

Portable Printer



Features

- The *Mxp-048* is a portable / desktop version of the *Mxp-012* Internal thermal printer for use with the *Mx-4000* multi-loop panels. This state of the art unit has been designed to provide automatic, or on demand, hard copy listings of the event log and or status information. For automatic operation the printer allows the user to individually select the operation for fire, fault, test and alarm event types.
- The unit is fast and silent during operation and has its own in-built battery backup to enable continuous un-interrupted operation even during a mains fail situation. The printer mechanism itself has an easy access, front-loading paper roll compartment.
- Ideally suited for engineer use – connect the printer to the panel during commissioning / maintenance to printout details of faults, disablements, etc. along with input points including their analogue values for a permanent record.
- Battery Standby Support.
- Isolated RS232 Interface.
- Easy paper loading – clamshell design.
- Same paper roll as used on *Mxp-012*.

Models, Sales Order Parts:**Part No.:****Mxp-048** Desktop Thermal Printer c/w PSU, Battery and Leads**Spares:****Mxs-008:** Thermal printer roll (pack of 10)**Mxs-035:** Re-chargeable battery pack**Mxs-036:** Rubber Boot and belt kit**Mxs-037:** Spare PSU and Power Lead**Applications / Limitations:**

Can be used for printing the panel's event log or configured by the user to automatically print any of the following event types: - Fire, fault, alarm or test.

Note: If a modem and a permanent printer are both required in the panel then use the Mxp-012 printer.

On networked systems if automatic printing of fires and alarms is selected these events will print from everywhere on the network, unless the local panel is programmed not to show these events. Automatic printing of faults is limited to the local panel chassis to which the printer is connected.

Compatibility:

The On-board Printer can be connected to the following Fire Alarm Control Panels:

Mx-4100, Mx-4200, Mx-4400 & Mx-4800

The printer functions are supported from panel software revision 16 onwards.

Additional print menu options are available from software revision 19-07 which allow manual on-demand printing of the following options:

INPUTS (including zone & device text, device type, state and analogue value), OUTPUTS, FAULTS and DISABLED. When printing any of these options the panel analyses the network and suggests the default ranges for printing.

Item	Specification Details
Printer Type	Thermal, Graphical
Dimensions	150 D x 110 W x 70 H (max height)
Power Supply	230V AC via the supplied adaptor
Operating Temperature	5°C to 50°C, 10-85% RH (Non-condensing)
Storage Temperature	-20°C to 50°C, 10-90% RH (Non-condensing)
Printer Resolution	384 dots per line, 8 dots / mm
Sensors	Door Closed, Paper Out
Paper Roll	Thermal, 58mm Wide, 50mm Diameter
Power Save Mode	Automatic Switch Off if the printer is not used for 5-minutes to save battery life. This feature can be turned off.

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice

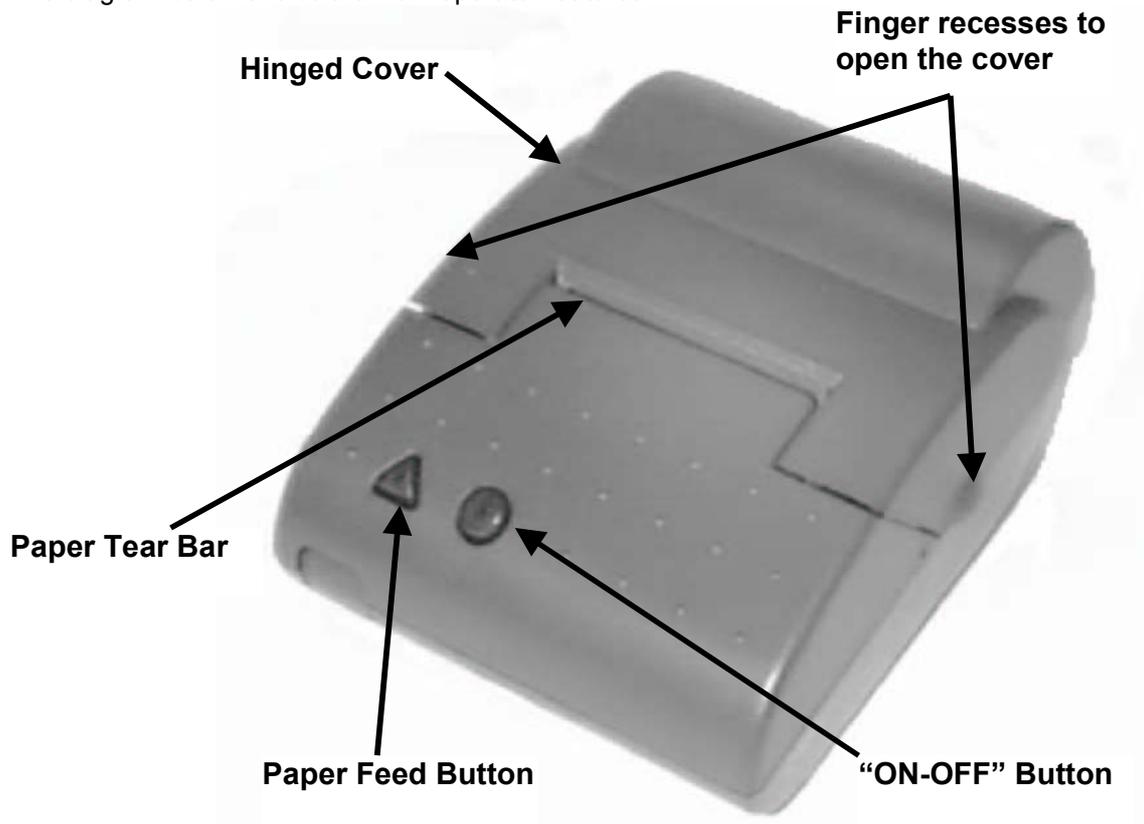
Portable Printer

General description

The Mxp-048 printer is designed with a clamshell type easy paper loading system. It is a portable printer for operation from its battery supply, but it can also be used in a permanent desktop installation using the AC mains power supply for operation and battery charging.

The printer will automatically turn off after five (5) minutes if not used to save the battery power. This feature can be turned off if the printer is to be used in a permanent desktop installation (See Printer Configuration Section).

The diagram below shows the main operator features.



Unpacking

The packing box contains :

- Printer
- Power supply with connecting cables to the printer and to the power network.
- Communication cables
- Battery
- Paper roll
- Manual 680-124 (this document)

Installation

Printer location

If the printer is to be permanently installed on a desktop, it should be placed where the following conditions are achieved :

- Temperature from 5 to 50°C for operating
- No risk of water exposure
- No mechanical stress
- It is recommended to avoid any mechanical vibrations

Loading paper

The Clamshell design allows easy paper loading.

To load paper :

Follow the steps given and illustrated here after :

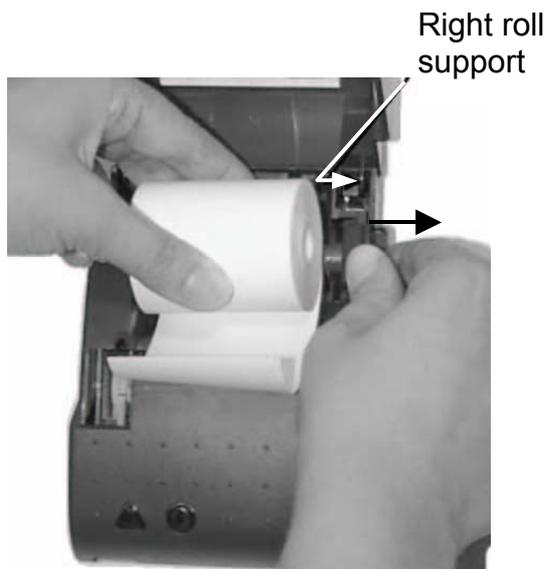
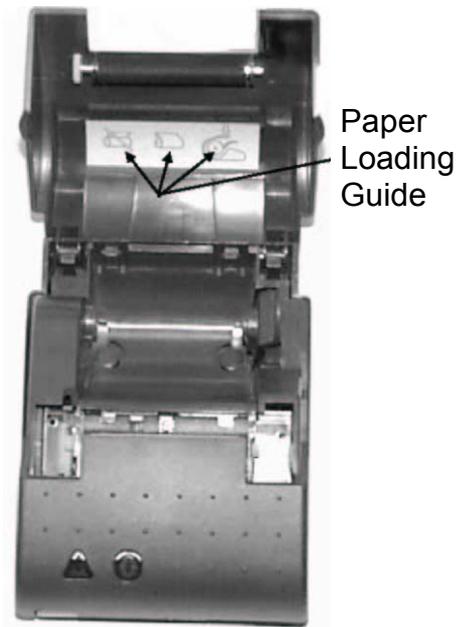
- Open the cover using finger recesses.
- Set the paper roll as indicated on the picture below by pushing aside the right roll support.
- Close the cover leaving a small length of paper out.
- Cut the small length left with the tear bar. Your paper roll is set.

Notes :

The paper used should only be as recommended by Advanced Electronics Ltd – See Page 2 for Spares Part Numbers.

The paper width must be 58 mm

The maximum paper roll diameter is 50 mm

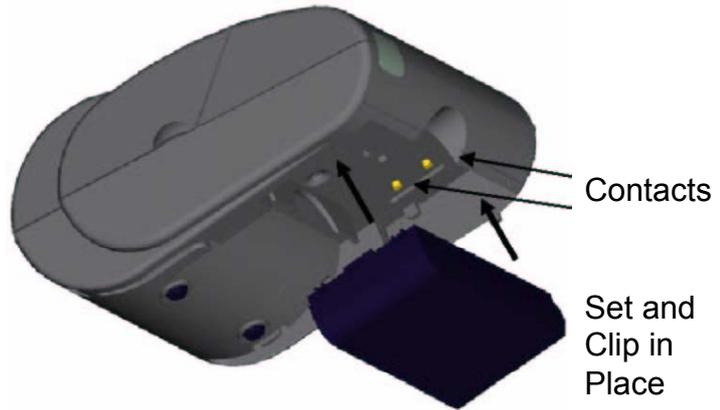


Installing the battery

The battery is set underneath the printer as shown opposite.

The battery is clipped to the printer, push to clip, pull to unclip.

Do not force too much as you may try to insert the battery in the wrong direction. In this case a locating pin will avoid clipping, turn your battery and try again.



	<p>CAUTION</p> <p>Danger of explosion if battery is incorrectly replaced.</p> <p>Replace only with the same or equivalent type – see spares list.</p>
	<p>Batteries must be disposed of responsibly and in accordance with any local regulations.</p>

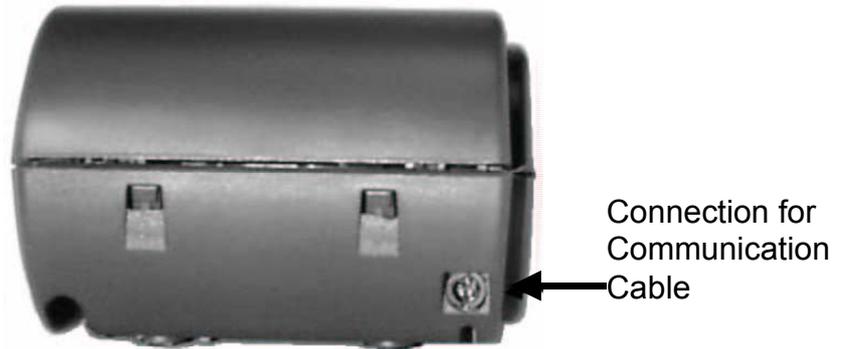
Installing the Cables

Data Cable

Plug the round plug end of the supplied cable into the socket at the back of the printer.

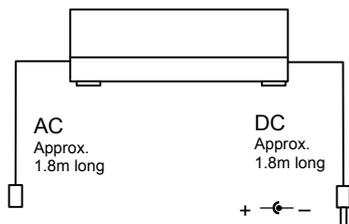
The socket is polarised.

Plug the standard 3-way terminal block connector into the RS232 connector at the panel.



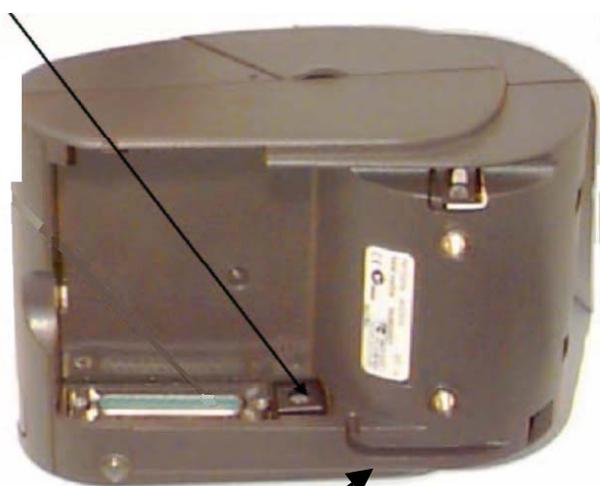
Printer Power Supply

The printer is supplied with an 100-230V AC to DC (9V, 2.5A) power converter for desktop use and to charge the batteries.



Connect the AC Plug into a suitable AC Mains socket. Connect the DC Plug into the socket shown in the diagram opposite.

Power Input Connector



Route the cable in this channel

Printer Configuration

The printer has been pre-configured in the factory for compatibility with the Mx-4000 series and for portable applications.

If the printer is to be used for desktop applications, then it is possible to turn OFF the Power Save Mode of operation.

Program mode:

The program function may be accessed by keeping pressed the paper feed button during the self test.

How to enter:

To enter the program mode:

- Power down the printer
- Press the power button and the paper feed button together
- Release the power button, keep the paper feed button pressed until the text "A630 configuration menu" is printed.

How to move in the program:

In the Main Menu:

- To move in the list of the parameters do a short click on the paper feed button. The arrow points to the parameter to be selected / changed.
- Do a long click to select the parameter you want to change.

In the Parameter Sub-Menu:

- To select an alternative parameter value, do a short click to move in the possible choices for that parameter.
- Do a long click to validate the current choice.

Parameters Values:

- Default parameter values for operation with the Mx-4000 series are shown opposite.
- Power Mode Default is ON – change to OFF to disable the five minute power save mode of operation.

A631 Config Menu

This configuration menu allows to set general printer parameters. Sub-menus are entered and selections are made using the Paper Feed Button.

In the main menu:

Move pointer : SHORT CLICK
Enter Sub-Menus : LONG CLICK

In the sub-Menus:

Next Selection : SHORT CLICK
Validate : LONG CLICK

Daughter board : RS232
Graphic : Standard
Baud rate : 9600
Parity : NO
Data : 8
Stop : 1
Protocol : DTR/DSR
Brightness : 100
Emulation : ESC_POS
Power Mode : OFF
Country : USA
Font Set : 9*24
--> End

Validate : LONG CLICK
Start again : SHORT CLICK
Prev Conf : RESET PRINTER

How to quit and save the program:

When all the necessary changes to the parameters have been made, select the parameter "END" and validate with a long click.

Another long click is required to confirm the changes. The printer must then be reset.

Troubleshooting

Light indicators

When the printer is powered OFF, no buttons are lighted.

When the printer is turned ON, the ON-OFF button flashes (colour red) for few seconds, then it is turned off.

When the Paper feed button is lit (colour green), the printer can receive data and print.

Problems & Solutions

Lights are "OFF " when powered	Check the battery and cables connections.
Lights are continuously "ON" but printer does not operate	Check to see if the interface cable is well connected.
The red light is flashing	Check that cover is well closed, if not close it. Open the cover and make sure there is paper left in the printer, if not : remove the paper roll core, place a new paper roll. Open the cover and check there is no paper jam, if there is some : unwind the paper until no wrinkle appears, close the cover with wrinkled part out and cut it with the tear bar.
The green light is flashing slowly	The battery is low. Connect the power supply to charge the battery
Printing quality is deteriorating	The printhead may be getting dirty, see below.

Cleaning your printer

Depending on the environment in which the printer is used, it can accumulate dust. Therefore it is necessary to clean it periodically to maintain a good print quality. The cleaning period depends on the environment and the usage of the printer, but the printhead should be cleaned at least once a year or up to one month in case of heavy-duty applications.

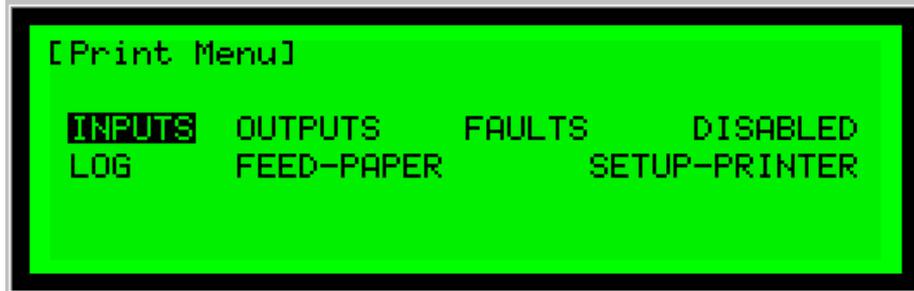
Cleaning Instructions :

- Unplug the printer. Never clean the head immediately after printing, the head may be hot.
- Open the cover, clean the heating dots line of the head with a cotton stick containing a solvent alcohol (ethanol, methanol, or IPA) but do not touch the printhead with your fingers !
- Allow the solvent to dry and close the cover.

Panel Configuration and Settings

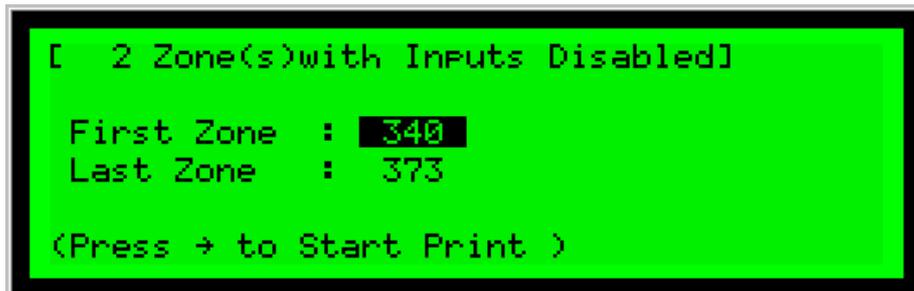
Print Menu Options

The print menu (from V019-07) has been expanded to allow on-demand printing of a wide variety of items. These options allow the present state of the system to be printed – not just from the panel to which the printer is attached but also from anywhere on the network.



- INPUTS - Prints device text, zone, device type, analogue value, device state
- OUTPUTS - Prints device text, zone, device type, device state
- FAULTS - Prints location and state of all devices in a fault condition
- DISABLED – Prints location and state of all disabled devices

When any of these options are selected, the panel analyses the network and suggests default ranges for printing (e.g. if DISABLED is selected, the display will suggest the first through to the last zone on the network containing disabled devices). For example:



These defaults can be changed as required. Use the arrow and number keys to select and enter the required zone numbers.

Further information on the print displays is contained in the 'MX4000 User manual' - 680-015.

Panel Printer Configuration Settings

This printer is supported from MX panel software, version 016 onwards. To configure and test the printer: -

1. Enter the "Print – Set-up" option and tick the "Internal" option. (If required the panel will support simultaneous printing to an external printer too, but the "wide" option should not be ticked when an internal printer is in use).

```
[FIRES] [ALARMS] [FAULTS] [TESTS]
-       -       -       -
(Printer: Internal External/Wide)
         ✓       -       -
```

2. On the top line tick any events that should be automatically printed as soon as they occur.

FIRES any device entering a fire condition

ALARMS any device entering a pre-alarm or plant alarm condition

FAULTS any fault detected by this panel

TESTS any device that is activated during a fire-test

On networked systems the fires, alarms and tests, if selected, print events occurring on other panels in the network (The network configuration software will allow this to be restricted to just certain parts of the building if required).

3. Escape from the printer set-up and move to the test menu. Perform a "Test – Print" and check that the printer is functioning correctly.

Further information on the print displays is contained in the 'MX4000 User manual' - 680-015.