

focus[®]

960

LODGING II
TROUBLESHOOTING
MANUAL

focus[®]

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TROUBLESHOOTING

MANUAL

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CHAPTER 1 INTRODUCTION

1. GENERAL

1.01 Purpose. This manual provides troubleshooting procedures for the **focus Lodging II** system. It will help determine the location of the problem and, through a systematic approach, guide you step by step, using flowcharts and diagnostic tables, in troubleshooting the **focus Lodging II** Application Processor (AP).

1.02 References. In order to troubleshoot the system successfully, the following documents should be read or be on-hand for reference:

- **focus Lodging II** Site Planning Guide (Section 115-068-000)
- **focus Lodging II** Installation Manual (Section 115-065-000)
- **focus Lodging II** User Guide (Section 115-043-000)
- **focus Lodging II** System Administrator Manual (Section 115-052-000)
- **focus Lodging II** Customer System Specifications (Section 115-202-000)
- **focus 960** Customer System Specifications (105-214-001)
- **focus 960** Installation/Maintenance Manual (Section 105-056-000)
- All applicable manufacturers' manuals

1.03 This manual deals with two troubleshooting circumstances; Failure During Installation and Failure During Operation. Failure During Installation troubleshooting concentrates on problems that are created during the installation of the **focus Lodging II** hardware and software. Failure During Operation troubleshooting concentrates on problems that can occur during the normal operation of the **focus Lodging II** system.

1.04 Scope. The **focus Lodging II** AP consists of various components from different manufacturers. Because of this, many routine troubleshooting procedures are contained in the various manufacturers' documents. To provide the most efficient and timely troubleshooting procedures, this manual will cover, in detail, only the procedures which are not covered elsewhere.

1.05 Organization. The organization of this manual is as follows:

- Chapter 1, INTRODUCTION - describes the organization of this manual, including system conventions.
- Chapter 2, SYSTEM DESCRIPTION AND OPERATION - describes the physical characteristics and principles of operation.
- Chapter 3, KITS - describes the cable installation kits used in the system.
- Chapter 4, PRECAUTIONS - provides details on the necessary precautions for the craftsperson to take when working on the system.
- Chapter 5, SYSTEM TROUBLESHOOTING - describes the procedures for isolating malfunctions.
- Chapter 6, HISTOGRAM EXPLANATIONS AND EXAMPLES - provides explanations of the real-time activities monitoring system used in the AP.
- Appendix A, TROUBLESHOOTING CHARTS - provides detailed charts to assist the craftsperson in the various methods of isolating and repairing system malfunctions.

CHAPTER 2 SYSTEM DESCRIPTION AND OPERATION

1. GENERAL

1.01 System Overview. **focus Lodging II** is a software program which has been designed specifically for use with the **focus 960** PBX and operates on a PC (such as the IBM® PC-AT). It is composed of three major components:

- Computer hardware and peripheral devices
- **Lodging II** software
- CCMI call costing rate tables

1.02 The **focus Lodging II** AP connects to the **focus 960** via a Processor Interface Link™ (PIL). It is used to track which extension made a call and approximates the charges that will be imposed by the telephone company. When the calls have been identified and costed, they are stored on the hard disk. These call records can then be sorted to generate the various **Lodging II** reports. In addition, **Lodging II** keeps a record of room status and guest information for hotel/motel and patient care applications.

1.03 Functional Overview. The **focus Lodging II** system is an extension of the call recording feature of the PBX. The PBX system collects information about a call while it is in progress. When the call is complete (the calling station disconnects), the PBX produces a call record and sends it to the **Lodging II** computer system over the SMDR link.

1.04 The **focus Lodging II** software processes the call by doing the following:

1. **Collection.** **Lodging II** verifies the record has the correct information and sends it to the costing program. If the number of characters received is not correct, the collection program discards the call record.
2. **Costing.** The costing program further verifies the call record and calculates the charges that are to be applied to the call. Call charges are determined using CCMI rate tables or end-user-defined rate tables. If information in the call record cannot be costed, the call record is marked "BAD" and is stored in the Bad Call Record File without proper cost.
3. **Storage.** After costing is completed, the call record is compressed and stored on the computer's hard disk along with the cost and price. The call may now be included in the reports. The same process occurs each time a call record is received by the **focus Lodging II** system.

1.05 The call record information is then passed on to the Property Management System (PMS) for inclusion on the guest folio. Complete backup information on guest room telephone charges is available on the system console and/or report printer.

2. COMPONENTS

2.01 General. When troubleshooting the **Lodging II** AP, the craftsperson must consider not only the major system components, but the optional equipment, cable links, and software. The following paragraphs discuss each of these components, in turn.

2.02 Major System Components. The major system components are those items which will be found in all **focus Lodging II** APs. They include:

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- **Application Processor (AP).** The AP consists of an IBM PC-AT with AST plug-in cards acting as interfaces with the **focus 960** PBX, a report printer, and a backup printer. Refer to the **focus Lodging II** Installation Manual for the location and description of these cards.
- **Keyboard and Monitor.** The PC monitor and keyboard are used as a system console to perform administrative and maintenance tasks.
- **Report Printer.** This printer is used to print call record reports, room status, and guest information. An 80-column IBM PC-AT compatible parallel printer must be used.

2.03 Optional Equipment. Optional equipment consists of those items which may or may not be present in a **Lodging II** installation. They include:

- **Backup Printer.** A backup printer is used in the event of the loss of the PMS link (the Real Time Output must be active). The backup printer will record guest wake-up, room status information, and priced call information. This information will need to be manually added to the guest folios.
- **Call Record Buffer.** In the event the **focus Lodging II** software or hardware is shut down, call records will continue to be sent by the PBX. In order to ensure these records are not lost, a call record buffer can be installed between the PBX and the AP.
- **Brooktrout Voice Response Board.** This plug-in circuit card allows the user to utilize voice prompts for room status entry. Refer to the **Lodging II** Installation Manual for the location and description of this card.
- **Line Drivers (with Power Cubes).** Each of the connecting links between the PBX and AP and AP and peripheral devices has specific lengths which may not be exceeded. In the event one of the peripheral devices or the PBX is located further than the cable kits can support, remote cable kits are available. Many of these kits contain line drivers and power cubes. These devices provide a remoting capability for the AP components.

3. APPLICATION PROCESSOR OPERATION

3.01 General. The AP operates under the control of a software program stored on the hard disk. Using concurrent DOS (CDOS), the system has various windows or screens which can be accessed. Each of these windows displays a different portion of the operating system. The four different windows are:

- | | |
|---|----------|
| ● Lodging II Operating System | Window 1 |
| ● CDOS Operating System | Window 2 |
| ● Call Collection Statistics (CCS) | Window 3 |
| ● File Resource Server (FRS) | Window 4 |

3.02 Accessing the Windows. To change windows, press **CTRL**, and the window number simultaneously (e.g., to move to the CCS window, press **CTRL 3**). Use the numerical keypad, not the number keys across the top of the keyboard.

NOTE: Using the number keys on the top of the keyboard may cause the AP to halt. If this happens, the only way to clear it is to reboot the system. Ensure no floppy disk is in the A drive, and the drive door is open. Press the CTRL, ALT, and DEL keys simultaneously.

3.03 Lodging II Operating System Window. This is the normal screen display used by administrators and users in the day-to-day operation of the system. It includes the menus (such as reports and configuration). Access to the operating system is controlled by user name and password. When the system is first installed, the only user name is **ADMIN-SYSTEM** and there is no password. This default user name gives access to all levels of operation and configuration within the **focus Lodging II AP**. Refer to the **Lodging II User Guide** and the **Lodging II System Administrator Manual** for detailed instructions regarding this window.

3.04 CDOS Operating System Window. Once this window is accessed, a CDOS prompt of C> will be displayed. This window puts the user into the CDOS operating system.

CAUTION: Nearly anything you do in this window can have an affect on the way the Lodging II AP functions. It is strongly recommended that you do nothing in this window unless instructed by a Field Service Engineer.

3.05 Call Collection Statistics (CCS) Window. By displaying this screen, you can determine if the calls are being collected, dropped, invalidated, costed, and/or priced.

3.06 It should be noted that this window can be accessed at any time after the system starts up, even if the other windows (and the system overall) are not operating. It only requires that CDOS be running. However, to obtain meaningful data for troubleshooting purposes, call costing must be running. Chapter 5 presents detailed information on how to read and interpret the data on this screen.

3.07 File Resource Server (FRS) Window. FRS is a database handler. The FRS screen displays whether the system data base is operating properly. When the system is operating properly, the last line on the screen will be: "Application Processor ready for 6 users" and there will be no cursor. If the cursor is at the C> prompt, there is a malfunction in the database handler.

CHAPTER 3 KITS

1. GENERAL

1.01 The installation of the **focus Lodging II AP** requires the use of different kits depending on the location of the PBX, the AP, and the various peripheral devices.

1.02 Kits Supplied With the AP. The **Lodging II AP** is ordered using the **Lodging II Order Form**. That document lists certain items which are standard or optional equipment. The following items are included:

Basic Lodging II Package/Local	P/N 301895-01
Enhanced Lodging II Package/Local	P/N 301895-02
Call Record Buffer Kit/Local	P/N 735043-01
PIL Link to AP Kit/Remote	P/N 301851-01
Serial Report (Backup) Printer Kit	P/N 301868-01
Remote Serial Printer Kit	P/N 301862-01
Remote AP to PMS Link Kit	P/N 301860-01

1.03 Parts List. Table 3-1 provides a breakdown of each of the above kits, detailing the kit name, part number, and contents.

2. CABLE PIN-OUTS

2.01 Type 1 Cable. The Type 1 Cable is six feet long, unshielded, DTE to DCE. Figure 3-1 shows the wiring of the Type 1 cable. Included are the signals on each pin, the type of connection and the pin numbers.

2.02 Type 3 Cable. The Type 3 Cable is twelve feet long, unshielded, DTE to DTE (null). Figure 3-2 shows the wiring of the Type 3 cable. Included are the signals on each pin, the type of connector, and the pin numbers.

2.03 Type 4 Cable. The Type 4 Cable is twelve feet long, unshielded, DTE to DTE (null). Figure 3-3 shows the wiring of the Type 4 cable. Included are the signals on each pin, the type of connection and the pin numbers.

2.04 8-Position Modular Cord. There are two cords available: P/N 724115-13 is twelve feet long and P/N 724115-15 is 27 feet long. Figure 3-4 shows the wiring of the modular cord.

3. ADAPTER PIN-OUTS

3.01 AJx and AMx. These are 8-position modular jack to DB-25P adapters. Figure 3-5 shows the pin-outs and signals for the AJA. Figure 3-6 is the AMA adapter. Figure 3-7 shows the AJC adapter, and Figure 3-8 shows the AMC adapter.

Table 3-1. Lodging II Components

Item	P/N	Contents
Basic Lodging II Package Local	301895-01	Serial Report Printer Kit P/N 301868-01 Type 1 Cable P/N 724140-01 Type 3 Cable P/N 724140-03 Type 4 Cable P/N 724140-04 PIL Cable Kit/Local P/N 301894-01 PBX to AP Local Cable Kit P/N 301850-01
Enhanced Lodging II Package Local	301895-02	High Volume Serial Report Printer Kit P/N 301950-02 Type 1 Cable P/N 724140-01 Type 3 Cable P/N 724140-03 Type 4 Cable P/N 724140-04 PIL Cable Kit/Local P/N 301894-01 PBX to AP Local Cable Kit P/N 301850-01
Call Record Buffer Kit-Local	735043-01	Consolink Microspooler
PIL Link to AP Kit-Remote	301851-01	2 Female Line Drivers AJC Adapter - Male P/N 403116-03 AMC Adapter - Male P/N 403116-09 2 Power Cubes
Call Record Buffer Kit- Remote	301852-01	Line Driver - Male Line Driver - Female 2 Power Cubes AJC Adapter - Male P/N 403116-03 AMC Adapter-Male P/N 403116-09
Serial Report Printer Kit (Backup Printer)	301868-01	80-Column Printer Serial Adapter Card 8K RAM Memory Card Type 3 Cable P/N 724140-03
High Volume Serial Report Printer Kit	301950-02	132-Column Fujitsu DL2400 Printer Type 3 Cable P/N 724140-03
Remote Serial Printer Kit	301862-01	Line Driver - Male Line Driver - Female

Table 3-1. Lodging II Components (Cont'd)

Item	P/N	Contents
Remote AP to PMS Link Kit	301860-01	3 Line Drivers - Male Line Driver - Female Type 1 Cable P/N 724140-1

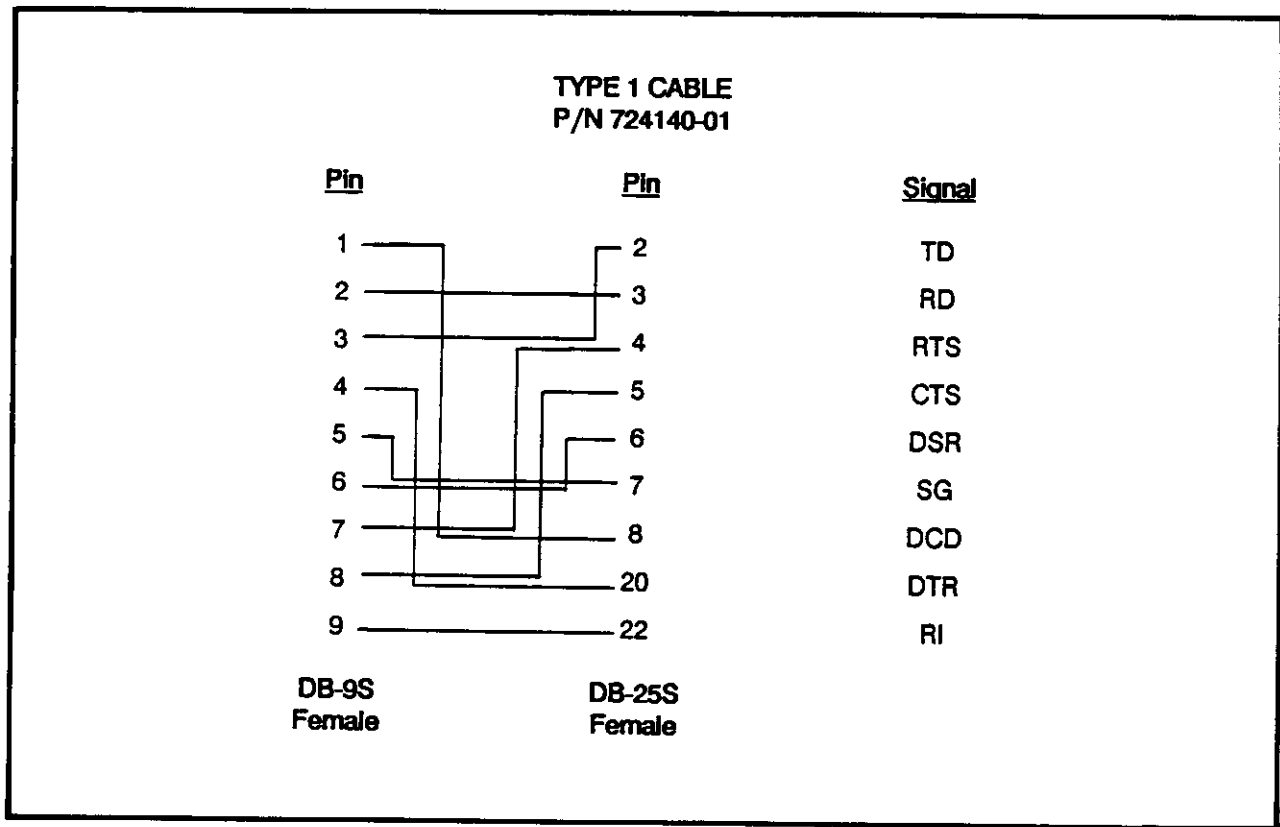


Figure 3-1. Type 1 Cable Pin-Outs

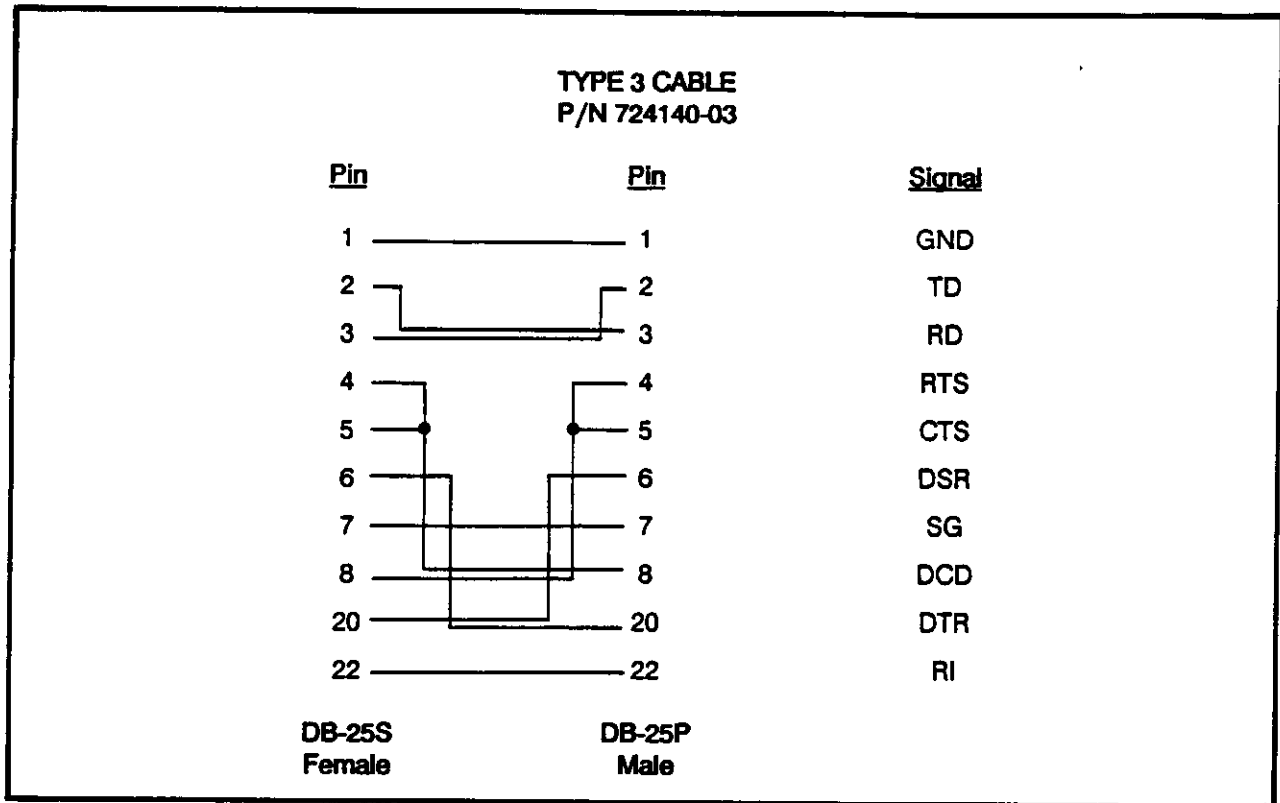


Figure 3-2. Type 3 Cable Pin-Outs

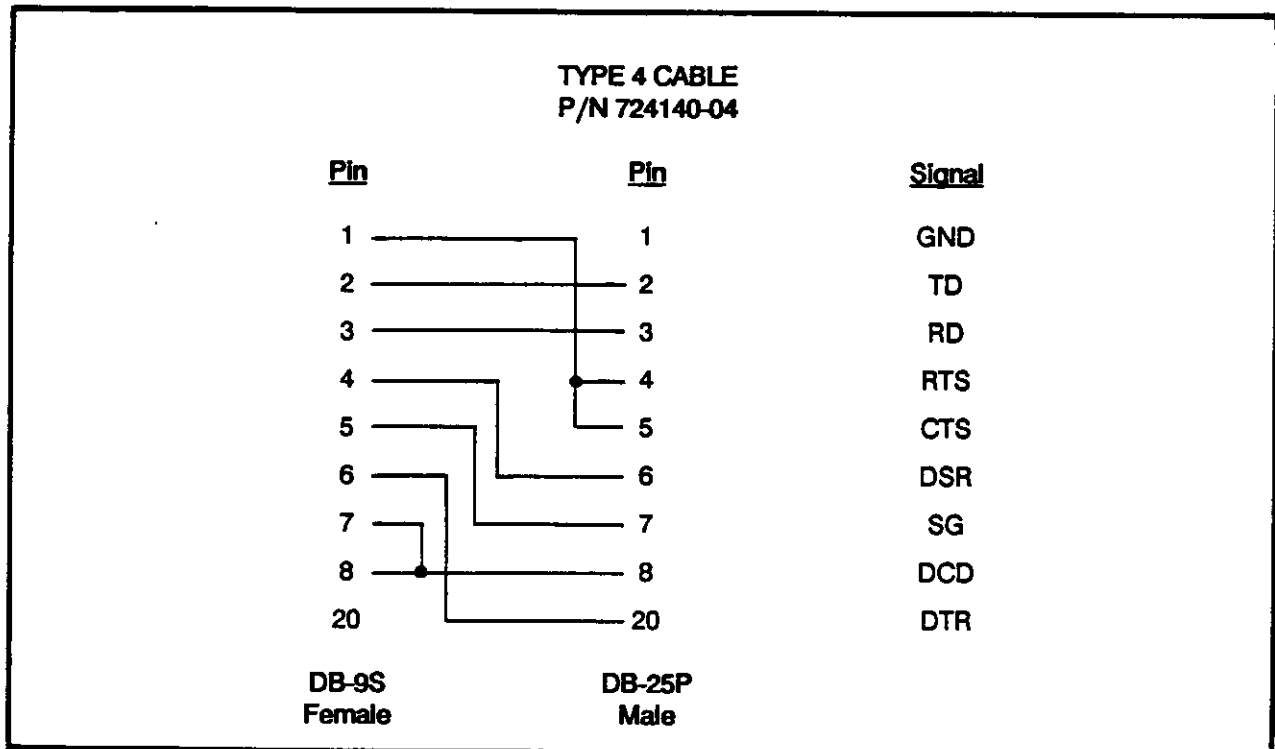


Figure 3-3. Type 4 Cable Pin-Outs

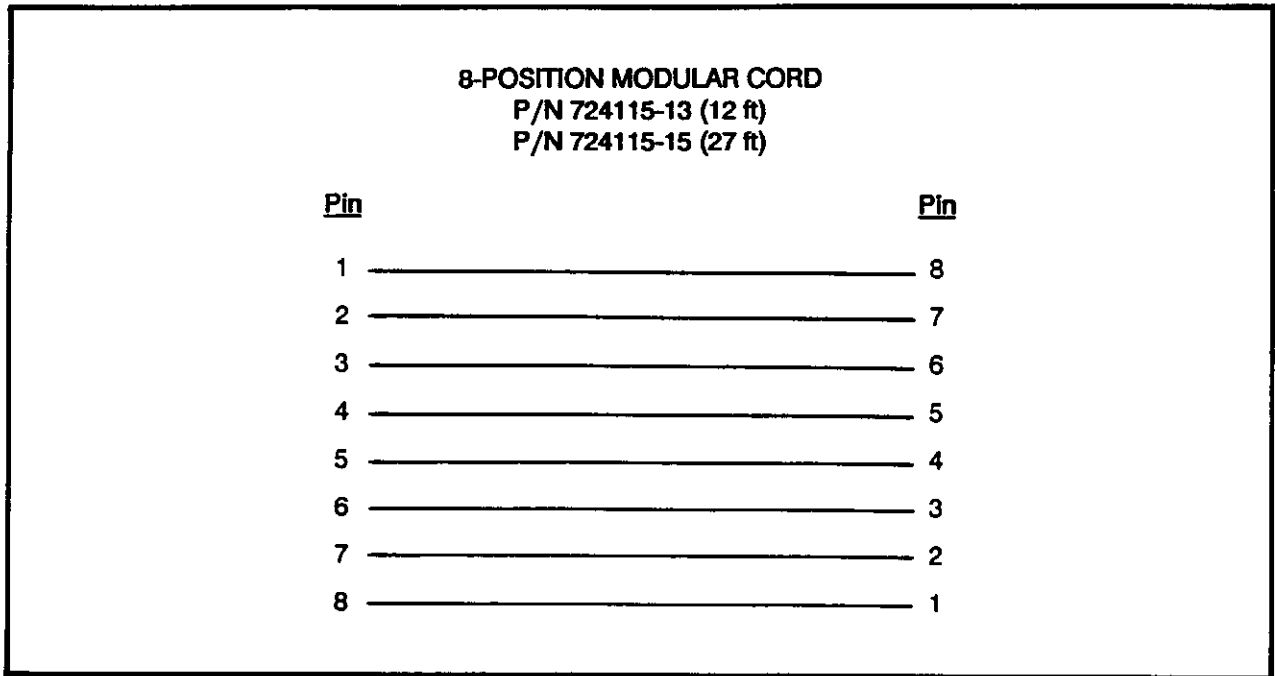


Figure 3-4. 8-Position Modular Cord Pin-Outs

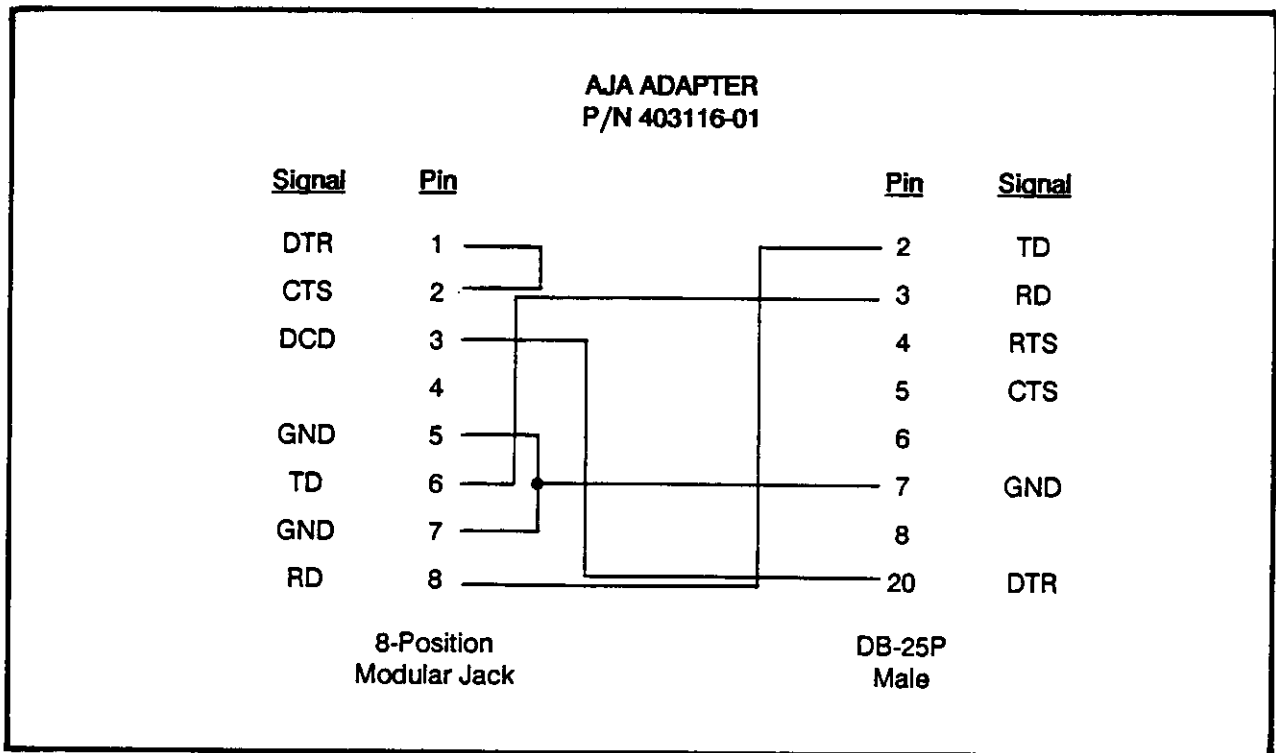


Figure 3-5. AJA Adapter Pin-Outs and Signals

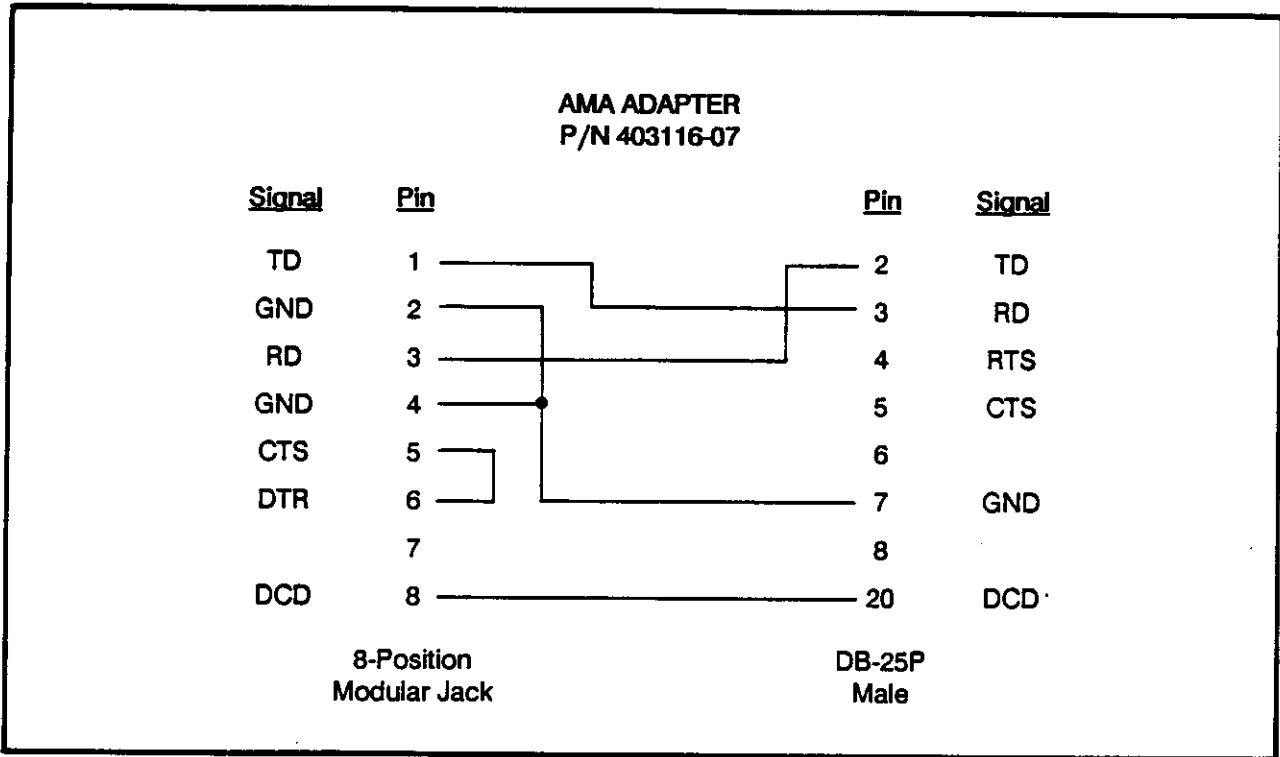


Figure 3-6. AMA Adapter Pin-Outs and Signals

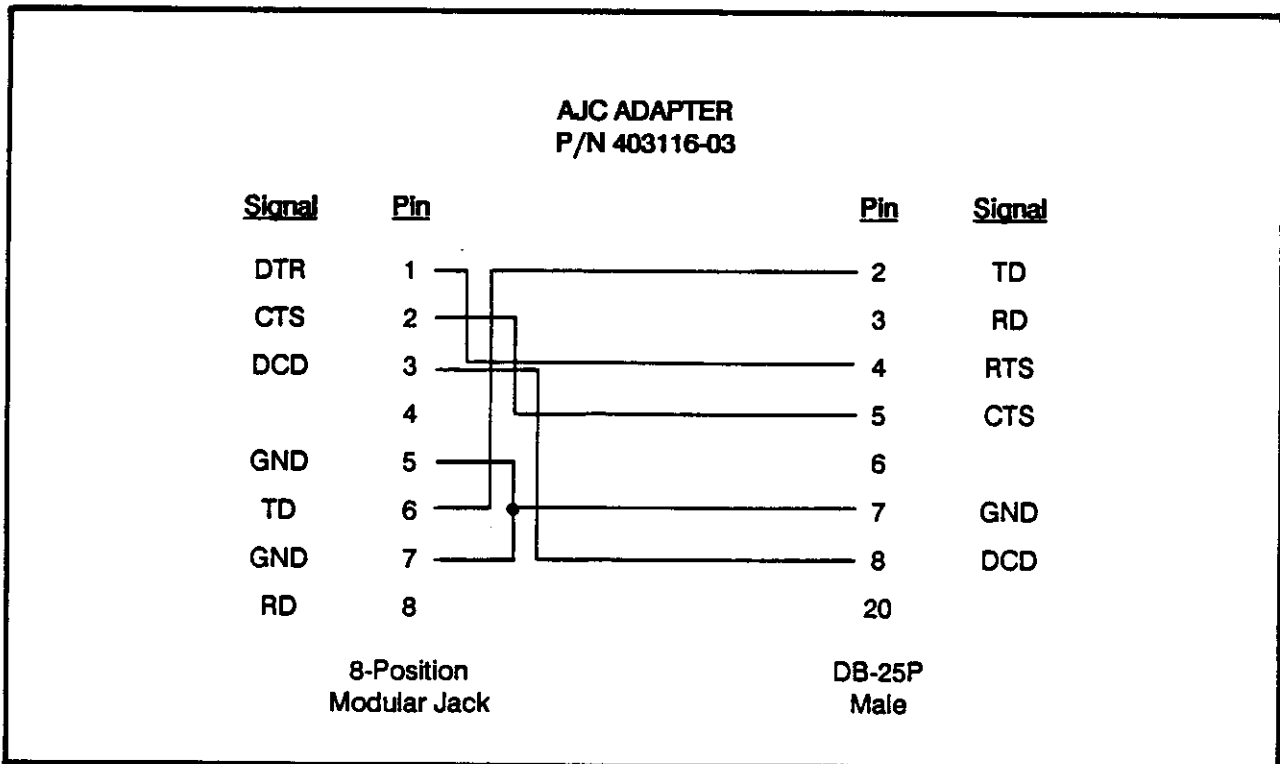


Figure 3-7. AJC Adapter Pin-Outs and Signals

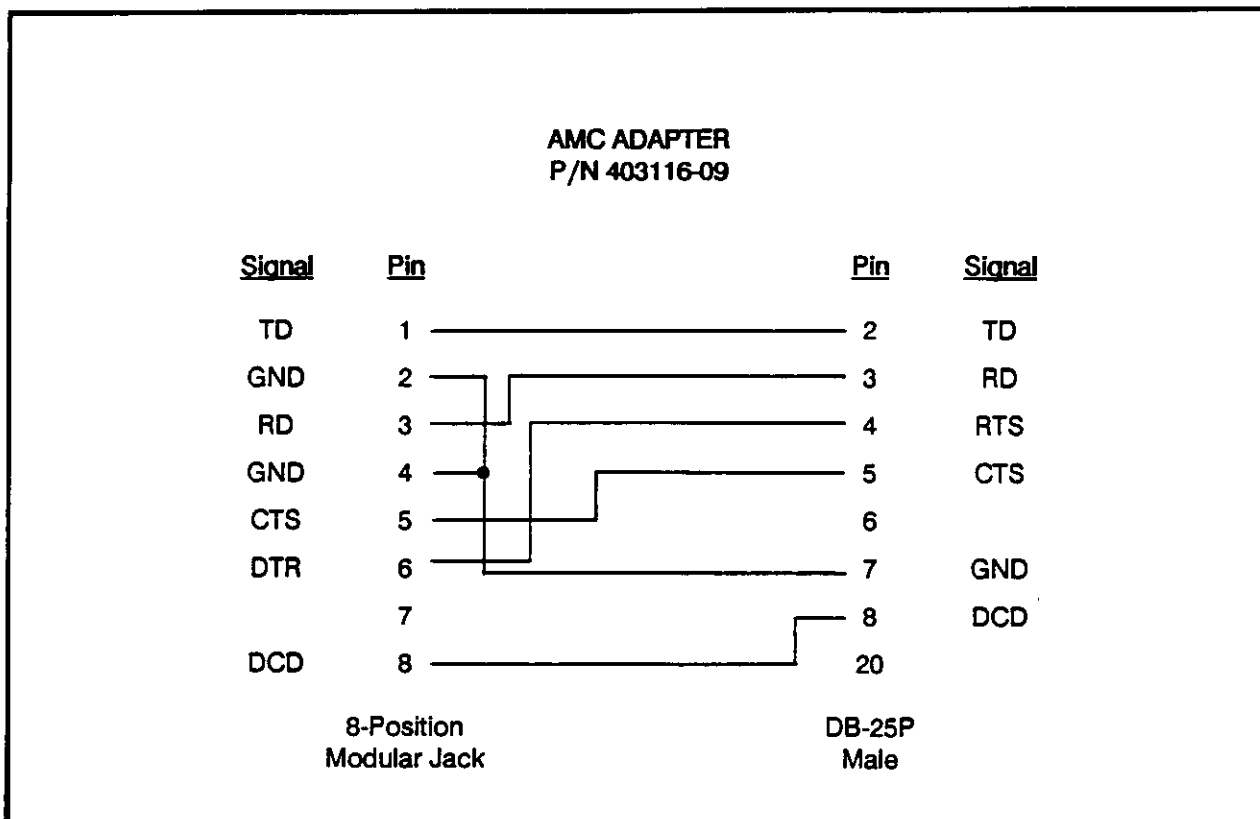


Figure 3-8. AMC Adapter Pin-Outs and Signals

CHAPTER 4 PRECAUTIONS

1. GENERAL

1.01 The **Lodging II AP** is a computer-based device that requires the user and installation/maintenance personnel to observe certain precautions when working with it. Even though the AP is connected to, and works in conjunction with, a telephone system, it requires a different type of maintenance procedure and many of the rules which apply in telephony will not apply in the AP. Therefore, it is recommended that the craftsperson responsible for maintaining the AP pay particular attention to the precautions included in this chapter.

1.02 **Scope.** This chapter presents general precautions which must be followed for the protection of the system as well as the safety of the user/craftsperson. Certain precautions pertain only to installation or operation procedures. Such precautions are presented in the appropriate manual as part of that procedure. Troubleshooting the **Lodging II AP** normally requires checks to be made in either the AP or the **focus 960 PBX**. Refer to the **focus 960 Installation/Maintenance Manual** for precautions dealing with the PBX.

2. TOOLS AND TEST EQUIPMENT

2.01 **Tools.** When performing any maintenance tasks inside the AP computer, observe the following precautions:

- **DO NOT** use test equipment (such as test lamps and test picks) that draw excessive current.
- **DO NOT** use tools and test equipment (such as AC-powered wire-wrap guns) that can introduce foreign voltages into the system.

2.02 **Test Equipment.** Because of the nature of the equipment and the data signals being transmitted, certain test equipment such as oscilloscopes and protocol analyzers may be used. The use of such equipment requires an in-depth knowledge of the AP and is beyond the scope of this document. Generally, the only test equipment required to maintain the AP and conduct basic troubleshooting is a digital multimeter (such as the Fluke model 8020B) and an RS-232CC breakout box.

3. POWER PROTECTION

3.01 It is strongly recommended that the PC used for the AP be plugged into a surge suppressor. Many makes and models are available. Fujitsu Business Communications makes no recommendation as to the make or model to be used.

4. PLUG IN CIRCUIT CARDS

4.01 **General.** Printed circuit (PC) cards are the core of the system. It is extremely important that they be handled carefully and that damage to them be avoided.

4.02 PC cards contain memory and microprocessor chips which can be damaged or destroyed by static electricity. Observe the following precautions.

WARNING: A common reason for the AP to fail to operate properly following installation is damage to PC cards from improper handling. **OBSERVE THESE PRECAUTIONS.**

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- When handling PC cards, ground yourself carefully to discharge any static electricity from your body.
- Spray the area where PC cards are handled, including table and workbench area, with an anti-static spray. A satisfactory spray is Sprayon 610 Anti-Static Spray available from Sprayon Products Division, Sherwin-Williams Co., Bedford Heights, OH 44146, or Anaheim, CA 92806.
- Remove static generating objects and materials from areas where circuit cards are handled. Remove styrofoam cups, plastic drinking cups, plastic covers or envelopes for instructions, visual aids or instruction books, cigarette packs wrapped in cellophane, any plastic food bags or packages, plastic purses, and plastic ash trays.
- Maintain a level of between 20% and 80% relative humidity (noncondensing) in the work area.

4.03 Keep circuit cards in anti-static bags when they are not installed in the PC. Recommended anti-static bags are:

- Pink polyethylene RC AS-1200 made by Richmond Division of Dixico, Inc.
- Three-layered transparent static shielding film made by 3M in bag sizes up to 15 by 18 inches.
- Pink-tinted anti-static Air Cap made by Sealed Air Corporation and available as bags, pouches, shrouds, sheets, and rolls.

WARNING: Do not stack unprotected PC cards. Place each card in its own anti-static bag.

4.04 Other important precautions when working with PC cards are:

- Turn power **OFF** before installing or removing any cards from the PC. For safety, it is strongly recommended that the plug be removed from the AC source prior to opening the PC cover.
- Handle circuit cards only at the edges. Even a small amount of perspiration will contaminate gold plating and may cause faulty operation of the circuit cards. Momentarily touching an IC can transfer enough static electricity to damage it. Do not touch gold-plated connector surfaces, and avoid touching components unless it is absolutely necessary.

5. FLOPPY DISKS

5.01 Floppy disks provide the original operating system for the AP as well as backup storage for call records and the customer data base. Because of this, care must be taken to ensure the integrity of the data on the disks. To prolong the life of the disks and protect the data on them, follow the guidelines below:

- Make sure each disk has a stick-on label. Do not write directly on the plastic jacket.
- Use only a felt-tip pen to write on these labels. When possible, write on the label before you stick it on the disk.
- When not in use, disks should be stored in individual paper sleeves.

- Never put a paper clip on a disk.
- Disks should be stored in a cool dry place. Avoid direct sunlight and heat.
- Never bend a disk.
- Magnetic fields can destroy the data on a disk. Do not store disks near magnetic fields.
- Never touch the exposed recording surfaces. Handle disks only by the corners of the paper sleeves.
- Keep food and drinks away from the area where you are working with floppy disks.
- In order to protect your important files, it is suggested you make backup copies of all the disks. Store the originals and use the backups.

CHAPTER 5 SYSTEM TROUBLESHOOTING

1. GENERAL

1.01 Troubleshooting should always be approached systematically. A problem may have more than one cause. To isolate the cause, a knowledge of the overall system operation as well as a detailed understanding of the **Lodging II** hardware and software operation is required. Once the cause is identified, the problem can be corrected by replacing or repairing the defective units or correcting the system configuration.

1.02 **Types of Malfunctions.** System malfunctions can be broken down into three basic categories: hardware, software, or configuration. Figure 5-1 is a block diagram of the **Lodging II** system. The fault may exist in any of the following parts of the system:

1. **focus 960 PBX.**
2. The PC in which the AP is installed.
3. Property Management System (PMS).
4. **Lodging II** Application Processor (AST Advantage Premium Card, AST 4-Port Async Card, and Voice Card(s), and **Lodging II** software).

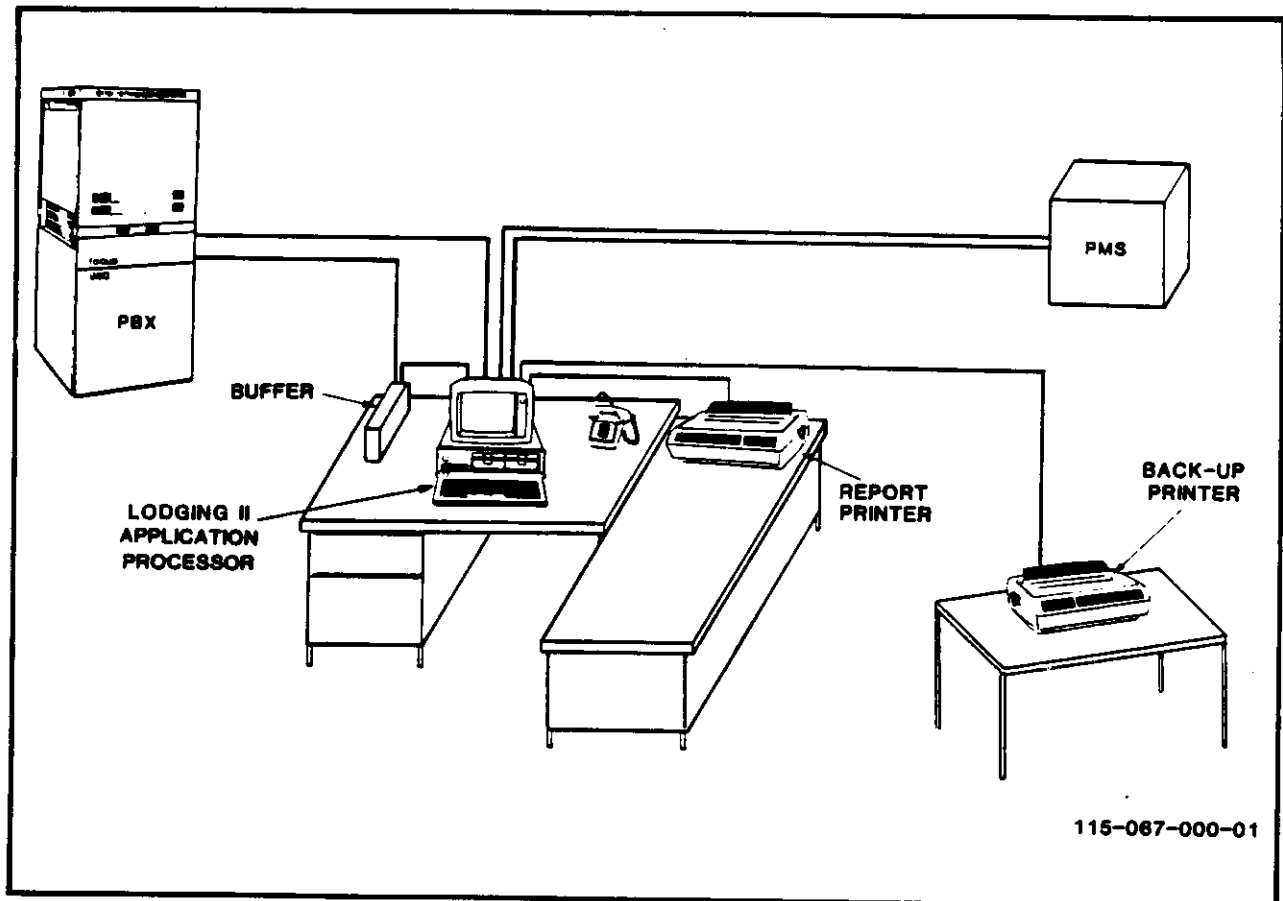


Figure 5-1. focus Lodging II System Diagram

SECTION 115-067-000

1.03 Once the fault is isolated to a specific subsystem, the following steps should be taken:

1. If the fault is in the **focus 960 PBX**, refer to the **focus 960 Installation/Maintenance Manual** or contact your field service representative.
2. If the fault is in the PC, remove all AP hardware and run the PC diagnostic program as described in the PC Installation and Setup Manual. If the problem persists, contact your field service representative.
3. If the fault is in the third party PMS, contact the vendor.
4. If the fault is in the **Lodging II Application Processor**, proceed with the troubleshooting instructions described in this manual.

2. BASIC FAULT ISOLATION

2.01 General. The basic steps in isolating the cause or causes of problems in the **focus Lodging II AP** is based on whether the system has just been installed and is not operational, or the system had been operating correctly and is now faulty. Different troubleshooting flowcharts are provided to guide you through fault location for each case. (See Paragraph 3 for a detailed explanation of the troubleshooting tools used in this manual.) Follow the steps below:

1. Diagnose the problem the system is displaying, such as system does not boot, calls are not being collected, cannot communicate through voice ports, etc. Use the Histogram and the Call Collection Statistics wherever possible.
2. Decide if this is a Failure During Installation or a Failure During Operation circumstance.
3. Refer to the appropriate flowchart.
4. Take the appropriate actions recommended by the flowcharts and diagnostic tables.
5. Use the report printer as a diagnostic tool as specified in Paragraphs 3.15 through 3.17.
6. If, after taking the appropriate action(s) the system still does not work, contact Fujitsu Business Communications Field Service Department.

2.02 Quick Reference to Fault Isolation. Table 5-1 lists specific sections in this guide that should be used to troubleshoot each part of the **focus Lodging II** system. These sections deal with the **focus 960 PBX**, the PMS, and the Application Processor.

2.03 If Concurrent DOS (CDOS) has been loaded and is running, you may access the Histogram, the Call Collection Statistics (CCS), and the File Resource System (FRS) displays to check for system errors. For a detailed explanation of these three screens, refer to Paragraphs 3.02 through 3.11.

2.04 Paragraphs 3.15 through 3.17 explain how to use the report printer to test the Application Processor's serial ports. This troubleshooting method should be used at your discretion because there may be difficulty setting up the printer to match the protocol requirements for each port you are testing.

Table 5-1. Quick Reference to Fault Isolation

System	Reference	Comments
focus 960 PBX	Paragraphs 4.06 through 4.08 and 4.12. Figure 5-5.	<p>Read Paragraphs 3.02 through 3.06 to learn how to access and read the Histogram. See examples in Chapter 6.</p> <p>If focus 960 is faulty, contact the Fujitsu Business Communications Field Service Department</p>
PMS	Paragraphs 4.06, 4.07, 4.09 and 4.12. Figure 5-6.	<p>Read Paragraphs 3.02 through 3.06 to learn how to access and read the Histogram. See examples in Chapter 6.</p> <p>If the PMS is faulty, contact your PMS vendor.</p>
<p>focus Lodging II Application Processor:</p> <p>During Installation</p>	Paragraphs 4.03 through 4.05 and 4.12. Figure 5-4.	<p>Read Paragraphs 3.02 through 3.11 to learn how to access and read the Histogram, Call Collection Statistics and FRS. Refer to Table 5-3 and Tables A-1, A-2 and A-3 as indicated in Figure 5-4.</p>
During Operation	Paragraphs 3.16 4.06 through 4.12. Figure 5-7.	<p>Read Paragraphs 3.02 through 3.11. Refer to Table 5-3 and Tables A-1, A-2 and A-3 as indicated in Figure 5-7.</p>

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2.05 Disk Full Warning. The message **WARNING: DISK IS NEARLY FULL, PLEASE DELETE OLD DATA** is displayed and a beep sounds every time the operator accesses a menu in the system when 80% or more of the disk capacity has been filled. This does not signify a faulty system. It just means that you should purge old call records from your file to make room for new call records. Otherwise, the computer will start discarding the oldest records first when it becomes 95% full.

3. TROUBLESHOOTING TOOLS

3.01 To facilitate focus Lodging II system troubleshooting, the following charts are provided:

- Histograms
- Call Collection Statistics (CCS)
- File Resource Server (FRS)
- Flowcharts
- Diagnostic tables
- Report printer

3.02 Histogram. The focus Lodging II system provides a display of activities for all the interfaces between the Application Processor and the focus 960 PBX as well as between the AP and the PMS. This real-time activities monitor is called a Histogram. By observing the Histogram, you can determine the status of the following focus Lodging II links:

- SMDR (aux# 0)
- PMS INT (aux# 1)
- PMS-RTO (HOBIC) (aux# 2)
- Backup printer (aux# 3)
- PIL (aux# 4)
- Report printer (aux# 5)

3.03 How to Display the Histogram. The Histogram can be displayed on the screen if CDOS is running. However, more meaningful data can be obtained if the Lodging II system has been booted successfully and you are able to log-in. In either case, follow the steps below to access the Histogram:

1. Press **CTRL 2** (use the 2 on the numeric keypad). If you have accessed the Histogram at any time since the system was last booted, the Histogram will be displayed on the screen. To exit from the Histogram, go to Step 4. If this is the first time you are accessing the Histogram since the system was last booted, the system prompt **D>** will appear on the screen.
2. Type the following after **D>** and press the **ENTER** key:

ADDMEM 4

The following will appear on the screen:

Additional Memory Allocation = 4K
D>

3. Type the following after D> and press ENTER:

HIST

The Histogram will appear on the screen.

4. To exit from the Histogram, press CTRL I (use the I on the numeric keypad).

3.04 How to Use the Histogram. The Histogram can be used to diagnose the problem symptoms that the system is displaying. Figure 5-2 represents a Histogram of a **focus Lodging II** system that is operating properly. The upper half of the display represents the input channels that are sending data to the AP. The bottom half of the display represents the output channels that are receiving data from the AP.

3.05 The links between the **Lodging II** Application Processor, the **focus 960** PBX and the PMS are represented in the Histogram as follows:

- **Aux# 0** - This is the SMDR link, which is an input only interface to the AP that receives data from the **focus 960** PBX.
- **Aux# 1** - This is the PMS-INT link, a bi-directional interface that transmits and receives data between the AP and the PMS.
- **Aux# 2** - This is the HOBIC link, an output only interface that transmits data from the AP to the PMS.
- **Aux# 3** - This is the backup printer link, an output only interface that transmits data from the AP to the backup printer.

Aux	Input	Histogram for all channels										
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc	
0	0	0	1	0	813	400	FFFF	FFFF	FFFF	FFFF	FFFF	
1	0	0	0	0	4A0	200	0	FFFF	FFFF	FFFF	FFFF	
2	0	0	4	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF	
3	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF	
4	0	0	1	0	24	200	FFFF	FFFF	FFFF	FFFF	FFFF	
5	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF	
Aux	Output	Histogram for all channels										
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc	
0	0	0	0	0	FFFF	40						
1	0	0	0	0	40	40						
2	0	0	4	0	18E	40						
3	0	0	1	0	FFFF	40						
4	0	0	0	0	31F	40						
5	0	0	1	0	801	40						

UART errors = 0 Discarded Chars = FFFF IIR Hist (0, 0, 0, 0)
 OE_CALLER 90A:2BFF Process Context PN (name) = Init

Figure 5-2. Typical Histogram

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- **Aux# 4** - This is the PIL link, a bi-directional interface that transmits and receives data between the AP and the **focus 960** PBX.
- **Aux# 5** - This is the report printer link, an output only interface that transmits data from the AP to the report printer.

3.06 In order to use the Histogram as a troubleshooting tool, it is not necessary to analyze it in great detail. Instead, specific fields are analyzed to determine the problem symptoms. More information on analyzing the Histogram may be found in Chapter 6.

3.07 Call Collection Statistics (CCS). The Call Collection Statistics screen is useful in diagnosing some of the system malfunctions (refer to Figure 5-3). By displaying this screen, you can determine if the calls are being dropped, invalidated, costed, and priced.

3.08 To display this screen on the monitor, press **CTRL 3** (use the 3 on the numeric keypad). Press **CTRL 1** to exit from the CCS screen.

3.09 To find symptoms of problems on the CCS screen, check the CCMI rate table at the top of the screen. If verification is unsuccessful, refer to Table A-2 in Appendix A. In addition, observe the **TOTAL CALLS** columns: Received (1st column), Dropped (2nd column), and Invalid (3rd column). If the Dropped column shows any number greater than zero, call collection problems exist. Match the symptoms from the CCS display with the appropriate entry in the CCS Fields column in the Histogram/CCS Diagnostics Table and follow the instructions in the Comment column.

NOTE: This screen displays call collection statistics in a cumulative manner. As long as the **Lodging II** AP is running, this screen will continue to scroll upward. This results in the loss of the column headings after the first screen is full. For the proper column headings, refer to Figure 5-2.

3.10 File Resource Server. FRS is a database handler. To access the FRS screen, press **CTRL 4** (use the 4 on the numeric keypad). Concurrent DOS (CDOS) must be running to do this. To exit from the FRS screen, press **CTRL 1**.

3.11 The FRS screen shows whether the system database is operating properly. If the message "Application Processor is ready for 6 users" appears on the screen, the system is operating normally. If the cursor on the screen returns to the prompt and no message is displayed, there is a malfunction in the database handler.

3.12 Flowcharts. These charts offer step-by-step procedures to solve system failures. Although most **focus Lodging II** system problems can be diagnosed using the flowcharts, they are particularly valuable when the Histogram and Call Collection Statistics cannot be accessed.

3.13 Flowcharts are read from the top (START) to the bottom (END) by following the appropriate decision paths based on your observation of the symptoms that **Lodging II** is displaying.

3.14 Diagnostic Tables. The diagnostic tables show the problem the system is displaying. Use these tables to diagnose the cause or causes of each symptom and determine solutions for the particular problem.

Additional Memory Allocation = 4K
 3D > cost
 CCMI table verification is in process.....

CCMI table verification SUCCESSFUL.

FUJITSU AMERICA INC.
 Switching Development Division

Call Costing/Pricing (tm) Version A1.01.30
 Serial No. 00000-0000-001 All Rights Reserved
 COPYRIGHT (c) 1986 FAI/SDD

Call Costing/Pricing for FOCUS PBX is in process.

TOTAL CALLS

Received	Dropped	Invalid
-----	-----	-----
0	0	0
0	1	0
0	2	0
0	3	0
.	.	.
.	.	.
.	.	.
0	48	0
0	49	0

Power fail record..

Incoming ext#	5240	Icost = 0.00	Iprice = 0.00
	1	49	0
Incoming ext#	5704	Icost = 0.00	Iprice = 0.00
	2	49	0
Ext does not match system EXT. length			
Incoming ext#		Icost = 0.00	Iprice = 0.00
	2	49	1
Incoming ext#	5714	Icost = 0.00	Iprice = 0.00
	3	49	1
Incoming ext#	5740	Icost = 0.00	Iprice = 0.00
	4	49	1

Figure 5-3. Call Collection Statistics Display Screen

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3.15 Report Printer. The report printer can be used to test the serial ports on the AP. To do this, you must define each Application Processor port to be a printer port and connect the report printer to the port you want to test. The port can be selected and the contents on the screen can be printed. If you are able to print the contents of the screen, this means that the selected port is working. It does not mean that the card is fault free, however.

3.16 The test should be performed on the report printer port first, since the printer is already connected to and configured for this port (J4). Continue testing the ports one by one. Make sure that the report printer is configured for the port you are testing. For detailed port configuration requirements, see Table 5-2.

3.17 To test each port, perform the following steps:

1. Configure the report printer as indicated in Table 5-2.
2. Plug the report printer cable into the AP port you want to test.
3. Set the report printer on line.
4. Select the port by typing the port name and pressing the **ENTER** key on the PC keyboard.
5. Press the **SHIFT** and **PRTSC** keys simultaneously to print the contents of the computer screen.

4. SYSTEM TROUBLESHOOTING

4.01 General. System troubleshooting deals with two troubleshooting situations, as outlined below. Flowcharts and the Diagnostic Tables located in Appendix A will be used as a guide in determining and correcting any system problem. If the Histogram is used as a troubleshooting tool, refer to Table 5-3 for information on possible Histogram output, and how it may be interpreted.

Table 5-2. Report Printer Configuration

Port Name	Ports		Null Modem	Printer Configuration				DTR/DSR	XON/XOFF
	Port	Link		Baud	Par	Stop Bits	Word Length		
PRINTER 2	COM1	SMDR	YES	1200	EVEN	1	8	ON/OFF	OFF/OFF
PRINTER 4	COM2	PMS INT	YES	1200	NONE	1	8	OFF/OFF	OFF/OFF
PRINTER 5	J1	HOBIC	YES	1200	NONE	1	8	OFF/OFF	ON/ON
PRINTER 6	J2	BACKUP PNTR	YES	1200	NONE	1	8	ON/OFF	OFF/OFF
PRINTER 7	J3	PIL	NO	1200	ODD	1	8	ON/OFF	OFF/OFF
PRINTER 8	J4	REPORT PNTR	YES	1200	NONE	1	8	ON/OFF	OFF/OFF

Table 5-3. Histogram/CCS Diagnostics

Histogram Fields	CCS Fields	Symptom	Comments
input aux# 0 ints=FFFF	Total Calls: Received=0 Dropped=0 Invalid=0	No call collection.	If Total Calls in CCS are always zero, baud rate incorrect. Refer to Table A-2.
input aux# 0 fram, brea or disc=FFFF	Total Calls: Received=0 Dropped=number greater than 0 Invalid=0	Dropped calls.	Refer to Table A-2.
	Total Calls: Invalid=number greater than 0	Incorrect call data.	Refer to Table A-3.
input aux# 1 ints=FFFF output aux# 1 ints=FFFF		Message "System Problem."	PMS INT sending but not receiving data. Refer to Table A-3.
output aux# 2 ints=FFFF			HOBIC not receiving data. Refer to Table A-3
output aux# 3 ints=FFFF cnt=40, wait=FF			Backup printer off line. Refer to Table A-3.
input aux# 4 ints=FFFF output aux# 4 ints=FFFF		Message "System Problem."	PIL faulty. AP sending but not receiving data via PIL. Refer to Table A-3.
output aux# 5 ints=FFFF cnt=40, wait=FF			Report printer off line. Refer to Table A-3.

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4.02 System troubleshooting should be approached using the following:

1. The specific referenced flowchart.
2. Histogram of **focus Lodging II** Application Processor.
3. Call Collection Statistics display.
4. File Resource Server display.
5. Report printer (used as a fault isolation tool).

4.03 Failure During Installation. Failure During Installation deals with problems that may occur when the **focus Lodging II** system is installed. These problems are primarily due to installation, such as loose or improperly connected cables and PC cards or incorrect system configuration. Although the fault may be located in the PBX or the PMS, most likely the problem exists because of improper installation of the **focus Lodging II** system hardware or software. If, after completing the Failure During Installation troubleshooting procedures, the system still doesn't work, refer to Paragraph **4.06, Failure During Operation.**

4.04 The procedures in this section should also be used in case of failure when:

1. The PC has been modified, moved, cleaned, peripherals added, memory chips added, plug-in cards added, etc.
2. The system configuration has been changed.
3. The PMS hardware or configuration have been changed.

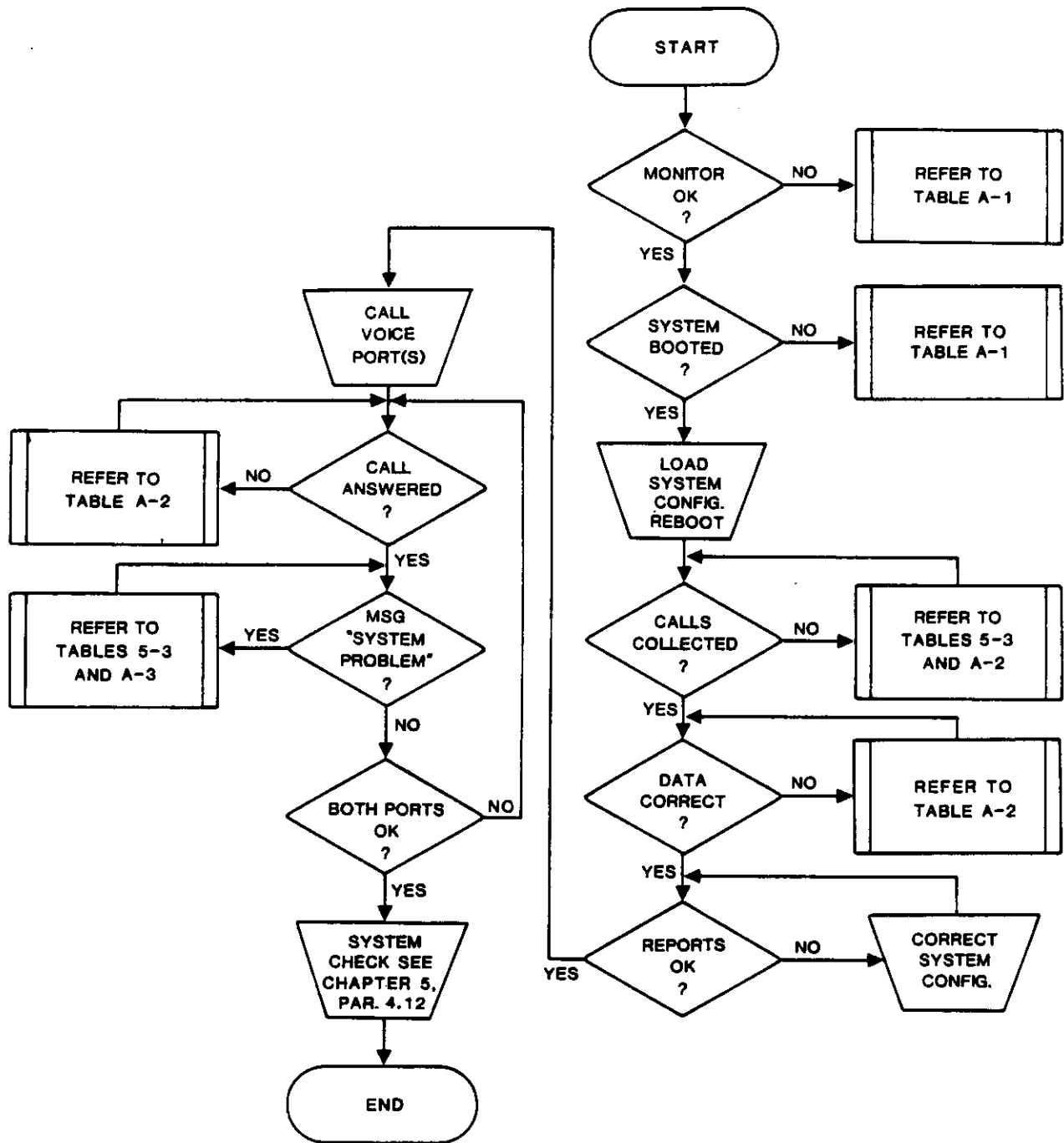
4.05 The flowchart in Figure 5-4 provides a logical approach to troubleshooting the call collection functions and the voice port functions. Diagnostic tables are referenced for troubleshooting instructions.

4.06 Failure During Operation. The Failure During Operation troubleshooting procedures deal with problems that may occur after the system has been operating correctly. The fault may be located in any part of the **focus Lodging II** system, the **focus 960** PBX, the PMS, or the **focus Lodging II** Application Processor. It is assumed that the failure did not occur during system upgrading and software or hardware modifications. It is also assumed that the system configuration tables are correct.

4.07 Fault isolation must be approached systematically. First, the fault symptoms should be identified and isolated to the faulty part of the **focus Lodging II** system, the **focus 960** PBX, the PMS, or the Application Processor.

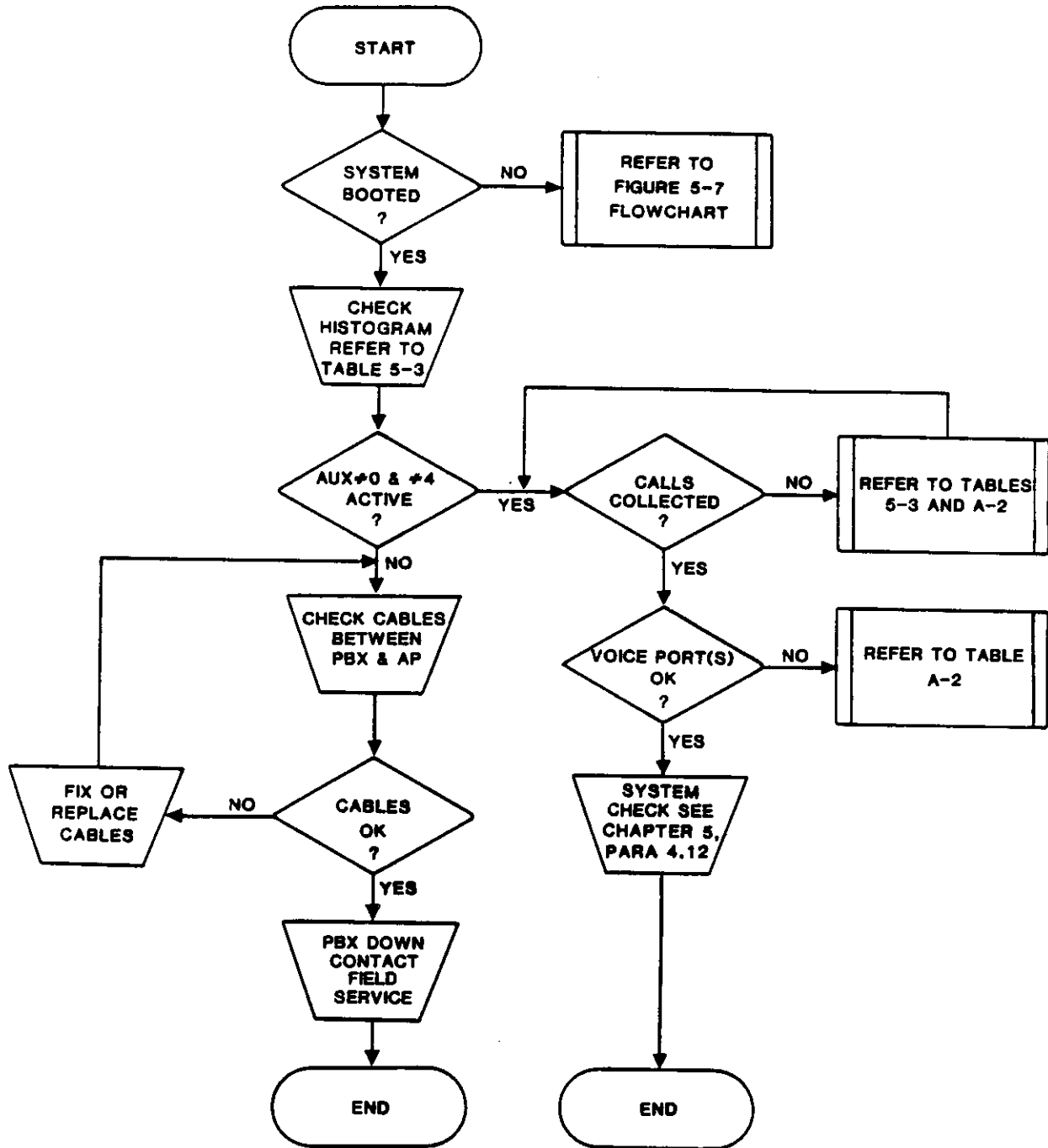
4.08 Figure 5-5 provides systematic testing of the **focus Lodging II** Application Processor interfaces with the **focus 960**. The flowchart utilizes the **focus Lodging II** Histogram in determining if the problem is located in the **focus 960**. Diagnostic tables are referenced for troubleshooting instructions.

4.09 The flowchart in Figure 5-6 is used to determine if the third party PMS is faulty. Troubleshooting information may be found in the Histogram, and the various diagnostics tables referenced.



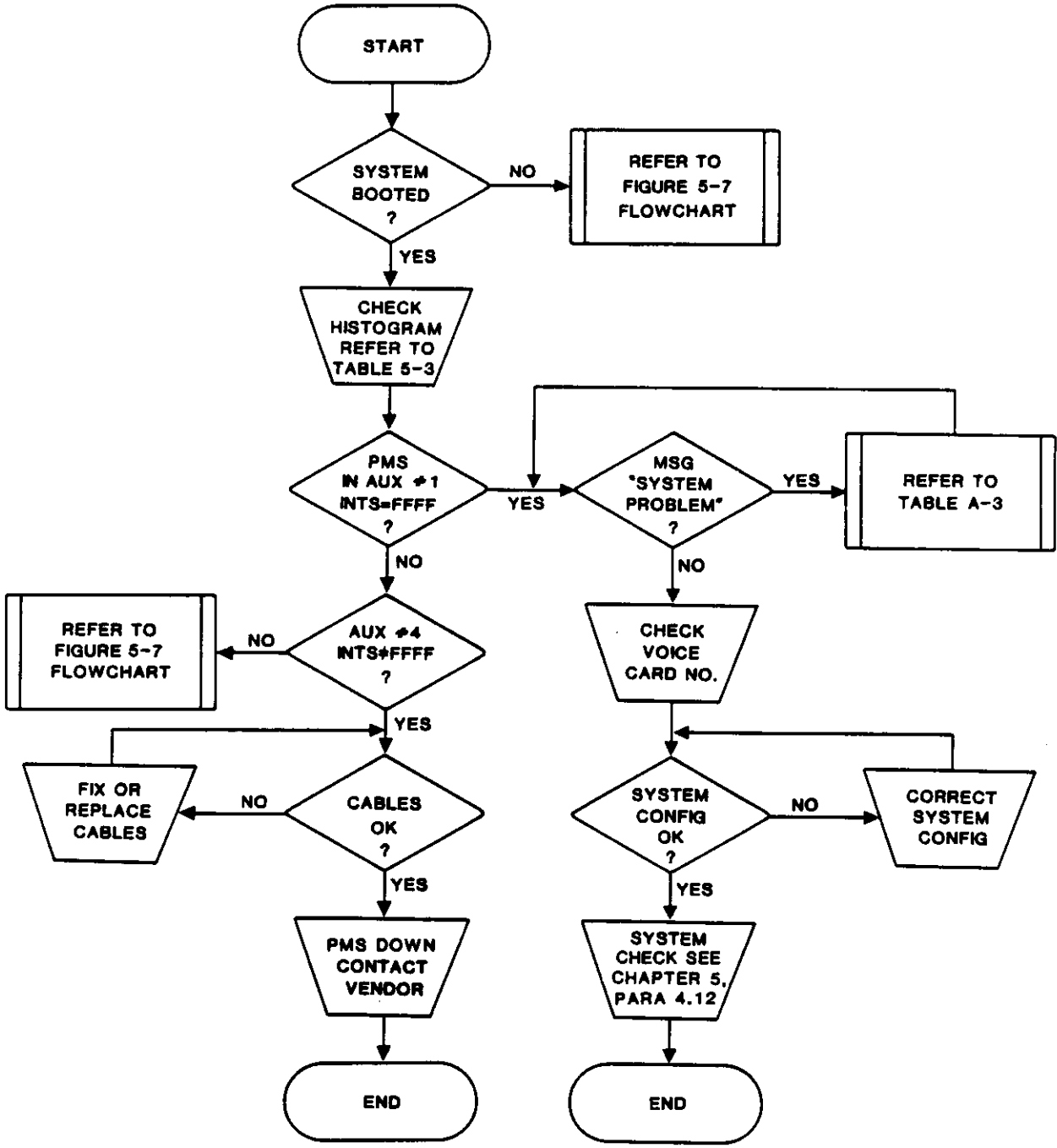
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Figure 5-4. Failure During Installation of the Application Processor



115-067-000-05

Figure 5-5. PBX Fault Isolation



115-067-000-04

Figure 5-6. PMS Fault Isolation

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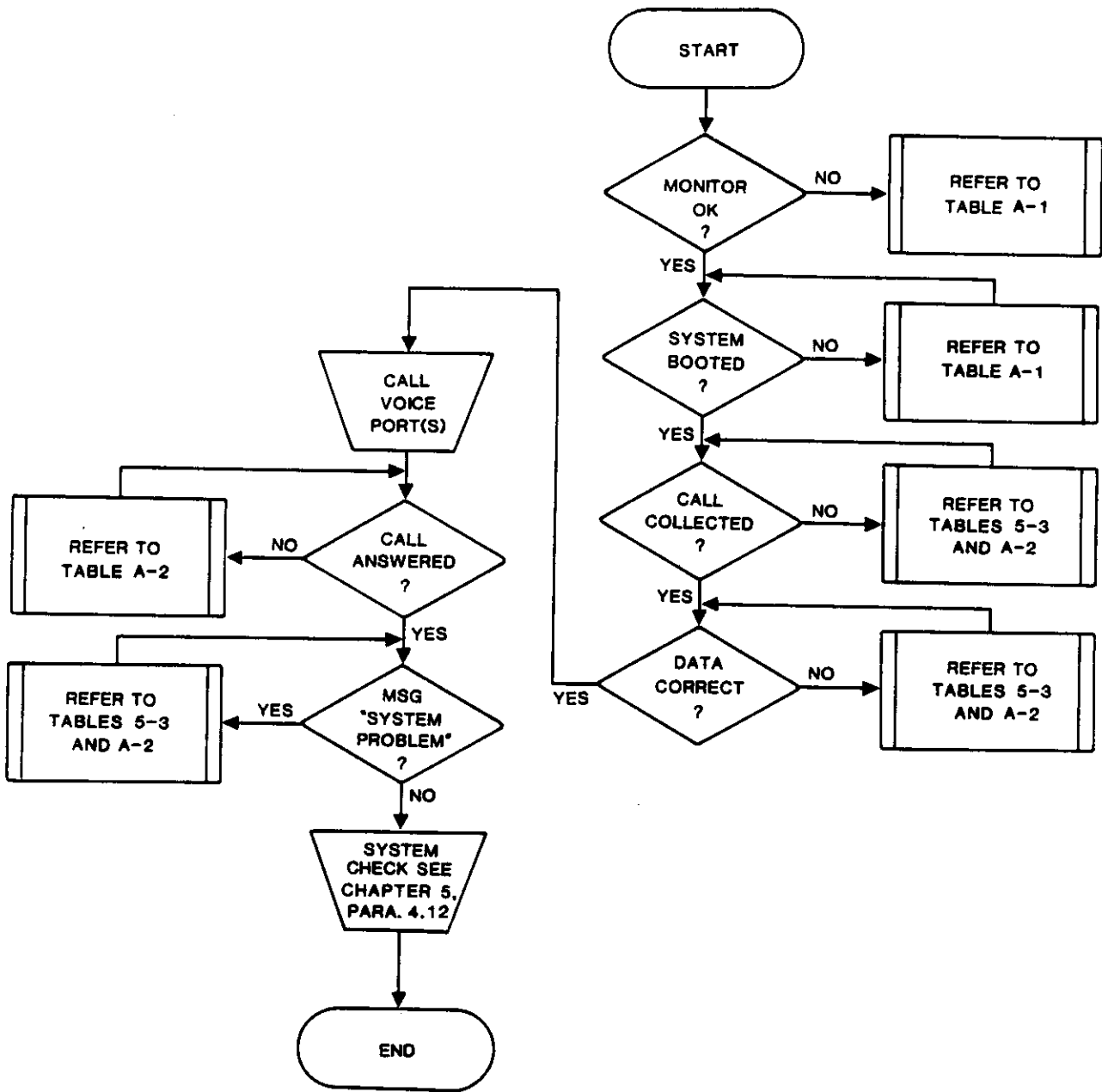
4.10 The **focus Lodging II** Application Processor troubleshooting flowchart in Figure 5-7 should be used if the system failed during operation and:

1. The computer does not work.
2. The system does not boot.
3. The **focus 960** PBX and the PMS are not faulty.

4.11 Follow the instructions in Figure 5-7 and refer to the Histogram and diagnostic tables as indicated.

4.12 System Checkout. Upon completion of **focus Lodging II** troubleshooting, verify that the system is operational by performing the following steps:

1. Verify printer connection and setting.
2. Turn immediate mode printing on.
3. Collect several call records.
4. Verify immediate printout against the actual calls.
5. Turn immediate mode printing off.
6. Generate chronological report for all calls.
7. Verify report against immediate mode printing of call records.
8. Verify Call Collection Statistics for accuracy.



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Figure 5-7. Failure During Operation of the Application Processor

CHAPTER 6 HISTOGRAM EXPLANATIONS AND EXAMPLES

1. INTRODUCTION

1.01 The **focus Lodging II** system provides a display of all the activities between the **focus 960** PBX and the Application Processor (AP) as well as between the AP and the PMS. This real-time activities monitor is called a Histogram. It can be used to diagnose system problems and locate faults. The Histogram is divided into two parts: the upper half represents all the inputs to the AP and the bottom half represents all the outputs from the AP.

2. APPLICATION PROCESSOR INTERFACES

2.01 The **focus Lodging II** system combines three systems into a functional unit that provides a highly-featured hotel/motel communications and property management system. These three systems, the **focus 960**, the Application Processor (AP), and the Property Management System (PMS), are interconnected via four links. In addition, the AP is connected to the report printer and the backup printer. Some of the links to the AP are input only, some are bi-directional, and some are output only. These links are identified as follows:

1. Aux# 0 is the SMDR link between the **focus 960** PBX and the AP. This is an input only interface used by the **focus 960** PBX to input call data to the AP. Therefore, the aux# 0 input (upper half of the Histogram) is active, (ints≠FFFF) and the aux# 0 output (bottom half of the Histogram) is inactive (ints=FFFF).
2. Aux# 1 is the PMS-INT link between the AP and the PMS. This is a bi-directional interface that is used to transmit and receive data by the AP. Therefore, both aux# 1 input and aux# 1 output are active (ints≠FFFF).
3. Aux# 2 is the HOBIC link between the AP and the PMS. The AP can only transmit data over this interface to the PMS. Therefore, the aux# 2 input is inactive (ints=FFFF) and the aux# 2 output is active (ints≠FFFF).
4. Aux# 3 is the backup printer link to the AP. The AP can transmit information to the printer but it cannot receive information from the printer. Therefore, the aux# 3 input is inactive (ints=FFFF) and the aux# 3 output is active (ints≠FFFF).
5. Aux# 4 is the PIL interface between the **focus 960** PBX and the AP. This is a bi-directional link between the **focus 960** and AP. Therefore, both the aux# 4 input and the aux# 4 output are active (ints≠FFFF).
6. Aux# 5 is the report printer link to the AP. The AP can transmit information to the printer but it cannot receive information from the printer. Therefore, the aux# 5 input is inactive (ints=FFFF) and the aux# 5 output is active (ints≠FFFF).

3. HISTOGRAM ANALYSIS EXAMPLE

3.01 In order to demonstrate how to use the Histogram as a troubleshooting tool, compare a typical problem-free Histogram with one exhibiting various system problems. By comparing the most significant functions in Figures 6-1 and 6-2 the system symptoms are may be determined.

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Aux	Input	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
	0	0	1	0	813	400	FFFF	FFFF	FFFF	FFFF	FFFF
1	0	0	0	0	4A0	200	0	FFFF	FFFF	FFFF	FFFF
2	0	0	4	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
3	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
4	0	0	1	0	24	200	FFFF	FFFF	FFFF	FFFF	FFFF
5	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
Aux	Output	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
0	0	0	0	0	FFFF	40					
1	0	0	0	0	40	40					
2	0	0	4	0	19E	40					
3	0	0	1	0	FFFF	40					
4	0	0	0	0	31F	40					
5	0	0	1	0	901	40					

UART errors = 0 Discarded Chars = FFFF IIR Hist { 0, 0, 0, 0 }

OE_CALLER 90A:2BFF Process Context PN (name) = Init

Figure 6-1. Histogram of a Trouble-Free System

Aux	Input	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
0	400	0	81	0	3385	400	FFFF	FFFF	822	13F	140C
1	0	0	0	0	728	200	0	FFFF	FFFF	FFFF	FFFF
2	0	0	4	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
3	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
4	0	0	0	0	354	200	FFFF	FFFF	FFFF	FFFF	FFFF
5	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
Aux	Output	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
0	0	0	0	0	FFFF	40					
1	0	0	0	0	87	40					
2	0	0	4	0	5D	40					
3	0	0	1	0	FFFF	40					
4	0	0	0	0	3A8	40					
5	0	0	1	0	2809	40					

UART errors = 824 Discarded Chars = 1ABC IIR Hist { 0, 0, 0, 0 }

OE_CALLER ICB: Process Context PN (name) = COLL

Figure 6-2. Histogram of a Faulty System

3.02 In the text that follows, we are comparing the call collection characteristics of a fault-free system exhibiting call collection problems. Call collection is accomplished over the SMDR (aux# 0) link, which provides data transmission from the **focus 960** to the AP. Since this is an input only interface, aux# 0 in the upper half of the Histogram will be active. The following lists the major differences in the parameters between the aux# 0 input in Figure 6-1 and Figure 6-2:

1. Cnt=0 in Figure 6-1 shows that the buffer is empty. Cnt=400 in Figure 6-2 shows that the AP cannot keep up with the speed of the incoming call records from the **focus 960** PBX, thus the AP buffer is full (cnt=400) and most calls are being discarded.
2. Prot=1 in Figure 6-1 represents DTR protocol. Prot=81 in Figure 6-2 shows that the AP is attempting to stop the PBX from sending calls to the AP without success.
3. Ints=813 in Figure 6-1 shows the number of interrupts or calls sent by the **focus 960** PBX to the AP. Ints=3385 in Figure 6-2 shows also the number of calls sent by the PBX.
4. Size=400 in both figures represents the size of the buffer available to store call records in the AP.
5. Fram=FFFF in Figure 6-1 shows no frame errors. Fram=822 in Figure 6-2 shows the number of framing errors during call collection.
6. Brea=FFFF in Figure 6-1 shows no break errors. Brea=13F in Figure 6-2 shows the number of break errors that occurred during the transmission of the call records.
7. Disc=FFFF in Figure 6-1 shows no discarded records. Disc=140C in Figure 6-2 shows the number of discarded call records due to the inability of the AP to process the calls at the speed the **focus 960** PBX is sending them.

3.03 This analysis shows that the baud rate set at the AP is lower than the baud rate set at the **focus 960** PBX. To correct this problem, set the baud rate at the AP to match the baud rate at the PBX.

4. OTHER FAULT EXAMPLES

4.01 The Histogram in Figure 6-3 shows that the report printer is off line. The data is being sent to the report printer through the aux# 5 port. Because it is off line, the output buffer has filled up (cnt=40). At the same time, wait=FF indicates that the port is trying to stop the data transmission to the report printer without success.

4.02 The Histogram in Figure 6-4 shows that the PIL is faulty. The aux# 4 PIL output is active but the input is inactive, thus the AP is transmitting data over the PIL link but is not receiving data from the **focus 960** PBX over the PIL link. The aux# 0 SMDR input is not receiving any call data.

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Aux	Input	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
0	0	0	1	0	3B79	400	0	FFFF	822	13F	1A8C
1	0	0	0	0	990	200	0	FFFF	FFFF	FFFF	FFFF
2	0	0	4	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
3	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
4	0	0	0	0	398	200	FFFF	FFFF	FFFF	FFFF	FFFF
5	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
Aux	Output	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
0	0	0	0	0	FFFF	40					
1	0	0	0	0	87	40					
2	0	0	4	0	18E	40					
3	0	0	1	0	FFFF	40					
4	0	0	0	0	5A0	40					
5	40	FF	1	0	5B49	40					

UART errors = 824 Discarded Chars = 1A8C IIR Hist { 0, 0, 0, 0 }

OE_CALLER ICB: 548 Process Context PN (name) = COLL

Figure 6-3. Baud Rate Problem and Report Printer Off Line

Aux	Input	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
0	0	0	1	0	FFFF	400	FFFF	FFFF	FFFF	FFFF	FFFF
1	0	0	0	0	62	200	0	FFFF	FFFF	FFFF	FFFF
2	0	0	4	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
3	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
4	0	0	1	0	FFFF	200	FFFF	FFFF	FFFF	FFFF	FFFF
5	0	0	0	0	FFFF	40	FFFF	FFFF	FFFF	FFFF	FFFF
Aux	Output	Histogram for all channels									
aux#	cnt	wait	prot	char	ints	size	over	pari	fram	brea	disc
0	0	0	0	0	FFFF	40					
1	0	0	0	0	FFFF	40					
2	0	0	4	0	20	40					
3	0	0	1	0	FFFF	40					
4	0	0	0	0	50	40					
5	0	0	1	0	FFFF	40					

UART errors = 0 Discarded Chars = FFFF IIR Hist { 0, 0, 0, 0 }

OE_CALLER 90A:2BFF Process Context PN (name) = Init

Figure 6-4. Not Collecting Calls and PIL Input Faulty

**APPENDIX A
TROUBLESHOOTING CHARTS**

Following are diagnostic tables to assist the craftsperson in the various methods of isolating and repairing system malfunctions. Use the information presented along with any other reference documentation to correctly troubleshoot the system.

Table A-1. Computer Related Problems

Symptom	Possible Cause	Corrective Action
No display	Computer not plugged in and turned on	Turn on computer.
	No power to monitor	Plug in monitor cable and adjust brightness control to show contrast between bold and nonbold text.
	Breaker reset	Turn system power switch off, then on.
	Power supply or other hardware failure	Replace faulty parts or call your computer vendor.
"Parity Error" displayed on screen	Memory failure	Run IBM PC-AT diagnostics.
System locked up	Static discharge problem	Turn computer off and then on. Protect the system from static discharge.
"ERROR: Invalid Function" displayed on screen	Pressed a function key instead of a number key	Press ENTER key and then press appropriate number key.
Other errors displayed	Hardware failure or connection problems	Remove AP hardware from computer and run IBM PC-AT diagnostics Call vendor to fix problem.

Table A-1. Computer Related Problems (Cont'd)

Symptom	Possible Cause	Corrective Action
System does not boot	AP hardware problem	Replace faulty card. Refer to Chapter 5.
System booted but Main Menu is not displayed on screen	Configuration problem	Check and reset system configuration switches. Consult focus Lodging II Installation Manual.
	Missing files	Reinstall software in the proper sequence.
Display shows "not enough memory"	Advantage Premium expansion card faulty	Check switch settings if correct. Replace or fix memory expansion card.
CDOS boots but does not run memory chips. Histogram, CCS, and/or FRS screens display problems.	High address memory in the Advantage Premium expansion board is faulty	Check and/or replace board.
	Software not installed properly	Reinstall software.
CCMI rate rables will not restore	Restoring to wrong directory	Run restore from root directory where data file resides.
Error code 0001 "No response from speech board, check VIOS configuration."	Voice board plugged in improperly	Reinsert voice board and observe connector pins alignment.
	DIP switches set wrong on voice card	Set DIP switches correctly.
	Faulty voice card	Replace voice card.

Table A-2. AP Related Problems

Symptom	Possible Cause	Corrective Action
Dropped calls	Wrong baud rate set at AP	Set the correct baud rate to match PBX baud rate. Refer to focus Lodging II Installation Manual.
No call collection	Cables disconnected	Connect cables.
	SMDR port faulty	Replace defective board. Refer to Chapter 5.
	Extensions and/or trunks do not match PBX database	Correct extensions and/or trunk assignments to correspond with PBX database.
	Trunk and extension configuration incorrect	Check and correct configuration.
	No calls from PBX	Check PBX CSS.
No call collection and/or incorrect cost and pricing	Wrong CCMI rate tables	Shut down the system, and power-off after the "In process of shutting down Lodging II " message appears. Insert the PC DOS disk before turning the power back on. Install the correct CCMI rate tables.
Missing data (A portion of a report may be missing)	CP/M partition created before DOS partition	Reinstall software creating DOS partition first. Refer to focus Lodging II Installation Manual.

Table A-2. AP Related Problems (Cont'd)

Symptom	Possible Cause	Corrective Action
Voice port does not answer	Voice line plugged in wrong jack	Plug Voice line in lower jack of voice card.
	Computer turned off. Voice card not powered	Turn on computer.
	Voice line to PBX faulty	Plug test phone into PBX side and see if it works. Replace cable, if faulty.
	Faulty voice card	Plug test phone into upper jack on voice port card and check for dial tone. If no dial tone, replace card.
Error Code 0001: "No response from speech board, check VIOS configuration"	Voice card plugged in improperly	Reinsert voice board and observe connector pins alignment.
	DIP switches set wrong on voice board	Set DIP switches correctly.
	Voice card failure	Check that the modular cord is plugged into the bottom jack of the card. Verify that the telephone line is working.
	Voice card failure: telephone line not at fault	Check the voice port extension numbers on the Lodging Configuration screen. Change any extensions of "-1" to the actual extension being used, shut down and restart the system.