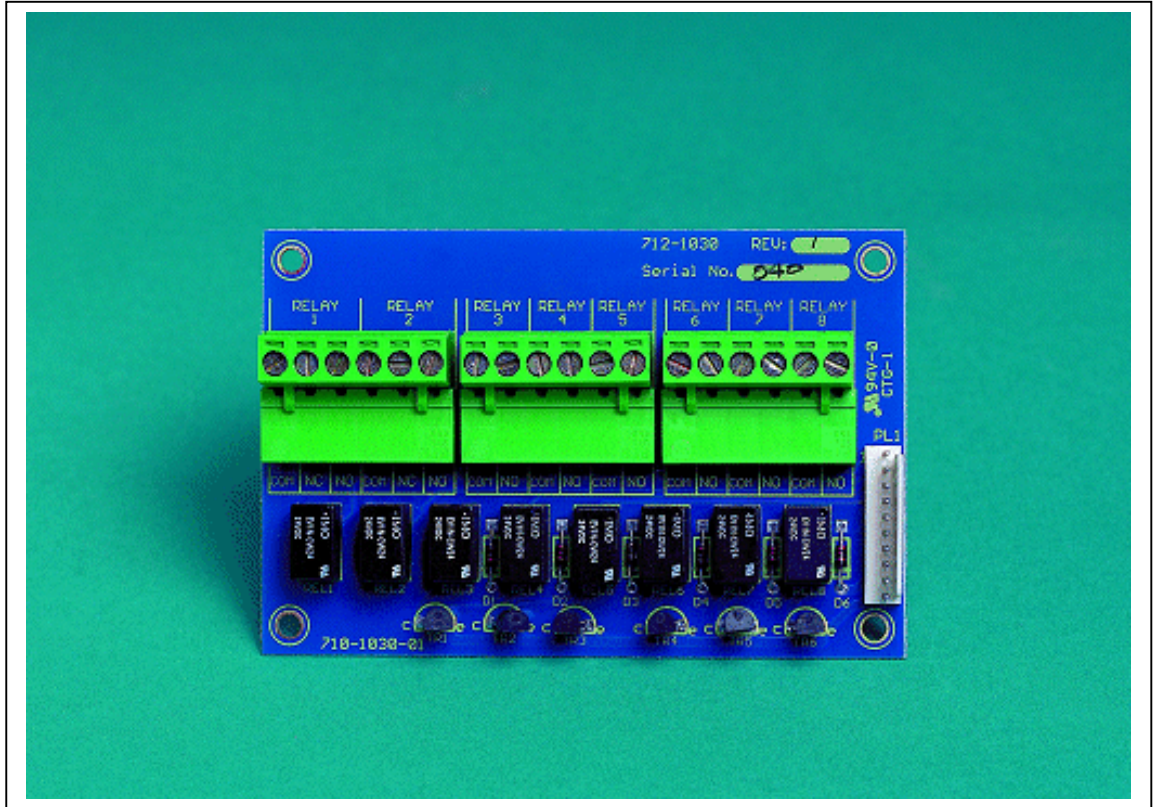# Relay Output Cards

Features

The *Mxp-007* and *Mxp-008* are internal peripherals for use with the *Mx-4000* panels. The units connect directly to the panel's motherboard and provide either 2 or 8 individually programmable 1-Amp rated, volt free, clean contact outputs.

Each output can be individually assigned to an output group to provide full support for the *Mx-4000* system's *DynamiX* zoning facilities. In addition, each output has a number of programmable operational parameters including fail-safe, can-silence, allow walk test and delayed operation.

These features not only aid commissioning and cut down on expensive ancillary hardware but also allow the system to be easily configured to provide full support for the more complex cause and effect configurations using standard products.

Product Data Sheet

Document Number: 680-028
Revision: 03

Advanced
ELECTRONICS LIMITED

Models, Sales Order Parts:

Mxp-007: 2 Way Relay Output Card

Mxp-007F: 2 Way Relay Output Card fitted within an Mx4100/L, Mx4200, Mx4400 or Mx-4800 control panel

Mxp-008: 8 Way Relay Output Card

Mxp-008F: 8 Way Relay Output Card fitted within an Mx4200, Mx4400 or Mx-4800 control panel

Applications / Limitations:

Ideal for any application where a number of programmable outputs are required at the panel. E.g. Landlord / Tennant interfaces.

Each output can be assigned to an individual output group and is fully programmable for any output function allowed within the Mx-4000 configuration program.

Only one 2 Way Relay Output Card can be fitted to an Mx-4100/L control panel.

Only one 2 Way or 8 Way Relay Output Card can be fitted to an Mx-4200 or Mx-4400 control panel.

Up to two 2 Way or 8 Way Relay Output Cards can be fitted to an Mx-4800 control panel.

Compatibility:

The Mxp-007 is fully compatible with the Mx-4100, Mx-4200, Mx-4400 and Mx-4800 Fire Alarm Control Panels.

The Mxp-008 is fully compatible with the Mx-4200, Mx-4400 & Mx-4800 Fire Alarm Control Panels.

Mounting pillars are provided to mount these cards as follows:

Mx-4200, Mx-4400 & Mx-4800 on the panel chassis.

Mx-4100/L on the rear face of the back box.

Item	Specification Details	
	Mxp-007	**Mxp-008**
Relay Outputs	2 Volt Free Contacts (2 x changeover)	8 Volt Free Contacts (2 x changeover+ 6 x normally open which can be inverted)
Contact Rating	1 Amp 30V DC/AC max	
Power Supply	24V DC (Derived from the panel's motherboard)	
Supply Current (All relays energised)	17mA maximum	65mA maximum
Dimensions (H x W x D)	70mm x 105mm x 18mm	
As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice		

BSI REGISTERED ISO9001
ICEL
BFPSA British Fire Protection Systems Association
LiF
LPCB ISO9001

Relay Output Cards

Installation

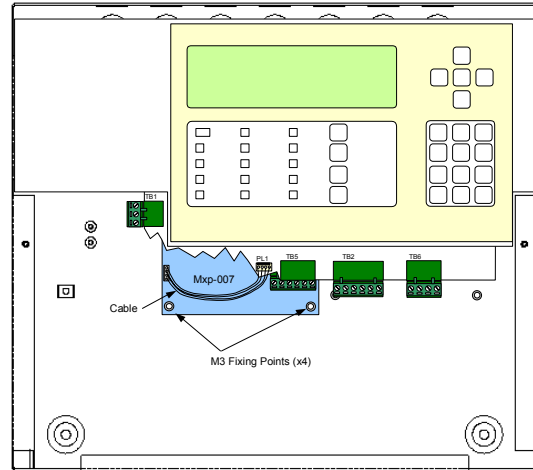### *Installing the Mxp-007 in the Mx-4100/L*

Mounting the Card

The card mounts on 4 pillars in the rear of the enclosure. See diagram opposite.

Screw in the four spacers supplied into the threaded inserts in the back box. Use the four M3 screws supplied to securely affix the card to the spacers.

Internal Wiring

Use the supplied 4-way single in line ribbon cable to connect the relay card, via the latched header – PL2, to the 4-way latched header on the base card.

Installing the Mxp-007 in the Mx-4200/Mx-4400/Mx-4800

Mounting the Card

The card mounts on 4 pillars in the top left hand corner of the control panel chassis adjacent to the Mx4200/Mx 4400 base card.
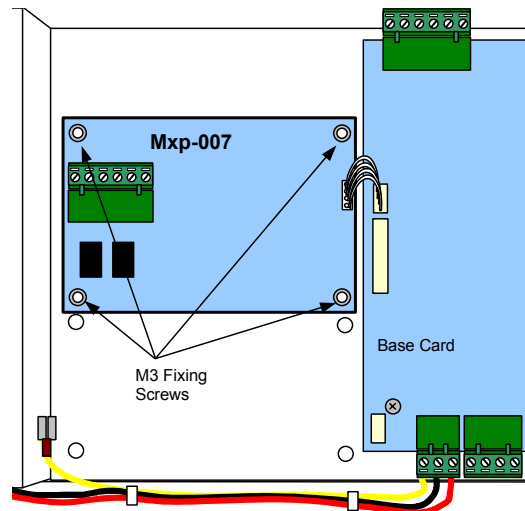
See diagram opposite.

Use the four M3 screws supplied to securely affix the card to the chassis.

It is not possible to install the Mxp-007 in this position if either the Mxp-021 Sounder Splitter or the Mxp-028 Modem is already installed.

Internal Wiring

Use the supplied 4-way single in line ribbon cable to connect the relay card, via the latched header – PL2, to the adjacent 4-way latched header on the base card.

Installing the Mxp-008 in the Mx-4200/Mx-4400/Mx-4800

Mounting the Card

The card mounts on 4 pillars in the top left hand corner of the control panel chassis adjacent to the Mx4200/Mx 4400 base card.
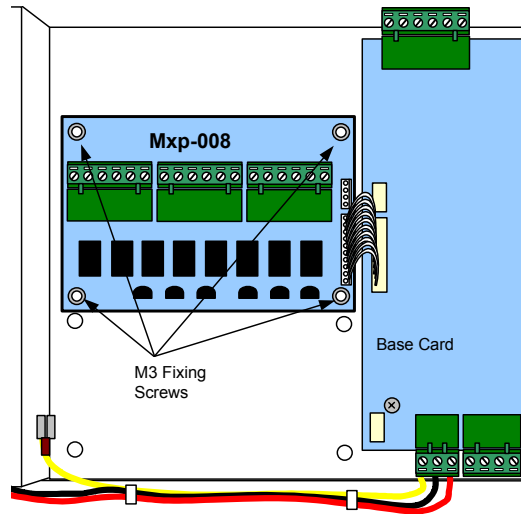
See diagram opposite.

Use the four M3 screws supplied to securely affix the card to the chassis.

It is not possible to install the Mxp-008 in this position if either the Mxp-021 Sounder Splitter or the Mxp-028 Modem is already installed.

Internal Wiring

Use the supplied 10-way single in line ribbon cable to connect the relay card, via the latched header – PL1, to the adjacent 10-way latched header on the base card.
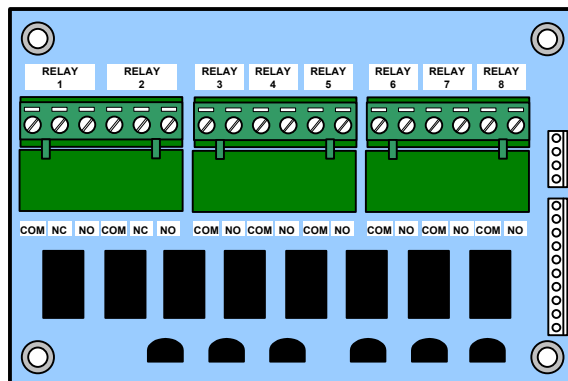

Mxp-008

Base Card

M3 Fixing Screws

External Wiring

The picture below shows the terminal block positions for each relay output.

Relay positions 1 and 2 provide NO / NC changeover contacts. Relay positions 3 – 8 provide NO contacts only (Mxp-008 Only).

Install cables suitable for the application and degree of fire protection required. These circuits are SELV type.

If additional knockouts are required on the Mx-4200 or Mx-4400 then use the deeper back box (Mxm-020) or use the Termination Enclosures (Mxm-028 or Mxm-029) as appropriate.

All electrical wiring installation work should be carried out in accordance with the code of practice applicable in the country of installation.

To maintain electrical integrity of the SELV wiring on the output lines all SELV wiring should be segregated from the LV mains wiring and be wired using cable with insulation suitable for the application.

To minimise the effects of EMC interference all data wiring circuits should be wired with a twisted pair of conductors with a cross sectional area suitable for the loading conditions.

In areas where cabling may come into contact with high frequency interference, such as portable radio transceivers etc. the output wiring cable should be of a twisted pair construction within an overall screen. The screen should be terminated to one of the dedicated earth studs available in the panel (refer to panel manual for positions).

NB: Minimum / Maximum cable size for all connections is limited to 0.35mm² / 2.5mm² (22-14AWG).
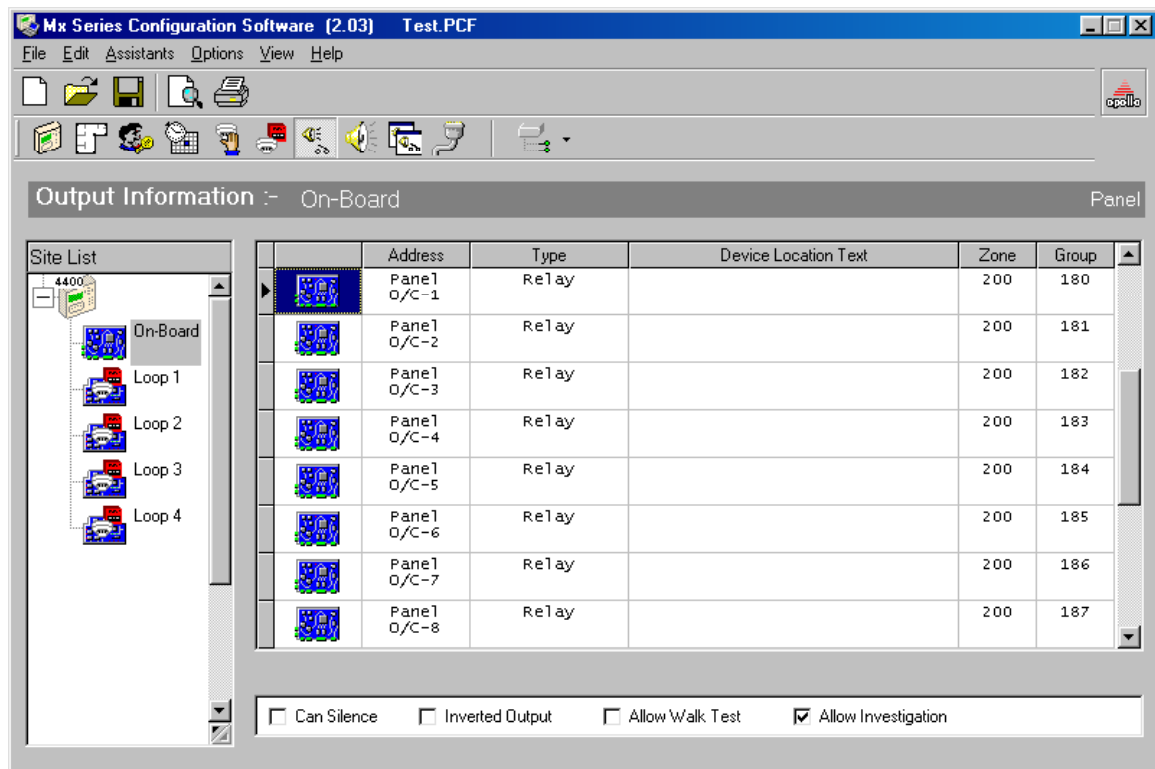
Program the Relay Outputs.

Each relay output can be independently programmed in the same way as other outputs on the panel.

On the PC configuration software the outputs are under the "On-board" devices and shown as "Panel O/C-1" through to "Panel O/C-8".

O/C-1 and O/C-2 only for the Mxp-007

O/C-1 to O/C-8 for the Mxp-008

By default, the relays are all in the same Output Group, 199, but this can be changed as required. In the example below, the relays have been assigned to groups 180 to 187. These output groups can be programmed as required. For a more detailed explanation of assigning output groups refer to PC Net manual, see document reference 680-021.

The properties that can be assigned to each relay output are depicted in the boxes on the lower toolbar. By ticking the appropriate box, the relay will take on those assigned properties.

Can Silence:

If this parameter is ticked, the relay will behave in a similar manner to a sounder circuit output. It will energise as defined by their "Output Group" setting and de-energise when the "Silence" key is pressed.

Inverted Output:

If this parameter is ticked, the relay will behave in a manner similar to a "Fault" relay output and will be normally energised in its quiescent state and de-energised when its "Output Group" setting is activated.

Allow Walk Test:

If this parameter is ticked, the relays assigned with this parameter will be allowed to energise when a "Walk Test" with ring bells option is enabled.

The relay will energise for a short time, along with the bells / sounders, when a walk test alarm is generated.

Allow Investigation:

If this parameter is ticked, the relay will follow the programmed output stage 1 delay timer and delay its operation while the cause of the alarm is investigated.