



















MAP/5










Technical Job Aid





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About This Job Aid

Why this job aid is important to you, how it ties in with the video, what training is available, what documentation is available, and how to get help.

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Introduction to the MAP/5

Description of the basic components, models and storage capacities, and applications supported.

4



Installing the MAP/5

Choosing a location, unpacking, identifying and installing circuit boards, connecting components, power up and POST diagnostics, testing remote maintenance, connecting to the switch, connecting SMDR, connecting circuit boards, testing basic functionality, and reviewing the system with the customer.

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Troubleshooting

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IS Training List

List of related Job Aids and Training Courses.

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About This Job Aid

This job aid makes it easy to find the information you need for installing and repairing the Multi-Application Platform/5 (MAP/5). This job aid contains the following types of information:

- an introduction to the hardware components of the MAP/5 and to applications that run on it.
- connection diagrams and procedures for installation
- troubleshooting procedures
- illustrated procedures for replacing or adding components inside the system unit

MAP/5 Video

AT&T also provides a MAP/5 hardware video program that accompanies this Job Aid. Icons (little pictures, shown below) with section numbers corresponding to sections in the Job Aid appear in the lower right corner of the video. When you see one of the icons in the video, it means that there is additional detail in the Job Aid.



Job Aid



Introduction



Installation



Troubleshooting



Repair/Upgrade

In addition to the video, the following resources are available to assist you:

- ☛ Complete hardware documentation is provided in the *MAP/5 User's Guide* and the *AT&T MAP/5 Diagnostic Program User's Guide*, which are shipped with the system unit
- ☛ Application-specific documentation (including diagnostics for application-specific hardware) is provided with applications.
- ☛ For information about other training programs and materials, please refer to pages 135 and 136 of this document.
- ☛ And remember, for technical assistance, you can call for assistance:

Communications System	Service Organization	Telephone Number
MERLIN LEGEND System 25	National Service Assistance Center (NSAC)	1-800-552-3293
DEFINITYSystem 75	Technical Service Center (TSC)	1-800-248-1234

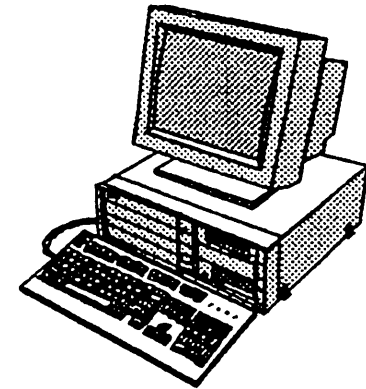


Introduction to the MAP/5

The MAP/5 consists of a keyboard, a monitor, and a system unit. The system unit may be placed either on the desktop or beside the desk (tower orientation) by orienting the "feet" in the correct position. The system unit includes the system board, the power supply, a 3.5-inch floppy disk drive, Random Access Memory (RAM), a hard drive, an optional tape drive, and any expansion boards required by the applications installed.

The MAP/5 may have either 4, 8, or 20 MB of RAM and a 210, 250, 420, 500, or 540 MB hard disk.* The exact configuration depends on the requirements of the applications installed in the MAP/5.

The initially offered MAP/5 configurations include the following models:



<u>Model</u>	<u>Memory Size</u>	<u>Hard Disk Size and Type</u>	<u>Tape Drive Size and Type</u>	<u>Operating System</u>
4X1I	4 MB	210 MB IDE	None	MS-DOS
8X1IT	8 MB	210 MB IDE	250 MB QIC	UNIX 3.2.2
8X2IT	8 MB	250 MB IDE or 420 MB IDE	250 MB QIC	UNIX 3.2.2
8X5IT	8 MB	500 MB IDE or 540 MB IDE	250 MB QIC	UNIX 3.2.2
20X5ST	20 MB	540 MB SCSI	525 MB SCSI	UNIX 4.2

* Other sizes may be offered for upgrade.

1 Applications Supported

The MAP/5 supports the following AT&T applications:

Application	MERLIN LEGEND		System 25		DEFINITY/System 75	
	UNIX	MS-DOS	UNIX	MS-DOS	UNIX	MS-DOS
AUDIX Voice Power R2.1.1 (Integrated Solution)	Y	-	Y	-	Y	-
AUDIX Voice Power 2.1.1 (Stand Alone)	-	-	-	-	Y	-
CMS	-	Y	-	Y	-	-
CAS Plus V3	-	Y	-	Y	-	Y
CAS for Windows	-	Y	-	Y	-	Y
Call Accounting System (CAS)	Y	-	Y	-	-	-
Integrated Solution CAS (IS CAS)	Y	-	Y	-	Y	-
Advanced Administration System (AAS)	-	-	Y	Y	-	-
System Programming and Maintenance (SPM)	Y	Y	-	-	-	-
INTUITY	-	-	-	-	Y	-

Separate technical training is available for each of these applications.

Note: MAP/5 supports Integrated Solution III or later.



Installing the MAP/5

This section includes details on the following steps in the installation process. More complete information can be found in the *AT&T Multi-Application Platform/5 User's Guide* and the *AT&T Map/5 Diagnostic Program User's Guide*.

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2. Unpacking the Components	10
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1 Choosing an Appropriate Location for the MAP/5

General Requirements:

- ☛ Temperature: 41° - 95° F (5° - 35° C)
- ☛ Humidity: 20 - 80% non-condensing
- ☛ Power: 115/230 VAC, 50 - 60 Hz, 200 Watts, grounded, non-switched outlet
- ☛ Use the following table to determine whether the location the customer has chosen requires additional cooling or ventilation.

Component	BTUs
System unit	640
Monitor	290.7
System 25	1700 per carrier
MERLIN LEGEND	500 per carrier
DEFINITY (single-carrier cabinet)	1700
DEFINITY (4-cabinet average)	6700
DEFINITY (fully loaded multi-carrier cabinet)	8000
DEFINITY (fully loaded multi-carrier average)	5000

General Requirements (continued):

- ☞ Requires the total number of 115 VAC sockets outlined in the following table.

Component	# of sockets
Optional Surge Protector: a power strip is usually used with the surge protector to provide all necessary outlets (except for DEFINITY). Depending on the configuration of the sockets, the surge protector might block another socket.	1 or 2*
System unit (plugs into optional surge protector/power strip).	1
Monitor (plugs into system unit).	0
Optional RMD. Depending on the configuration of the sockets, the RMD's transformer might block another socket. (Can use power strip.)	0, 1 or 2*
Printer (can use power strip).	1
For each ADU on switch side (maximum 2). Depending on the configuration of the sockets, the ADU'S transformer might block another socket. Can use power strip.	0, 1 or 2* each
System 25 (can use power strip).	Up to 3
MERLIN LEGEND (can use power strip).	Up to 3
DEFINITY (single-carrier cabinet) Requires separate circuit.	1 per cabinet
DEFINITY (multi-carrier cabinet) Requires separate circuit.	1
7400A Data Module (used optionally with SMDR). Depending on the configuration of the sockets, the Data Module transformer might block another socket. Can use power strip.	0, 1 or 2*








* Uses one socket (outlet), but may block an additional socket.

General Requirements (continued):

- ☛ For MERLIN LEGEND and System 25, the system unit should be plugged into the same grounded circuit as the voice switch if possible. If that is not possible, you may have to use ADUs (Asynchronous Data Units) when connecting the MAP/5 to the switch.
- ☛ The system unit requires 4 inches of clearance for ventilation slots and cables on the back and side of the system unit.
- ☛ Avoid placing the system unit or monitor in direct sunlight.

2 Unpacking the Components

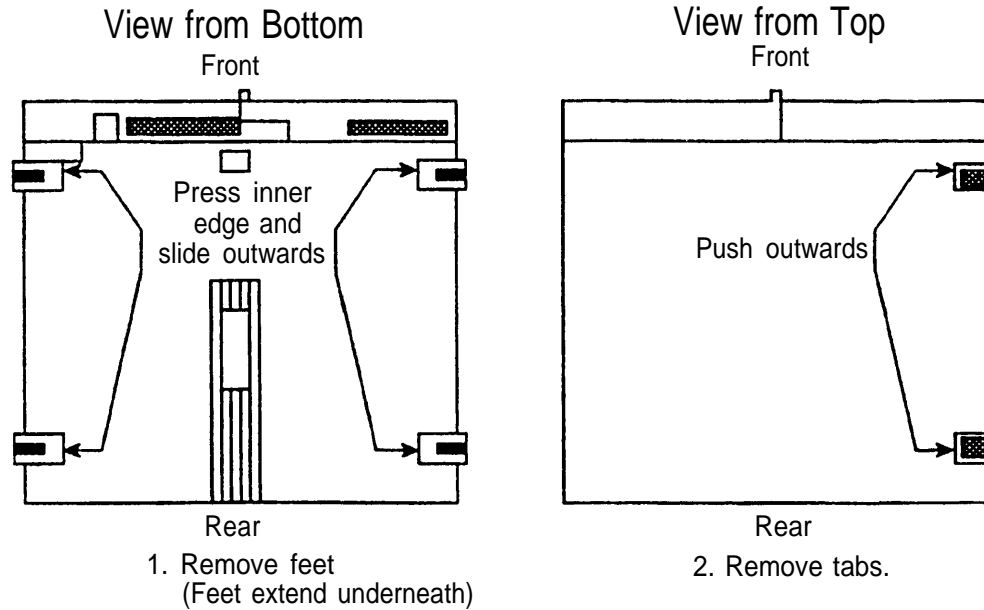
Confirm that you have the following items:

-  System unit with:
 - two keys
 - power cord (2) monitor and system unit
 - AT&T MAP/5 Diagnostic Program diskette, *AT&T MAP/5 Diagnostic Program User's Guide*, blank "scratch" diskette (for use in the floppy disk drive test)
 - *AT&T Multi-Application Platform/5 User's Guide*
 - 9 to 25-pin adapter (optional)
-  Color monitor with power cord, cable, and guide.
-  Keyboard with coiled cable (attached) and guide.
-  Surge protector and power strip (for IS and CAS configurations only)
-  For System 25 and DEFINITY, an optional Remote Maintenance Device (RMD) with power transformer, modular cord, instruction guide, and data cables (RMD is required for IS configurations)
-  Optional 80-column or 132-column AT&T Applications Parallel Printer, or optional laser printer.
-  Two blank 6525 type tapes for configurations with tape drives.

3 Changing Desktop/Tower Orientation

Use these drawings as a guide for setting up the MAP/5 for desktop or tower orientation.

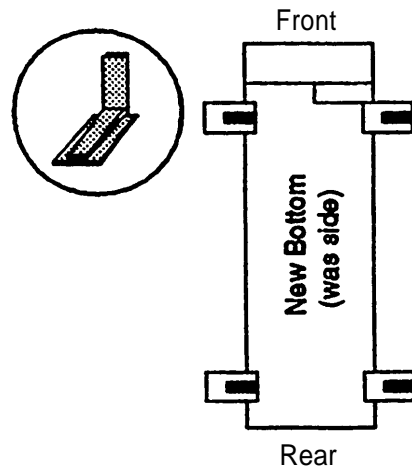
Steps shown convert from desktop orientation to tower orientation.
Reverse procedure to convert from tower orientation to desktop orientation.



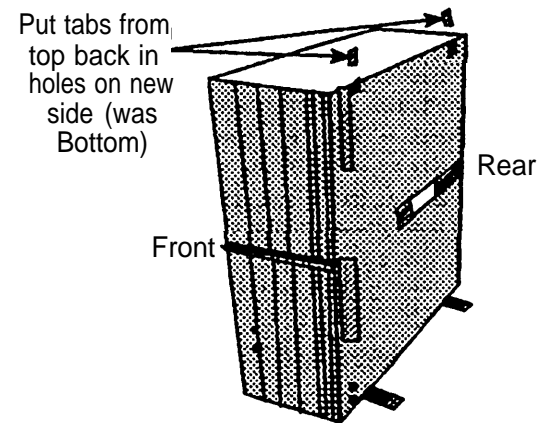
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Setting Desktop/Tower Orientation

Continued from previous page.



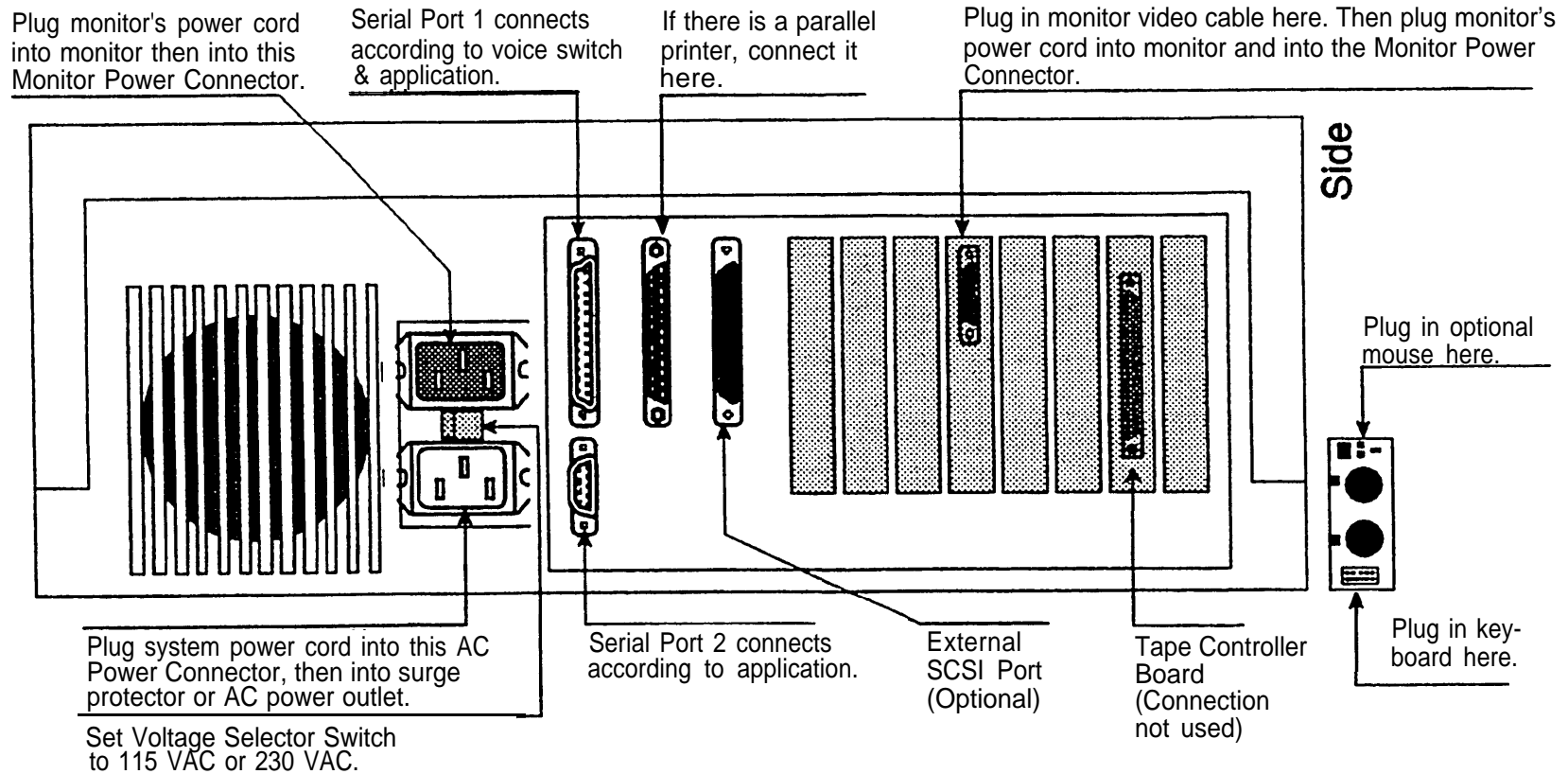
3. Insert feet in base of tower.
(Feet extend outward.)



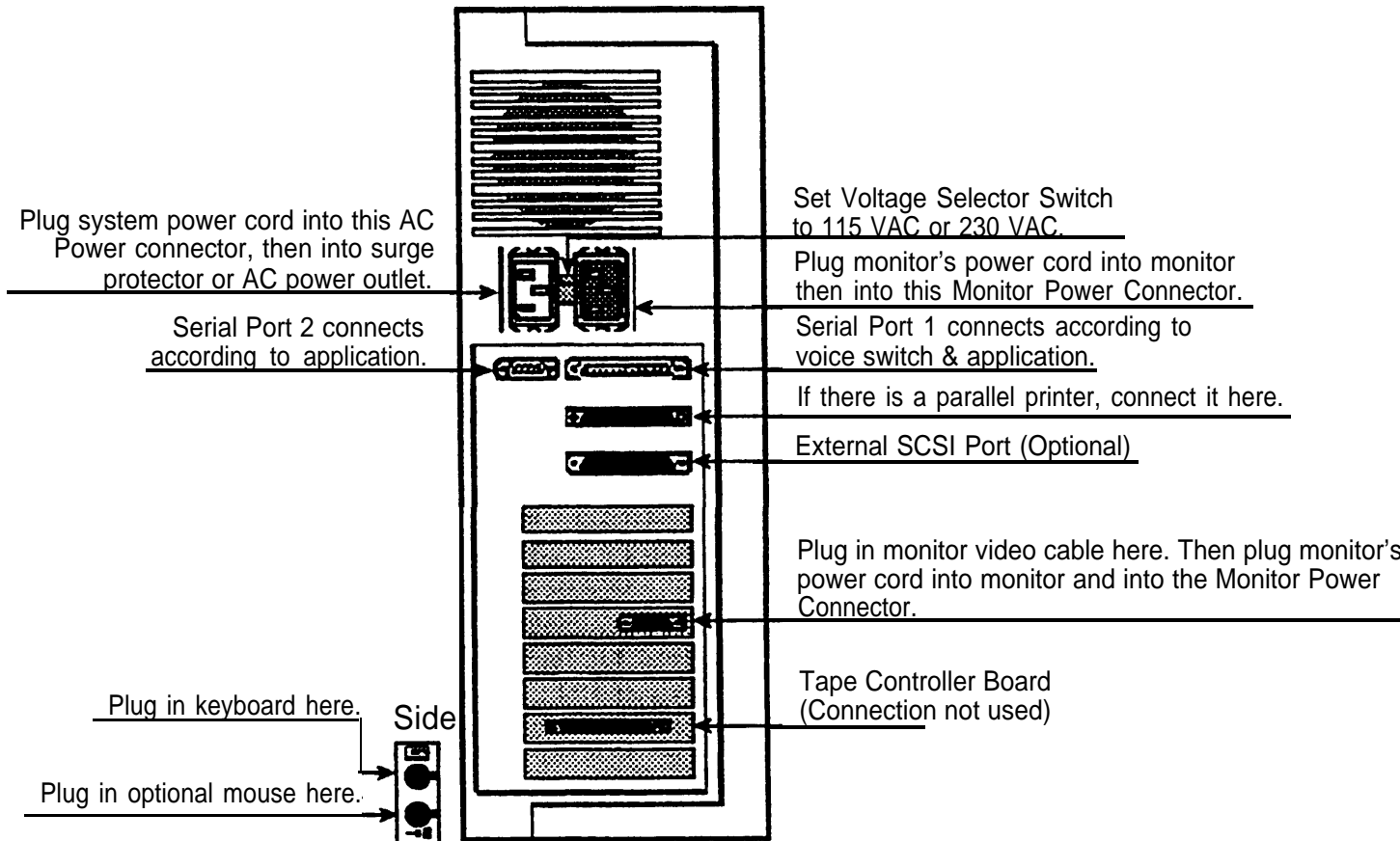
4. Insert tabs in remaining holes.
5. Rotate Keyboard/Mouse connectors

4 Connecting the Components

Use this drawing as a guide for connecting the MAP/5 components (desktop orientation).



Use this drawing as a guide for connecting the MAP/5 components (tower configuration).



5 Turning the System On and Running Diagnostics

1. Insert the diagnostic diskette in the floppy drive.
2. Turn the monitor and system unit on. The MAP/5 runs a series of self-tests ending with:
Video ROM BIOS
If the lights don't come on and/or you don't hear the fan, turn everything off and check that the power cord is connected and the outlet is live. If the system still doesn't come on, call for assistance.
3. You have 60 seconds to make the following choice: press 1 for IDE, or 2 for SCSI system.
4. Press [Enter] at the next menu screen to display the Test Item menu.
5. Press [F10] to select all tests at once, then press [F2] to begin the first test. Follow the directions on each screen.
6. At the end of all tests, press [ESC] to return to the Main Menu.
7. Use the right-arrow key to highlight EXIT, then press [Enter]

Details on all the tests are in the *AT&T MAP/5 Diagnostic Program User's Guide*. If any of the tests fails, call for assistance:

<u>Communications System</u>	<u>Service Organization</u>	<u>Telephone Number</u>
MERLIN LEGEND/System 25	National Service Assistance Center (NSAC)	1-800-552-3293
DEFINITY/System 75	Technical Service Center (TSC)	1-800-248-1234

6 Testing Remote Maintenance

The following applications support remote maintenance:

-  Integrated Solution applications (all)
-  CAS for Windows

If your application includes a remote maintenance facility, test it as follows:

 **MERLIN LEGEND and System 25:**

Call the NSAC (1-800-552-3293) and listen for the prompt that leads you to the software application group. Give them the telephone number of the remote maintenance device so they can call it. They will perform the test and inform you of any problem.

 **DEFINITY/System 75:**

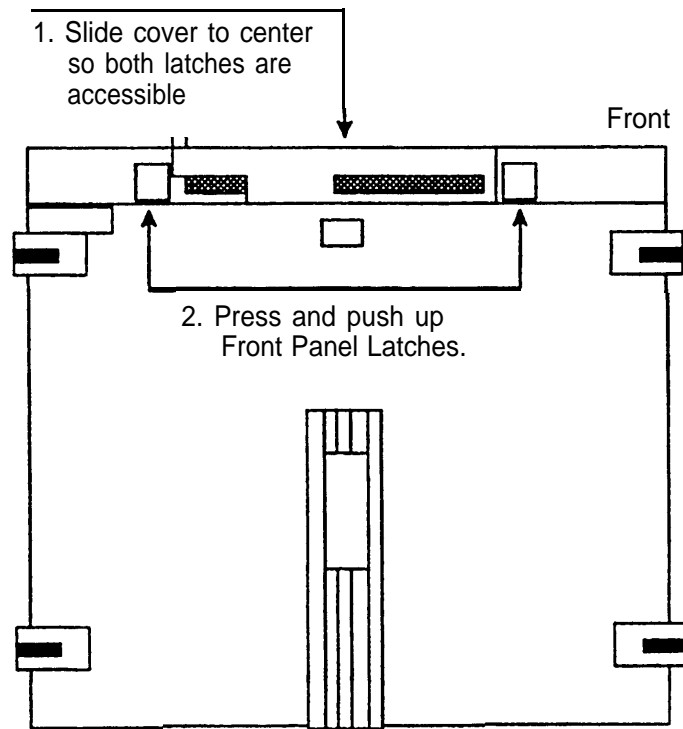
Call the TSC (1-800-248-1234) and provide the customer's remote maintenance phone number and access information. Ask the TSC representative to dial in and inform you of any problem.

7 Opening the System Unit

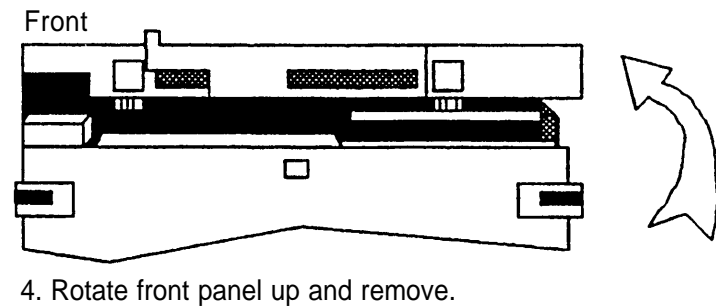
CAUTION:

See Antistatic Precautions on page 97 before proceeding.

It is necessary to open the system unit to replace or install expansion boards, and to replace components. Use these drawings as a guide for opening the system unit.



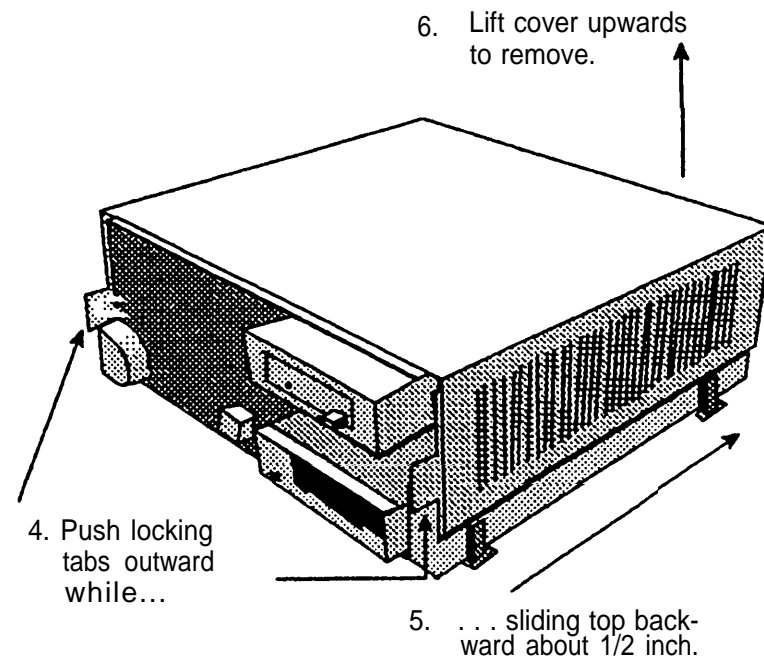
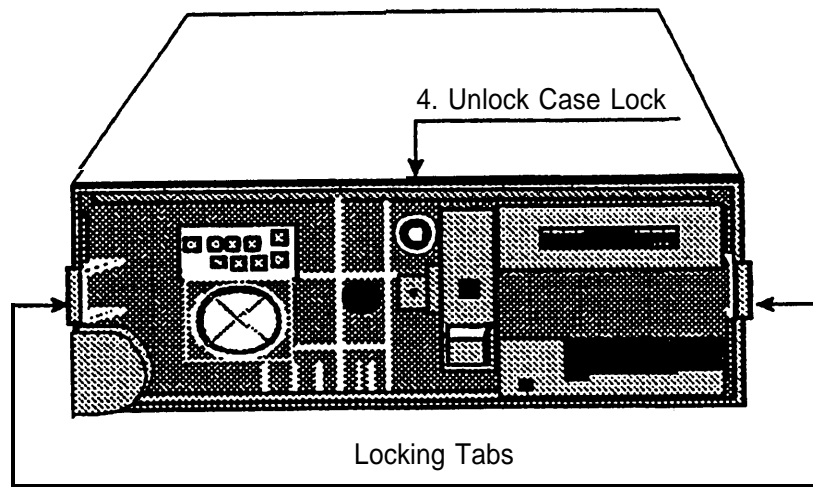
View from bottom



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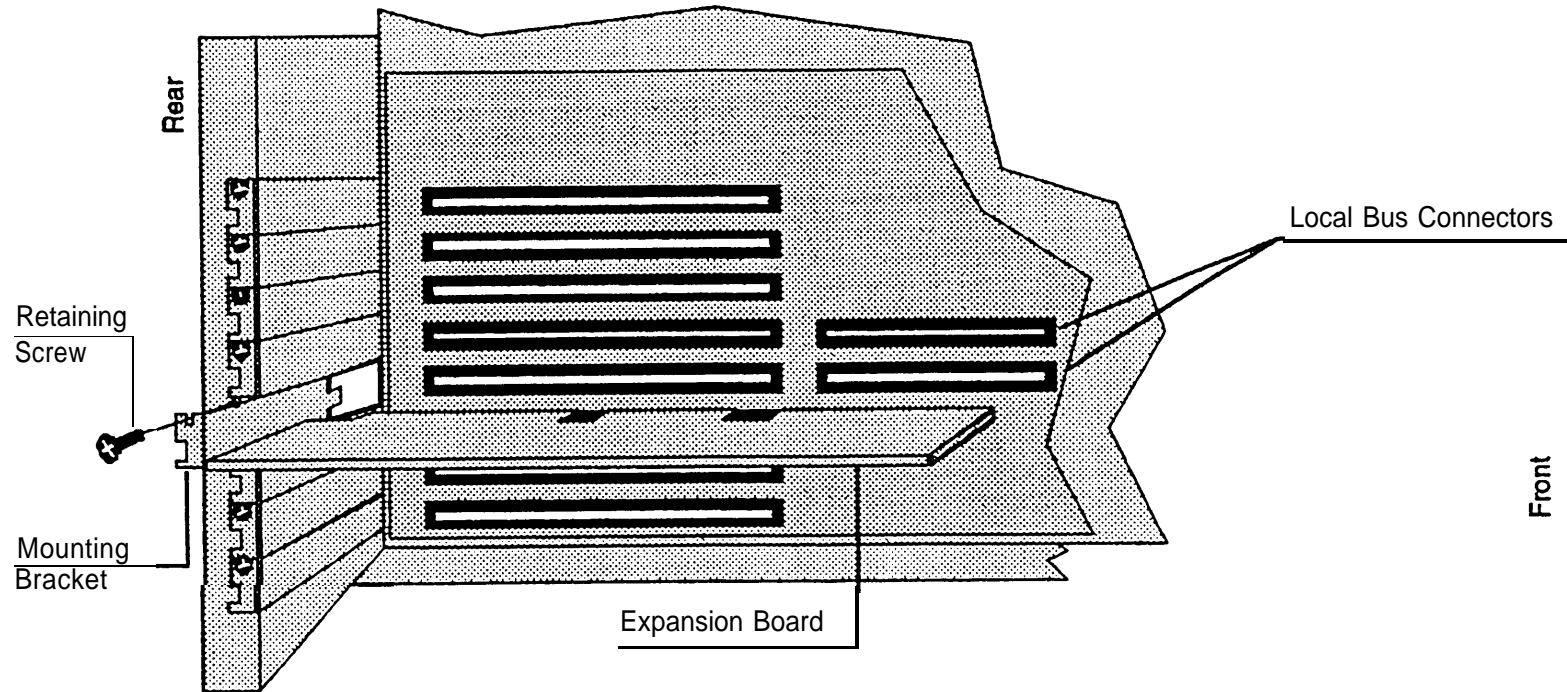
Opening the System Unit

Continued from previous page.



8 Installing Expansion Boards

Use this drawing as a guide for installing expansion boards.



9 Identifying and Setting Expansion Boards

New (not replacement) systems are shipped with all necessary expansion boards installed. It is necessary to identify and set expansion boards when they are being transferred from an older system to a newer system, or when they are being added to a system. The following table identifies the expansion boards used by each application.

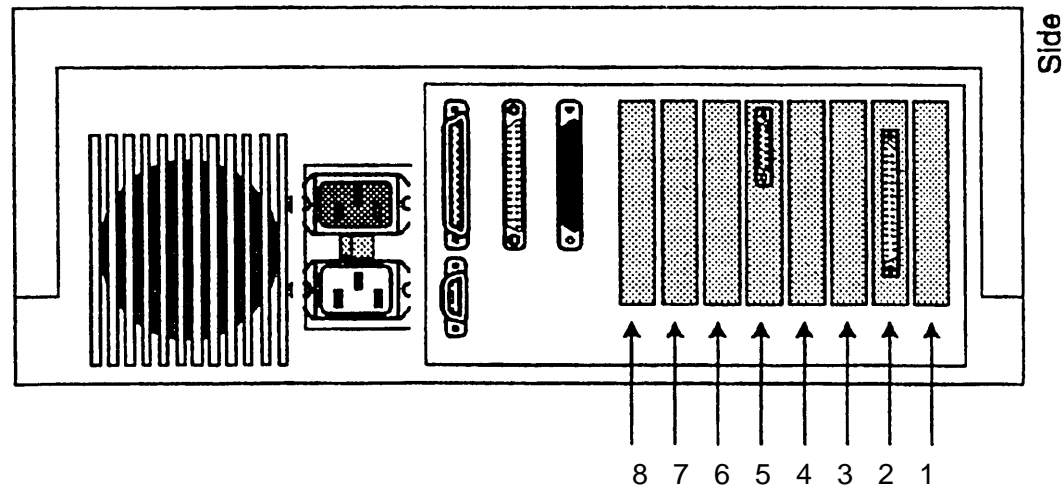
Expansion Board	Applications	Page
	Board/Slot Locations	21
IVP (voice)	AUDIX Voice Power (all) Fax Attendant System (all)	23
IFP (fax)	FAX Attendant System (all)	27
IVC (voice)	INTUITY™ AUDIX®	30
GP-synch	INTUITY™ AUDIX®	31
Multi-port Serial	INTUITY™ AUDIX®	32
ACCX Networking	INTUITY™ AUDIX®	33
DCP (DEFINITY/ System 75 switch integration)	AUDIX Voice Power (all) FAX Attendant System (all)	34
CMS	CMS	35
SatisFAXtion®	HackerTracker for either CAS Plus V3 (MS-DOS only) or CAS for Windows (Windows only)	36

Maximum Supported Boards

IS		Intuity		DOS/Windows	
Board	Max	Board	Max	Board	Max
IVP 4	3	IVC6	2	CMS	1
IVP 6	2	GP-synch	1	SatisFAXtion	1
IFP2	5	Multi-port Serial	1		
IFP4	3	ACCX	1		
DCP	1				

Board/Slot Locations

Use this illustration to identify slot numbers on the MAP/5. The table on the following page shows the locations of expansion boards.



Use this table to determine the correct locations for expansion boards.

Integrated Solution

Integrated Voice Power -4	Slots 8, 7 and 6
Integrated Voice Power -6	Slots 8 and 7
Integrated Fax Processing -2	Slots 1, 3, 4, 6 and 7
Integrated Fax Processing -4	Slots 1, 3 and 4
Tape Controller	Slot 2
Video Board*	Slot 5

- ☛ By convention, IVP Boards are installed in tower-oriented machines from top to bottom, and in desktop machines from inside out. IFP Boards are installed in tower-oriented machines bottom to top and in desktop machines from outside in.
- ☛ IFP2 cannot be used on System 25 IS III.
- ☛ For DEFINITY IS III, slot 8 is used for the DCP board. If the DCP board is installed and you are using the maximum number of IVP boards, the last board will be installed in the next lower slot.

INTUITY™

GP Synch	Slot 1
ACCX	Slot 3
Multi-port serial	Slot 4
Video Controller*	Slot 5
IVC6 (AYC10) First Card	Slot 6
IVC6 (AYC10) Second Card	Slot 7

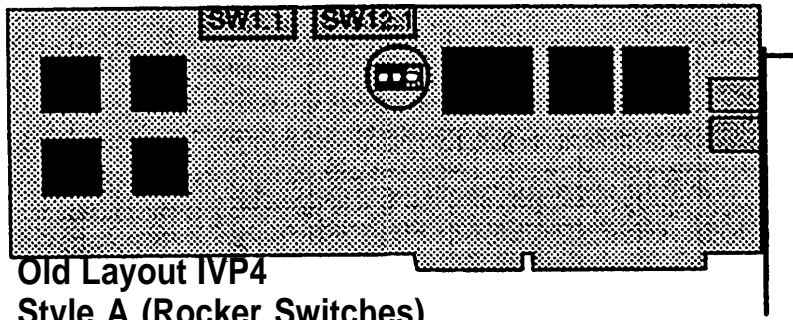
* Always slot 5 in all configurations.

Identifying IVP Boards

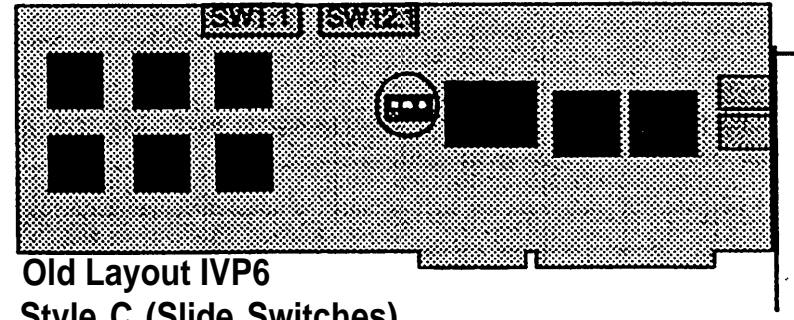
Use this table and the following drawing as a guide to identifying the five types of IVP4 boards and two types of IVP6 boards. Illustrations are provided in the following pages.

Board Type	Characteristics	Components	Comments
IVP4 (A)	Old layout (two switch banks), rocker switches, 4 repeated sets of chips	2 groups of 2	
IVP4 (B & C)	Old layout (two switch banks) slide switches, 4 repeated sets of chips	2 groups of 2	Switches are reversed on layouts B & C with the open and closed positions not marked. Determine board type by existing switch settings or by testing. (B & C cannot be visually distinguished.)
IVP4 (D)	New layout (one switch bank), with audio jacks, 4 repeated sets of chips	2 groups of 2	DO NOT use in MAP/5.
IVP4 (E)	New layout (one switch bank), no audio jacks, 4 repeated sets of chips	2 groups of 2	
IVP6 (C)	Old layout (two switch banks), slide switches, 6 repeated sets of chips	3 groups of 2	
IVP6 (D)	New layout (one switch bank), with audio jacks, 6 repeated sets of chips	3 groups of 2	Channels may exhibit noise in MAP/5.

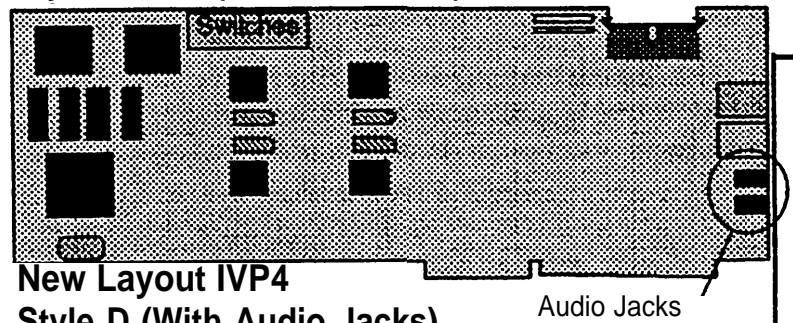
Identifying IVP Boards



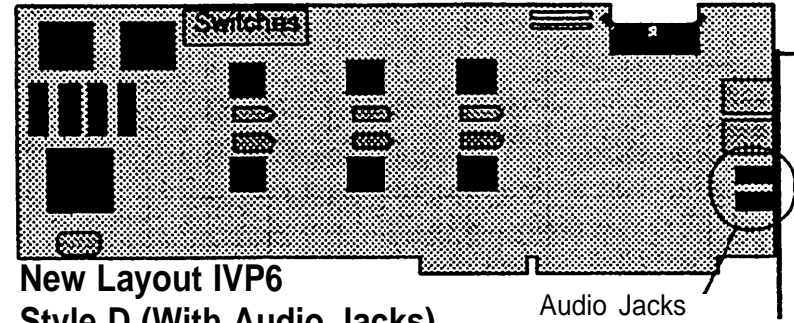
Old Layout IVP4
Style A (Rocker Switches)
Style B or C (Slide Switches)



Old Layout IVP6
Style C (Slide Switches)



New Layout IVP4
Style D (With Audio Jacks)
Style E (No Audio Jacks)

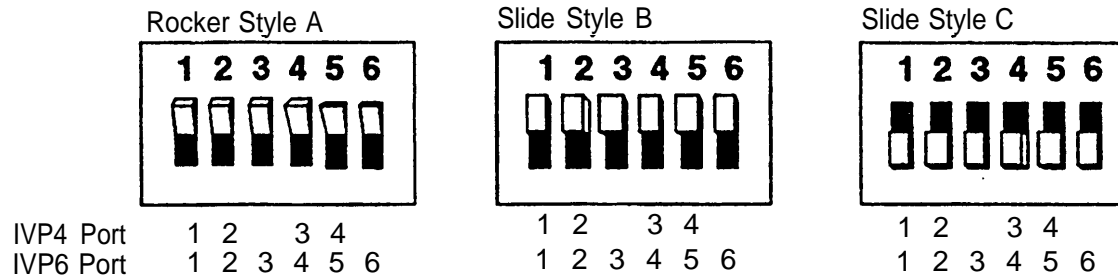


New Layout IVP6
Style D (With Audio Jacks)

Setting IVP Switches

If space allows, up to three IVP boards (maximum of 12 ports) can be installed in the MAP/5 for use with AUDIX Voice Power or FAX Attendant System.

On old layout IVP4 and IVP6 boards, switch bank 1.1 (on the left) sets line equalization. Initially set all switches as shown below.



The illustration above correlates the port number with the switch number.

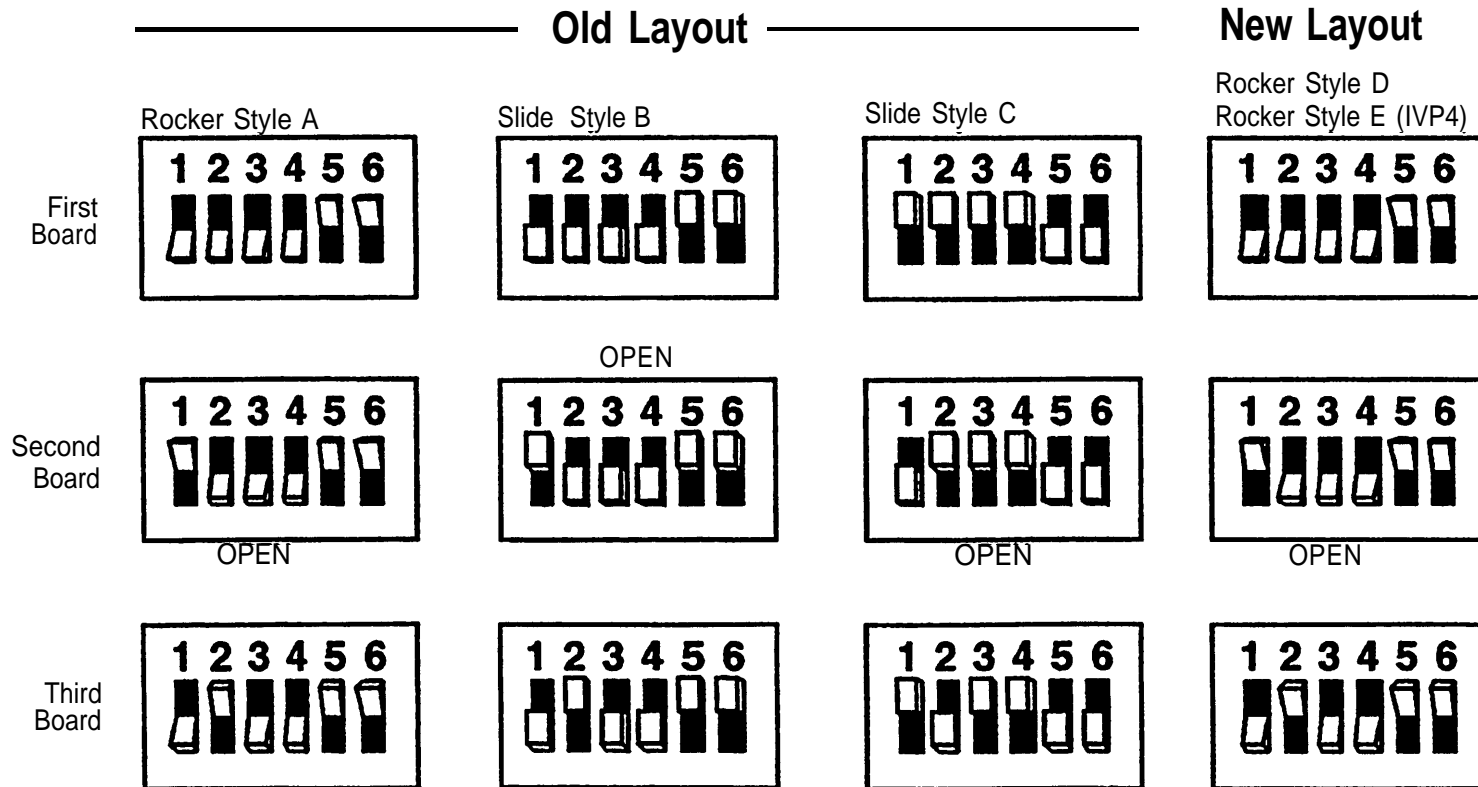
If there are touch-tone recognition problems, change the switches for the affected port to the opposite position. The illustration above correlates the port number with the switch numbers. The new layout IVP4 and IVP6 boards have automatic equalization, so there are no line equalization switches.

Note: Style Band C boards cannot be visually distinguished on the actual board, and neither the "open" nor "on" positions are marked on the switches. If the address switches on an existing board do not match any of the shown address switch settings for style B or C boards, set the board for style C and test it using the IVP board diagnostics (see page 77). If the test fails, try the style B setting.

Use the following drawings as a guide for setting address switches (bank 12.1 on the right on old layout boards or the only switch bank on new layout boards), or for identifying the board type for style B or C boards.

IVP Address Switch Settings

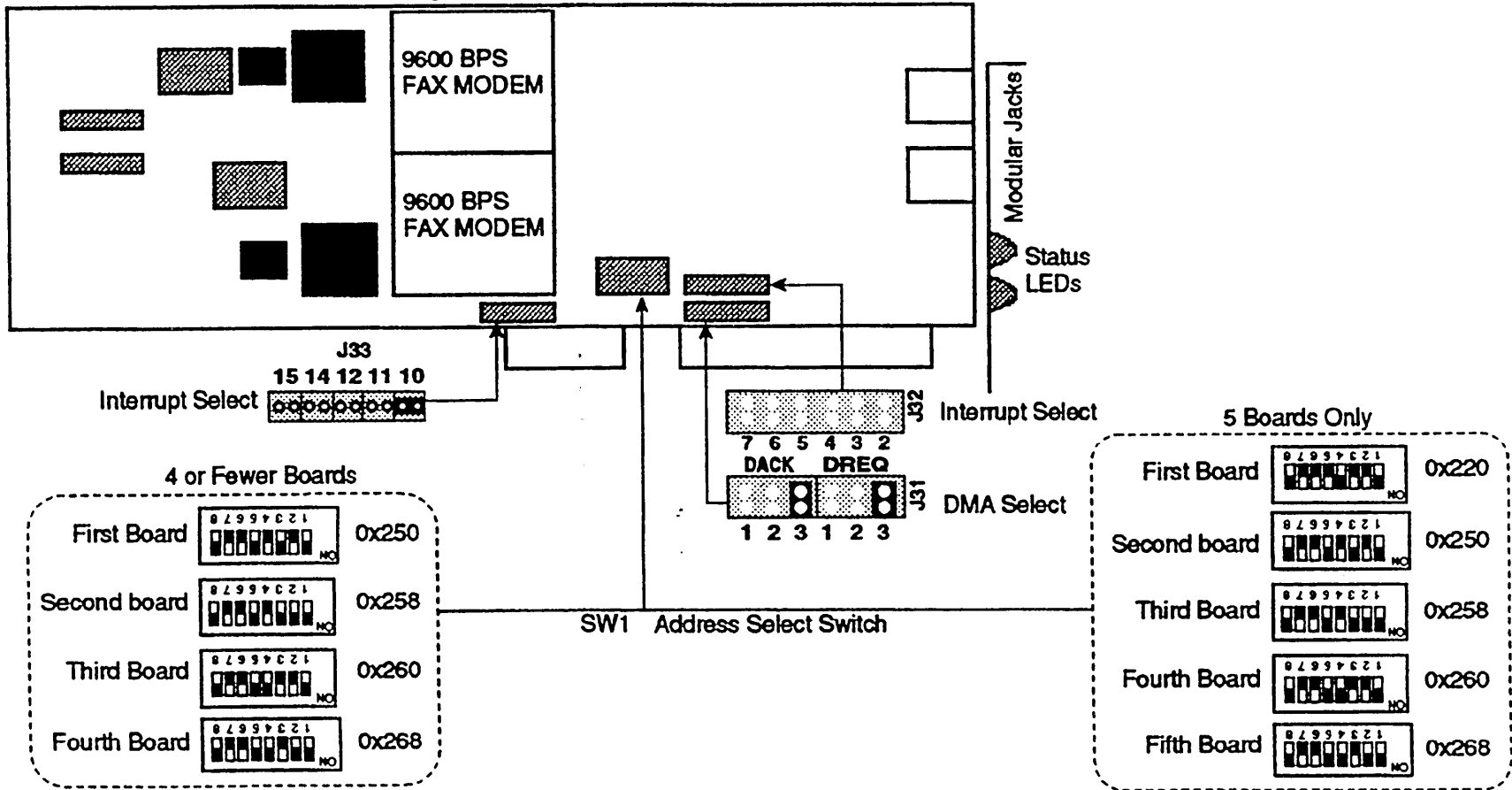
On old layout IVP4 and IVP6 boards, the right bank of switches (12.1) sets the board address. On new layout boards, there is only one bank of switches and it sets the board address.



IFP2 Switch and Jumper Settings (MERLIN LEGEND)

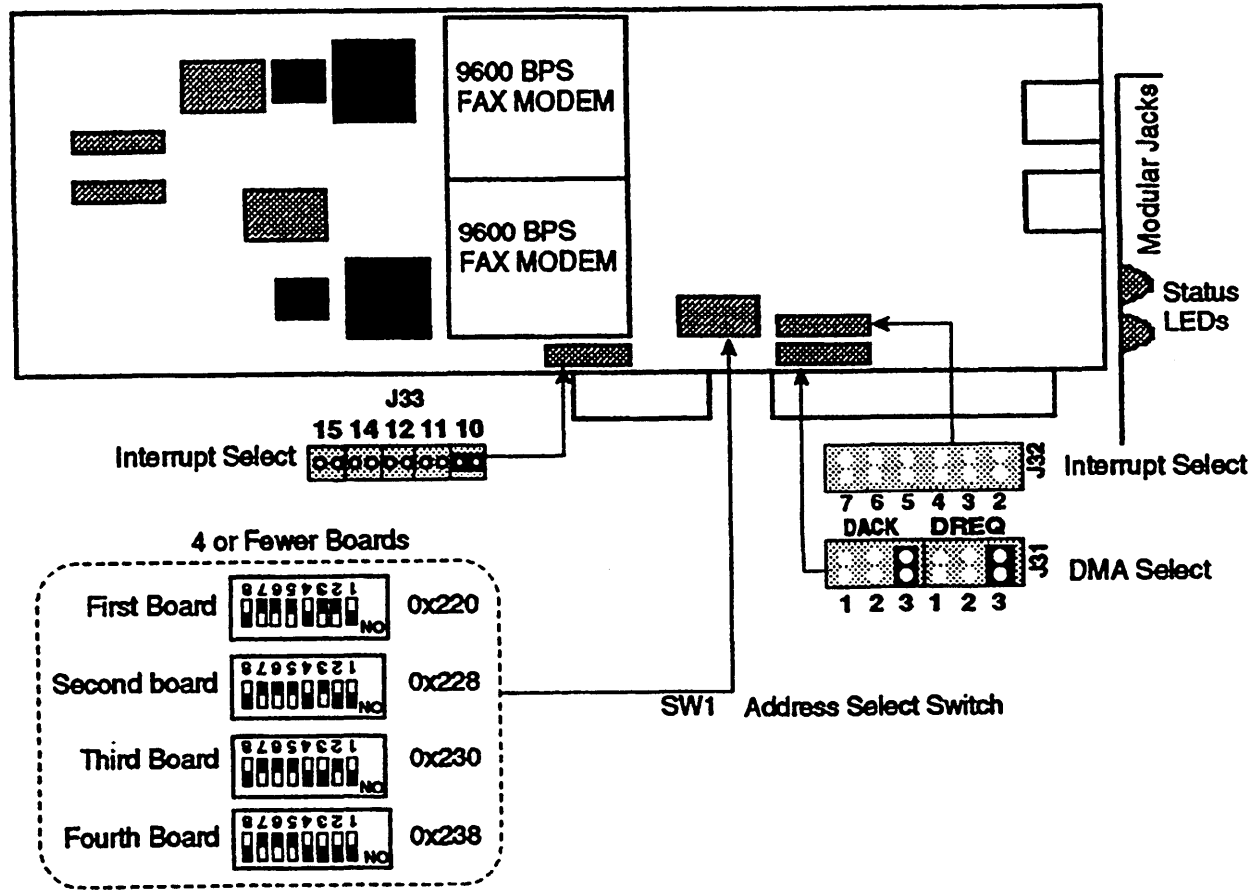
Use this drawing as a guide to identifying the IFP2 board and for setting jumpers and switches (for MERLIN LEGEND; DEFINITY is on the next page). The IFP4 Board is on the following page.

Note: Mixed IFP2 and IFP4 configurations are not allowed.



Note: MERLIN LEGEND can support up to 5 IFP2 boards

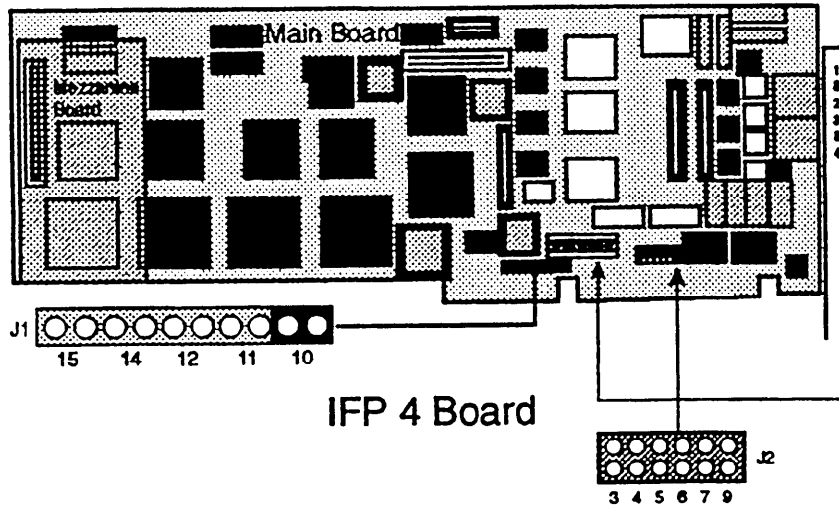
IFP2 Switch and Jumper Settings (DEFINITY)



Note: DEFINITY can support up to 4 IFP2 boards.

IFP4 Identification and Settings

Use this drawing as a guide for identifying IFP4 boards and setting IFP4 switches and jumpers.

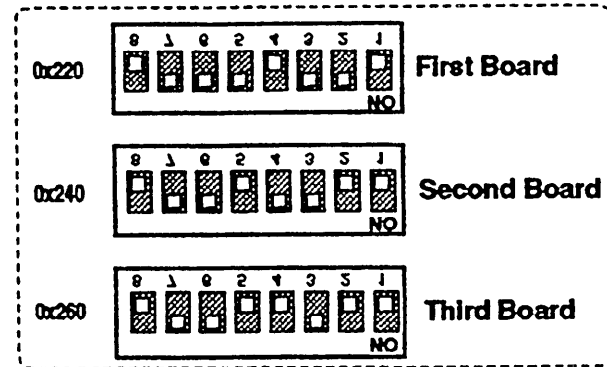


IFP 4 Board

An orange sticker similar to this appears on the board

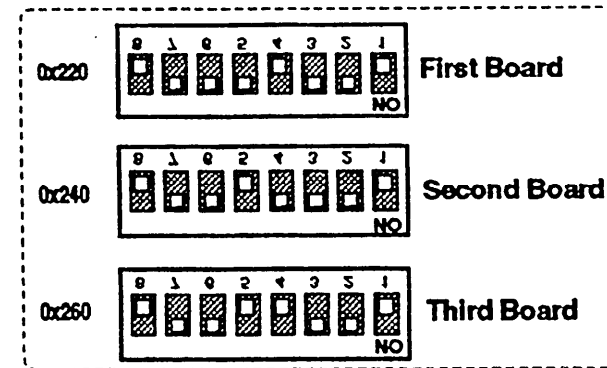


Revision # (e.g. V5, V6, etc.)



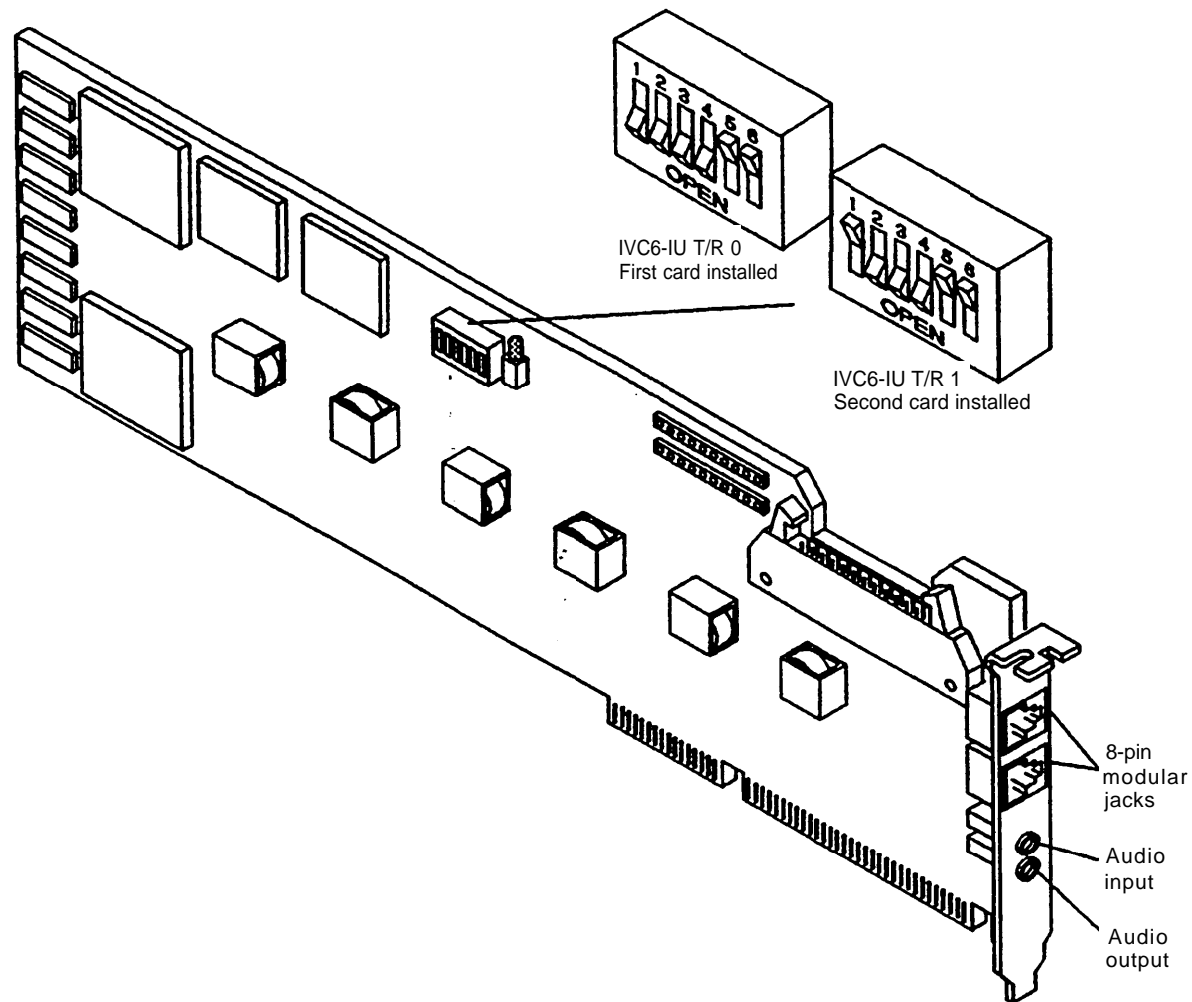
SW 1 Revision 5 and earlier

SW 1 Revision 6 and later



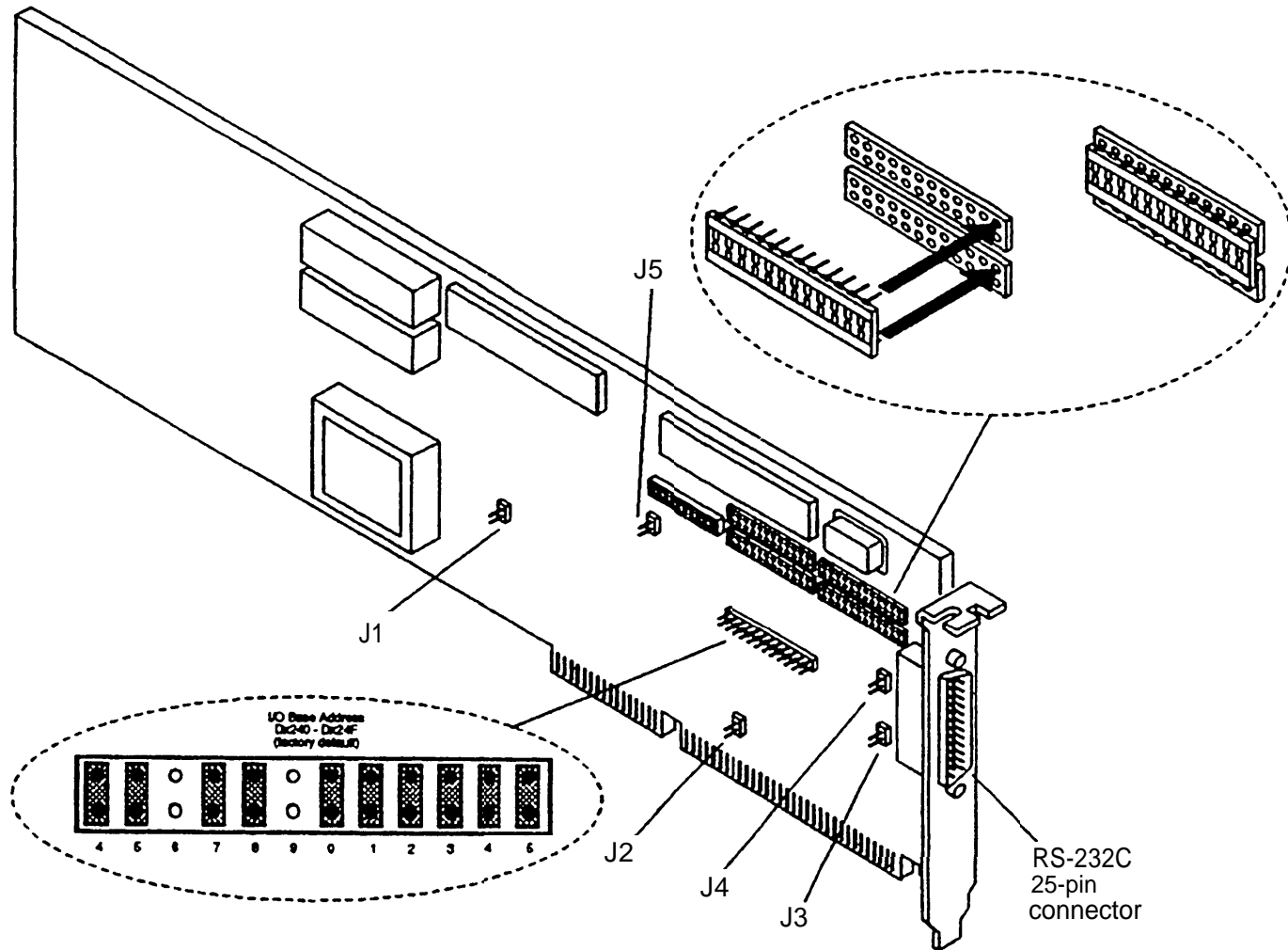
Identifying and Setting IVC6 (AYC10) Board for INTUITY™

Use this drawing as a guide for identifying and setting IVC6 tip/ring boards for INTUITY™ applications. Note: 2 boards (12 ports) maximum per MAP/5.



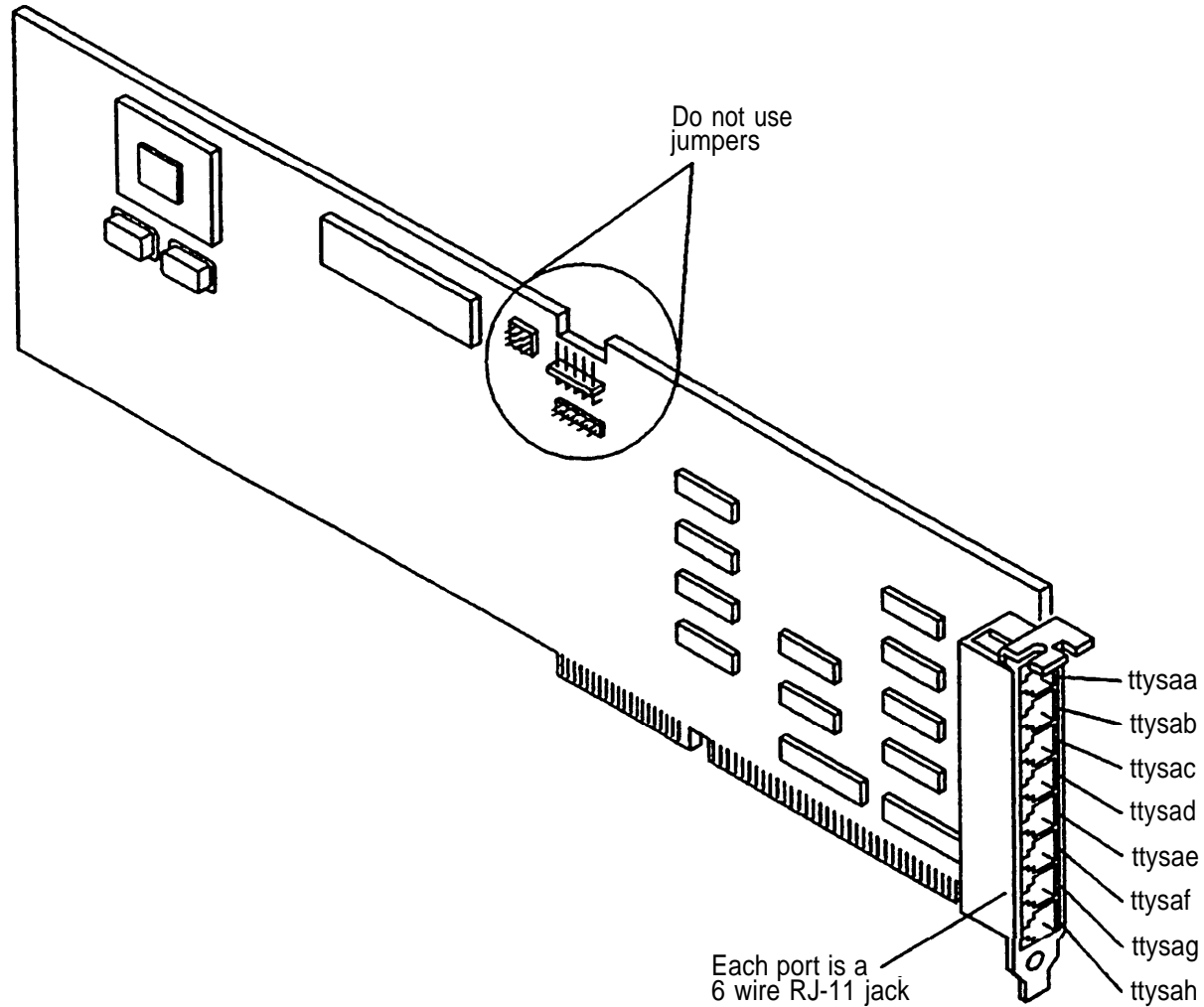
Identifying and Setting General Purpose Synchronous Controller (GP-synch) Board for INTUITY™

Use this drawing as a guide for identifying and setting the GP-synch board for INTUITY™ applications. Do not use Jumper switches J1 to J5. The board is also referred to as the GPSC-AT/E board.



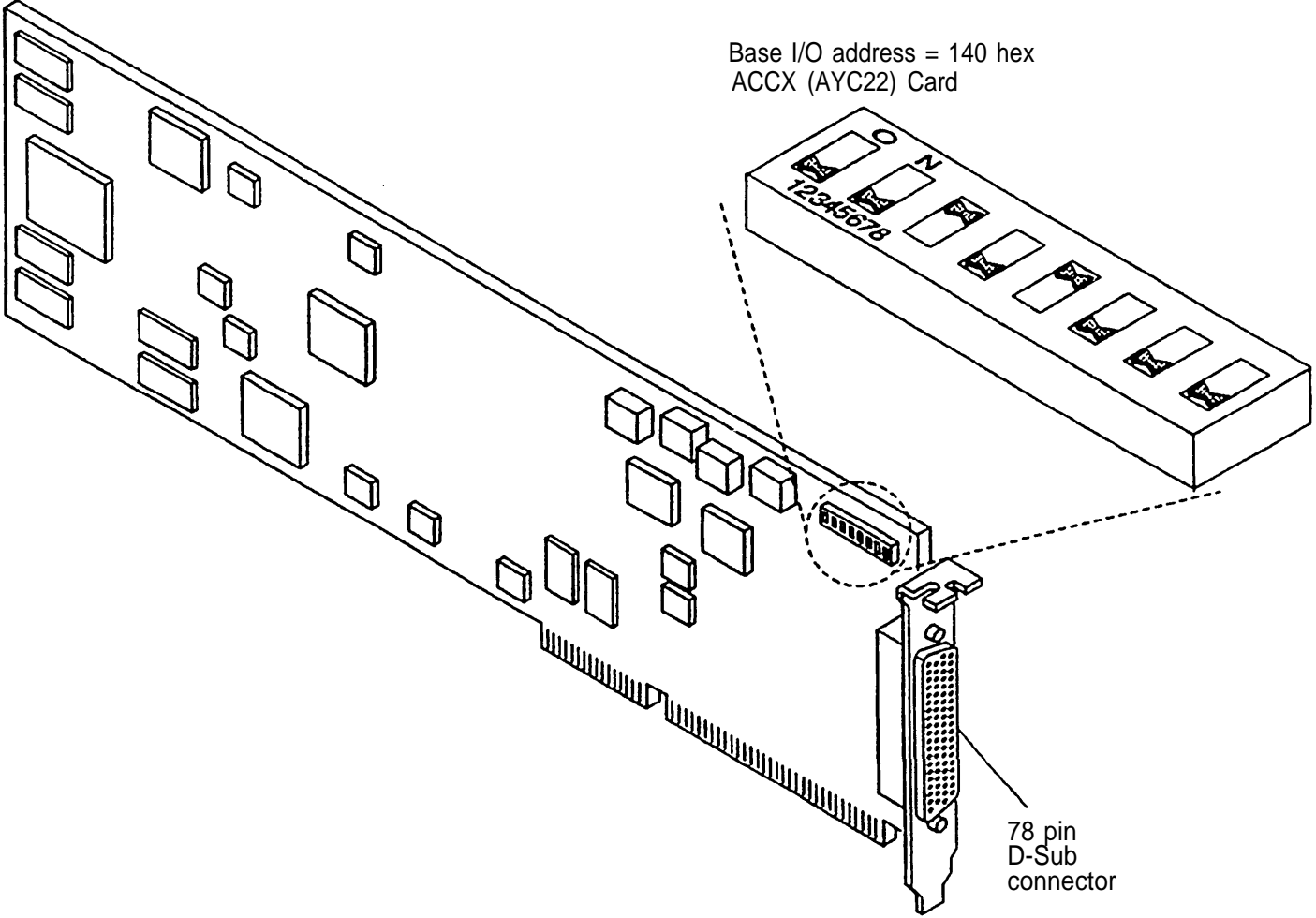
Identifying Multi-port Serial Board for INTUITY™

Use this drawing as a guide for identifying the Multi-port Serial board for INTUITY™ applications.



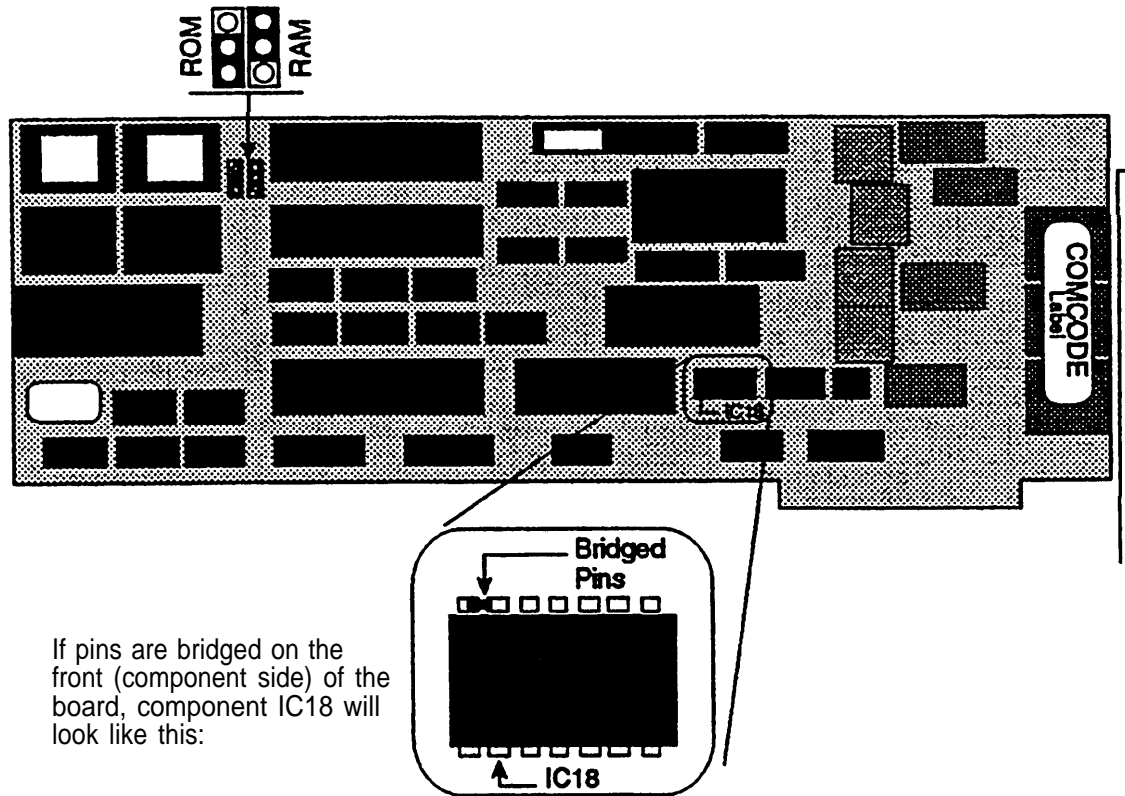
Identifying and Setting ACCX Networking (AYC22) Board for INTUITY™

Use this drawing as a guide for identifying and setting the ACCX Networking board for INTUITY™ applications.



Identifying DCP Boards

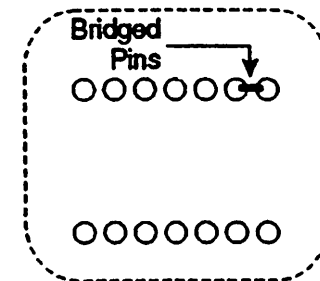
Use this drawing as a guide for identifying new and old DCP boards and verifying jumper settings. Older systems may have an earlier DCP board that does not have the bridged pins shown in the drawing. Those older boards will not function properly if used with the MAP/5.



If pins are bridged on the front (component side) of the board, component IC18 will look like this:

NOTE: pins may be bridged on either the front (component side) or the back (solder side) of the board. If pins are not bridged on the front of the board, note the location of component IC18 and turn the board over to check the back side.

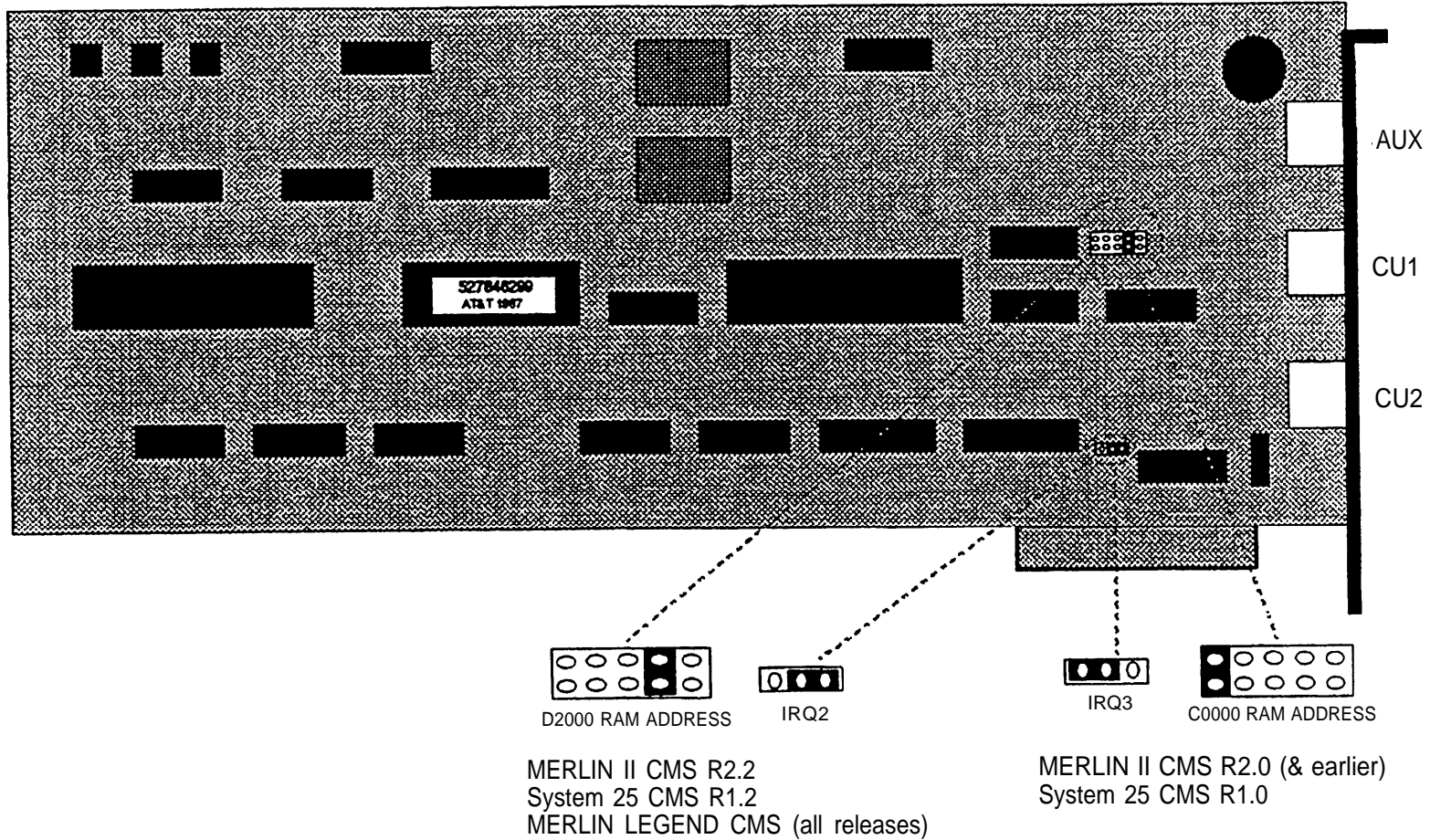
If pins are bridged on the back (solder side) of the board, it will look like this:



Identifying CMS Boards

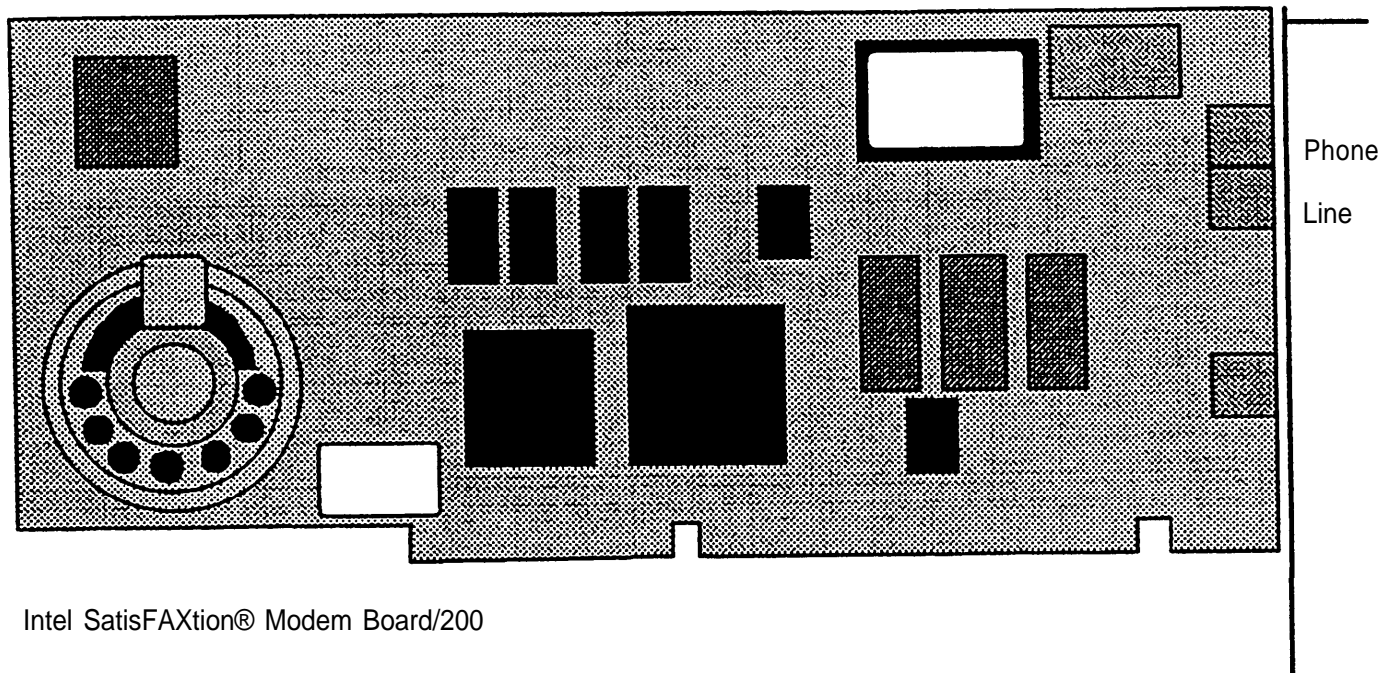
Use this drawing as a guide for identifying and setting jumpers on CMS boards.

Note: Settings based on version of CMS.



Identifying SatisFAXtion® Boards

Use this drawing as a guide for identifying SatisFAXtion® boards.



Intel SatisFAXtion® Modem Board/200

Note: All board settings done automatically by software (no physical settings required).

10 Connecting the MAP/5 to the Voice Switch

Use the tables below to determine which diagrams to use as guides for connecting the MAP/5 to the communications system. Complete documentation accompanies each application and the switch itself.

All Systems		
Connection Type	Diagram Contents	Page
IVP4 (RJ11C/884A)	IVP4 Connections (RJ11C with 884A)	41
IVP6 (RJ11C/885A)	IVP6 Connections (RJ11C with 885A)	42
IVP6 (108B/104A)	IVP6 Connections (108B & 104A)	43
IFP	IFP Connections	44
CMS Board	CMS Board Connections	45
SatisFAXtion® Board	SatisFAXtion® Board Connections	46

continued on next page

MERLIN LEGEND Connection Diagrams

MERLIN LEGEND Communications System				
System	Distance	Connection Type	Diagram Contents	Page
UNIX (IS)	N/A	Overview	Integrated Solution Connection Overview	47
	Same Outlet	Admin & SMDR	Administration and/or SMDR Connection	48
	ADU	Admin (w/wo SMDR)	Administration (with/without SMDR) Connection	49
		SMDR (w/wo Admin)	SMDR (with/without Administration) Connection	50
MS-DOS	Same Outlet	Admin Only	Administration Only Connection	51
		SMDR Only	SMDR Only Connection	52
	ADU	Admin Only	Administration Only Connection	53
		SMDR Only	SMDR Only Connection	54

continued on next page

System 25 Connection Diagrams

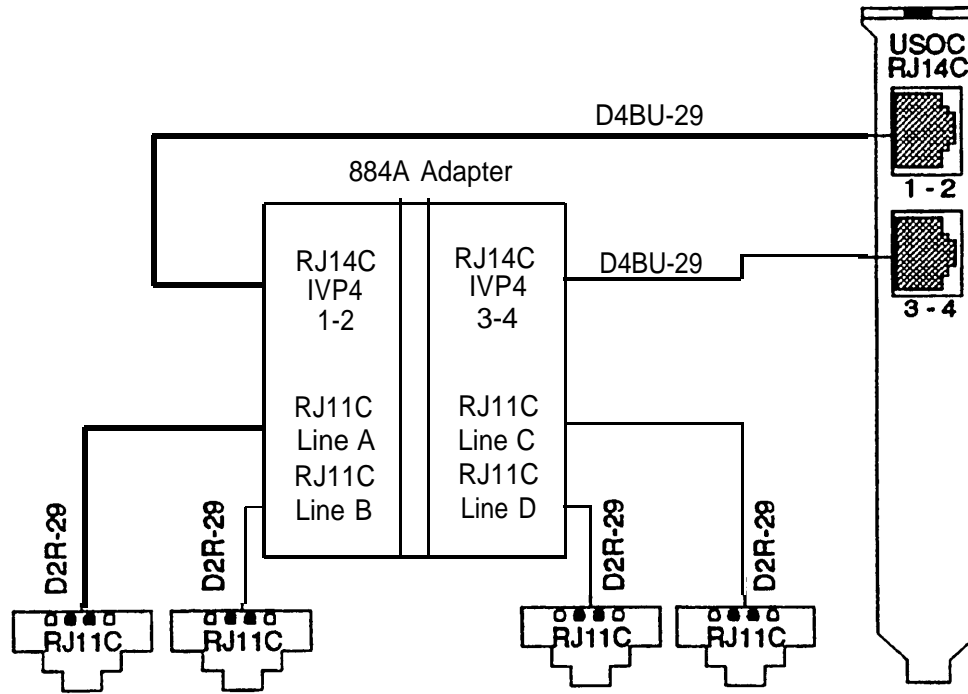
System 25 Communications System				
System	Distance	Connection Type	Diagram Contents	Page
UNIX (IS)	N/A	Overview	Integrated Solution Connection Overview	55
	Same Outlet	Admin & SMDR	Administration and/or SMDR Connection	56
	ADU	Admin (w/wo SMDR)	Administration (with/without SMDR) Connection	57
		SMDR (w/wo Admin)	SMDR (with/without Administration) Connection	58
MS-DOS	Same Outlet	Admin Only	Administration Only Connection	59
		SMDR Only	SMDR Only Connection	60
	ADU	Admin Only	Administration Only Connection	62
		SMDR Only	SMDR Only Connection	58

continued on next page

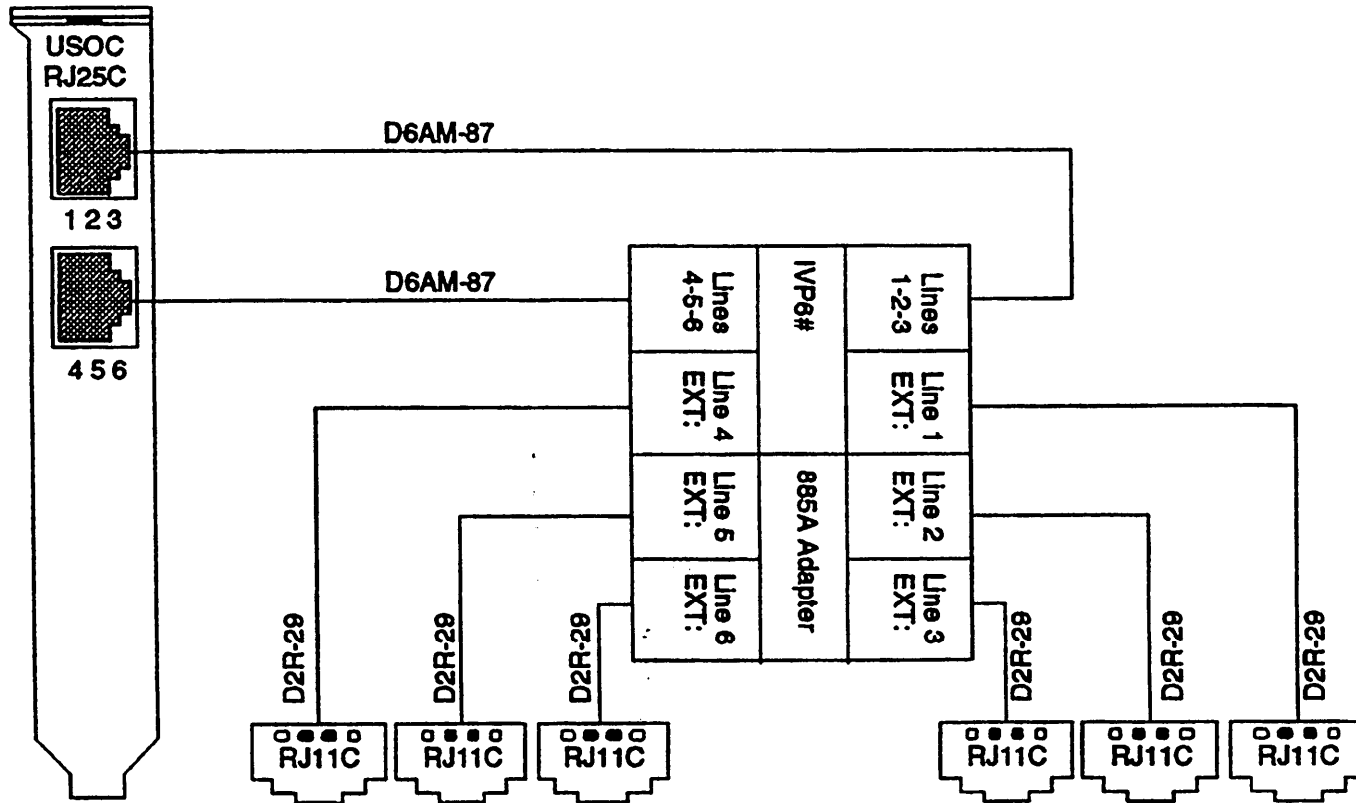
DEFINITY/System 75 Connection Diagrams

DEFINITY/System 75 Communications System				
System	Distance	Connection Type	Diagram Contents	Page
UNIX (IS)	N/A	Overview	Integrated Solution Connection Overview	63
	Under 5000	AVP	DCP Board Connections	64
	Under 1000	SMDR	SMDR Connection (Under 1000 Feet)	65
	Under 2000		SMDR Connection (TN-726 Data Line Port)	66
	Under 5000		SMDR Connection (7400A Data Module)	67
INTUITY™	N/A		INTUITY™ Connection Overview	68
	N/A	IVC6	IVC6 Connections (RJ11C with 885A)	69
	N/A	GP-synch	GP-synch Connection to DEFINITY Options	70
	N/A	ACCX Networking	ACCX Networking Connection Options	71
	N/A	ACCX Networking	ACCX Networking Connection to Breakout Box	72
			Multi-port Serial	Multi-port Serial Connection Options
MS-DOS	Under 1000	SMDR	SMDR Connection (Under 1000 Feet)	74
	Under 2000		SMDR Connection (TN-726 Data Line Port)	75
	Under 5000		SMDR Connection (7400A Data Module)	76

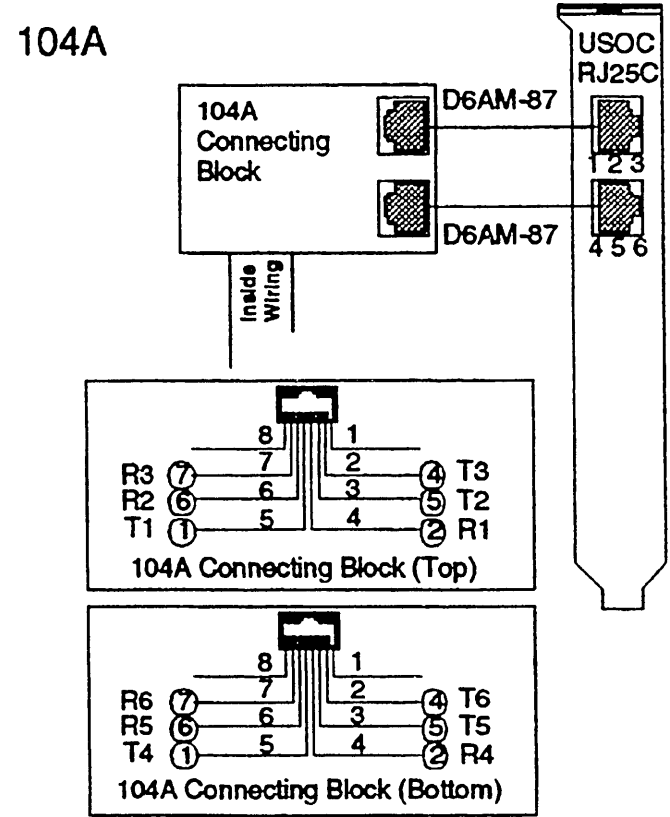
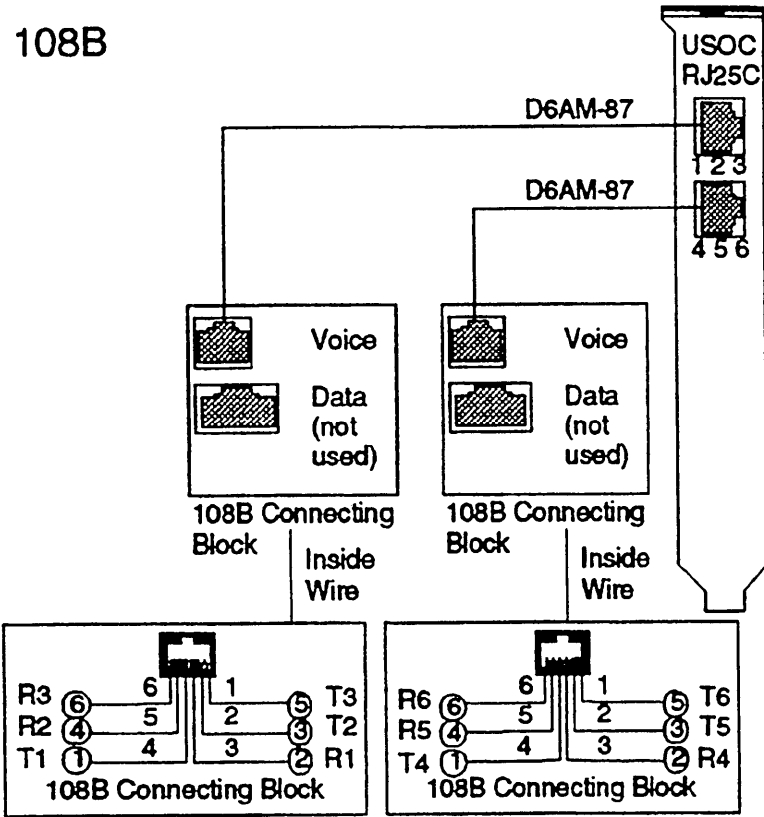
IVP4 Connections (RJ11C with 884A)



IVP6 Connections (RJ11C with 885A)



IVP6 Connections (108B & 104A)

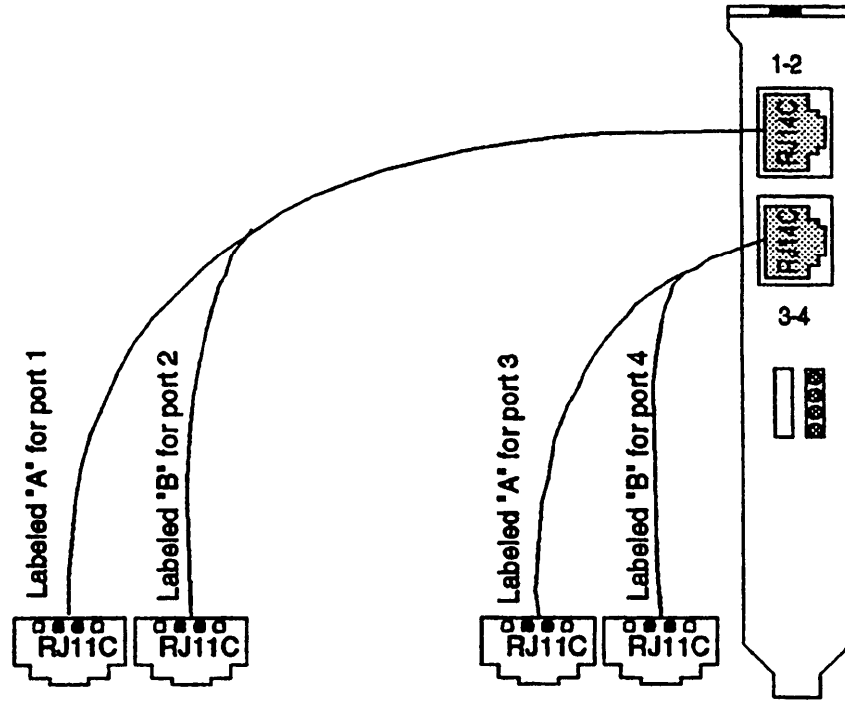
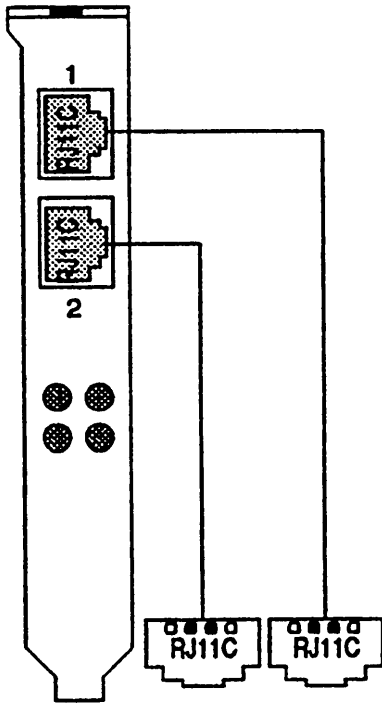


Note: The numbers in the circles represent the punch down connector positions on the jacks.

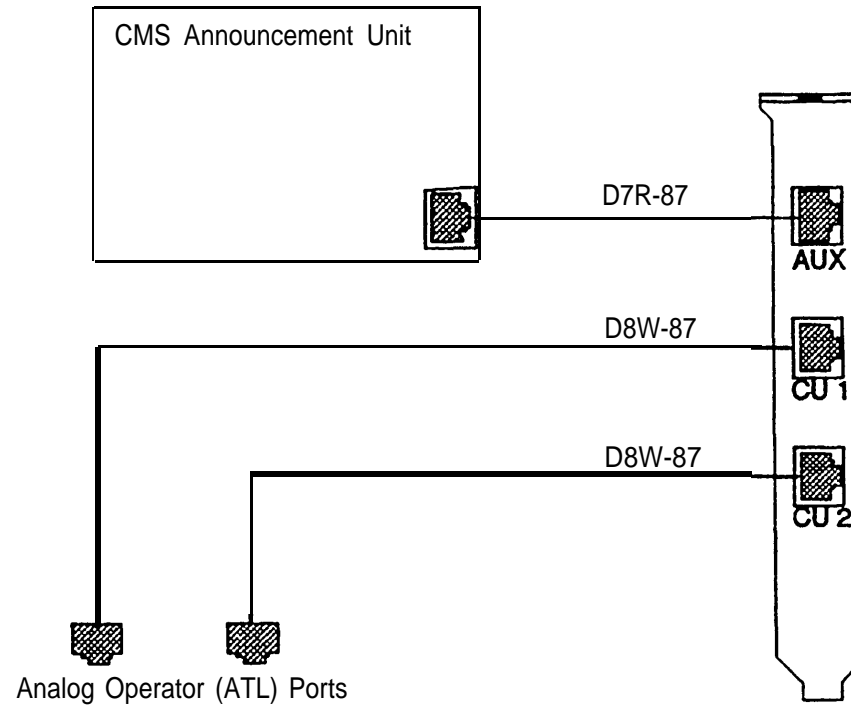
IFP CONNECTIONS

IFP2 Board

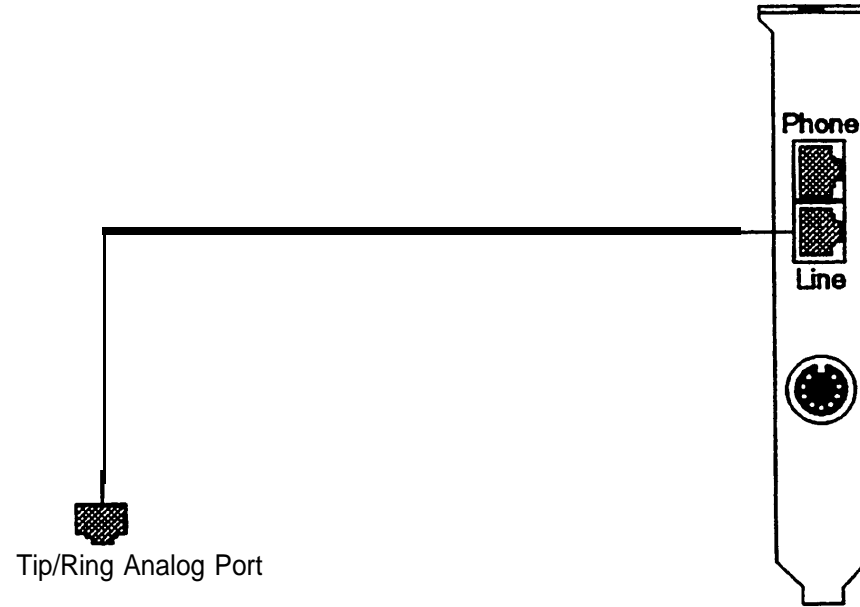
IFP4 Board



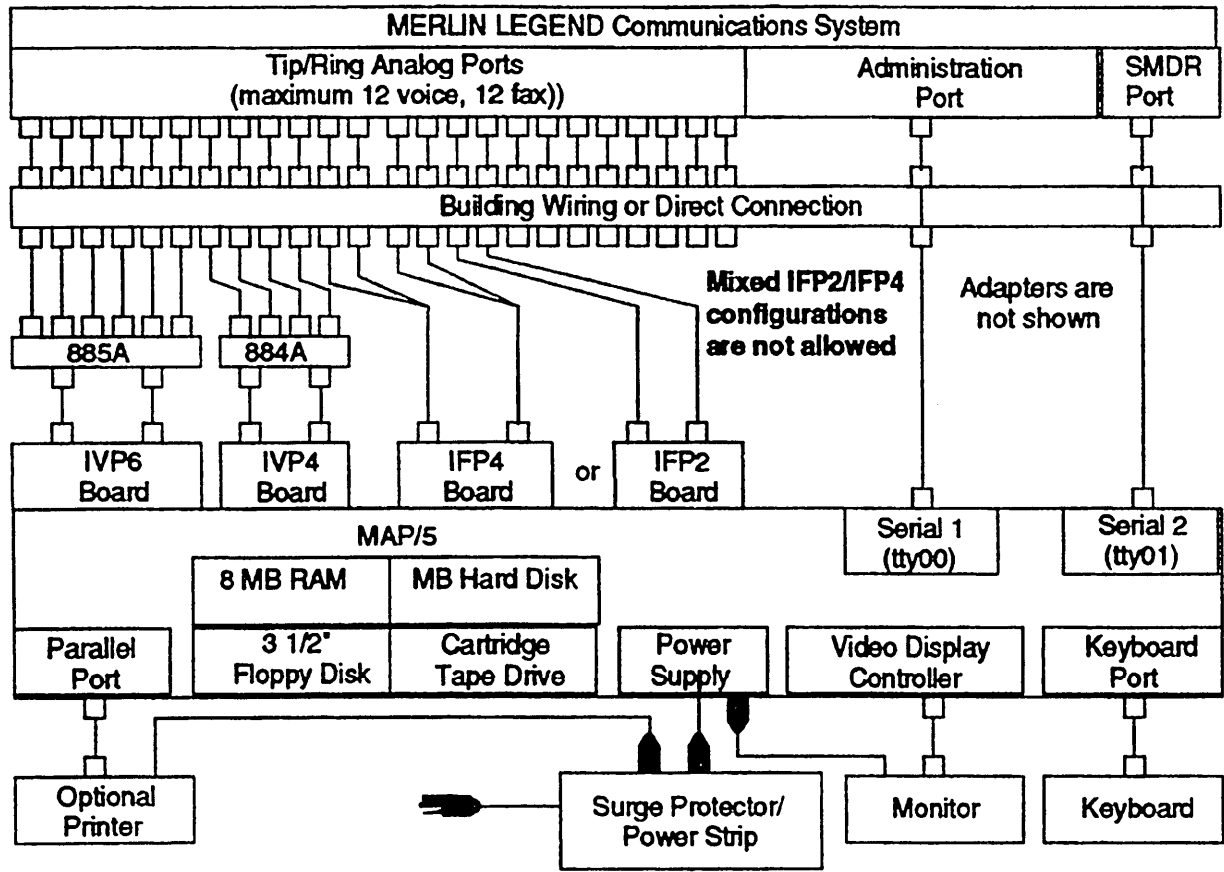
CMS Board Connections



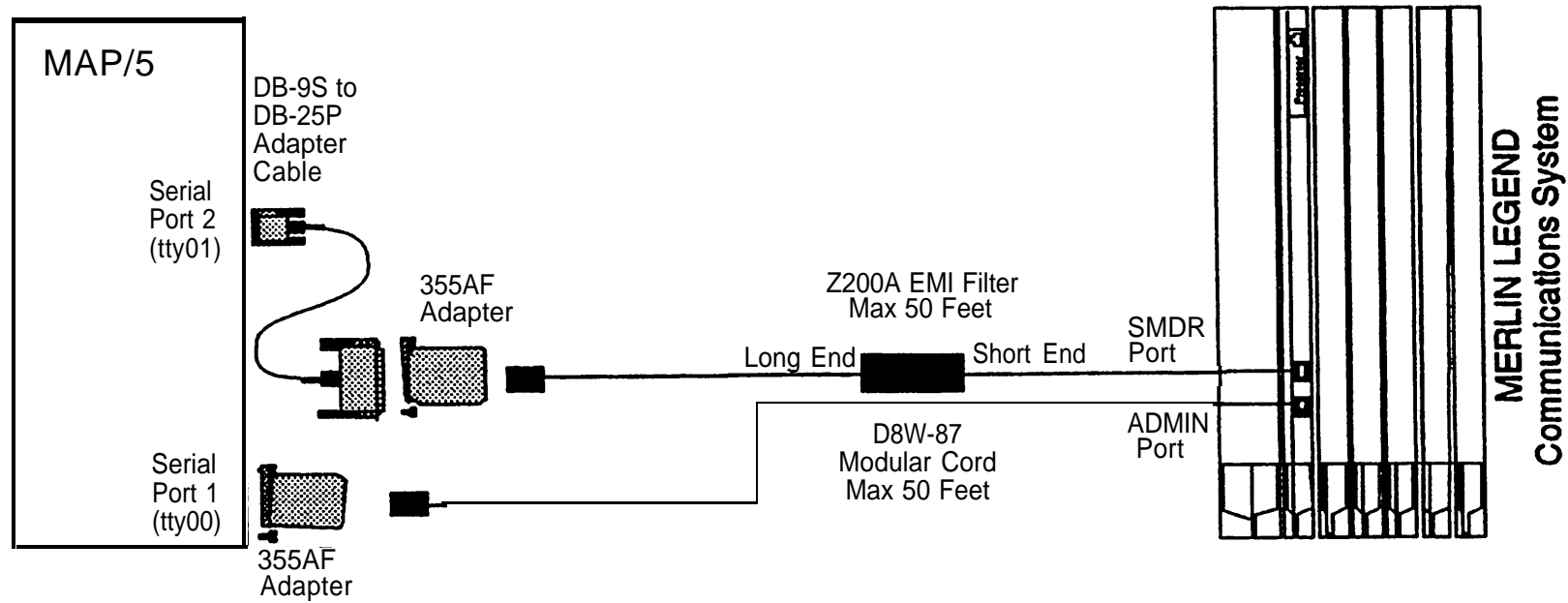
SatisFAXtion® Board Connections



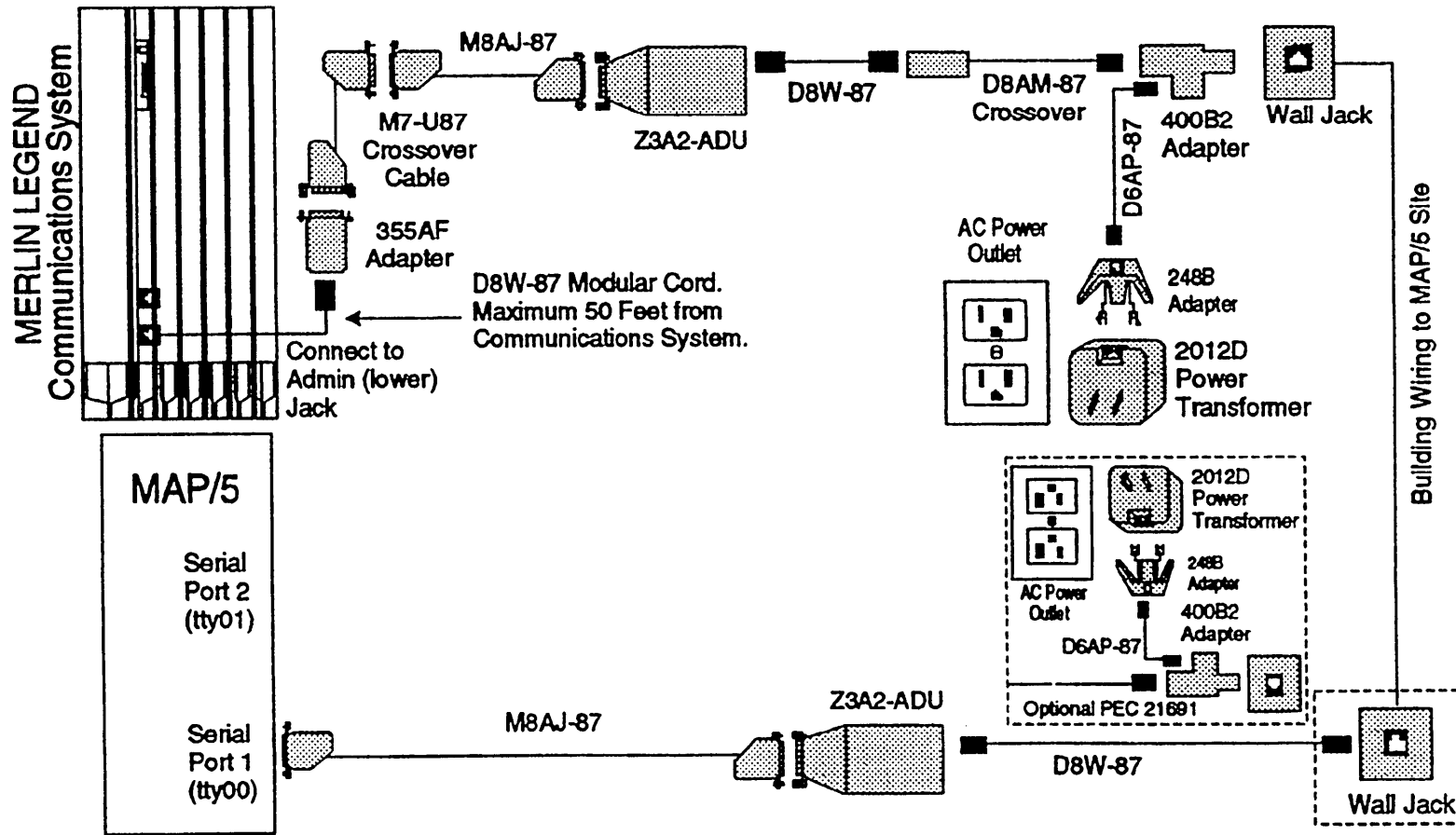
MERLIN LEGEND: Integrated Solution Connection Overview



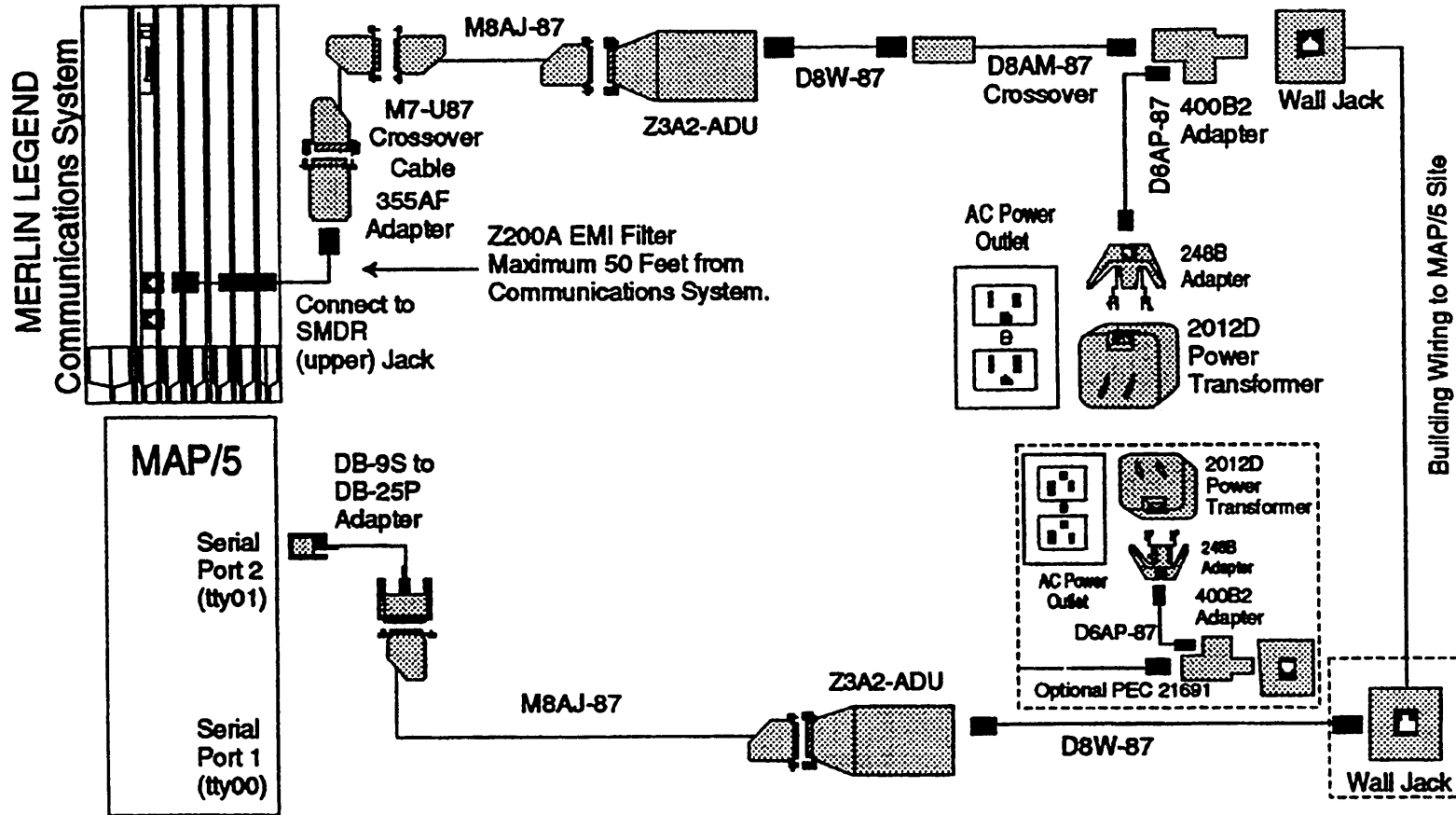
MERLIN LEGEND: UNIX Administration and/or SMDR Connection (Same AC Outlet)



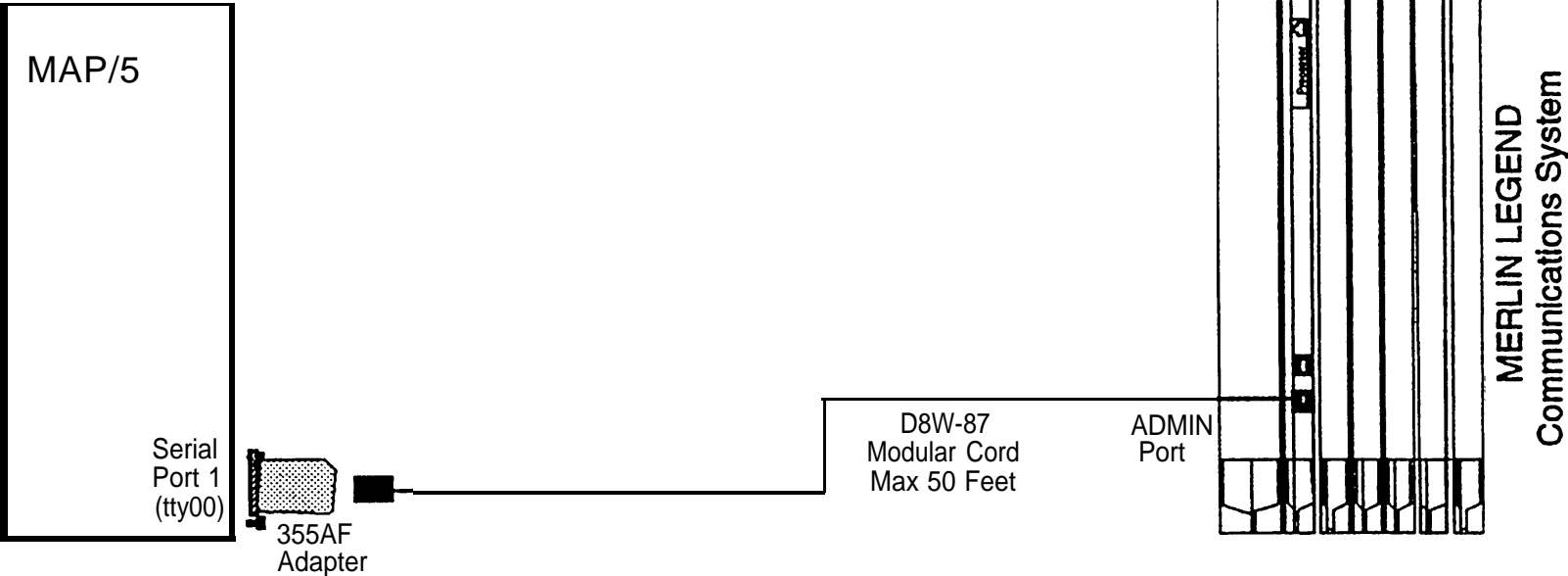
MERLIN LEGEND: UNIX Administration (with/without SMDR) Connection (ADU)



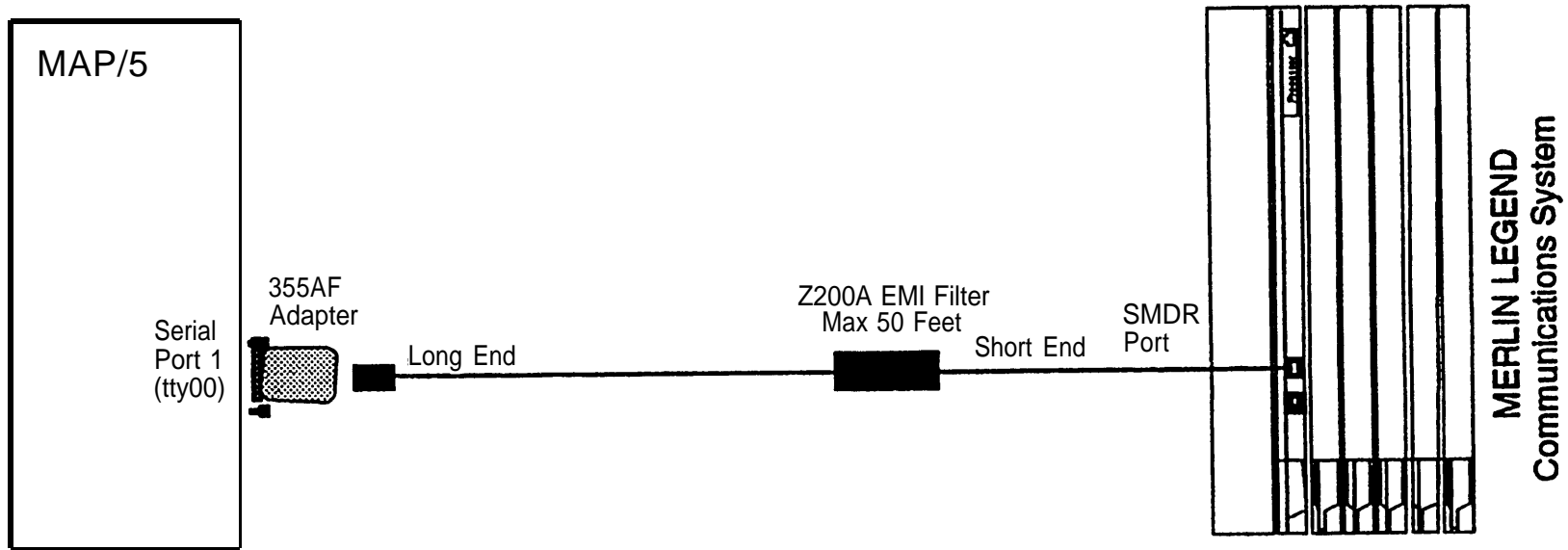
MERLIN LEGEND: UNIX SMDR (with/without Administration) Connection (ADU)



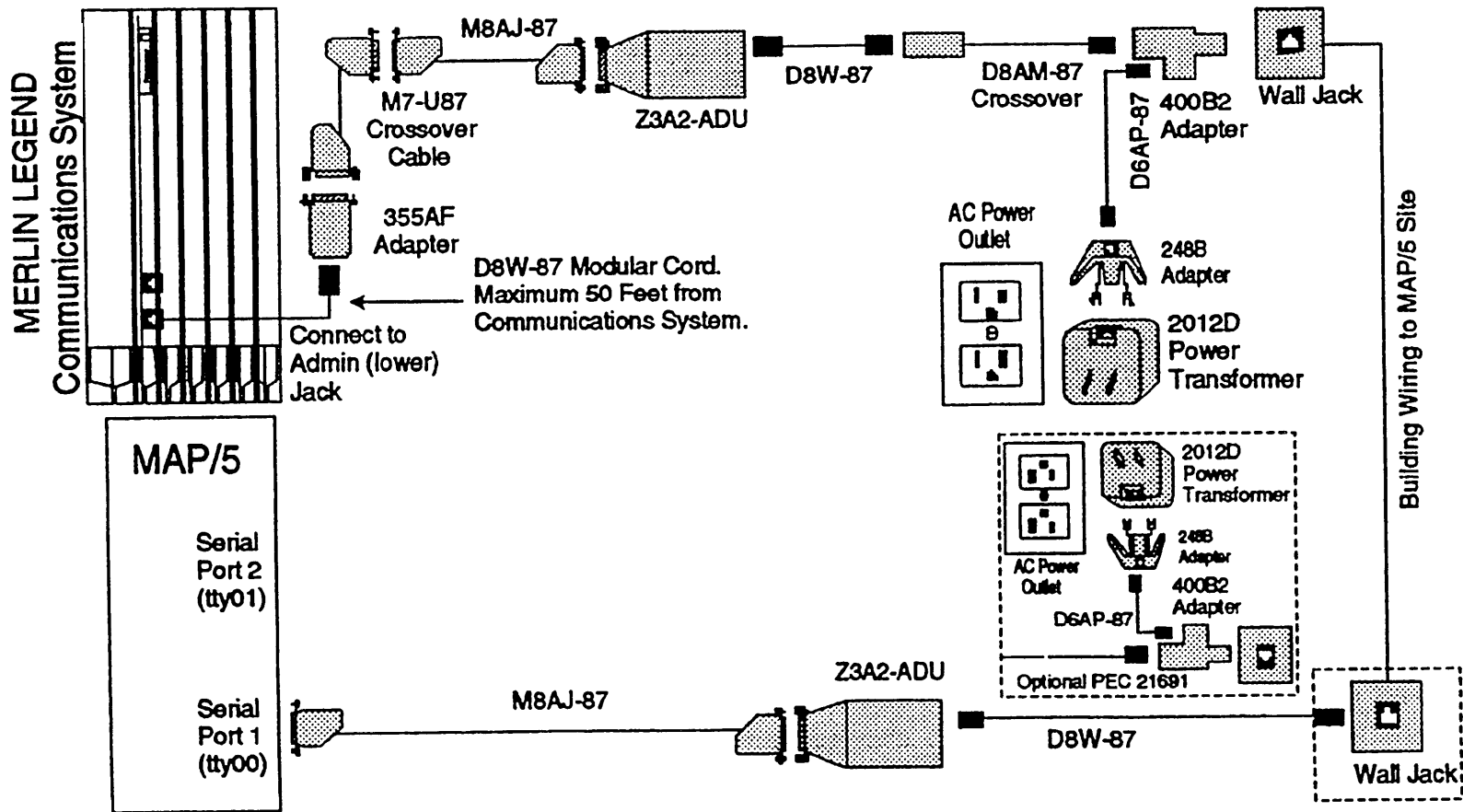
MERLIN LEGEND: MS-DOS Administration Only Connection (Same AC Outlet)



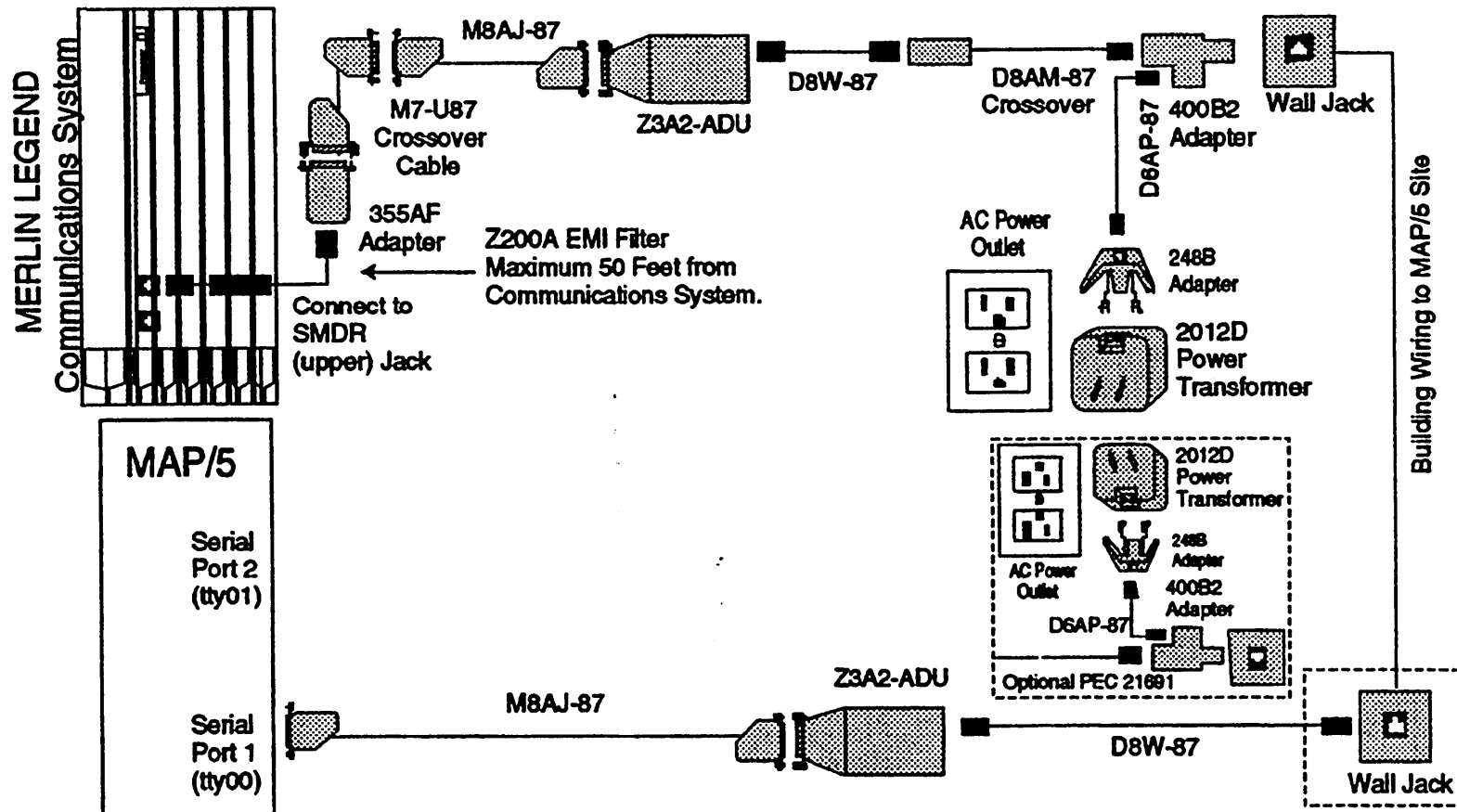
MERLIN LEGEND: MS-DOS SMDR Only Connection (Same AC Outlet)



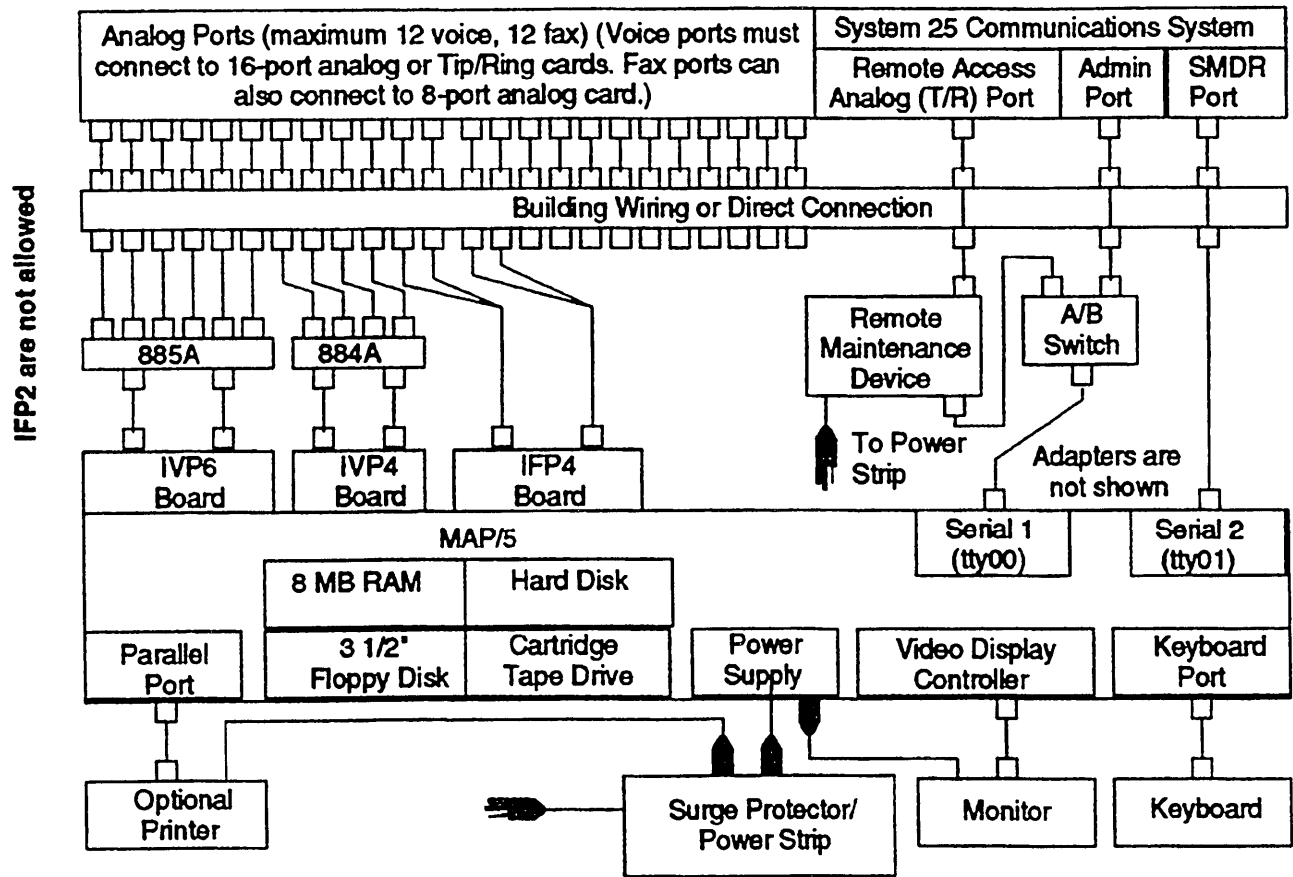
MERLIN LEGEND: MS-DOS Administration Only Connection (ADU)



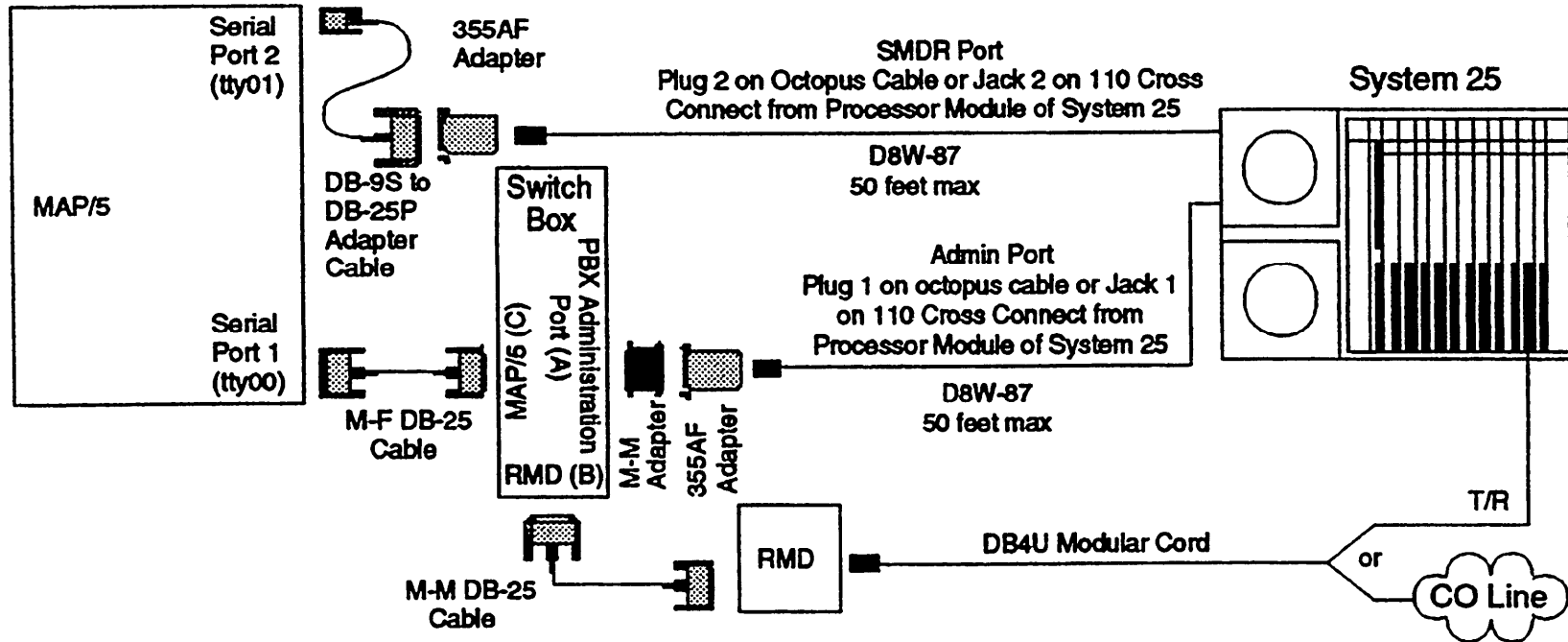
MERLIN LEGEND: MS-DOS SMDR Only Connection (ADU)



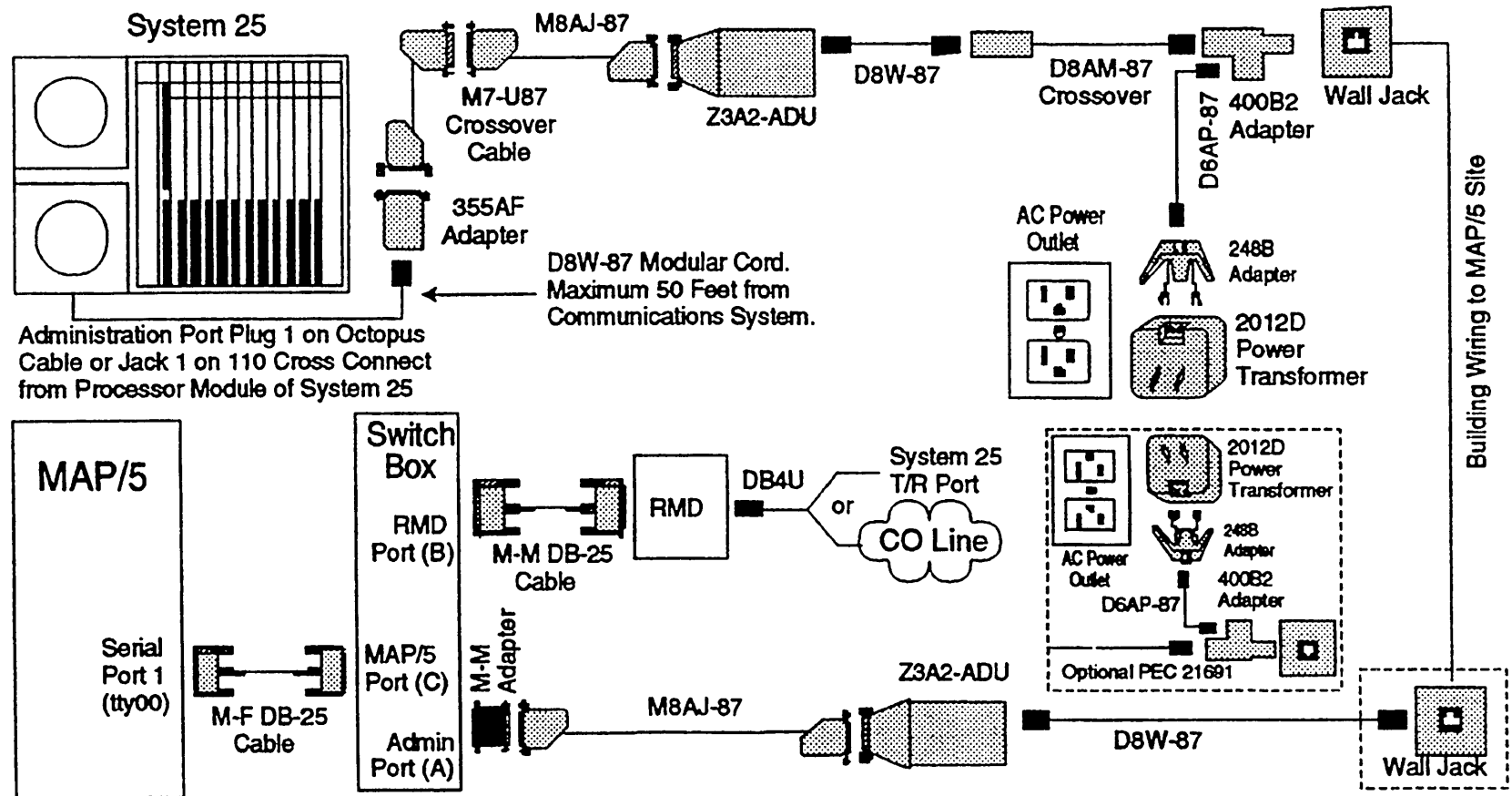
System 25: Integrated Solution Connection Overview



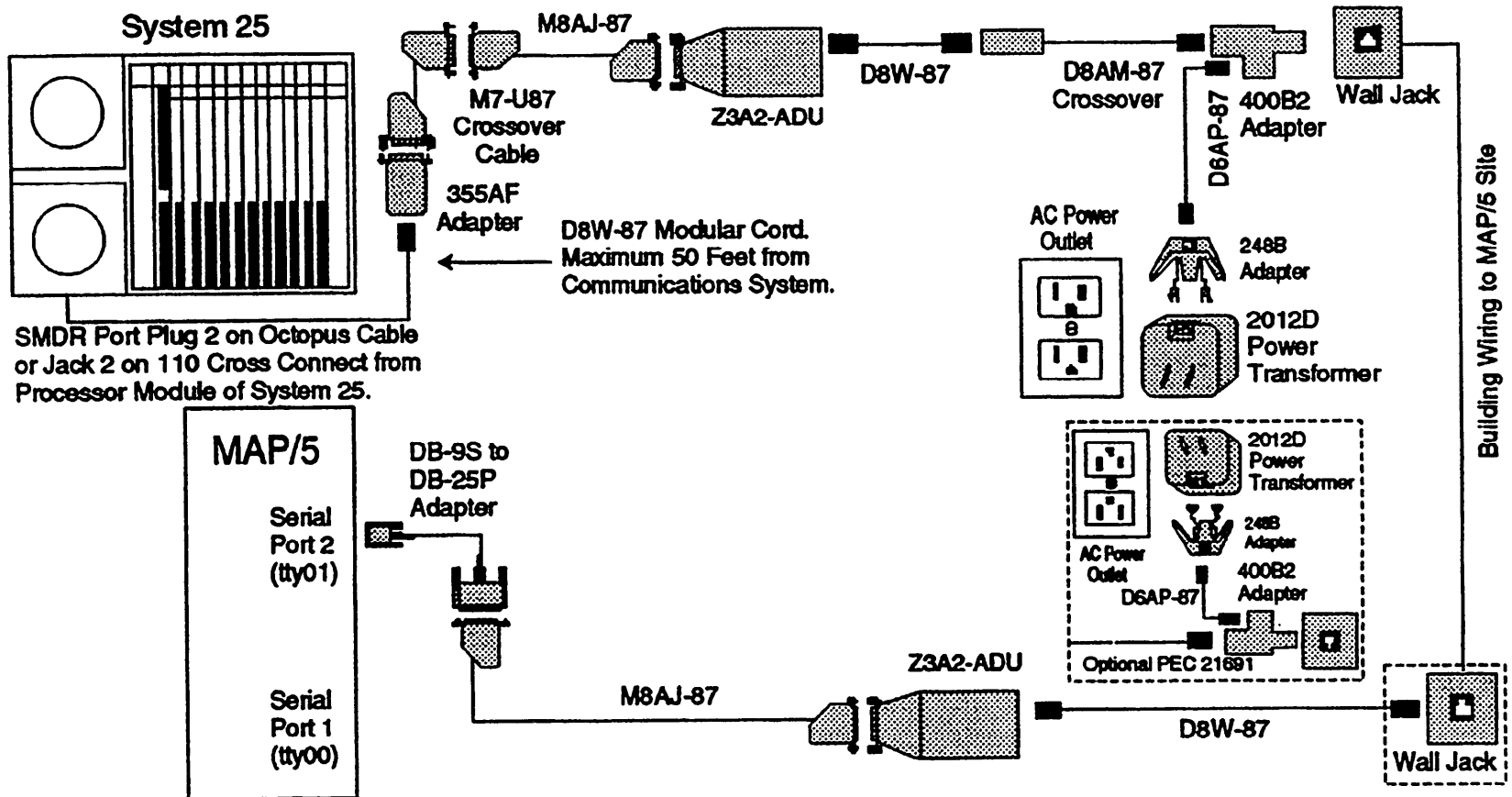
System 25: UNIX Administration and/or SMDR Connection (Same AC Outlet)



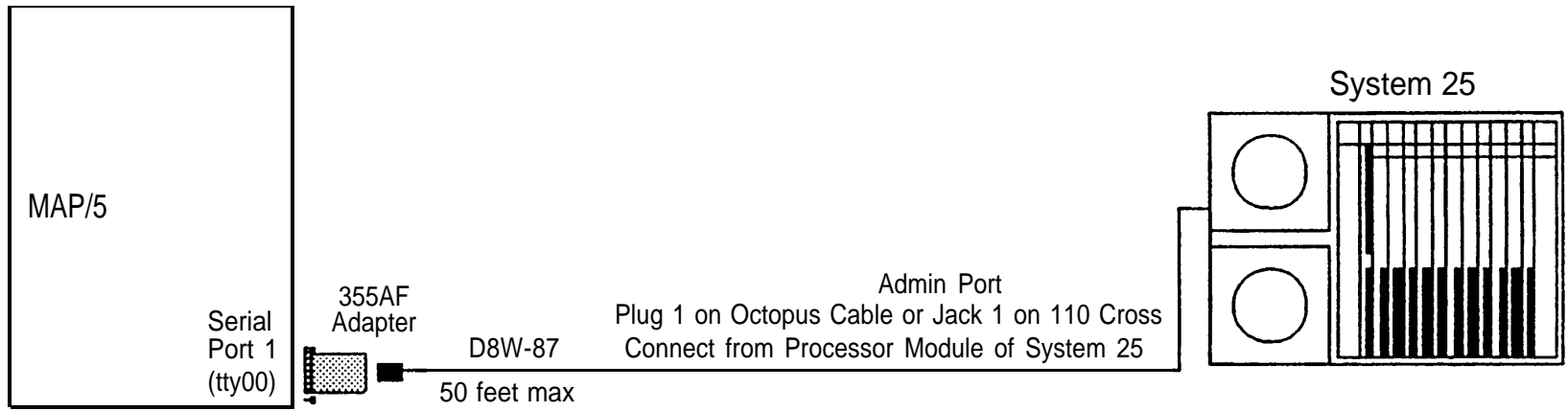
System 25: UNIX Administration (with/without SMDR) Connection (ADU, RMD)



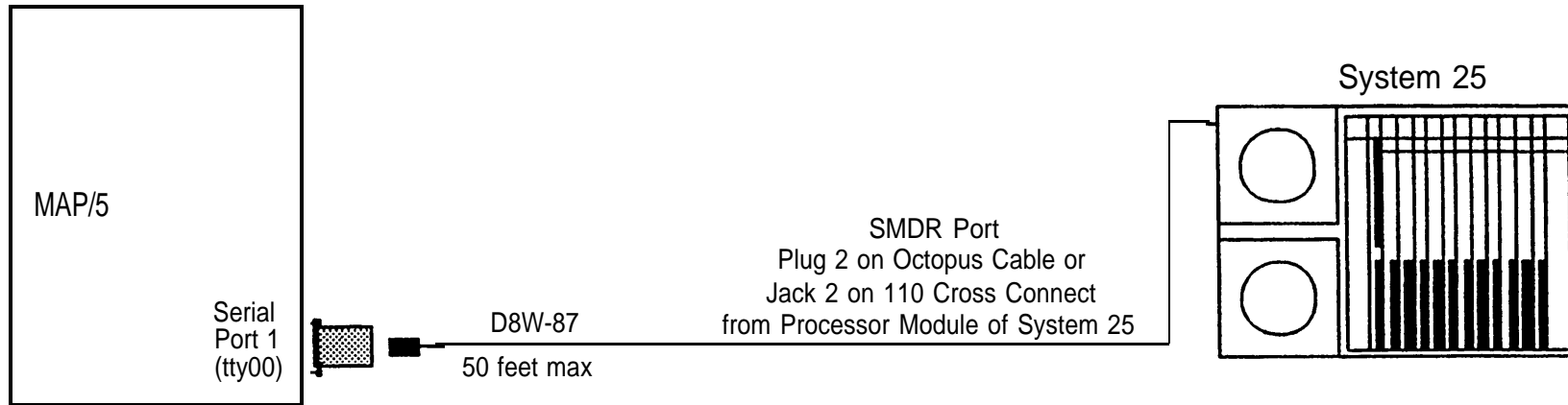
System 25: UNIX SMDR (with/without Administration) Connection (ADU)



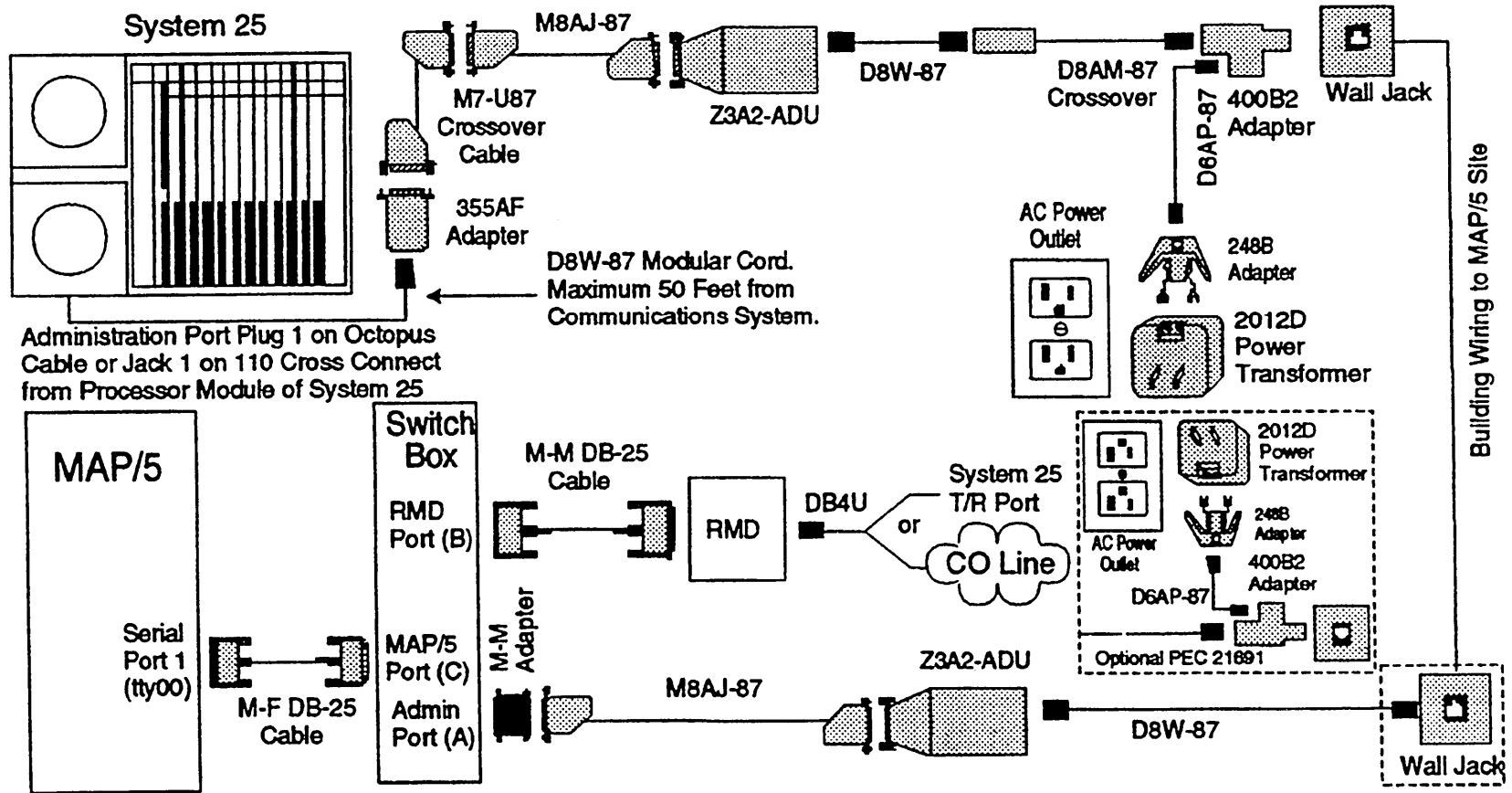
System 25: MS-DOS Administration Only Connection (Same AC Outlet)



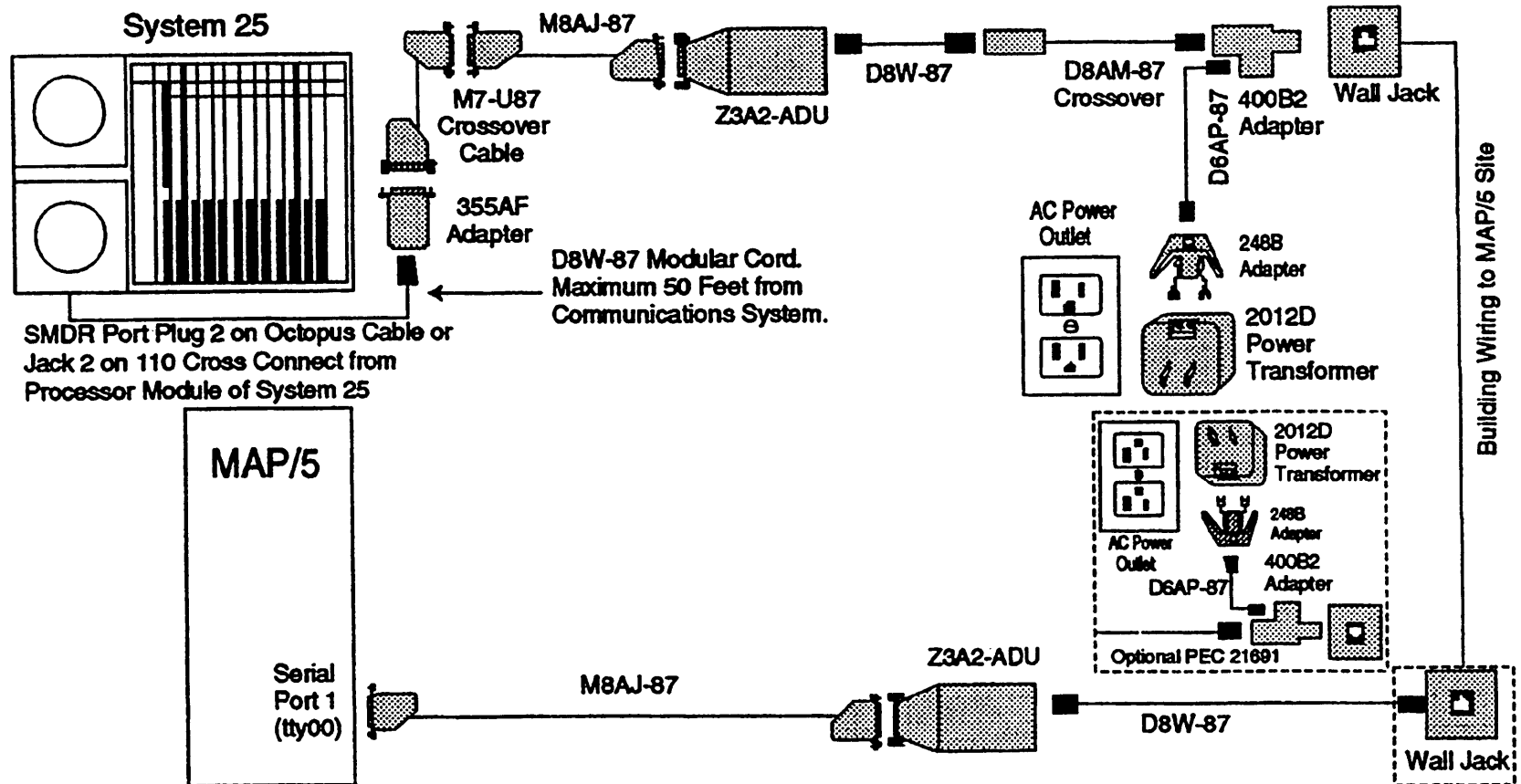
System 25: MS-DOS SMDR Only Connection (Same AC Outlet)



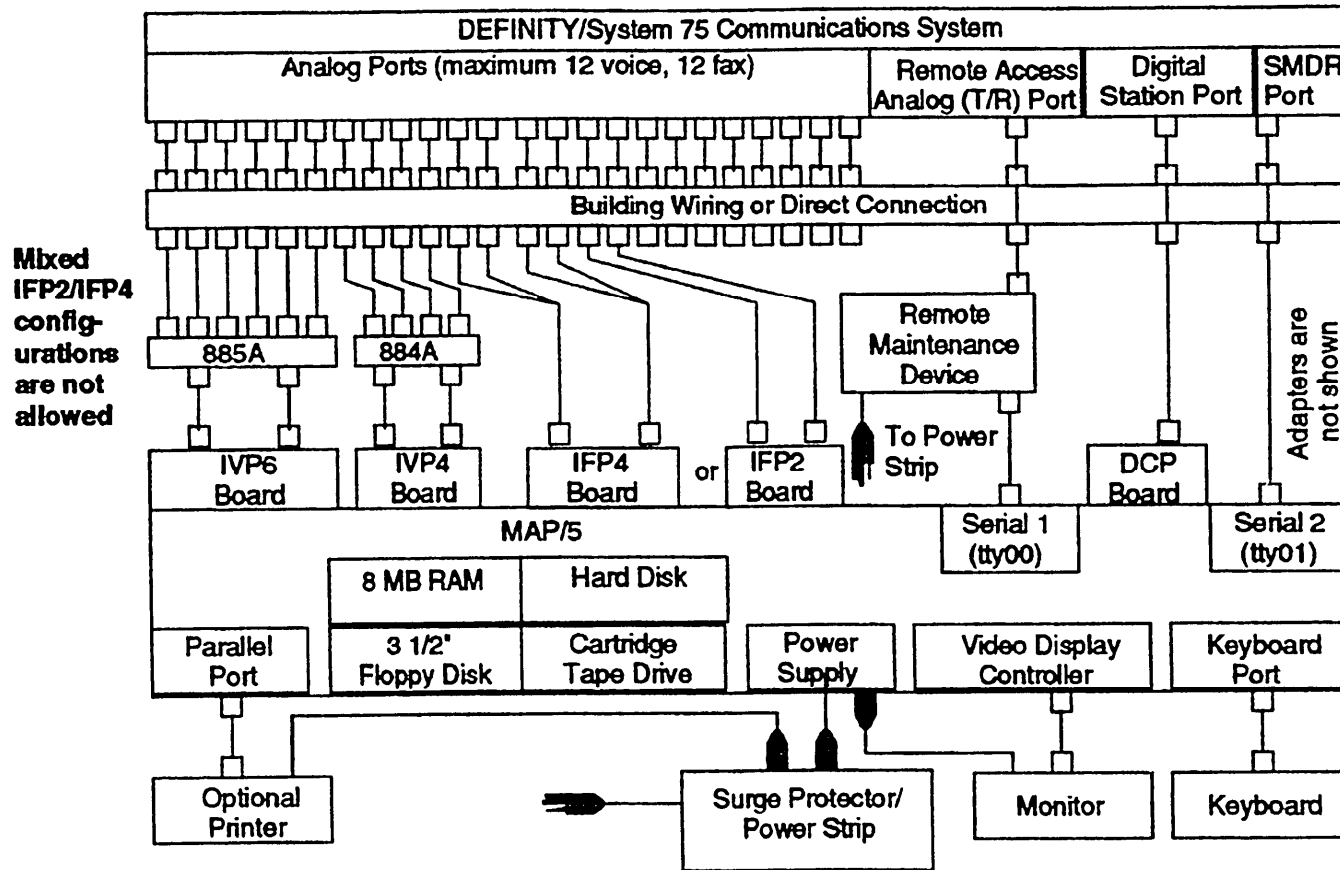
System 25: MS-DOS Administration Only Connection (ADU, RMD)



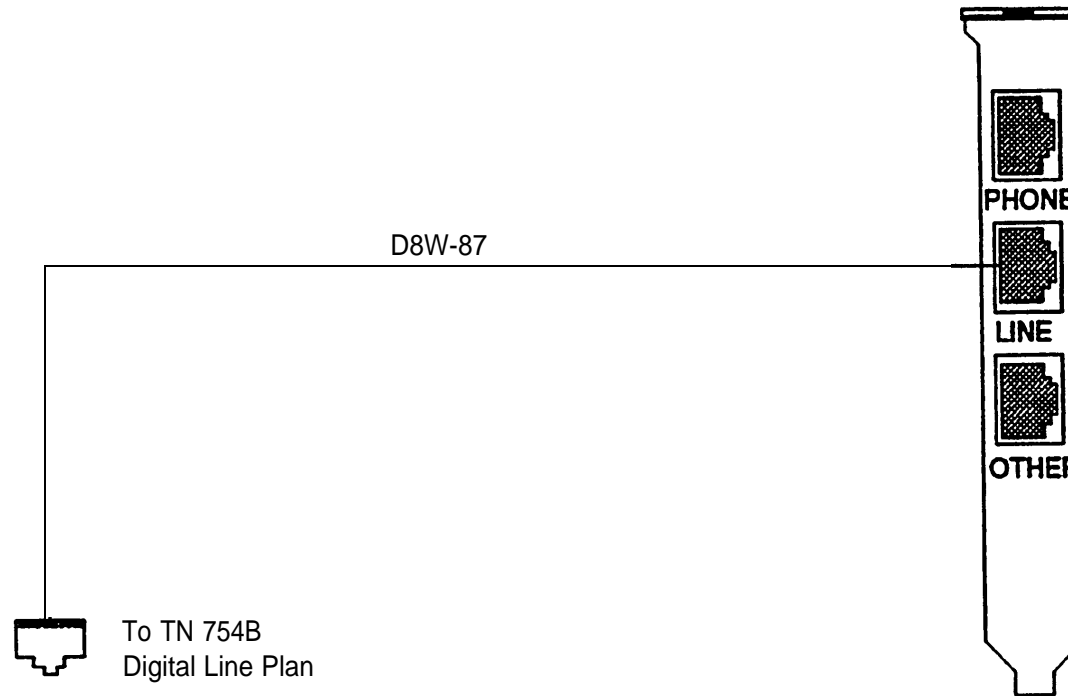
System 25: MS-DOS SMDR Only Connection (ADU)



DEFINITY/System 75: Integrated Solution Connection Overview

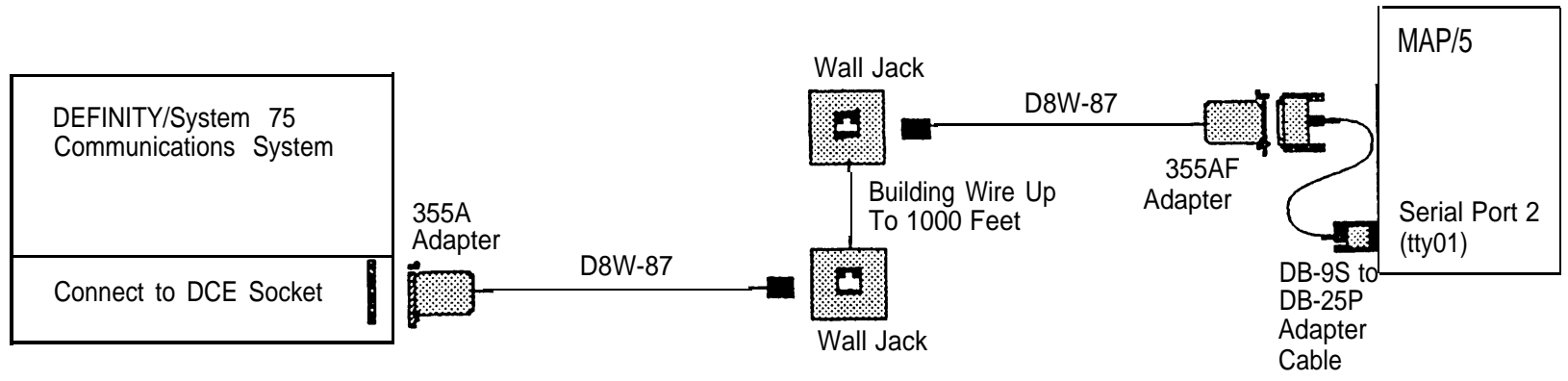


DEFINITY/System 75: DCP Board Connections

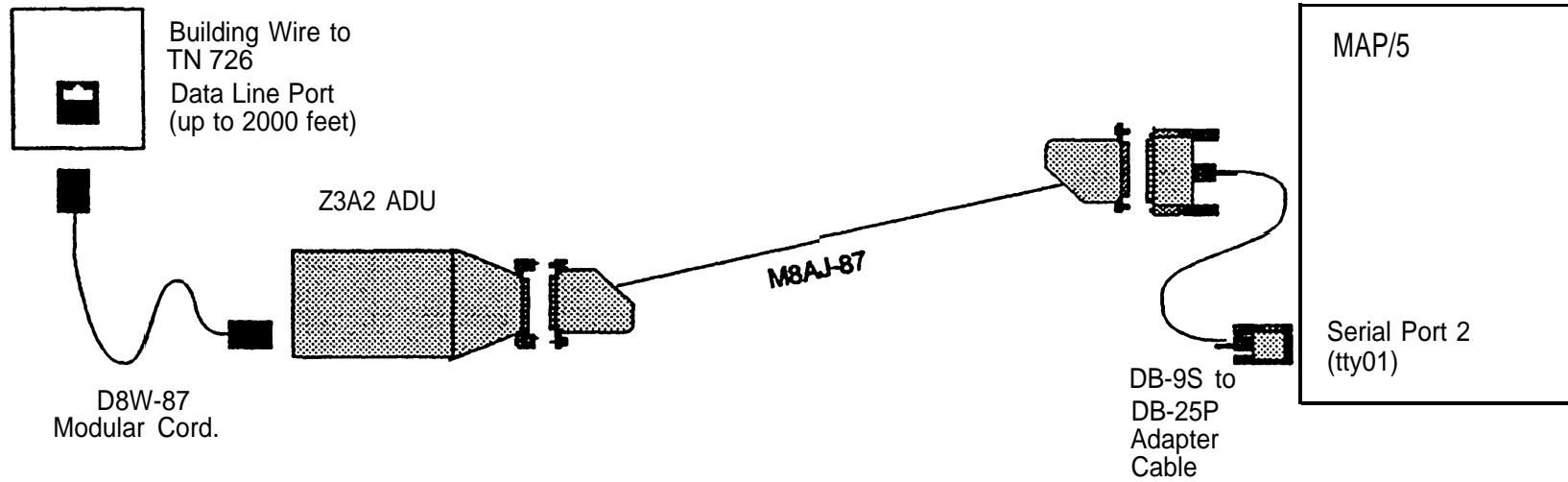


Note: DCP board required with AVP and FAS.

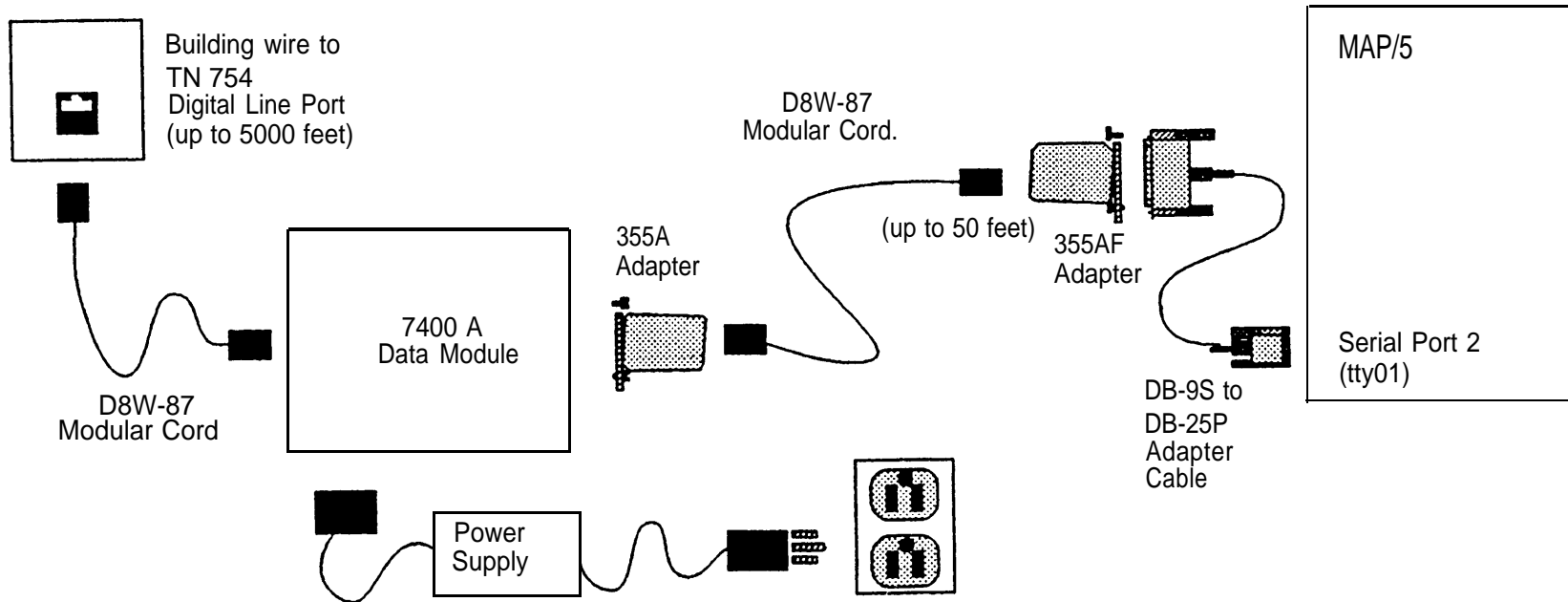
DEFINITY/System 75: UNIX SMDR Connection (Under 1000 Feet)



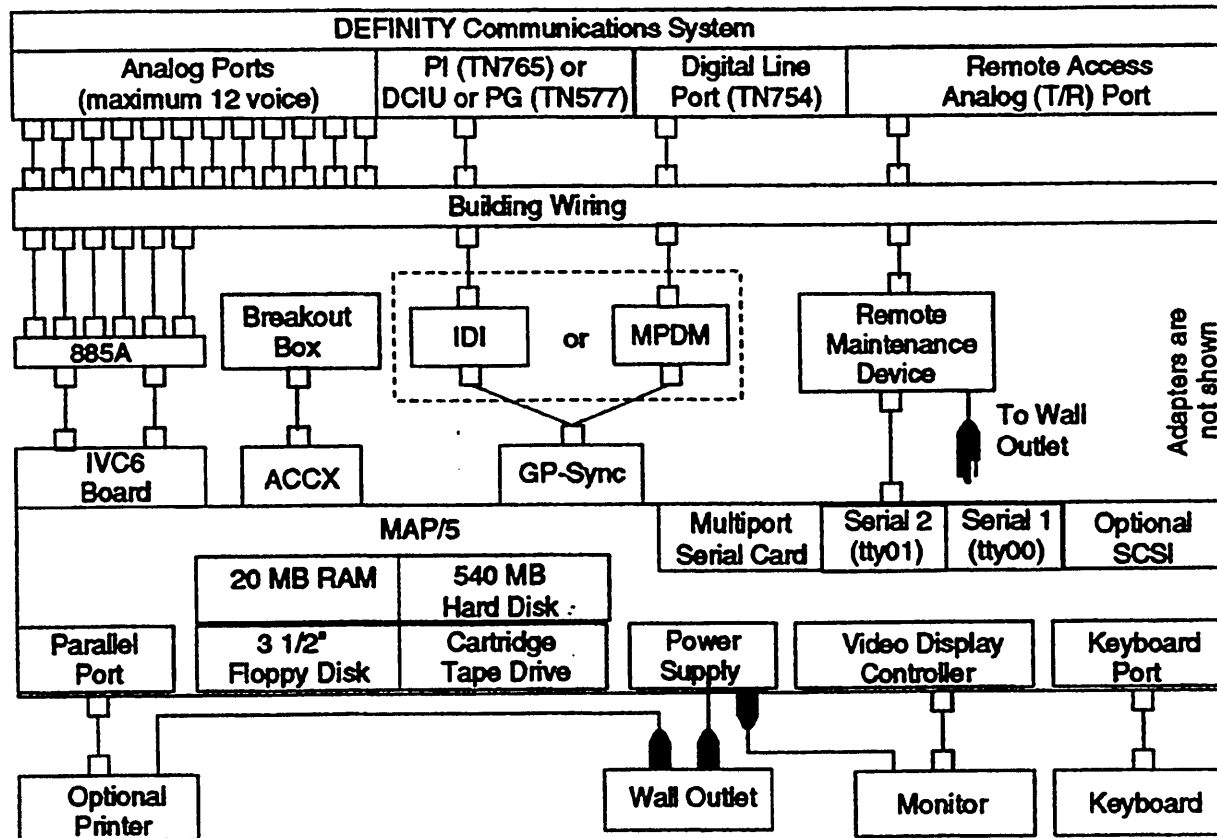
DEFINITY/System 75: UNIX SMDR Data Connection (TN-726 Data Line Port)



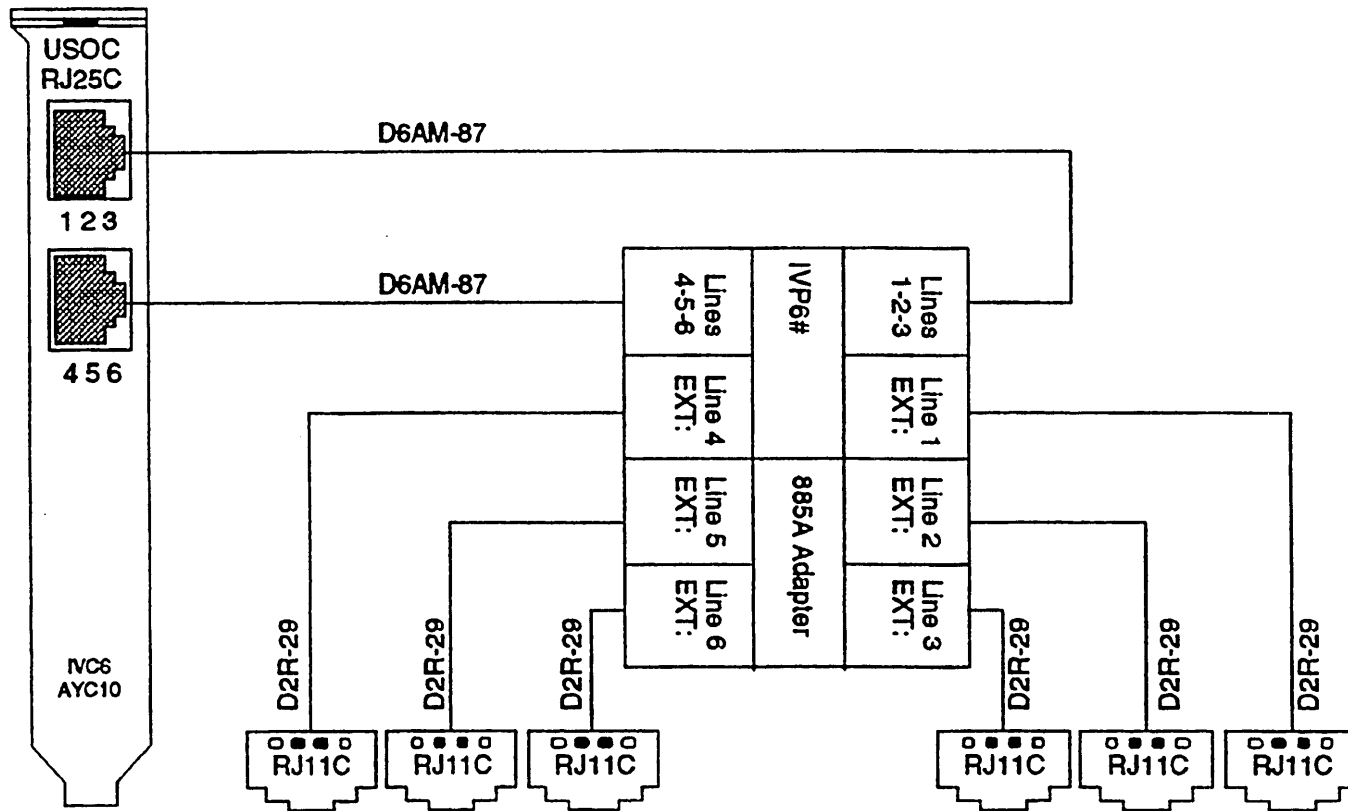
DEFINITY/System 75: UNIX SMDR Data Connection (7400A Data Module)



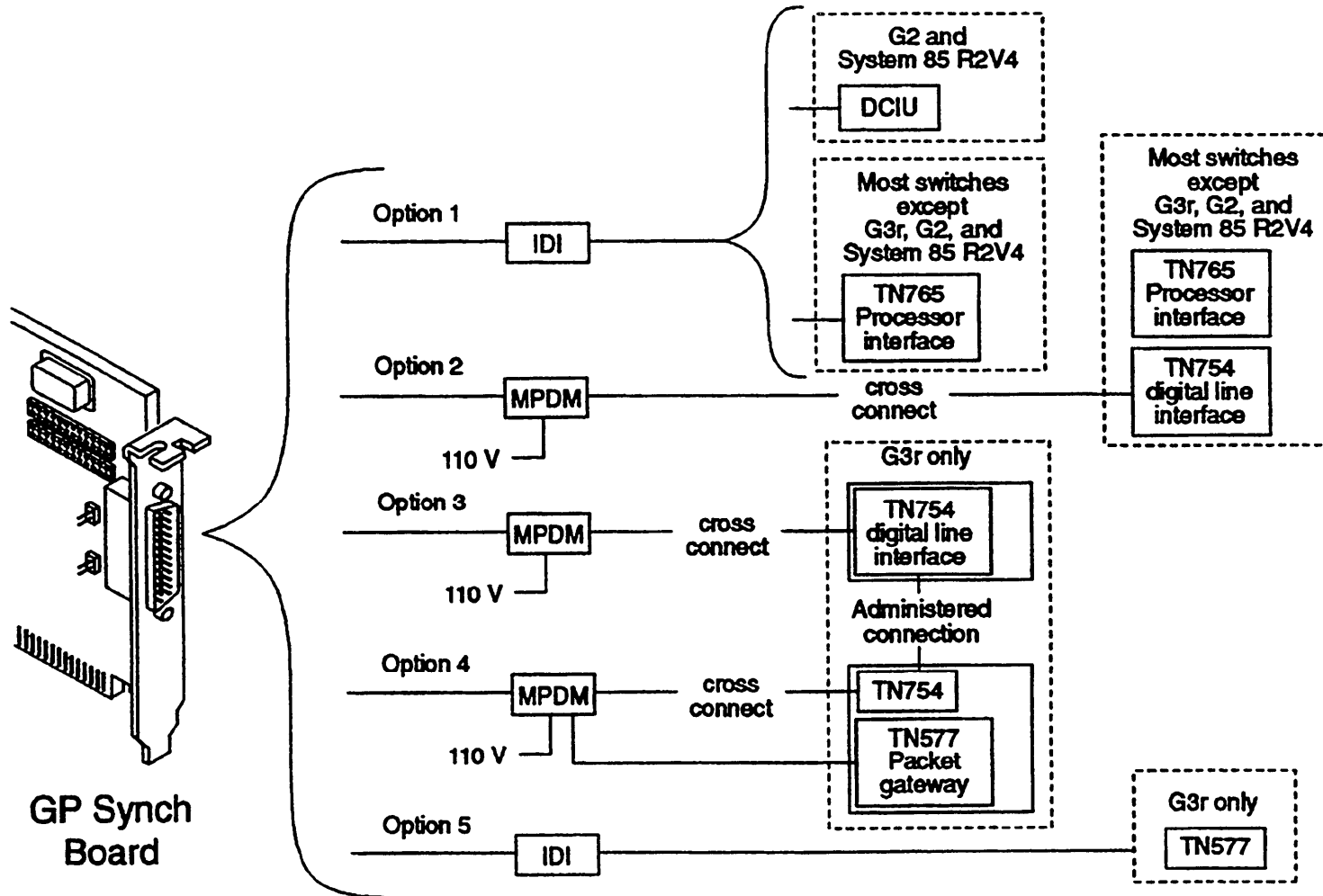
DEFINITY: INTUITY™ Connection Overview



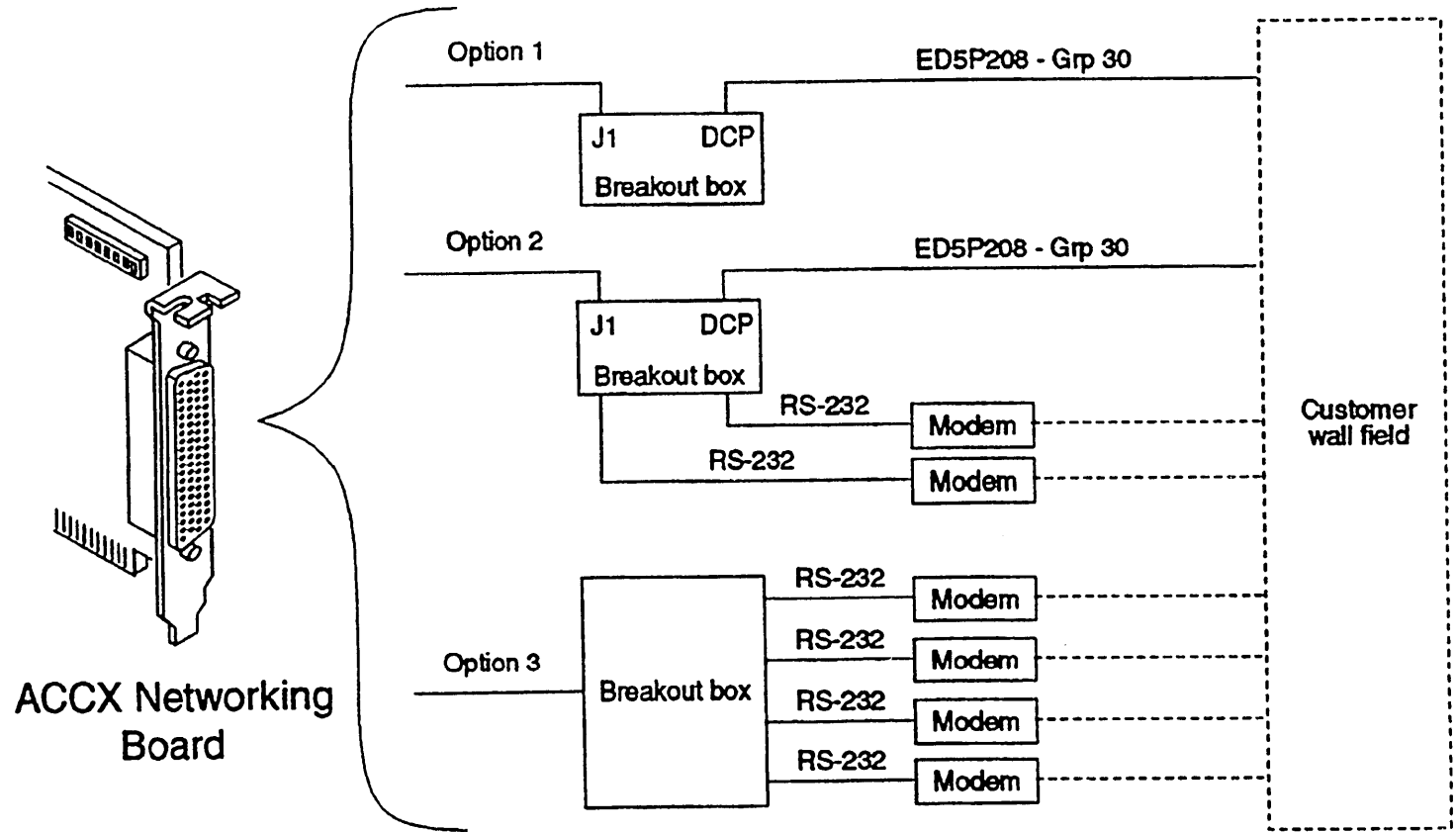
DEFINITY: IVC6 Board Connections (RJ11C with 885A) for INTUITY™



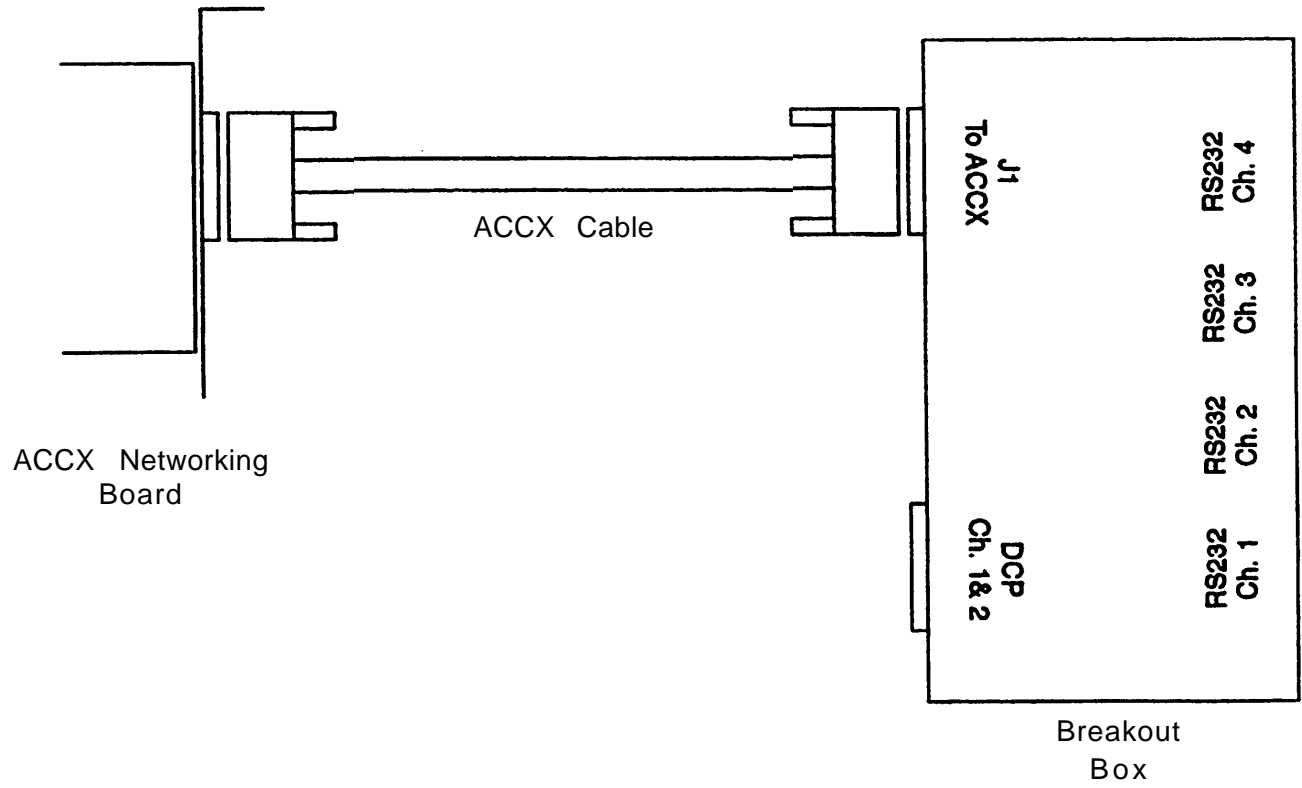
DEFINITY: GP-synch Board Connection Options for INTUITY™



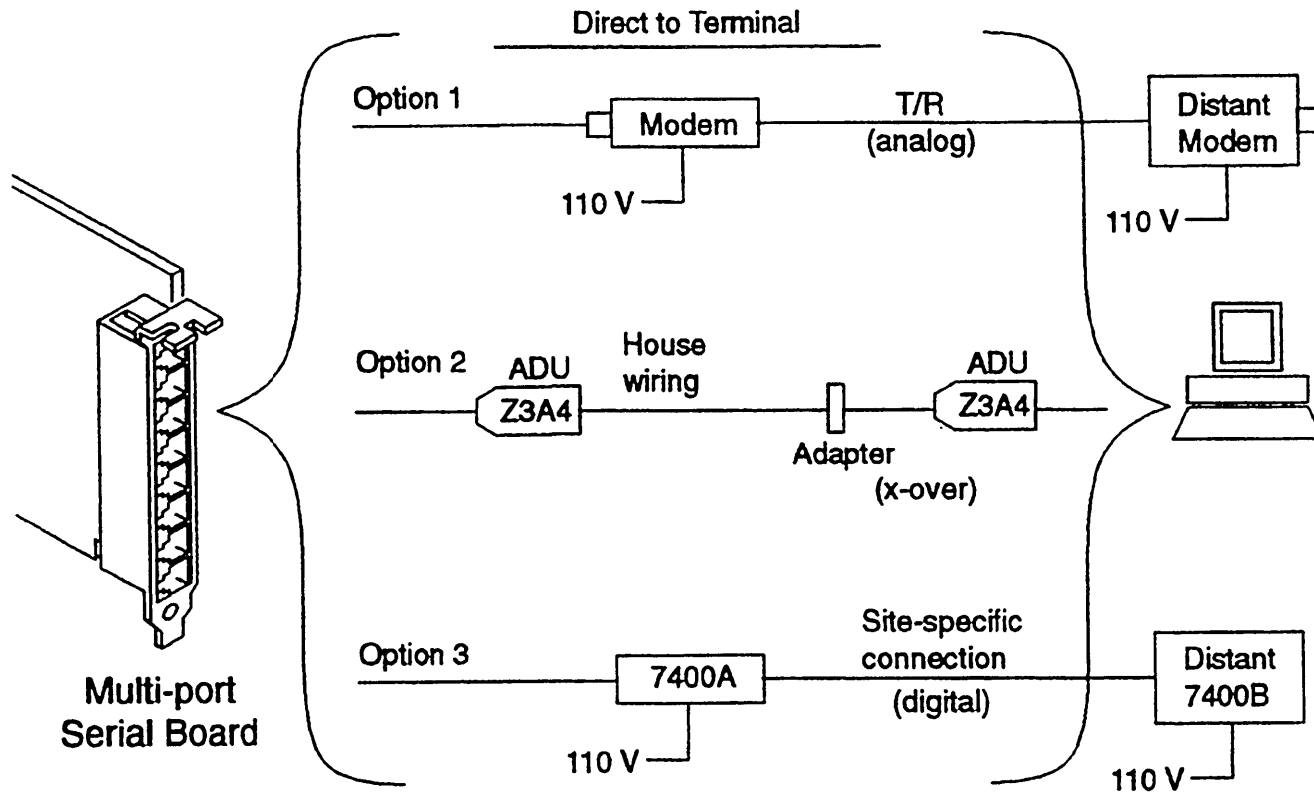
DEFINITY: ACCX Networking Board Connection Options for INTUITY™



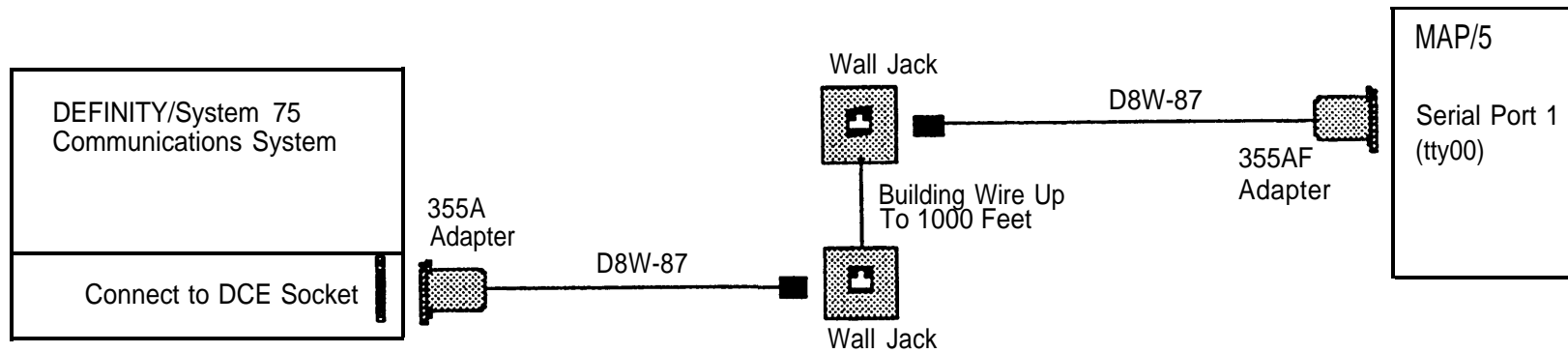
DEFINITY: ACCX Networking Board Connection to Breakout Box



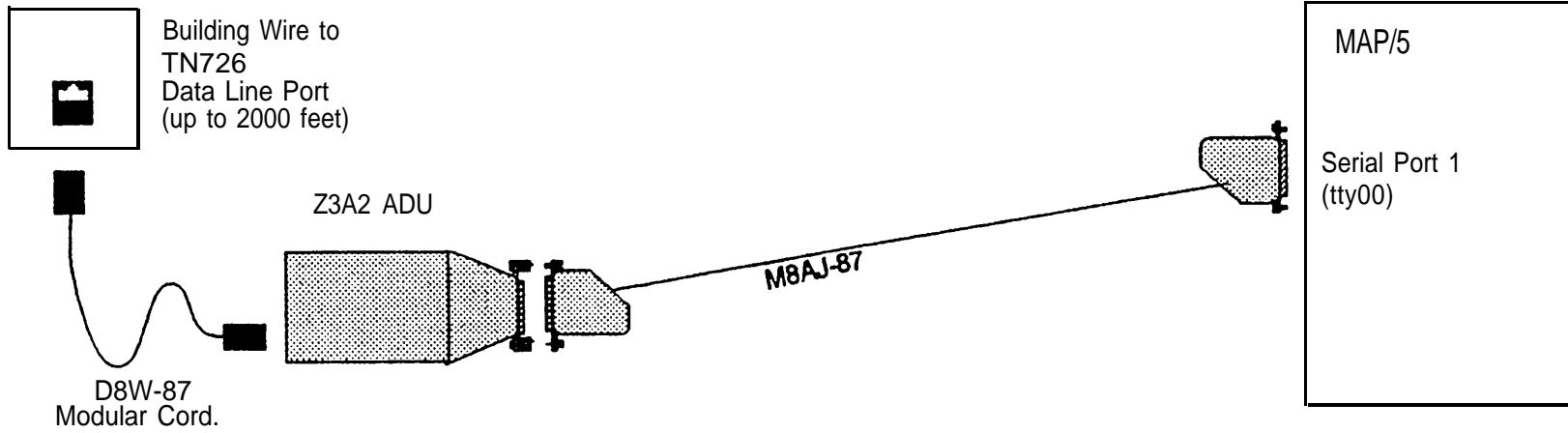
DEFINITY: Multi-port Serial Connection Options for INTUITY™



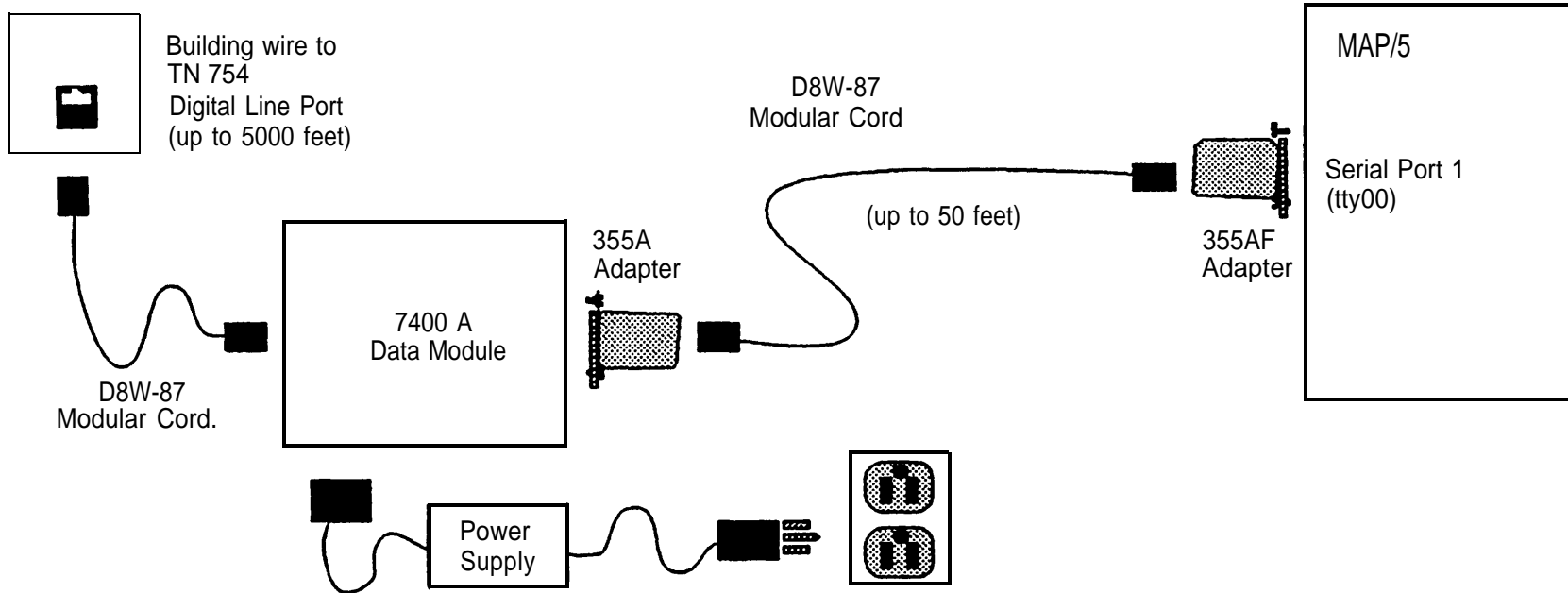
DEFINITY/System 75: MS-DOS SMDR Connection (Under 1000 Feet)



DEFINITY/System 75: MS-DOS SMDR Data Connection (TN-726 Data Line Port)



DEFINITY/System 75: MS-DOS SMDR Data Connection (7400A Data Module)



11 Testing Basic Functionality

Verify that the applications are installed and that you have connected all the hardware correctly. The applications cannot be customized until the system is functional.

<u>Application</u>	<u>Test</u>
AVP under Integrated Solution	<p>To test whether you can get dial tone through the IVP connections:</p> <ol style="list-style-type: none">1. Log in as <i>maint</i>.2. Select Technician Maintenance.3. Select Maintenance Log.4. Select IVP Board Diagnostics. <p>The system searches for dial tone and loop current on the boards, then reports whether each board passes the test. If dial tone or loop current is not found, check phone line connections using a telephone set.</p> <p>Note: If you run diagnostics and get the message <code>IN SERVICE. NO DIAL TONE</code> check for a loose chip on the voice board (the only chip in socket that is not soldered), and reconnect. Also, check the address switch settings.</p> <ol style="list-style-type: none">5. Exit the menus.

Application

Stand-Alone AVP

Test

To test whether you can get dial tone through the IVP connections:

1. Login as *audix*.
2. Select Voice System Administration.
3. Select Configuration Management.
4. Select System Control.
5. Select Diagnose Equipment.

The system searches for dial tone and loop current on the boards, then reports whether each board passes the test. If dial tone or loop current is not found, check phone line connections.

Note: If you run diagnostics and get the message `IN SERVICE. NO DIAL TONE` check for a loose chip on the voice board (the only chip in socket that is not soldered), and reconnect. Also, check the address switch settings.

6. Exit the menus.

Application

Call Accounting System under
Integrated Solution

Integrated Solution Call Accounting
System

CAS Plus V3

CAS for Windows

Test

To test whether CAS is collecting calls and can produce a report:

1. Make sure `COSTING` is ON (UNIX), `CALL PROCESSING` is ACTIVATED (MS-DOS), or `RATING CALLS` is STARTED (Windows).
2. Make sure the port is `CONNECTED` and `ENABLED` via software (UNIX and Windows), or just physically `CONNECTED` (MS-DOS).
3. Make several calls on the switch.
4. Wait at least 10 minutes.
5. Generate any Selection Report. Be sure to use today's date.
6. Make sure the calls you made are on the report.

Note: If the report is printed, this process also tests the printer connection.

Application

AAS (System 25)

Test

To test whether AAS is installed and connected:

1. Under Integrated Solution (UNIX), if AAS is installed, it will appear on the IS II or IS III Maintenance Menu. For MS-DOS, AAS starts from the C:> prompt.
2. To see if AAS is connected, select it from the IS main menu or start it from the C:> prompt. If it is not connected, you will get the following message:

There is no response from the switch.

Application

SPM (MERLIN LEGEND)

Test

To test whether SPM is installed and connected:

1. Under Integrated Solution (UNIX), if SPM is installed, SPM will appear on the IS II or IS III Main Menu. For MS-DOS, SPM starts from the C:> prompt.
2. If the software is loaded, the "Welcome to SPM" screen will appear.
3. To see if it is connected, press any key to continue. If it is not connected, you will get one of the following messages:

```
Warning:  SPM process is unable to establish  
communication with switch. Please check  
connection between PC and switch.
```

```
spm getty not responding
```

On the MERLIN LEGEND, the Access Log screen will also show link down if the connection is not established.

If it is connected, the SPM Main Menu will appear after the "Welcome to SPM" screen.

Application

CMS












Test

To test whether CMS is installed and connected:

1. CMS creates its own `auto exec bat` and `config.sys` files so that CMS starts automatically when PC is turned on. Therefore, if installed correctly, the CMS Main Menu should automatically appear.
2. Additional testing is covered in the CMS *Installation & System Programming Guide*. The 5 tests are: startup, line status, agent status, voice announcement unit and intraflow. NOTE: CMS requires some customization before running these tests.

12 Reviewing System with Customer

As part of the System Manager's training, be sure to include the following points:

-  Stress importance of regular backups.
-  Show customer where to find information in documentation.
-  Point out connections for monitor, keyboard, and power source.
-  Demonstrate power switches, lights on system unit and monitor, and contrast control on monitor. (Let customer know monitor can be off during operation.)
-  Explain that customer must not press the [RESET] button unless prompted by the system (during the shutdown process), or told to do so by the NSAC, TSC, or by an AT&T authorized dealer.
-  Be sure customer knows phone number of remote maintenance access. (Customer will have to give number to NSAC or TSC if remote maintenance is needed.)
-  Give NSAC (1-800-628-2888) or TSC (1-800-562-8349 for AUDIX Voice Power/FAX Attendant System and INTUITY, 1-800-422-6622 for CAS) Helpline #. (Note that this is not the same number that you use.)
-  Tell customer that tape drive requires DC6525 (QIC) or DC6525 (SCSI) tapes.
-  Warn customer not to leave a bootable diskette in the floppy drive because a power outage or unintentional reboot could cause the system to boot from the floppy and accidentally delete information or boot the wrong application.
-  Stress the need for periodic, systematic system shutdown. Recommend that system be shutdown monthly.
-  If the system is equipped with a surge protector, explain that the "good ground" LED should be lit.



Troubleshooting

If:	Do:	Page
1. If you encounter errors during system startup, or are prompted to run the Setup Utility	Running the SETUP Utility	85
2. If you need to: <ul style="list-style-type: none"> • Change memory or hard disk drive size • Change from DOS to UNIX operating system or upgrade to SCSI • SCSI Address conflict • Disable Serial Port 2 	1a. Basic System Configuration 1b. Advanced System Configuration 1c. Alternate SCSI Address 1d. System Security Configuration (Disable Serial Port 2)	86 89 92 93
3. If you suspect hardware problems	Running the AT&T MAP/5 Diagnostic Program	94
4. If the system experiences a catastrophic failure (loss of the hard drive)	Recovering from Catastrophic Failure	95

1 Running the SETUP Utility

If you encounter errors during system startup, you may be prompted to run the SETUP Utility, which allows you to reconfigure the system unit. To run the utility at any time:

1. Exit any application using the application shutdown procedure.

For UNIX systems, stop the voice system if it is running. Then, shut down the system using the SHUTDOWN menu selection.

For MS-DOS, exit all applications or close windows until you reach a DOS prompt.

2. When you get the message to reboot the system, (UNIX only) or from the DOS prompt, press the [RESET] button on the system unit. This is one of the few times you can safely use the [RESET] button without any potential file damage.
3. When you see the screen that says:

Video ROM BIOS

immediately press and hold the [CTRL] and [ALT] keys, then press the [ESC] key.

1a Basic System Configuration

1. From the main menu, choose System Configuration. The warning message on the screen is not applicable to any of the supported MAP/5 configurations, and may be ignored. From the System Configuration submenu, choose Basic System Configuration. The next screen should look like the illustration below. The values in the Fixed Disk 0, Extended Memory, and Total Memory fields may change for different MAP/5 models as shown in the table on the following page.

Basic System Configuration		Page 1				
Date	[xx/xx/xx]					
Time	[xx/xx/xx]					
Diskette Drive A	[1.44 MB 3.5 inch]					
Diskette Drive B	[None]					
				Sector	Landing	Write
		Cylinder	Head	/Track	Zone	Precomp
Fixed Disk 0 (202 MB)	[46]	683	16	38	None	None
Fixed Disk 1 (0 MB)	[None]					
Base Memory	[640]KB					
Extended Memory	[3328]KB					
Total Memory	[3968]KB					
Math Coprocessor	[Not Installed]					
Video Display	[VGA/EGA]					

continued on next page

Memory and Disk Information by MAP/5 Model:

Item	4X1I	8X1IT	8X2IT		8X5IT		20X5ST
Fixed Disk 0 Size (formatted capacity*)	202 MB	202 MB	240 MB	406MB	486 MB	504 MB	0 MB
Fixed Disk 0 Type	46	46	88	41	49	80	None
Extended Memory	3328 KB	7424 KB	7424 KB	7424 KB	7424 KB	7424 KB	19456 KB
Total Memory	3968 KB	8096 KB	8096 KB	8096 KB	8096 KB	8096 KB	20096 KB

* Disk size is "formatted" capacity, which is always less than "quoted" capacity.

2. To change values on the `FIXED DISK 0` line, press the [↑] or [↓] key to highlight the line, then use the [←] or [→] key to toggle to the correct type. The other values on the `FIXED DISK 0` line are filled in to match the type automatically. (See screen illustration on previous page.)
3. The values for memory are automatically determined. If they do not match the amount of memory that should be installed, visually verify that the memory is installed and test its operation using the AT&T MAP/5 Diagnostic Program.

continued on next page

4. Go to the next screen by pressing the [PAGE DOWN] key. The values you see should match the ones in the following screen illustration. If they don't, you can change the values with the arrow keys as described in Step 2.
5. When you are finished, press [ESC]. A confirmation box will ask if you want to save the settings you have changed. Move the highlight to [Yes] and press [ENTER].

Basic System Configuration		Page 2
Communications Settings		
Baud Rate	[9600]	BPS
Parity	[None]	
Stop Bits	[1]	Bits
Data Length	[7]	Bits
Memory Test	[Enabled]	

1b Advanced System Configuration

You get to Advanced System Configuration by:

1. Run the SETUP utility. See page 85.
2. Select `Advanced System Configuration` on the System Configuration menu.

The variations on each page by MAP/5 model are shown in the following four screen illustrations.

Model 4X11 Only, Page 1

Advanced System Configuration		Page 1
Shadow RAM		
F0000h-FFFFFFh (System BIOS)	[Enabled]	
C0000h-C7FFFh (Video BIOS)	[Enabled]	
C8000h-CFFFFh	[Disabled]	
D0000h-D7FFFh	[Disabled]	
D8000h-DFFFFh	[Disabled]	
E0000h-E7FFFh	[Disabled]	
E8000h-EFFFFh	[Disabled]	
System Cache		[Enabled]
F0000h-FFFFFFh (System BIOS)	[Cacheable]	
C0000h-C7FFFh (Video BIOS)	[Cacheable]	
System Speed		[High]
Memory at 15MB-16MB Reserved for	[System]	Use

All Models Except **Model 4X1I**, Page 1

Advanced System Configuration		Page 1
Shadow RAM		
F0000h-FFFFFh (System BIOS)	[Enabled]	
C0000h-C7FFFh (Video BIOS)	[Enabled]	
C8000h-CFFFFh	[Disabled]	
D0000h-D7FFFh	[Disabled]	
D8000h-DFFFFh	[Disabled]	
E0000h-E7FFFh	[Disabled]	
E8000h-EFFFFh	[Disabled]	
System Cache		
	[Enabled]	
F0000h-FFFFFh (System BIOS)	[Noncacheable]	
C0000h-C7FFFh (Video BIOS)	[Noncacheable]	
System Speed		
	[High]	
Memory at 15MB-16MB Reserved for	[System]	Use

Model 20X5ST (SCSI Hard Drive), **Page 2**

Advanced System Configuration		Page 2
SCSI BIOS BASE Address	[0D8000H]	
SCSI Synchronous Negotiation	[Enabled]	
SCSI IRQ Channel	[IRQ 11]	
SCSI IO Address	[340H]	

All Non-SCSI Models, **Page 2**

Advanced System Configuration		Page 2
SCSI BIOS BASE Address	[Disabled]	
SCSI Synchronous Negotiation	[Enabled]	
SCSI IRQ Channel	[IRQ 11]	
SCSI IO Address	[340H]	

 **1c Alternate SCSI Address**

The SCSI I/O address is assigned ***even on non-SCSI systems***. If an alternate SCSI I/O address is ever required because of a conflict with another expansion board, see the documentation for the application that requires the expansion board, and follow these steps:

1. Change the SCSI address jumper JP6 on the main board from open to closed, as indicated by the "*Without SCSI (alternate address)*" callout on page 115.
2. Run the SETUP utility. See page 85.
3. Select Advanced System Configuration. See page 89.
4. On Page 2 of Advanced System Configuration, change the SCSI BIOS BASE Address parameter to [0D8000H]. This enables SCSI so that the I/O address can be changed.
5. Change the SCSI I/O Address parameter to [140H].
6. Change the SCSI BIOS BASE Address parameter to [Disabled].

1d System Security Configuration (Disable Serial Port 2)

Some applications, such as HackerTracker with the SatisFAXtion board, require that Serial Port 2 be disabled. To disable Serial Port 2, follow these steps:

1. Run the SETUP Utility. See page 85.
2. The port configuration parameters are accessed through the *System Security* choice on the SETUP Utility main menu. See page 93.
3. Disable Serial Port 2. Note that this may change the value for serial port 1.
4. Verify that Serial Port 1 has the correct value as shown in the following screen illustration.

```
Security Utility                                     Page 1
Disk Drive Control
  Diskette Drive          [ Normal ]
  Fixed Disk Drive       [ Normal ]
  System Boot Drive      [AUTO]

On Board Communication Ports
  Serial Port 1          [Enable (COM1)] (25 Pin)
  Serial Port 2          [Disable ] ( 9 Pin)
  Parallel Port          [Enable (378h)]

Setup Password          [ None ]
Power On Password      [ None ]
```

2 Running the AT&T MAP/5 Diagnostic Program

If you suspect hardware problems, run the AT&T MAP/5 Diagnostic Program.

1. Exit any application using the application shutdown procedure.
 - For UNIX systems, stop the voice system if it is running. Then shut down the system using the SHUTDOWN menu selection.
 - For MS-DOS, exit all applications or close windows until you reach a DOS prompt.
2. Insert the AT&T MAP/5 Diagnostic Program diskette in the diskette drive.
3. Press [CTRL]-[ALT]-[DEL] or press the [RESET] button.
4. You have 60 seconds to make the following choice: press 1 for IDE, or 2 for SCSI system.
5. At the next menu screen press [ENTER] to display the Test Item menu.
6. Press [F10] to select all tests at once, then press [F2] to begin the first test. Follow the directions on each screen.
7. At the end of all tests, press [ESC] to return to the Main Menu.
8. Use the right-arrow key to highlight EXIT, then press [ENTER].

Details on all the tests are in the *AT&T MAP/5 Diagnostic Program User's Guide*. If the tests reveal a failed component, replace the component according to the instructions in the accompanying video or the MAP/5 User's Guide. If you need additional assistance, call:

<u>Communications System</u>	<u>Service Organization</u>	<u>Telephone Number</u>
MERLIN LEGEND/System 25	NSAC	1-800-552-3293
DEFINITY/System 75	TSC	1-800-248-1234

Note: The port tests require use of 3 wrap-plugs or loopback connectors. You can order them through your normal channels. See page 129 for the Comcode.

3 Recovering from Catastrophic Failure

If the system experiences a catastrophic failure (loss of the hard drive):

1. Replace the hard drive (as described on page 117 and in the *MAP/5 User's Guide*).
2. Recover the files from the customer's backup diskettes or tape(s) following the instructions that came with the application.

Integrated Solution

If you are prompted for values for partitioning the hard disk, use the following table.

	IDE Hard Drives used with Integrated Solution				
Prompt	210 MB	250 MB	420 MB	500 MB	540 MB
swap	34	37	20	20	20
root/usr	307	403	372	445	461
/usr2	342	455	434	524	543

Intuity™

Intuity™ applications SCSI hard drives which are configured automatically during installation.

MS-DOS

MS-DOS applications use the 210 IDE hard drive with 100% partition for the C: drive.



Repair and Upgrade

Topic	Page #
1. Antistatic Precautions	97
2. Opening the System Unit/Installing Expansion Boards	17 & 19
3. Location of Internal Components of the System Unit	98
4. Identifying and Setting Expansion Boards	99
5. General Procedures	102
a. Removing/Replacing Auxiliary Housing	103
b. Removing/Replacing Hard Drive Housing	104
c. Removing/Replacing Drive Housing	105
d. Removing/Replacing Card Guide	106
e. Connecting SCSI Cable	107
f. Installing or Replacing Memory	108
g. Upgrading the Processor	109
h. Replacing the Battery	110
6. Replacing the Main Board (Task List)	111
a. Removing/Reconnecting Small Cables	112
b. Removing/Reconnecting Power and Ribbon Cables	113
c. Removing/Replacing Main Board	114
d. Main Board Jumper Settings	115
7. Replacing the Power Supply	116
8. Replacing the First Hard Disk Drive	117
9. Replacing the Floppy Diskette Drive	124
10. Installing or Replacing the Tape Drive	125
11. Adding or Replacing a Second Hard Disk Drive	128
12. Comcodes	129

T 1 Antistatic Precautions

Integrated circuits (chips) are sensitive to static electricity. Handling circuit boards without taking precautions to prevent electrostatic discharge is likely to cause damage.

CAUTION:

You must wear a grounded wrist strap before touching or handling circuit boards. The wrist strap must fit snugly and have contact with bare skin. The wrist strap should be connected to ground through a one megohm resistor (usually built into the grounding cord).

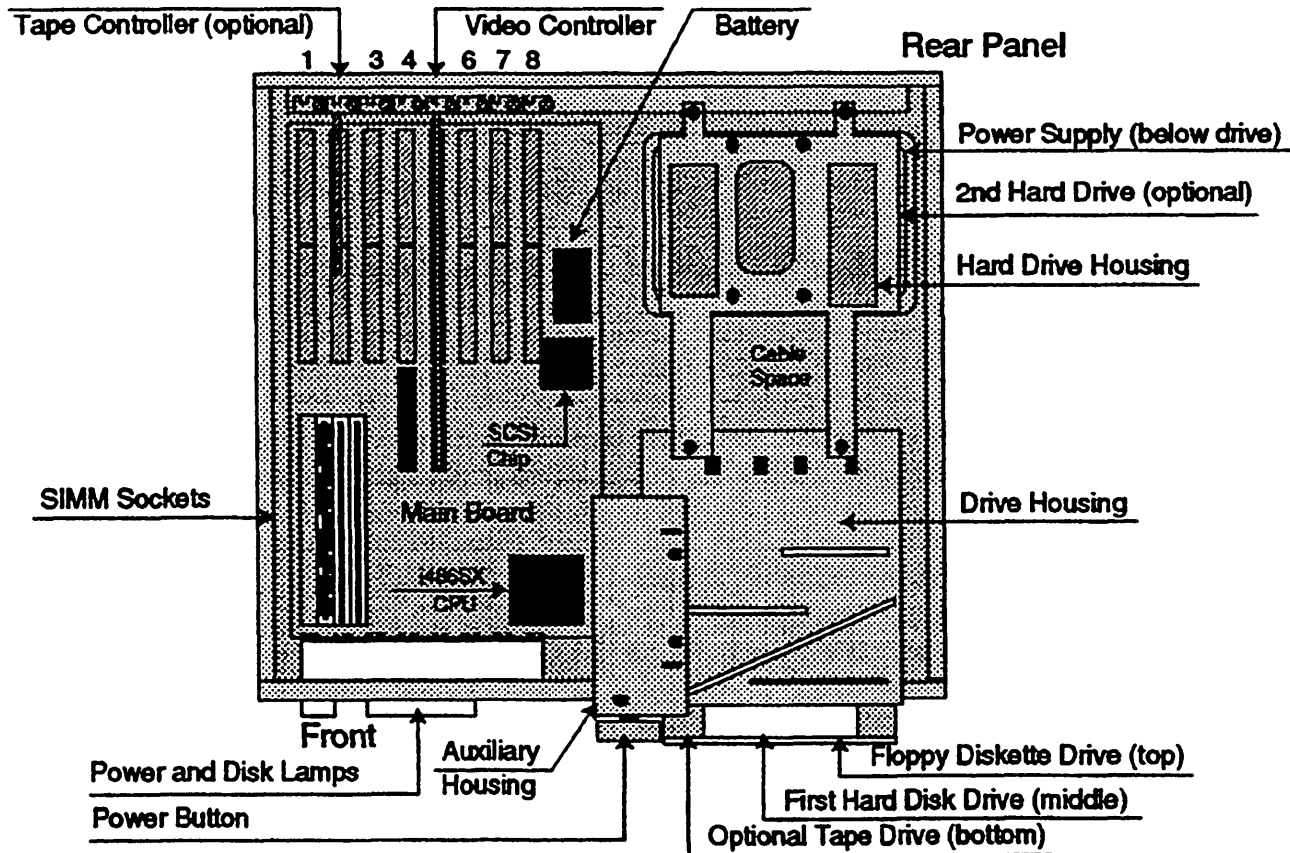
If available, an antistatic mat should be used. Make sure the mat is properly grounded. Place components on the mat whenever you remove them from the processor.

T 2 Opening the System Unit/Installing Expansion Boards

This subject is covered on pages 17 through 19.

T 3 Location of Internal Components of the System Unit

Use this drawing as a guide in locating the internal components of the system unit.



4 Identifying and Setting Expansion Boards

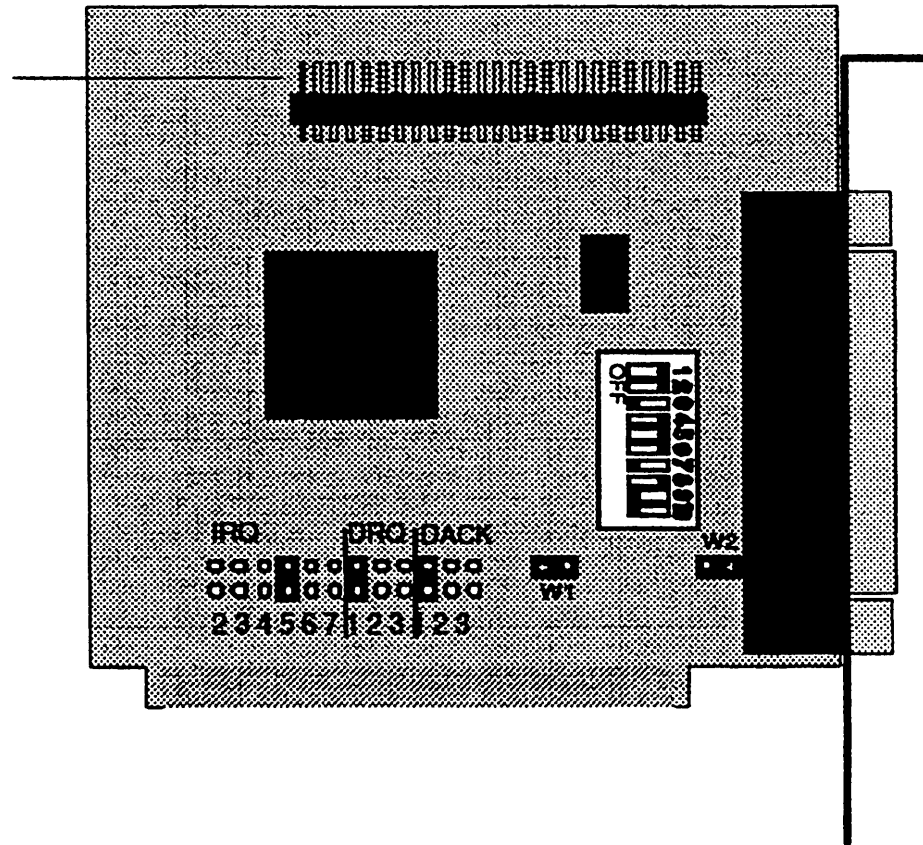
Identification information, and locations and settings for switches and jumpers are provided for the following expansion boards:

Board Type	Page
Board/Slot Locations	21
IVP	23
IFP	27
IVC	30
GP-synch	31
Multi-port Serial	32
ACCX Networking	33
DCP	34
CMS	35
SatisFAXtion®	36
Tape Controller (non-SCSI)	100
Video Controller (old & new)	101

Non-SCSI Tape Controller Board

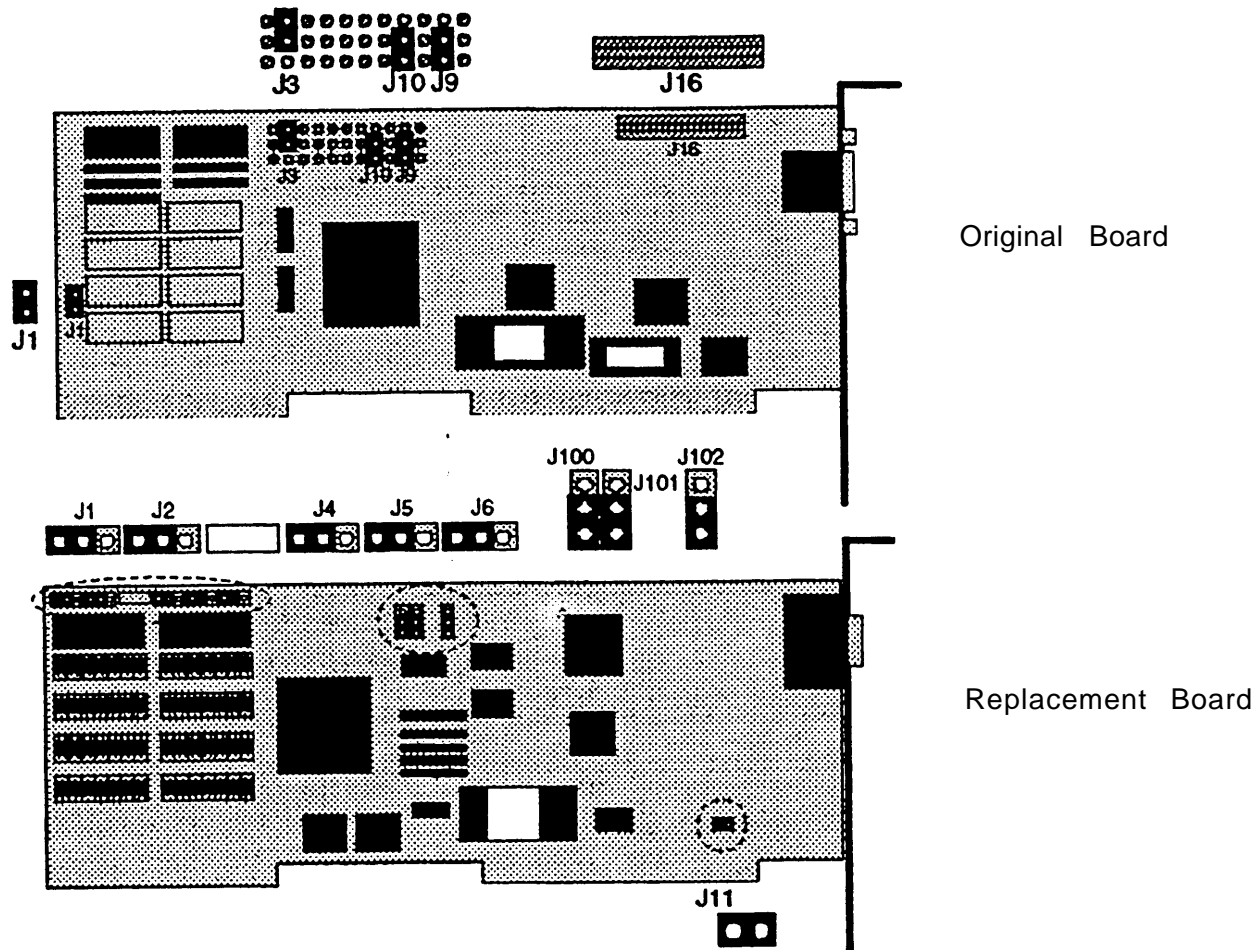
Use this drawing to identify the non-SCSI tape controller board and verify jumper and switch settings. This optional expansion board is installed in slot 2.

Install control
cable connector
with tracer stripe
on this side



Video Controller Board

Use this drawing to identify the video controller board and verify jumper settings. This expansion board is installed in slot 5.

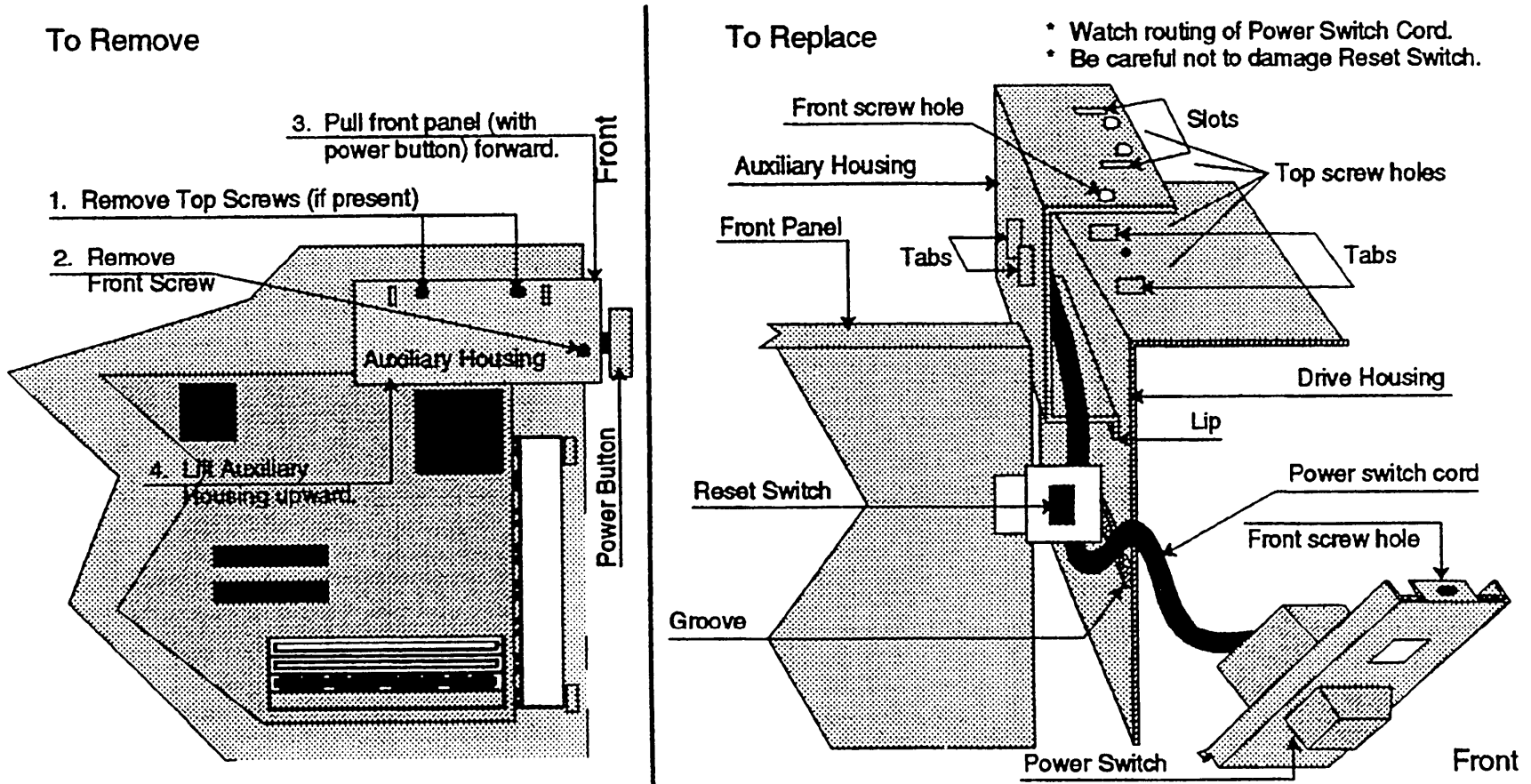


5 General Procedures

Procedure	Page
a . Removing/Replacing Auxiliary Housing	103
b . Removing/Replacing Hard Drive Housing	104
c . Removing/Replacing Drive Housing	105
d . Removing/Replacing Card Guide	106
e . Connecting SCSI Cable	107
f . Installing or Replacing Memory	108
g . Upgrading the Processor	109
h . Replacing the Battery	110

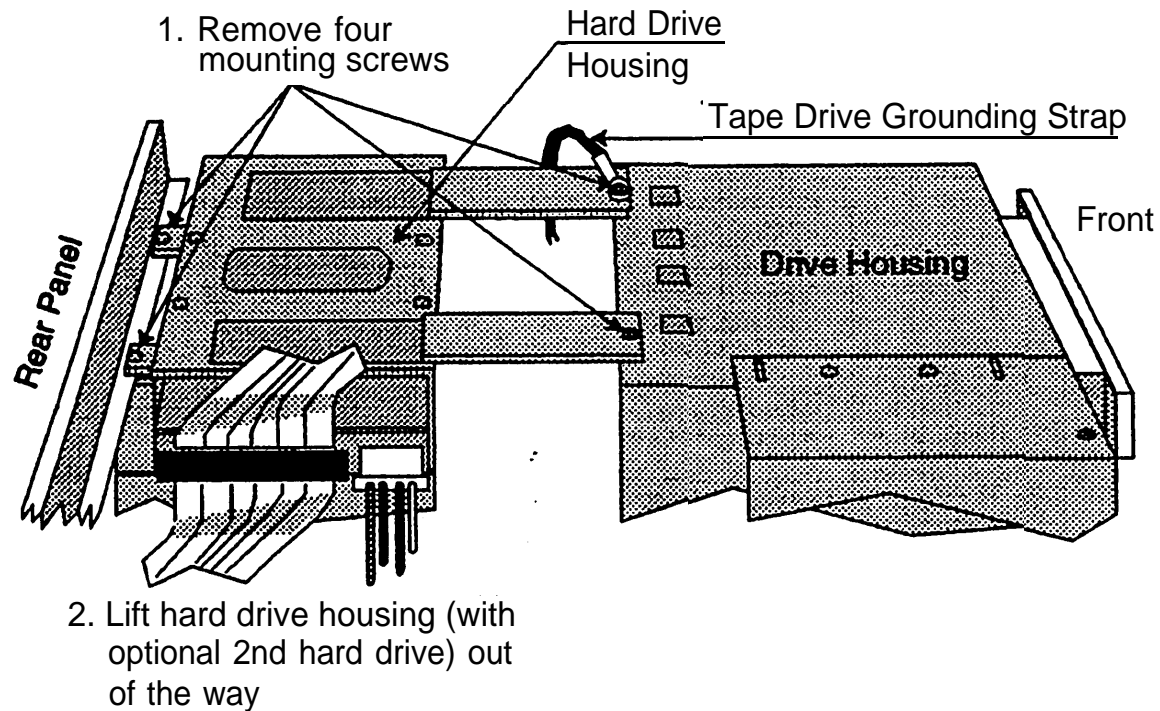
5a Removing/Replacing Auxiliary Housing

Remove the Auxiliary Housing to gain access to the Drive Housing or to replace the Power Supply or Main Board. Use these drawings as a guide for removing and replacing the auxiliary housing.



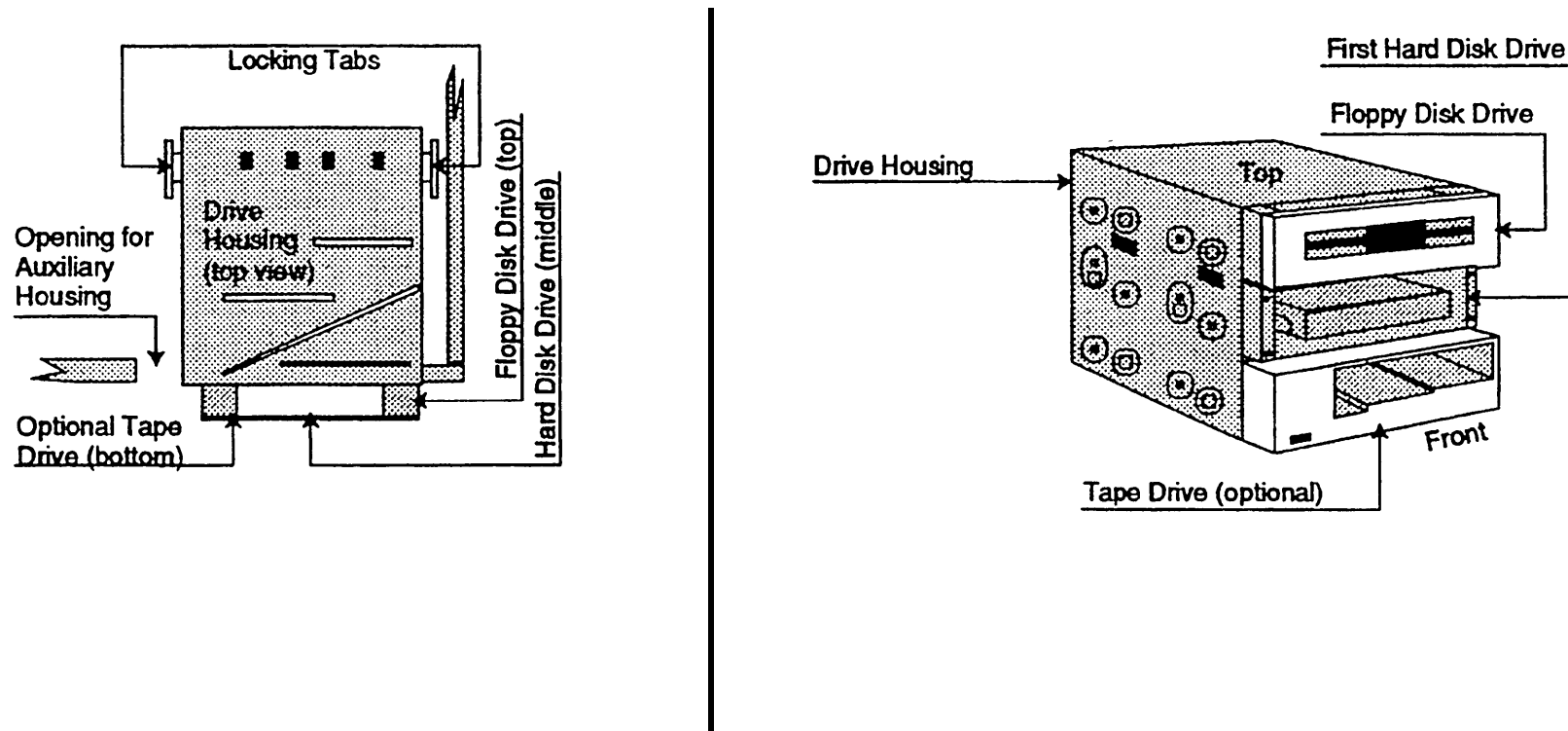
5b Removing/Replacing Hard Drive Housing

Remove the hard drive housing to gain access to the Drive Housing or the Power Supply. Use this drawing as a guide for removing and replacing the hard drive housing.



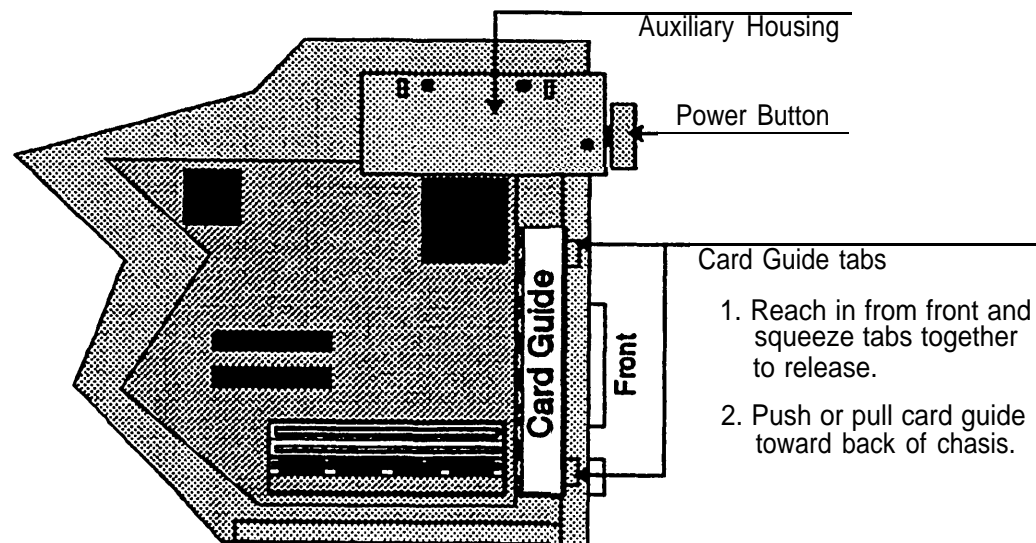
T 5c Removing/Replacing Drive Housing

Remove the drive housing to replace the floppy diskette drive, first hard drive, or optional tape drive. Use this drawing as a guide for removing/replacing the drive housing.



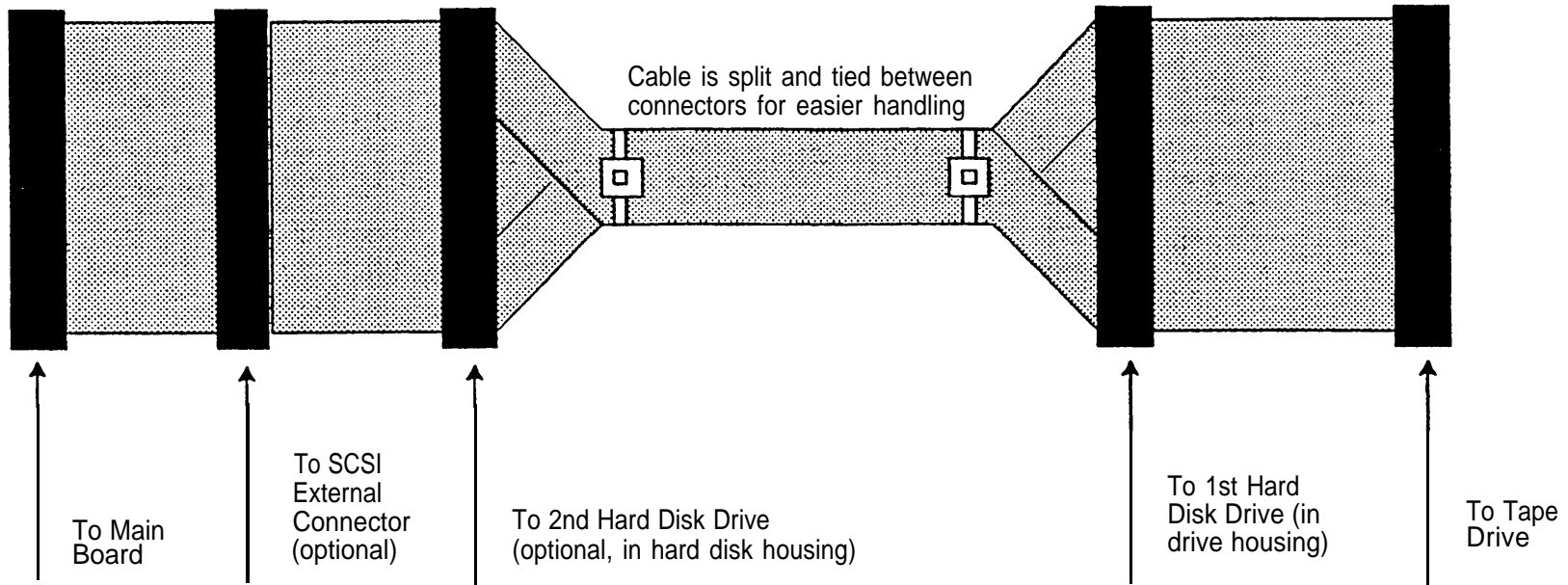
5d Removing/Replacing Card Guide

Remove the card guide before removing the main board. Use this drawing as a guide for removing or replacing the card guide.



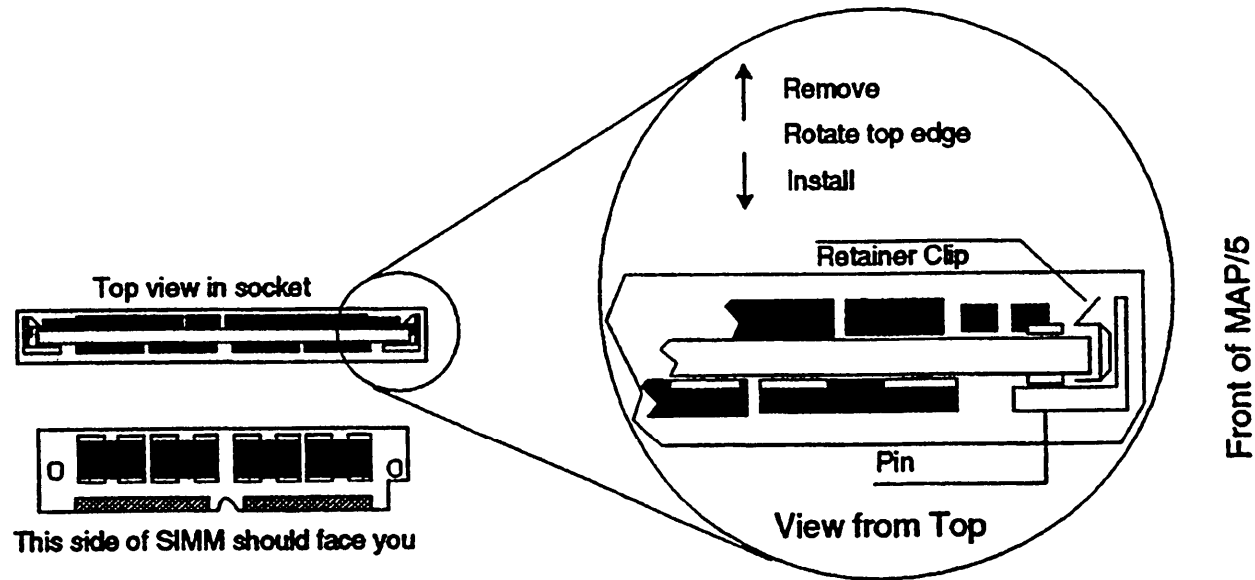
5e Connecting SCSI Cable

Use this drawing as a guide for connecting the SCSI cable.



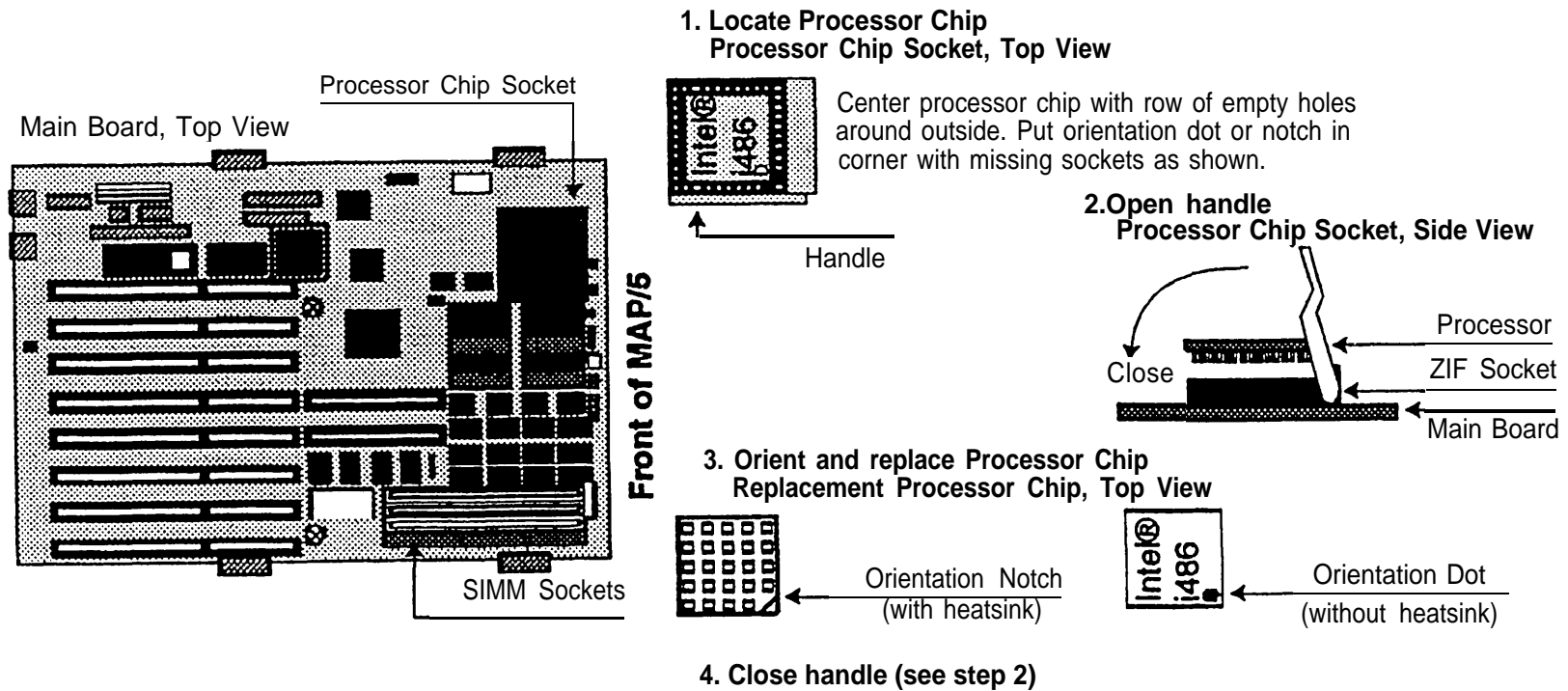
5f Installing or Replacing Memory

Use this drawing as a guide for installing or removing SIMMs.



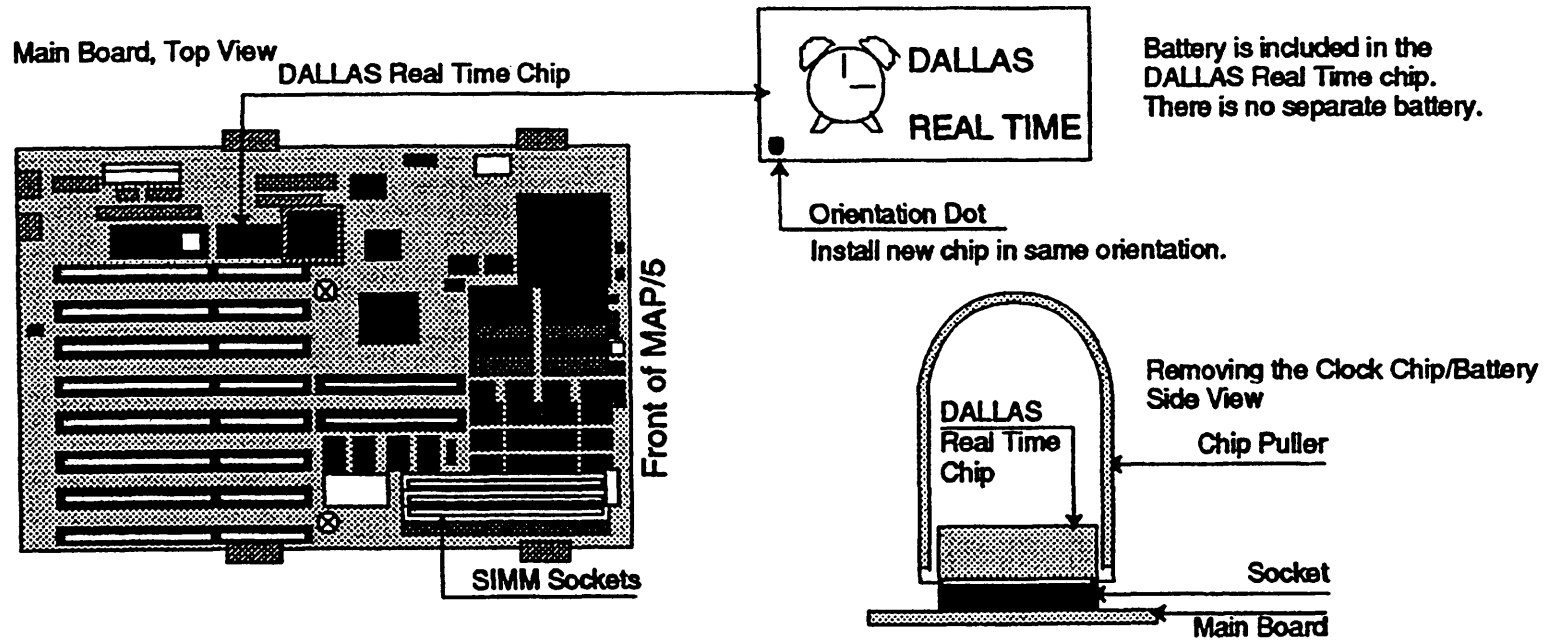
5g Upgrading the Processor

Use this drawing as a guide for upgrading the processor. You must also change the setting of main board jumper JP10 shown on page 115 to match the base speed of the new processor.



5h Replacing the Battery

Use this drawing as a guide for replacing the battery.

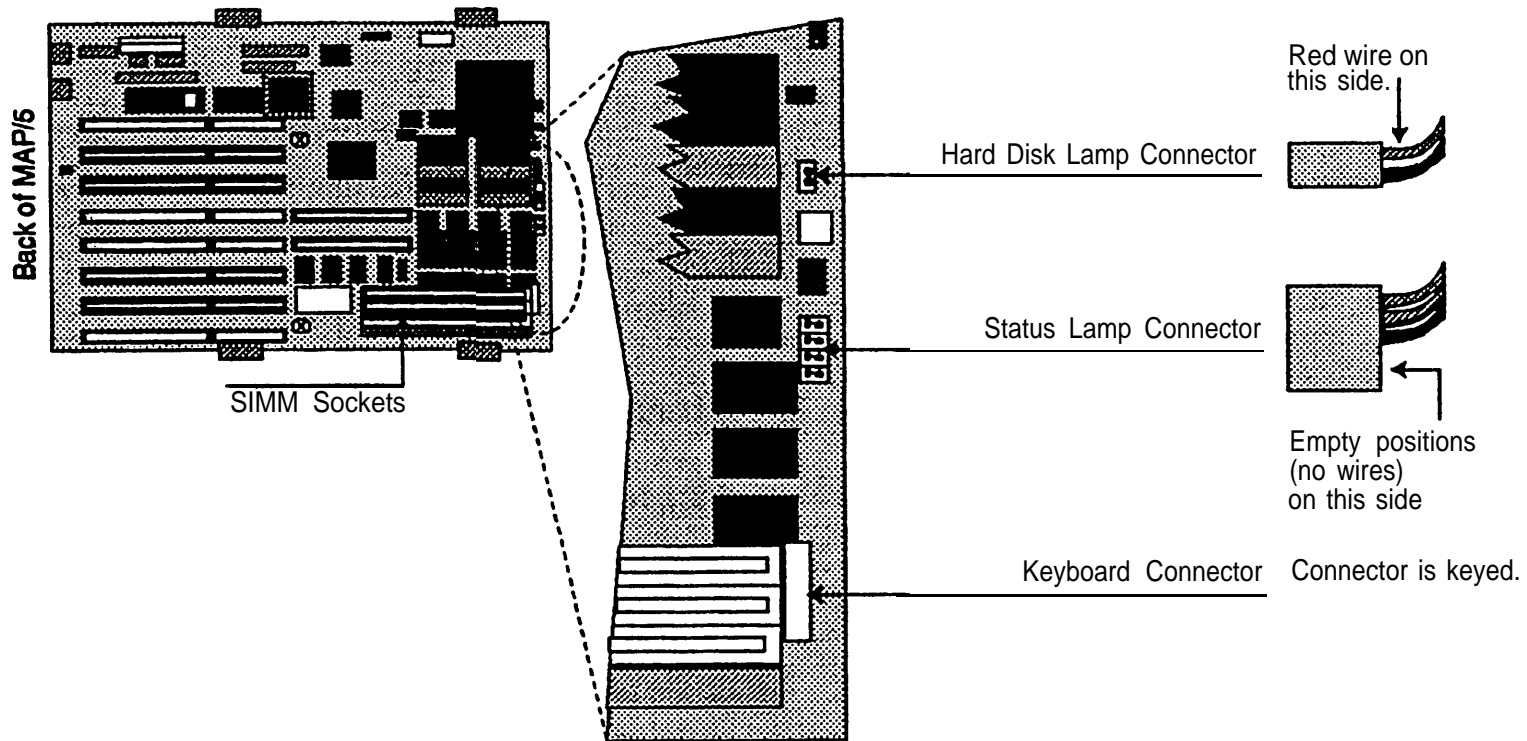


6 Replacing the Main Board (Task List)

Step	Page
Remove all expansion boards	19
Remove the card guide (optional)	106
Remove the auxiliary housing	103
Disconnect cables from the main board	112 & 113
Remove the old main board	114
Remove SIMMs from old main board and install on new main board	108
Set or verify jumpers on the new main board	115
Install the new main board	114
Reconnect the cables to the new main board	112 & 113
Replace the auxiliary housing	103
Replace the card guide (if removed)	106
Replace all expansion boards	19

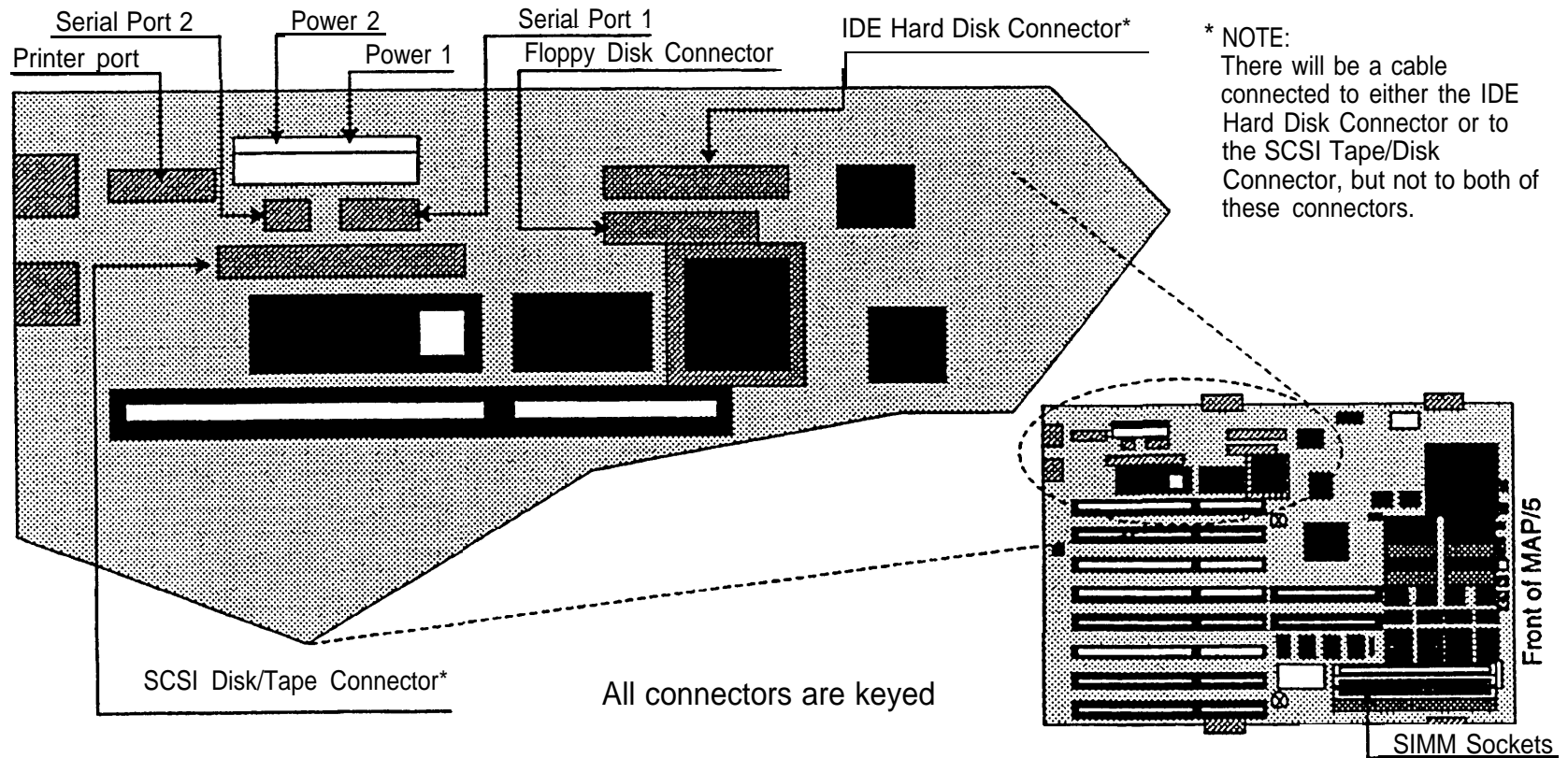
T 6a Removing/Reconnecting Small Cables

Use this drawing as a guide for removing and replacing the three small cables at the lower right on the main board.



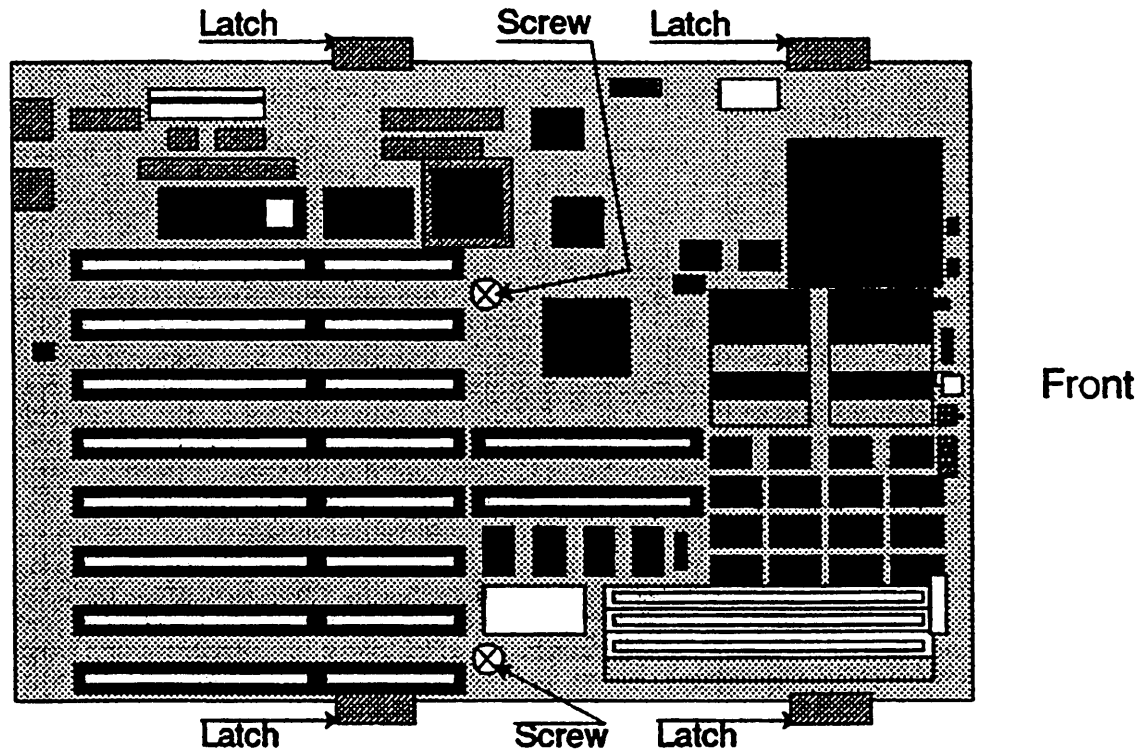
T 6b Removing/Reconnecting Power and Ribbon Cables

Use this drawing as a guide for removing and replacing the seven power and ribbon cables at the top of the main board.



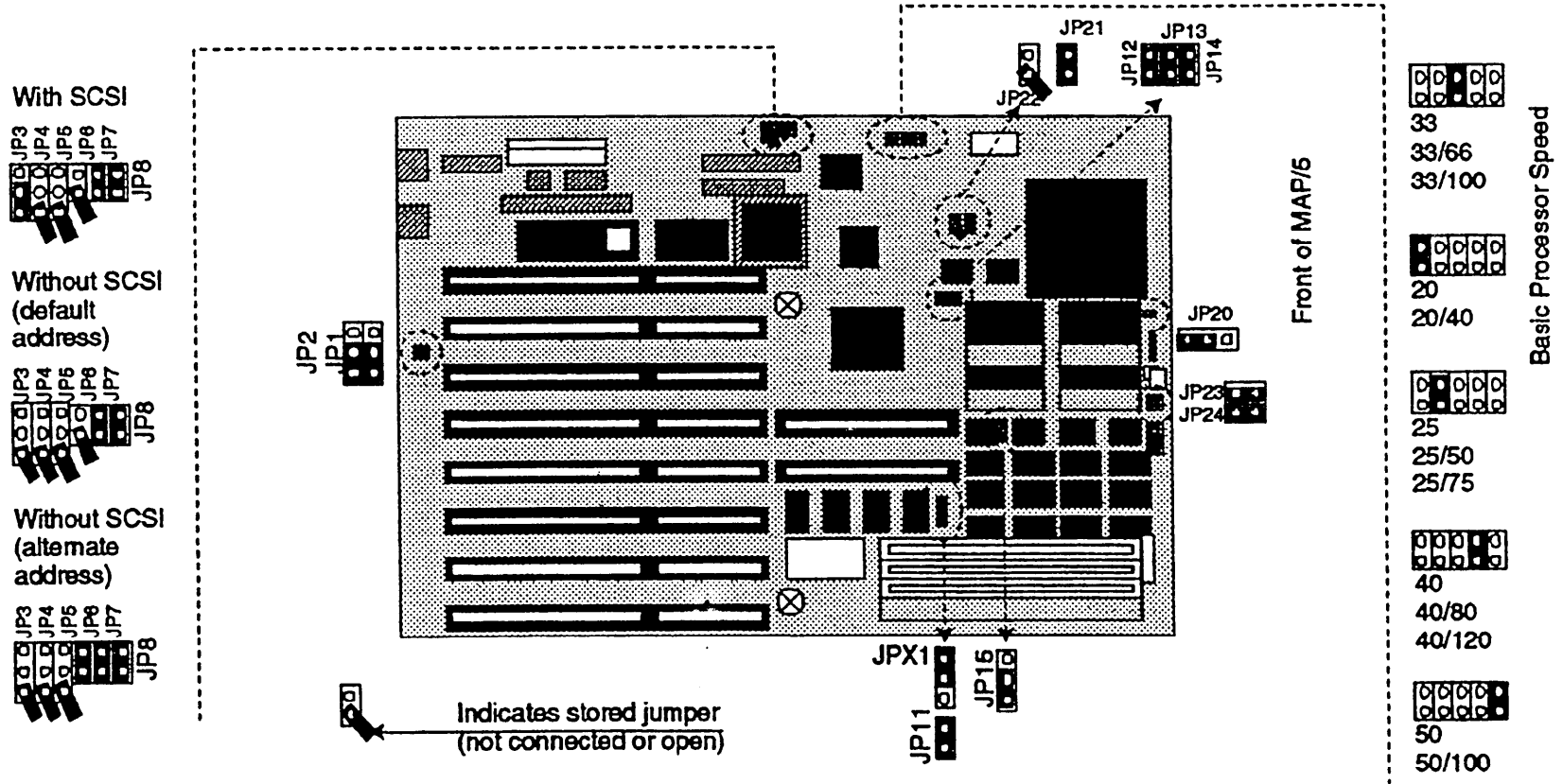
6c Removing/Replacing Main Board

Use this drawing as a guide for locating the two screws and four latches that secure the main board.



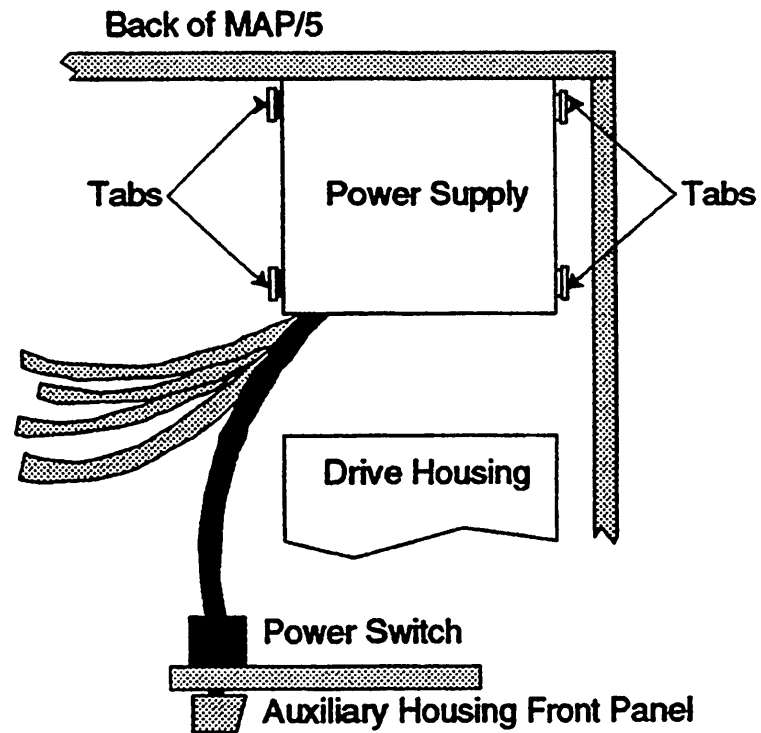
T 6d Main Board Jumper Settings

Use this drawing as a guide for locating and setting main board jumpers.



7 Replacing the Power Supply

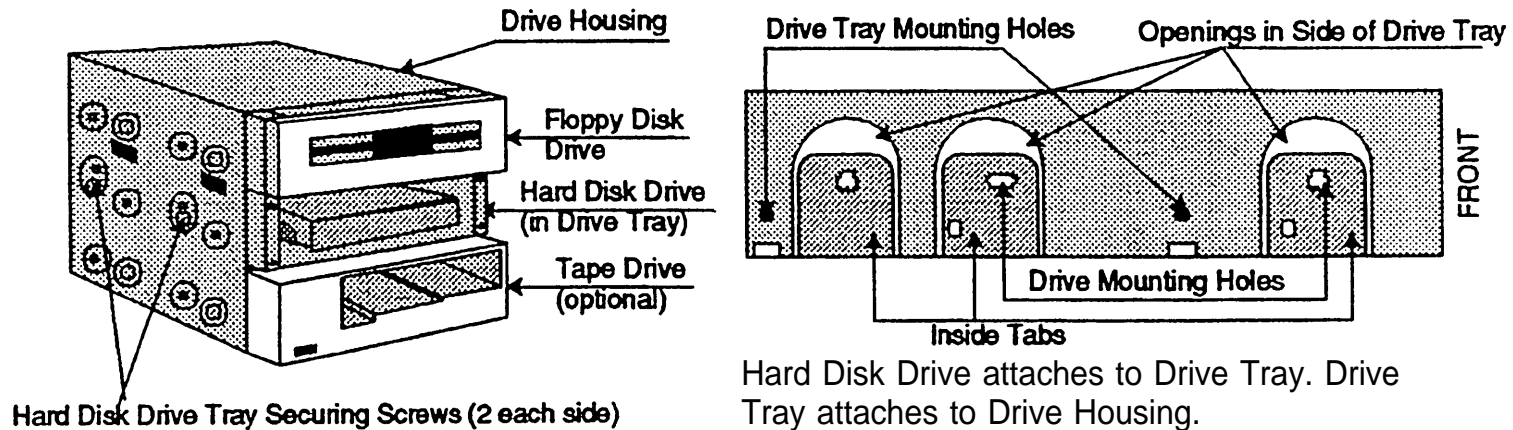
To replace the power supply, first remove the auxiliary housing (page 103) and the hard drive housing (page 104). Then use this drawing as a guide for locating the 4 tabs that hold the power supply in place.



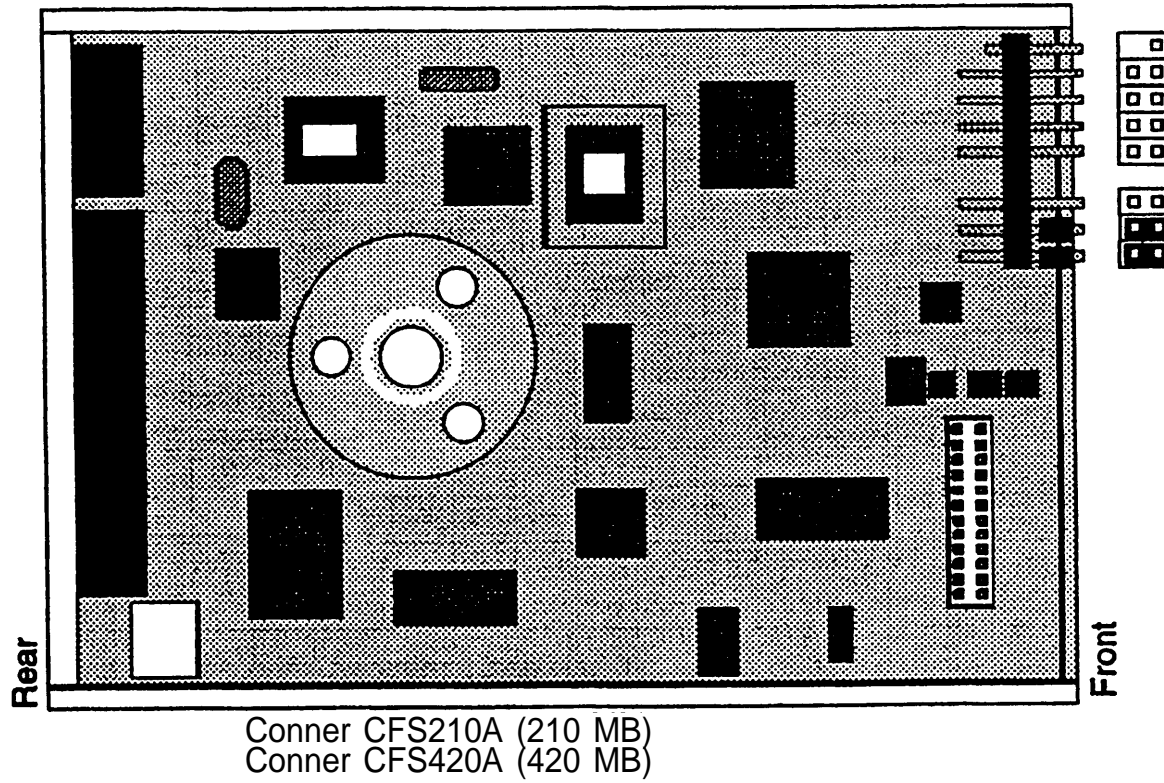
8 Replacing the First Hard Disk Drive

To replace the first hard disk drive:

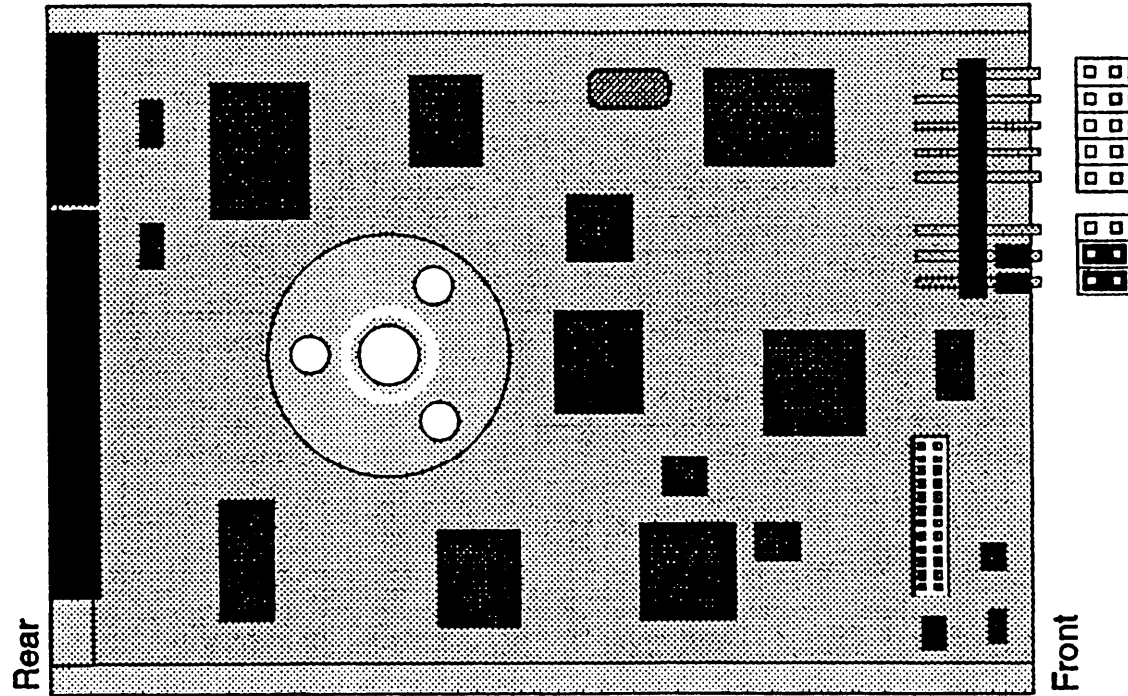
1. Remove the hard drive housing (page 104).
2. Remove the drive housing (page 105).
3. Use this drawing as a guide for removing/replacing the hard disk drive in the drive housing.
4. Use the drawings on the following pages as a guide for verifying the jumpers on different hard disk drives.
5. The power and control cable connectors are keyed.



210/420 MB IDE Hard Disk Drive

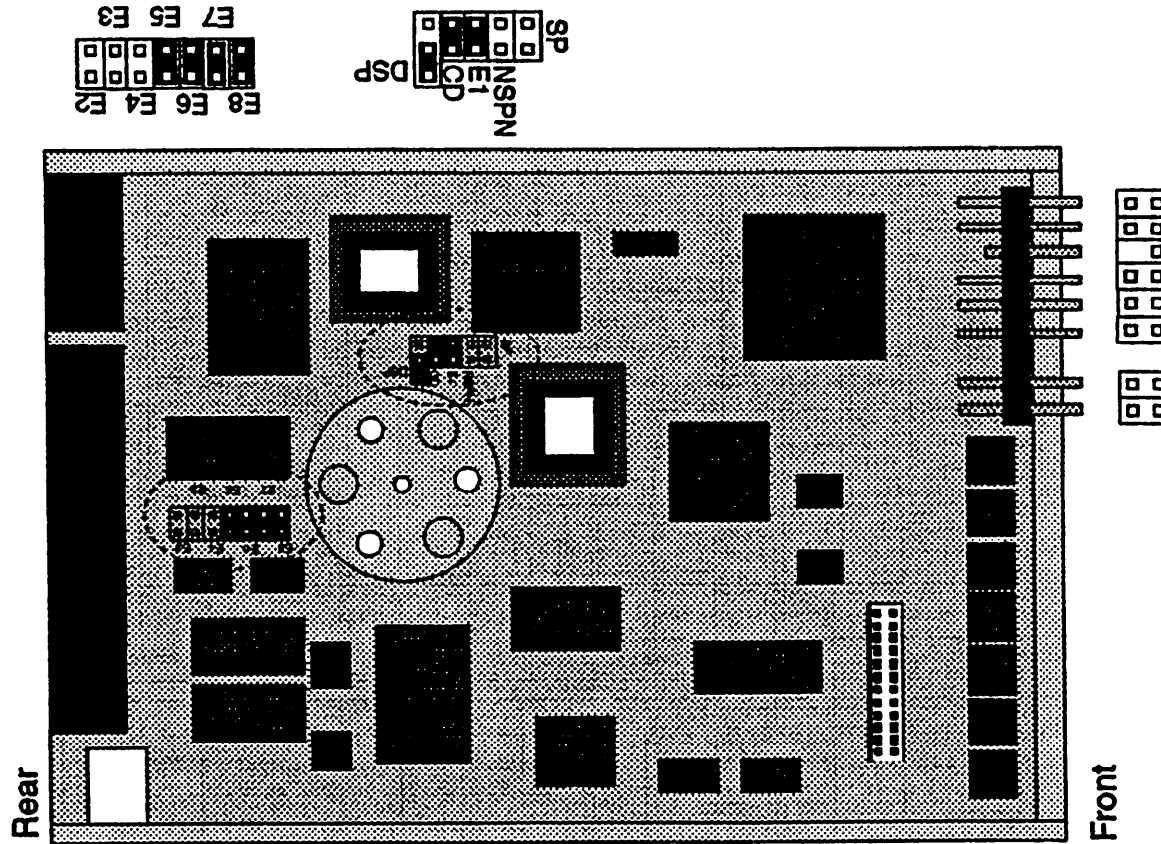


250 MB IDE Hard Disk Drive



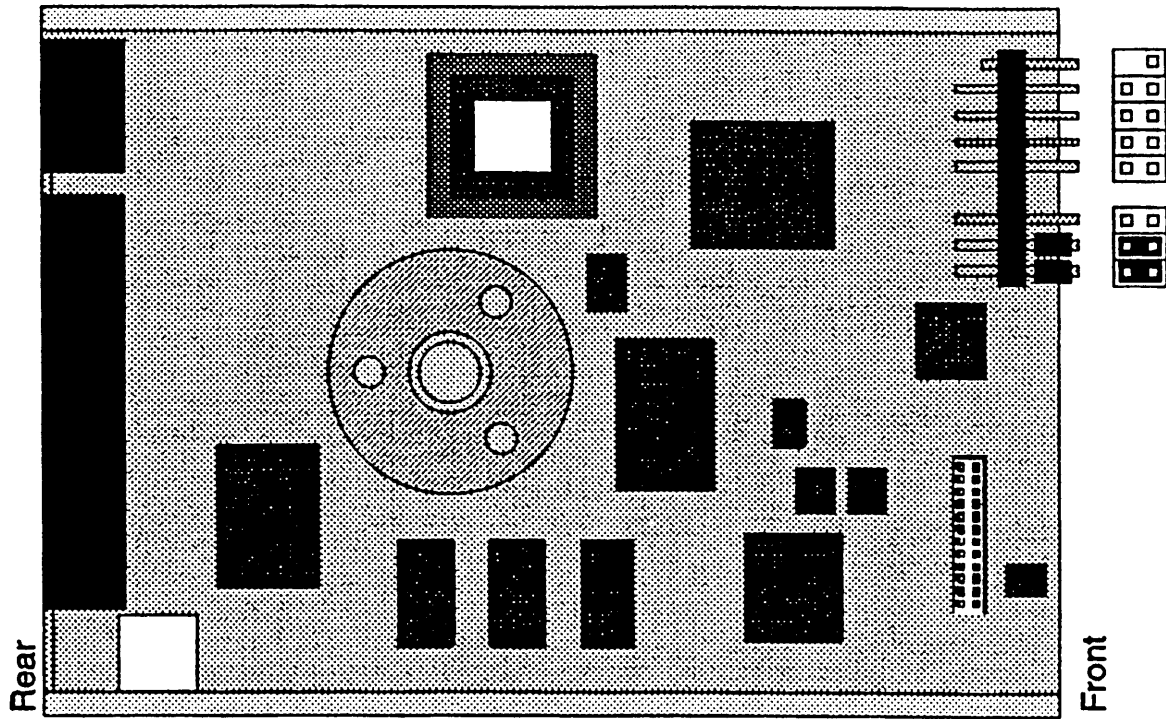
Conner CP30254H (250 MB)

500 MB IDE Hard Disk Drive



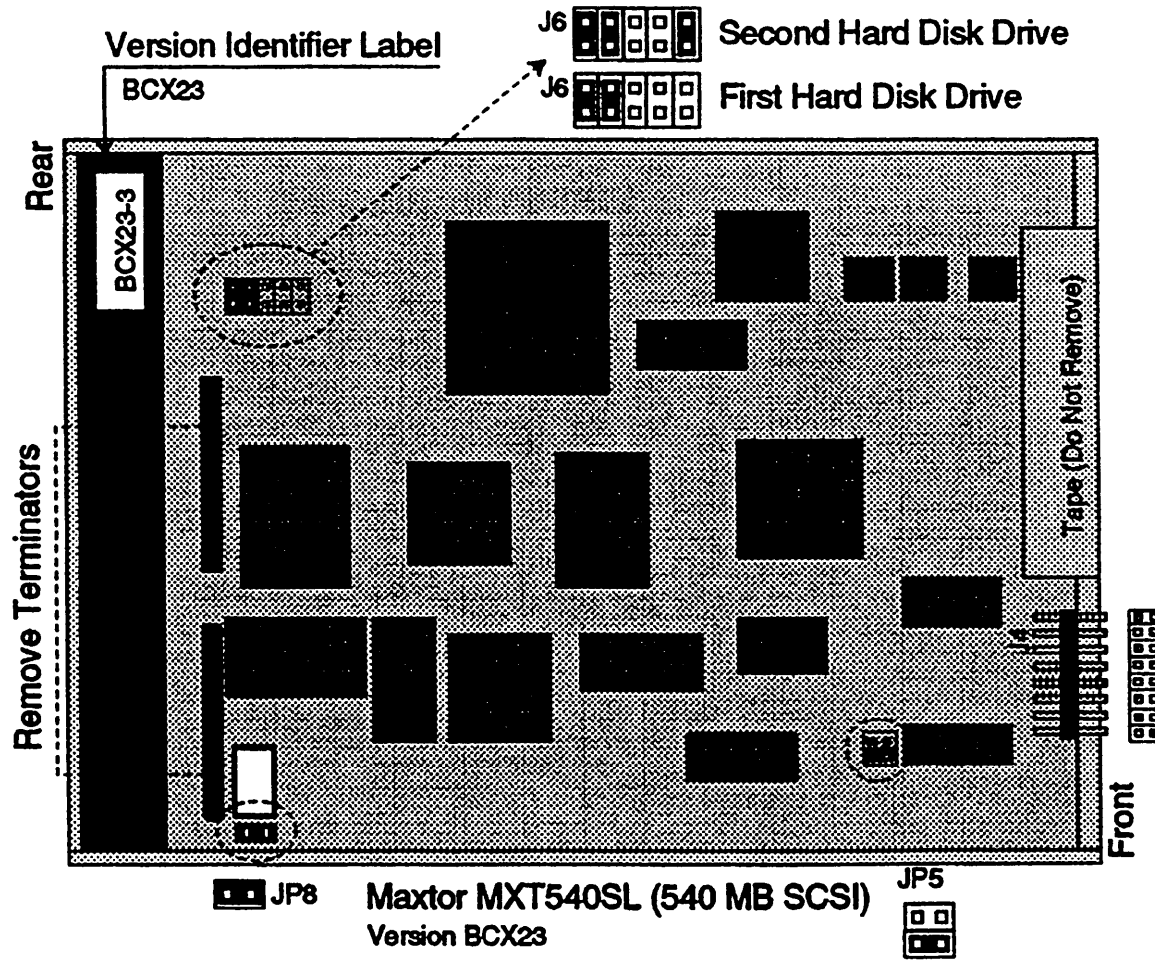
Conner CP30544 (500 MB)

540 MB IDE Hard Disk Drive

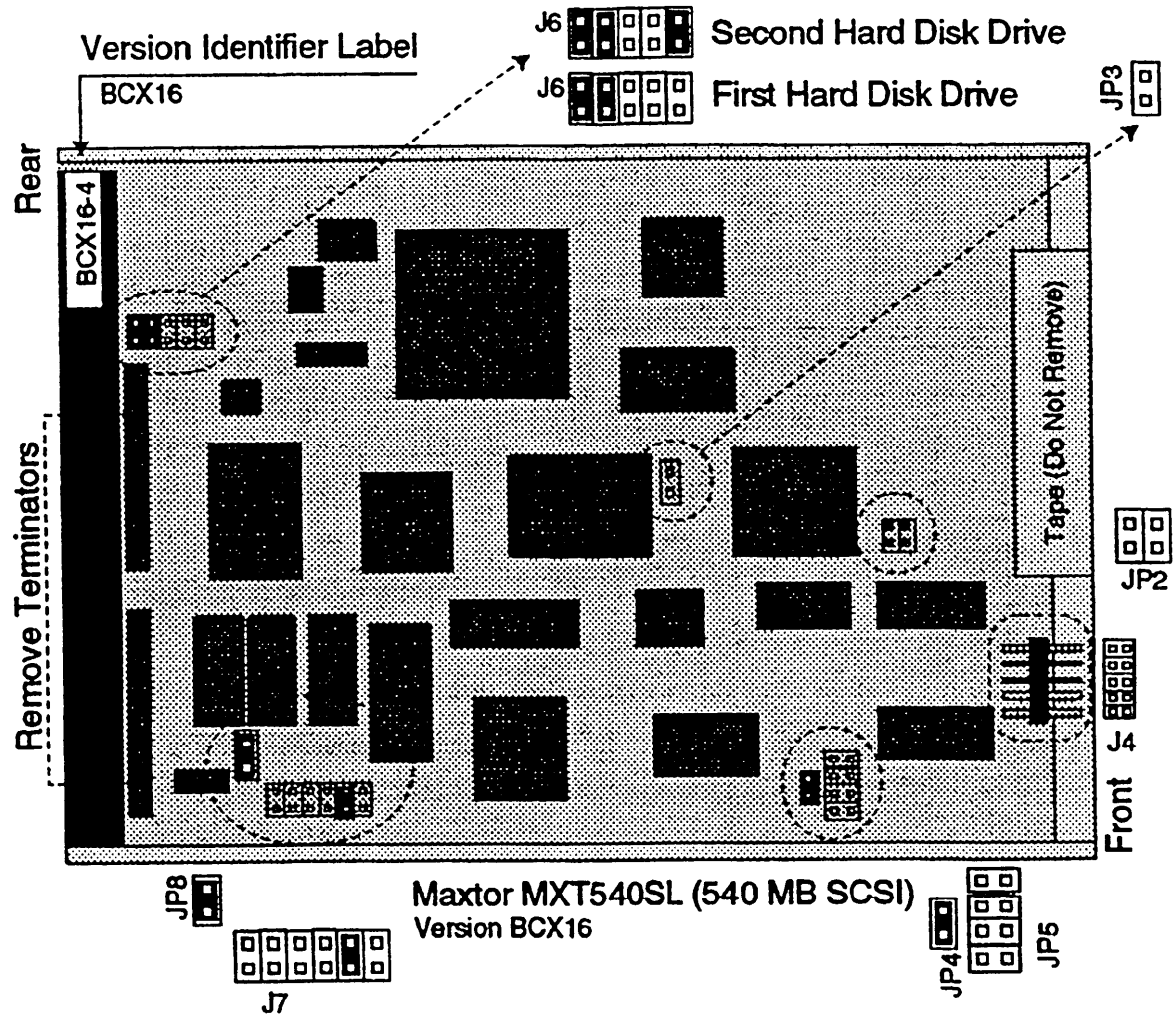


Conner CFA540A (540 MB)

540 MB SCSI Hard Disk Drive, Model BCX23



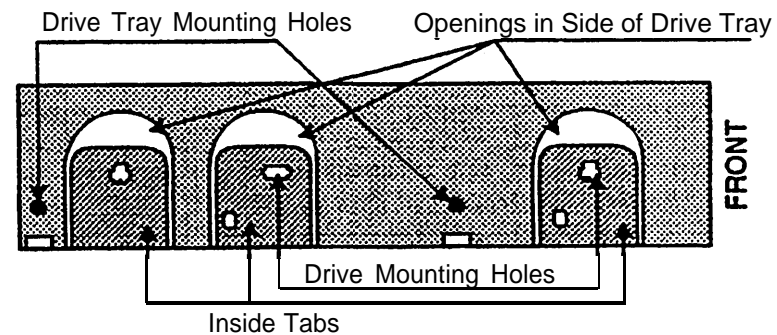
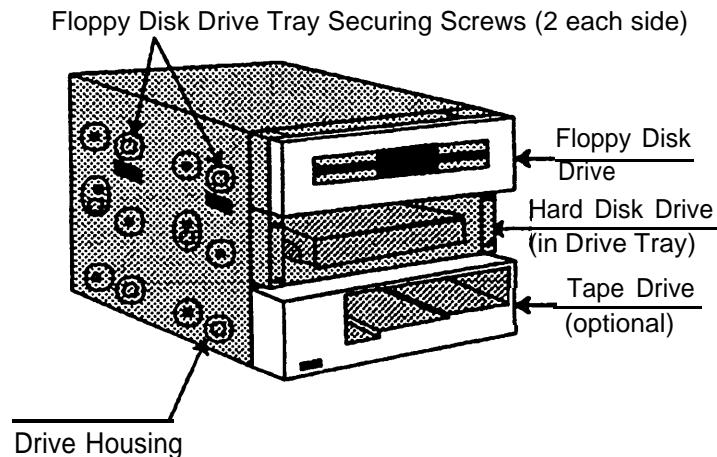
540 MB SCSI Hard Disk Drive, Model BCX16



T 9 Replacing the Floppy Diskette Drive

To replace the floppy diskette drive:

1. Remove the hard drive housing (page 104).
2. Remove the drive housing (page 105).
3. Use this drawing as a guide for replacing the floppy diskette drive in the drive housing.
4. There are no jumpers on the floppy diskette drive.
5. The power and control cable connectors are keyed.

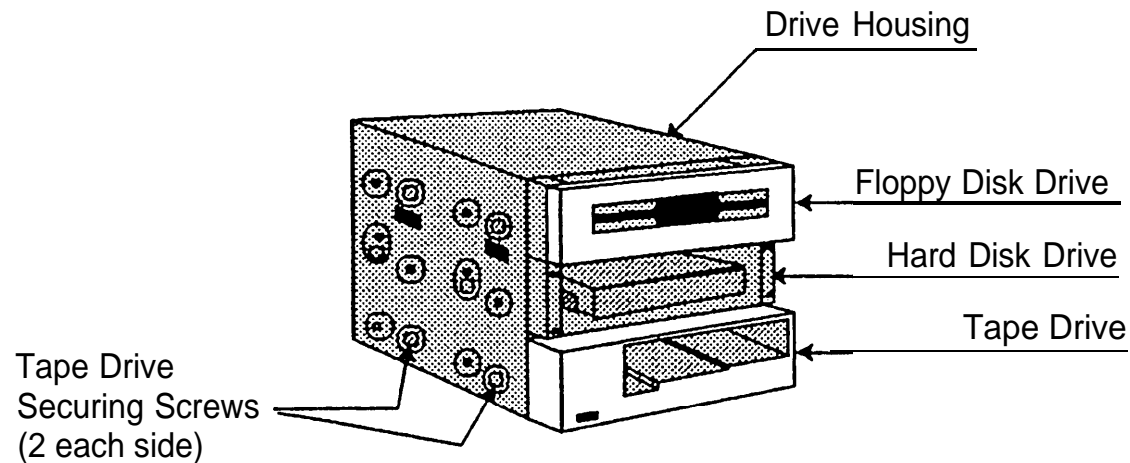


Floppy Disk Drive attaches to Drive Tray. Drive Tray attaches to Drive Housing.

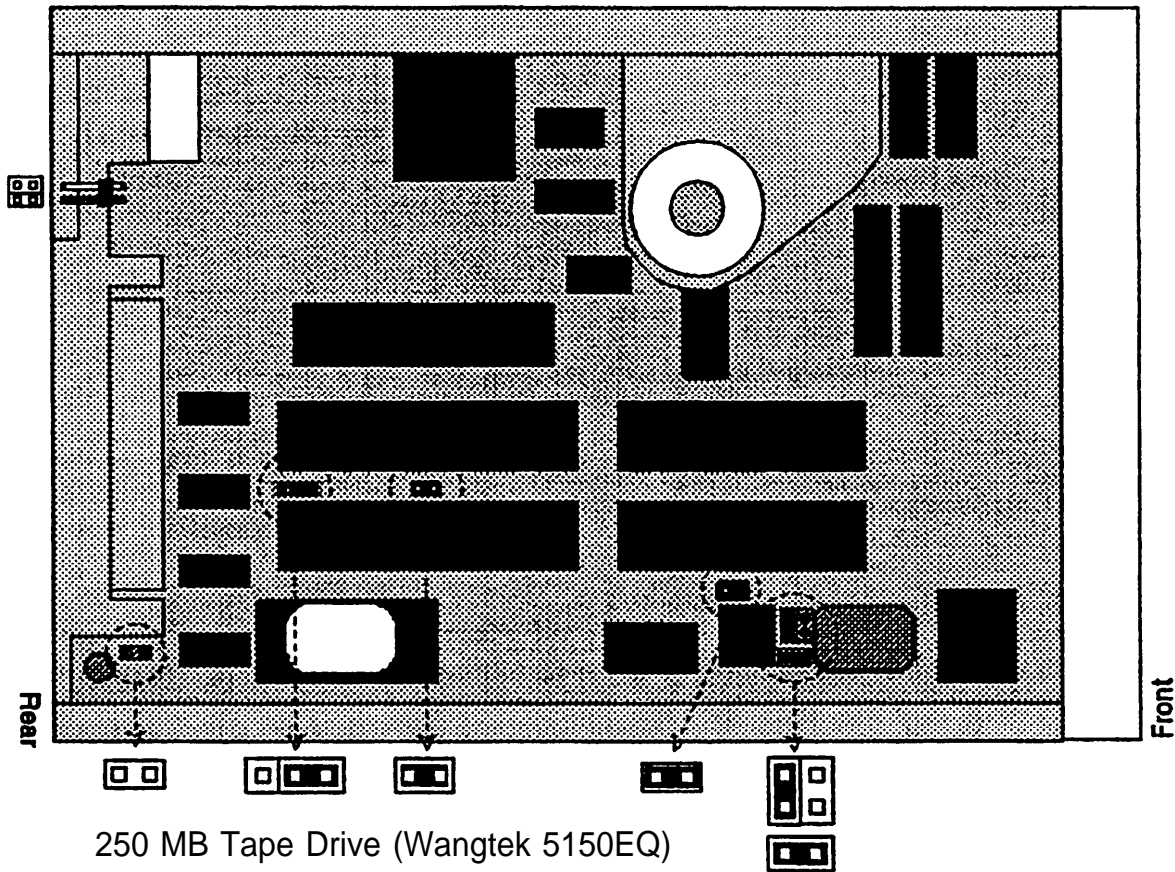
10 Installing or Replacing the Tape Drive

To replace the tape drive:

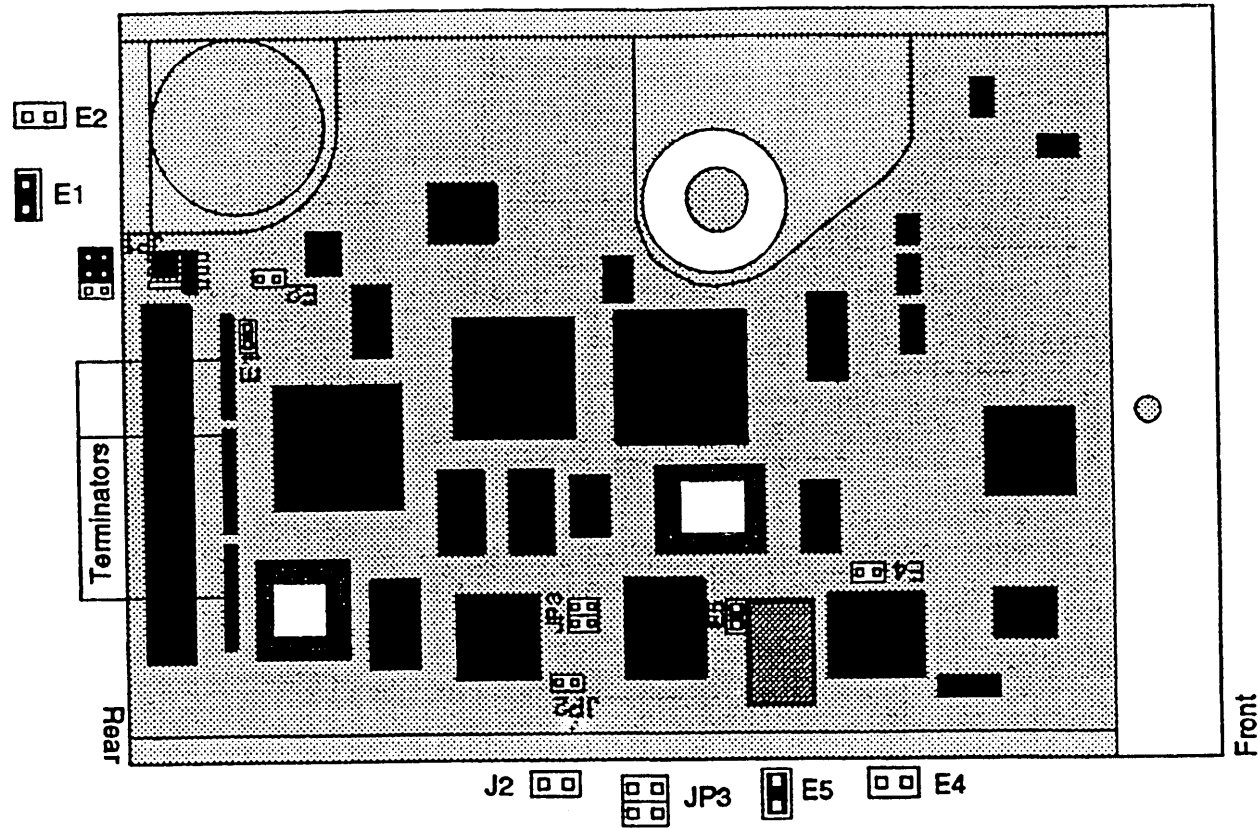
1. Remove the hard drive housing (see page 104).
2. Remove the drive housing (see page 105).
3. Use this drawing as a guide for removing/replacing the tape drive from the drive housing.
4. Use the drawings on the following pages as a guide for verifying the jumpers on the tape drive.
5. The power and control cable connectors are keyed.



Use these drawings as a guide for verifying the jumpers on the tape drive.
250 MB Tape Drive (non-SCSI)



525 MB SCSI Tape Drive

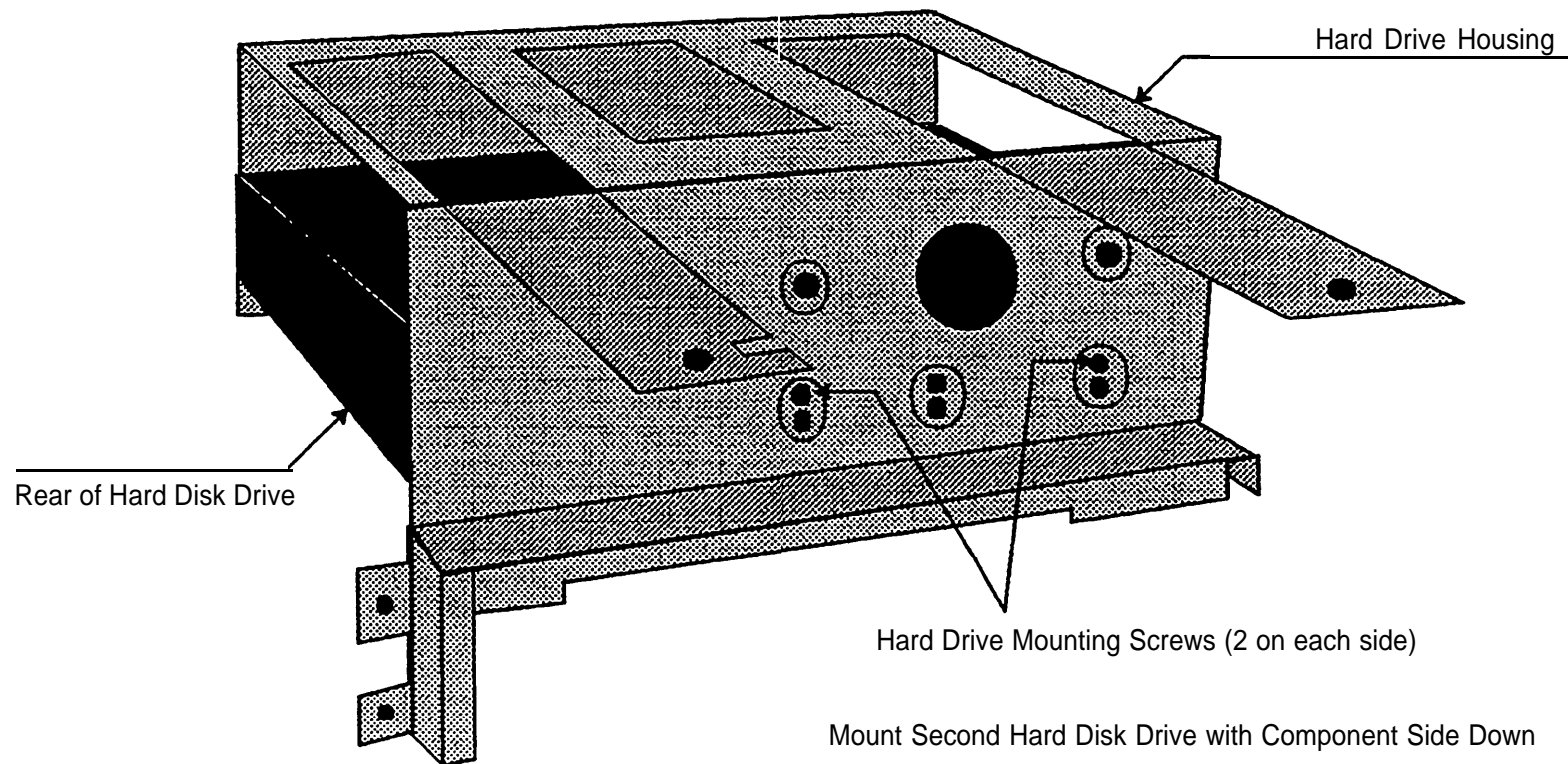


525 MB SCSI Tape Drive (Wangtek 5525ES)

T 11 Adding or Replacing a Second Hard Disk Drive (Model 20X5ST only)

To add or replace the second hard disk drive:

1. Remove the hard drive housing (page 104).
2. Use the SCSI hard disk drawings on pages 122 and 123 as a guide for verifying the jumpers on the hard disk drive and removing the terminators.
3. Install or replace the second hard drive as shown in the drawing.
4. The power and control cable connectors are keyed.



T 12 Comcodes

MAP/5

Item	Comcode	Item	Comcode
MAP/5 Model 4X1I	407-092-204	MAP/5 Video Card	407-122-324
MAP/5 Model 8X1IT	407-092-196	MAP/5 System Chassis Kit	107-227-498
MAP/5 Model 8X2IT	407-092-170	MAP/5 Front Bezel	107-227-506
MAP/5 Model 8X5IT	407-092-147	MAP/5 Intuity Door	107-239-600
MAP/5 Model 20X5IT	407-092-105	MAP/5 Standard Door	107-239-592
Conner CFS210A IDE Hard Drive	407-122-308	MAP/5 SCSI Cable Kit	107-227-472
Conner CP30254 IDE Hard Drive	406-963-009	MAP/5 External SCSI Kit	107-247-843
Conner CFS420A IDE Hard Drive	407-159-987	MAP/5 Power Supply	107-239-584
Conner CP30544 IDE Hard Drive	106-744-733	MAP/5 Drive Bays Kit	107-227-480
Conner CFA540 IDE Hard Drive	407-159-979	MAP/5 Floppy Mounting Kit	107-239-618
Maxtor MXT-540SL SCSI Hard Drive	407-122-316	MAP/5 Hard Disk Mounting Kit	107-254-393
Wangtek 250 MB QIC Tape Drive Kit	106-743-842	Keyboard (PS/2)	406-504-563
Wangtek 525 MB SCSI Tape Drive	407-092-352	VGA Monitor	406-504-571
MAP/5 4 MB SIMM Kit	407-122-340	System Power Cord Kit	406-504-399
MAP/5 16 MB SIMM Kit	407-122-332	Monitor Power Cord Kit	107-247-819
MAP/5 System Board Kit	107-227-514	Loopback Connectors	406-794-974

INTUITY™ Piece Parts

DESCRIPTION	VENDOR P/N (VENDOR)	COMCODE
Board, System	M5-MBK (Acer)	107-227-514
CP, ACCX Interface	AYC22 (AT&T-DR)	106-930-944
CP, IVC6 Analog Interface	AYC10 (AT&T-DR)	106-406-580
CP, 8-Port Async Int	990241 (Equinox)	407-009-406
CP, Video Controller	M5-VGA (Acer)	407-122-324
CP, GP Sync	4261-K016 (GIS)	406-801-647
IC, 16MB SIMM	RAM-16MBK (Acer)	407-122-332
Tape Drive, SCSI	525S-STUK2 (Acer)	407-092-352
Hard Disk Drive, 540MB SCSI	HDK540S (Acer)	407-122-316
Floppy Disk Drive, 1.44MB	M5-FMK (Acer)	107-239-618
Keyboard	KB101 (Acer)	406-504-563
Monitor, Color	CRT-CVGA (Acer)	406-504-571
Power Supply, AC	M5-200WPS (Acer)	107-239-584
Bezel, MAP/5 Front	M5-FNTBZL (Acer)	107-227-506
Door Map/5 Front	M5-VEXDOOR (Acer)	107-239-600
Cord, 6 Pin Modular, 14ft	AT&T	102-937-604
Cord, AC Power	PWRK001 (Acer)	406-504-399
Cord, Monitor Power	Acer	107-247-819

Intuity™ Piece Parts (continued)

DESCRIPTION	VENDOR P/N (VENDOR)	COMCODE
Cable Kit, Floppy/Hard Drives	ICK001 (Acer)	406-504-407
Cable Assy, ACCX	AYC22 (Night Hawk)	407-027-564
Cable Assy, Tel Cord, 3 ft	ED5P208-30 G16 (AT&T-DR)	601-448-632
Cord, Telephone, 25 ft	(AT&T)	103-623-195
Cable Assy, ACCX/DCP, 35 ft	ED5P208-30 G38E (AT&T-DR)	601-447-170
Cable Assy, ACCX/DCP, 35 ft	ED5P208-30 G39E (AT&T-DR)	601-447-188
Resistor SIP, TDM Terminator	WP90130 L10F (AT&T-DR)	403-789-167
Box, AYC22 Cable	914003 (Lewis El. Assy)	407-020-510
Adapter, Elec (Modem)	210026 (Equinox)	407-050-095
Adapter, Elec (WYSE Trm, Pmtr)	210036 (Equinox)	407-050-111
Adapter, Electrical-885A	885A(AT&T-DR)	106-079-270 -1 lb
Hardware, VoiceBridge, Mitel	VB2-207 (VTG)	407-024-728
Hardware, VoiceBridge, Rolm	VB2-202 (VTG)	407-024-686
Hrdwr, VBr, Nor Tel (SL-1)	VB2-203 (VTG)	407-024-694
Hrdwr, VBr, Nor Tel (Meridian)	VB2-204 (VTG)	407-024-702
Hardware, VoiceBridge, NEAX	VB2-205 (VTG)	407-024-710

Application Boards (Non-INTUITY™)

Item	Comcode
IVP4	old 106-248-651 new 601-424-872
IVP6	106-430-861
IFP2	406-842-971
IFP4	406-794-966
DCP	old 106-627-292 new 106-986-870
CMS	106-198-815
SatisFAXtion®	406-806-166

Connecting Components

Item	Comcode
A/B Switch BOX	106-368-814
M/F DB25	part of A/B Switch Box Kit
M/M DB25	part of A/B Switch Box Kit
M/M Adapter	part of A/B Switch Box Kit
355A	105-012-637
355AF	105-012-645
Z3A2 ADU	103-963-971
M8AK Cable	105-388-466
M8AJ Cable	105-388-474
2212D Transformer	102-600-517
248B Modular Power Adapter	102-802-113
400B2 Power Adapter	104-152-558
D6AP Cable	102-937-620
M7U EIA Crossover Cable	104-246-616
D8W Cable	103-786-786
D8AM ADU Crossover Cable	104-154-414
Z200A EMI Filter	103-965-208
9 to 25 Pin Adapter - Flexible	406-708-503

Additional Components

Item	Comcode
Integrated Solution RMD-HS Mk IV	407-159-995
CAS (Call Accounting System) RMD	107-140-048
Surge Protector & Power Strip	407-058-957



Documentation

The following table provides a basic list of related technical documentation.

Item	Comcode
Integrated Solution III for DEFINITY Installation and Maintenance	555-230-716
Integrated Solution III for System 25 Installation and Maintenance	555-540-716
Integrated Solution III for MERLIN LEGEND Installation and Maintenance	555-601-011
INTUITY Documentation Guide	585-310-540
INTUITY MAP/5 Hardware Installation	585-310-146
MAP/5 User Guides	585-211-110
MAP/5 Diagnostic Program User Guide	585-211-111
CMS For MERLIN LEGEND Installation and System Programming Guide	585-214-010
System 25 CMS Installation and Startup Guide	555-532-504
CAS Hospitality	30M000025F
CAS Plus V3 Installation Guide	585-247-110



IS Training List

Related Job Aids and Training Courses

Job Aids	DDC Number
Master Controller II & 6386/SX WGS Hardware Video & Technical Job Aid	GBCS-1330-VID
Master Controller II & 386/SX WGS Technical Job Aid only	GBCS-1330-TJA
Master Controller II & Applications Processor 2+ Hardware Video & Technical Job Aid	GBCS-1340-VID
Master Controller II+ & Applications Processor 2+ Technical Job Aid only	GBCS-1340-TJA
Master Controller III Hardware Video & Technical Job Aid (revised)	GBCS-1350-VID
Master Controller III Technical Job Aid only (revised)	GBCS-1350-TJA
AT&T MAP/5 Hardware Video & Technical Job Aid	GBCS-1360-VID
AT&T MAP/5 Technical Job Aid only	GBCS-1360-TJA
IDE Hard Drive Specifications Job Aid MC II thru MAP/5	GBCS-1370-IDE

Training Courses	Course or DDC Number
DEFINITY IS III Subject Matter Expert (SME) Class	SO1779A
DEFINITY IS III Platform ILP	GBCS-1800-PLT
AUDIX Voice Power Rel. 2.1.1 for DEFINITY IS III ILP	GBCS-1800-AVP
Integrated Solution Call Accounting System (IS CAS) and Hacker Tracker for DEFINITY IS III ILP	GBCS-1800-CAS
MERLIN Legend IS III v1.2 - Initial Training Class	SO1412A
System 25 IS II & IS III Differences ILP	GBCS-1810-DIF
MERLIN Legend IS II and IS III v1.0 & v1.1 Differences ILP	GBCS-1820-DIF
MAP/5 for IS III Platform ILP	GBCS-1850-PLT
Application Adjuncts (formerly CAP)	1137



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500 MB IDE Hard Drive	120
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540 MB SCSI, BCX2 Hard Drive	122

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