

Nortel Networks NetVenue Replacing parts

Issue: 01.01

Standard

Date: September 1999



Standard

NORTEL
NETWORKS™

NetVenue

Replacing parts

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This is the first Standard release of the Nortel Networks NetVenue replacing parts.

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1 Introduction

This guide explains the replacement procedures for all replaceable components in the NetVenue terminal.

How this guide is organized

Chapter 1:Introduction provides a list of replaceable components, along with estimated repair times, and tools required for each procedure.

Chapter 2:Front assembly components provides instructions on replacing components located in the front assembly.

Chapter 3:Rear assembly components provides instructions on replacing components located in the rear assembly.

Glossary provides the definitions of terms and acronyms.

Index provides a cross-reference guide.

Replaceable components

Table 1-1 gives a brief overview of all the replaceable components.

1-2 Introduction

The repair time given is an estimate. Technicians who are unfamiliar with the terminal may take longer than the estimate. More experienced technicians may be quicker.

In addition to the tools listed below, you need a terminal key and T-tool for each procedure

Table 1-1: Replaceable components

Component	Location	Repair time	Tools required
printer	bottom of front assembly	0:10	Phillips screwdriver
touchscreen/LCD assembly	top of front assembly	0:10	Phillips screwdriver
keyboard bezel (upper)	bottom of front assembly, behind printer	0:15	long (10 inches or more) Phillips screwdriver
keyboard bezel (lower)	bottom of front assembly, behind printer	0:25	long (10 inches or more) Phillips screwdriver
audio PCP assembly	top of front assembly	0:10	Phillips screwdriver
ID bezel	top of front assembly	0:05	Phillips screwdriver
card reader with bezel	middle of front assembly	0:10	Phillips screwdriver
card reader bezel	middle of front assembly	0:10	Phillips screwdriver
lock	top of front assembly	0:05	Phillips screwdriver
control PCP	bottom of front assembly	0:10	Phillips screwdriver
telephony PCP	bottom of front assembly	0:10	Phillips screwdriver
translation PCP	bottom of front assembly	0:30	Phillips screwdriver
handset	top of front assembly	0:05	Phillips screwdriver

Component	Location	Repair time	Tools required
front cable harness	front assembly	0:30	
hinge front	base of front assembly	0:45	Two people required Phillips screwdriver
rear telephony board	top of rear housing	0:10	small Phillips screwdriver
hard drive	top of rear assembly	0:10	Phillips screwdriver
computer assembly	top of rear assembly	0:45	Phillips screwdriver
main power supply	top of rear assembly	0:45	Phillips screwdriver
printer power supply	bottom of rear assembly	0:10	Phillips screwdriver Gloves
rear cable harness	rear assembly	0:30	
IAS module	top of rear assembly	0:05	Phillips screwdriver
struts	middle of front assembly to middle of rear assembly	0:10	Phillips screwdriver knife or flat screwdriver
router	top of rear assembly	0:05	Phillips screwdriver
Rear locking bar assembly	top of rear assembly	0:05	Ratchet or wrench
hinge rear	base of rear assembly	0:45	requires two people Phillips screwdriver

Tools needed

The following table lists the tools needed for making repairs to a NetVenue terminal.

Tool	Function
Voltmeter	Test voltage of supplementary power supply
ESD wrist strap	Protect electronic components from electrostatic (ESD) damage
Router software	Test ISDN and program router
Butt end test set	Test the CO line to the terminal and use during fault resolution procedures
Cleaning Card (PO713140 - dry type)	Clean card reader
Cable plug crimper	Add RJ11 or RJ45 connectors to required cables
Crescent wrench	Miscellaneous functions
Small slot-head screwdriver	Miscellaneous functions
#1 Type 1A cross-recess screwdriver	Miscellaneous functions
Valid credit card/smart card	Test card readers
External CD-ROM unit	The external CD-ROM unit can be plugged into the terminal motherboard for software installation, upgrading, and maintenance.
Bootable CD with software	Re-install terminal software in case of hard-drive failure, etc.
Customer content CD	For placing large image files, movie files, and sound files on the terminal.

Tool	Function
IDE cable	For connecting the CD-ROM to the mainboard. One end must be able to plug into the portable CD-ROM unit, while the other end connects to the secondary IDE channel.
Paper roll	Replacing the receipt printer paper
Gloves	Handling the hot printer power supply
PC compatible portable computer	Configuring the router

Before replacing

Before replacing components within the terminal, you must first open the terminal.

Opening the terminal

To access the interior of the terminal, you need to use both the key and a locking tool, either an L- or T-tool.

1. Put the key in the lock on the upper terminal housing.
2. Turn the key clockwise to unlock the lock.
3. Release the housing mechanism.
Insert the T- or L-tool into the hole on the top of the terminal, and rotate the tool clockwise until it cannot be turned further.
4. Remove the handset from its cradle and let it hang by the cord.
5. Grasp the front housing assembly firmly by both sides and tip it forward until it clears the rear housing.
Allow the front housing to hang.

1-6 Introduction

In the fully opened position, the weight of the front housing is supported by the link assembly, which is a removable tie-rod attached to the front and rear housing.

6. Attach your ESD strap to a connection point inside the terminal. This can be any metal, non-painted surface.
7. Disconnect the power harness from the its outlet to power-down the terminal.

2 Front assembly

This chapter explains how to replace components on the front assembly. Before replacing parts, open the terminal, as explained on 1-5. Be sure that you have connected your ESD connection strap.

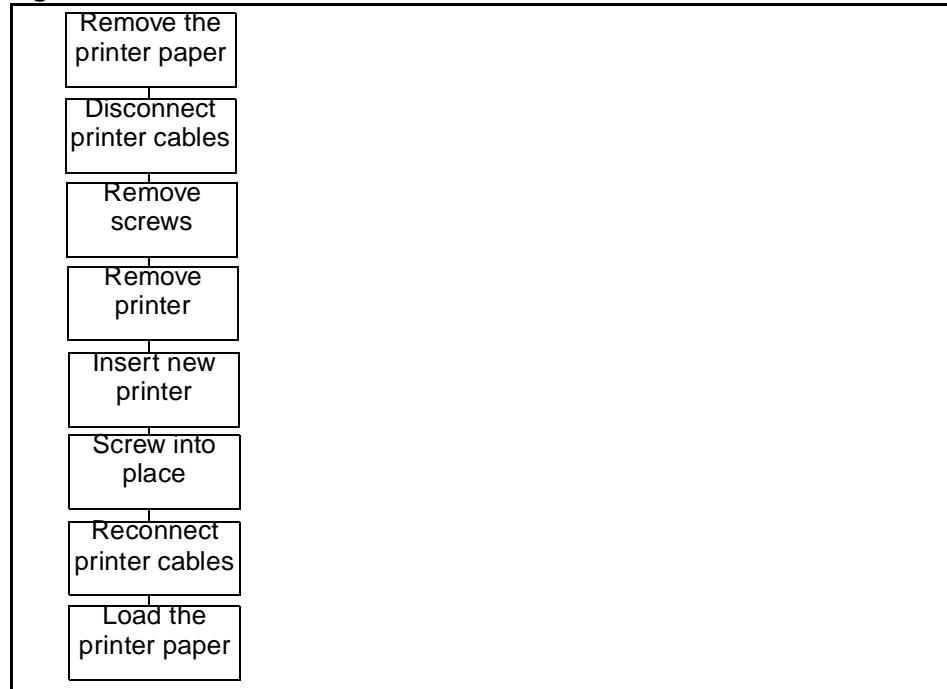
Printer

The printer is located towards the bottom of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all the necessary tools.

Figure 2-1 gives an overview of the procedure.

2-2 Front assembly

Figure 2-1: Printer flowchart



Tools required

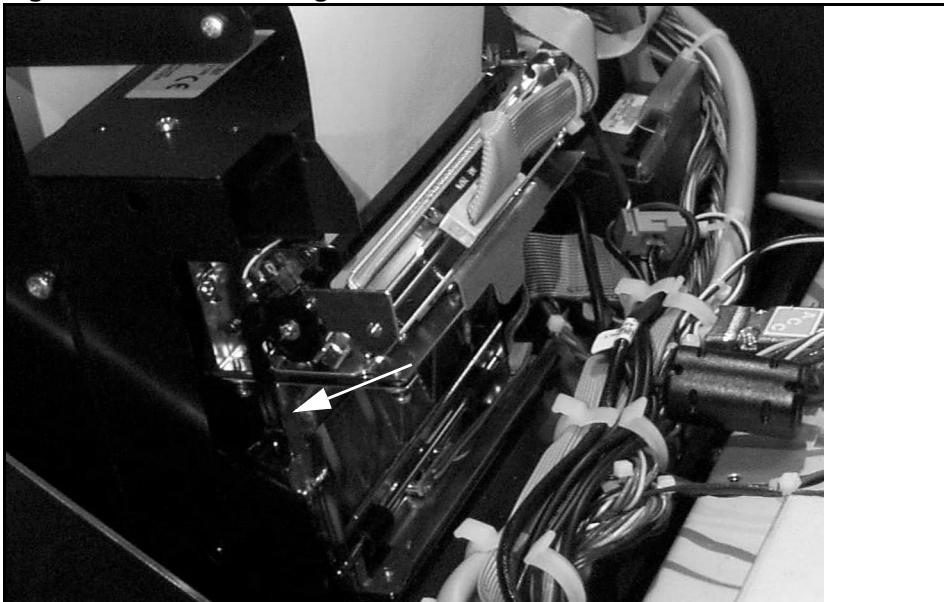
- #1 Type 1A cross-recess screwdriver such as a Phillips

Procedure

The following steps describe the process for replacing the rear assembly:

1. Switch the latch on the front of the printer carriage to the down position (clockwise). Figure 2-2 shows the location of the printer carriage latch.

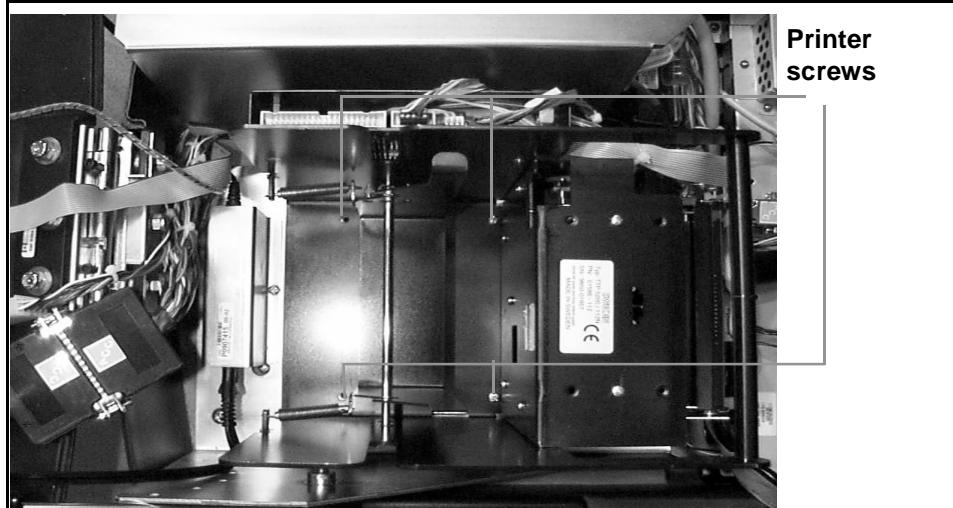
Figure 2-2: Printer carriage latch



2. Pull the printer paper holder forward, and lift up the roll of paper.
3. Disconnect the cables labelled **printer PC** and **printer**, running into the printer control board. Refer to Figure 2-3 for the location of these cables.

2-4 Front assembly

Figure 2-3: Printer cables and screw locations



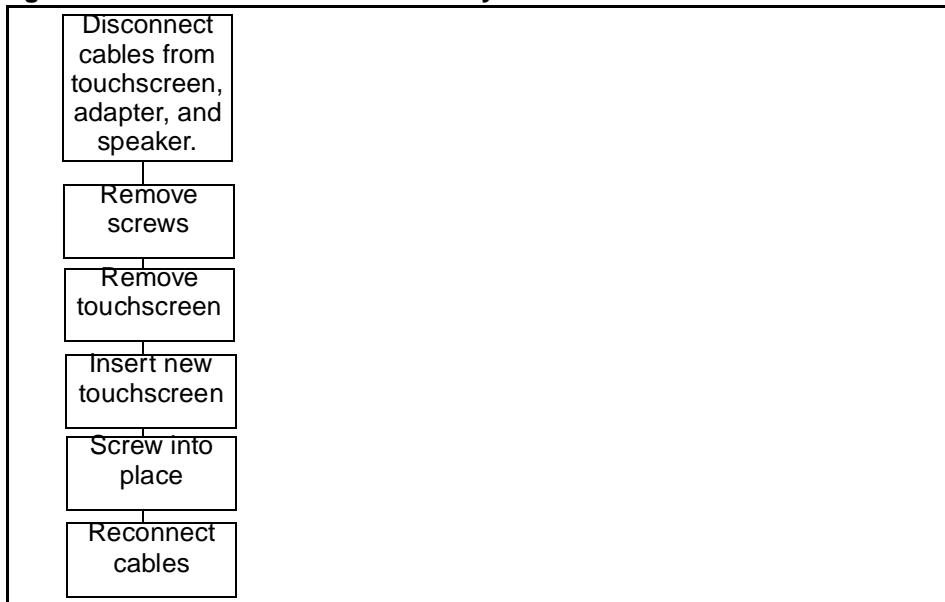
4. Remove the four screws in the bottom of the printer. Refer to Figure 2-3 for the location of these holes.
5. Lift out the printer.
6. Set the new printer into place.
7. Secure the new printer using the same screws you removed.
8. Reconnect the printer PC and printer cables to the printer control board.
9. Load the paper into the printer.
10. Return the printer carriage latch to the locked position.

Touchscreen/LCD assembly

The touchscreen/LCD assembly is the large flat component at the top of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all the necessary tools.

Figure 2-4 gives an overview of the procedure

Figure 2-4: Touchscreen/LCD assembly flowchart



Tools required

- #1 Type 1A cross-recess screwdriver such as a Phillips

Procedure

The following steps describe the process for replacing the touchscreen/LCD assembly:

1. Disconnect the cables from the amplifier. These cables run directly overtop of the touchscreen LCD assembly. Refer to Figure 2-5 for their location. These cables are labelled
 - **amplifier PC**
 - **amplifier**

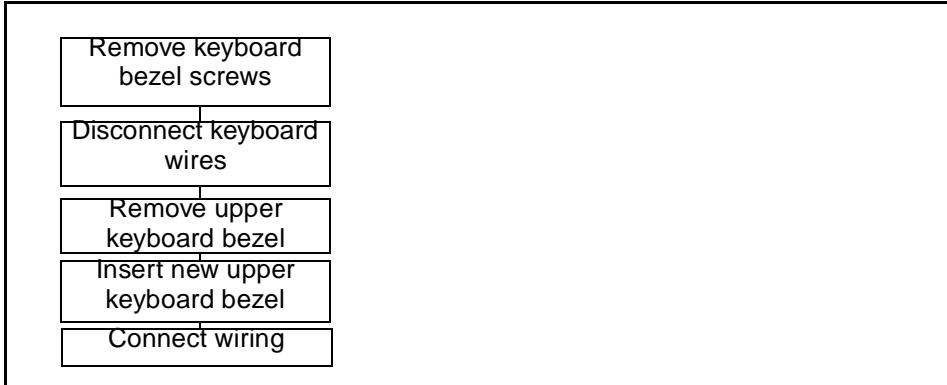
2-6 Front assembly

2. Disconnect two cables from the touchscreen adapter, in the middle of the touchscreen/LCD assembly. The thick grey cable does not need to be removed. Refer to the cables to remove are labelled:
 - **touchscreen**
 - **touchscreen controller**
3. Disconnect the **LCD** and the **LCD power** cables from the assembly. Refer to Figure 2-5 for the location of these cables. The LCD cable must be disconnected between the two large silver connectors.
4. Remove the six screws around the outside of the touchscreen/LCD assembly.
5. Lift the touchscreen/LCD assembly out and set it aside.
6. Place the new touchscreen/LCD assembly over the LCD opening. Make sure that you have it positioned right way up; the connectors should be on the side closest to the printer.
7. Reconnect the two cables into the touchscreen.
8. Reconnect the two cables into the touchscreen controller.
9. Reconnect the two cables into the amplifier.

Upper keyboard bezel

The upper keyboard bezel can be removed by removing two screws near the bottom of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all the necessary tools.

Figure 2-5 gives an overview of the procedure

Figure 2-5: Upper keyboard bezel flowchart

Tools required

- #1 Type 1A cross-recess screwdriver such as a Phillips at least 12 inches in length. Make sure that you can access the screw to the immediate left of the printer with it.

Procedure

The following steps describe in detail the process for replacing the keyboard bezel.

1. Remove the two screws holding the upper bezel in place. These are located to the left of the receipt printer and to the right of the PCP assembly.
2. Lift the front assembly to the upright position, until it latches on to the rear assembly.
3. Lift the upper keyboard bezel up and away from the terminal.
4. Disconnect the **glidepoint PC** cable and the **keyboard PC** cable.
5. Set the upper bezel aside.

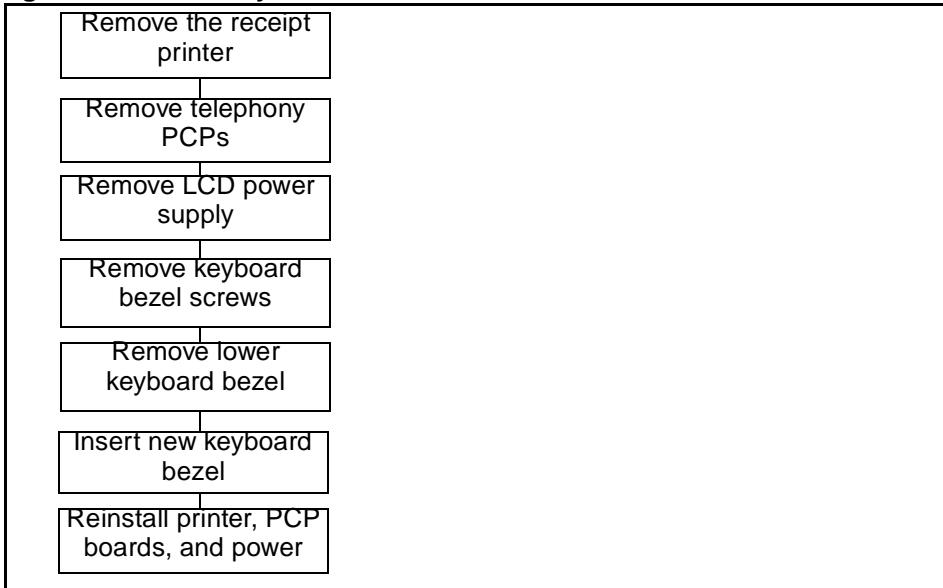
2-8 Front assembly

6. Connect the **glidepoint PC** cable. The grooved side of the cable connection should be facing down.
7. Connect the **keyboard PC** cable.
8. Snap the new keyboard bezel into place.
9. Open the terminal.
10. Reinsert screws.

Lower keyboard bezel

The lower keyboard bezel can be accessed only by first removing several components near the bottom of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-6 gives an overview of the procedure

Figure 2-6: Lower keyboard bezel flowchart

Tools required

- #1 Type 1A cross-recess screwdriver (such as a Phillips) that is at least 12 inches in length. Make sure that you can access the screw to the immediate left of the printer with it.

Procedure

The procedure for replacing the lower keyboard bezel is broken down into disassembly and reassembly.

Disassembly

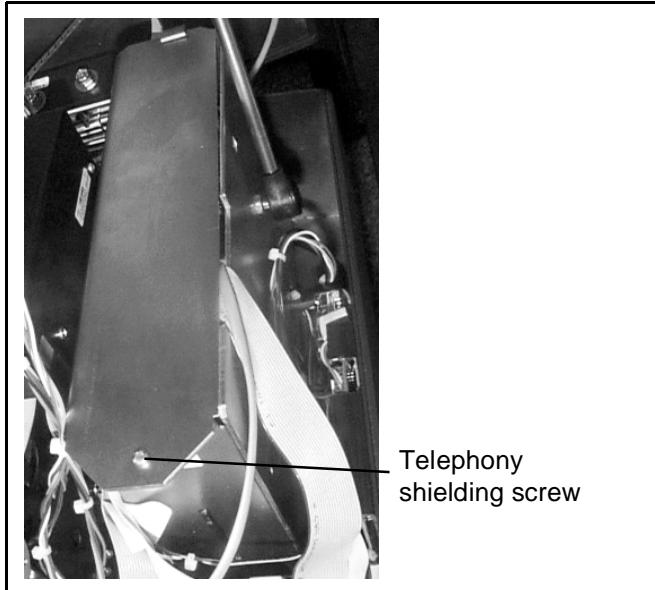
The following procedure describes the steps for removing the old keyboard bezel.

1. Remove the receipt printer paper.

2-10 Front assembly

2. Use a screwdriver to remove the cover from the LCD power supply, located between the receipt printer and the hinge. You do not need to disconnect the power supply.
3. Remove the screw on top of the telephony component. Figure 2-7 shows the location of this screw.

Figure 2-7: telephony component shielding



4. Remove the telephony component shielding.
5. Remove the telephony boards. This requires you to pull outward on the shielding at either end the telephony boards as shown in Figure 2-8, then pull up on the boards.

Figure 2-8: removing telephony boards

6. Remove the three screws holding the keyboard bezel in place. As you are removing these, support the keyboard bezel from beneath so that it does not fall.
7. Unhook the keyboard bezel and open it, once the screws are removed.
8. Set the old lower keyboard bezel aside.

Reassembly

The following procedure describes the steps for installing the new keyboard bezel.

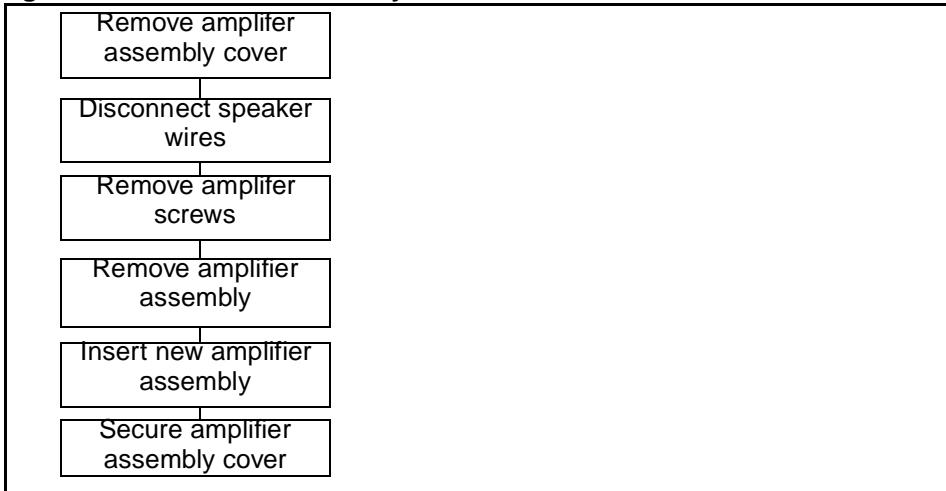
2-12 Front assembly

1. Slide the bottom new keyboard bezel component into the slots on the front of the front terminal. Use the screws provided to fasten the keyboard bezel to the terminal.
2. Use the screws provided to attach the upper keyboard bezel to the front housing.
3. Reinstall the telephony PCPs and the LCD power supply.
4. Reconnect any disconnected wiring.

Audio PCP assembly

The Audio PCP assembly is located at the top of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-9 gives an overview of the procedure.

Figure 2-9: Audio PCP assembly flowchart

Tools required

- #1 Type 1A cross-recess screwdriver such as a Phillips

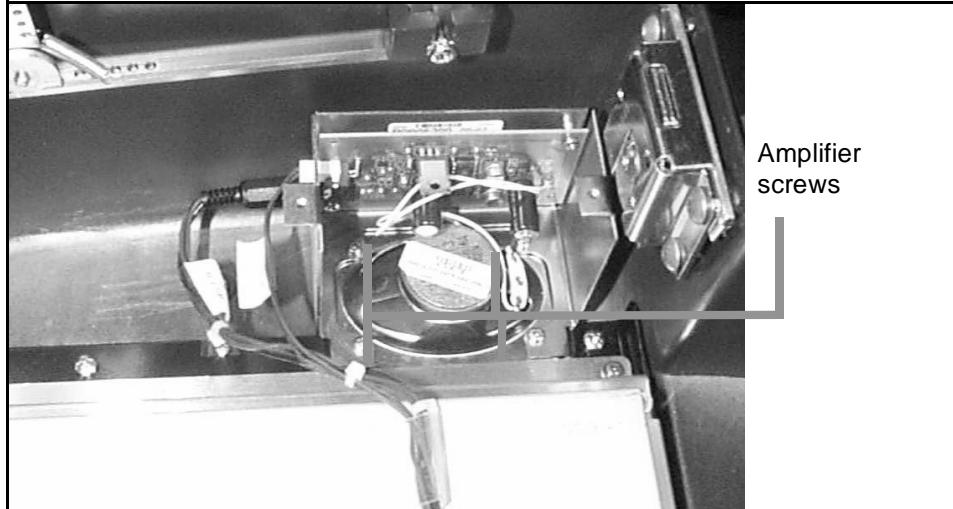
Procedure

The following steps describe in detail the process for replacing the audio PCP assembly.

1. Disconnect the cables running into the amplifier assembly.
2. Remove the two screws at either end of the assembly.
Remove the assembly cover.

2-14 Front assembly

Figure 2-10: Amplifier assembly

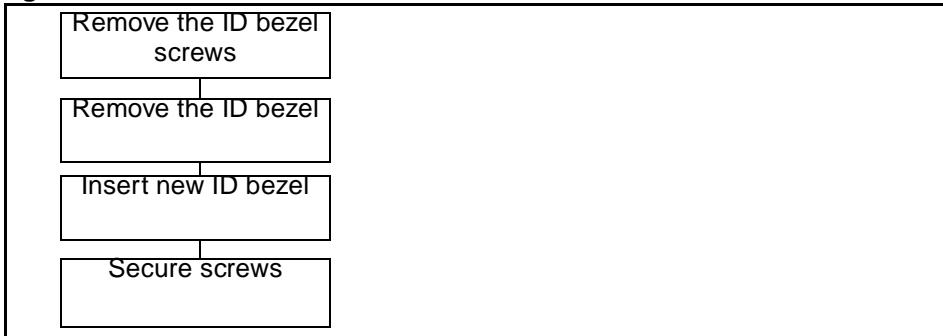


3. Remove the four screws that fasten the amplifier to the housing, as shown in Figure 2-10.
4. Lift out the amplifier assembly.
5. Put the new amplifier assembly in place.
6. Fasten the assembly to the housing using the four screws removed in Step 3.
7. Fasten the assembly cover using the screws removed in Step 2.

ID bezel

The ID bezel is located at the top of the front assembly. While it is located on the outside of the terminal, you must remove three screws inside the terminal to replace it. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-11 gives an overview of the procedure

Figure 2-11: ID bezel flowchart

Tools required

- #1 Type 1A cross-recess screwdriver such as a Phillips

Procedure

The following steps describe in detail the process for replacing the ID bezel.

1. Remove the screws holding the ID bezel in place. Support it from below so that it does not fall.
2. Place the new ID bezel in the ID bezel space from below.
3. Tighten the three ID bezel screws to secure the ID bezel.

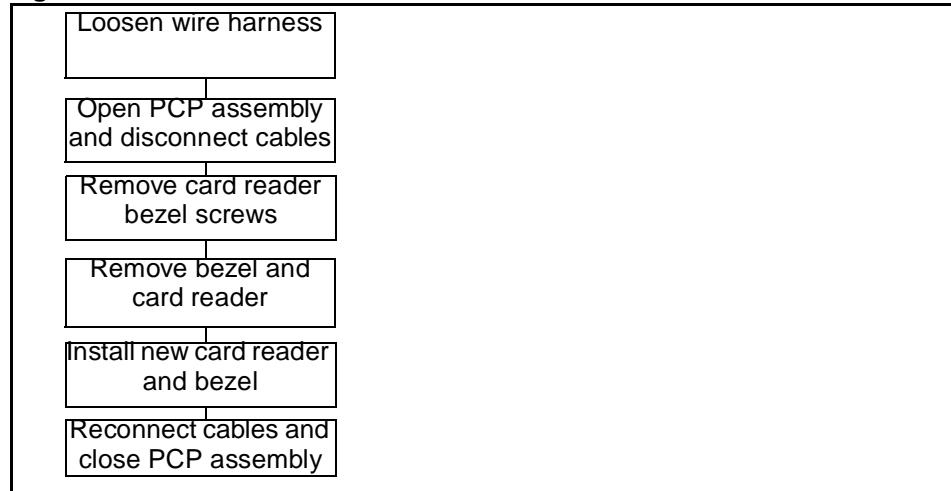
Card reader with bezel

The card reader and bezel are located near the middle of the front assembly. While it is located on the outside of the terminal, you must remove three screws inside the terminal to replace it. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-12 gives an overview of the procedure.

2-16 Front assembly

Figure 2-12: Card reader with bezel flowchart



Tools required

- #1 Type 1A cross-recess screwdriver such as a Phillips

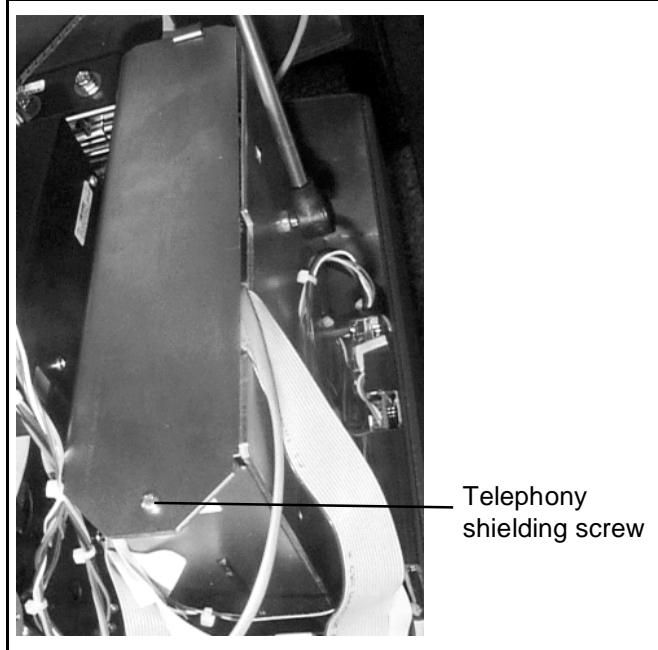
Procedure

The procedure for replacing the lower keyboard bezel is broken down into disassembly and reassembly.

Disassembly

The following procedure describes the steps for removing the old card reader and bezel.

1. Remove the wiring harness from the fasteners on either side of the card reader to allow some room to work.
2. Remove the screw ontop of the telephony component. Figure 2-13 shows the location of this screw.

Figure 2-13: telephony component shielding

3. Remove the telephony component shielding.
4. Disconnect the ribbon cable that runs from the card reader to the telephony board.
5. Unscrew the card reader bezel screws. Support the bezel from the front so that it does not fall.
6. Remove from front.

Resassembly

The following procedure describes the steps for installing the new card reader and bezel.

1. Insert the new card reader and with bezel.

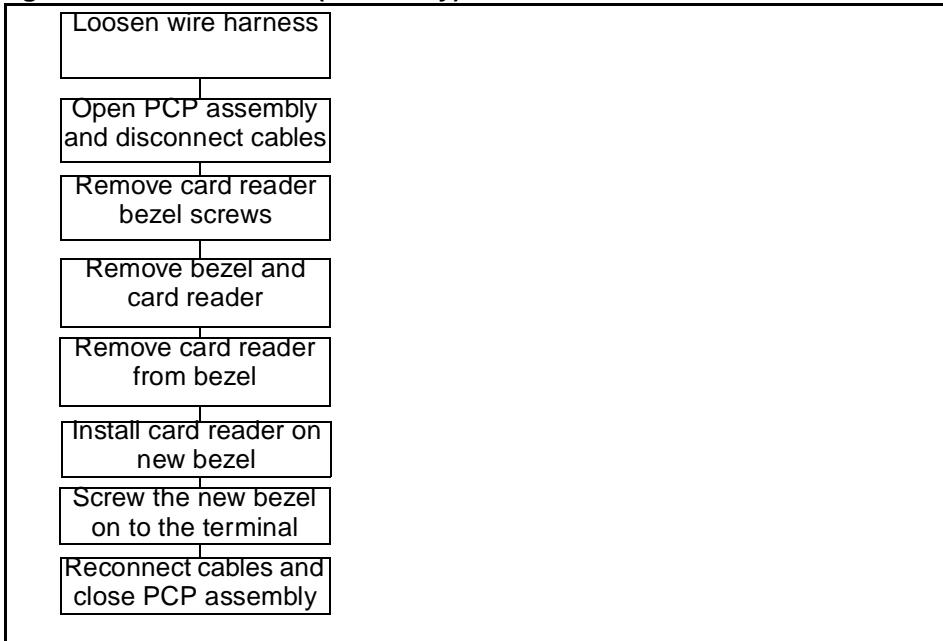
2-18 Front assembly

2. Use the screws removed earlier to secure the new bezel. Make sure it is the right way up. When the terminal is closed, the finger space should be on the bottom of the bezel.
3. Reconnect the ribbon cable to the telephony board.
4. Close the telephony shielding.
5. Use the telephony shielding screw to secure the telephony shielding.

Card reader(bezel only)

The card reader and bezel are located near the middle of the front assembly. You must remove three screws inside the terminal to replace it. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-14 gives an overview of the procedure.

Figure 2-14: card reader (bezel only) flowchart

Tools required

- #1 Type 1A cross-recess screwdriver such as a Phillips

Procedure

The procedure for replacing the card reader bezel is divided into disassembly and reassembly.

Disassembly

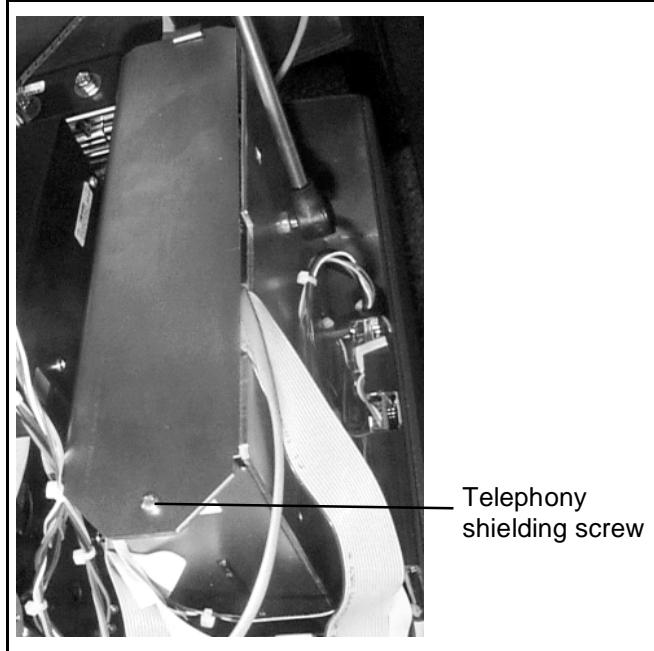
The following procedure describes the steps for removing the old card reader bezel.

1. Remove the wiring harness from the fasteners on either side of the card reader to allow some room to work.

2-20 Front assembly

2. Remove the screw ontop of the telephony component. Figure 2-15 shows the location of this screw.

Figure 2-15: telephony component shielding



3. Remove the telephony component shielding.
4. Disconnect the ribbon cable that runs from the card reader to the telephony board.
5. Unscrew the card reader bezel screws. Support the bezel from the front so that it does not fall.
6. Remove from front.
7. Remove the screws securing the card reader to the bezel.

Reassembly

The following procedure describes the steps for installing a new card reader bezel.

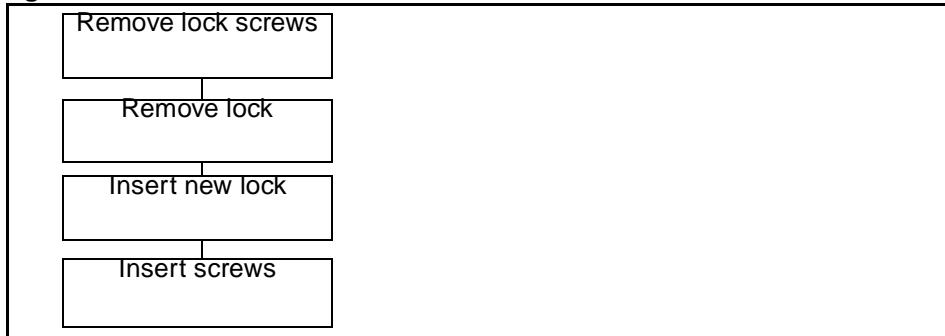
1. Attach the card reader to the new card reader bezel.
2. Insert the new bezel in the front of the terminal.
3. Use the screws removed earlier to secure the new bezel. Make sure that it is the correct way up. When the terminal is closed, the finger space should be on the bottom of the bezel.
4. Reconnect the ribbon cable to the telephony board.
5. Close the telephony shielding.
6. Use the telephony shielding screw to secure the telephony shielding.

Lock

The lock is located at the top of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-16 gives an overview of the procedure.

Figure 2-16: lock flowchart



Tools required

- 5/32 allen key or similar screwdriver.

Procedure

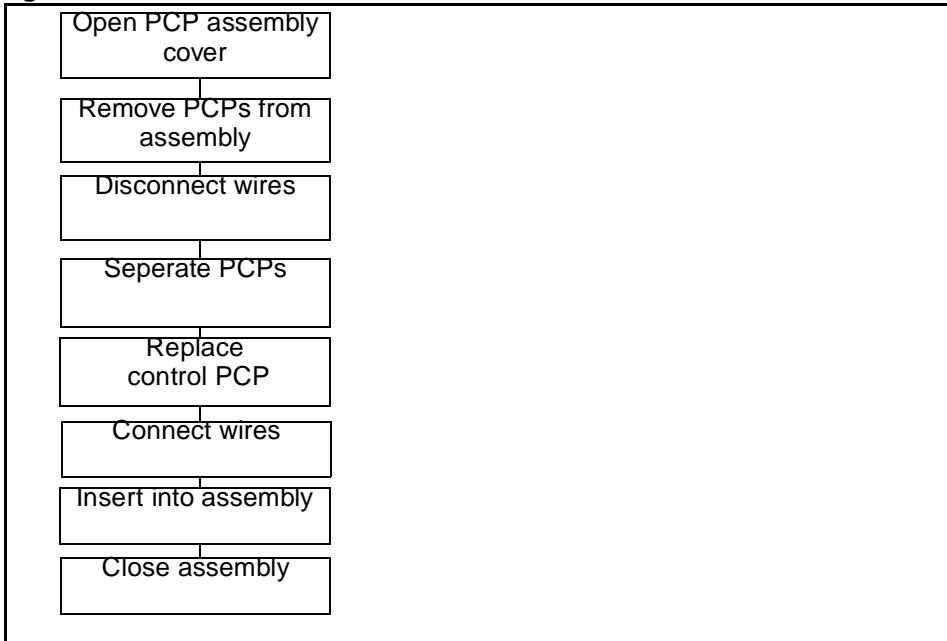
The following steps describe in detail the process for replacing the lock.

1. Use an allen key to remove the four screws holding the lock.
2. Remove the lock.
3. Put the new lock in place.
4. Screw the lock into place.

Control PCP

The control PCP is located in the PCP assembly, near the bottom of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-17 gives an overview of the procedure.

Figure 2-17: Control PCP flowchart

Tools required

- #1 Type 1A cross-recess screwdriver such as a Phillips

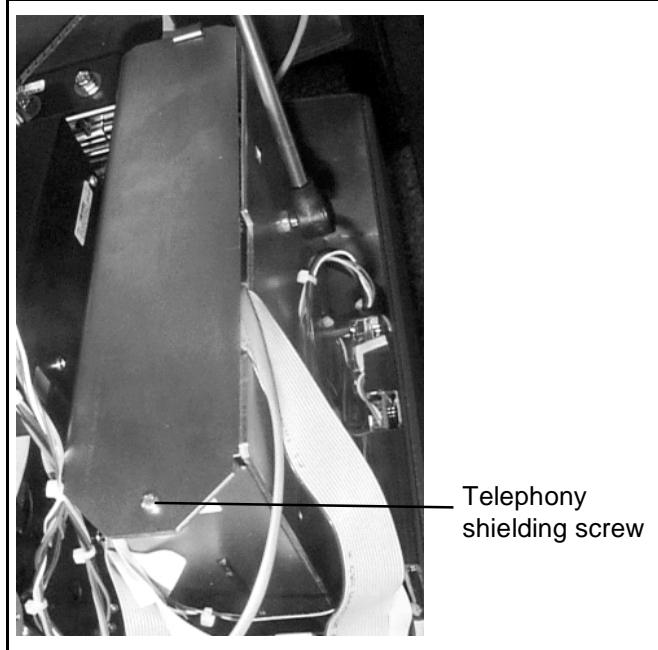
Procedure

The following steps describe in detail the process for replacing the control PCP.

1. Remove the screw ontop of the telephony component. Figure 2-18 shows the location of this screw.

2-24 Front assembly

Figure 2-18: telephony component shielding



2. Remove the telephony component shielding.
3. Remove the telephony boards. This requires you to pull outward on the shielding at either end of the telephony boards as shown in Figure 2-19, then pull up on the boards.

Figure 2-19: removing telephony boards

4. Disconnect the cables running between the Control PCP and the telephony PCP.
5. Gently pry the control PCP out of the PCP assembly.
6. Insert the new control PCP.
7. Reconnect the wiring between the control PCP and the telephony PCP.
8. Slide the PCP assembly into the PCP enclosure.
9. Place the cover over the PCP assembly, and secure it using the PCP cover screw.

Telephony PCP

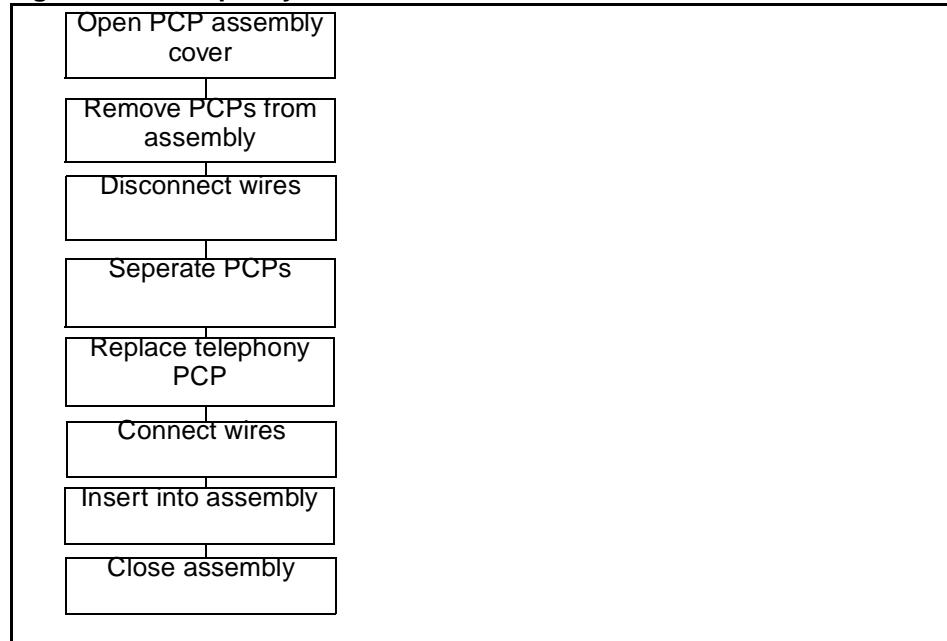
The telephony PCP is located in the PCP assembly, near the bottom of the front assembly. Be sure before beginning

2-26 Front assembly

the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-20 gives an overview of the procedure.

Figure 2-20: Telephony PCP flowchart



Tools required

This section lists the tools required for this procedure:

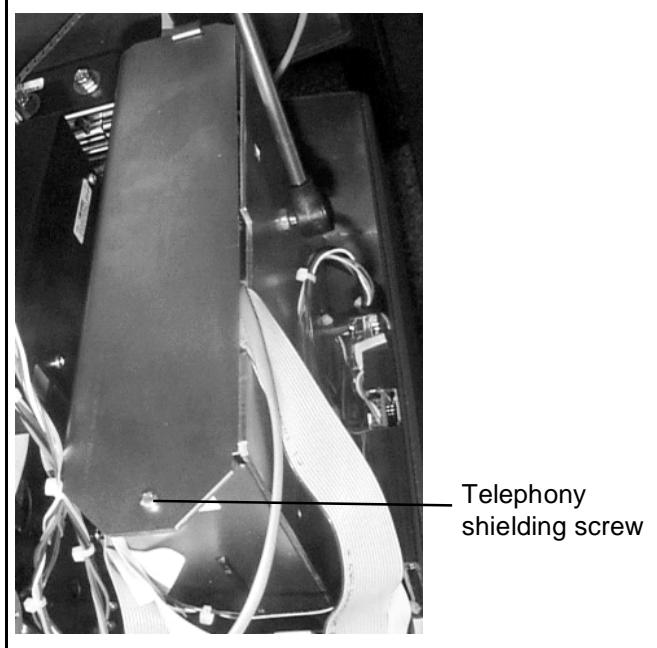
- #1 Type 1A cross-recess screwdriver (such as a Phillips)

Procedure

The following steps describe in detail the process for replacing the telephony PCP.

1. Remove the screw on top of the telephony component. Figure 2-21 shows the location of this screw.

Figure 2-21: telephony component shielding



2. Remove the telephony component shielding.
3. Remove the telephony boards. This requires you to pull outward on the shielding at either end the telephony boards as shown in Figure 2-22, then pull up on the boards.

Figure 2-22: removing telephony boards



4. Disconnect the cables running between the Control PCP and the telephony PCP.
5. Gently pry the telephony PCP out of the PCP assembly.
6. Insert the new telephony PCP.
7. Reconnect the wiring between the control PCP and the telephony PCP.
8. Slide the PCP assembly into the PCP enclosure.

Place the cover over the PCP assembly, and secure it using the PCP cover screw.

Translation PCP

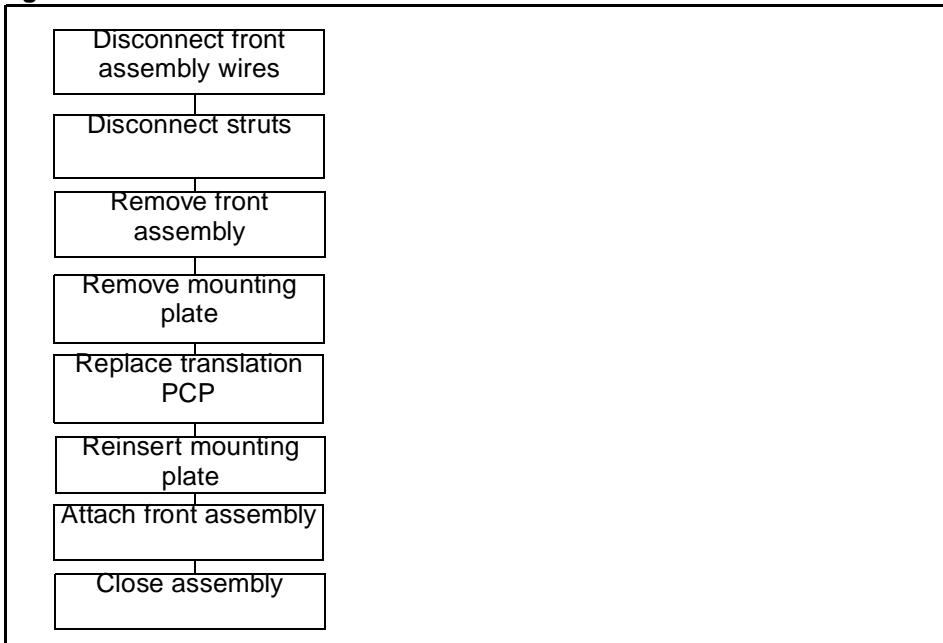
The translation PCP is located on the right side of the PCP assembly, near the bottom of the front assembly. Two peo-

ple are required to perform this procedure. To remove this component, one technician must support the terminal in the open position, while another must remove the front assembly mounting plate. Once the front assembly mounting plate is removed, the translation PCP can be removed from it.

Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-23 gives an overview of the procedure.

Figure 2-23: Translation PCP flowchart



Tools required

- #1 Type 1A cross-recess screwdriver (such as a Phillips)

Procedure

The procedure for replacing the translation PCP is broken into four processes:

- removing the front assembly mounting plate
- replacing the translation PCP
- reassembling the terminal

Removing the front assembly mounting plate

The following procedure explains how to remove the front assembly mounting plate.

1. Disconnect the LCD power line from the LCD, and remove it from the clamps on the front assembly.
2. Disconnect the main wiring harness.
3. At this point one technician must support the front housing to prevent it from falling. Disconnect the struts from the front assembly.
4. Remove the screws which secure the mounting plate to the housing.
5. Disconnect all wires running to the printer and card telephony pack.
6. Remove the mounting plate from the front housing.
7. Close the terminal so that it latches in the upright position.

Removing the translation PCP from the mounting plate

1. Remove the two screws fastening the translation PCP to the telephony enclosure.
2. Remove the cables running into the translation PCP.
3. Connect these cables to the new translation PCP.

4. Reattach the translation PCP to the telephony enclosure.

Reinstalling the front mounting plate

1. Open the terminal carefully; the struts are not attached, so be sure not to let it fall forward.
2. Support the front housing so that it hangs at a level angle.
3. Insert the front mounting plate and fasten it using the pan head screws.
4. Reconnect the struts to the front assembly.
5. Reconnect all wiring.

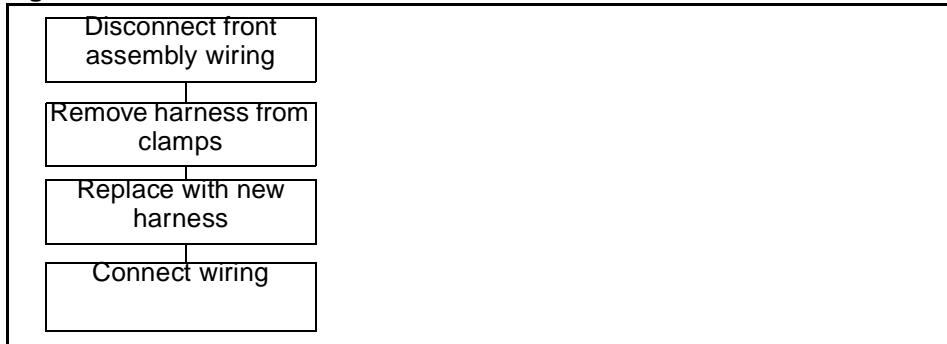
Front cable harness

The front cable harness is located on the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-24 gives an overview of the procedure.

2-32 Front assembly

Figure 2-24: Front cable harness flowchart



Tools required

No tools are required for this procedure.

Procedure

The following steps describe in detail the process for replacing the front cable harness.

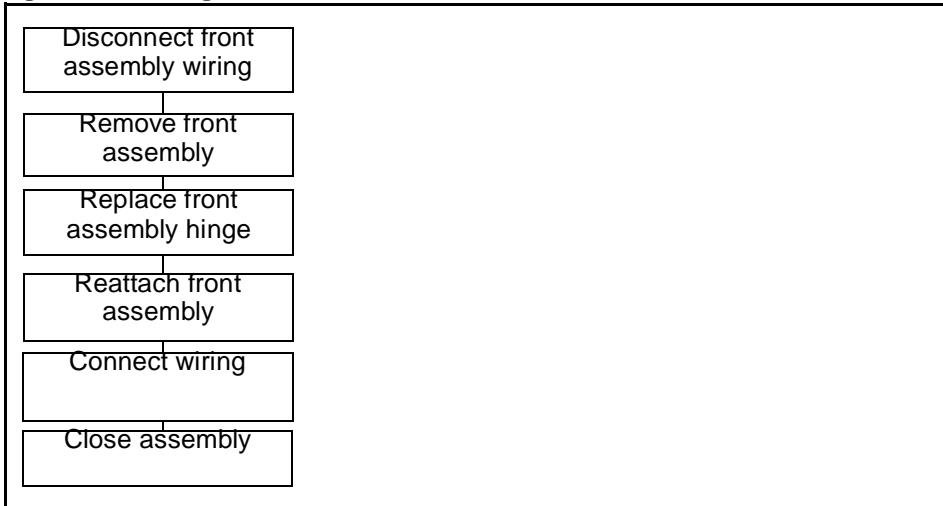
1. Disconnect the front cable harness from the rear cable harness.
2. Disconnect all cables on the front cable harness that attach to the front assembly.
3. Remove the cable harness from its clamps.
4. Put the new cable harness into the clamps.
5. Connect all cables from the front cable harness to their devices.
6. Connect the front cable harness to the rear cable harness.

Hinge front

The hinge front is located at the base of the front assembly. This procedure requires two technicians. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-25 gives an overview of the procedure.

Figure 2-25: Hinge front flowchart



Tools required

This section lists the tools required for this procedure:

- cross-recess screwdriver (such as a Phillips).

Procedure

The procedure for replacing the front hinge contains three parts:

- removing the front assembly
- replacing the hinge

2-34 Front assembly

- reinstalling the front assembly

Removing the front assembly

1. Disconnect the front wiring harness from the rear wiring harness.
2. Disconnect the power line to the LCD. Remove this cable from its front assembly clamps.
3. While both technicians are supporting the front assembly, disconnect the struts from the front assembly.
4. Switch the tabs on the hinge to the open position and place the front assembly on the floor.

Replacing the front hinge

1. Use a ratchet or wrench to remove the bolts on the front hinge.
2. Remove the front hinge.
3. Fasten the new front hinge to the assembly using the bolts removed in step 1.

Reattaching the front assembly

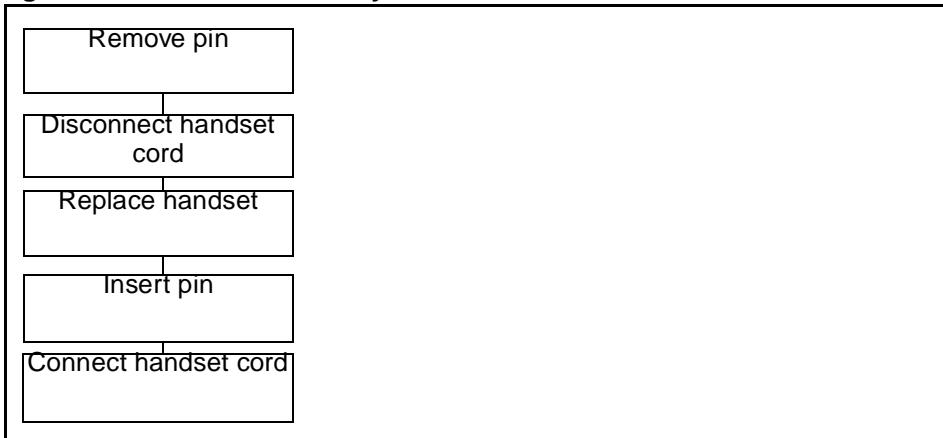
1. Make sure the tabs on the hinge are in the open position.
2. Lift the front assembly and line up the front and rear hinges.
3. Reconnect the struts to the front assembly.
4. Reconnect the wiring harness and the LCD power cable.

Handset assembly

The handset assembly is located on the left side of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 2-26 gives an overview of the procedure.

Figure 2-26: handset assembly flowchart



Tools required

This section lists the tools required for this procedure:

- Flat-head screwdriver or a knife

Procedure

1. Use the screwdriver to pry the pin out of the handset assembly.
2. Disconnect the handset cord.
3. Remove the handset.
4. Insert the new handset into the hole from the outside.

2-36 Front assembly

5. Lock the handset assembly in place by inserting the pin.
6. Connect the handset cord.

3 Rear assembly

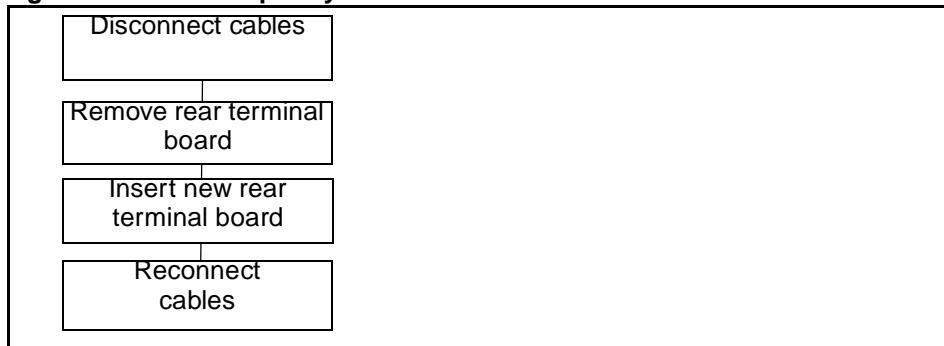
This section provides procedures for replacing components located on the rear assembly.

Rear telephony board

The rear telephony PCP is located in the PCP assembly, near the top of the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-1 gives an overview of the procedure.

Figure 3-1: Rear telephony board flowchart



Tools required

- small cross-recess screwdriver such as a Phillips. It should be less than three inches in total length.

Procedure

The following steps describe in detail the process for replacing the rear terminal board:

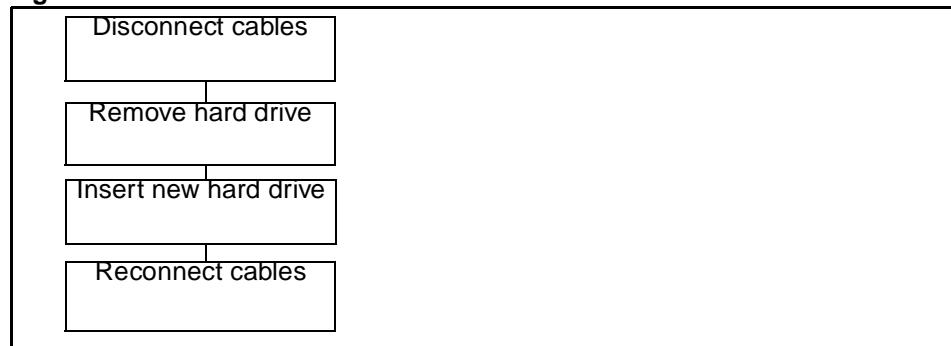
1. Remove the single screw from below.
2. Remove the PCP.
3. Disconnect the cables attached to the PCP.
4. Insert the new PCP and secure it using the screw removed earlier.
5. Connect the cables.

Hard drive

Before replacing the hard drive, you must power down the terminal. The hard drive is located in the middle of the rear assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-2 gives an overview of the procedure.

Figure 3-2: Hard drive flowchar



Tools required

- small cross-recess screwdriver such as a Phillips

Procedure

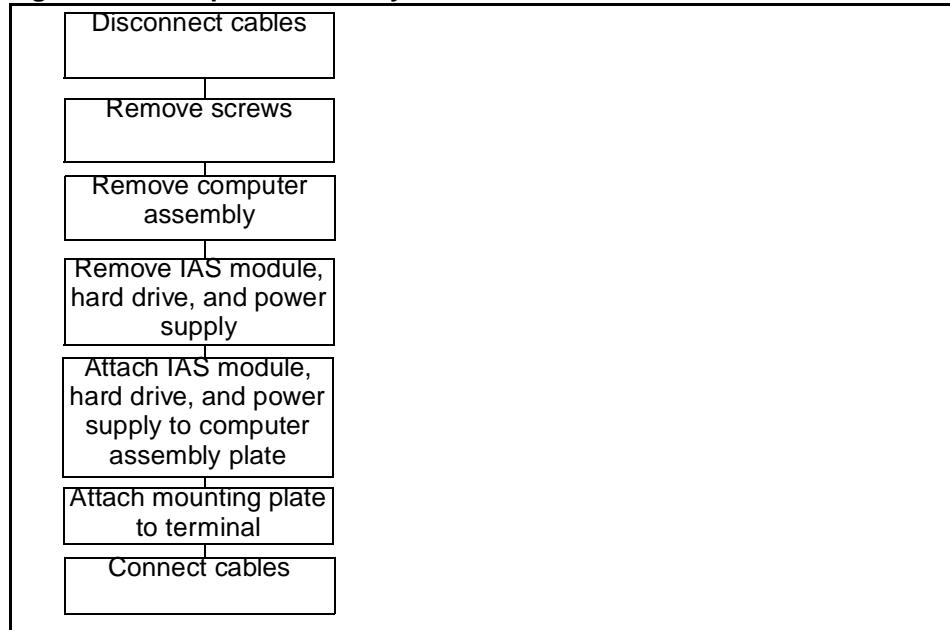
The following steps describe in detail the process for replacing the hard drive.

1. Disconnect the hard drive power cable and ribbon cable.
2. Remove the hard drive shielding. Support the hard drive so that it does not fall.
3. Insert the new hard drive.
4. Reconnect the power cable and the ribbon cable.

Computer assembly

The computer assembly is located in the center of the rear assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-3 gives an overview of the procedure.

Figure 3-3: Computer assembly flowchart

Tools required

This section lists the tools required for this procedure:

- cross-recess screwdriver such as a Phillips.

Procedure

The following steps describe in detail the process for replacing the rear terminal board.

1. Disconnect the following cables from the computer assembly:
 - control PCP PC
 - translation reset
 - translation PCP PC
 - LCD PC

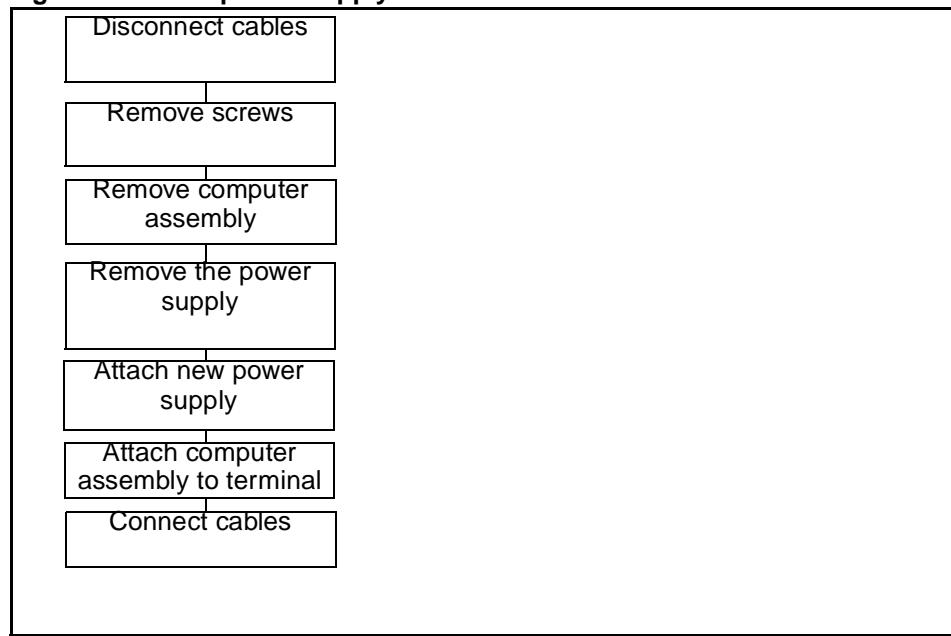
- Glidepoint PC
 - Keyboard PC
 - Amp PC
 - Touchscreen PC
 - Printer PC
 - Ethernet/ISDN connection
 - PC power
 - main power
 - IAS rear terminal board (if IAS is used)
 - inline to IAS (if IAS is used)
2. Remove the wiring rear wiring harness from the computer assembly.
 3. Remove the five screws (two above, three below) securing the computer assembly.
 4. Lift the computer assembly out of the terminal.
 5. If the hard drive is still functioning, remove it from the old computer assembly and attach it to the new one.
 6. If an IAS module is used and it is still functioning, remove it from the old computer assembly and attach it to the new one.
 7. If the main power supply is still functioning, remove it from the old computer assembly and attach it to the new one.
 8. Hold the new computer assembly in place and secure it using the screw you removed earlier in this procedure.
 9. Reconnect all wiring.

Main power supply

The main power supply is located near the center of the rear assembly. In order to replace the main power supply, you must first remove the computer assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-4 gives an overview of the procedure.

Figure 3-4: Main power supply flowchart



Tools required

This section lists the tools required for this procedure:

- cross-recess screwdriver such as a Phillips

Procedure

The following steps describe in detail the process for replacing the rear terminal board.

1. Disconnect the following cables from the computer assembly:
 - control pcp pc
 - translation reset
 - translation PCP PC
 - LCD PC
 - glidepoint PC
 - keyboard PC
 - amp PC
 - touchscreen PC
 - printer PC
 - ethernet/ISDN connection
 - PC power
 - main power
 - IAS rear terminal board (if IAS is used)
 - inline to IAS (if IAS is used)
2. Remove the rear wiring harness from the computer assembly.
3. Remove the screws securing computer assembly.
4. Lift the computer assembly out of the terminal.
5. Remove the main power supply from the computer assembly.
6. Attach a new main power supply.
7. Hold the computer assembly in place and secure it using the screw you removed earlier in this procedure.

-
8. Reconnect all wiring.

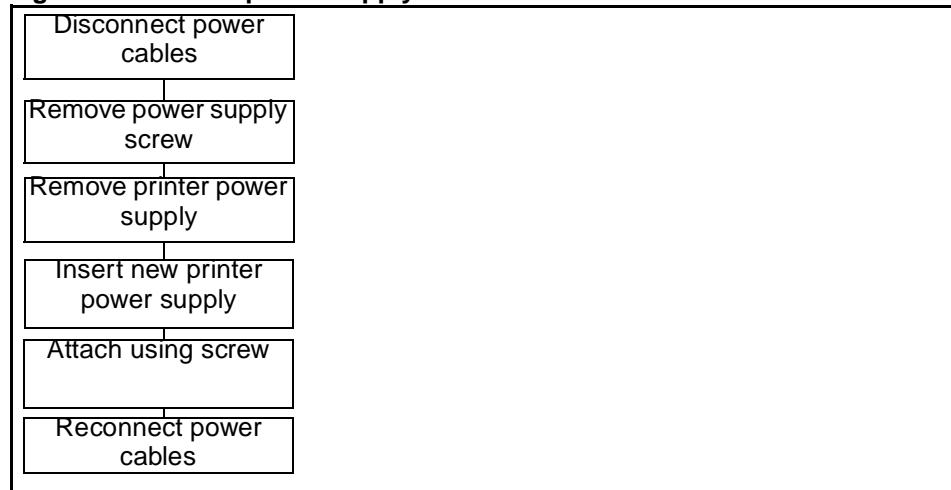
Printer power supply

When performing this procedure wear protective gloves. The printer power supply can reach high temperatures.

The printer power supply is located on the left side of the rear assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-5 gives an overview of the procedure.

Figure 3-5: Printer power supply flowchart



Tools required

- cross-recess screwdriver such as a Phillips
- protective gloves

Procedure

The following steps describe in detail the process for replacing the printer power supply.

1. Disconnect the power cables from the receipt printer power supply.
2. Remove the single screw below the receipt printer power supply.
3. Lift the receipt printer power supply up and out.
4. Insert the new printer power supply.
5. Fasten it using the screw removed in step 2.
6. Reconnect the cables.

Rear cable harness

The rear cable harness is located on the front assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-6 gives an overview of the procedure.

Figure 3-6: Rear cable harness flowchart



Tools required

- No tools are required for this procedure.

Procedure

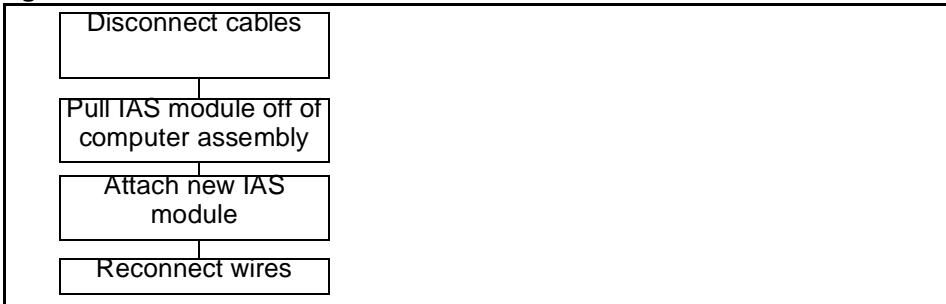
The following steps describe in detail the process for replacing the rear cable harness.

1. Disconnect the front cable harness from the rear cable harness.
2. Disconnect all cables on the rear cable harness that attach to the rear assembly.
3. Remove the rear cable harness from its clamps.
4. Put the new cable harness into the clamps.
5. Connect all cables from the rear cable harness to their devices.
6. Connect the rear cable harness to the front cable harness.

IAS module

The IAS module is attached to the computer assembly on the rear assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-7 gives an overview of the procedure.

Figure 3-7: IAS module flowchart

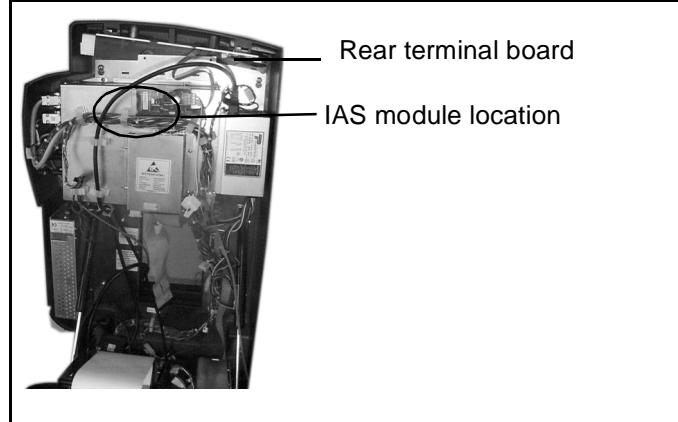
Tools required

No tools are required for this procedure.

Procedure

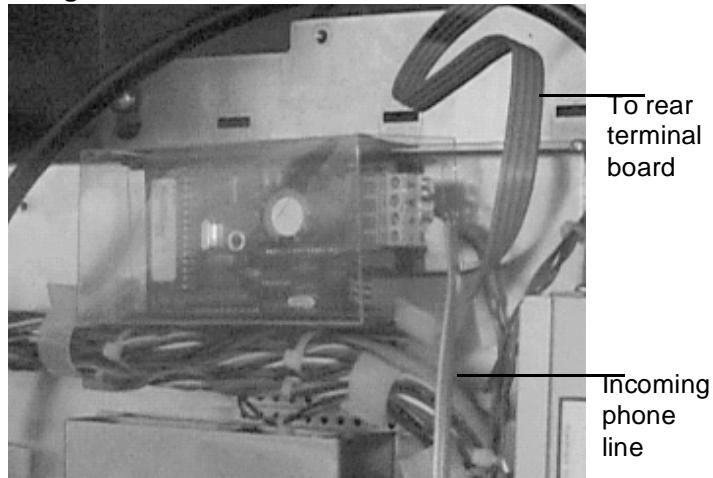
The following steps describe in detail the process for replacing the IAS module.

1. Attach the adhesive surface of the IAS to the rear assembly, in the location indicated in Figure 3-8.

Figure 3-8: IAS module location

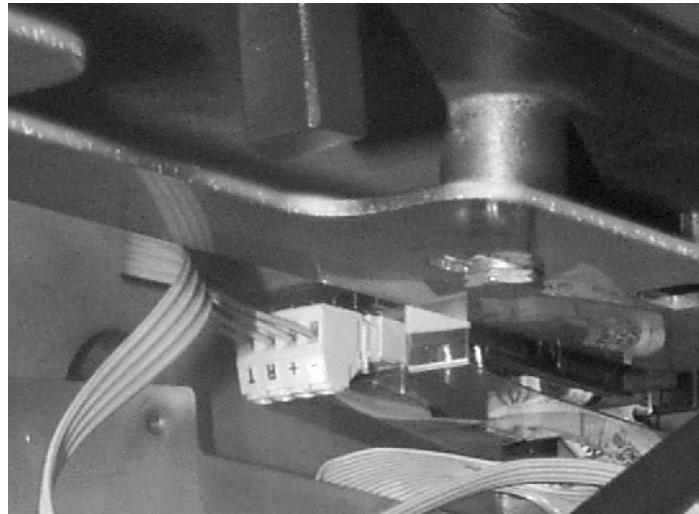
2. Connect the incoming phone line to the IAS module, as shown in Figure 3-9.

Figure 3-9: IAS module



3. Connect the IAS ribbon cable to the rear terminal board, as shown in Figure 3-10.

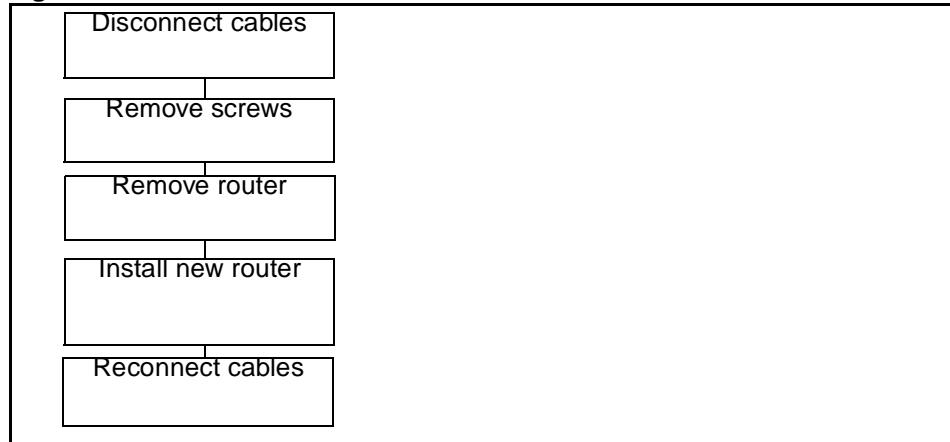
Figure 3-10: rear terminal board



Router

The router is an optional device located near the top of the rear assembly. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-11 gives an overview of the procedure.

Figure 3-11: Router flowchart

Tools required

- cross-recess screwdriver such as a Phillips

Procedure

The following steps describe in detail the process for replacing the router.

1. Disconnect any cables attached to the router. Be sure to note which cables are connected to which ports.
2. Remove the two screws holding the router in place. Support the router so that it does not fall.
3. Remove the router.
4. Line up the new router, and secure it using the screws removed earlier in this procedure.
5. Reconnect the wiring to the router.

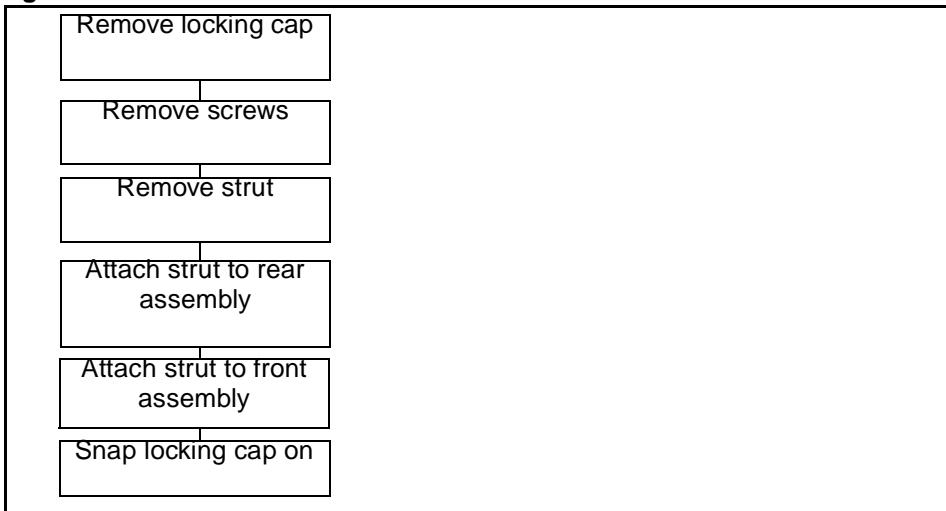
After replacing the router, you must configure the router using the router software. Consult the installation guide for information on installing and configuring the router.

Struts

The struts run between the rear assembly and front assembly. Replace them one at a time. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-12 gives an overview of the procedure.

Figure 3-12: Strut flowchart



Tools required

This section lists the tools required for this procedure:

- cross-recess screwdriver such as a Phillips
- A flat screwdriver or knife

Procedure

The following steps describe in detail the process for replacing the struts.

1. Use a knife or flat screwdriver to remove the locking cap from the lower joint of the strut.

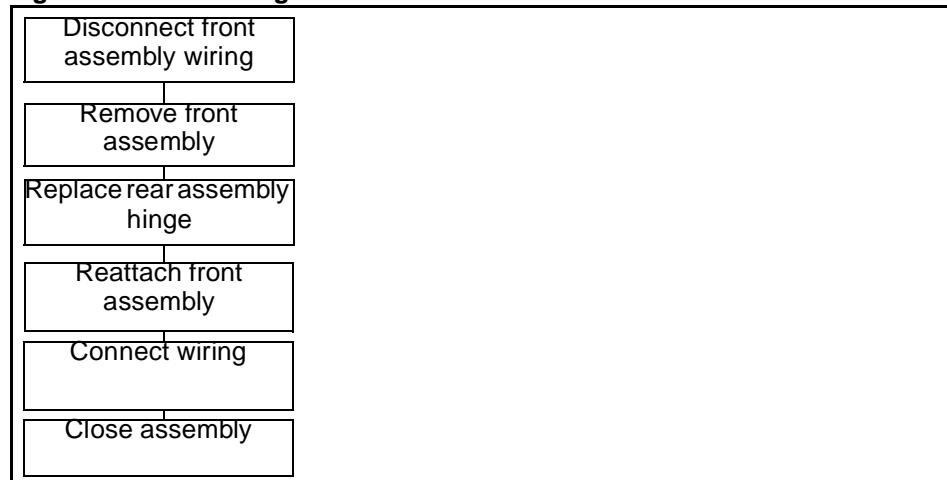
2. Remove the screws at either end of the strut.
3. Remove the strut.
4. Attach the strut to the rear assembly.
5. Snap the strut on to the lower assembly.
6. Snap the locking cap overtop of this joint.

Rear hinge

The rear hinge is located at the base of the rear assembly. This procedure requires two technicians. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-13 gives an overview of the procedure.

Figure 3-13: Rear hinge flowchart



Tools required

- cross-recess screwdriver such as a Phillips.

Procedure

The procedure for replacing the rear hinge contains three parts:

- removing the front assembly
- replacing the hinge
- reinstalling the front assembly

Removing the front assembly

1. Disconnect the front wiring harness from the rear wiring harness.
2. Disconnect the power line to the LCD. Remove this cable from its front assembly clamps.
3. While both technicians are supporting the front assembly, disconnect the struts from the front assembly.
4. Switch the tabs on the hinge to the open position and place the front assembly on the floor.

Replacing the rear hinge

1. Use a ratchet or wrench to remove the bolts on the rear hinge.
2. Remove the rear hinge.
3. Fasten the new rear hinge to the rear assembly using the bolts removed in step 1.

Reattaching the front assembly

1. Make sure the tabs on the front hinge are in the open position.
2. Lift the front assembly and line up the front and rear hinges.

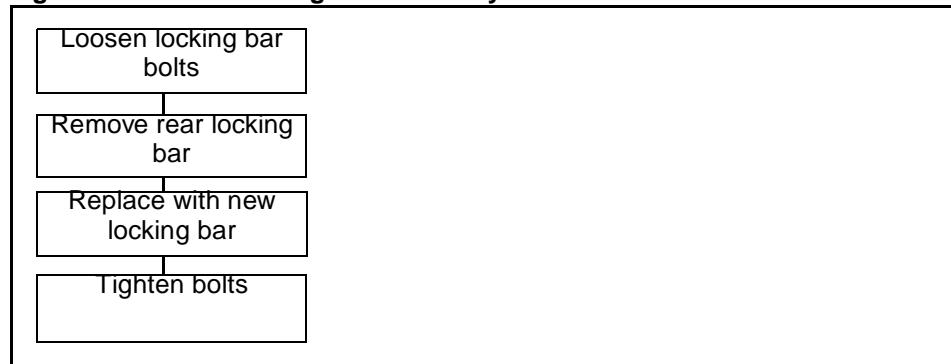
3. Reconnect the struts to the front assembly.
4. Reconnect the wiring harness and the LCD power cable.

Rear locking bar assembly

The hinge rear is located at the base of the rear assembly. This procedure requires two technicians. Be sure before beginning the replacement process that you have a replacement part on hand and that you have all necessary tools.

Figure 3-14 gives an overview of the procedure.

Figure 3-14: Rear locking bar assembly flowchart



Tools required

- a ratchet or wrench.

Procedure

The following steps describe in detail the process for replacing the rear locking bar assembly.

1. Use a ratchet or wrench to loosen the rear locking bar bolts.

2. Remove the rear locking bar.
3. Fasten the new rear locking bar using the bolts removed in step 1.

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