

AXEL Platine Terminal

Asynchronous AX3000 Model

Model 35E

Installation Guide

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Model AX3000/M35 - Type EA

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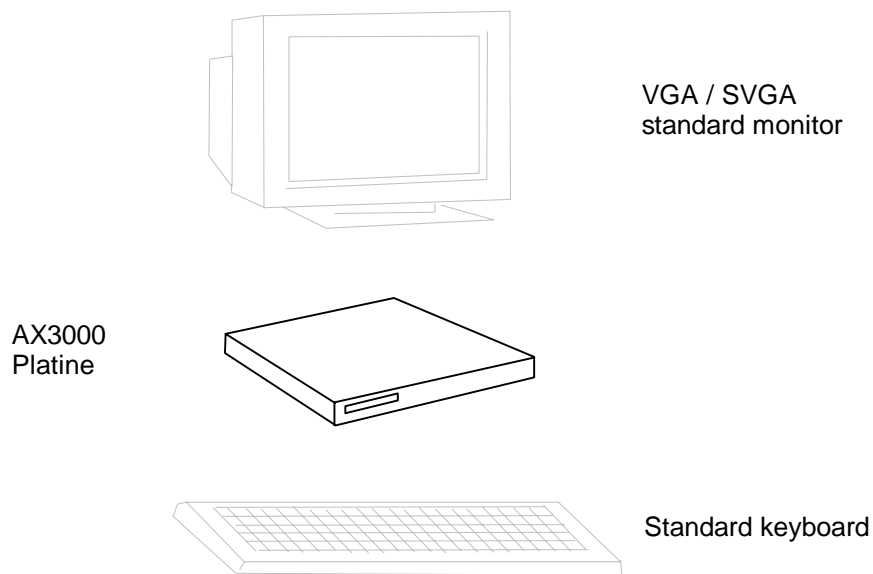
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The AXEL AX3000 terminal is based on a modular concept:



The dedicated electronics of the terminal are based on highly integrated circuits, combining low power consumption with high performance and reliability. The hardware is carefully encased in a slim, stylish base unit.

On the back panel of the AX3000 Model 35 are connections for a monochrome or colour monitor, keyboard, host connection cable (25-pin connector), auxiliary parallel device and external power transformer.

The versatile AXEL modular concept allows each AX3000 user to select their own keyboard and colour or monochrome VGA (or SVGA) monitor to suit their individual needs and match their working environment.

1 - INSTALLATION

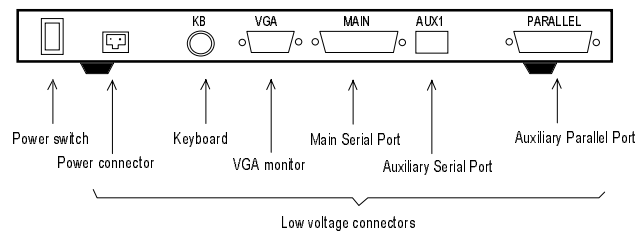
This chapter provides information to install AX3000 Model 35.

1.1 - DESCRIPTION

A green LED, located on the face plate, indicates when the AX3000 is powered on.

The AX3000 Model 35 has the following connectors and switches on the rear panel:

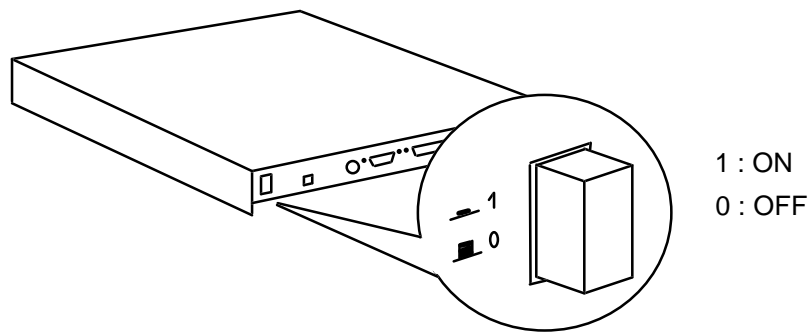
- power switch,
- power connector for the external power transformer cord,
- Mini-DIN connector for an AT/PS style keyboard,
- VGA connector for a VGA or SVGA monitor (colour or monochrome),
- main serial port: female 25-pin (MAIN),
- auxiliary serial port: RJ-45 (AUX1),
- auxiliary parallel port: female 25-pin (PARALLEL).



1.2 - INSTALLATION

For safety reasons, do not apply power to the AX3000 before connecting or disconnecting any cable. Do not plug in the AX3000 power cord until all other connectors have been plugged in.

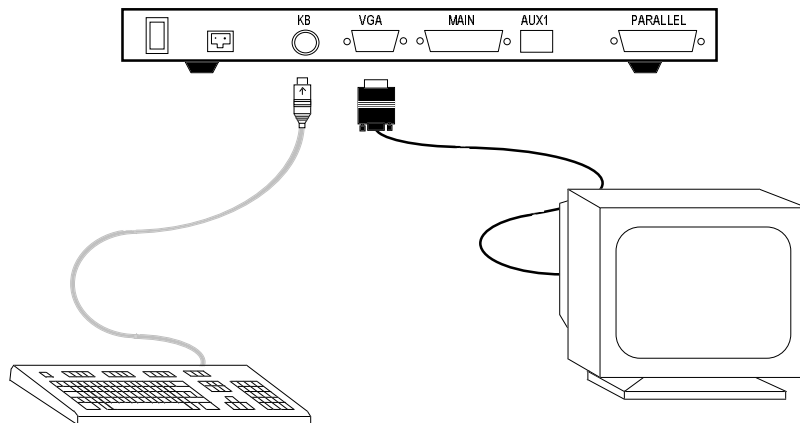
Make sure the AX3000 and monitor power switches are in the OFF (0) position before connecting cables to the back panel (refer to the monitor installation notice).



1.2.1 - Monitor and keyboard

Plug in the VGA monitor cable and the AT-compatible keyboard cable to the dedicated connectors on the terminal back panel:

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



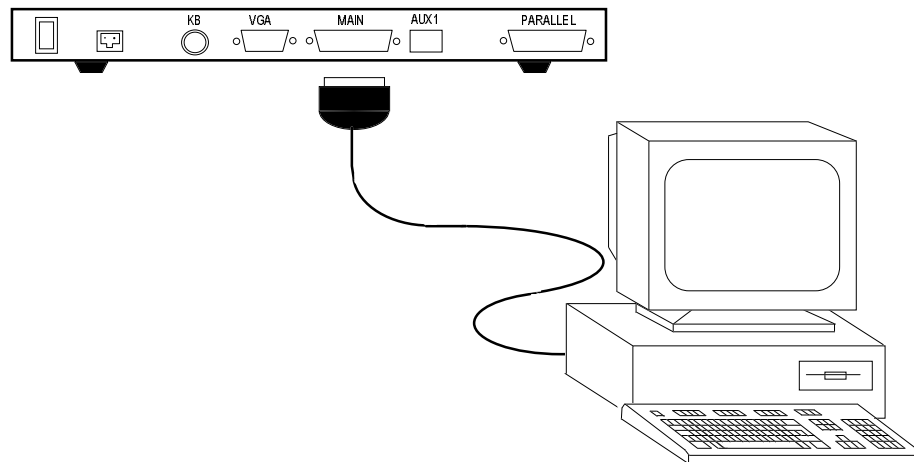
If your keyboard is fitted with a DIN connector, connect it using a DIN-to-Mini-DIN adaptor.

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

Note: When the terminal is installed in a cabinet or rack, it is essential to maintain air circulation around the VGA/SVGA monitor.

1.2.2 - Main Port Connection

Plug the serial cable from the host computer into the AX3000 Main connector (MAIN - female 25-pin connector). Refer to chapter 3 for information on the cable's pin assignments.



1.2.3 - Auxiliary ports

AX3000 Models 35 have two auxiliary ports as a standard feature:

- AUX1: bi-directional serial port, RJ-45 connector,
- PARALLEL: parallel port, female 25-pin connector.

Cable pin assignments are listed in chapter 3.

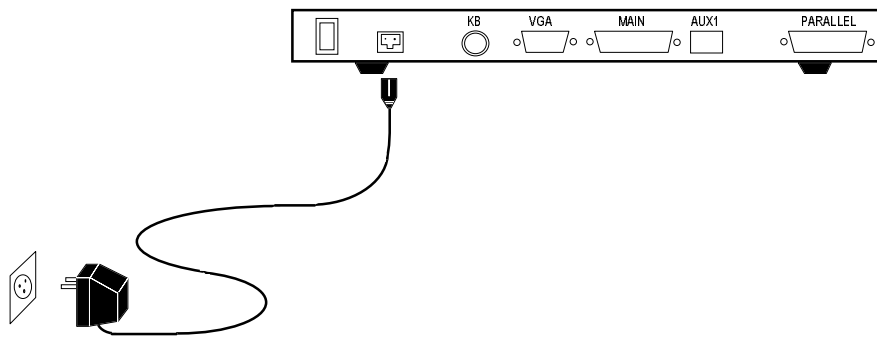
The DB25 serial cable should be shielded to comply with EMC regulations.

1.2.4 - AC Power Connection

An Axel external power transformer must be used, to convert mains voltage at the wall outlet to low voltage for the AX3000 Model 35.

Before connecting, make sure the AX3000 and monitor power switches are both in the OFF (0) position.

Plug the plastic moulded cord connector of the external power transformer (ref. AXP/EC9.8) to the AX3000 power connector. Then plug the transformer into the AC wall outlet.

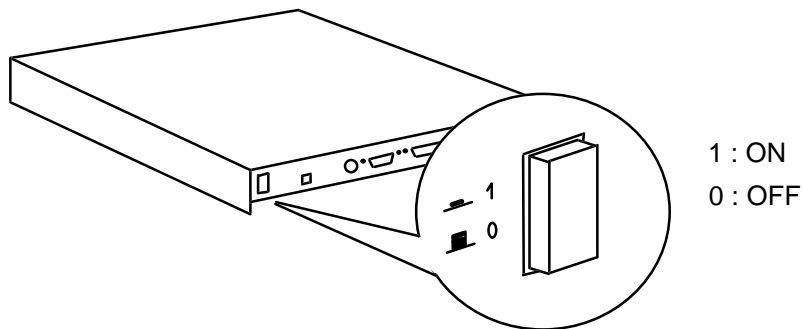


Warning: use only the Axel external transformer shipped with each AX3000 Model 35. Use of any other transformer may cause permanent damage to the AX3000.

Plug the monitor power cable into a grounded AC mains power socket. The monitor does **not** require low voltage power.

1.2.5 - Power On

The power switch on the rear panel controls the power supply to the AX3000.



The green LED on the front of the terminal should light, and a single audible beep should be heard, to indicate that the AX3000 terminal is powered up and operating correctly.

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

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

If the terminal does not function as described above (for example if it emits a continuous tone sound, or two beeps, or if an error message is displayed on the screen) refer to chapter 4. If the terminal still does not operate properly, call your service representative.

2 - QUICK INSTALLATION

This chapter describes the quick set-up procedure for the serial AX3000 terminal.

2.1 - 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, etc.).

When the AX3000 is **turned on for the first time**, the following menu appears. This menu is used to select a pre-defined set-up, corresponding 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
VT220

Note: This menu also appears when the **pre-defined set-up** option is invoked from the AX3000 terminal set-up mode (see next chapter).

When a predefined set-up is selected, it automatically initialises the main communication serial line parameters, to the factory-default setting (38.4 Kbaud, 8 data bits, no parity, 1 stop bit).

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

2.2 - GENERAL CASE

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



Select the Set-Up Language:



(terminal set-up mode)



(select the required language)

Select the national keyboard:



(keyboard set-up)



(select the National Keyboard option)



(the keyboard menu appears)



Set the pre-defined set-up:



Set the Baud Rate:



Exit Set-Up:



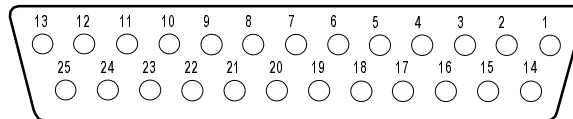
For more information about Set-Up refer to the "*Asynchronous AX3000 Models - User's Guide*".

3 - CONNECTOR PIN ASSIGNMENTS

This chapter describes the connector pin assignments of the different ports on the AX3000 Model 35.

3.1 - MAIN PORT

The main port is used to connect the AX3000 Model 35 to the host computer through an asynchronous RS232 line. The MAIN port is in DTE mode and uses a female 25-pin connector.

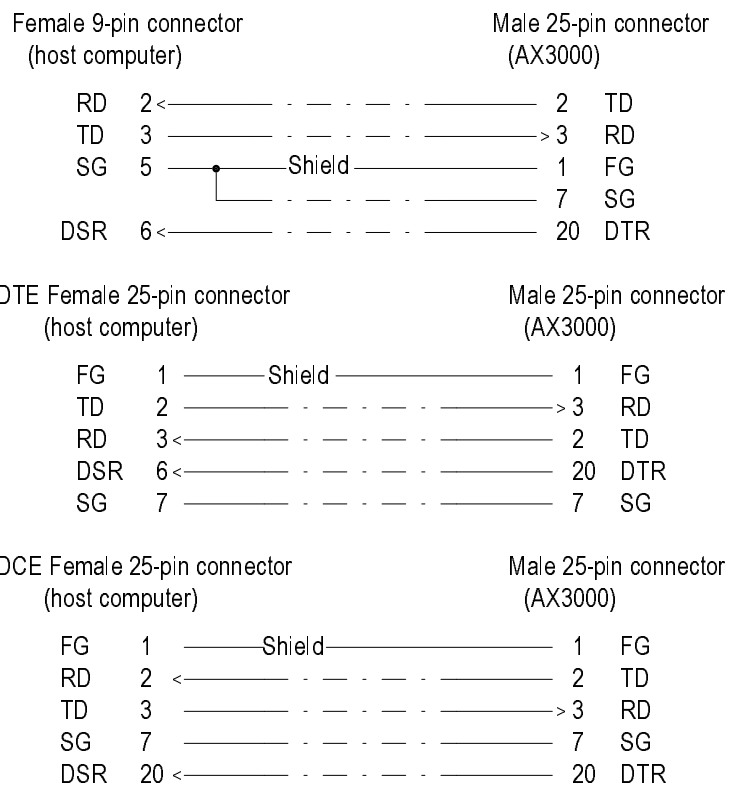


MAIN connector (model 35 rear panel)

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	---

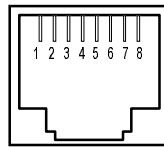
Note: flow control is handled by pin 20 (DTR).

In the following examples, only the listed pins should be wired. Depending on which operating system is used, a shunt may be needed between DSR and CTS on the host computer:



3.2 - SERIAL PORT AUX1

This serial AUX1 port is a bi-directional port (for printers, bar-code readers, touch screens, mouse, etc.):



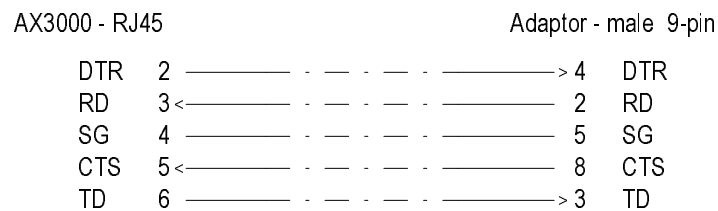
AUX1 connector
(Model 35 rear panel)

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 Detect)	Input

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

3.2.1 - RJ-45 - DB9 and RJ-45 - DB25 adaptors

Pin assignments, for an adaptor between the peripheral cable and the AX3000 RJ-45 connector, are as follows:



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

3.2.2 - Peripheral RJ-45 cables

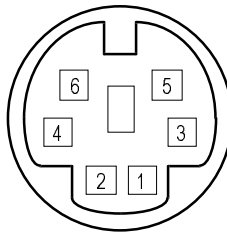
Pin assignments for a **direct** connection of a peripheral to the AX3000 RJ-45 connector:

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

3.3 - KEYBOARD INTERFACE

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



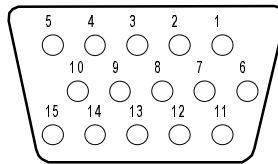
Keyboard connector
(model 35, rear panel)

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.

3.4 - VIDEO INTERFACE

The AX3000 video interface is VGA / SVGA compatible:

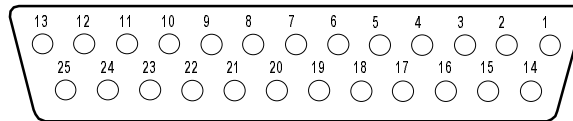


VGA connector
(model 35, rear panel)

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	---

3.5 - AUXILIARY PARALLEL PORT

The AX3000 model 35 is equipped with an auxiliary parallel port.



Parallel connector
(model 35, 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

4 - PROBLEM SOLVING

This chapter describes some of the problems, that may occur during installation of the AX3000 Model 35, and offers possible solutions.

✓ - 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 socket 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><Escape>** keys simultaneously. If set-up mode is working, you can ignore the double beep signal and use the terminal normally.

✓ - NEITHER CHARACTER NOR LOGIN APPEARS

Check that the cable is plugged into both the main port of the Platine terminal and the corresponding host computer port. Check the pin assignments (refer to the previous chapter) and that the host computer is operational. Check that there is a **getty** or port monitor running on the host computer port.

✓ - STRANGE CHARACTERS APPEAR

Check that the serial communications parameters are the same for both the host port and the terminal. (Check the Platine's Set-Up screen and `/etc/inittab` or `pmadm` settings on the UNIX host).

✓ - INCORRECT APPEARANCE OF SOFTWARE DISPLAYED ON THE AX3000

Check the values of parameters set using Terminal Set-Up. Check that the correct terminal emulation has been chosen.

Check that the `TERM` environment variable (for the current UNIX shell) corresponds to the emulation selected for the terminal (in Terminal Set-Up).

✓ - THE CONNECTED PRINTER DOES NOT WORK

Check the cable pin assignments are correct and that whichever port is used (AUX1 or PARALLEL) has been correctly selected as the default auxiliary port in Set-Up.

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



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