

TM

Installation Instructions

Manual 5 - Alarm Output Module

PY-AOW

Use this manual in conjunction with :

- Manual 1 : Operating Instructions
- Manual 2 : Network Wiring

The manuals supplied with the separate items in your system

Please read this manual completely before installing your Alarm Output Module

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Product Safety

Please follow these instructions as you install your Pyramid module and keep them for future use. If you have any problems contact your Baxall agent.

WARNING: Installation is only to be carried out by competent, qualified and experienced personnel

WARNING: Wire in accordance with your national wiring regulations. Failure to do so can result in injury or death by electric shock

WARNING: Use a class 2 isolated power supply for the 12V DC

Glossary Definitions

Mains - This refers to the mains supply voltage labelled on your alarm output module power supply.

For the purpose of these instructions LIVE and NEUTRAL refer to mains power connections, SUPPLY and RETURN refer power connections for AC voltages other than mains, and POSITIVE and 0V refer to DC power connections.

For the Purpose of these instructions SUPPLY and RETURN are used as generic terms to refer to SUPPLY and RETURN, LIVE and NEUTRAL or POSITIVE and 0V respectively.

An application is the equipment that you are connecting to an alarm relay.

Product Reliability

CAUTION: Your module is susceptible to damage from Electrostatic Discharge (ESD)). Take normal ESD precautions when handling your network card. ESD prevention kits are available from most electronics distributors.

CAUTION: Do not exceed the voltage and temperature limits given in the specification.

CAUTION : Switch off the power before fitting a network card.

Electromagnetic Compatibility (EMC)

CAUTION : This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CAUTION : If you are using the PCB version of this product in way other than correctly installed in our Pyramid System weather-proof boxes, then it is your responsibility to meet EMC requirements.

This product is intended for use in general purpose CCTV applications in a residential, commercial or light industrial EMC environment, refer to Baxall Security before using the product in an industrial EMC environment.

The product must be installed in accordance with good installation practice for EMC to enable the product to function as intended and to prevent EMC problems.

Contact Baxall Security Technical Support Department to obtain a specification defining the acceptable levels of product degradation with regard to EMC immunity.

MANUFACTURER'S DECLARATION OF CONFORMANCE

CAUTION : The declaration of conformance applies only to the boxed version and PCBs which are correctly installed in our Pyramid System weatherproof box.

Baxall Security Ltd declare the Pyramid module supplied with this manual is compliant with the essential protection requirements of the EMC directive 89/336 and is tested to the requirements of standards EN 55022 for emissions and IEC801 parts 2, 3 and 4 for immunity. The product has been approved in accordance with TCF95/11/01.

Unpacking

Keep your packaging for use if your Alarm Output Module is stored for a time or needs to be returned for whatever reason. The packaging should contain:-

- *Your Alarm Output Module*
- *An A4 Module Description Sheet (for installation details)*
- *These Instructions*
- *Two identical bar-codes*

Check the product code on the serial number label. If you have an incorrect item or it is damaged then inform the suppliers and carriers immediately. If this is the case then do not attempt to use your Alarm Output Module.

These Instructions

The Pyramid alarm output module can be wired in a number of different configurations, because of this the instructions may seem complex.

Please note the following safety points:

WARNING : Each supply must be fused

Baxall recommend that you use only a single supply for all the relays.

Bar Coding

All the Pyramid modules are supplied with two identical bar-codes, remove one and affix it to the module description sheet, remove the other and affix it to the module.

The bar code gives the unique 48-bit module address. Make a careful note on your module description sheet of all your installation details and the location of the module. Then during subsequent installation using the Windows™ installation tool the module address can be entered (using a bar code reader) with the description.

We recommend that during a system installation you store the module description sheets in a ring-bound file, and keep them for reference after the installation is complete.

Your Alarm Output Module

General

The Alarm Output Module consists of 8 alarm output relays and related circuitry (see Figure 1). It is powered by +12V DC \pm 10% and has an anti-tamper switch. CON6 provides a fused supply for your relays.

CON6 on your alarm output module is provided for two reasons:-

Firstly if you are using an AC voltage as the supply for your relays then the RETURN input is linked via a snubber network to each of the relays (see Figure 2). These snubber networks prolong the life of the relays and prevent voltage spikes from reaching the supply.

Secondly it provides a fuse for general protection of your applications and your alarm output module PCB.

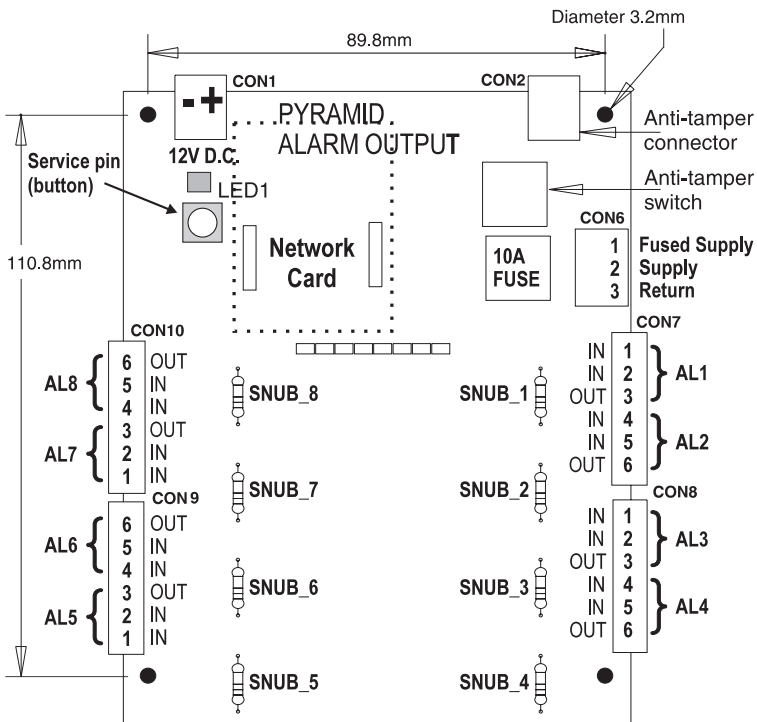


Figure 1. Alarm Output PCB Connections

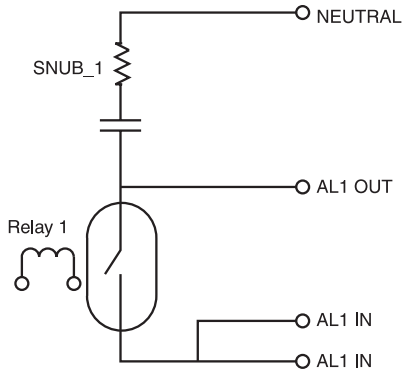


Figure 2. Internal relay circuit showing the snubber network

The External Terminal Block

A 5-way terminal block is provided on the metal base plate for connecting the mains and the earth. This leaves two spare terminals for using whilst wiring up your alarm output module.

Recommendations

Baxall recommend that you use only a single supply for all your output relays and if you do decide to use more than one supply then note the following warning:-

WARNING : You must ensure that each supply has an appropriate fuse in the line.

Baxall further recommend that if you are using more than one AC supply you should remove the snubber resistors (SNUB_1 to SNUB_8) for any relays using a supply whose RETURN wire is not linked to CON6 (see Figure 1).

Relay Power Connections

CAUTION : Maximum current for each relay connection is 1A. Connect infrared lamps separately

CON6 (FUSED SUPPLY, SUPPLY and NEUTRAL) accepts voltages up to 240V AC. The connector provides an in-line 10A fuse.

Single Supply (Recommended)

If you are using a single supply then connect the supply (positive or live) wire to SUPPLY on CON6 and the return (negative or neutral) wire to RETURN on CON6.

Connect the supplies for each of the 8 output relays from FUSED SUPPLY on CON6 to one of the AL IN connections for each output relay (both AL IN connections for the same relay are connected together on the PCB.)

Connect the AL OUT connections for each relay to your application.

Connect the return wires to the RETURN connection on CON6 using the spare terminals on the external terminal block.

Two or more Supplies

Use one of the supplies as instructed in the previous section (using CON6).

Connect any other supplies (with a fuse in-line) directly to their respective AL IN connections.

Connect the return wires from your applications to their respective power supplies

The resistors labelled SNUB_1 to SNUB_8 on figure 1 correspond to relays 1 to 8 respectively.

Without damaging the PCB, remove the SNUB resistor for any relay whose supply and return are not connected through CON6.

Other Connections

NETWORK

CAUTION : To avoid damaging your module switch off the power before fitting the network card

Switch off the power, fit a network card in the position indicated on figure 1.

Connect the cable provided from the network card to the filter board mounted on the metal base plate.

Connect the network to the filter card. The wiring diagram is included on the sheet provided with the network cards.

CON1

CON1 is for the PCB power connection. This power controls the switching of the relays and is already connected.

The PCB version requires a +12V DC \pm 10%, 250 mA class 2 power supply

If the polarity is correct when the power is switched on then LED1 (see figure 1) will be green. It will appear red for an incorrect polarity.

CON2

CON2 is for an anti-tamper switch input. It is connected in parallel with the anti-tamper switch shown on figure 1. The anti-tamper switch has a spring fitted and so you cannot use CON2 (unless you first remove the spring). CON2 is a normally closed (N/C) anti-tamper input.

If you are not using the built in anti-tamper switch then connect CON2 on figure 1 to your anti-tamper switch in a N/C configuration.

Mains Power

WARNING : Ensure that the power is switched off before connecting the mains wires

WARNING : The module must be earthed

Connect the Live, Earth and Neutral wires from the mains supply to Live, Earth and Neutral on the terminal block mounted on the metal base plate.

Switching On

Check that all the wiring is correct and switch on the PCB power. Switch on any other power supplies you are using.

WARNING : Your alarm output module may now contain live voltages

LED Power Indicator

LED1 (see figure 1) indicates the polarity of the 12V DC. For correct polarity it is green, incorrect it is red.

Replacing the Lid

WARNING : Refit the lid securely to prevent unauthorised access

Tighten the four securing screws with an appropriate tool until they cannot be undone by hand. Do not exceed a torque of 4 Nm.

Maintenance

Once your alarm output module is correctly installed and commissioned it requires no routine maintenance.

Changing the Fuse

The fuse holder (see figure 1) contains a 10A A/S fuse for protecting the relay outputs.

To replace the fuse, switch off all power to the module, turn the top anti-clockwise using an appropriate tool, change the fuse and replace the top.

Specifications

Features

Bar coding for ease of installation

Automatic configure and remote setup

Anti Tamper switch detects opening of lid, also external connection provided.

All connections (except CON6, LIVE and NEUTRAL) removable screw terminal blocks

Network

Plug in network PCB, FTT10 (Standard) also Fibre, RS485

Relays

8 Output Relays N/O

Max 240 V at 1A

Fuse 10 Amp Anti-Surge

Power

Board Power 12V DC \pm 10%, 1A class 2

Relay Power max 240V AC, 10A

Physical

Weight 4.5 kg

PCB weight 0.4 kg

IP65 case

Size 280 x 280 x 130 mm

PCB size 125 x 100 x 40 mm (excluding mounting pillars)

Temperature Specification

Operational temperature limits:-

-10°C to +50°C at 10% to 80% relative humidity (non-condensing)

Storage temperature limits:-

-20°C to +60°C at 10% to 95% relative humidity (non-condensing)

Baxall Security Limited.

Stockport, England

Baxall Security Ltd. Reserve the right to make changes to the product and specification of the product without prior notice to the customer.