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VisuaLink 128/384 Quick Installation Guide

VisuaLink 128/384 Rollabout 128/384 Upgrading VL128 to VL384 Desktop Videoconference

> DECEMBER, 1998 NEC America, Inc.

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EXHIBIT J1

FCC REQUIREMENTS

NEC America, Inc. VisuaLink 128/VisuaLink 384

TYPE OF SERVICE

The VisuaLink 128 and the VisuaLink 384 are stand-alone devices that allow multimedia conferencing by transmitting video, audio and data to remote locations over the ISDN Basic Rate interface. The VisuaLink 128 and VisuaLink 384 connect to the ISDN digital network through separately-registered NTI equipment. They provide POTS ports which allow a customer-provided 2500-type telephone access to the digital network.

This equipment complies with Part 68 of the FCC Rules. The equipment label will appear on the rear exterior panel of the unit and will provide the FCC Registration Number, NEC trade name, model number, serial number or date of manufacture and the country of origin.

TELEPHONE COMPANY PROCEDURES

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations, or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

If you have any questions about your telephone line, such as how many pieces of equipment you can connect to it, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

In certain circumstances, it may be necessary for the telephone company to request from you concerning the equipment which you have connected to your telephone line. Upon request of the telephone company, provide the FCC registration number and the ringer equivalence number (REN) of the equipment which is connected to your line; both of these items are listed on the equipment label The sum of all of the REN's on your telephone lines should be less than five in order to assure proper service from the telephone company. In some cases, a sum of five may not be usable on a given line.

IF PROBLEMS ARISE

If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone lines, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC.

In the event repairs are ever needed on your Visualink 128 or VisuaLink 384, they should be performed by NEC America, Inc. or an authorized representative of NEC America, Inc. For information contact:

NEC America, Inc. 1555 W. Walnut Hill Lane Irving, Texas 75038-3797 USA 972-751-7000

FCC REQUIREMENTS FOR CONNECTION OF TELEPHONE SYSTEMS

In order to connect this system to the telephone network, provide the telephone company with:

- the quantities and USOC numbers of the required jacks (shown below);
- the sequence in which the trunks are to be connected;
- the facility interface codes by position; and
- the ringer equivalence number or service code, as applicable, by position

MFG's Port ID	USOC Jack Connector	REN/Service Code	Facility Interface Code	# CO Ports	# Stations	Registration #
VisuaLink 128	N/A	6.0P	02IS5	1	1	AY5JPN-32617-XD-N
VisuaLink 384	N/A	6.0P	02IS5	3	1	AY5JPN-32617-XD-N

CSA Requirement

To ensure that certified equipment is attached correctly, and only to the networks of participating carriers, the following statement shall accompany each unit of certified equipment offered for sale. This statement must be included conspicuously in written or electronic format, at or near the front of each copy of the operating manual, or accompany other technical information, or be included as a separate sheet. The required statement is:

CP-01, Issue 8, Part I Section 14.1

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection

MODEL	CERTIFICATE NUMBER	CERTIFICATION NUMBER
VisuaLink 128	19318	140 9004A
VisuaLink 384	19603	140 9104A

Table of Contents

Chapter 1: Introduction1-1
General
Chapter 2: VisuaLink Stand-Alone System2-1
Connection of the Surrounding Devices
Chapter 3: Startup Screen for the VisuaLink 128 and VisuaLink 3843-1
Start up configuration screens3-1Setting Up your ISDN Line Information3-2Optional User Settings:3-5
Chapter 4: Rollabout 128/384 Procedures4-1
Rollabout System Connections 4-1 Step-by-Step Procedure 4-2
Chapter 5: Upgrading a VL 128 to a 3845-1
Upgrade Instructions
Chapter 6: VL128/384 Desktop Videoconference
General Description6-1System Requirements6-1Wiring Diagram6-2Packaging6-3Unpacking and Handling6-3Hardware Installation6-6
Appendix A: System Setup for the VisuaLink 128 A-1
Appendix B: System Setup for the VisuaLink 384B-1

List of Figures

Figure 1-1:	Rollabout 128/384 System 1-	1
Figure 1-2:	Desktop Application 1-	·2
Figure 1-3:	Rollabout 128/384 Cabinet 1-	.3
Figure 1-4:	Trinitron® Color Monitor 1-	4
Figure 1-5:	Color Video Camera (Front and Rear View) 1-	5
Figure 1-6:	Desktop Camera 1-	• 6
Figure 1-7:	VisuaLink 128/384 Unit with Remote Control 1-	7
Figure 2-1:	VisuaLink 128 System Connections 2-	·1
Figure 2-2:	VisuaLink 384 System Connections 2-	·2
Figure 4-1:	Equipment Placement 4-	·1
Figure 6-1:	VisuaLink 128/384 Desktop Videoconference App Front View6-	2
Figure 6-2:	VisuaLink128/384 Desktop Videoconference App Rear View 6-	3
Figure 6-3:	Wiring Diagram for VisuaLink 128 6-	· 4
Figure 6-4:	Wiring Diagram for VisuaLink 384 6-	·5
Figure A:	Set up for VisuaLink 128 (1 of 2) A-	·2
Figure A:	Set up for VisuaLink 128 (2 of 2) A-	.3
Figure B:	Set up for VisuaLink 384 (1 of 2) B-	·2
Figure B:	Set up for VisuaLink 384 (2 of 2) B-	.3

Chapter 1 Introduction

1.1 General

This chapter provides general identification, installation, shipping and receiving information for the VisuaLink 128/384. The system consist of four major components, the equipment cabinet, the television monitor, the video camera and the VisuaLink 128/384 unit with remote control and cable bundle.

Depending on the system application ordered, anywhere from one to four major components (boxes) could be shipped

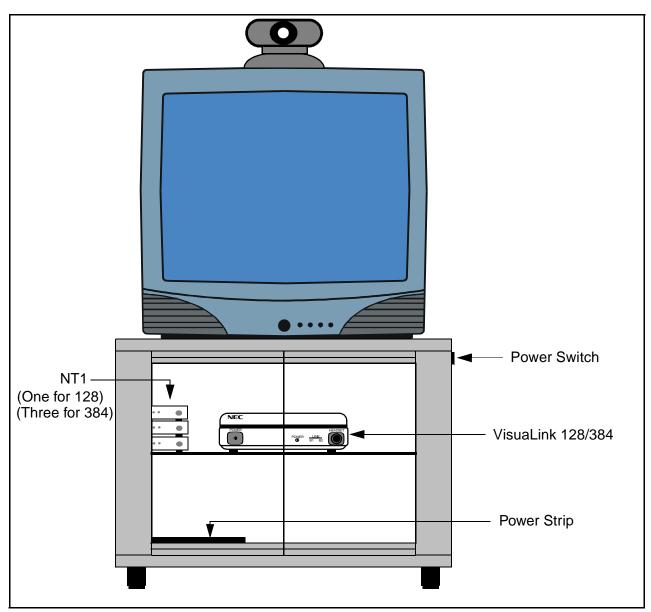


Figure 1-1: Rollabout 128/384 System

Note: This system contains five (5) major components: equipment cabinet, television monitor, video camera, NT1(s) and VisuaLink 128 or VisuaLink 384 unit with remote control.

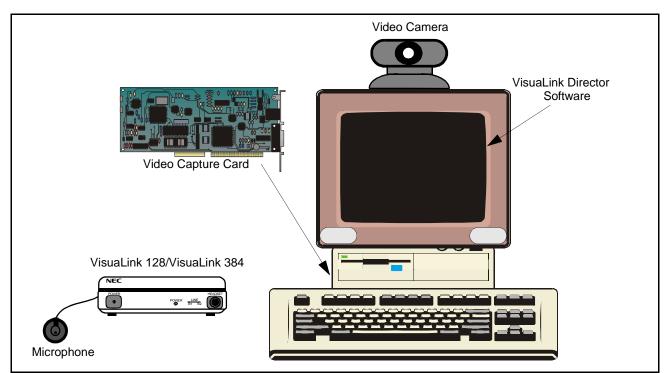


Figure 1-2: Desktop Application

Note: This system contains three major components: video camera, video capture card, and VisuaLink 128 or VisuaLink 384.

1.2 Identification

Equipment Cabinet

The VisuaLink 128/384 equipment cabinet consist of a metal cabinet with two Plexiglas doors that open outward. It contents a shelf on which the VisuaLink 128/ 384 control unit will be located. Also located at the rear of the cabinet is a power strip. The cabinet has two punch-out holes, one located in the lower rear for the power feed, and the other is located on the top at the rear for the monitor and camera cables.

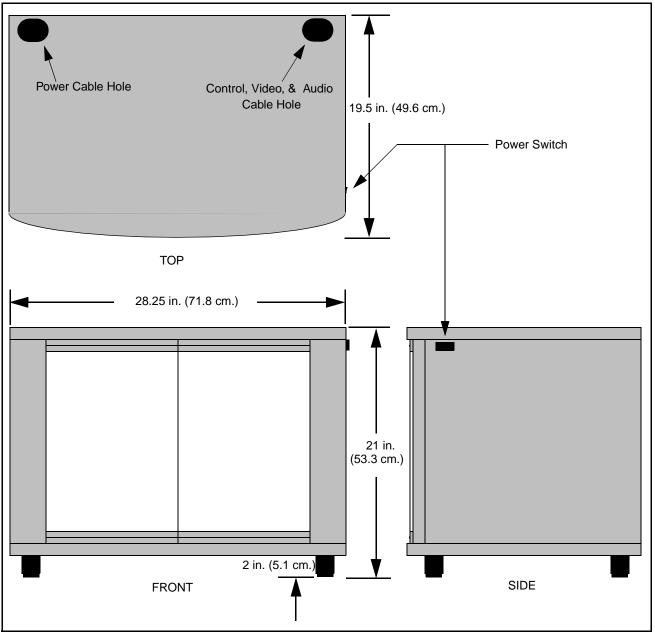


Figure 1-3: Rollabout 128/384 Cabinet

Trinitron[®] Color Monitor

The Sony Trinitron[®] Color Monitor contains the following features:

- Displays On-screen menus for configuring the VisuaLink.
- Picture-in-Picture (PIP) that allows the local site to view their image seen by the distant end.
- Built-in speakers for outputting the distant sites audio.

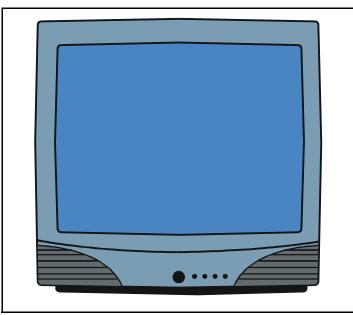


Figure 1-4: Trinitron[®] Color Monitor

Color Video Camera

The Color Video Camera has the following features:

- Effective picture elements of 380,000 (EVI-D30) for enables high-resolution shooting.
- High speed pan/tilt action controlled by the VisuaLink.
- Captures the video in the local room.

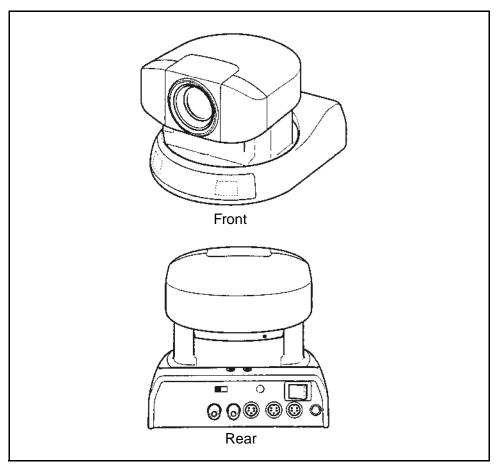


Figure 1-5: Color Video Camera (Front and Rear View)

Color Video Camera for Desktop

The Color Video Camera for the desktop has the following features:

Wide-angle and a high resolution CCD imager give you wide views with high resolution.

- Compact design and flexible arm enable versatile shooting positions.
- Manual focus allows sharp image from less than 0.5 inch (10mm) to infinity.
- Manual iris allows good image in various lighting conditions
- Rotating camera head allows flexible angle of the picture.
- Flicker reduction switch reduces flicker control.



Figure 1-6: Desktop Camera

VisuaLink 128/384 Unit

The VisuaLink 128/384 simplifies video conferencing with virtually no technical expertise required. The superior motion handling allows users to concentrate on the meeting content rather than worry about the quality. With its plug-and-play technology, the unit can be operational in a matter of seconds. Just power **ON** the system and experience a video conference as never seen or heard before. The on-screen messages and icon driven menus were designed for even the most novice users with no training required.

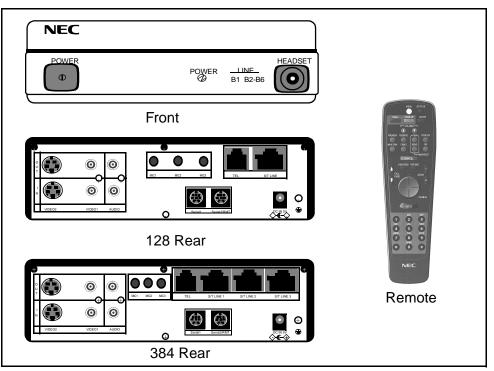


Figure 1-7: VisuaLink 128/384 Unit with Remote Control

- H320 Plus Standards-Based Operation: Taking advantage of the latest revisions of H.320, the VisuaLink 128/384 are able to operate with a wide variety of videoconferencing products and support a much broader scope of standards and features.
- H.263 Video Compression: With H.263, the VisuaLink will have better motion handling in low bandwidth applications.
- Supports S-Video Transmission and Reception: Detailed images, such as PC image, can be transported and displayed at the far-site with increased resolution and little distortion.
- VisuaLink 128/384 is expendable to 384: The VisuaLink 128/384 is capable of being field upgraded to support 384 kbps.
- Remote Software Upgrades and Updates: By dialing into the hub center with the VisuaLink and accessing the icon menu for downloading, the latest software is automatically downloaded to the system.

	• Integrated, All-in-One Package: The VisuaLink 128/384 includes an echo canceller, CODEC and control system, this allows simple installation and ease of use.		
	• Icon Menu Screen: The On-Screen Icon driven menu will allow even those of us that are not technically inclined to control the VisuaLink.		
	• Far-end Camera Control: Integration of H.281 allows multi-location and point-to-point far-end camera control via the International Standards.		
	• Multipoint Control: The integration of H.243 allows for control of the MCU from the CODEC via the International Standards.		
1.3 Packaging	Rollabout Package		
	The Rollabout 128/384 is shipped in two (2) separate boxes. The equipment cabinet is enclosed in a styroform box to protect it from damage. The box is then secured with transportation strips. The monitor is also shipped in a styroform box and secured with transportation strips. The camera and camera power supply is enclosed in styroform and then boxed. The VisuaLink 128/384 unit, remote control and cable bundle is bubble-wrapped and then boxed.		
	Desktop Packing		
	The desktop system is shipped in a minimum of two (2) boxes. The VisuaLink 128/384 unit with remote control in a box. The video capture card is shipped in a styrofoam box.		
	Optional Equipment		
	Optional equipment, such as NT1 unit, graphic camera, etc. are shipped in their own individual box.		
1.4 Unpacking and Handling	Follow the procedures shown in Chapter 2: Procedures. Do not unpack items until they are required for use.		

Chapter 2 VisuaLink Stand-Alone System

2.1 Connection of the Surrounding Devices
 This section gives a description on how to setup a VisuaLink as a stand-alone system. In Figure 2-1, the VisuaLink 128 shows a VoicePoint. Figure 2-2 shows the VisuaLink 384 components. All the components shown in the drawing are optional.

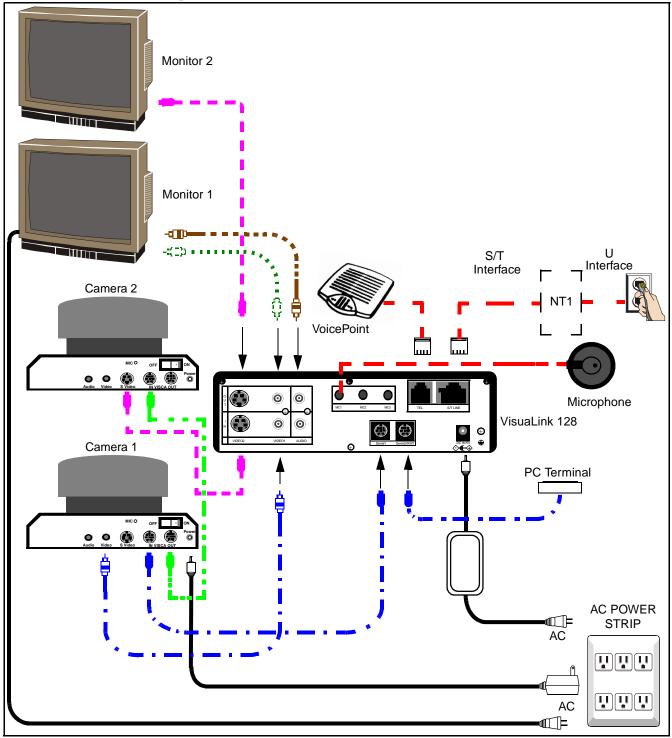


Figure 2-1: VisuaLink 128 System Connections

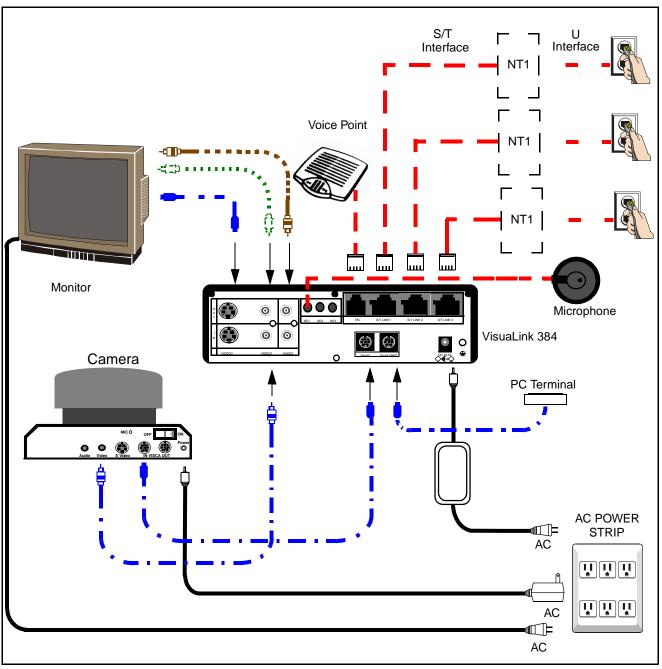


Figure 2-2: VisuaLink 384 System Connections

- *Note 1:* VoicePoint or microphones are optional equipment for the VisuaLink. Both cannot be operational at the same time.
- *Note 2:* If connecting a low-end rollabout system, use the cable kit provided with the low-end cabinet.
- *Note 3:* All cables included with the system are black in color. The above cable colors are done to clarify kits.

- 2.2 Connection Procedure Procedure for connecting a stand-alone VisuaLink. See Appendix A for system layout of the VisuaLink 128. See Appendix B for the system layout for the VisuaLink 384.
 - 1. Connecting the Video Out of the VisuaLink to the TV Monitor Using the attached video cable, that comes with the VL, plug one side into the TV Monitor connection marked VIDEO 1 INPUT. Plug the other end into the connection marked VIDEO OUT 1 on the VisuaLink.
 - Connecting audio from the VisuaLink to the TV Monitor. (optional)
 Using the provided audio cable, that comes with the VL, plug one end into the AUDIO INPUT 1 of the TV Monitor. Plug the other end into the AUDIO OUTPUT of the VisuaLink.

Note: If a VoicePoint is used do not connect the audio output connection.

- 3. **Connecting the Voicepoint to the VisuaLink. (optional)** Using the attached RJ11 cable of the VoicePoint, plug the open end into the VisuaLink connection labeled **TEL**.
- Connecting the NT1 device to the VisuaLink. (optional)
 Using the provided data cable (RJ45 RJ45), plug one end into the VisuaLink connection labeled ST/LINE. The other end of the cable, plugs into the NT1 device. Repeat procedures if connecting a VisuaLink 384 and three NT1s.
- *Note:* If the NT1 device is located more than 300 ft. (91 m.) away. Set the VL128 **TERM SWITCH** located on the back of the unit to the **ON** position. Set the VL384 **STRIP SETTING** inside the unit to the **ON** position.
- 5. **Connecting a microphone to the VisuaLink.** (optional) Plug the 3 1/2 mini connector into the VisuaLink connection marked **MIC1**.
- Connecting the Video Camera to the VisuaLink. (optional) Using the provided video cable, plug one end into the connection marked VIDEO OUT on the D30 camera. Plug the other end of the video cable into the VisuaLink connection labeled VIDEO IN 1.
- Connecting the camera control to the VisuaLink. (optional) With a 8 pin minidin to 8 pin minidin, plug one end into the D30 camera connection marked VISC IN. Plug the other end into the VisuaLink connection marked SERIAL 1.
- 8. **Connecting the camera power.** (optional) Plug the Camera AC Power to the AC Power Strip at the bottom of the cabinet.

9. **Connecting a PC to the VisuaLink for data sharing.** (optional) Using an 8-pin mini din to DB9 cable, plug the 8-pin end into the VisuaLink connection marked **SERIAL 2/RMT**. Plug the other end into the PC.

10. Connecting the VisuaLink AC Power.

Using the provided AC transformer power cable, plug the power cable into the VisuaLink connection marked **DC-IN-5V**. Plug the other end into the AC Power Strip.



An AC adapter has different output voltage and current depending on how it is used. Please use the power adapter that is shipped with your unit. Also, if incorrectly connected, it may damage the equipment.

Chapter 3 Startup Screen for the VisuaLink 128 and VisuaLink 384

When you first turn on your VisuaLink, there will be an initial configuration screen. These configuration screens will have to be completed before your system becomes operational.

3.1 Start up configuration screensThe following are the startup screens that will be active on first power up or activated on demand by the user after choosing the Environmental initialize.

Welcome Screen:

This is a welcome screen for the User.

VisuaLink	
Thank you for purchasing one of the most simple and portable video conferencing systems available.	
We will now show you how to set up your system. This will only have to be done once.	
NOTE: If remote controller doesn't work, make sure the switch setting of D30 camera IR out is ON. Switch is located on the bottom of the camera.	• Note is yellow
► Click here to continue	
Configure later	

Remote Controller Directions:

Gives some general directions for configure the VisuaLink system. Using the Remote controller highlight the NEXT option to advance to the configure screen or press the lower portion of the CAMERA CONTROL key to highlight the Configure Later to advance to the normal ICON screens. If you choose to configure later, the system will have to be programmed with My numbers and SPID's in order to work correctly.

Part 1- Remote Controller Location
 Locate the CAMERA control. The CAMERA control key is the BLUE round key. Use this key to move the Cursor
up/down and Left/Right in the Configuration Screens.
 Locate the ENTER key on the Wireless remote controller. Use the ENTER key to confirm selections and store information.
Next screen Prior screen

3.2 Setting Up your ISDN Line Information The following is a description of BRI Line setup

Part 2- Setting up Your ISDN Line	
Introduction:	
When ordering BRI service, you will usually get	
2 My numbers and 2 SPID numbers per BRI.	
A SPID normally consists of the user's 3 digit	
area code, 7 digit ISDN telephone number,	
followed by a 0101. Ex:	
MY Number 1: 9727195854	
SPID 1: 97271958540101	
Note: The VisuaLink 128 requires 2 My numbers and 2 SPID #, while the VisuaLink 384 requires 6 My numbers and 6 SPID #.	Mote is yellow
► Next screen	
Prior screen	

Video Number 1 Screen's

Using the number pad of the wireless remote enter My Number with area code and SPID numbers associated to Line (BRI 1). Each BRI will have My numbers labeled #1 and #2 and two SPID's. All four numbers must be entered. Choose NEXT when complete.

Note: "PROCEED TO STEP 2" will only be shown on the VisuaLink 128 system. VisuaLink 384 will show "Proceed to Line 2 Setup"

Step 1Enter My Number and SPID for BRI LINE 1				
My Number 1:				
▶[]			
SPID 1:				
[]			
My Number 2:				
[]			
SPID 2:				
[]			
Next screen				
Prior screen				
Press ENTER after cl	hoosing each item			

Step 1Enter My Number and SPID for BRI LINE 1
My Number 1:
[9727195854]
SPID 1:
[97271958540101]
My Number 2:
▶ [9727195855]
SPID 2:
[97271958550101]
Next screen
Prior screen
Press ENTER after choosing each item

Video Number 2 Screens:

Using the number pad of the wireless remote enter My Number with area code and SPID numbers associated to Line (BRI 2). Each BRI will have My numbers labeled #1 and #2 and two SPID's. All four numbers must be entered. Choose NEXT when complete.

Note: This screen will only appear on the VL 384 system.

```
Step 1--Enter My Number and SPID for BRI LINE 2
  My Number 1:
▶[
               ]
  SPID 1:
  [
                ]
  My Number 2:
  [
               ]
  SPID 2:
               ]
  Γ
  Next screen
  Prior screen
Press ENTER after choosing each item
```

Video Number 3 Screens:

Using the number pad of the wireless remote enter My Number with area code and SPID numbers associated to Line (BRI 3). Each BRI will have My numbers labeled #1 and #2 and two SPID's. All four numbers must be entered. Choose NEXT when complete.

Note: This screen will only appear on the VL 384 system.

Step 1Ente	er My Number and SPID for BRI LINE 3
My Num	ber 1:
▶[]
SPID 1:	
[]
My Num	ber 2:
[]
SPID 2:	
[]
Next scre	en
Prior scre	en
Press ENT	ER after choosing each item

3.3 Optional User The following is a description for Optional Setting screen. **Settings:**

Part 3 - Optional User Settings			
Introduction:			
Site Name: Name identification for your location. Name is displayed on far-end monitor when site is viewed.			
Password: Required to gain access to the VisuaLink configuration screens.			
Time display: Sets the internal clock for the VisuaLink.			
 Next screen Prior screen 			

Optional information:

You may enter this optional information. The name you enter makes it easy for users to identify this particular VisuaLink. The name can be up to 20 characters long. The Password is the password needed to be entered when selecting the Utilities ICON. After entering the optional information select the NEXT to advance to the next screen.

```
Step 1- Optional User Settings

Your Site Name

[ ]

Password [ ]

Time Setting

[12/1/1998 10:50]

Time Display: <Time only>

Auto Power Save: <OFF>

Next screen

Prior screen

Press ENTER after choosing each item
```

Application Screen's

Using the number pad on the wireless remote controller select the application which the VisuaLink is installed. Your answer to this question will automatically configure the internal parameters for the following:

Item	Rollabout/Other	Data Conference	Gateway	Desktop
Serial Port 1	Camera EVI-D30	T.120	Camera	Camera
Serial Port 2	Console	Console	Console	Console
Audio Mode	G.722	G.728	G.722	G.722
MLP	4.0	24.0	4.0	4.0
Answer Mode	Auto	Auto	Auto	Manual
LSD	1.2	Off	1.2	1.2
Ext. Remote	Auto	Off	Off	Off
H.263	Off	Off	Off	Off
Lip Sync	On	On	On	On

Step 2—Optional User Settings Key in the number of one of the following applications: **Applications:** 1. Rollabout/Other 2. Data Conference 3. Gateway 4. Desktop

Press CANCEL to page back

Congratulations Screen

Congratulations, you have just finished setting up your VisuaLink system.

For VisuaLink software updates and general VisuaLink knowledge, visit the NEC Knowledge base web site at : http://www.cng.nec.com or http://www.ilibrary.com/phoenix/ntachome.nsf /homepagenav?opennavigator

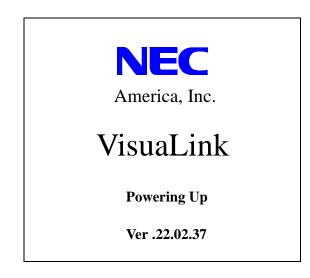
- You may begin to use the video conferencing system immediately.
- Press ENTER to activate your configuration.

Press CANCEL to page back

The VisuaLink is now setup for the configuration you have entered. Press the ENTER button on the REMOTE CONTROLLER, the VisuaLink will display a blue screen and recycle. The VisuaLink should will power up to a normal state. You may begin to use the video conferencing system immediately.

Note: If there are no My Numbers entered in the configuration the VisuaLink will display the Start Up screens.

VisuaLink system start up screen.



Changing the configuration

It is important that the CODEC is set up with a local number and SPID numbers. If the unit is not setup with a local number (my number) and SPID, the unit will not allow for dialing and receiving of video calls. If you have entered these numbers in the Start Up configuration, you may ignore this section. If the VisuaLink environment has changed, such as the phone number have changed, you must reconfigure the numbers in the VisuaLink.

Chapter 4 Rollabout 128/384 Procedures

- 4.1 Rollabout System
ConnectionsUse the following procedures to set up the VisuaLink 128 or VisuaLink 384. See
Appendix A for system drawings for the VisuaLink 128. See Appendix B for the
system drawings for the VisuaLink 384.
 - *Note:* This guide provides connection diagrams for manufacturer-specific components. If your system contains components from other manufacturers, please consult their documentation.

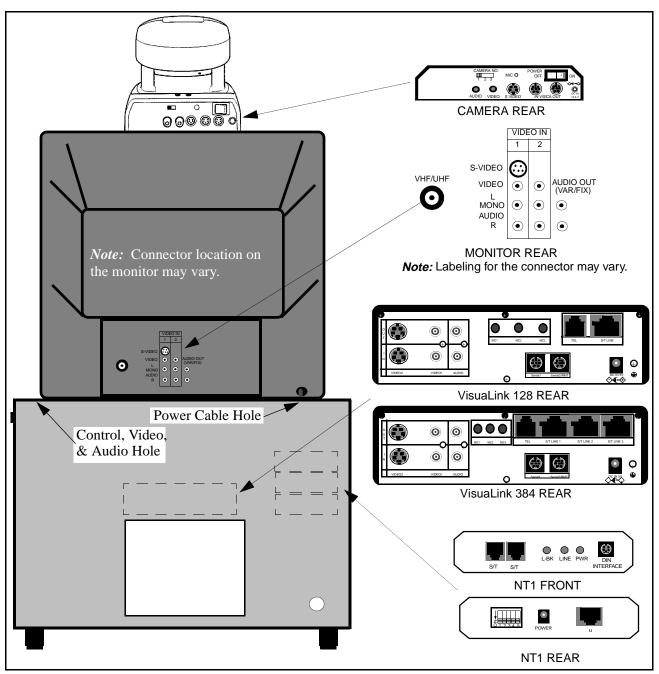
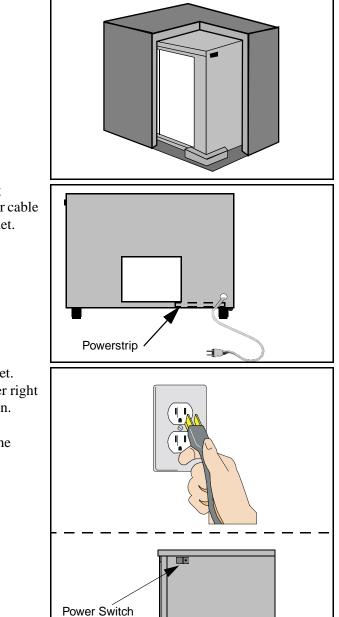


Figure 4-1: Equipment Placement

- **4.2 Step-by-Step**
ProcedureThe following are the steps and procedures for the installation of the VisuaLink
128/384.
- STEP ACTION
 - 1. Locate and unpack the Cabinet box.

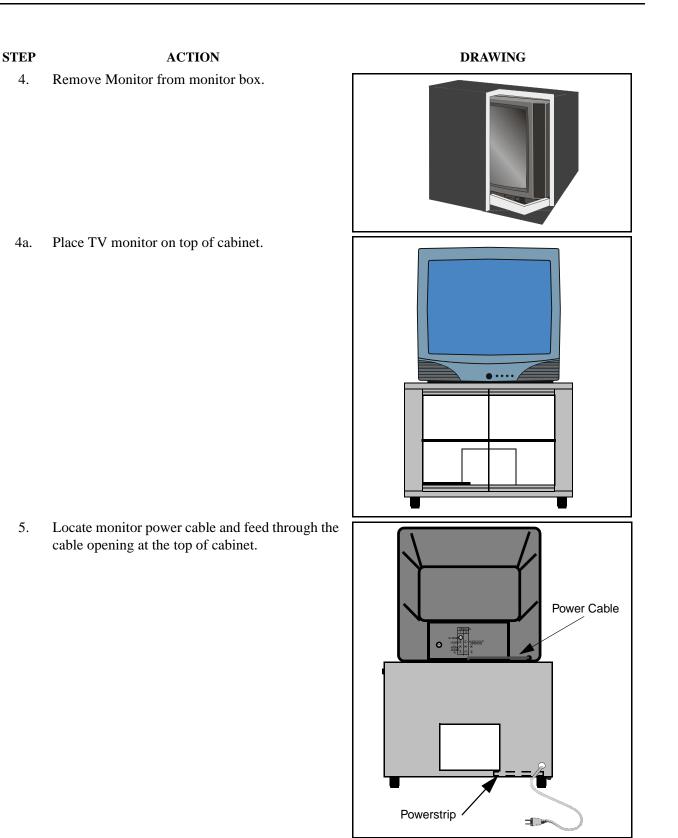




2. Locate Power Strip at bottom-left (looking through the front) of cabinet and feed power cable through the power opening at rear of cabinet.

- 3. Plug power strip power cable into AC outlet. Make sure the ON/OFF switch on the upper right outside of the cabinet is in the OFF position.
 - *Note:* The power switch will be lit when the power strip is in the ON position.

I

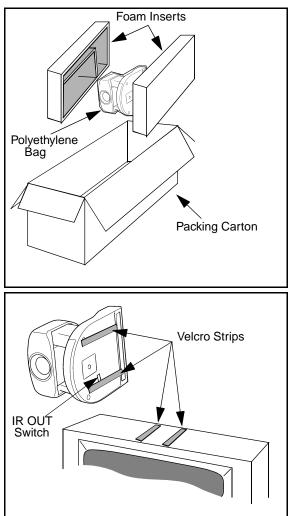


6. From inside the cabinet, plug the monitor power cable into power strip.

STEP ACTION

- 7. Locate the cable bundle and remove from packing box. The cable bundle contains two (2) 5 in. (12 cm.) Velcro strips. Use these strips to mount the camera to the top of the monitor.
- 8. Locate the camera box and remove camera.

DRAWING



9. Set the IR switch on the Sony D30 camera to the ON position. The IR switch is located on the bottom of the Sony D30 camera. This will allow for the Sony Camera to receive the IR codes from the VisuaLink remote controller and transmit them to the VisuaLink Codec for control.

Mount the camera on the top of monitor, using the Velcro strips. Make sure the front of the camera is flush with the front of the monitor and the camera is centered.

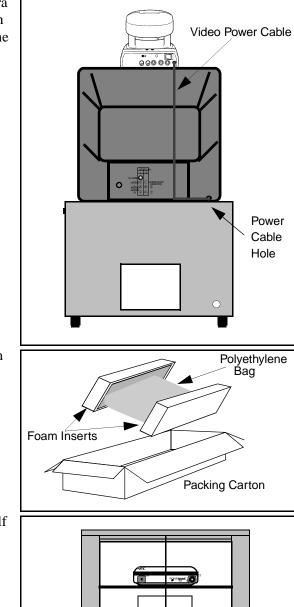
STEP

ACTION

10. Locate the camera power cable. Plug the camera power cable into the power strip in cabinet, then feed cable through top of cabinet and plug into the rear of the camera.

11. Locate the VisuaLink 128/384 and remove from packing box.

12. Place the VisuaLink 128/384 on the second shelf of the cabinet.

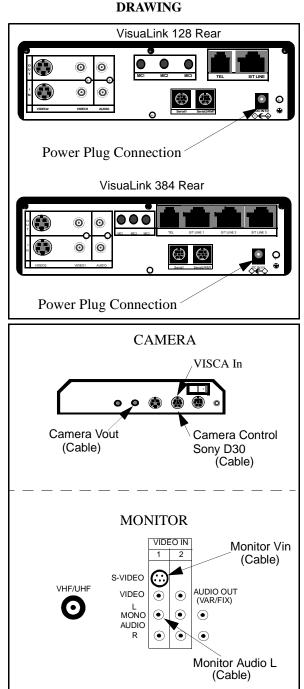


DRAWING

STEP

13. Locate the VisuaLink 128/384 power cable. Plug cable into power strip at bottom of cabinet and feed cable through cable slot in rear of second shelf. Plug second end of power cable into power input at rear of the VisuaLink 128/384.

ACTION



- 14. The cable bundle is labeled at the ends of the various connectors. Plug these connectors into the appropriate devices (camera/monitor) and feed down through opening at top of cabinet. See Figure 2-1.
 - *Note:* Connector layout could vary by manufacturer. Please consult your equipment documentation if connector layout is different.

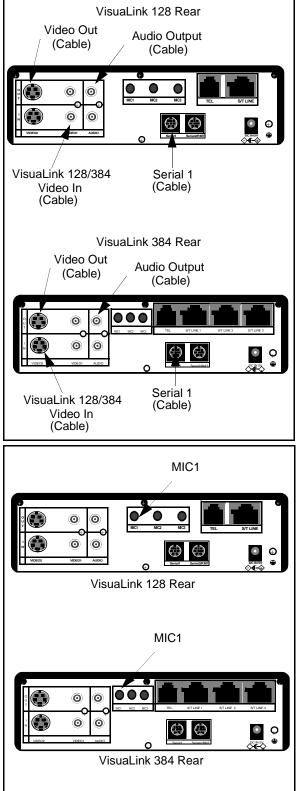
STEP

ACTION

15. Inside the cabinet, connect the other ends of the cable bundle to the VisuaLink 128/384. See Figure 2-1.

Locate and unpack the microphone and connect 16. the 3.5 inch plug into the VisuaLink connection marked "MIC1". String the MIC cable out of the rear of the cabinet. Connect the other end of the cable into the Microphone and place on table.

Video Out (Cable)



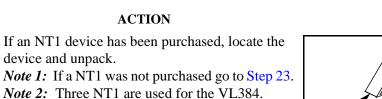
DRAWING

Polyethylene

Вад

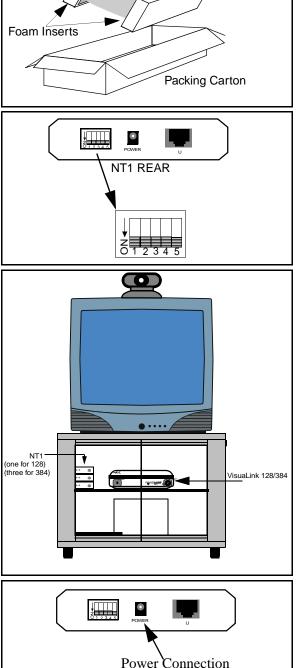
DRAWING

Page 4-8



18. Locate the dip switch on the rear of the NT1 and set all to the ON position.

- 19. Place the NT1 or the three NT1s on the second shelf, to the right of the VisuaLink 128/384.
- NT1 (one for 128) (three for 384)
- 20. Locate the NT1 power cable. Plug cable into power strip at bottom of cabinet and feed cable through cable slot in rear of second shelf. Plug second end of power cable into power input at rear of the NT1.



STEP

17.

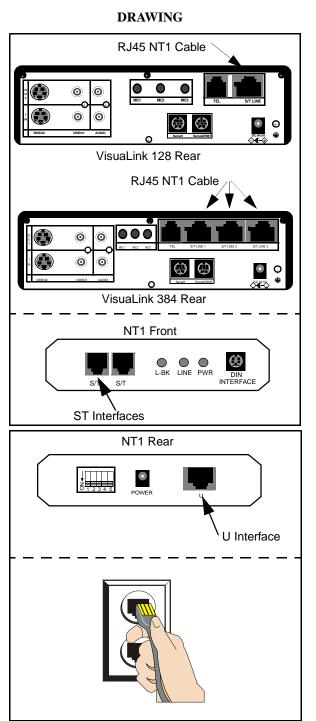
STEP

21. Locate the network cable (RJ45-RJ45) and connect one end to the S/T line port of the VisuaLink 128/384. Connect the other end of the network cable into the S/T interface of the NT1.

Note: Use the RJ45-RJ45 cable that is included with the NT1 unit.

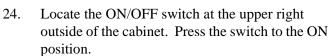
ACTION

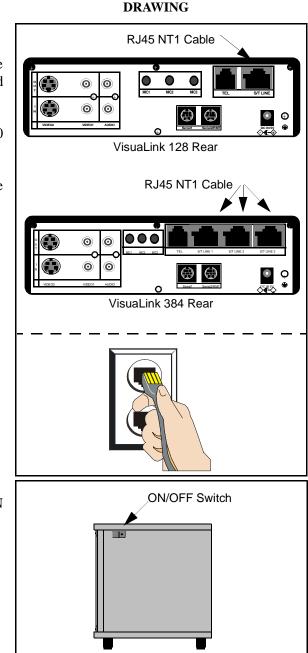
- 22. Connect the network cable from the U interface on the NT1 to the network jack provided on the room wall. Proceed to Step 24.
 - *Note 1:* Use the RJ45-RJ45 cable that is included with the NT1 unit.
 - *Note 2:* If connecting a VisuaLink 384, Step 21 will have to be repeated three (3) time.



STEP ACTION

- 23. Locate the network cable (RJ45-RJ45) and connect one end to the S/T line port of the VisuaLink 128/384. Connect the other end of the network cable into the network interface provided in the room wall.
 - *Note 1:* If the NT1 or network switch resides 300 ft. (91 m.) or more away from the VisuaLink 128/384, it is recommended that the TERM switch is set to ON on the VL128.
 - *Note 2:* In the case a VL384 is being installed, remove the network interface card from the system and set the required straps.
 - *Note 3:* f the VL 384 is being installed, Step 23 must be repeated three (3) times.





STEP

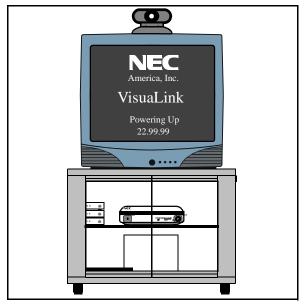
25. Verify that all the equipment plugged into the power strip are turned to the **ON** position. The VisuaLink 128/384, camera and monitor have their own power switches. If a device appears to be still in the **OFF** position, check the power connection from the Power Strip to the device. The NT1 does not have a power switch. The green LED on the front of the NT1 is an indication the unit is powered **ON**.

ACTION

Note: Make sure the monitor is selected for Video 1.

26. When the VisuaLink 128/384 is powered **ON**, a display of the NEC America, Inc. logo, VisuaLink name, **POWERING UP** and version number will be displayed on the monitor.

DRAWING

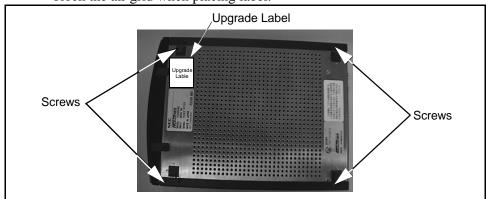


Chapter 5 Upgrading a VL 128 to a 384

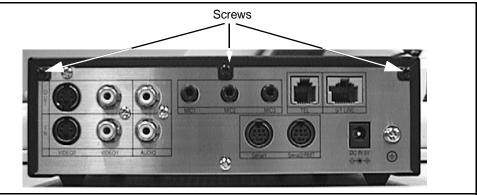
	This chapter contains instructions for upgrading your VisuaLink 128 system to a VisuaLink 384. If you have any questions about the upgrade, please call your video conference provider.		
5.1 Upgrade Instructions	To upgrade your system, purchase the 384 upgrade kit (Stock # 0291421) from video conference provider and follow the easy step-by-step instructions mentioned below. When upgrading a system you must start with the Hardware Procedure and finish up with Environmental Initialize.		
5.2 Apparatus	384 Upgrade kit (Stock # 0291421) Phillips Screw Driver (needed) Grounding Strap (needed)		
	<i>Note:</i> The speed setting should be set to 2B (128 kbps). This will make sure the upgrade is completed in a matter minutes instead of hours. When the upgrade is complete, power OFF your system and continue on to the hardware Upgrade Procedure.		
5.3 Hardware Upgrade Procedure	CAUTION All video cards are sensitive to electrostatic discharge. Slight discharges from clothing or even from the normal work environment can adversely affect these cards. By following these simple guidelines, however, you can minimize the chance of damaging your video cards.		
	Handle cards only by the non-conducting edges.Do not touch the card components or any other metal parts.		
	• Do not toten the card components of any other metal parts.		
	• Wear a grounding strap while handling the cards (if in a high static area).		
	 Wear a grounding strap while handling the cards (if in a high static area). Ensure that the workstation is powered OFF before installing any components. 		
	• Ensure that the workstation is powered OFF before installing any		

3. Strap on the Grounding Strap.

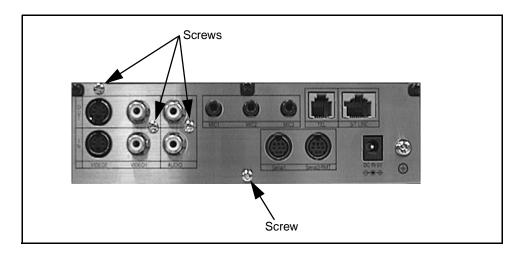
- 4. Using a Phillips screwdriver, remove the four (4) screws that attach the cover panel to the housing of the VL 128. The four screws are located on the bottom of the VL 128.
- *Note:* While in this position, place the Upgrade Label supplied with the Upgrade Kit at the position shown in the illustration below. The label shows the VisuaLink 128 has been upgraded to a VisuaLink 384. Do not block the air grid when placing label.



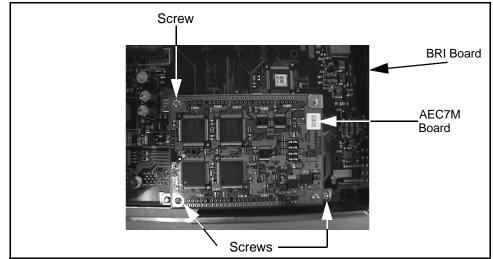
5. Using a Phillips screwdriver, remove the three (3) screws that attach the cover panel to the housing of the VL 128. The four screws are located on the rear of the VL 128.



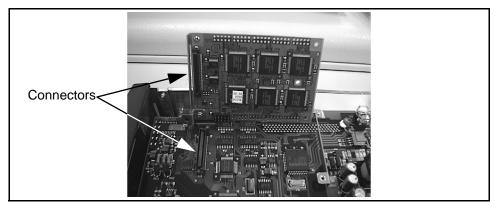
6. Slid the cover towards the rear of the chassis, to remove. Using a Phillips screwdriver remove the four (4) screws from the rear panel.



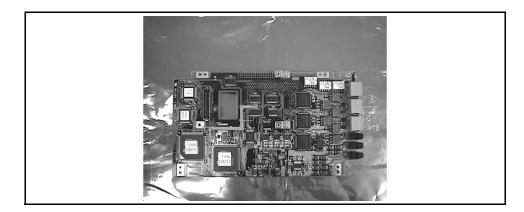
- 7. Remove the rear panel from the VisuaLink housing.
- 8. Locate the AEC7M card. With a Phillips screwdriver remove three (3) screws which attach the AEC7M card to the BRI interface.
- *Note:* Two (2) of the three (3) screws are on the AEC7M. One (1) screw is on the BRI board.



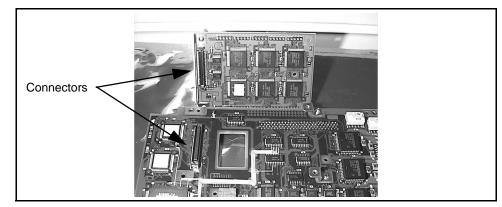
9. As the AEC7M and the BRI interface are connected at the front center of each panel, pull the connectors apart, being careful not to break either unit.



10.Locate the 384 IMUX card. Unpack the 384 IMUX card from the packaging and place the card on a non-static bag.



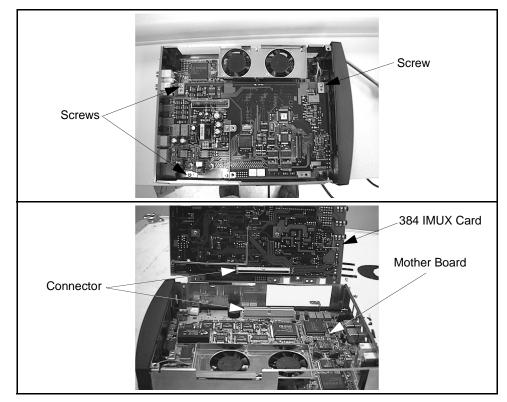
- Supports
- 12.Put the AEC7M and the 384 IMUX card connectors together and tightly connect both as shown. Fasten the AEC7M card to the 384 IMUX card with the three (3) screws.



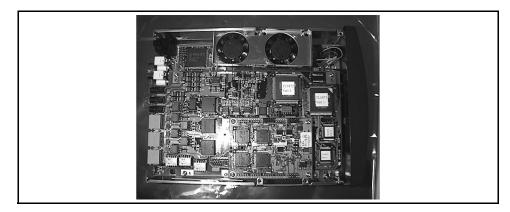
13. Place the 384IMUX card on the non-static bag or surface.

11. Confirm that there are two supports on the 384 IMUX card at the locations.

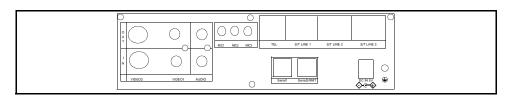
- 14. Using the Phillips screwdriver, remove the three (3) screws that attach the BRI interface to the mother board. Remove the BRI interface card from the motherboard and replace with the 384 IMUX card. Place the BRI interface card on the non-static bag or surface.
- *Note:* The BRI interface and the motherboard are connected on the right side of each card, pull the connectors apart, being careful not to break either unit.



15. Fasten the 384 IMUX card to the motherboard.



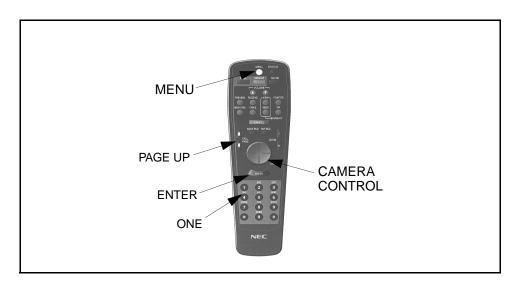
16.Locate the 384 rear panel.



- 17. Using a Phillips screwdriver fasten the 384 rear panel to the housing of the VL.
- 18. Locate the VL cover panel and fasten back onto the VL.
- 19. Connect all cables which where previously connected to the VL.
- 20. The Hardware Installation is complete, continue on to the last step Environmental Initialize.

5.4 Environmental Initialize

- 1. Press the **MENU** button on the wireless remote controller (See diagram below).
 - 2. Using the wireless remote controller select the On-Screen icon labeled **SETTING ENVIRONMENTS**.
 - 3. Press the ENTER button.
 - 4. Enter the **PASSWORD** and press the **ENTER** button on the wireless controller.
 - 5. Using the wireless remote controller **MOVE** button select the ON-Screen icon labeled **MAINTENANCE**.
 - 6. Press the **ENTER** button
 - 7. Locate the **PAGE UP** button on the wireless remote controller. Press the **ONE** button.
 - 8. Using the wireless remote controller **CAMERA CONTROL** button select the environmental initialize.
 - 9. When the environmental initialize is complete, the system asks you to restart the system.
 - 10. Restart the system.



Chapter 6 VL128/384 Desktop Videoconference

6.1 General Description	video, audio and data t	o a remote location	imedia conference for transmitting with the use of BRI Networks. The sed in a desktop videoconference
6.2 System Requirements	This section describes the VL128/384 Workst		ecommended system requirements for
	Workstation (Which	are not video enab	led)
	The following are the rused for a desktop vide		ions for a workstation PC which will be
	•		ystem with PCI Locus Bus
	• Expansion Slot- 32	bit PCI Local Bus	
	Operating System-	Windows 95	
	Video Monitor capa	able of VGA (640 X	(480) resolution or greater
	 Slot available for V composite or S-Vid 	•	ith the ability to display NTSC
	• Sound Card with a	RCA or mini phone	adapter input
	Workstations (Which	are video enabled	
	Require the following:		
			display NTSC composite or S-Video
	 Sound Card Audio with a RCA or Mini Phono adapter input. 		
	• Sound Card is not needed if amplified Speakers are provided.		
	Additional Hardware	-	
		-	
	desktop videoconferen		ng components are necessary for a
	Items	VisuaLink 128	<u>VisuaLink 384</u>
	VL128	1	N/A
	VL384	N/A	1
	NT-1*	1	1(up to 3)
	Microphones	1(up to 3)	1(up to 3)
	Video Camera	1(up to 2)	1(up to 2)
	Video Capture Card**	1	1

Director Software***

* When BRI network terminates directly into the VisuaLink (Bypass the PBX) an NT-1 is required.

1

** If the workstation is currently not equipped with a Video Capture Card, one is needed.

1

*** The workstation must be installed with MS Windows in order for the Director software to work correctly.

6.3 Wiring Diagram This chapter provides general identification, installation, shipping and receiving for the VisuaLink 128/384 Desktop Videoconference Application. The system consists of three major components, the equipment such as the Video Capture card, the VisuaLink 128/384 with remote control, microphone and Camera.

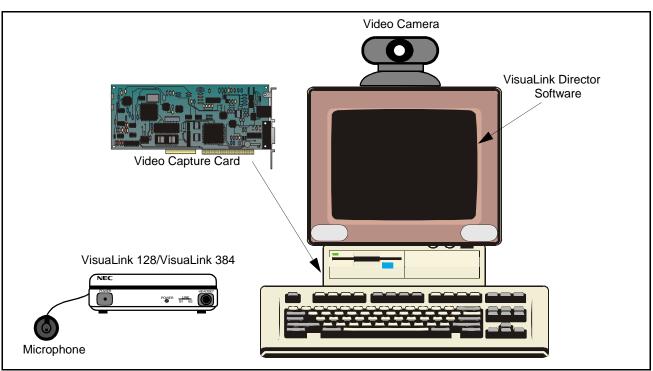


Figure 6-1: VisuaLink 128/384 Desktop Videoconference Application - Front View

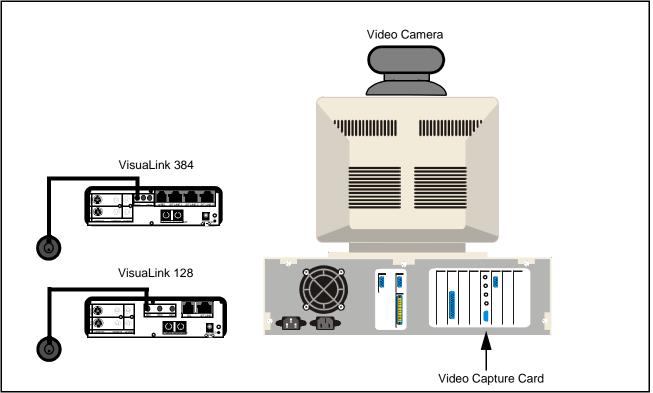


Figure 6-2: VisuaLink128/384 Desktop Videoconference Application - Rear View

6.4 Packaging

System Package

The Desktop VL 128/384 application is shipped in a minimum of four (4) separate boxes. The Video capture card is enclosed in electrostatic box to protect it from damage. The fixed or Controllable Camera (which ever was ordered), NT1, and Microphone are enclosed in their own Styrofoam box. The VisuaLink 128 unit and remote controller are wrapped in their own electrostatic box.

6.5 Unpacking and Handling Follow the procedures shown in Desktop installation procedures. Do not unpack items until they are required for use.

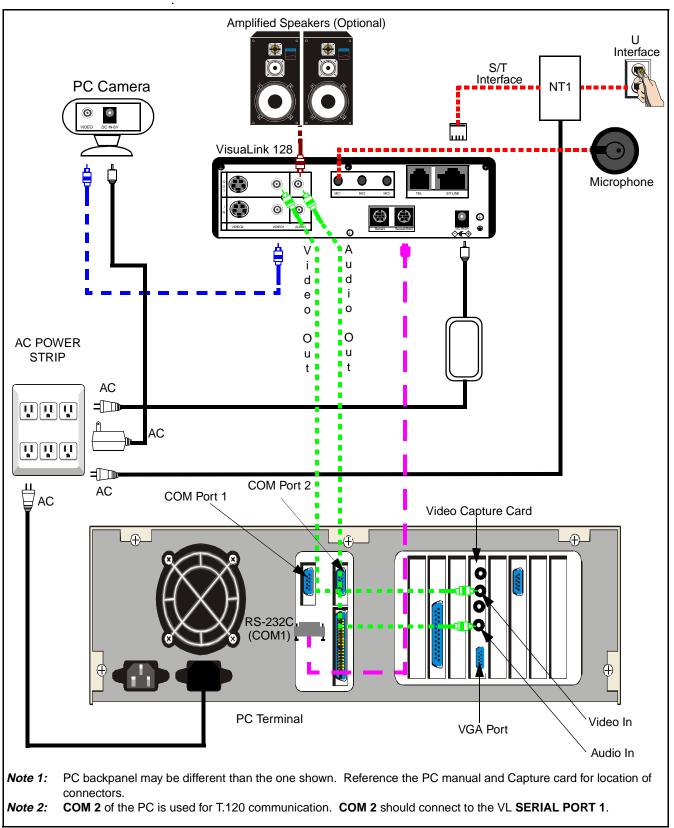


Figure 6-3: Wiring Diagram for VisuaLink 128

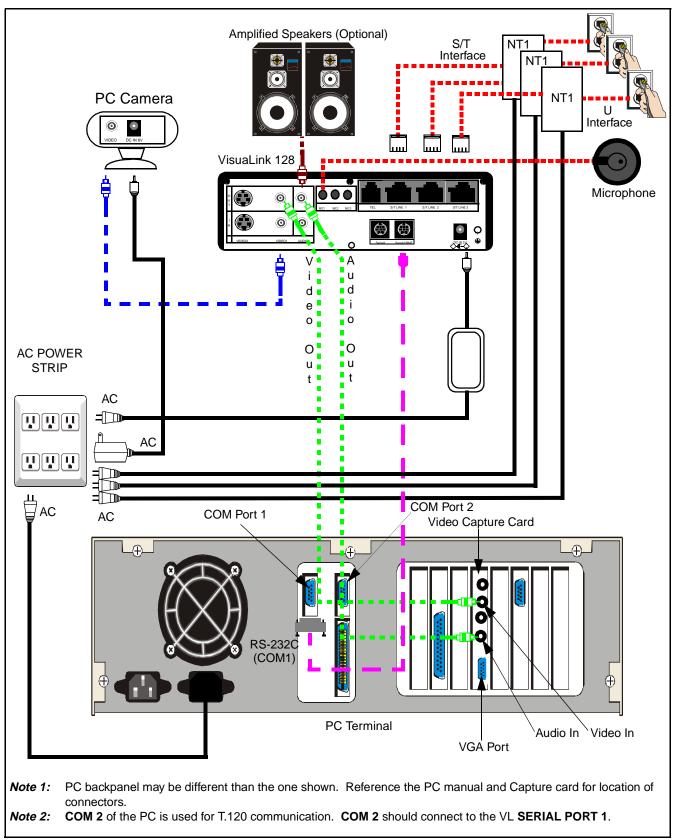


Figure 6-4: Wiring Diagram for VisuaLink 384

	Hardware Installation	This procedure provides instruction on how to connect a VL128/384 to a Computer.		
		 Locate unpack and install Video Capture Card Please follow Manufactures Installation procedure for Video Capture Card. 		
		 Locate and unpack VL128/384, Power Supply Transformer, Power Cord Audio/Video Cable (RCA to RCA) and Wireless Remote Control 		
		 Place the VL128/384 next to the PC. The VL128/384 must not be installed on its side. It must lay flat. 		
		 Take the VL128/384 Power Cord and insert two-prong plug into WALL OUTLET and the other end into the VL POWER SUPPLY TRANSFORMER. 		
		5. Take the Power Supply Transformer and plug into DC IN 5V port on the back of VL128/384.		
		6. On the backside of the VL128/384 locate the connector labeled VIDEO OUT1 and AUDIO OUT . See Figure 6-3 and Figure 6-4.		
		 Using the Audio/Video cable which was included with the VL128/384 system, plug the yellow (RCA) connector into the VIDEO OUT1 and plug the white (RCA) connector into the AUDIO OUT. See Figure 6-3 and Figure 6-4. 		
		8. On the PC side, locate other end of the audio/video cable and connect the yellow jack into VIDEO IN of the Video capture card. Then connect the white jack into the LINE IN of your Sound Card, this connection may require the addition of a RCA to 3.5 mm mini phono adapter (included).		
		 If using external speakers, be sure to connect to the SPEAKER OUT of your sound card or line out of your sound card if using amplified speakers). If the workstation does not have a sound card, connect the speakers directly into the VL128/384. 		
		 Locate and unpack the Audio Technica AT841/INT Microphone. Insert the 3.5 mm mini phono plug into the VL MICROPHONE INPUT 1 (MIC1) which is located on the back of the VL128/384. 		
		 Locate and unpack the PC Camera IK-M28, power Transformer and the single RCA to RCA video cable. 		
		12. Place the PC Camera next to or on top of the PC, plug the power transformer into the WALL OUTLET and the other end into DC IN 6V port on the back of the camera.		
		13. On the Camera side, insert one end of the video cable into the VIDEO OUT port of the camera.		
		14. On the VL128/384 side insert the other end of the video cable into the VIDEO- IN port of the VL128/384.		
		15. Press the POWER SWITCH on the front of the VL128/384 to turn on.		
		16. If BRI Network terminates through the PBX, proceed to Step 24. If the BRI Network terminates directly to the workstation proceed to Step 18.		
		17. Locate and unpack NT-1, Power Transformer and Network Cable.		

- 18. Plug Power Transformer into wall outlet, Plug other end of Power Transformer into the **POWER PORT** of the NT-1 Device.
- 19. Take your Network Cable and plug one end into your provided **BRI NETWORK JACK** (Wall) and plug the other end into the port marked U on the NT-1 Device.
- 20. Take Network Cable (included with your VL128/384) and plug one end into the **S/T LINE** port (either one) located on the NT-1 device.
- 21. Take the other end of VL provided Network Cable and insert it into **S/T LINE** port located at the back of the VL128/384.
- 22. If installing a VL384 (Bypassing the PBX) then 3 NT-1 devices will be needed. Steps 17 through 21 will need to be repeated.
- 23. Locate the Network Cable (RJ45-RJ45) and connect one end to the **S/T LINE** port of the VL128/384. Connect the other end of the Network cable into the **NETWORK INTERFACE** provided in the room. Proceed to Step 25.

Note: This step must be repeated 3 times if installing a VL384.

- 24. Connect the ST/LINE interface of the VL 128/384 into the WALL JACK.
- 25. Setup is complete.

Currently there are two ways to control and operate the VL 128/384. The first type of control is using the wireless remote control unit. No matter which control method is finally chosen, it is recommended that the wireless controller be used to setup the VL. Proceed to the start up configuration procedure and return to this section when completed.

The second type of control is through the PC. It is necessary to download the director software from the Web (http://www.cng.nec.com). The Director software will allow the VL to be controlled via the PC.

Appendix A System Setup for the VisuaLink 128

The following drawings show the components and cabling for setting up the VisuaLink 128.

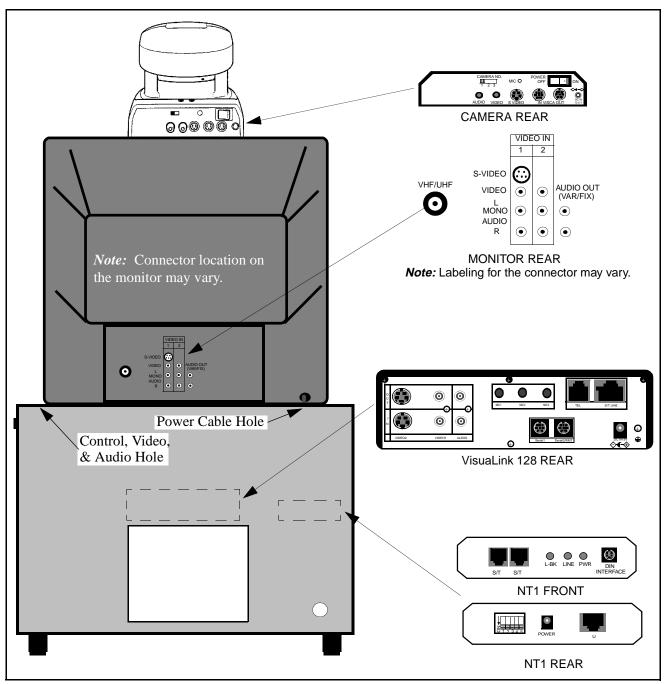


Figure A: Set up for VisuaLink 128 (1 of 2)

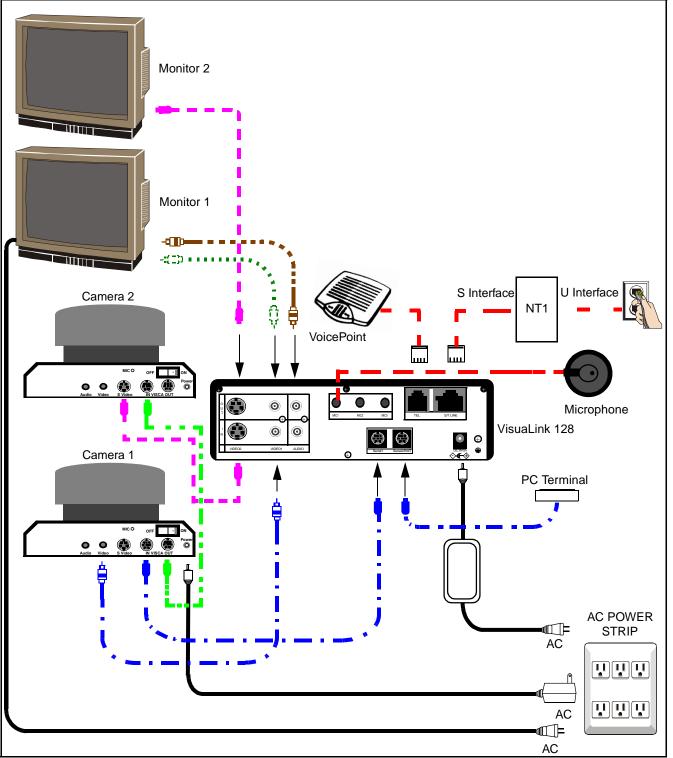


Figure A: Set up for VisuaLink 128 (2 of 2)

Appendix B System Setup for the VisuaLink 384

The following drawings show the components and cabling for setting up the VisuaLink 384.

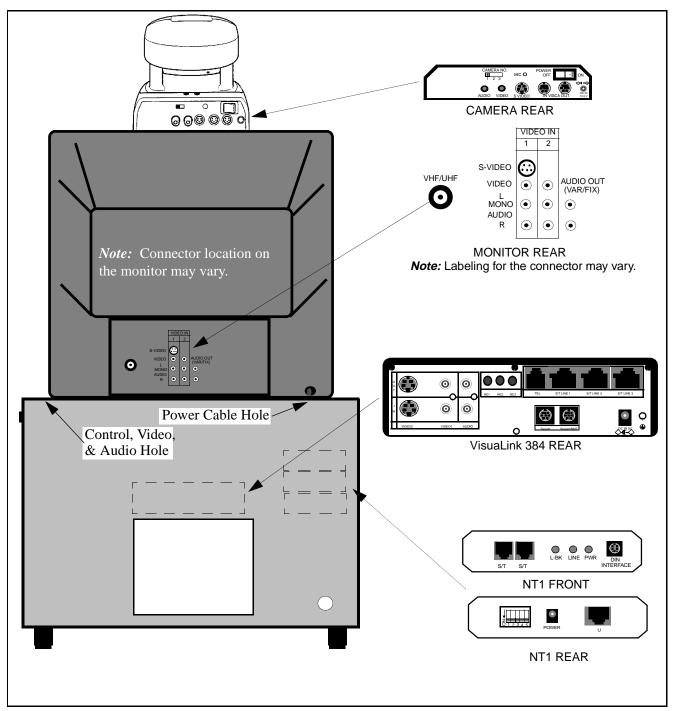


Figure B: Set up for VisuaLink 384 (1 of 2)

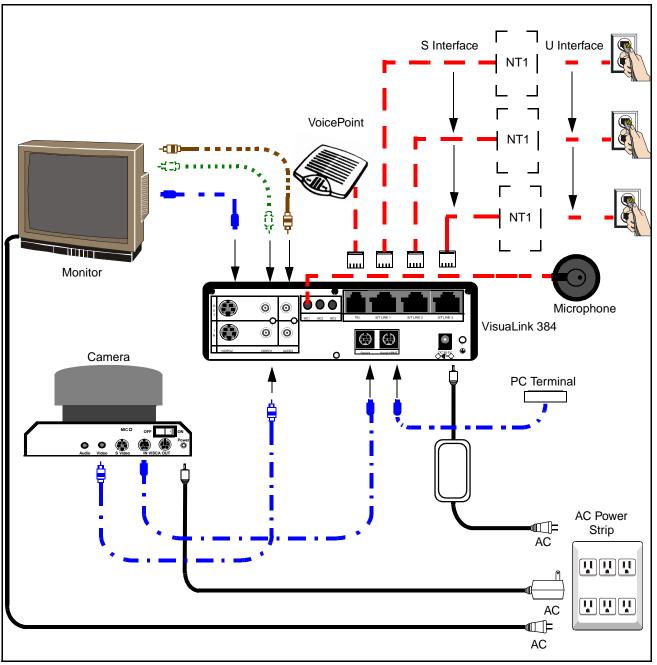


Figure B: Set up for VisuaLink 384 (2 of 2)