

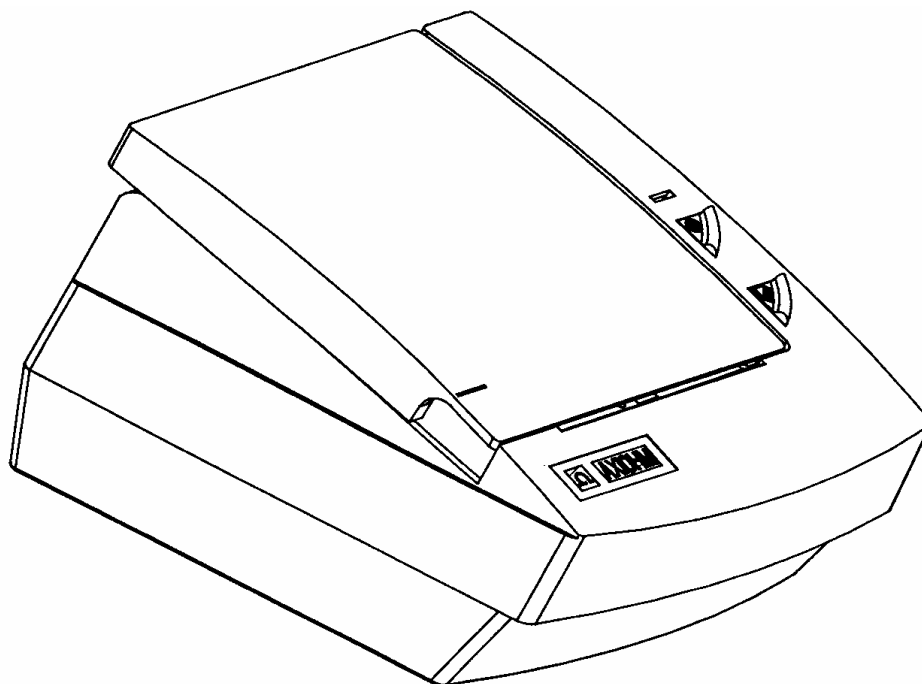


THERMAL PRINTING SOLUTIONS

APOS PREMIUM PRINTER

SET-UP GUIDE

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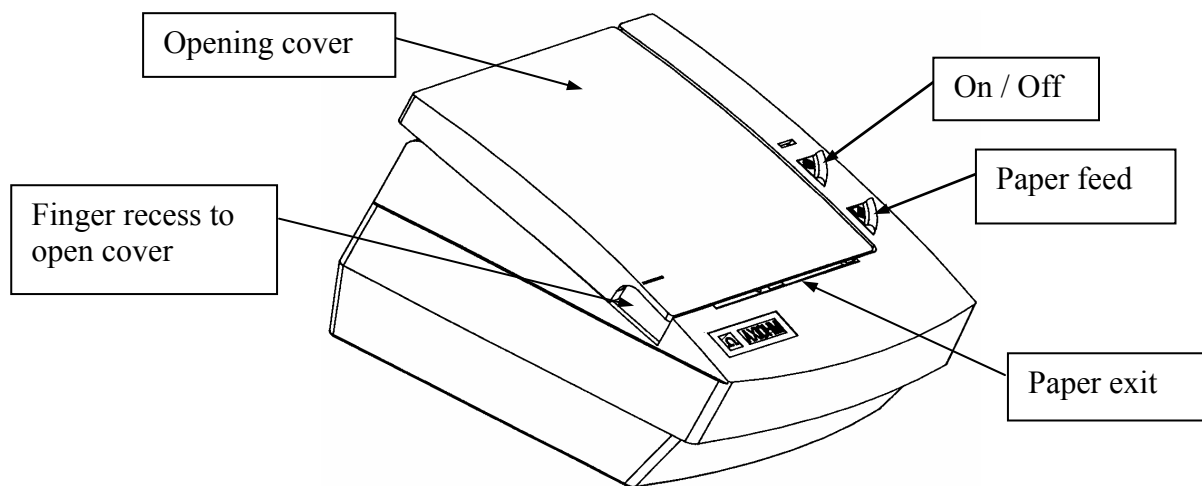
CONTENTS

1	GENERAL DESCRIPTION.....	2
2	YOUR PRINTER	3
2.1	Getting ready to use your printer	3
2.1.1	Unpacking the printer.....	3
2.1.2	Description of printer parts.....	3
2.1.3	Buttons.....	3
2.1.4	Indicator	3
2.1.5	Cutter	4
2.1.6	Connectors.....	4
2.1.7	Cable Traps	4
2.1.8	Mounting Holes.....	4
2.1.9	Sensors.....	4
2.2	Choosing the proper location for your	5
2.3	Loading paper	5
2.4	Light indicator	5
2.5	Connectors & cables	6
2.5.1	Power connector.....	6
2.5.2	Communications interface connectors	6
2.5.2.1	RS232 connector.....	6
2.5.2.2	USB connector	7
2.5.3	Drawer kick-out connector	7
2.6	General safety specification	7
2.7	Configuration menu	8
2.8	How to enter	8
2.9	How to adjust parameters	8
2.10	How to quit.....	8
2.11	List of parameters that can be changed.....	8
2.12	Self-test	10
3	TROUBLE SHOOTING	10
4	CLEANING YOUR PRINTER.....	11
4.1	Cleaning the printer	11
4.2	Cleaning the print head	11

1 GENERAL DESCRIPTION

This set-up guide describes how to set up and operate the high-speed, thermal, point-of-sale (POS) printer manufactured by Axiohm SAS. The printer has many features, which give advantages to retailers, and is versatile enough to be used in other applications such as for printing out tickets and coupons.

- Axiohm's unique and patented paper-loading mechanism makes this printer the easiest-to-use POS printer on the market. The fixed-head thermal printer engine gives a very high quality print.
- An untrained operator can change the roll of paper quickly and reliably, minimizing downtimes and avoiding paper jams. There are no messy ribbons to change, so good print quality can be 'designed-in' without operator skills or regular maintenance.
- The printer uses Axiohm's proprietary technology to achieve the longest-life cutter with the optional patented semi-rotating ceramic cutter.
- As part of the total 'easy-to-use' philosophy, the printer uses a super-set of industry-standard software to allow for easy installation. The existing software needs no modification and is ready to use.
- The APOS printer will accurately print many barcodes, it allows custom characters to be downloaded and it can execute macro functions.





2 YOUR PRINTER

2.1 *Getting ready to use your printer*

2.1.1 Unpacking the printer

The printer comes in a plain cardboard carton with a re-usable packing foam insert and separate pockets for:

- One APOS printer
- One Set-up Guide
- One single 80 m roll of thermal paper
- One standard power supply with 24V power lead (optional)
- One 1.8 m CEE22 power cable with the appropriate mains plug for the country of sale

The model number and serial number (including manufacturing week and batch number) of the printer will be marked on the exterior of the packaging.

Please make sure that no parts are missing or damaged. Report any deficiency to your supplier as soon as possible after receiving the printer. The original packaging material should be kept in case it becomes necessary to transport or return your printer.

2.1.2 Description of printer parts

The APOS printer contains a patented easy-loading printer mechanism designed and manufactured by Axiohm. This mechanism consists of a main cavity into which a paper roll is dropped for loading. The thermal print head is at the front of this cavity and a rubber roller is attached to the lid of the mechanism. When the lid is closed, the paper is trapped between the rubber roller and the print head to give close alignment and consistent pressure.

2.1.3 Buttons

The APOS printer has two buttons on the front panel:

The ON/OFF button is physically connected to the hard reset on the main controller board. Even when it is OFF, the printer is always powered.

The Paper Feed button's normal function is to advance paper when the unit is not printing. The button function may be disabled under software control and it may be used to control the action of a defined macro. This button also activates a self-test printout (see section 2.7).

2.1.4 Indicator

A rectangular green LED is used to indicate the basic status of the printer. The LED is “off” when the printer is off, and “on” under normal circumstances when the printer is on. It will flash when there is an “error condition” such as being out of paper.



2.1.5 Cutter

The printer may be fitted with Axiohm's patented semi-rotating ceramic cutter. It is split with one blade in the lower cavity and the other fitted to the lid. These blades are also correctly aligned when the lid is closed to make paper loading very easy and jam-free. Partial cuts or full cuts are possible under software control.

2.1.6 Connectors

The APOS printer can have up to 3 types of connectors:

Power connector: fitted on the base of the unit near the front. (See section 2.5.1 for detail)

Two interface connectors: one is fitted on the base of the unit closer to the rear; a 9-pin D-type in the case of serial communication RS232. The other one is an USB connector.

Drawer kick-out connectors (one): fitted at the rear of the printer. These appear as a pair of RJ11 connectors. (See section 2.5.3 for details)

2.1.7 Cable Traps

Three clips are fitted into the base of the printer; they may be used to trap the power supply and interface cables into recessed channels in the base.

2.1.8 Mounting Holes

There are two holes in the base of the printer allow the printer to be attached to a vertical surface such as a wall or pillar. In this case, the printer should be mounted with the paper exiting from the top so that the roll does not fall out when opening the cover.

2.1.9 Sensors

The APOS printer is fitted with three sensors, which detect abnormal conditions:

Door-closed sensor: a micro-switch sensor. To avoid damaging the print head, when the door is open, printing is inhibited.

End-of-paper (EOP) sensor: detects the presence of paper near the print head. To avoid damaging the print head, when no paper is detected, printing is inhibited.

Cutter sensor: used to detect if the cutter is in its home position before commencing a cut, and on completion of a cut.



2.2 Choosing the proper location for your printer

The APOS printer may be installed in a variety of applications; but, to maintain optimum working conditions from your unit, the following recommendations should be followed:

- Avoid dirty or dusty locations, or those with excessive heat or humidity
- Choose a stable level base or solid wall on which to mount the printer
- Make sufficient space around the printer to ensure comfort while using your printer, including sufficient access to open the lid while changing paper.

2.3 Loading paper

It is extremely easy to load a new paper roll into the printer by following these simple steps:

- Open the cover and remove the old paper core;
- Drop the new roll into the reservoir so that it will rotate in the correct direction (i.e. so that the emulsion side of the paper rests against the print head)
- Hold the front edge of the paper outside the main cavity at the front of the printer
- Close the printer cover

2.4 Light indicator

When the light is on continuously, the printer is ready to operate.
When the light is flashing, this signals that an error has occurred.

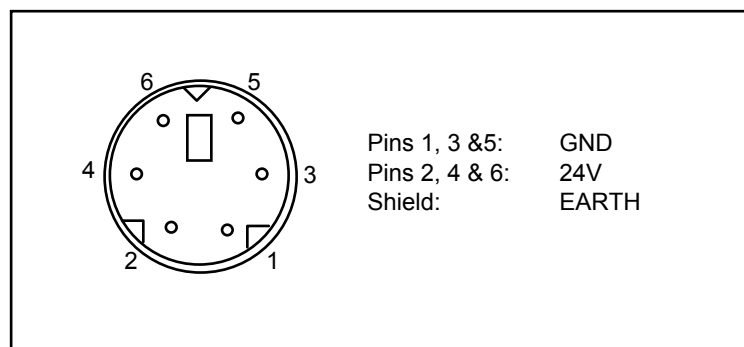
2.5 Connectors & cables

To reduce the electromagnetic emissions and susceptibility, all cables should be screened. If you are not using cables supplied by Axiohm for this purpose, please ensure that your cables match the printer and are rated at the appropriate voltage and current capacities.

***Use of an inappropriate cable may seriously damage your printer!**

2.5.1 Power connector

The connector is a shielded 6-pin female mini-Din plug.



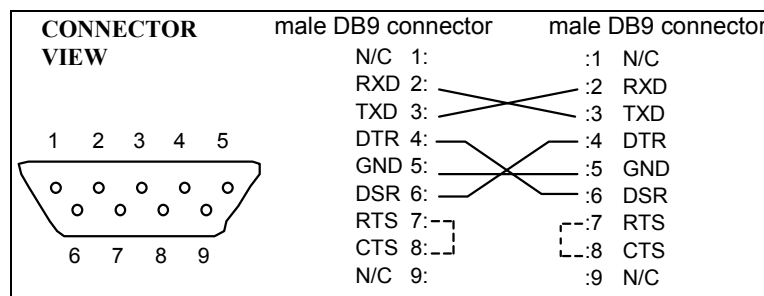
2.5.2 Communications interface connectors

2.5.2.1 RS232 connector

RS232 interface uses 9-pin D-type male connectors

RS232 Connector

Cable for DTR/DSR protocol



Note: RTS/CTS should be tied together if using DOS print commands on a PC station.

2.5.2.2 USB connector

- USB V1.1
- Full Speed communication 12 Mbits/sec
- Single USB Connector (Peripheral mode)
-

Vendor ID:

Axiohm USB Vendor Id = 0x05D9

Product Id:

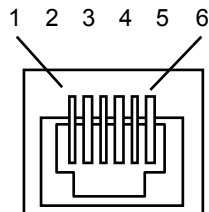
APOS PREMIUM product Id = 0xA000



2.5.3 Drawer kick-out connector

The connector used to open a cash drawer and monitor, whether the drawer is opened or closed, is a 6-pin modular RJ11 connector.

CONNECTOR VIEW



PINOUT

- 1: Frame
- 2: Solenoid 1 (-ve)
- 3: Switch (+ve)
- 4: Solenoid Common (+ve)
- 5: Solenoid 2 (-ve)
- 6: Switch (-ve)

2.6 General safety specification

All communication connectors should be SELV connectors in order to meet safety standards.

Use of an inappropriate cable or power supply may seriously damage your printer and affect safety standards of the printer. The power supply main connector should be accessed to enable power disconnection.

Power supply input requirements: 110/240 VAC, 50/60 Hz. Operating temperature: 0 to 50°C.



2.7 Configuration menu

Printers are generally shipped with all the functions and parameters pre-set at the factory. It is possible to change settings for various printer functions and to run certain tests using the configuration menu. Selecting functions or changing settings is done through the scrolling configuration menu feature. This feature prints instructions on the receipt for selecting and changing any of the functions and parameters.

Caution: Be extremely careful changing any of the printer settings to avoid inadvertently changing other settings that might affect the performance of the printer.

2.8 How to enter

- Push paper feed button
- Reset the printer and hold paper feed button until the end of diagnostics form printing.

2.9 How to adjust parameters

- After a self-test, the printer will enter in configuration menu. Follow all the instructions on the scrolling menu.
- Press the Paper Feed Button to make the selections. The instructions indicate whether to select something with a short click, a long click, or a series of short clicks. Indicate Yes with a long click, No with a short click.
- Press and hold the Paper Feed Button for at least one second for a long click. Press the Paper Feed Button quickly for a short click.

2.10 How to quit

At the end of your configuration, the printer asks for a reset and your configuration will be saved in the EEPROM.

- Reset the printer

2.11 List of parameters that can be changed

- Hardware Options
- Mechanism Options
- Communication Options
- Print Options
- Presenter Options



<p>Set Hardware Options Maximum Power 60 W</p>	<p>Set Communication Options Interface Type - RS232 - USB RS232 Baud Rate 115200 57600 38400 19200 9600 4800 2400 1200 RS232 Data Bits 8 7 RS232 Stop Bit(s) 1 2 RS232 Parity No Parity Even Parity Odd Parity RS232 Flow Control DTR/DSR XON/XOFF Reception Errors Print '?' Ignore Errors</p>
<p>Set Mechanism Options Paper Type P350 Paper Width 80mm Print density 90% 100% 110% Pre-Heating Enabled Disabled Knife Option Enabled Disabled Partial cut Distance 125 Steps 130 Steps 135 Steps 140 Steps 145 Steps</p>	<p>Set Print Options Diagnostics Mode Off Datascope Receipt Test Default LPI 6 LPI 7.52 LPI CR Usage Ignore CR Print CMD Default Code Page 437 850 852 858 860 862 863 865 866 1252 Katakana</p>
<p style="text-align: center;"><u>Important</u> To optimize print quality, head setting parameter must be set to match the rank of the print head the board is connected to.</p>	



2.12 Self-test

A self-test is obtained by pressing the paper feed button during a reset (power up or pressing on/off button). On entering the self-test mode, the printer checks its internal hardware and prints a report with the following information:

- product reference and software version
- serial number
- printer settings.

3 TROUBLE SHOOTING

Problems & Solutions

Light is off	Check the power-supply and cables connections.
Light is continuously on but printer does not operate	Check to see if the interface cable is well connected.
Light is flashing	Check that cover is closed properly; if not close it. Open the cover and make sure that there is paper left in the printer; if not, remove the paper roll core, place a new paper roll as indicated in the chapter "Loading paper". Open the cover and check that there is no paper jam; if so, unwind the paper until no wrinkles appear, and close the cover with wrinkled part out.
Printing quality is deteriorating	The print head may be getting dirty, see next chapter.



4 CLEANING YOUR PRINTER

The APOS printer is a highly reliable unit, which requires very little maintenance but may benefit from cleaning as described in the next sections.

Before cleaning, unplug all electrical connections.

4.1 *Cleaning the printer*

Keep the external surfaces clean by wiping with a lightly damp cloth. Make sure that the inside surfaces are kept dry at all times, and that the external surfaces are thoroughly dry before re-connecting.

4.2 *Cleaning the print head*

Depending of the environment in which the printer is used, the print head may accumulate dust. Therefore it is necessary to clean it periodically in order to maintain a good print quality. The cleaning period depends on the environment and the usage of the printer, but it should be cleaned at least once a year or up to once a month in heavy-duty applications. The print head should always be cleaned immediately if the print becomes visibly fainter due to contamination of the print head.

To clean the print head:

- Switch the printer off.
Never clean the head immediately after printing, it may still be hot.
- Open the printer cover and remove the roll of paper.
- Clean the heating dots of the head with a cotton stick and a little alcohol solvent (ethanol, methanol or IPA), but **do not touch the print head with you fingers!**
- Allow the solvent to dry
- Reload the paper and close the cover