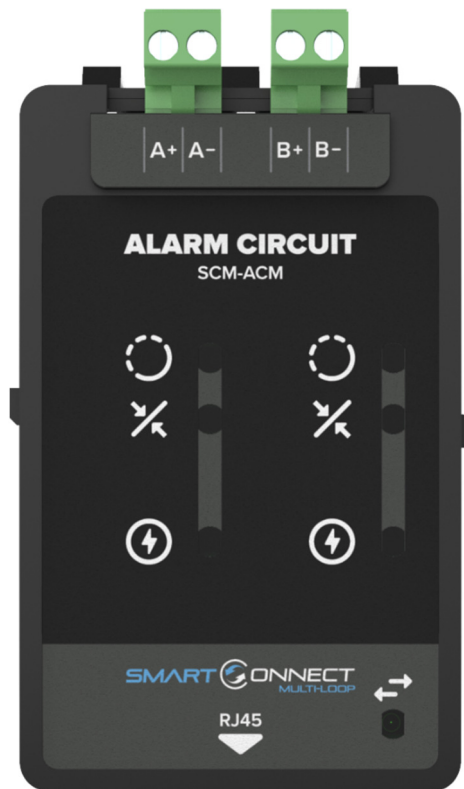


ALARM CIRCUIT MODULE INSTRUCTION MANUAL



SCM-ACM

General

The SCM-ACM is a plug-in sounder module for the Smart Connect Multi-loop panel. It has two sounder circuits rated at 500mA. Each circuit is supervised for open, short and earth fault conditions.

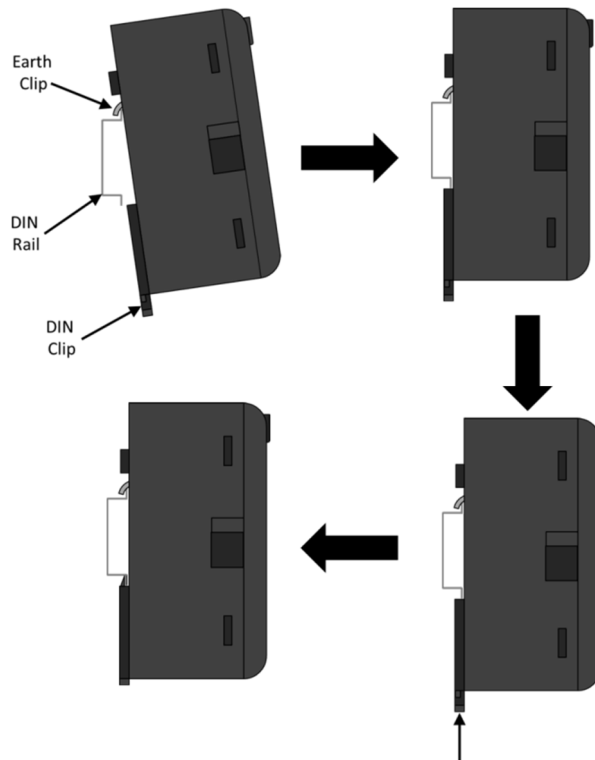
An additional feature of the SCM-ACM module is that it has the ability to program a circuit as a 24V auxiliary output, which can be used to provide power to external equipment.

Installation

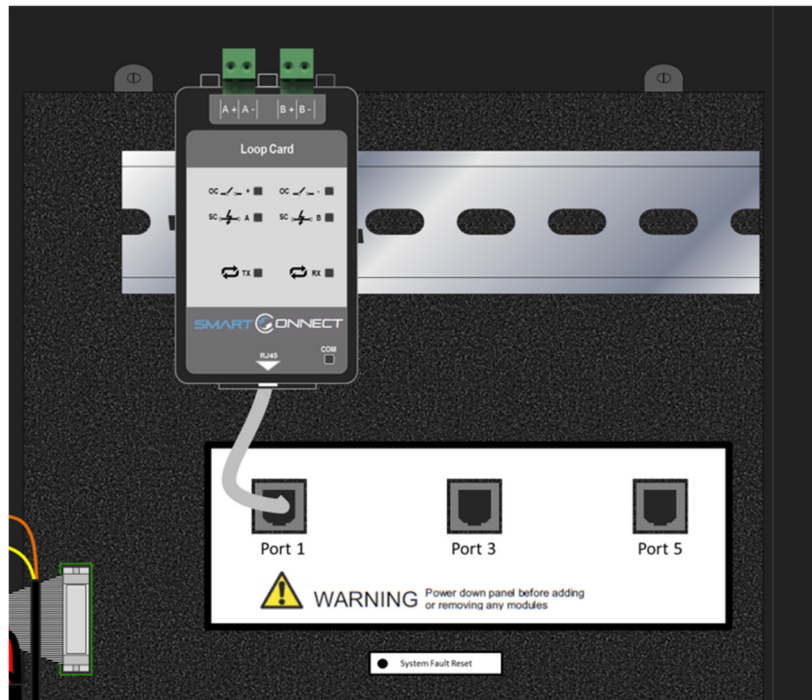


ATTENTION: THE PANEL MUST BE POWERED DOWN AND DISCONNECTED FROM THE BATTERIES BEFORE INSTALLING OR REMOVING ANY MODULES.

1. Ensure that the installation area is free from any cables or wires that may get caught, and that there is enough space on the DIN rail to mount the module. Also ensure that the DIN clip underneath the module is in the open position.
2. Place the module onto the DIN rail, hooking the metal earth clip underneath onto the rail first.
3. Once the earth clip is hooked, push the bottom of the module onto the rail so that the module sits flat.
4. Push the plastic DIN clip (located at the bottom of the module) upwards to lock and secure the module into position.



5. Once the module is secured to the DIN rail, simply connect the supplied CAT5E cable to the module's RJ45 port.
6. Connect the other end of CAT5E cable to the nearest unoccupied RJ45 port on the termination PCB.



TRM RJ45 Port Address Designation

Each RJ45 port on the Smart Connect Multi-loop termination has its own unique port address. This port address is important to keep note of as it is displayed on Alarm/Fault messages and is used when configuring or setting up cause and effects on the panel (See SCM operation manual GLT-261-7-10).

Securing the modules

The modules are designed to clip together to make them more secure. In addition, the SCM panel is supplied with Din rail stoppers. These should be fitted before the first module, and after the last module on each rail.

Before Powering the Panel On

1. To prevent the risk of a spark, do not connect the batteries. Only connect the batteries after powering on the system from its main AC supply.
2. Check that all external field wiring is clear from any open, shorts and ground faults.
3. Check that all the modules have been installed properly, with correct connections and placement
4. Check that all switches and jumper links are at their correct settings.
5. Check that all interconnection cables are plugged in properly, and that they are secure.
6. Check that the AC power wiring is correct.
7. Ensure that the panel chassis has been correctly earth grounded.

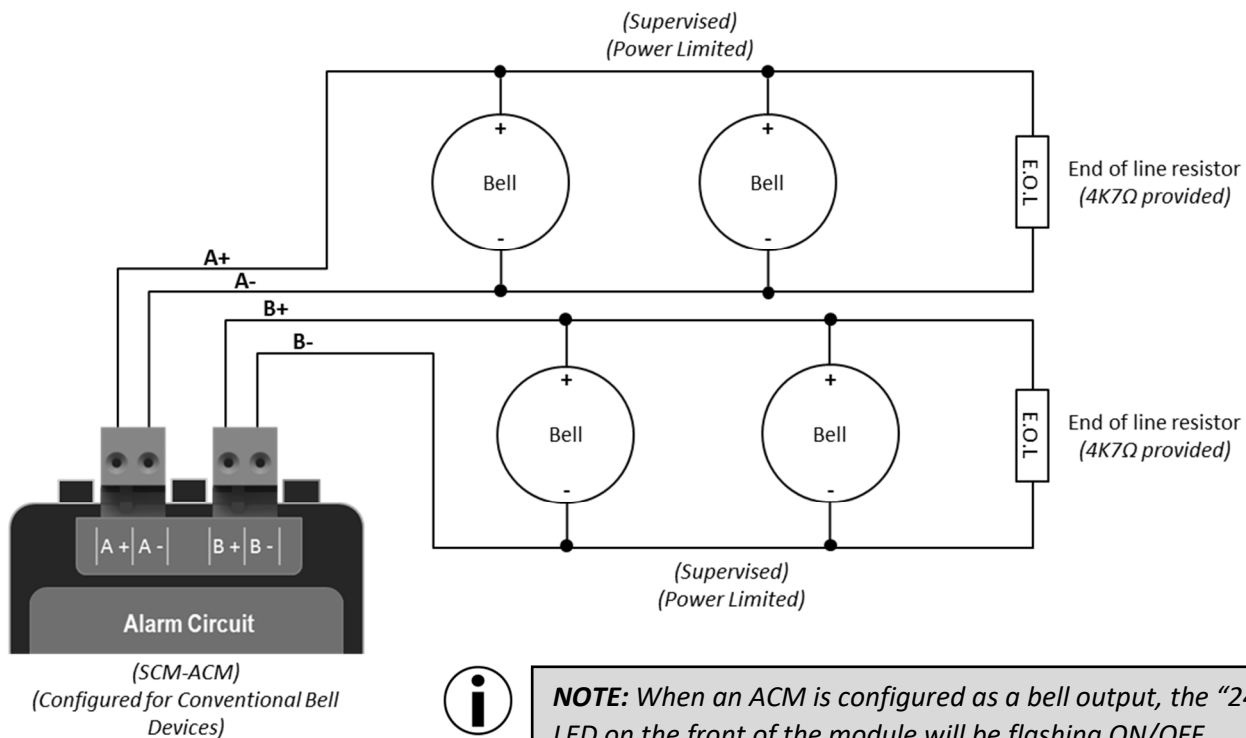
Before powering on from the main AC supply, make sure that the front panel door is closed

Power on Procedure

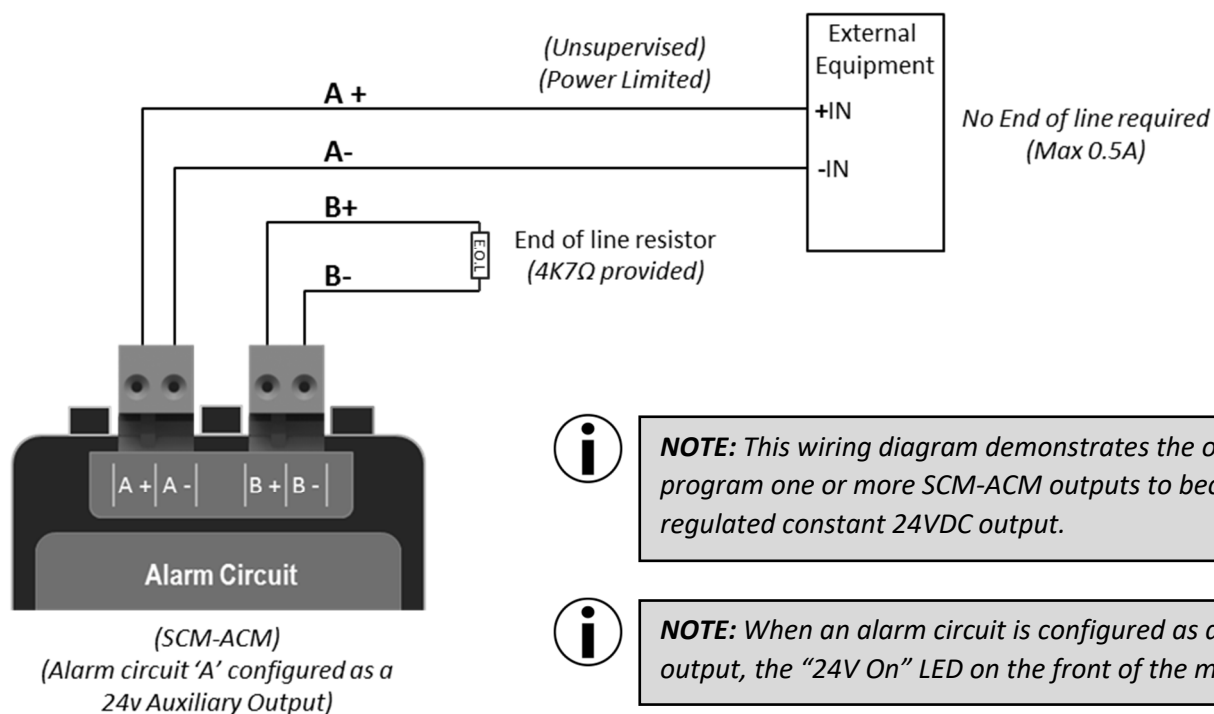
1. After the above has been completed, turn the panel on (Via AC Only). The panel will follow the same power up sequence described in initial power up section above
2. The panel will now display one of the following messages

Message	Meaning										
 No Modules	Panel has not detected any modules fitted during its power up check. Power down the panel and check that the expected modules are fitted, and that all module cables are correctly inserted. Note that the panel will need at least one module fitted to run.										
<table border="1"> <tr><td>001</td><td>New module : SOUNDER CLASS B</td></tr> <tr><td>002</td><td>Empty port</td></tr> <tr><td>003</td><td>Empty port</td></tr> <tr><td>004</td><td>Empty port</td></tr> <tr><td>005</td><td>Empty port</td></tr> </table> ✓ ⏮ ⏭	001	New module : SOUNDER CLASS B	002	Empty port	003	Empty port	004	Empty port	005	Empty port	The panel has detected a new module added to a port that was previously empty. This is the usual message seen the first time a panel is configured
001	New module : SOUNDER CLASS B										
002	Empty port										
003	Empty port										
004	Empty port										
005	Empty port										
<table border="1"> <tr><td>001</td><td>Changed module : SOUNDER CLASS B</td></tr> <tr><td>002</td><td>Empty port</td></tr> <tr><td>003</td><td>Empty port</td></tr> <tr><td>004</td><td>Empty port</td></tr> <tr><td>005</td><td>Empty port</td></tr> </table> ✓ ⏮ ⏭	001	Changed module : SOUNDER CLASS B	002	Empty port	003	Empty port	004	Empty port	005	Empty port	The panel has detected a different type of module fitted to a port that was previously occupied.
001	Changed module : SOUNDER CLASS B										
002	Empty port										
003	Empty port										
004	Empty port										
005	Empty port										
<table border="1"> <tr><td>001</td><td>Serial Number Changed : LOOP</td></tr> <tr><td>002</td><td>Empty port</td></tr> <tr><td>003</td><td>Empty port</td></tr> <tr><td>004</td><td>Empty port</td></tr> <tr><td>005</td><td>Empty port</td></tr> </table> ✓ ⏮ ⏭	001	Serial Number Changed : LOOP	002	Empty port	003	Empty port	004	Empty port	005	Empty port	The panel has detected a module fitted to a port that is the same type, but it's serial number has changed. This could happen if a loop module was swapped with another one, for example.
001	Serial Number Changed : LOOP										
002	Empty port										
003	Empty port										
004	Empty port										
005	Empty port										
<table border="1"> <tr><td>001</td><td>Removed Module : LOOP</td></tr> <tr><td>002</td><td>Empty port</td></tr> <tr><td>003</td><td>Empty port</td></tr> <tr><td>004</td><td>Empty port</td></tr> <tr><td>005</td><td>Empty port</td></tr> </table> ✓ ⏮ ⏭	001	Removed Module : LOOP	002	Empty port	003	Empty port	004	Empty port	005	Empty port	The panel has detected no module fitted to a port that was previously occupied.
001	Removed Module : LOOP										
002	Empty port										
003	Empty port										
004	Empty port										
005	Empty port										
	The panel has detected no module changes, so has powered up and started running										

Typical Wiring Diagram – Bell Devices



Typical Wiring Diagram (Auxiliary 24VDC) – External Equipment



Wiring recommendations

The SCM-ACM circuits are rated for 500mA each. The table shows the maximum wire run in metres for different wire gauges and alarm loads.

Wire Gauge	125mA Load	250mA Load	500mA Load
18 AWG	765 m	510 m	340 m
16 AWG	1530 m	1020 m	680 m
14 AWG	1869 m	1246 m	831 m



RECOMMENDED CABLE:

Cable should be BS approved FPL, FPLR, FPLP or equivalent.

Front Unit LED Indications

LED Indication	Description	LED Indication	Description
	Flashing yellow when a wire break in the circuit is detected.		Flashing green when the module is programmed as an unsynchronized bell output.
	Flashing yellow when a short in the circuit is detected.		Solid green when the module is programmed to provide a 24v auxiliary output.
			Pulses to show communication between the module and the motherboard.

Specifications

Specification	SCM-ACM
Design Standard	EN54-2
Approval	LPCB (Pending)
Circuit Voltage	29VDC Nominal (19V – 29V)
Circuit Type	Regulated 24V DC. Power limited & Supervised.
Maximum Alarm Circuit Current	2 x 500mA
Maximum Aux 24V Current	2 x 400mA
Maximum RMS current for a single sounder device	350mA
Maximum Line Impedance	3.6Ω total (1.8Ω per core)
Wiring Class	2 x Class B [Power limited & Supervised]
End of Line Resistor	4K7Ω
Recommended cable sizes	18 AWG to 14 AWG (0.8mm ² to 2.5mm ²)
Special Applications	24V auxiliary voltage output
Operating Temperature	-5°C (23°F) to 40°C (104°F)
Max Humidity	93% Non-Condensing
Size (mm) (HxWxD)	105mm x 57mm x 47mm
Weight	0.15KG

Compatible Warning Devices

Alarm Circuit Devices	
ZXT	Xtratone Conventional Wall Sounder
ZXTB	Xtratone Conventional Combined Wall Sounder Beacon
ZRP	Conventional Raptor Sounder
ZRPB	Conventional Raptor Sounder Beacon

Maximum Warning Devices per Circuit

Some of the above warning devices have selectable settings for sound and beacon output. Please refer to the device manuals to calculate the maximum number allowed on each alarm circuit.