AXEL Platine Terminal

Asynchronous AX3000 Model

Model 40B

Installation Guide

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Model AX3000/M40B

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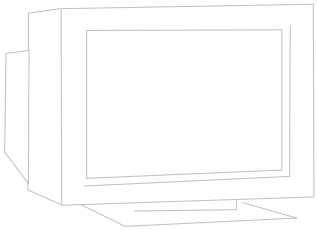
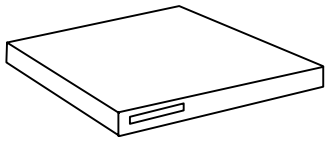
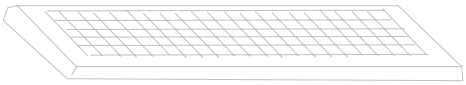
The AXEL AX3000 Terminal is based on a modular concept.



VGA / SVGA
standard monitor

AX3000





standard keyboard

The AX3000 is totally designed and manufactured by Axel. The terminal's electronics is contained within a slim base unit which provides connections for a VGA or SVGA monitor, keyboard, system printer, serial devices and Ethernet network.

1 - SAFETY NOTICES

- Do not attempt to fix a AX3000 component failure by opening the terminal case. In case of hardware failure, contact your service representative.
- Check AC voltage from the wall outlet is inside 220-240 Volts range.
- Make sure to use a properly grounded AC power outlet (3 poles: phase, neutral and ground with no resistance between neutral and ground pole).
- The wall outlets used must be reached easily and as nearest as possible to the AX3000 Platine Terminal to connect or disconnect the power cords.
- Make sure to power off all devices before connecting or disconnecting any one of them (monitor VGA cable, keyboard and serial or parallel cables).
- In order to ensure compliance with European EMC regulations (EN 55022), it is required that shielded cables be used when interfacing with other devices (peripherals or computers).
- To install and connect the keyboard and the monitor, refer to the respective supplier installation manuals.

2 - INSTALLATION

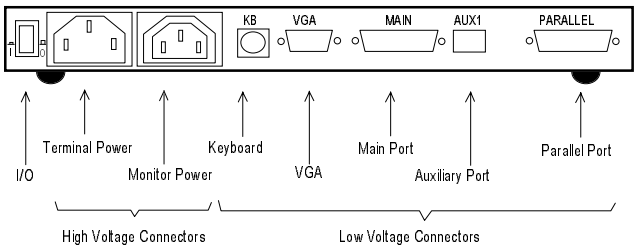
This chapter provides information and instructions to install AX3000 Model 40B.

2.1 - DESCRIPTION

A green LED is located on the face plate to indicate the AX3000 is power on.

AX3000 contains the following connectors or switches on the rear panel:

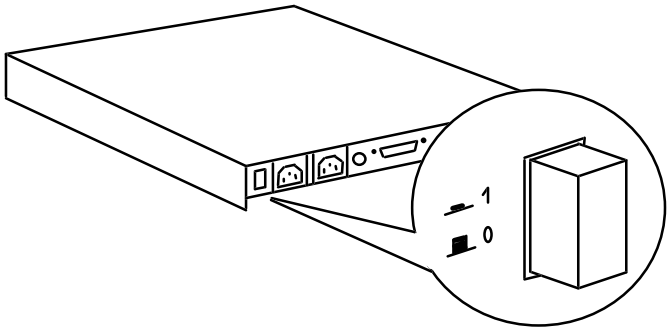
- one power switch,
- one AX3000 male power connector,
- one monitor female power connector,
- one MiniDIN connector for AT/PS style keyboard,
- one connector for the VGA/SVGA monitor (colour or monochrome),
- one main serial port; female 25-pin (MAIN),
- one auxiliary serial port; RJ45 (AUX1),
- one auxiliary parallel port; female 25-pin (PARALLEL).



2.2 - INSTALLATION

For safety reasons and to prevent components damages, make sure no power is applied to the AX3000 before connecting or disconnecting any cable. Plug the AX3000 power cord only after all other connectors have been plugged.

Make sure the AX3000 and monitor power switches are in the off (0) position before connecting cables to the back panel.

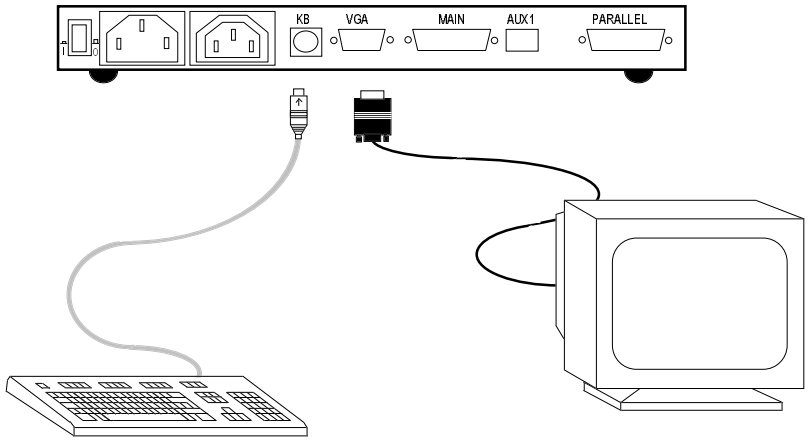


1 : ON
0 : OFF

2.2.1 - Monitor and keyboard

Plug the VGA monitor and the AT compatible keyboard cables into the dedicated connectors located on the terminal back panel:

- VGA Monitor (VGA) : female 15-pin high density connector
- Keyboard (KB) : female 6-pin Mini DIN connector



To connect a keyboard which is fitted with a DIN connector, use a DIN-to-Mini-DIN adaptor.

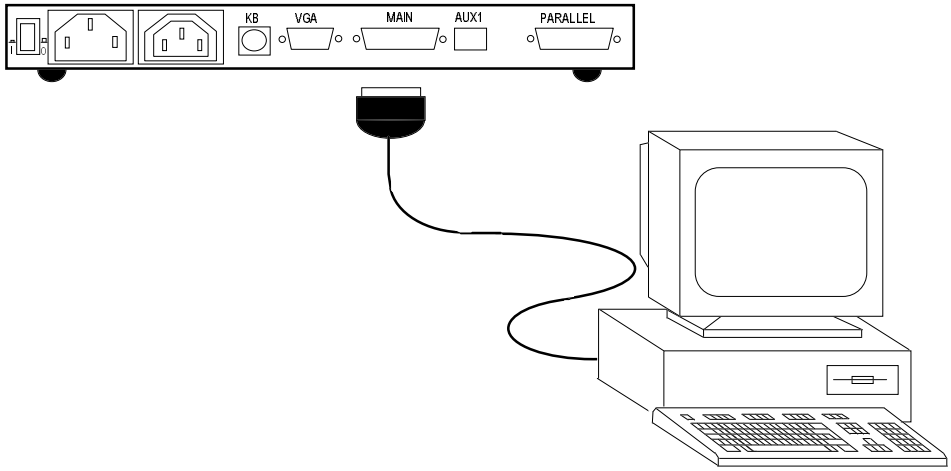
If the VGA monitor has a standard AC power cord fitted with the correct plug for your local main electricity supply, connect it directly to a main power socket outlet. If not, connect the male AC connector to the female AC socket on the terminal back panel. With this arrangement, the monitor's AC power will be controlled by the terminal power switch.

To comply with the EMC regulations, the VGA signal cable must be shielded.

Note: when the terminal is integrated into a cabinet or a rack, it is necessary to maintain air circulation for the VGA/SVGA monitor.

2.2.2 - Main Port

Plug the 25-pin connector from the host computer into the MAIN connector on the back of the Platine terminal.



2.2.3 - Auxiliary Ports

AX3000 Models 40B have two auxiliary ports as a standard feature:

- AUX1: bi-directional serial port, RJ45 connector,
- PARALLEL: parallel port, female 25-pin connector.

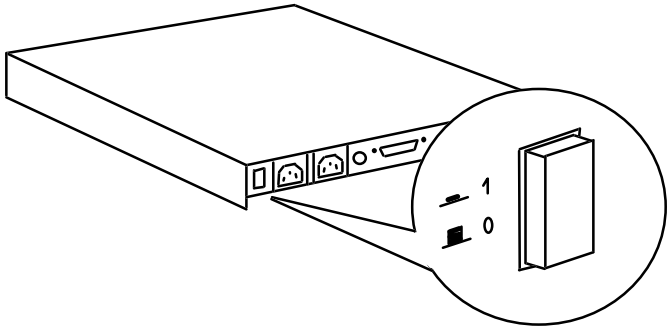
Cables pin assignments are listed in chapter 4.

To comply with the EMC regulations, the serial cables must be shielded.

2.2.4 - Power On

Connect the AX3000 power cord to a grounded power outlet. If the VGA monitor is not powered from the AX3000 secondary AC plug, connect its power cord to a grounded power outlet.

The AX3000 power switch will also controlled the monitor's AC power when the monitor is powered from the AX3000 back panel:



1 : ON
0 : OFF

AX3000 power on and proper operation are indicated by the green LED on the front of the terminal and hearing of one beep.

A few seconds after power-up, the message 'Copyright AXEL' should appear on the monitor. It should then disappear as soon as the keyboard is used or when the terminal receives data.

To indicate a correct keyboard initialisation after power-up, the keyboard indicator lights 'Num lock', 'Caps lock' and 'Scroll lock' will flash twice.

If the terminal does not function as described above (continuous tone sound, two beeps, error message on the screen...) refer to chapter 5. If the terminal does not operate properly, call your service representative.

3 - QUICK INSTALLATION

This chapter describes the quick set-up procedure for the serial Platine terminal.

3.1 - FIRST POWER ON

The built-in **predefined set-up** provides **automatic, safe** settings for all standard terminal parameters to match the selected operating system (number of lines, function key values...).

When the Platine is **turned on for the first time**, the following menu appears. This menu is used to select a pre-defined set-up according to the operating system:

```
PROLOGUE 2/3
PROLOGUE 4/5
ANSI
ANSI DOS
UNIX SCO 3.2.2
UNIX SCO 3.2.4
SCO OPENSERVER
XENIX SCO
UNIX SVR4
ANSI INTERACTIVE
ANSI RS 6000
ANSI MOS
PCTERM
PCTERM THEOS
OS2 POLYMOD2
VT220
```

Note: this menu also appears when the **pre-defined set-up** option is invoked from the Platine terminal set-up mode (see next chapter).

The selected predefined set-up will also automatically initialise the main communication serial line parameters to the factory-default setting (38.4 KBaud, 8 data bits, no parity, 1 stop bit).

Note: after a pre-defined set-up is selected, the Platine terminal is automatically switched to the set-up mode.

3.2 - GENERAL CASE

The following command sequence is used to enter Set-Up:

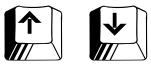
Select the Set-Up Language:

(terminal mode set-up)

(select the required language)

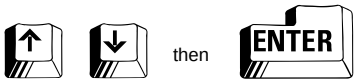
Select the national keyboard:

(keyboard set-up)



(select the National Keyboard option)

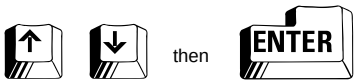
(the keyboard menu appears)



(select the required national keyboard)

Set the pre-defined set-up:

(select pre-defined set-up option)

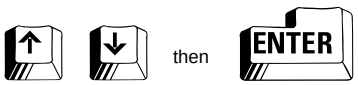


(select a pre-defined set-up)

Set the Baud Rate:

(main port set-up)

(the baud rate menu appears)



(select a baud rate)

Exit the set-up:

(save current setting)

For more information about the Set-Up refer to the "*Asynchronous AX3000 Models - User's Guide*".

4 - CONNECTOR PIN ASSIGNMENTS

This chapter describes the connector pin assignments of the different ports of the Platine terminals Model 40B.

4.1 - MAIN PORT (25-PIN)

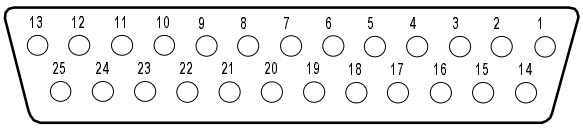
This main port is used to connect the Platine terminal to the host computer.

The AX3000 Platine model 40B can be shipped either with a RS232 main port or with a RS422 main port.

The required cable between the Platine terminal and the host computer depends on the main port type of the AX3000 Platine.

4.1.1 - RS232 Main Port

This 25-pin main port is in DTE mode with the following pin assignments:



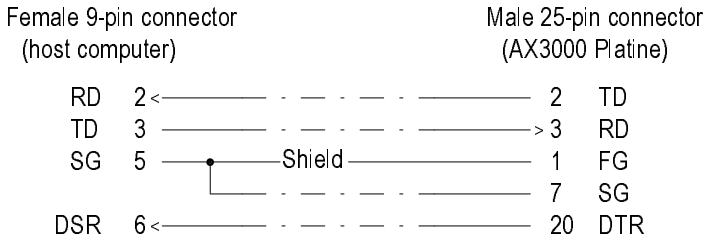
RS232 MAIN connector
(model 40B, rear panel)

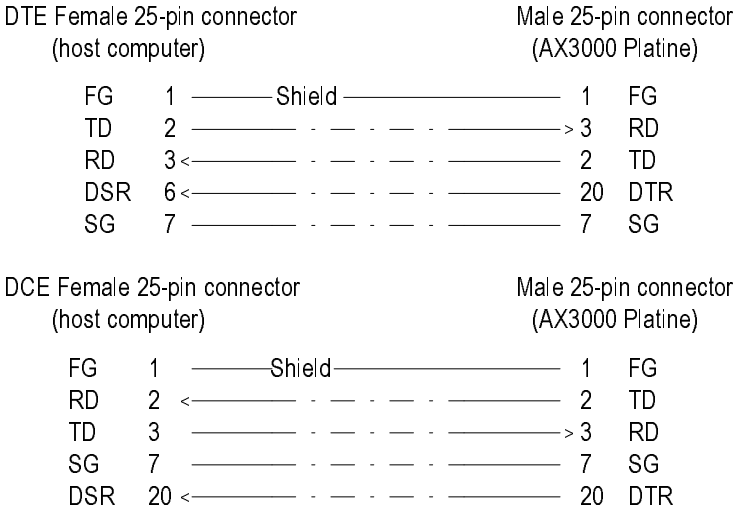
Pin	Signal name	Direction
1	FG (Frame Ground)	---
2	TD (Transmitted Data)	Output
3	RD (Received Data)	Input
4	RTS (Request to send)	Output
5	CTS (Clear to Send)	Input
6	- - -	
7	SG (Signal Ground)	---
8	DCD (Data Carrier Detect)	Input
9	- - -	---
10	- - -	---
11	- - -	---
12	- - -	---
13	- - -	---
14	- - -	---
15	- - -	---
16	Reserved	---
17	Reserved	---
18	Reserved	---
19	- - -	---
20	DTR (Data Terminal Ready)	Output
21	- - -	---
22	- - -	---
23	- - -	---
24	Reserved	---
25	Reserved	---

Note: flow control is handled by pin 20 (DTR).

a - Direct Connection

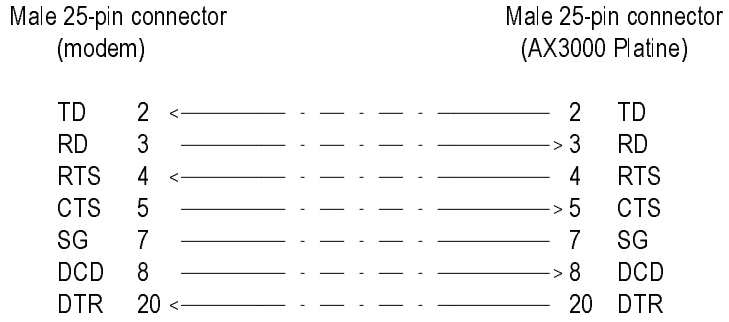
In the following examples, only the listed pins must be wired (according to the operating system a shunt DSR-CTS for the host computer connector is sometimes needed):





b - Modem Connection

To attach the AX3000 Platine to a modem, use the following cable:



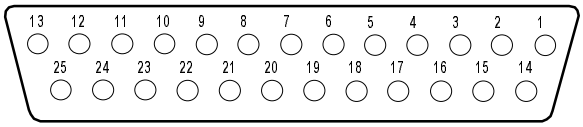
The AX3000 serial models have a built-in Telecom Set-Up to monitor remote connections over telephone lines. To put the Platine terminal in Telecom Set-Up mode, use the **<Ctrl><Alt><*>** key combination.

For additional information, refer to the *Platine Terminal AXEL - Telecom Feature* manual.

4.1.2 - RS422 Main Port

Note: check the Platine terminal is equipped with a RS422 connector (a sticker RS422 is placed near the MAIN label on the rear panel of the Platine Terminal).

The pin assignments of the RS422 main port is the following:

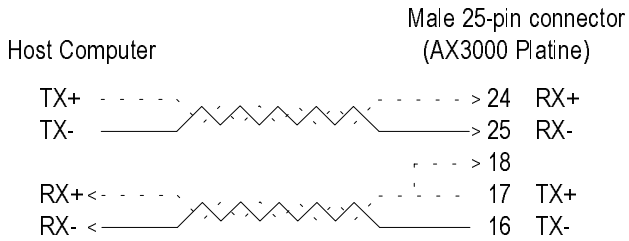


RS422 MAIN connector
(model 40B, rear panel)

Pin	Signal name	Direction
1	Reserved	---
2	Reserved	---
3	Reserved	---
4	Reserved	---
5	Reserved	---
6	---	---
7	Reserved	---
8	Reserved	---
9	---	---
10	---	---
11	---	---
12	---	---
13	---	---
14	---	---
15	---	---
16	TX- (Transmitted Data)	Output
17	TX+ (Transmitted Data)	Output
18	---	Input
19	---	---
20	Reserved	---
21	---	---
22	---	---
23	---	---
24	RX+ (Received Data)	Input
25	RX- (Received Data)	Input

Note: software flow control is required (XON/XOFF or XPC).

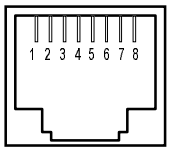
Use the following cable to connect the Platine terminal to the host computer:



IMPORTANT : the cable is composed by two twisted pairs. The two wires TX+ / TX- must below to the same pair and the two others wires RX+ / RX- must below to the other pair.

4.2 - SERIAL PORT AUX1 (RJ45)

This serial port is a bi-directional port (for printers, code bar readers, touch screens, mouse...):



AUX1 connector
(Model 40B rear panel)

Pin	Signal Name	Direction
1	RTS (Request To Send)	Output
2	DTR (Data Terminal Ready)	Output
3	RD (Received Data)	Input
4	SG (Signal Ground)	---
5	CTS (Clear to Send)	Input
6	TD (Transmitted Data)	Output
7	---	---
8	DCD (Data Carrier Detected)	Input

Note: flow control is handled by pins 2 and 5.

4.2.1 - RJ45-DB9 and RJ45-DB25 adaptors

Pin assignment for an adaptor between the peripheral cable and the AX3000 RJ45 connector:

AX3000 - RJ45			Adaptor - male 9-pin	
DTR	2	——>	4	DTR
RD	3	<——	2	RD
SG	4	——	5	SG
CTS	5	<——	8	CTS
TD	6	——>	3	TD

AX3000 - RJ45			DTE Adaptor - 25-pin	
DTR	2	——>	20	DTR
RD	3	<——	3	RD
SG	4	——	7	SG
CTS	5	<——	5	CTS
TD	6	——>	2	TD

4.2.2 - Peripheral RJ45 cables

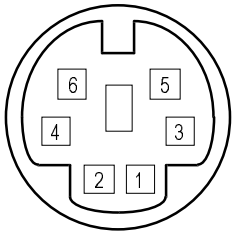
Pin assignment for a **direct** connection of a peripheral to the AX3000 RJ45 connector:

AX3000 - RJ45			Peripheral - female 9-pin	
DTR	2	——>	6	DSR
RD	3	<——	3	TD
SG	4	——	5	SG
CTS	5	<——	4	DTR
TD	6	——>	2	RD

AX3000 - RJ45			DTE Peripheral - male 25-pin	
DTR	2	——>	6	DSR
RD	3	<——	2	TD
SG	4	——	7	SG
CTS	5	<——	20	DTR
TD	6	——>	3	RD

4.3 - KEYBOARD INTERFACE

The AX3000 keyboard interface is a Mini DIN connector with the following pin assignments:



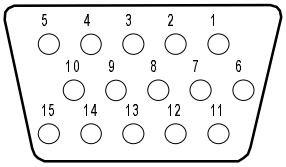
Keyboard connector
(model 40B, rear panel)

Pin	Signal name
1	Data
2	---
3	Ground
4	+ 5 V DC
5	Clock
6	---

Note: to connect a keyboard which has a DIN connector, use a DIN-to-Mini-DIN adaptor.

4.4 - VIDEO INTERFACE

The AX3000 video interface is VGA / SVGA compatible:

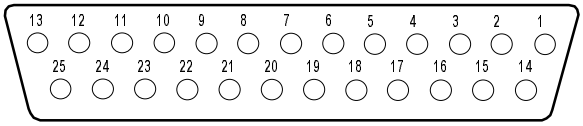


VGA connector
(model 40B, rear panel)

Pin	Signal name
1	Red
2	Green
3	Blue
4	---
5	Ground
6	Ground
7	Ground
8	Ground
9	Ground
10	Ground
11	---
12	---
13	Horizontal sync.
14	Vertical sync.
15	---

4.5 - PARALLEL PORT

The Platine terminals model 40B are equipped with a parallel port:



Parallel connector
(model 40B, rear panel)

Pin	Signal Name
1	Strobe
2	Data 0
3	Data 1
4	Data 2
5	Data 3
6	Data 4
7	Data 5
8	Data 6
9	Data 7
10	ACK (Acknowledge)
11	Busy
12	PE (Paper End)
13	SLCT (Select)
14	Auto Feed XT
15	Error
16	Init
17	SLCT IN
18	Ground
19	Ground
20	Ground
21	Ground
22	Ground
23	Ground
24	Ground
25	Ground

5 - PROBLEM SOLVING

This chapter describes a limited number of problems that may occur during installation of the AX3000 Models 40B, plus possible solutions.

Safety Warning! Under no circumstances should you attempt to fix a Platine problem by opening the terminal case. High voltages may be present even when the terminal is switched off. Only qualified technicians should open the AX3000 case.

✓ - GREEN FRONT INDICATOR DOESN'T LIGHT OR NO BEEP WHEN YOU PRESS POWER SWITCH

Check there is power at the wall outlet and power cord connections.

✓ - NO BEEP WHEN THE TERMINAL POWERS UP

Whenever you turn the terminal on, you should hear a half-second beep.

If not, check there is power at the wall outlet and check power cord connections.

✓ - CONTINUOUS TONE SOUNDS AFTER THE TERMINAL HAS BEEN SWITCHED ON

This alarm indicates a hardware failure. Report the problem to your service representative.

✓ - NO 'COPYRIGHT AXEL' MESSAGE

A few seconds after power-up, the message '**Copyright AXEL**' should appear. It should then disappear as soon as the keyboard is used or when the terminal receives data via the main port.

If no message appears, turn off the terminal, disconnect the network cable and turn the terminal on again without pressing any keyboard keys.

If the problem recurs, check that there is power to the monitor and that the VGA cable is properly plugged in.

✓ - A DOUBLE-BEEP SOUNDS

After switching on the terminal, a double beep may sound a few seconds after the normal first beep.

This signal indicates that keyboard initialisation has failed. Check the keyboard connection to the terminal back panel.

It is possible for the keyboard to function correctly despite this double-beep signal. As a quick test of keyboard operation, enter set-up mode by pressing the **<Ctrl><Alt><Echap>** keys simultaneously. If set-up mode is working, you can ignore the double beep signal and use the terminal normally.

✓ - NEITHER CHARACTER OR LOGIN APPEARS

Check if the cable is both plugged into the main port of the Platine terminal and the required connector of the host computer. Check the pin assignment (refer to the previous chapter) and that host computer is operational.

✓ - STRANGE CHARACTERS APPEAR

Check if the serial parameters are the same on both side (Platine's Set-Up and **/etc/inittab** on a UNIX host).

✓ - INCORRECT DISPLAY OF SOFTWARE INVOKED FROM THE AX3000

Check parameters setting of the general set-up (incorrect emulation setting).

Under Unix Systems, check the TERM variable (at the UNIX level) fitted with the selected emulation (in the general set-up). For others Operating Systems, check the used terminal driver is an AXEL terminal driver.

✓ - THE CONNECTED PRINTER DOES NOT WORK

Check the cable pin assignment is correct and that the used port (AUX1 or PARALLEL) has been correctly selected in the set-up as the default auxiliary port.

Test the printer in local mode by pressing the **<Prt Scr>** key. A screen hardcopy should be performed.

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