



MX1 Spare Power Supply Unit (ME0448)

Installation Instructions

General Description

This kit contains one *MX1* Power Supply Unit (PSU), suitable as a replacement in these *MX1* fire alarm systems:

- FP0893 *MX1* NZ Slimline Cabinet
- FP0927 *MX1* AUST 15U PANEL 3U ASE BRACKET
- FP0928 *MX1* AUST 15U PANEL 3U AIU/PPU BRACKET
- FP0948 *MX1* AUST 15U PANEL 3U BLANK
- FP1010 *MX1* NZ 15U PANEL
- FP1040 *MX1* AUST 8U PANEL 3U BLANK
- FP1014-FP1016 Historical variants on FP0927-FP0948
- Build-to-Order *MX1* systems in 19" rack cabinets

Contents of this Kit

Item	Qty	Description
ME0448	1	MECH ASSY 1982-106 <i>MX1</i> PSU ASSEMBLY
LT0537	1	<i>MX1</i> CONTROLLER SPARE INSTALL INSTRUCTIONS

Power Supply Replacement – General Procedure

1. Advise the building owner or representative, monitoring service, and fire brigade, as appropriate, that the *MX1* fire alarm system is being taken out of service. Isolate the panel from the monitoring system.
2. Power down the *MX1* fire panel by disconnecting the batteries and turning off the mains supply. Protect the battery leads so they do not short out or contact any other metallic objects.
3. Refer to the following sections for the PSU replacement procedure for the specific type of cabinet, and follow those instructions. These are the cabinet variants covered:
 - a. Slimline cabinet with internal mains outlet (current production)
 - b. Slimline cabinet with direct wired PSU (older production)
 - c. 8U or 15U or other 19" rack cabinet with open style PSU (current production)
 - d. 15U or other 19" rack cabinet with covered PSU (older production)
4. After the replacement has been done, plug the PSU into the mains outlet and switch it on. Allow the *MX1* to start up.
5. Check that the green OPERATING/POWER indicator on the *MX1*'s front panel is on steady. Use the operator menu to display the power supply voltage and current on the front panel (refer to the *MX1* Operator Manual for this procedure). Refer to the System Specifications (also in the Operator Manual) to verify that the displayed values are correct.
6. Carry out any necessary tests to ensure that the system is operating correctly. When these are complete, reconnect the battery, and check that the *MX1* is Normal.
7. Advise the appropriate people that the *MX1* is back in service.

Power Supply Replacement – Slimline Cabinet (NZ)

Removal and Replacement – slimline cabinet with mains outlet (current production)

It is possible to replace the PSU in the slimline cabinet without halting the *MX1* system operation. However, this is not recommended since there is scope for accidental damage.

1. Switch off the old PSU and unplug it from the mains.
2. Remove the DC wiring loom from J14 of the *MX1* Controller. Release the DC wiring loom where it is fastened to the gear plate.
3. Remove the barrel nut holding the PSU in place and lift the old unit clear after removing the earth lead from the fast-on tab behind the cover.
4. Connect the earth lead of the replacement PSU to the fast-on tab, fit the cover over the studs on the side of the cabinet and fasten it in place with a barrel nut on the stud on the rear of the cabinet.
5. Fit the new DC loom to J14 on the Controller. Refasten the DC loom to the gear plate.

Removal and Replacement – older slimline cabinet with fixed mains wiring (pre-2005)

WARNING: This PSU replacement will involve some mains wiring work, requiring a suitably qualified electrician. The *MX1* should be completely powered down (batteries disconnected) while this work is being done to avoid accidental damage.

The replacement PSU in this kit has a mains plug fitted. There is no simple way of adapting this for fixed wiring, and the recommended method is to purchase and fit a mains outlet inside the cabinet, as shown in the diagram at right. A single switched outlet (PDL parts 698 and 567S, or current equivalents) should be mounted on the right side of the cabinet, and the mains supply to the *MX1* connected into this outlet.

The mains outlet must be fitted and wired by a suitably qualified electrician. The diagram at right shows the correct orientation of the outlet.

Once this outlet is fitted and livened, the new PSU can be fitted as described in the previous section.

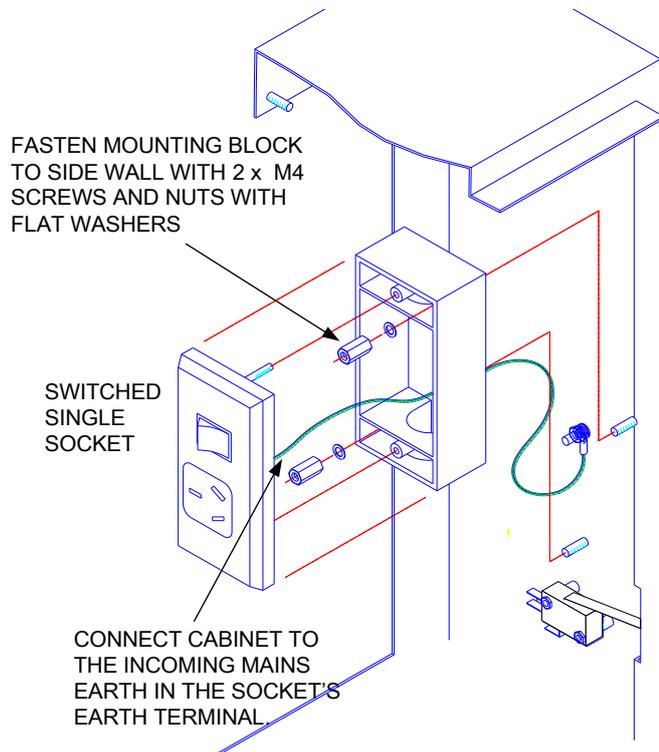


Figure 1 – Mains Outlet Location in *MX1* Slimline Cabinet

Power Supply Replacement – 8U, 15U or other 19” Rack Cabinet

Requirements

MX1 panels in 19” rack cabinets have used two different arrangements of PSU – older panels use the complete ME0448 unit in its metal cover, but newer panels use only the switch-mode power supply module and circuit board contained within the cover. The replacement procedure will depend on which version is fitted in your MX1 panel.

Removal and Replacement – newer panel with open power supply

1. Remove the DC wiring loom from J14 of the MX1 Controller. Release the DC wiring loom where it is fastened to the gear plate.
2. Remove the cover from the replacement PSU as shown in Figure 2. The M4 screws recovered during this operation may be reused in the MX1 gear plate, if necessary.

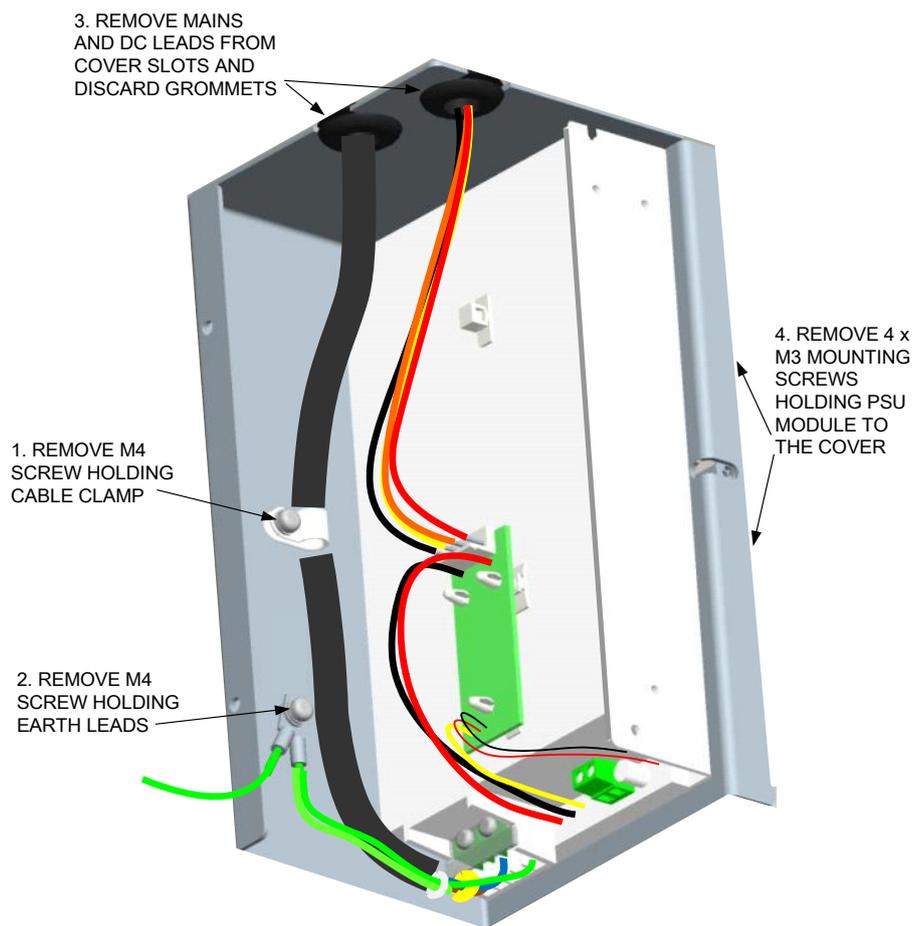


Figure 2 – Power Supply Preparation by Removing the Cover

3. Remove the M4 screw and washer holding the mains lead clamp to the gear plate. Remove the M4 screw fastening the earth connection to the gear plate.
4. Loosen the M3 screw on the right hand end of the power supply module. Undo the two M3 screws on the left hand end of the power supply module and lift it clear. Note that the upper screw is longer and may have a Torx head.
5. Fit the replacement PSU in place of the old one so that it engages the single M3 screw on the right hand end.
6. Fit the two M3 fastening screws on the left hand end. The longer screw goes in the upper position. Retighten the M3 screw on the right end of the PSU and check that the PSU is securely fastened to the gear plate.

7. Fasten the earth connection to the gear plate beside the EARTH TERMINAL label with the M4 screw. Slide the mains lead clamp to the appropriate position and fasten it to the gear plate with an M4 screw and washer. Check that the mains lead is clamped securely.
8. Fit the new DC loom to J14 on the MX1 Controller. Refasten the DC loom to the gear plate.

Removal and Replacement – older panel with covered power supply (pre-2011)

1. Remove the DC wiring loom from J14 of the MX1 Controller. Release the DC wiring loom where it is fastened to the gear plate.
2. Remove the barrel nut holding the PSU in place and lift the old unit clear after removing the earth lead from the fast-on tab behind the cover.
3. Connect the earth lead of the replacement PSU to the fast-on tab, then fit the cover over the studs on the top of the gear plate and fasten it in place with a barrel nut on the stud on the rear of the cabinet.
4. Fit the new DC loom to J14 on the Controller. Refasten the DC loom to the gear plate.

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