCat buffer box to your PC.

Optional Memory Expansion Chips

The PollCat buffer box comes equipped with 64k RAM (two 32k chips), which is enough memory to store approximately 1000–1200 call records. An additional 64k (two chips) of memory can be installed for a total of 128k of memory (for 2000–2400 call records). Or, an additional 128k (six chips) of memory can be installed for a total of 256k of memory (for 4000-4500 call records).

Optional Tandem Unit

For even greater storage capacity, a specially-designed "Tandem" unit can be connected in series with the PollCat buffer box. The Tandem unit, which is almost identical in design and function to the PollCat buffer box, is installed between the telephone system and the PollCat buffer box. When the PollCat buffer box is almost full, subsequent call record data is automatically stored in the Tandem unit. Refer page 36 for instructions on installing the Tandem unit.

The RS-232 connectors, LEDs, PAUSE button, battery, and fuse on the Tandem unit are the same as those on the PollCat buffer box. And, like the PollCat buffer box, the Tandem unit can be equipped with memory expansion chips, for a combined maximum of 512k memory.

Although the PollCat buffer box and the Tandem unit are similar, they are not interchangeable.

Optional Modem Connection

Your PC does not have to be connected directly to the PollCat buffer box. Call records can be transferred via modem from the PollCat buffer box to your PC. This is especially useful if you are processing call records for several telephone systems. To download call records from a remote PollCat buffer box to your PC, an external auto-answer modem must be connected to the PollCat buffer box's PC (COMPUTER) port.

Refer to page 46 for modem installation instructions. Modem configuration and downloading instructions are explained on pages 55 and 95. RS-232 settings are explained on page 112.

CRB Unit Specifications

The Call Record Buffer (CRB) unit provides up to 256k of non-volatile, battery-backed memory (CMOS static RAM). It can reliably store data for up to 60 days, even when powered off. The unit is powered by an AC adapter (9VDC @ 500mA).

Physical Dimensions

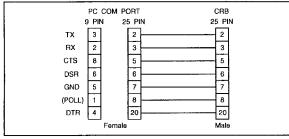
The CRB unit, which is considerably smaller than the original PollCat unit has the following dimensions:

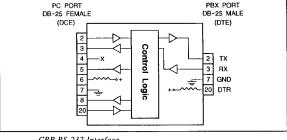
> Height 1.2 in. (3.0 cm.) Width 4.5 in. (11.4 cm.) Depth 6.0 in. (15.2 cm.) Weight 1.0 lbs. (0.5 kg.)

RS-232 Connectors

The CRB unit has two RS-232 connectors. The connector labeled PBX is connected to your telephone system. The connector labeled COMPUTER is connected to your PC or to an external modem. Ensure that the RS-232 cables have the correct pinouts as outlined in the diagram below. Refer to RS-232 Connectors section, page 20, for detailed RS-232 information.

Figure 1 RS-232 Interface





PBX PORT

PC to CRB Wiring

CRB RS-232 Interface

PC Port; RS-232, DB-25 Female (DCE)

Pin	Signal	1/0
2	TXD	Input
3	RXD	Out
5	CTS	Out
6	DSR	Out
7	GND	
8	"Poll-Now"	Out
20	DTR	Input

(All other pins are open)

PBX Port; RS-232, DB-25 Male (DTE)

Pin	Signal	1/0
2	TXD	Out
3	RXD	Input
7	GND	
20	DTR	Out

(All other pins are open)

"Almost Full" Audible Alarm

The CRB unit can be set up to emit a beeping tone when its memory is 80% full. The tone's intensity increases as more memory is used.

Light-Emitting Diode (LED) Indicators

There are four light-emitting diode (LED) indicators on the top of the CRB unit as shown in the diagram on the next page. The LEDs are used to indicate the following information:

- **ON:** This LED lights when the unit is receiving AC power. The power connector and power switch are located on the PBX end of the unit.
- **MEM:** The flash rate of this LED indicates approximately how much memory is currently being used. When the memory is empty, the LED is unlit. When the memory is between 0% and 10% full, the LED flashes once before pausing. When the memory exceeds 10%, the LED flashes twice up to 20% full, three times up to 30% full, and so on. For example, if the memory is 43% full, the LED flashes five times, then pauses for a second before flashing five times again. If the memory is full (100%), the LED is solidly lit.

On GMX-48, GX-120, GMX-152D, IMX 2448, IMX 1224/2460, and ESP telephone systems, this LED may flash once even though the memory is actually empty.

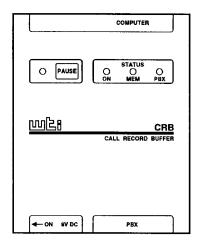
- PBX: This LED flashes whenever the unit is receiving information from your telephone system (even if the buffer box is turned off). This allows you to verify that the unit is properly connected to the telephone system and that call records are being transferred. If this LED is continually lit, it may indicate a cable or telephone system port problem.
- PAUSE: This LED lights whenever the data transfer process has been temporarily
 suspended for some reason, such as: the unit receives an X-OFF command, the unit
 receives a low DTR signal, X-ON/X-OFF handshaking is disabled, or the PAUSE button on the top of the unit is pressed.

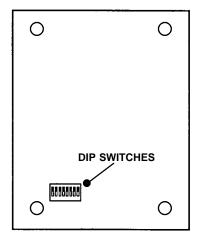
DIP Switches

The DIP switches on the bottom of the CRB unit are used to select the bit rate, audible alarm option, data compression scheme (including parity type and bit rate), X-ON/X-OFF option, and X-ON single call record mode. Refer to the manufacture's manual for detailed information.

There are two independent bit rate settings on the CRB unit, one for the connection to the telephone system and one for the connection to your PC (or an external modem). The unit can communicate with the telephone system at 300, 1200, 2400, or 9600 bps. It can communicate with your PC at 9600, 19200, 38400, or 115200 bps.

Figure 2 Front and Rear Views of the CRB-256K Unit





ILB Unit Specifications

The In-Line Buffer (ILB) unit provides up to 512k of non-volatile, battery-backed memory (CMOS static RAM). It can reliably store data for up to 60 days, even when powered off. The unit is powered by a 115VAC power source.

Physical Dimensions

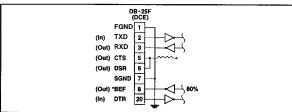
The ILB unit, which is larger than the original PollCat unit, has the following dimensions:

Height 4.0 in. (10.2 cm.) Width 17.0 in. (43.2 cm.) Depth 8.5 in. (21.6 cm.) Weight 6.1 lbs. (2.8 kg.)

RS-232 Connectors

The ILB unit has two RS-232 connectors. The connector labeled PBX PORT DTE is connected to your telephone system. The connector labeled COMPUTER PORT DCE is connected to your PC or to an external modem. Ensure that the RS-232 cables have the correct pinouts as outlined in the diagram below. Refer to RS-232 Connectors section, page 20, for detailed RS-232 information.

Figure 3 RS-232 Interface



PBX Port Interface

Computer Port Interface

* Pin 8 goes high when the buffer is approximately 80% full.

Pin	Signal	1/0
2	TXD	Input
3	RXD	Out
5	CTS	Out
6	DSR	Out
7	GND	
8	"Poll-Now"	Out
20	DTR	Input

(All other pins are open)

Pin	Signal	1/0
2	TXD	Out
3	RXD	Input
7	GND	
20	DTR	Out

DB-25F (DTE)

FGND

RXD

(Out) TXD

(Out) DTR

(All other pins are open)

Light-Emitting Diode (LED) Indicators

There are six light-emitting diode (LED) indicators on the front of the ILB unit as shown in the diagram on the next page. The LEDs are used to indicate the following information:

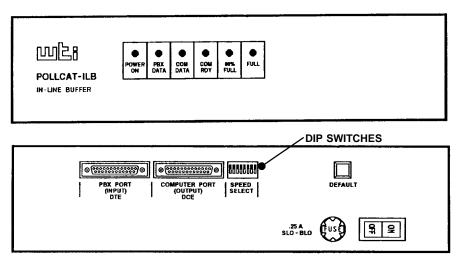
- **POWER ON:** This LED lights when the unit is receiving AC power. The power cable and power switch are located on the right on the back of the unit.
- **PBX DATA:** This LED flashes whenever the unit is receiving information from your telephone system (even if the buffer box is turned off). This allows you to verify that the unit is properly connected to the telephone system and that call records are being transferred. If this LED does not flash, it may indicate a cable or telephone system port problem.
- **COM DATA:** This LED flashes when data is released from the Computer Port.
- **COM RDY:** This LED flashes when the DTR signal is present at the Computer Port which is ready to release data.
- **80% FULL:** This LED lights when the internal memory is approximately 80% full.
- **FULL:** This LED lights when the internal memory is 100% full.

DIP Switches

The DIP switches on the back of the ILB unit are used to select the bit rate, data compression scheme (including parity type and bit rate), single-line release function (enable/disable), and optional external modem mode. Refer to the manufacture's manual for detailed information.

There are two independent bit rate settings on the ILB unit, one for the connection to the telephone system and one for the connection to your PC (or an external modem). The unit can communicate with the telephone system at 1200, 4800, 9600, or 19.2k bps. It can communicate with your PC at 1200, 2400, 4800, 9600, 19.2k, or 38.4k bps.

Figure 4 Front and Rear Views of the ILB-512K Unit



AXXESSORY Talk PC and Axxent Talk

If you have an Inter-Tel AXXESS or Axxent telephone system equipped with an optional AXXESSORY Talk PC an Axxent Talk (respectively), you can use the AXXESSORY Talk PC or the Axxent Talk hard disk instead of a buffer box to store SMDR call records. The call records are then transferred from the AXXESSORY Talk PC or the Axxent Talk hard disk to your PC.

To do this, the "SMDR Buffering" application must be enabled through the telephone system's database programming. Every time a call is completed, the AXXESS or the Axxent SMDR feature will record the call, format it according to SMDR programming, and send the record to the AXXESSORY Talk PC or the Axxent Talk hard disk.

The amount of disk space allocated for SMDR storage is determined in the telephone system's database programming. The default value is zero megabytes of memory. If the call records use disk space exceeding 80% of the allotment, the telephone system generates an alarm and displays it at the primary attendant station and at all administrator stations. Another alarm message is generated if the allotted space is 100% filled. If the maximum buffer capacity is exceeded, the oldest call record(s) are discarded as new ones arrive.

Since each SMDR call record takes up approximately 81 bytes on the AXXESSORY Talk PC, nearly 13,000 calls can be stored in each megabyte of hard disk space.

Refer page 47 for instructions on connecting your PC to the AXXESSORY Talk PC to retrieve the SMDR data.

You can also buffer call records to the AXXESSORY Talk or Axxent Talk and send call records to a serial port simultaneously.

Communications Parameters

To communicate properly with the AXXESSORY Talk PC or the Axxent Talk, your PC must be configured with the following parameters:

- The communications port bit rate is set to match the AXXESSORY Talk PC or the Axxent Talk's output port (see the paragraph on the next page)
- The data format is 7 bit standard ASCII.
- Parity is even
- Communication is full duplex

• There is one stop bit

Using the SMDR Buffer Programming window in the telephone system's database programming, the output port (COM2) on the AXXESSORY Talk PC or the Axxent Talk must be set to the same bit rate as the selected communications port on your PC. The available bit rates are 300, 1200, 2400, 4800, 9600, and 19200 bps (19200 is only available on the AXXESSORY Talk PC).

Inter-Tel NetSolutions

If you use Inter-Tel NetSolutions for your long distance service, you can receive your long distance call record data on a monthly basis. Contact your Inter-Tel NetSolutions representative for details.

RS-232 Connectors

NOTE: RS-232 has undergone several revisions over the last 30 years. The most current version of RS-232 is EIA/TIA-232-E (July 1991), which includes the alternate use of RTS and CTS as character-by-character hardware flow control signals. The Inter-Tel AXXESS serial ports conform to RTS/CTS flow control per EIA/TIA-232-E. Older versions of RS-232, such as EIA-232-D (1987) and RS-232-C (1969) are a subset of EIA/TIA-232-E. Hence, serial ports which conform to EIA/TIA-232-E are compatible with all RS-232-C serial ports. However, if the RS-232-C serial port does not support RTS/CTS flow control, then the connection cannot use RTS/CTS hardware flow control. Refer to APPENDIX C — RS-232 AND AXXESS in the Issue 5 Inter-Tel AXXESS Installation and Field Maintenance Manual for more information.

When connecting two devices using an RS-232 interface, as shown below, you can use the guidelines described on the following pages to make the connection. For pinout information, refer to pages 25 through 31.

Devices that use RS-232 interfaces:

- Telephone System (e.g., AXXESS, Axxent, etc.) (Includes PCDPMs for AXXESS and Axxent)
- PC
- Buffer Box (e.g., PollCat, ILB, or CRB)
- Modem

Guidelines for Making an RS-232 Connection

NOTE: For purposes of this discussion, all pin numbers assume a DB25 connector (which is the standard RS-232 connector) unless otherwise stated.

When making an RS-232 connection, the RS-232 pins can be subdivided into three groups as listed below:

- Data pins (TD and RD) required
- Ground pins (Frame ground and Signal ground) required
- Control and Status pins (DTR, DSR, RTS, CTS, DCD, and RI) requirements vary among manufacturers

You need at least three connections to make a full-duplex RS-232 connection:

- The two data pins (TD & RD)
- One ground pin (Signal Ground)

The control and status pins may or may not be necessary, depending upon the RS-232 implementation of each device. The requirements for connecting these pins must be handled on a case-by-case basis.

Data Pins (required)

The rule for connecting data pins is: The "Data Out" of one device always connects to the "Data In" of another device.

There are two data pins:

DB25	RS-232 Description	Signal Direction
Pin-2	Transmit Data (TD)	"Data Out" from a DTE connector; "Data In" to a DCE connector
Pin-3	Receive Data (RD)	"Data Out" from a DCE connector; "Data In" to a DTE connector

RS-232 was designed so that when a DTE connector mates with a DCE connector, a "straight through" cable can be used. A "straight through" cable is where pin-1 connects to pin-1, pin-2 connects to pin-2, etc. If you connect a DTE connector to a DCE connector using a straight through cable, then the Data Out from one device will connect to the Data In of the other device.

In cases where a DTE connector mates with a DTE connector (e.g., a PC-to-PC connection), or in the case where a DCE connector mates with a DCE connector (e.g., an Axxent Serial port and a modem), a "2-3 swapper" is needed so that the "Data Out" of one device always connects to the "Data In" of the other device. A "2-3 swapper" is a simple adapter that routes pin-2 to pin-3, and pin-3 to pin-2.

What sometimes causes confusion about which pin is "Data Out" and which pin is "Data In" is the terminology applied to the data pins. Adding to this confusion is the fact that some manufacturers do not adhere to the RS-232 nomenclature applied to the pins. Some manufacturers call pin-2 RD and pin-3 TD, which is incorrect. And some manufacturers do not specify the signal direction or the connector type (DTE vs DCE). Therefore, you must know which pin is really "Data Out" and which pin is really "Data In" before you can determine how to connect the data pins between the two connectors.

Ground Pins (required)

The rule for connecting ground pins is: Like ground always connects to like ground.

There are two ground pins:

DB25	RS-232 Description	Signal Direction
Pin-1	Frame Ground (shield)	Not intended for carrying current; connect to only one end of cable, not both ends
Pin-7	Signal Ground (common)	Carries current; must connect to both ends of the cable

In most cases and most RS-232 devices, pin-1 (Frame ground or Shield) is almost never used (it is not connected to frame ground). It is recommended that it not be used at all (leave it unconnected). It is also recommended that a shielded RS-232 cable not be used. Because, if you use a shielded RS-232 cable, the metal shield that surrounds the wires inside the cable creates a capacitor-like effect. This degrades the RS-232 signals.

If you must use a shielded cable, ideally, the shield in the cable should connect to only one connector, not both, at pin-1. The purpose of a shield is to reduce or stop EMI from leaving the cable. If both ends of the shield connect to pin-1 of their respective connectors, then the shield ends up being a current-carrying ground between the two devices and the shield becomes an EMI radiator itself instead of an EMI shield.

Pin-7 is the signal common ground, and hence, pin-7 must connect to pin-7.

Control and Status Pins (requirements vary among manufacturers)

There are NO standard rules for connecting control and status pins because manufacturers of RS-232 devices have altered the use of these pins with time. There is a lack of consistency among manufacturers as to which pins are used under different conditions, and how the pins are implemented. For that reason, Inter-Tel can only provide some general guidelines on how to connect these pins.

There can be anywhere from 0 to 6 control and status pins depending on how many of these pins a manufacturer wishes to include:

DB25	RS-232 Description	Signal Direction
Pin-4	RTS-Request To Send	"Flow Control Out" from a <i>DTE</i> ; "Flow Control In" to a <i>DCE</i> - see Note below
Pin-5	CTS-Clear To Send	"Flow Control In" to a <i>DTE</i> ; "Flow Control Out" from a <i>DCE</i>
Pin-6	DSR-Data Set Ready	"Device Status In" to a <i>DTE</i> ; "Device Status Out" from a <i>DCE</i>
Pin-20	DTR-Data Terminal Ready	"Device Status Out" from a <i>DTE</i> ; "Device Status In" to a <i>DCE</i>
Pin-8	DCD-Data Carrier Detect	"Carrier Status In" to a <i>DTE</i> ; "Carrier Status Out" from a <i>Modem</i>
Pin-22	RI-Ring Indicator	"Ring Status In" to a <i>DTE</i> ; "Ring Status Out" from a <i>Modem</i>

NOTE: When hardware flow control is required or implemented, the RTS pin takes on the functionality of "Ready for Receiving" per E1A/T1A-232-E.

Here are the general guidelines for connecting the control and status pins:

- Connecting Flow Control pins: The "Flow Control Out" of one device always connects to the "Flow Control In" of another device.
- Connecting Device Status pins: The "Device Status Out" of one device always connects to the "Device Status In" of another device.
- Connecting Modem Status pins: The Modem Status Out pins of one device always connects to the Modem Status In pins of the DTE.

Note that sometimes the guidelines above do not always apply, for the following reasons:

• Some manufacturers use DTR as a "Flow Control" signal instead of as a "Device Ready" signal.

- Some manufacturers implement Flow Control in only one direction.
- Some manufacturers ignore some of the signals but implement others.
- Some manufacturers allow the user to select between software and hardware flow control through the programming the device.

To determine how to make the proper connections, read the manuals and documentation that come with each device and find out what each device does with these signals. Once you know that, you can then determine which signals get connected and which can be left unconnected.

Keep in mind that RS-232 was designed so that when a DTE connector mates with a DCE connector, a "straight through" cable can be used. If you connect a DTE connector to a DCE connector using a straight through cable, then all of the control and status signals should be connected correctly. This is also true when the DCE is a modem and the DTE is a PC or a terminal. Whenever the DCE is something other than a modem, do not assume that a straight-through cable will always work.

In cases where a DTE connector mates with a DTE connector (e.g., a PC-to-PC connection), or in the case where a DCE connector mates with a DCE connector (e.g., an Axxent Serial port and a modem), a "null modem" adapter is probably needed so that the "Out" pins of one device always connect to the "In" pins of the other device. (Unfortunately, there several different "null modem" adapter wiring configurations available and choosing which one works in your particular case can be difficult.)

In general, you must review the documentation provided by the manufacturer of each device's RS-232 connector and determine the following:

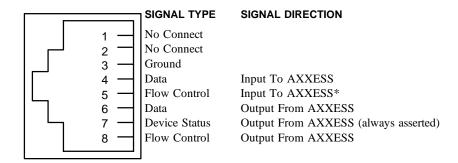
- Which control and status signals are used and which are left unconnected.
- For those control and status signals that are used, you must know how they are implemented by the device.
- You may need some type of adapter (e.g., a "null modem" adapter or perhaps your own custom adapter) to properly connect the control and status pins between the two connectors.

In the case of hooking up a PC running Inside Track to other devices (buffer boxes, modems, phone systems, and other PCs), you can buy or make your own cables and adapters, or, you can purchase Inter-Tel's AXXESS/Axxent Universal RS-232 kit. The Universal RS-232 kit provides you with all of the cables and adapters you are likely to ever need for making an RS-232 connection, and, it provides you with application notes on how to make each connection.

Telephone System RS-232 Connector Pin Out

AXXESS RS-232 Modular Jack Pin Out

Inter-Tel AXXESS RS-232 Serial Ports (except for PCDPM) use a custom pin out as shown in the diagram below. Refer to this diagram for all RS-232 connections to the serial port.

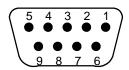


^{*}The serial port on the CPU-112 card (not supported by AXXESS version 5.0 or higher), does not have the Input Flow Control pin connected, but it can use the Output Flow Control pin. The two serial ports on a MEM card have both flow control pins connected; therefore, they can perform hardware flow control as the other Inter-Tel ports do.

Axxent DB9F Connector Pin Out

Inter-Tel Axxent systems use the de facto IBM-PC/AT industry standard DB9F (female) pinout configured as a DCE connector. Refer to the following diagram for all Axxent KSU serial port connections.

DB9 Female Connector



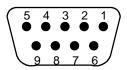
SERIAL #1 AND SERIAL #2 DB9F CONNECTORS ON AXXENT KSU			
DESCRIPTION	RS-232 EQUIVALENT PIN NAME	DIRECTION (DCE)	DB9F PIN NO.
Always True	DCD	Output from Axxent	1
Output Data	RD	Output from Axxent	2
Input Data	TD	Input To Axxent	3
Ignored	DTR	Input To Axxent	4
Ground	GND		5
Always True	DSR	Output from Axxent	6
Input Flow Control	RTS	Input To Axxent	7
Output Flow Control	CTS	Output from Axxent	8
Always False	RI	Output from Axxent	9

PCDPM DB9F Connector Pin Out

DB9F Pin Out

Inter-Tel PCDPMs use the de facto IBM-PC/AT industry standard DB9F (female) pinout configured as a DCE connector. Refer to the following diagram for all PCDPM connections.

DB9 Female Connector



PCDPM DB9F CONNECTOR					
DESCRIPTION	RS-232 EQUIVALENT PIN NAME	DIRECTION (DCE)	DB9F PIN NO.		
Always True	DCD	Output from PCDPM	1		
Output Data	RD	Output from PCDPM	2		
Input Data	TD	Input To PCDPM	3		
Input Flow Control	DTR	Input To PCDPM	4		
Ground	GND		5		
Always True	DSR	Output from PCDPM	6		
Input Flow Control*	RTS	Input To PCDPM	7		
Output Flow Control	CTS	Output from PCDPM	8		
Not Supported	RI	No Connection	9		

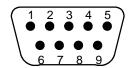
*On older model PCDPMs, this input pin was a "No Connect" and not used for input flow control. New PCDPM boards are labeled with artwork number 826.5239–5 or later. For more information on PCDPM, refer to Digital Keyset PCDPM Installation Instructions (Document No. 835.1823–5).

PC DB9M/DB25M Connector Pin Out

DB9M Pin Out

PCs use the de facto IBM-PC/AT industry standard DB9M (male) pinout configured as a DTE connector. Refer to the following diagram for all PC connections, which includes Inter-Tel AXXESSORY Talk, Axxent Talk, and PCs in general.

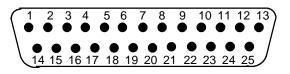
DB9 Male Connector



DB25M Pin Out

PCs use the RS-232 standard DB25M pinout configured as a DTE connector. Refer to the following diagram for all PC connections.

DB25 Male Connector



PC RS-232 SERIAL COM PORT DB9M/DB25M CONNECTOR					
DESCRIPTION	RS-232 EQUIVALENT PIN NAME	DIRECTION (DTE)	DB9M PIN NO.	DB25M PIN NO.	
Data Carrier Detect (Modem only)	DCD	Input To PC	1	8	
Input Data	RD	Input To PC	2	3	
Output Data	TD	Output From PC	3	2	
Data Terminal Ready (DTR)	DTR	Output From PC	4	20	
Ground	GND		5	7	
Data Set Ready (DSR)	DSR	Input To PC	6	6	
Output Flow Control	RTS*	Output From PC	7	4	
Input Flow Control	CTS	Input To PC	8	5	
Ringing Indication (Modem only)	RI	Input To PC	9	22	

^{*}RTS stands for "Request To Send," but can also take on the meaning "Ready for Receiving" per EIA/TIA-232-E.

Buffer Box DB25 Connector Pin Out

The Buffer Box (PollCat, CRB, or ILB) has two RS-232 connectors. The connector labeled PBX is connected to your telephone system. The connector labeled COMPUTER is connected to your PC or to an external modem. Ensure that the RS-232 cables have the correct pinouts as outlined in the diagram below. Refer to page 9, 12, or 15 for PollCat, CRB, or ILB unit specifications.

DB25 Pin Out to PC

The pinout for the COMPUTER RS-232 connector on the buffer box that attaches to *your PC* is configured as a DCE connector as follows:

SERIAL PORT DB25 CONNECTOR LABELED "COMPUTER"				
DESCRIPTION	RS-232 EQUIVALENT PIN NAME	DIRECTION (DCE)	DB25 PIN NO.	
Input Data	TD	Input Data from PC	2	
Output Data	RD	Output Data to PC	3	
See Note 1	CTS	Flow Control Output to PC	5	
See Note 2	DSR	Device Ready Output to PC	6	
Signal Ground	GND		7	
See Note 3	DCD	Output To PC	8	
See Note 4	DTR	Input From PC	20	

- Note 1: "CTS" is described as "Flow Control" for CRB, "Always True" for ILB, and not used on PollCat.
- Note 2: For PollCat only, "DSR" is described as "80% Full Alarm." This is an optional connection which can be used by the computer to monitor the full condition before initiating a data transfer. Pin 6 is high if memory is over 80% full.
- Note 3: "DCD" is described as "Poll-Now" for CRB and ILB, but is not present on PollCat.
- Note 4: For PollCat only, ready signal must be high to release data. Unit will not release data until an X-ON is received after pin 20 is high. If pin 20 drops low, data output will halt. Pin 20 may be jumpered to pin 5 on the PollCat port if the computer cannot supply a high signal level.

DB25 Gender		
PollCat	Female	
CRB	Female	
ILB	Female	

Note: These conform to the RS-232 standard which specifies a female connector for a DCE connector.

DB25 Pin Out to PBX

The pinout for the PBX RS-232 connector on the buffer box that attaches to *your tele-phone system* is configured as a DTE connector as follows:

SERIAL PORT DB25 CONNECTOR LABELED "PBX"				
DESCRIPTION	RS-232 EQUIVALENT PIN NAME	EQUIVALENT (DTE)		
Output Data	TD	Output Data to PBX	2	
Input Data	RD	Input Data from PBX	3	
Signal Ground	GND		7	
Always True	DTR	Output to PBX	20	

DB25 Gender		
PollCat	Male	
CRB	Male	
ILB	*Female	

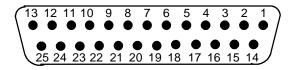
^{*} The RS-232 standard specifies a male connector for a DTE connector. Since the ILB uses a non-standard female connector, a DB25 male/male gender changer may be required to make a successful connection to the phone system. The DB25 male-to-male gender changer can be purchased at most computer stores for a small cost.

MODEM DB25F Connector Pin Out

DB25F Pin Out

Modems use the RS-232 standard DB25F (female) pinout configured as a DCE connector. Refer to the following diagram for all Modem connections.

DB25 Female Connector



MODEM RS-232 SERIAL DB25F CONNECTOR				
DESCRIPTION	RS-232 EQUIVALENT PIN NAME	DIRECTION (DCE)	DB25F PIN NO.	
Data Carrier Detect	DCD	Output From Modem	8	
Output Data	RD	Output From Modem	3	
Input Data	TD	Input To Modem	2	
Data Terminal Ready	DTR	Input To Modem	20	
Signal Ground	GND		7	
Data Set Ready	DSR	Output From Modem	6	
Input Flow Control	RTS*	Input To Modem	4	
Output Flow Control	CTS	Output From Modem	5	
Ringing Indication	RI	Output From Modem	22	

^{*}RTS stands for "Request To Send", but can also take on the meaning "Ready for Receiving" per EIA/TIA-232-E.



Hardware Installation

Buffer Box

The original PollCat buffer box described in the Issue 1 *Inside Track User Guide* was replaced by one of two new buffer box models: CRB-256K or ILB-512K. The new CRB (call record buffer) unit and ILB (in-line buffer) unit are similar in design and function to the original PollCat unit. See the following pages for more information.

Installing the Software Key

The software "key" is a small security device that must be attached to your PC's parallel port to fully enable the Inside Track software. Without the key, the software will not work. The software key does not affect the functionality of the parallel port itself. Any device that you would normally connect to the parallel port can also be connected through the software key.

To install the software key, simply attach the appropriate end of the device to the parallel port on the back of your PC.

Installing the PollCat Buffer Box

The PollCat buffer box is connected to an RS-232 port on your telephone system and to a communications port on your PC, as described in the following steps (see Figure 5 on page 35):

1. Locate DIP switches 1–7 on the back of the unit.

Note: Switches 8–10 are not currently used.

2. Set the bit rate of the PC (COMPUTER) port by placing DIP switches 1, 2, and 3 in the desired positions as outlined below (D = down, U = up).

BIT RATE	1	2	3
9600	D	D	D
4800	U	D	D
2400	D	U	D
1200	U	U	D
600	D	D	U
300	U	D	U

3. Set the bit rate of the telephone system (PBX) port by placing DIP switches 4 and 5 in the desired positions as outlined below (D = down, U = up).

BIT RATE	4	5
9600	D	D
2400	U	D
1200	D	U
300	U	U

- 4. Set the parity (odd or even) for both ports by placing DIP switch 6 in the desired position. *For odd parity*, place the switch in the up position. *For even parity*, place the switch in the down position.
- 5. *If installing a PollCat buffer box only (no Tandem unit)*, disable the X-ON/X-OFF feature for both ports on the buffer box by placing DIP switch 7 in the down position.

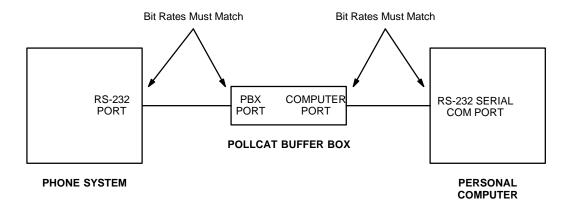
If a Tandem unit will also be installed, enable the X-ON/X-OFF feature for both ports on the buffer box by placing DIP switch 7 in the up position. (The X-ON/X-OFF feature must be disabled on the Tandem unit by placing the switch in the off position.)

- 6. Using the appropriate cable, connect the telephone system (PBX) port on the PollCat buffer box to an RS-232 port on your telephone system. (See page 29 for connector pinout information. Also refer to the telephone system's manual, if necessary.)
- 7. Using the appropriate cable, connect the PC (COMPUTER) port on the PollCat buffer box to an available COM port on your PC. (See page 29 for connector pinout information. Also refer to the PC's installation manual, if necessary.)

Note: If the buffer box and your PC are not at the same site, call records can be transferred to your PC using a modem. See page 46 for details.

8. Plug in the PollCat buffer box's AC power cord and turn on the AC power switch. Clear and test the unit's memory as outlined on page 42.

Figure 5 Buffer Box Installation



Installing the Optional Tandem Unit

To install a Tandem unit in series with the PollCat buffer box, follow these steps (see Figure 6 on the next page):

1. On the PollCat buffer box, place DIP switches 1–7 in the appropriate positions as outlined on page 34.

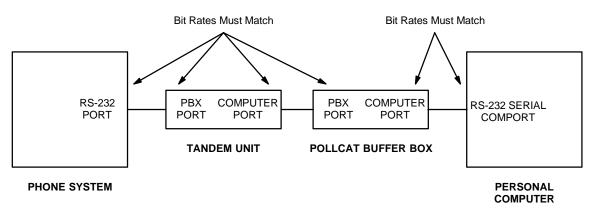
Note: The COMPUTER port on the PollCat buffer box and the COM port on the PC must have the same bit rate. The X-ON/X-OFF feature on the PollCat buffer box must be enabled.

2. On the Tandem unit, place DIP switches 1–7 in the appropriate positions as described for the PollCat buffer box on page 34.

Note: The RS-232 port on the telephone system, the two ports on the Tandem unit, and the PBX port on the PollCat buffer box must all have the same bit rate. Also, both the Tandem unit and the PollCat buffer box must have the same parity settings. The X-ON/X-OFF feature must be disabled on the Tandem unit.

- 3. On the Tandem unit, place DIP switch 8 in the *up* position.
- 4. Using the appropriate cable, connect the telephone system (PBX) port on the Tandem unit to an RS-232 port on the telephone system. (See page 29 for connector pinout information. Also refer to the telephone system's manual, if necessary.)
- 5. Using the appropriate cable, connect the PC (COMPUTER) port on the Tandem unit to the telephone system (PBX) port on the PollCat buffer box. (See page 29 for connector pinout information.)
- 6. Using the appropriate cable, connect the PC (COMPUTER) port on the PollCat buffer box to an available COM port on your PC. (See page 29 for connector pinout information. Also refer to the PC's installation manual, if necessary.)
- 7. On each unit, plug in the AC power cord and turn on the AC power switch.
- 8. To clear and test the memory on both units or to install memory expansion chips, refer to the information on pages 42 through 44.

Figure 6 Tandem Unit Installation



Note: The Tandem unit and the PollCat buffer box must have the same parity settings. The X-ON/X-OFF feature must be enabled on the PollCat buffer box and disabled on the Tandem unit.

Installing the CRB Unit

The CRB unit is connected to an RS-232 port on your telephone system and to a communications port on your PC, as described in the following steps (see Figure 7 on page 39):

- 1. Locate DIP switches 1–8 on the bottom of the unit.
- 2. Set the bit rate of the telephone system (PBX) port by placing DIP switches 1 and 2 in the desired positions as outlined below. *Note that DIP switches are OFF when set in the 0 position and ON when set in the 1 position.*

BIT RATE	1	2
9600	ON	ON
2400	OFF	ON
1200	ON	OFF
300	OFF	OFF

3. Set the bit rate of the PC (COMPUTER) port by placing DIP switches 3 and 4 in the desired positions as outlined below.

BIT RATE	3	4
9600	ON	ON
19.2k	OFF	ON
38.4k	ON	OFF
115.2k	OFF	OFF

- 4. Enable or disable the CRB unit's "almost full" audible alarm by placing DIP switch 5 in the desired position. *For no alarm*, place the switch in the OFF position. *To enable the alarm*, place the switch in the ON position.
- 5. Disable data compression (which automatically sets the data rate to 8 bits and the parity to none) by placing DIP switch 6 in the OFF position.
- 6. Enable the X-ON/X-OFF feature for both ports on the CRB unit by placing DIP switch 7 in the ON position.
- Disable the X-ON single call record mode by placing DIP switch 8 in the OFF position.

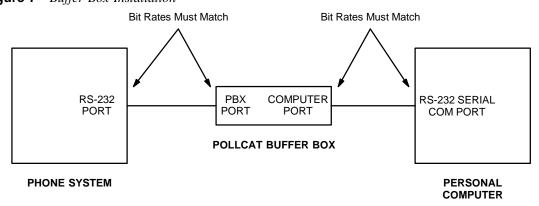
- 8. Using the appropriate cable, connect the telephone system (PBX) port on the CRB unit to an RS-232 port on your telephone system. (See Figure 1 on page 12 for connector pinout information. Also refer to the telephone system's manual, if necessary.)
- 9. Using the appropriate cable, connect the PC (COMPUTER) port on the CRB unit to an available COM port on your PC. (See Figure 1 on page 12 for connector pinout information. Also refer to the PC's installation manual, if necessary.)

Note: If the buffer box and your PC are not at the same site, call records can be transferred to your PC using a modem. See page 95 for details.

- 10. Plug the AC transformer cable into the 9VDC connector on the PBX end of the CRB unit. Then plug the main AC transformer unit into an available power source.
- 11. Clear and test the unit's memory as follows:
 - a. Ensure that the CRB unit's AC power switch is turned off.
 - b. While pressing the PAUSE button, turn on the AC power switch and then release the PAUSE button. (The MEM and PAUSE LEDs flash.)
 - c. When the memory is cleared (after about ten seconds), the unit beeps twice and the MEM LED goes out.
 - d. Test the unit's ability to receive call record information by placing a valid telephone call on the telephone system. When the call is disconnected, the PBX LED on the unit should flash to indicate that information was received from the telephone system.

Note: If the LED does not flash, reset the telephone system and try again. If the LED still does not flash, check to make sure the unit is properly installed.

Figure 7 Buffer Box Installation



Installing the ILB Unit

The ILB unit is connected to an RS-232 port on your telephone system and to a communications port on your PC, as described in the following steps (see Figure 7 on page 39):

- 1. Locate DIP switches 1–8 on the back of the unit.
- 2. Set the bit rate of the PC (COMPUTER) port by placing DIP switches 1, 2, and 3 in the desired positions as outlined in the following table.

Note: The bit rate for the COMPUTER port must match the COM port on the connected PC. *Note that DIP switches are OFF when up and ON when down.*

BIT RATE	1	2	3
1200	ON	ON	ON
2400	OFF	ON	ON
4800	ON	OFF	ON
9600	OFF	OFF	ON
19.2k	ON	ON	OFF
38.4k	OFF	ON	OFF

3. Set the bit rate of the telephone system (PBX) port by placing DIP switches 4 and 5 in the desired positions as outlined in the following table.

Note: The bit rate for the PBX port must match your telephone system's RS-232 port.

BIT RATE	4	5
1200	ON	ON
4800	OFF	ON
9600	ON	OFF
19.2k	OFF	OFF

4. Set the parity even for the PC (COMPUTER) port by placing DIP switch 6 in the ON position. The PBX (Input) port will accept any parity.

- 5. Disable the single-line release function by placing DIP switch 7 in the ON position. When disabled, the ILB unit will release call records (continuous data transmission) until the buffer is empty or an XOFF is received. If enabled (OFF position), the ILB unit will release a single call record terminated by a Line Feed character, then wait for an XON before sending the next record.
- Disable the optional external modem connection by placing DIP switch 8 in the ON position.

Note: If the buffer box and your PC are not at the same site, call records can be transferred to your PC using a modem. See the PollCat-ILB User's Guide and *Inside Track User Guide* for details.

- 7. Using the appropriate cable, connect the telephone system (PBX) port on the ILB unit to an RS-232 port on your telephone system. (See Figure 3 on page 15 for connector pinout information. Also refer to the telephone system's manual, if necessary.)
- 8. Using the appropriate cable, connect the PC (COMPUTER) port on the ILB unit to an available COM port on your PC. (See Figure 3 on page 15 for connector pinout information. Also refer to the PC's installation manual, if necessary.)
- 9. Plug the ILB unit into an available power source.
- 10. Turn on the ILB unit's AC power switch. Then test the unit's memory as outlined in the following section.

Clearing and Testing the Memory

For PollCat, Tandem, and CRB unit

The memory of the PollCat, Tandem or CRB unit should be cleared and tested when the unit is first installed and when memory chips are installed.

To clear and test the memory on the unit, perform these steps:

- 1. Turn off the AC power switch on the unit.
- 2. While pressing the PAUSE button, turn on the AC power switch and then release the PAUSE button. (The PAUSE, % FULL, and 80% FULL LEDs are lit.)
- 3. When the LEDS are unlit (after about ten seconds), the memory is cleared.

Note: If a memory error is detected, the % FULL and 80% FULL LEDs will flash alternately. The message "ERROR AT XX NNNN" is sent to the PC to indicate the bad memory location. Ensure that all of the memory chips are properly installed and securely seated. If the memory error persists, return the unit for repair.

4. Test the unit's ability to receive call record information by placing a valid telephone call on the telephone system. When the call is disconnected, the PBX DATA LED on the unit should flash to indicate that information was received from the telephone system.

Note: If the LED does not flash, reset the telephone system and try again. If the LED still does not flash, check to make sure the unit is properly installed.

For ILB Unit

The ILB unit has different procedure for clearing and testing the memory. Follow these instructions instead.

To clear the memory on the unit, perform these steps:

CAUTION: Data cleared from memory cannot be recovered.

- 1. Turn off the AC power to the ILB unit.
- 2. Press and hold down the ILB unit's Default Button, turn on the AC power, and then release the Default Button. When the button is released, the "80% Full" and "Full" LEDs will blink twice, indicating that memory has been cleared.

To test the memory on the unit, perform these steps:

CAUTION: When the memory test is performed, all data will be cleared from internal memory and cannot be recovered.

- 1. Turn off the AC power to the ILB unit.
- Press and hold down the ILB unit's Default Button, turn on the AC power, and continue to hold down the Default Button for at least three seconds.
- 3. When the "80% Full" and "Full" LEDs light to indicate starting the memory test, release the Default Button. The LEDs will blink in sequence to indicate the memory test is in progress. The test will require approximately ten seconds for each megabyte of memory.

Note: The memory test and error sequence can be aborted at any time by pressing the Default Button.

4. The possible memory test results are:

MEMORY OK: If memory is functioning properly, the "80% Full" and "Full" LEDs will blink twice.

MEMORY FAILURE: If a memory failure is detected, the "80% Full" and "Full" LEDs will continue to blink rapidly until the Default button is pressed.

5. If memory is not functioning properly, reclear and retest the memory.

Installing Additional Memory

To install additional memory on the PollCat or Tandem unit, perform the following steps:



Caution The memory chips are extremely static sensitive. Prior to installing the chips, be sure to unplug the PollCat buffer box from the AC power source. Then ground yourself and the work area using an anti-static wrist strap.

- 1. Turn off the AC power switch and unplug the unit from the AC power source.
- 2. Remove the four screws holding the cover in place and remove the cover.
- 3. Remove the lithium battery.
- 4. Carefully insert the memory chip(s) as shown in Figure 8 on the next page. Install two chips (in the specific slots shown) for an additional 64k of memory, or install six chips for an additional 192k of memory.

Note: To avoid damaging the memory chips, be sure to install them with the indented ends pointing in the correct direction (see Figure 8).

- 5. While observing the polarity, replace the lithium battery.
- 6. Replace the cover and the screws, and plug the unit back into the AC power source.
- 7. Clear and test the unit's memory following the procedure outlined on the previous page.

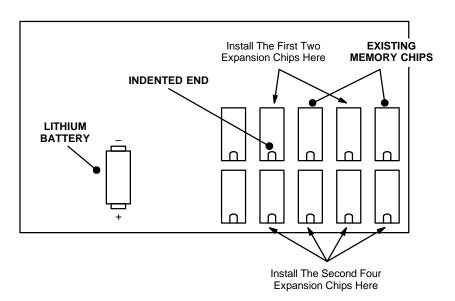


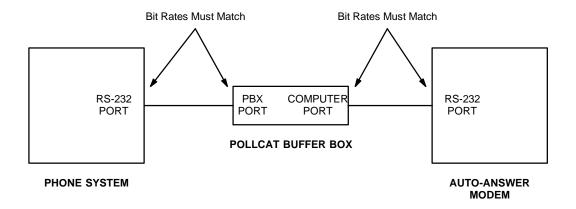
Figure 8 PollCat Buffer Box Memory Expansion Chip Installation

Installing the Optional Modem

Rather than connecting your PC directly to the PollCat buffer box, you can extract the call records using an optional external auto-answer modem. If desired, you can purchase Inter-Tel's optional AXXESS Modem Kit (part no. 550.3026) or an Axxent Modem Kit (part no. 520.3016) that allows you to easily connect a modem to one of the RS-232 ports on the phone system. Your PC must also be equipped with a compatible modem.

To install the modem, follow the steps beginning on page 33. However, instead of attaching the buffer box to your PC, attach it to the modem as shown in the figure below. For connector pinout information, see pages 29 through 31.

Figure 9 Modem Installation



AXXESSORY Talk PC and Axxent Talk

If you have an Inter-Tel AXXESS or Axxent telephone system equipped with an optional AXXESSORY Talk PC or the Axxent Talk, you can use the PC instead of a buffer box to store SMDR call records.

There are two ways to connect the AXXESSORY Talk PC or the Axxent Talk KSU to your PC containing the Inside Track software. One is to make your own custom cable and the other is to purchase the AXXESS/Axxent Universal RS-232 Kit. Follow the instruction below.

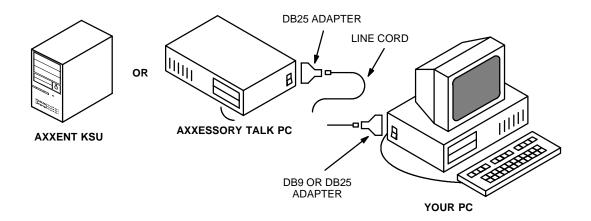
Making Your Own Custom Cable

Make your own cables and/or adapters based on all information described in Chapter 2 — Equipment Requirements section, page 18 and 20 through 28.

Using AXXESS/Axxent Universal RS-232 Kit

Purchase the Inter-Tel AXXESS/Axxent Universal RS-232 Kit (part no. 828.1282). The kit contains a variety of cables and adapters as well as documentation that shows you how to quickly and efficiently make virtually any type of RS-232 connection.

Figure 10 AXXESSORY Talk PC and Axxent Talk KSU Installation





Software Installation

Installing The Inside Track Software

The Inside Track software, which is supplied on two 3½-inch floppy disks (5¼-inch disks are also available), is installed on the hard disk drive of your PC. The software is used for extracting, sorting, and reporting the call record information from the storage source (buffer box, AXXESSORY Talk PC, Inter-Tel Axxent Talk, or NetSolutions).

The following instructions assume that Windows 3.1 (or higher) software is installed on your PC and that you are familiar with Windows procedures. To install the Inside Track software, follow these steps:

- 1. Ensure that Windows or Windows for Workgoups (version 3.1 or higher) is running.
- Open the Program Manager. Ensure that the Program Manager Option for "Minimize on use" is not enabled.
- 3. Insert Setup Disk 1 into the PC floppy disk drive (A or B).
- 4. Select the "File" pull-down menu in Program Manager. Then select "Run..." from that menu. A window with a text box appears.
- 5. In the Command Line text box, enter A:SETUP (or B:SETUP if the B drive is used). Then select the OK command button. A "Welcome" window appears.
- 6. Select the OK command button to proceed with the installation. When the Main Menu window appears, select "Install" and then select the OK command button to start the software installation.
- 7. When the Inside Track Setup window appears, you can change the drive or directory. Enter a new drive and/or directory in the text box, then select OK to save the new drive. (You can enter up to 32 characters, including colons and slashes.) Or, to leave the drive unchanged, select the OK command button without changing the information in the text box.
- 8. Another window appears that shows the names of the files as they are being copied and the percent of the installation that has been completed. When prompted, remove Setup Disk 1, insert Setup Disk 2, and select the OK command button to continue.

- 9. When the installation is complete, the PC will display several messages regarding the installation. Read each of these and then select OK to continue.
- 10. Remove Setup Disk 2.
- 11. The setup will create an Inside Track programming group that contains the Inside Track application icon and an Inside Track upgrade icon. (If an Inside Track programming group already existed, the newly installed Inside Track application icon and Inside Track upgrade icon will be added to that group.) To use the application, you must have Program Manager running. Select the Inside Track programming group and then select the Inside Track application icon. The main Inside Track screen displays and you may begin your programming session.

Note: If something goes wrong, the user has the option to install all of the drivers manually. Refer to the procedure described below for Windows 3.1 and Windows 95/NT.

- Windows 3.1: Select Inside20 in the File Manager, select Windry, and then choose Hasp.386. Copy Hasp.386 to the "C:\Windows\system." In system.ini, under "386Enh," add a line "device=C:\Windows\system\Hasp.386."
- Windows 95/NT: Select Inside20 in the Windows 95/NT Exlporer, select Win32drv, and run Hinstall.exe. (You will need administrator privilege under Windows NT.)

When the user chooses to place the Inside Track v2.0 in the old directory, the installation program automatically updates the old databases so they are compatible with the new software.



Using Inside Track

Guidelines For Preparing and Printing Reports

To program and generate customized reports, follow these general outlines.

To Program Reports

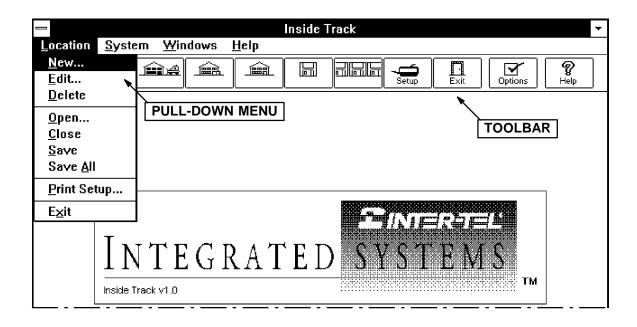
A collection of one or more reports, and the associated SMDR (Station Message Detail Recording) and enhanced databases is called a "location." To program a location, use the following steps:

- 1. Create a new location and name it using the toolbar or pull-down menu command described on page 52.
- 2. Indicate the type of telephone system being used and program the report information for the location, as described on page 59.
- 3. Set the buffer, RS-232, or raw file information as described on pages 109 through 114.
- 4. Program the databases for the report, as described on page 64.

To Generate And Print Reports

When you are ready to generate and print a report, follow these steps:

- 1. Download the call record information from the buffer as described on page 95.
- 2. Program the report information for the location. (This information must indicate the database that will be included in the report.) See page 64.
- 3. Set up the printer, as needed, following the instructions on page 87.
- 4. Preview the report, if desired, as described on page 88.
- 5. Print the report as described on page 85.



Toolbar And Pull-Down Menus

The toolbar at the top of the window contains tools that the you can select with a mouse to activate various menu options quickly. (A mouse is necessary for using the toolbar.) Refer to the descriptions for each of the menu options, in the following pages, for more information.

The Inside Track software has four pull-down menus that can be selected from the main screen shown above. They are: Location, System, Windows, and Help. (The Location menu is selected in the example above.) A fifth menu, Preview, is available when a report is displayed on the screen (see page 88).

The following menus and their programming screens are described in this section.

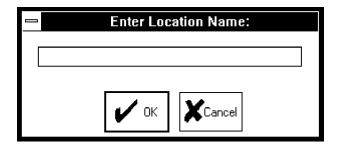
- Location
- System
- Windows
- Help

Location Pull-Down Menu

A collection of one or more reports, and the associated SMDR and enhanced databases is called a "location." Each location has its own programming window. The location menu allows you to add, delete, edit, open, close, and save the location windows. It also allows you to set up the system-wide printer options and exit from the Inside Track software. Most of the functions in this pull-down menu are also available as command buttons in the programming windows, described in detail later, and in the tool bar (see previous page).

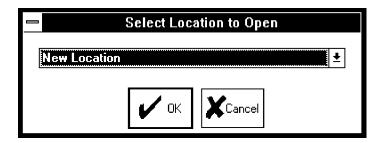
You can define up to 1000 locations and you can have up to 20 Location windows open at once. Each location has its own window. The Location Menu, shown in the window on the preceding page, includes the following options:

• **New:** The New option allows you to create a new location. A text box, like the one in the following window, prompts you for a name. Enter the name, up to 20 characters, in the text box and select the OK command button. Or, to exit without a name, select the Cancel command button.



- **Edit:** The Edit option allows you to edit the currently active location's name. (This option is disabled if no locations are open.) A text box window, similar to the one shown above, shows the current name. Edit that name or enter a new name, up to 20 characters, in the text box. Then select the OK command button. Or, to exit without changing the name, select the Cancel command button.
- **Delete:** The Delete option allows you to delete the currently active location. (This option is disabled if no locations are open.) Deleting the current location deletes all enhanced and SMDR databases associated with the location. Select the Delete option to remove the currently active location. As a safeguard, a warning window appears which asks you to verify that you wish to continue before the deletion occurs.

• **Open:** When the Inside Track software is first executed, no locations are open. The Open option allows you to open a location. If you have already opened the maximum number of locations that can be open at one time, you will see an error message. If there are no locations, this option is disabled. When Open is selected, a window with a pull-down list box appears, as shown below. Scroll through the list box to select the location you wish to open, then select the OK command button (or select Cancel to exit without opening a location).

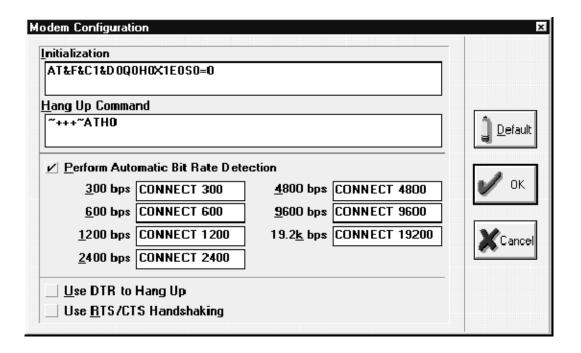


- **Close:** The Close option allows you to close the currently active location. (If there are no locations open, this option is disabled.) If you have modified the location but have not yet saved it, you will see a window that asks if you would like to save the changes. Select Yes to save the changes, No to close the location without saving changes, or Cancel to cancel the closure.
- **Save:** The Save option allows you to save the changes you have made to the currently active location to the location database. (If you have not modified the current location, this option is disabled.) Note that this does not save information to any of the SMDR or enhanced databases. The maintenance on these databases is separate.
- Save All: The Save All option allows you to save the modified information for every open location. (If you have not modified any of the locations, this option is disabled.) A separate prompt window appears for each open location (that you have modified) which asks you if you want to save the information for that location. Select Yes to save the information, No if you do not want the information for that location saved, or Cancel to cancel the Save All command. Note that this does not save information to any of the SMDR or enhanced databases. The maintenance on these databases is separate.
- **Print Setup:** The Print Setup option allows you to set up the printer. Printer options programmed here remain in effect during the program session. See the Printer Setup information on page 87 for details.
- **Exit:** The Exit option allows you to exit the Inside Track software.

System Pull-Down Menu

The System Menu allows access to the system-wide features. The menu includes the following options:

- **Close:** The Close option allows you to close the programming session. Note that if you open a programming session and enter the location password to override the user password, you must close the programming session (not only the location) before leaving. Otherwise, other users will still have access to this location.
- **Options:** The Options selection allows you to program the report header that will be used in all reports (the default is "Inside Track Report"). A text box window appears that allows you to enter a header name of up to 20 characters.
- **Modem Configuration:** The Modem Configuration option allows you to program the system-wide modem attributes. The window below appears when this option is selected. Refer to the manual supplied with your modem for proper settings. When the modem settings are correct, select the OK command button. Or, to exit without changing the settings, select the Cancel command button.

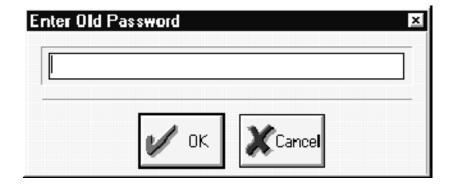


- **Initialization:** The Initialization text box allows you to program an initialization string of up to 64 characters. If necessary, use a tilde (~) in the string as a pause. The string defaults to ATQ0H0X1E0S0=0.
- **Hang Up Command:** The Hang Up Command text box allows you to program a hang up command of up to 64 characters. If necessary, use a tilde (~) in the string as a pause. The string defaults to ~+++~ATH0.
- Use RTS/CTS Handshaking: The Use RTS/CTS Handshaking check box allows you to enable or disable RTS/CTS hardware handshaking with the modem. This check box defaults to disabled.
- Use DTR to Hang Up: The Use DTR to Hang Up check box allows you to use the DTR signal to hang up the modem instead of the hang up command. This check box defaults to disabled.
- Perform Automatic Bit Rate Detection: If enabled, this check box automatically sets the bit rate of your PC to match the bit rate that corresponds to the modem string in the Modem Response. This check box defaults to enabled.
- Default: Selecting the Default command button returns all settings to default values.
- Modem Response: These edit boxes are available only if "Perform Automatic Bit Rate Detection" is enabled. Enter the string, for each bit rate, that will be received from the modem to signal your PC to automatically set the bit rate to the given rate.
- Password: The Password option allows you to program the user password and/or the
 location password. These passwords are up to 14 characters long. They are any combination of alphabet or numeric characters. Both passwords default to blank, in other
 words the "Enter" key.
 - **User password**: This is entered before any access to the Inside Track programming session is allowed, and it can be changed at any time.
 - **Location password:** This is entered before any access to a specific location is allowed, and it can only be changed when the specific location is open.

To change a password, enter the old password in the Enter Old Password text box. If the password is correct, the window header then changes to "Enter New Password." If you are creating a new password, simply press the OK command button without pressing any additional keys. Then, enter the new password in the Enter New Password text box.

OK: After typing the password, select the OK command button. The window heading will change to "Verify New Password" and you must retype the password as before. If the entered passwords match, you will return to the Password window. If not, you must re-enter the new password and verify it again.

CANCEL: If you make a mistake while entering the password or wish to leave it unchanged, select the Cancel command button.



Windows Pull-Down Menu

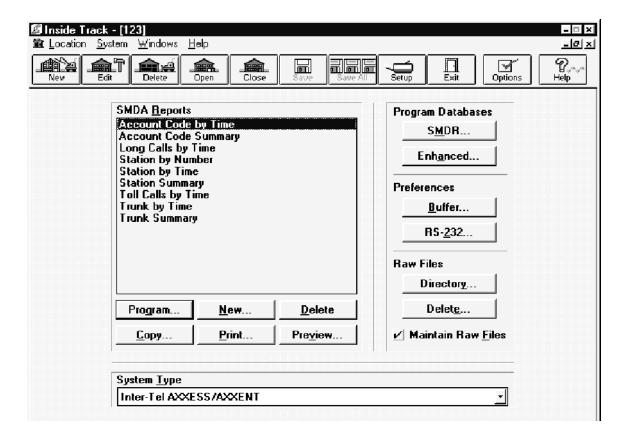
The Windows Menu contains options for rearranging and activating the location windows. The options include the following:

- **Tile Windows:** This option is also used for multiple windows. Selecting it reduces the size of the windows and arranges them in a tiled pattern so that all are visible at once. The active title bar indicates the active window.
- **Cascade Windows:** This option is used when you have several windows open. Selecting this option reduces the size of the windows and arranges them in layers so that each title bar is visible. The active window is in front and fully visible.
- **Arrange Icons:** If you have one or more windows minimized to icons, selecting this option will arrange them in a row along the bottom of the screen.
- Location Activation: This option activates the selected location.

Help Pull-Down Menu

The Help Menu contains information regarding programming topics and software version information. The options are as follows:

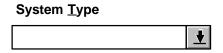
- **Topic Help:** This displays context-related Help files for the topic being programmed.
- **Contents:** This menu option brings up the Help file table of contents.
- About Inside Track: This option displays the software part number and generation date.



Location Programming Window

A collection of one or more reports, and the associated SMDR and enhanced databases is called a "location." You can define up to 1000 locations and you can have up to 20 Location windows open at once. Each location has its own window for programming the location and the SMDR and enhanced databases.

The window shown above is the main window for the location. All location-specific information is programmed using this window.



The System Type drop-down list box allows you to choose the type of telephone system that will be supplying the call records for this location. The available system types are as follows:

Inter-Tel Telephone Systems

- AXXESS/AXXENT (this is the default selection)
- IMX 1224/2460
- IMX 2448
- IMX 256/416/832
- GMX-48
- GMX-152D
- GMX 256/416/832
- GX-120

Premier Telephone Systems

- ESP
- ESPDX/ESPMDX

Other Source

• Inter-Tel NetSolutions

Note: On telephone systems with wide and narrow SMDR formats, use the *wide* format to allow the Inside Track to properly process the records.



SMDA Reports: The SMDA (Station Message Detail Accounting) list box contains a list of the available reports for the location. There can be up to 300 reports programmed in the system. (The default reports are explained on page 64.) To program or create a report, select one of the following command buttons:

You can select and print multiple reports by highlighting them using the shift key and/or the control key. The user still needs to program each report separately. Once the reports are set up, they can be printed all together. When multiple reports are selected, only the "New" and "Print" buttons are enabled (see the window on above page). Only the first 15 highlighted reports are printed at a time.

Note: To print properly, you must verify that the Inside Track can generate each of the selected reports.

Program...

To program an existing report (a default report or a new report that you have created), highlight it in the list box and select the Program command button. When the command button is selected, the window shown on page 64 appears. The window is used for programming the parameters for the report. (This button is disabled if there are no reports.)



The New option button allows you to create a new report. When it is selected the window shown on page 64 appears. (This is the same window as used for the Program command button.)



Selecting the Delete command button removes the highlighted report from the list box. As a safeguard, a window appears which asks you to verify that you wish to delete the report. Select Yes to delete it or No to cancel the deletion. (This button is disabled if there are no reports.)

<u>С</u>ору...

The Copy command button allows you to copy information from one report (the report highlighted in the list box) to one or more other reports. A window appears, as shown on page 83, that allows you to select the information that you wish to have copied and the reports to which you want the information copied. (This button is disabled if there are no reports.)

<u>P</u>rint...

The Print command button generates the report that is highlighted in the list box. (This button is disabled if there are no reports.) Before printing, the Print window appears which gives status on the current printer configuration and allows you to modify the information if necessary. The Print window is shown on page 85. While the report is being generated, a window appears that allows you to cancel the printing, if necessary.

Pre<u>v</u>iew...

Select the Preview command button to display a report on the screen. (This button is disabled if there are no reports.) While the report is being generated, a window appears which allows you to cancel the preview. The Preview window is shown on page 88.

Program Databases: The Inside Track software reads the SMDR records and sorts them into one or more programmed databases. (On telephone systems with wide and narrow SMDR formats, use the *wide* format to allow the Inside Track to properly process the records.) The call records can be customized in an "enhanced database" to add greater detail to the generated reports. For example, the description, tenant, and department information for each extension number can be included in the report. These fields allow you to generate a more complete profile of the telephone system users. This enhanced call record information can be automatically downloaded from the Inter-Tel AXXESS/Axxent and 256/416/832-port telephone systems (other systems require special enhanced database programming). The SMDR and Enhanced database are programmed using the following command buttons:

S<u>M</u>DR...

The SMDR command button allows you to create and program SMDR databases. The SMDR Database programming window is shown on page 91. There can be up to 1000 SMDR databases in the system and up to 100 per report.

Enhanced...

The Enhanced command button allows you to create and program enhanced databases. The Enhanced Databases programming window is shown on page 98. There can be up to 1000 enhanced databases per location and one per report.

Inside Track User Guide

62

Preferences: These command buttons allow you to adjust the settings for the buffer connection (for the PollCat, CRB unit, ILB unit, and AXXESSORY/Axxent Talk) and the RS-232 connection.



When you select the Buffer command button, a window appears that allows you to program the Buffer settings. The Buffer Preferences window is shown on page 109.



When you select the RS-232 command button, a window appears that allows you to program the RS-232 preferences. The RS-232 Preferences window is shown on page 112.

Raw Files: These options are used if you are maintaining raw files for your reports. The Inside Track software generates a raw file of call records after each capture if the Maintain Raw Files box is checked. The raw files button allows you to obtain records from a raw file. The following command buttons and check box are used for determining the storage directory for the files and for deleting files.



The Directory command button allows you to program a directory where the Inside Track software stores the raw files for the location. A window appears as shown on page 114.



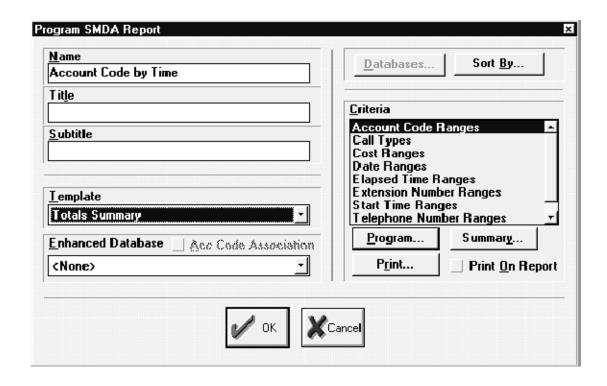
When you select the Delete command button, a window appears, as shown on page 116, that allows you to select the files to delete.



Maintain Raw Files

When capturing SMDR records, the Inside Track software first generates a raw file containing the raw SMDR records. Then, it loads the records into a SMDR database. If the Maintain Raw Files check box has a check in it, the option is enabled and any raw files that are generated remain on the hard drive. If there is no check mark, the option is disabled and the Inside Track software removes the raw files from the hard drive. The default condition for the check box is enabled (checked).

Note: On telephone systems with wide and narrow SMDR formats, use the *wide* format to allow the Inside Track to properly process the records.



Programming SMDA Reports

There can be up to 300 programmed reports per system, divided among the locations as desired. Refer to page 68 for sample report formats. (If you have only one location, it can have up to 300 reports). The default reports are as follows:

- **Account Code by Time:** This report groups calls by account code and lists them chronologically (by date and start time).
- Account Code Summary: This report summarizes the number, length and cost of calls associated with each account code.
- Long Calls by Time: This report groups calls by station and lists calls that are longer than 15 minutes in chronological order (by date and start time).
- **Station by Number:** This report groups calls by station and lists them according to the number of calls made to each telephone number.
- **Station by Time:** This report groups calls by station and lists them chronologically (by date and start time).

- **Station Summary:** This report summarizes the number, length and cost of calls associated with each station.
- **Toll Calls by Time:** This report lists toll calls (toll local, toll long distance, national (European), and operator/international calls) for each station in chronological order (by date and time).
- **Trunk by Time:** This report groups calls by trunk and lists them chronologically (by date and time).
- **Trunk Summary:** This report summarizes the number, length and cost of calls associated with each trunk.

To Program A Report

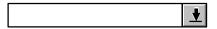
The Program SMDA Report window shown on the previous page appears when the New or Program command button is selected from the Location Programming window, as shown on page 59. It is used for programming the report information.

<u>N</u> ame
Enter the desired name for the report (up to 20 characters) in the Name text box. The Inside Track software uses this name to identify the report in programming and message windows. The name of the report does not appear on the report itself.
Tit <u>l</u> e
Enter the title that will appear on the report in the Title text box. The title may not exceed 20 characters.
<u>S</u> ubtitle
If desired, enter a subtitle for the report in the Subtitle text box. The subtitle may not exceed 20 characters.
<u>T</u> emplate
<u>*</u>

The Template drop-down list box allows you to choose the type of report. Move the highlight bar to the desired template. There are six templates, as follows:

- **Detailed by Time (default):** This lists the call records in the report by the time of the call. It details calls by date and time, breaking the calls into sections using the first sort key.
- **Detailed by Time with Subheaders:** This is the same as the Detailed by Time report, except that the report has subsections using the second sort key.
- **Summary:** This report type gives summary totals for calls in each section. Sections are determined by the first sort key.
- **Summary by Number:** This lists the call records by number of calls placed to specific telephone numbers. The totals are listed in sections determined by the first sort key.
- Station by Number with Subheaders: This is the same as Station by Number report, except that report sections are divided by the first sort key and then subdivided by the second sort key.
- Summary with Subheaders: This is the same as Summary report, except that totals
 are given for subsections. The subsections are determined by the second sort key.
- **Total Summary:** This combines data to present total call cost, duration, and number of calls for the selected sort key (such as account codes). **NOTE:** Make sure the sort type is set to a value other than "None" when selecting this template.

Enhanced Database



The Enhanced Database drop-down list box shown on page 59 allows you to choose the enhanced database that is associated with the chosen report. The list contains the enhanced databases that exist for the current location. If there are no enhanced databases programmed, it is set to "None." Scroll the highlight bar to the desired enhanced database. Refer to page 98 for more information regarding enhanced databases.

√ Acc Code Association

To enable certain numbers to be automatically associated with a specific account code, select the Acc Code Association flag to enter or remove the check mark in the check box in the window shown on page 64 (see page 102 for the account code association table programming).

<u>D</u>atabases...

To select the SMDR databases that are included in the report, select the Database command button. A window appears as shown on page 98. (Database programming is explained on page 90.)



To program the sort keys for the report, select the Sort By command button. The window shown on page 75 appears.

Criteria



The Criteria list box shown on page 64 allows you to select the criteria for calls that will be included in the report. Use the Program command button, below, to program the criteria.



To program a range or the call types, highlight the selection in the list box and select the Program command button. The window that is explained on page 77 appears.



To view a list of the criteria selected for the report, select the Summary command button.



To print the criteria being used for a report, select the Print command button.



If you wish to print the criteria information on the first page of the report, select the Print On Report check box to place a check mark in it or to remove an existing check mark.

Sample Report Formats

There are several pre-defined report templates:

- Detailed By Time Report
- Summary Report
- Totals Summary Report
- Summary By Number Report
- Reports With Subheaders

For more information about them, as well as some sample reports, refer to the following pages. Each of the sample reports have been sorted by extension number. Many other sort options are available. You can sort by account code, start time, call duration, number dialed, etc. The following list describes some general information about the reports:

- All reports have top and bottom page margins of 1 inch.
- The report header (programmed using the "Options" command described on page 55) is centered and appears on the first page only.
- If there is no title or subtitle, a blank line appears in its place.
- Only hours and minutes are displayed in the Start Time field. Seconds are not rounded to the nearest minute.
- If a telephone number is longer than the Dialed Number field, only the digits that fit in the field are shown.
- There are two line feeds after the page number.
- A new report always starts on a new page.
- The header below the page number is based on the first sort key and the line below that (subheader) is based on the second sort key. The subheader appears only if it is included in the selected template.
- In reports where a combination of calls for different trunks or stations are combined under one header, "ASST." will appear in the header to indicate that the call records are for assorted devices.
- If a report has a username field in a column and in the header, the username field column does not appear. This makes more space for the digit field.
- If the location is in the header, the Location line does not appear.
- Subheaders are indented three spaces.

Detailed By Time Report

The "Detailed by Time" report shown below gives you a comprehensive call listing for a group of extensions. The information given includes the call date, call start time, number dialed, type of call, approximate call cost, and call duration. This report is the most detailed of the call reports.

One application for this report would be detection of toll fraud. This report details all toll calls made by a particular department or extension. By running a report on all toll calls made after normal business hours, possible toll fraud can be detected.

SORT KEYS USED FOR THE REPORT:

Sort Key 1: Station: Extension Sort Key 2: SMDR: Date

Sort Key 3: SMDR: Call Start Time

Included Calls: All

Inside Track Report

Page 1

Extension: 1000 Last Name, First Name

DATE	START	DIALED NUMBER	TYPE	COST	DURATION
01/01/97	03:25	961-9000	IN	\$ 4.22	00:05:12
01/01/97	01:23	234-5678	LOC	\$ 1.60	00:02:48

Extension: 1001 Last Name, First Name

DATE	START	DIALED NUMBER	TYPE	COST	DURATION
01/01/97	01:56	1-303-888-4765	10D	\$ 5.30	00:01:20
01/01/97	03:13	800-275-3847	800	\$ 0.00	00:00:03

Summary Report

The "Summary" report shown below gives you a breakdown of the number of calls, duration, and approximate cost of incoming, outgoing, special, and internal calls by extension. It also gives the total number of calls made, total length of those calls, and the approximate cost of the calls, regardless of call type.

This report could be used for tracking various promotions. If you assign a specific extension number for each advertisement, Inside Track can report the volume of calls made to each extension. With this information, you can easily see which ads generate the best response and allocate your advertising funds accordingly.

SORT KEYS USED FOR THE REPORT:

Sort Key 1: Station: Extension

Sort Key 2: None

Sort Key 3:

Included Calls: All

Notes: No page breaks between records

Inside Track Report

Page 1

Extension: 1000	Last Name, First Name	
Total	Number of Incoming Calls:	0
Total	Length of Incoming Calls:	00:00:00
Total	Cost of Incoming Calls:	\$0.00
Total	Number of Outgoing Calls:	1
Total	Length of Outgoing Calls:	00:00:03
Total	Cost of Outgoing Calls:	\$0.00
Total	Number of Special Calls:	0
Total	Length of Special Calls:	00:00:00
Total	Cost of Special Calls:	\$0.00
Total	Number of Internal Calls:	0
Total	Length of Internal Calls:	00:00:00
Total	Cost of Internal Calls:	\$0.00
Total	Number of Calls:	1
Total	Length of Calls:	00:00:03
Total	Cost of Calls:	\$0.00

Totals Summary Report

The "Totals Summary" report shown below gives you a list of the total number of calls made by each extension, the duration of those calls, and an approximate call cost. This report gives you a condensed version of the "Summary" report.

This report could be used to measure call volume being generated by the company's customer service representatives. By doing so, you can measure productivity as well as gauge additional staffing needs. If telemarketers receive a high volume of incoming calls, they are unable to make the necessary outgoing calls. You can determine this volume and change call processing procedures and restrict the receipt of incoming calls.

SORT KEYS USED FOR THE REPORT:

Sort Key 1: Station: Extension

Sort Key 2: None

Sort Key 3:

Included Calls: All

Notes: No page breaks between records

Inside Track Report

Page 1

EXTENSION USERNAME	DESCRIPTION	NUMBER	DURATION	CALL COST	
1000	Last, First	2	0:08:00	\$	5.82
1002	Last, First	1	0:01:20	\$	5.30
1006	Last, First	1	0:00:03	\$	0.00
1008	Last, First	1	0:05:12	\$	4.22
1011	Last, First	1	0:03:19	\$	2.15
1013	Last, First	1	0:10:22	\$	5.45
1017	Last, First	1	0:01:45	\$	5.00

Summary By Number

The "Summary by Number" report shown below gives you the frequency of calls made to a particular number. The sample report is broken down by extension number. It tells you how often a number was called, what number was called, the approximate total call costs and total duration of the calls made.

A possible use of this report is to track the number of times a particular customer was called. If your company does a sales blitz of Arizona, you can run the "Summary by Number" report to tell you how many Arizona companies were called and how many times each one was contacted. You can then use these figures to determine the conversion ratio of prospects to customers and the average number of contacts required to sign a new customer.

Last Name, First Name

SORT KEYS USED FOR THE REPORT:

Sort Key 1: Station: Extension Sort Key 2: SMDR: Date

Sort Key 3: SMDR: Call Start Time

Included Calls: All

Inside Track Report

Page 1

Extension 1000

NUMBER OF	CALLS	DIALED NUMBER		CALL COST	DURATION	
	2 1	234-3428 1-303-888-4765	\$	5.82 \$	00:08:00	00:01:20
Extension	1002		Last Name	, First Nar	ne	
NUMBER OF	CALLS	DIALED NUMBER		CALL COST	DURATION	
	1 1	800-275-3847 892-3857	\$	\$ 4.22	0.00 00:05:12	00:00:03

Reports With Subheaders

"Detailed by Time," "Summary," and "Summary by Number" reports can all be printed with Subheaders. A subhead is determined by the second sort key option. The "Detailed by Time with Subheaders" report shown below shows the first sort criteria "by extension number" with the second sort key option being "by date." By using this format you can list all the call details for each extension by date.

SORT KEYS USED FOR THE REPORT:

Sort Key 1: Station: Extension Sort Key 2: SMDR: Date

Sort Key 3: SMDR: Call Start Time

Included Calls: All

Inside Track Report

Page 1

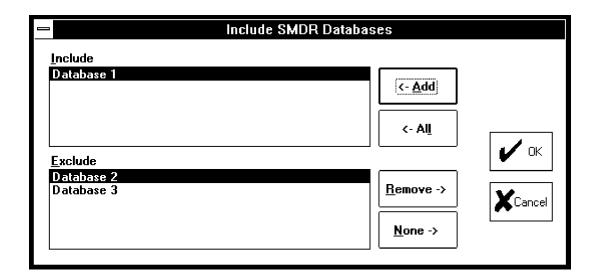
Extension 1000 Last Name, First Name

Date: January 1, 1997

DATE	START	DIALED NUMBER	TYPE	CALL COST		DURATION
01/01/97	03:25	961-9000	IN	\$	4.22	00:05:12
01/01/97	01:23	234-3428	LOC	\$	1.60	00:02:48

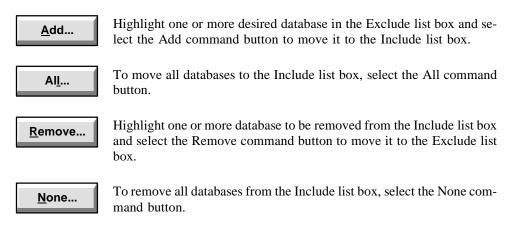
Date: January 2, 1997

DATE	START	DIALED NUMBER	TYPE	CALL COST		DURATION
01/02/97	06:25	892-3857	LOC	\$	4.20	00:05:10
01/02/97	03:23	534-3428	LOC	\$	0.60	00:00:48

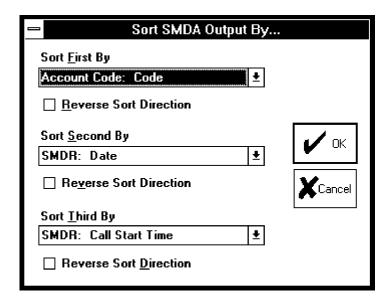


To Select SMDR Databases

The window shown above appears when you select the Databases command button. (Database programming is explained on page 90.) To select the SMDR databases that are included in the report, move the desired SMDR databases from the Exclude list to the Include list. To select multiple databases in Include or Exclude list, highlight them using the shift key and/or the control key. Note that more than 100 items can be highlighted, but only 100 are moved to the other list box at a time. Use the command buttons as follows:



When the Include list is complete, select the OK command button to save the changes. Or to exit without saving changes, select the Cancel command button.

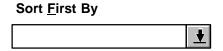


To Sort Report Information

This window appears when the Sort By command button is selected. It determines the order in which information will appear and the way information will be sectioned in the report.

In the example shown above, the call records will be sorted first by account code number, second by date, and third by the start time. The sorting for date is in descending (reverse) order. The sorting for the account code number and call start time are in ascending order. The first sort key determines what the header of the report will be. The second sort key determines the subheader, when a subheader is included in the report template.

Note: The controls for the second and third sort keys are disabled if the first sort key is set to None. The controls for the third sort key are disabled if the second sort key is set to None.



Use the drop-down list boxes to determine how the report will be sorted. The defaults are <None> for first, second, and third sort type. The possible sort types are as follows:

- <None>
- Account Association Code: Code This sorts call records by account association code (see page 102 for more information).
- Account Code: Code This sorts call records by account code.
- Account Code: Description This sorts the call records alphabetically by account code description.
- Location: Description This sorts the call records alphabetically by the description
 of the call's source (see page 106 for more information on Location Look-Up descriptions).
- SMDR: Call Cost This sorts calls numerically by the cost of the call.
- SMDR: Call Elapsed Time This sorts calls numerically by the length of the call.
- SMDR: Call Start Time This sorts call records chronologically by date and start time.
- SMDR: Call Type This sorts call records by type of call (local, local toll, long distance, operator/international).
- SMDR: Date This sorts calls numerically by the date the call the call was made.
- SMDR: Number This sorts calls numerically by the telephone number dialed.
- Station: Description This sorts the call records alphabetically by station description.
- Station: Extension This sorts that call records by station extension number.
- Station: Tenant/Department This sorts the call records alphabetically by tenant group. Departments are listed alphabetically within each tenant group.
- Trunk: Description This sorts the call records alphabetically by trunk description.
- Trunk: Trunk Number This sorts call records by trunk number.

Note: If you selected a field in the first sort key that does not have programmed data in the telephone system, such as a username or tenant group, and the report does not have subheaders, call records will be sorted by the second sort key and the first key becomes "Assorted" (abbreviated ASST.). When using the Total Summary template, make sure the sort key is set to a value other than "None."

√ Reverse Sort <u>Direction</u>

Each sort type can be set for ascending (forward) or descending (reverse) sorting direction. The sort direction check box is disabled if the corresponding sort key is set to none.

To Select Report Criteria

Reports can be specialized by limiting the ranges or call types of call records. The parameters that can be limited by ranges/types are as follows:

- Account Code Ranges
- Call Types
- Cost Ranges
- Date Ranges
- Elapsed Time Ranges
- Extension Number Ranges
- Start Time Ranges
- Telephone Number Ranges
- Trunk Number Ranges

Note: A call record must meet conditions from each selected category to be included in the report.

Ranges

When you select a range from the Criteria list box shown on page 64 and then select the Program command button, the window shown on page 80 appears. Use the following procedures to program the ranges. (If you selected "Call Types", the different window appears. The Call Types window is shown on page 82.)

A range can include up to 32 characters. The range can be a series of "strings" that identify the desired parameters. The following characters are used to specify the range strings:

CHARACTER	MEANING
= x	Equal to x
< <i>x</i>	Less than x
> <i>x</i>	Greater than x
<= <i>x</i>	Less than or equal to x
>= <i>x</i>	Greater than or equal to x
<>x	Everything but <i>x</i>
<i>x</i> – <i>y</i>	Range between x and y

The Inside Track software combines the strings entered. (Call records must match only one entry to be included in the report.) For example, if you enter the strings 1100-1200, > 1500, = 500, (as shown in the window on page 80) the account codes included in the report would be those from 1100 to 1200, those greater than 1500, and those equal to 500. The Inside Track software ignores any call records that do not fall within the given range(s). (Call records must match only one entry to be included in the report.) If a range is not specified, all records are included.

Valid entries for the range types are as follows:

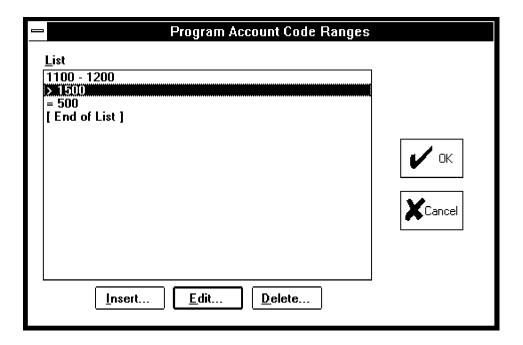
- **Account Code Ranges:** The account codes consist of digits, letters, and/or decimal points, up to 32 characters.
- **Cost Ranges:** The cost ranges consists of digits 0–9 with up to two digits after the decimal point (XX.XX). The Inside Track software ignores commas, parentheses, and dollar signs (X\$X.XX becomes \$XX.XX).
- **Date Ranges:** Enter dates as three components: day, month, and year. The format used by the Inside Track software is: MM/DD/YY (for example: 5/7/94 for March 7, 1994). The date can be entered in virtually any format and the Inside Track software will convert it into the MM/DD/YY format.
- Extension and Trunk Number Ranges: The extension and trunk numbers consist of digits, letters, and decimal points, up to 32 characters. Do not use commas.

Note: Enter exact trunk numbers (enter 01 for the trunk instead of 1) because 01 will not be interpreted the same as 1 on some telephone systems.

• **Telephone Number Ranges:** The telephone numbers consist of dialing patterns. Hyphens not being used to indicate a range and other characters not listed below are ignored. The special characters that you may use are as follows:

CHARACTER	INDICATES
X	Any digit 0–9. For example: 961–XXXX includes 961–0000 through 961–9999.
A	Any digit 0–9, *, or #.
В	Digits * and #.
N	Any digit 2–9. For example: 961–N000 includes 961–2000, 3000, 4000, etc.
Z	Any digit 0–1. For example: 961–Z000 includes 961–0000 and 961–1000.
+	Any additional dialing will be accepted. For example: 961–6+ includes 961–6 plus any additional digits.
[x]	An optional pattern. For example: [0]961–7887 includes 0–961–7887 and 961–7887.
(x-y)	A range of digit strings; the X and the Y must be the same length and use only digits 0–9. For example: 961–6(000 – 050) includes 961–6000 through 961–6050.
"string"	Any string, such as "RING" or an empty field such as " ". The string can include a "+" (see above).

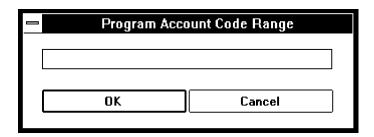
• **Time Ranges:** The start time and elapsed time ranges are in the format HH:MM:SS. Seconds are optional (12:34 is 12:34:00). If you do not specify minutes or seconds, the Inside Track software assumes hours (12 is 12:00:00). For start times, enter the time in 12-hour format followed by AM or PM (for example: 12:00:00 PM). If you do not specify AM or PM, the system assumes 24-hour format.



The list box in the window above shows the current ranges, if any. If the list is empty, the Inside Track software will include all records when the report is generated. Use the command buttons described below to program the list.

<u>I</u>nsert...

The Insert command button enters a new range in the list. The window shown below appears. Enter the desired range, up to 32 characters. Then select the OK command button. Or, select the Cancel command button to exit without adding a new range.



<u>E</u>dit...

To change an existing range, highlight it and select the Edit command button. A window similar to the one shown on the previous page (see the Insert command button). Enter a new range or edit the existing range in the text box. Then select the OK command button. Or, select the Cancel command button to exit without changing the existing range.

Delete...

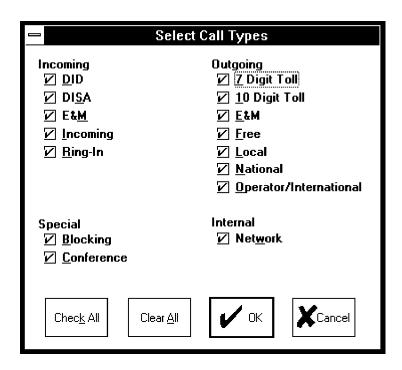
To remove an entry, highlight it in the list box and select the Delete command button. As a safeguard, a window will appear that asks if you wish to continue. Select Yes to delete the entry or No to leave the entry unchanged.

When the ranges are complete, select the OK command button to exit. Or to exit without saving any changes, select the Cancel command button.

Call Types

Reports can be specialized by selecting specific call types. The supported call types include the following. Refer to the *Installation and Field Maintenance Manual* for your telephone system to determine which call types are available on your system.

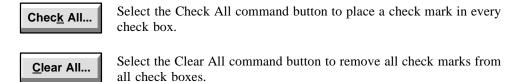
- Incoming Calls
 - DID calls
 - DISA calls
 - E&M calls
 - Incoming calls
 - Ring-in messages
- Outgoing Calls
 - 7-digit toll calls
 - 10-digit toll calls
 - E&M calls
 - Free calls
 - Local calls
 - National calls (UK Systems only)
 - Operator-assisted/international calls
- Special Calls
 - Calls blocked by toll limits
 - Conference calls
- Internal Calls
 - Networked calls (IMX 256 and 416/832 Network Systems only)



To select the call type that will be included in the report, select Call Types from the Criteria list box shown on page 64 and then select the Program command button. The window shown above appears. Select the desired call types using the following check boxes and command buttons:

√ 7 Digit Toll

Choose the desired call types individually by placing check marks in the associated check boxes (selecting a box with a check mark will remove the check mark). Or, you can use the following command buttons.



When finished selecting the call types, select the OK command button to save the changes and exit. Or to exit without saving any changes, select the Cancel command button.

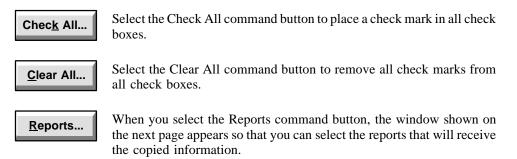


To Copy Reports

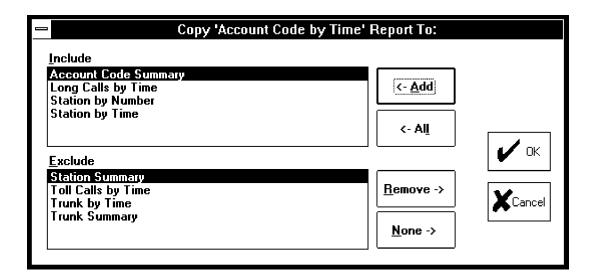
This window appears when you select the Copy command button shown on page 59. It is used for copying selected report fields from the current report to other reports.



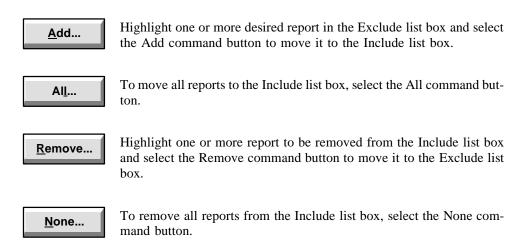
Choose the report fields individually by selecting them and placing check marks in the associated check boxes (selecting a box with a check will remove the check mark).



When finished selecting the report fields to be copied, select the OK command button to save the changes and exit. Or to exit without saving any changes, select the Cancel command button.

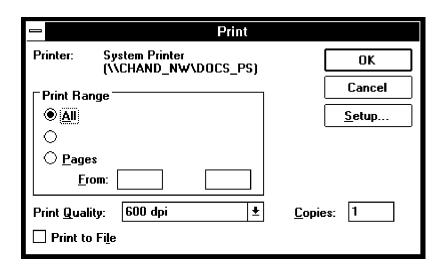


When you select the Report command button, the window above page appears. Use the following command buttons to select the reports that will receive the copied information. To select multiple items in Include or Exclude list, highlight them using the shift key and/or the control key. Note that more than 100 items can be highlighted, but only 100 are moved to the other list box at a time.



When the Include list is complete, select the OK command button to save the changes. Or to exit without saving changes, select the Cancel command button.

To Print Reports



Print Command

This window appears when you select the Print command button shown on page 59. It allows you to select the destination printer or file. The only print range available is All, which prints all pages of the report.



The window shows the currently selected printer. If you would like to change printers or printer setup, select the Setup command button to display the Print Setup window shown on page 87.

Print Range

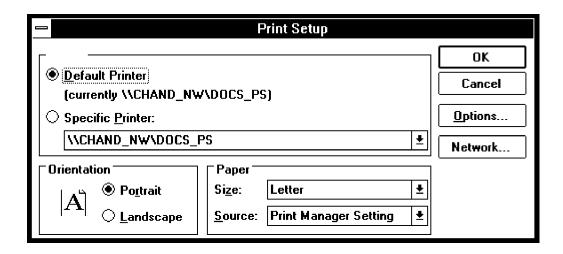
You can select All to print the complete report, or you can select Pages and enter a range of page numbers to print a partial report.

✓ Print To Fi<u>l</u>e

If you would prefer to send the report to a file on your hard disk or a floppy disk instead of to a printer, select the Print To File check box. When you select the OK command button, a window will appear that contains a text box. Enter the output file name in the text box (for example: C:REPORT will place it in a file titled "REPORT" on the C drive). Then select the OK command button. Or, select the Cancel command button to return to the window shown above.

Note: If you will be printing to a file, use Setup to select the Generic/Text Only printer driver.

When you are ready to print, select the OK command button. The report is automatically sent to the printer or file that you selected. Or, to cancel the print command, select the Cancel command button to return to the Report Programming window.



Printer Setup

The window shown above appears when you select the Print Setup from the Location pull-down menu or toolbar shown in the window on page 59 or the Setup command button shown in the Print window on page 85. It is used for selecting the printer options as follows:

Printer: Select the option button for the Default Printer, or select the Specific Printer option and use the drop-down list box to scroll to the desired printer.

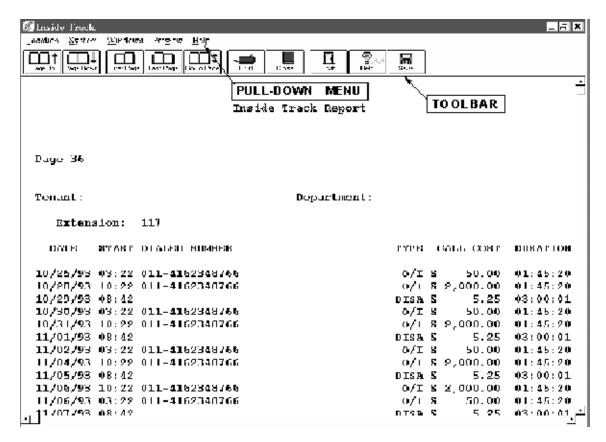
Orientation: If applicable to the selected printer, determine whether you want the reports to print in portrait (narrow) or landscape (wide) mode by selecting the desired option button.

Paper: If applicable to the selected printer, select the Size and Source drop-down list boxes and scroll to the correct paper selections.



If your printer requires additional setup, refer to your Windows documentation and/or your printer manual to determine the options that are required for your printer and for the instructions to set them.

When your printer is set up, select the OK command button to save the printer options and return to the Print window shown on the preceding page. Or, to exit without saving any changes, select the Cancel command button.



To Preview Reports

This window appears when you highlight a report in the list box and select the Preview command button shown on page 59. It displays the report in the format in which it will be printed. When a report preview is displayed, there is an extra pull-down menu selection (Preview) at the top of the screen and the toolbar shows the Preview options. The toolbar requires the use of a mouse, but the pull-down menu can be used with a mouse or keyboard.

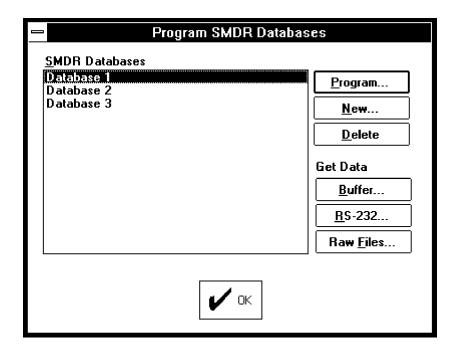
The Preview menu and toolbar commands are used as follows:

- **Page Up:** Select this option to scroll to the previous page in the displayed report. (This option is disabled if you are viewing the first page.)
- **Page Down:** Select this option to scroll to the next page in the displayed report. (This option is disabled if you are viewing the last page.)
- **First Page:** Select this option to view the first page of the report.
- Last Page: Select this option to view the last page of the report.
- **Go To:** You can view a selected page of the report by selecting the Go To option and entering the desired page number.
- **Print:** The Print option sends the displayed report to the printer using the current printer configuration. The window shown on page 85 appears.
- **Close:** The Close option closes the print preview.
- **Save:** This option allows you to save the report to a file and modify the call cost or export date. See the following for more details.
 - Call Cost Modification: This feature allows users to modify the call cost associated with a call. Select the Save button to export the report to a text file, which can be loaded in a text editor and modified.
 - Exporting Data: This feature allows users to export data into spreadsheet programs. Select the Save button to export the report to a text file or a comma delimited file, which can be loaded in an Excel spreadsheet application program. This allows users to create graphs, schedules, etc. in the spreadsheet. To do this, save the data as either a Preview File (*.txt) or a Comma Delimited File (*.csv) in the Save File as Type drop-down list box. It is assumed that the user knows how to format the data in the spreadsheet.

Programming SMDR And Enhanced Databases

The Inside Track software reads the SMDR records and sorts them into one or more programmed databases. The call records can be customized in an "enhanced database" to add greater detail to the generated reports. For example, the description, tenant, and department information for each extension number can be included in the report. These fields allow you to generate a more complete profile of the telephone system users. This enhanced call record information can be automatically downloaded from the Inter-Tel Axxent, AXXESS, and 256/416/832-port telephone systems (other systems require special enhanced database programming).

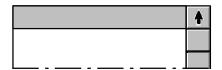
Note: On telephone systems with wide and narrow SMDR formats, use the *wide* format to allow the Inside Track to properly process the records.



To Program, Create, Or Delete SMDR Databases

This window appears when you select the SMDR command button shown on page 59. It allows you name the SMDA databases to capture records from a buffer, an RS-232 connection, or raw files.

SMDR Databases



The SMDR Databases list box contains a list of the SMDR databases for the current location. To program or delete an existing database, highlight it in the list box and select the appropriate command button.

Program...

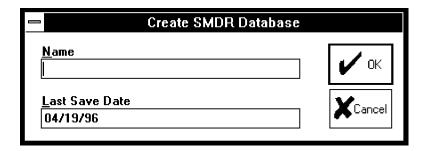
Highlight the desired database in the list box and select this command button to program the SMDR database information. A window similar to the one shown on the next page appears. (This button is not available if there are no programmed databases.)

<u>N</u>ew...

To create a new SMDR database, select the New command button. A window appears as shown on the next page. (This is the same window as used for programming existing databases; follow the instructions above.)

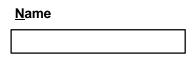
<u>D</u>elete...

To delete a database, highlight it in the list box and select the Delete command button. As a safeguard, a window appears that asks if you wish to continue. Select Yes to delete the database or select No to leave the database unchanged. Deleting a database removes it from all of the SMDR database lists used by the reports in the location. (This button is not available if there are no programmed databases.)

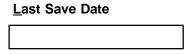


Programming An Existing Or New Database

The following procedure is used when programming either an existing database (selected from the list box) or a new database (created with the New command button).



The Name edit box allows you to enter a name for the SMDR database. The name may be 20 characters in length and cannot be empty or composed of only spaces and/or tabs.



The Last Save Date corresponds to the date of the last record captured. You can edit the date in the text box, if desired. The date entered in this box is given to all records that are captured in the future, that precede the next date header.

When finished programming the SMDR database, select the OK command button to exit. (Or, select the Cancel command button to cancel without saving the changes.) When you select the OK button, if you have modified the SMDR information, a window appears that asks if you wish to update the database. Select Yes to save the information or No to exit without changing the information.

Getting An Accurate Date Recording

Because the telephone system only generates an SMDR header once a day, at midnight, (unless error messaging is enabled out of the same port as SMDR), there has been some confusion as to what date Inside Track will use when logging calls. A simple date change will alleviate the problem.

In order to get an accurate date recording, you *must* set the "Last Save Date" (which defaults to the current date of the PC running Inside Track) to the date *prior* to the first SMDR header that is stored in the buffer.

Consider the following example:

- Today is the 24th and you are getting data from the buffer. The last time you did this was the 23rd, at about 4:30PM. Hence, the beginning SMDR records will contain calls from the 23rd, after 4:30, and the SMDR header will be for the 24th.
- Calls made prior to the SMDR header were made on the 23rd, but will be logged as being made on the date entered in "Last Save Date" field. Calls after the header will use the date shown in the header (the 24th).

If you are not sure of the exact date to enter in the "Last Save Date" box, and you are maintaining raw files, simply download the records with any arbitrary date just to capture the raw files. Then, using any text editor, view the raw files and scroll down until you come across the *first* SMDR header. Note the date of this header. The *previous* day is the date to enter in the "Last Save Date" box. Next, delete the SMDR database you just created, then create a new one entering the proper date (now that you know it) in the "Last Save Date" box. Finally, simply create the database using GET DATA: RAW FILES, and pick the raw file you previously retrieved (the one you were just viewing). This will recreate the SMDR database with the proper dates.

Downloading Call Records From A Buffer, RS-232 Connection, Or Raw Files

Call records can be downloaded from a buffer, RS-232 connection, or raw files using the following command buttons, as shown in the window on page 91. (Buffer and RS-232 can be used on a modem connection.)



The Buffer command button allows you to obtain call records from a buffer (PollCat, AXXESSORY Talk PC, or Axxent Talk). The settings for the buffer are established using the Preferences programming commands described on page 109.



The RS-232 button allows you to obtain records from a source that uses RS-232 XON/XOFF (software flow control) characters (terminal emulation program, CRB unit, ILB unit, or non-PollCat buffer box). (The settings for the RS-232 connection are established using the Preferences programming commands described on page 109.)

Note: Make sure the RS-232 settings of the PollCat, CRB, or ILB unit matches to the settings of the Inside Track PC. For example, the "Com Port" setting must match the COM port used on the Inside Track PC. Likewise, the "Bit Rate" setting must match the bit rate selected for the PollCat, CRB, or ILB unit's COMPUTER port. Ensure the RS-232s of the PollCat, CRB, and ILB units are set as follows:

	PollCat unit	CRB unit	ILB unit
Stop Bits	1	1	1
Data Bits	7	8	7
Parity Setting	Even	None	Even
Handshaking	Xon/Xoff	Xon/Xoff	Xon/Xoff

^{*} XON/XOFF is a.k.a. software flow control. RTS/CTS is a.k.a. hardware flow control.

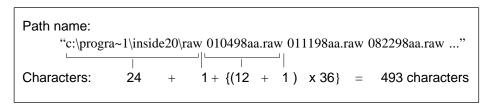
Note: If your Preferences are set for a modem connection, when you select one of these command buttons, a modem connection is established and a modem status window appears. The window tells you the COM port, bit rate, location of the dialed modem, dialed number, operation being performed and the status of the operation (initializing, dialing, etc.). The command buttons allow you to cancel the modem connection or to redial if necessary. When the modem connection is established, the capture function automatically continues.

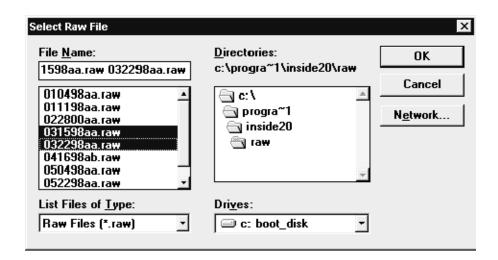
Raw <u>F</u>iles...

This command button allows you to obtain records from raw files in any file in any directory. (The raw files directories are established using the programming window shown on page 114.) When you select this command button a directory window appears that allows you to select the raw files that contain the information, as shown below. Scroll to the desired file and select the OK command button to continue the capture. Or select the Cancel command button to cancel the capture.

You can merge or combine raw files into a single report for easy, compact storage. For example, at the end of a month there are 31 daily raw files. These files can be combined into one monthly SMDR database. Select the desired files from the directory window by highlighting them using the shift key and/or control key as shown below and select the OK command button. *The path length plus raw files should not exceed 500 characters*. If it exceeds this limit, there will be a warning message and you must try again. See the example below.

For example, if the path is [c:\progra~1\inside20\raw], 36 raw files can be selected.

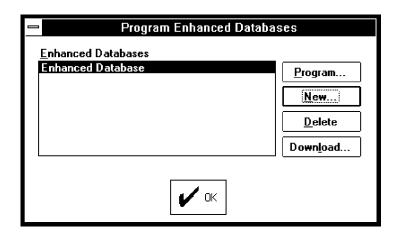




When you begin a capture by selecting one of the command buttons, a window appears that asks you to verify that you want to capture records. Select Yes to continue or No to cancel the capture function.

While the call records are being captured, status windows appear that give the following information:

- **Capturing Call Records:** This window displays the number of raw lines captured and the number of hardware errors received. (Hardware errors consist of framing errors, character overruns, receive queue overflows, and parity errors.)
- **Processing Call Records:** While this window is present, the Inside Track software is determining which lines contain valid call records and putting them into the appropriate SMDR database. This window displays the number of raw lines captured, the number of lines ignored, the number of lines recognized as complete call records, and the number of invalid records found. (Ignored lines consist of blank lines and lines containing diagnostic information. Processed records consist of lines that contain complete call records. Invalid records consist of lines of information containing an unrecognized format.)
- Call Record Capture Status: This shows final status of the processed call records. It shows the number of raw lines captured, the number of lines ignored, the number of lines recognized as complete call records, the number of invalid records found, and the number of hardware errors. The number of ignored lines, processed records, and invalid records add up to the number of captured lines.



To Program, Create, Or Delete Enhanced Databases

This window appears when you select the Enhanced command button shown on page 59. It allows you to program the enhanced information for the telephone system databases. (The command buttons are not available if there are no programmed databases.)



This list box contains a list of enhanced databases for this location. To program or add information to an existing database, highlight it and select the Program command button. The window similar to the one shown on page 100 appears.



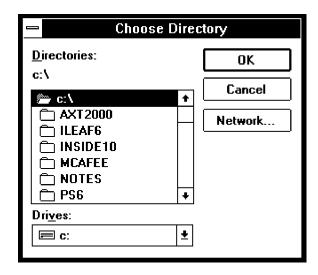
To create a new database, select the New command button. The window shown on page 100 appears. (This is the same window as used for programming an existing database.)



To delete an existing database, highlight it in the Enhanced Databases list box and select the Delete command button. As a safeguard, a window will appear that asks you to confirm that you want the database deleted. Select Yes to delete the database or No to leave the database unchanged. If the database is deleted, it will be cleared from all reports that are associated with it.

Down<u>l</u>oad..

Select this command button to download any version of the 256/416/832-port (IMX, GMX, or ESPDX/ESPMDX) or AXXESS/Axxent database into an enhanced database. This button is disabled if there are no enhanced databases or if the system type is not 256/416/832-port or AXXESS/Axxent. The window shown below allows you to choose the location of the database. Scroll to the correct directory and select the OK button.

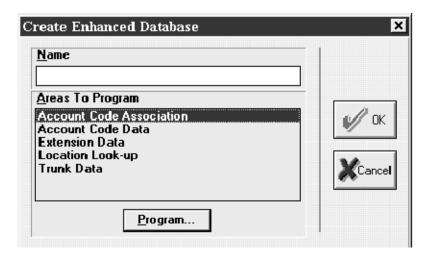


If you are downloading into an empty enhanced database, a window appears that verifies the download directory. Select Yes to continue with the download, or select No to cancel.

If you are downloading into an enhanced database that already contains information, a window appears that tells you that the Inside Track software will merge the newly downloaded records into the existing records. That is, if a downloaded record contains an extension number, account code number, or trunk number of an existing record, the two records become one. The other fields in the record take on the information from the downloaded record. For example: If the old information includes stations 101 and 102, and the new information includes stations 102 and 103, the combined information includes 101, 102 (merged records), and 103. Select Yes to continue, or select No to cancel the download.

During the download, a status window appears to notify you of the status of the download. If necessary, you can select the Cancel command button to stop the download.

If processing stops during a download from a PollCat, CRB, or ILB unit (before the download is complete), try to perform a second download. If, during the second download attempt, you receive an error message or the DATA LED on the PollCat, CRB, or ILB unit is not lit, reset the unit by pressing the ON/OFF switch to turn power off and then on again. Then perform the download again.



<u>N</u>ame



Enter a name for the database, of up to 20 characters. It cannot be empty or composed of only spaces and/or tabs.

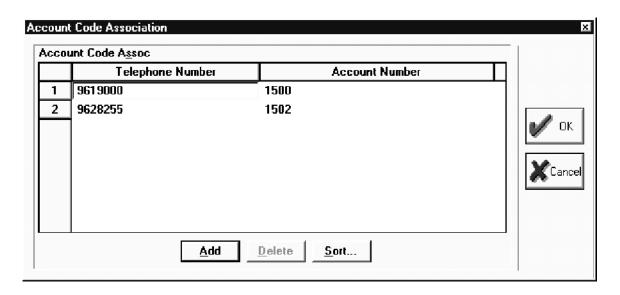
Areas To Program



This list box contains the different types of enhanced data. Scroll to the area to be programmed and then select the Program command button. The programming windows for the various areas as shown in the following pages. The programming areas include the following:

- **Account Code Association:** You can program certain numbers to be automatically associated with a specific account code. (See next page for more details.)
- Account Code Data: You can assign descriptions to account codes that appear in the reports. Each enhanced database can include up to 1100 account codes. (See page 104.)
- **Extension Data:** The Extension Data window allows you to program the extension number, description, tenant, and department associated with each station in the report. There can be up to 800 extension records per enhanced database. (See page 105.)
- **Location Look-up:** The Location Look-up Data fields allow numbers in the report to be identified by location (company, city, country, etc.). There can be up to 5000 Location Look-up records in each enhanced database. (See page 106.)
- **Trunk Data:** The database can contain trunk numbers with descriptions to identify trunks that appear in the reports. There can be up to 800 trunk records per enhanced database. (See page 108.)

When finished programming the enhanced database, select the OK command button to exit. (Or, select the Cancel command button to cancel without saving the changes.) When you select the OK button, if you have modified the information, a window appears that asks if you wish to update the database. Select Yes to save the information or No to exit without changing the information.



Account Code Association

You can program telephone numbers and account codes for the enhanced database so that account codes in the reports are easily identified. The telephone number can contain up to 20 characters. An account code can contain up to 32 characters. To add or delete codes, or change the sorting order, use the following command buttons:

The account code association table includes one column of telephone numbers, which must be typed with no dashes, and a second column for the account code that is associated with the telephone number. This table is used if the flag (Acc Code Association) in the Program SMDA Report window is enabled for automatic account code association (see page 66). When any report is run that includes the telephone number on the table, the associated account code is also used.

Note: You can sort call records by account codes from the table, but you cannot use these account codes in the account code range criteria.

If a telephone number is associated with an account code in the raw file, and the same number is associated with a different account code in the enhanced database, the account code printed on the report will depend on the Sort By criteria (see page 66). Therefore, it is your responsibility to associate the correct account code with a telephone number.



This button allows you to add a new entry for a new account code. The new entry is blank. Highlight each field to be programmed and enter the new information.

<u>D</u>elete...

To delete an entry, place the highlight on that entry and select the Delete command button.

<u>S</u>ort...

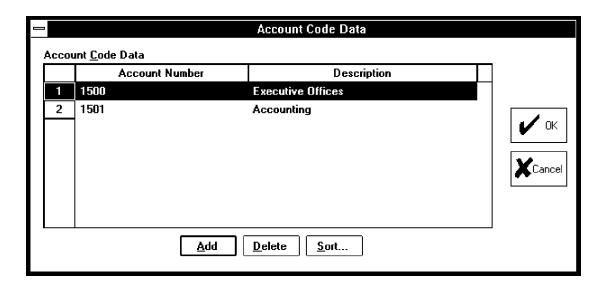
To change the order in which the entries appear, select the Sort button. A window with a drop-down list box appears. Scroll through the drop down list box to the desired sorting key and select the OK command button; the list box will automatically re-sort to the desired order. Or, to leave the list unchanged, select the Cancel command button.

To select a field, use the mouse or arrow keys. To edit the field, double-click the mouse button or press F2 and then enter or edit the information.

When finished, select the OK command button to save your changes. Or, to exit without saving changes, select the Cancel command button.

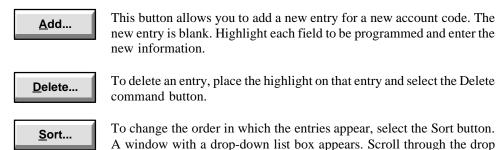
Note: In the raw file, a dialed number may be immediately followed by extension or password, and Inside Track cannot tell where the number ends. Therefore, when you program the account code association, you need to type the whole number (including extension or password) up to a pound sign, if there is one.

To see if there are numbers after a telephone number, users can select the Telephone Number Ranges in the Criteria list box and type the telephone number followed by a "+" sign. For example, 9619000+. The report will show all numbers that start with 9619000, so you can choose the one you want for the account code association.



Account Codes Data

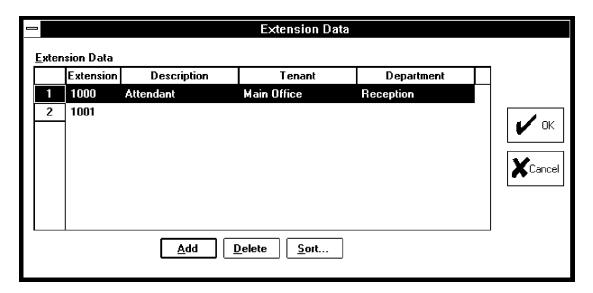
You can program descriptions and account codes for the enhanced database so that account codes in the reports are easily identified. An account code can contain up to 32 characters. The description can contain up to 20 characters. To add or delete codes, or change the sorting order, use the following command buttons:



down list box to the desired sorting key and select the OK command button; the list box will automatically re-sort to the desired order. Or, to leave the list unchanged, select the Cancel command button.

To select a field, use the mouse or arrow keys. To edit the field, double-click the mouse button or press F2 and then enter or edit the information.

When finished, select the OK command button to save your changes. Or, to exit without saving changes, select the Cancel command button.



Extensions Data

The Extension Data window allows you to program the extension number, description, tenant, and department associated with each station. The extension can contain up to five characters, and the description, tenant, and department fields can contain up to 20 characters. To add, delete, or change the sorting order of the entries use the following buttons:

<u>A</u>dd...

This button allows you to add an entry for a new extension. The new entry is blank. Highlight the field to be programmed and enter the new information.



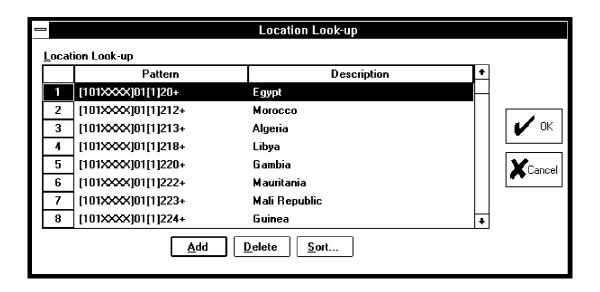
To delete an entry, highlight it and select the Delete command button.



To change the order in which the entries appear, select the Sort command button. A window with a drop-down list box appears. Scroll through the drop down list box to the desired sorting key and select the OK command button; the list box will automatically re-sort to the desired order. Or, to leave the list unchanged, select the Cancel button.

To select a field, use the mouse or arrow keys. To edit the field, double-click the mouse button or press F2 and then enter or edit the information.

When finished, select the OK command button to save your changes. Or, to exit without saving changes, select the Cancel command button.



Location Look-up Data

The Location Look-up Data fields allow telephone numbers in the reports to be identified by location (company, city, country, etc.). Inside Track compares the telephone numbers with the Location Look-up list and adds the corresponding description to the telephone number pattern. (In the sample above, any number beginning with 1602 would be identified as an Arizona telephone number.) When the Inside Track software first creates an enhanced database, the location look-up portion is filled with records from a default database. You can add additional patterns and descriptions or delete default patterns.

A Look-up pattern can contain up to 32 characters and its description can contain up to 40 characters. Look-up patterns follow the same format as telephone number patterns, described on page 79, except that they cannot end with the optional bracket [x], and ranges can have up to 10 characters on either side of the hyphen (for example: 0000000000–999999999).

To add or delete patterns, or change the sorting order, use the following command buttons:

<u>A</u>dd...

This button allows you to add an entry for a new pattern. The new entry is blank. Highlight the field to be programmed and enter the new information.

<u>D</u>elete...

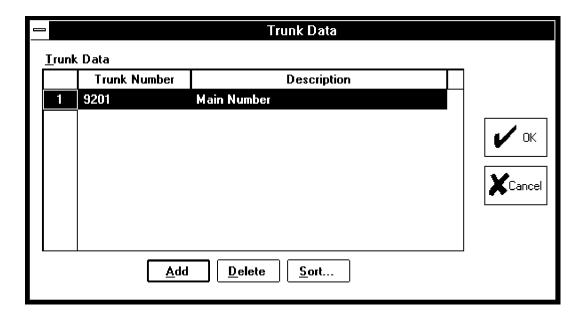
To delete an entry, highlight it and select the Delete command button.

<u>S</u>ort...

To change the order in which the entries appear, select the Sort command button. A window with a drop-down list box appears. Scroll through the drop down list box to the desired sorting key and select the OK command button. The list box will automatically re-sort to the desired order. Or, to leave the list unchanged, select the Cancel command button.

To select a field, use the mouse or arrow keys. To edit the field, double-click the mouse button or press F2 and then enter or edit the information.

When finished, select the OK command button to save your changes. Or, to exit without saving changes, select the Cancel command button.

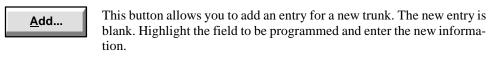


Trunk Data

Delete...

Sort...

The database can contain trunk numbers and descriptions so that trunks can be easily identified in the reports. The trunk numbers can contain up to eight characters, and the descriptions can contain up to 20 characters. To add or delete trunks, or change the sorting order, use the following command buttons:



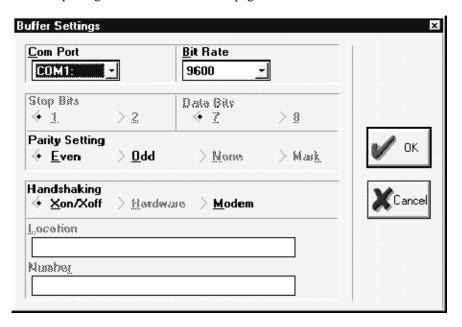
To delete an entry, highlight it and select the Delete command button.

To change the order in which the entries appear, select the Sort command button. A window with a drop-down list box appears. Scroll through the drop down list box to the desired sorting key and select the OK command button. The list box will automatically re-sort to the desired order. Or, to leave the list unchanged, select the Cancel command button.

When finished, select the OK command button to save your changes. Or, to exit without saving changes, select the Cancel command button.

Programming Preferences

The Buffer and RS-232 command buttons shown on page 59 allow you to adjust the settings for the buffer connection and the RS-232 connection. The settings affect the call record capturing functions described on page 95.



To Program Buffer Settings

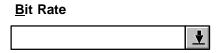
This window appears when you select the Buffer command button shown on page 59. It is used for adjusting the settings used when the Inside Track PC is connected to a PollCat buffer box, an AXXESSORY Talk PC, or Axxent Talk buffer.

The correct settings for a PollCat buffer box, an AXXESSORY Talk PC, or an Axxent Talk Buffer are as follows:

- 1 Stop Bit
- 7 Data Bits
- Even or Odd Parity Setting (Even Parity for AXXESSORY Talk)
- X-ON/X-OFF or Modem Handshaking
- Bit Rate To Match Buffer

<u>C</u>om Port

The Com Port drop-down list box allows you to choose the communications port used by your PC for the buffer connection. Scroll the highlight bar to the correct COM port. The default is COM1.



The Bit Rate drop-down list box allows you to choose the bit rate of the COM port connected to the buffer. Scroll the highlight bar to the correct bit rate. The default is 9600 bps.



The Stop Bits option buttons allow you to choose the stop bit setting (1 or 2). Select the correct stop bit setting to place a dot in the option button.



The Data Bits option buttons allow you to choose the data bit setting (7 or 8). Select the correct data bit settings to place a dot in the option button.



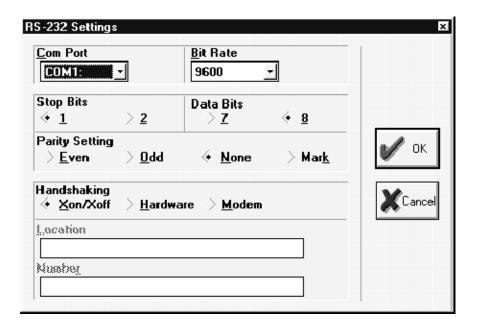
The Parity Setting option buttons allow you to choose the parity setting for the COM port (even, odd, none, or mark). The default is even parity. Select the correct parity setting to place a dot in its option button.



The Handshaking option buttons allow you to choose the type of handshaking (Xon/Xoff, hardware, or modem). The default is X-ON/X-OFF. Select the correct handshake setting to place a dot in its option button.

<u>L</u> ocation	
The Location text box allows you to program a description for a modisabled if you did not choose the modem for handshaking.) Entename, up to 20 characters in the text box.	,
Numbe <u>r</u>	

The Number text box allows you to program a modem dialing number. (This is disabled if you did not choose the modem for handshaking.) Enter the telephone number of the modem, up to 32 digits.

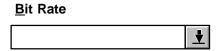


To Program RS-232 Settings

This window appears when you select the RS-232 command button shown on page 59. It allows you to set the RS-232 parameters necessary for a source that uses RS-232 XON/ XOFF characters (terminal emulation program, ILB unit, CRB unit, or non-PollCat buffer box).

<u>C</u>om Port

The Com Port drop-down list box allows you to choose the communications port used by your PC for the RS-232 connection. Scroll the highlight bar to the correct COM port. The default is COM1.



The Bit Rate drop-down list box allows you to choose the bit rate of the COM port connected to the RS-232. Scroll the highlight bar to the correct bit rate. The default is 9600 bps.



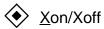
The Stop Bits option buttons allow you to choose the stop bit setting (1 or 2). The default is one stop bit. Select the correct stop bit setting to place a dot in the option button.



The Data Bits option buttons allow you to choose the data bit setting (7 or 8). The default is eight data bits. Select the correct data bit settings to place a dot in the option button.



The Parity Setting option buttons allow you to choose the parity setting for the COM port (even, odd, or mark). The default is no parity. Select the correct parity setting to place a dot in its option button.



The Handshaking option buttons allow you to choose the type of handshaking (Xon/Xoff, hardware, or modem). The default is X-ON/X-OFF. Select the correct handshake setting to place a dot in its option button.

Location

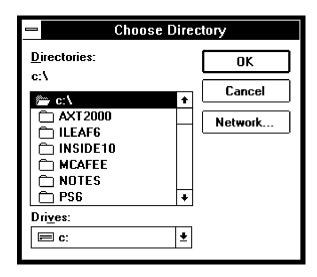
The Location text box allows you to program a description for a modem location. (This is disabled if you did not choose the modem for handshaking.) Enter the modem location name, up to 20 characters in the text box.

Numbe <u>r</u>	

The Number text box allows you to program a modem dialing number. (This is disabled if you did not choose the modem for handshaking.) Enter the telephone number of the modem, up to 32 digits.

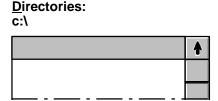
Using Raw Files

The Inside Track software generates a raw file of call records after each database capture if the Maintain Raw Files box is checked (as described on page 63). The command buttons described on page 63 are used for determining the storage directory for the files and for deleting files.



Selecting A Raw File Directory

The window above appears when you select the Directory command button (shown in the window on page 59). The Raw Files Directory window determines the location where the Inside Track software places the raw files on the PC.

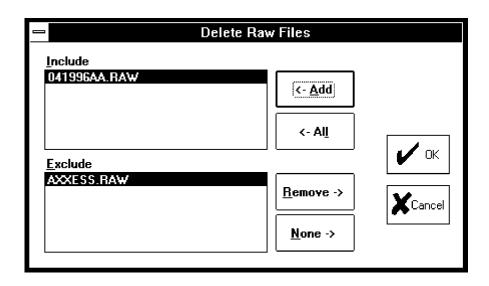


Scroll the highlight bar through the Directories list box to the desired directory.

Dr <u>iv</u> es:	
	±

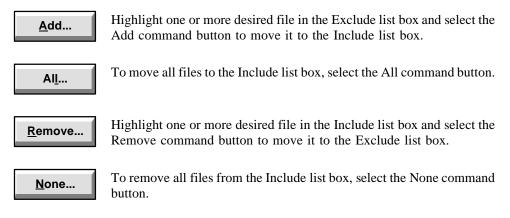
If the desired directory does not appear on the indicated drive, select the Drive drop-down list box and scroll to the desired drive. Then select the desired directory as described above.

When you have selected the desired drive, select the OK command button to save the information. Or to exit without saving changes, select the Cancel command button.



Deleting Raw Files

This window appears when you select the Delete command button shown on page 59. The Delete Raw Files window allows you to delete selected raw files from the current location. To select the files to be deleted, use the following command buttons. To select multiple items in Include or Exclude list, highlight them using the shift key and/or the control key. Note that more than 100 items can be highlighted, but only 100 are moved to the other list box at a time.



When the Include list is complete, select the OK command button to save the changes. Or to exit without saving changes, select the Cancel command button.



Replacement Parts

Ordering Parts

Below is a list of the authorized parts and part numbers available for the Inside Track package. When ordering items, it is necessary to provide the following information to your order processing clerk:

- Company name
- Purchase order number
- Part number(s) of items ordered
- Quantity required
- Required date of shipment

<u>DESCRIPTION</u>	PART NUMBER
Complete Inside Track Software and Documentation Package (includes software, software key, and user guide)	828.1275
Inside Track Software (51/4-inch floppy disks only)	. 827.8010L
PollCat Buffer Box	828.1149
Tandem Unit	828.1164
Memory Expansion Chips	834.2178
Inside Track User Guide	835.1442

Index

Capturing call records, 97 Closing locations, 54 Account code association, program-COM port, 7, 110, 112 ming, 102 Communications parameters, 18 Account Code Axxodiation, 100 Computer. See Personal computer (PC) Account code data, 100 Copying reports, 62, 83 programming, 104 CRB unit Axxent Talk, 18 bit rate, 38 Axxent Talk hard disk, 1 dimensions, 12 DIP switches, 13 AXXESS/Axxent Universal RS-232 LEDs, 13 Kit, 47 memory clearing/testing, 42 AXXESSORY Talk PC, 1, 8, 18 RS-232 connection, 12 capturing records, 95 CRB Unit Specifications, 12 communication parameters, 18 installation, 47 CRB-256K, 8 Criteria, 67, 77 В Criteria summary, 67 Custom Cable, 47 Bit rate, 110, 112 CRB unit, 38 Customized reports, 6 ILB unit, 40 PollCat, 34 Buffer box, 1, 8 See also PollCat Data bits, 110, 113 capturing records, 95 Databases, 62, 66 installation, 33 enhanced, 98 Buffer settings, 63, 109 programming, 90 SMDR, 74 DB25 connector, pinout Buffer box, 29, 30 Call records, 6, 97 MODEM, 31 PC, 28 capturing, 95 storage, 8 DB9 connector, pinout Call types, 67, 77, 82 Axxent, 26

PC, 28 PCDPM, 27	I
Deleting locations, 53 Deleting raw files, 63, 116 Deleting reports, 61 DIP switches, 10, 13, 16	ILB unit bit rate, 40 DIP switches, 16 LEDs, 16 memory clearing/testing, 42 RS-232 connection, 15
E	ILB Unit Specifications, 15 ILB-512K, 8
Editing locations, 53 Enhanced databases, 62, 66, 98 creating, 98, 100 deleting, 98 downloading, 98 programming, 90, 98, 100	Inter-Tel NetSolutions, 1, 8, 19, 60 Inter-Tel telephone systems, 4, 60 Inter-Tel Axxent Talk, installation, 47
Equal access digits, 4 Extension data, 100	Light-emitting diodes (LEDs), 10, 13, 16 Local area network (LAN), 7
F Floppy disk drive, 7 Fuse, 10	Location close, 54 delete, 53 edit, 53 new, 53, 56 open, 54 print setup, 54 programming, 59 save, 54 save all, 54
Generating reports, 51	Location Look-Up Data, 100 programming, 106
Н	Location menu, 53
Handshaking, 34, 110, 113 Hard disk space, 7 Hardware installation, 33 Help menu, 58	Memory additional, 44 clearing/testing, 42 expansion chips, 11

Microsoft Windows, 1, 49 Modem, 7 capturing records, 95 configuration, 55 connection, 11 installation, 46 location, 111, 113 number, 111, 113	memory clearing/testing, 42 memory expansion chips, 11 modem connection, 11 pause button, 9 Tandem unit, 11 installation, 36 PollCat buffer box, RS-232 connection, 9
N	Preferences, 109
N	Premier telephone systems, 4, 60
Name, 65	Printing, 85 preview, 62, 88
New location, 53, 56	range of pages, 85
New reports, 61	reports, 51, 62 setup, 54, 87 to a file, 86
0	Programming locations, 59
Opening leastions 54	Programming reports, 51
Opening locations, 54	Pull-down menus, 52
Р	
Donitry 24 29 110 112	R
Parity, 34, 38, 110, 113	RAM, 7
Part numbers, 117	Ranges, 67, 77
Password Location password, 56	Raw files
User password, 56	capturing records, 96
Pause button, 9	deleting, 63, 116
Personal computer (PC), 7	directory, 63, 114 maintaining, 63
PollCal Buffer Box Specifications, 9	Replacement parts, 117
PollCat, 8 adding memory, 44 bit rate, 34 capturing records, 95 dimensions, 9, 15 DIP switches, 10 fuse, 10 installation, 33 LEDs, 10	Reports, 61 call types, 67, 77, 82 copying, 83 criteria, 67, 77 default, 64 formats, 68 generating, 51 name, 65 print preview, 88

print setup, 87 printing, 51, 85 programming, 51, 61, 64, 65 ranges, 67, 77 SMDR databases, 74 sort keys, 67, 75 subtitle, 65 summary of criteria, 67 templates, 6, 66 title, 65 types, 5	Reports with subheaders, 73 Summary, 70 Summary by number, 72 Total Summary, 71 Software, 1 installation, 49 key, 33 overview, 2 Sort key, 6 Sort keys, 67, 75	
RS-232 connection, 9, 12, 15, 20 capturing records, 95	Stop bit, 110, 113	
Guidelines, 21	Subheaders, 6	
RS-232 modular jack, pinout, AXXESS,	Subtitle, 65	
25	Summary of report criteria, 67	
RS-232 settings, 63, 109, 112	System menu, 55	
C	System options, 55	
3	System Pull-Down Menu, Close, 55	
Saving locations, 54	т	
SMDA reports, 61 copy, 62 deleting, 61 new, 61 print preview, 62 printing, 62 programming, 61, 64, 65	Tandem unit See also PollCat memory clearing/testing, 42 Telephone systems, 4, 60 Templates, 6, 66	
SMDR call records, 1	Title, 65	
SMDR databases, 62, 66, 74 creating, 91	Toll digits, 4	
	Toolbar, 52	
deleting, 91 programming, 90, 91, 93	Trunk data, 100	
SMDR format, 4	programming, 108	
SMDR Reports, Detailed by time report, 69	W	
SMDR reports	Windows menu, 58	