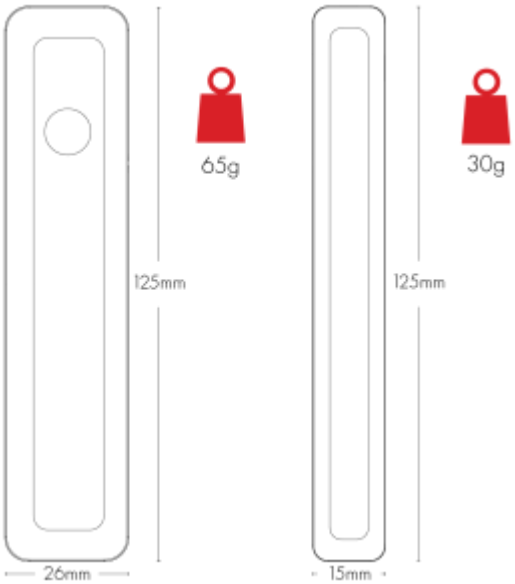
MC1Z2/SHOCK-WE - Installation Guide

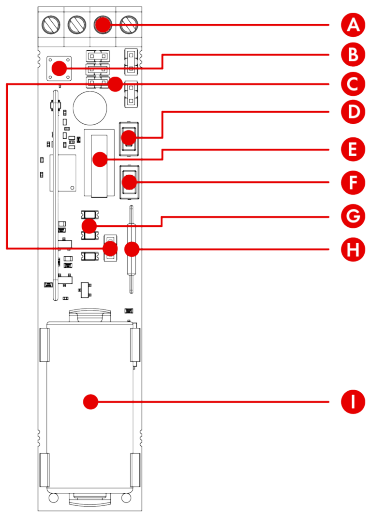
Specification



Specification	Value
Dimensions and weight (W x H x D)	Device 26 x 125 x 28mm, 65g Magnet 15 x 125 x 16mm, 30g
Casing / Colour	2.5mm ABS, white
LED colours	Red, blue and green
Transmission frequency	868MHz FM transceiver narrow band
Transmission method	Fully encrypted rolling code
Battery	3.0V CR123A lithium battery
Low battery threshold	2.5V ± 5% @ 25°C
Temperature	Storage: -20°C to 50°C Operating: -10°C to 40°C
Standards	EN50131-1:2006+A3:2020 EN50131-2-6:2008 EN50130-5:2011 EN50131-5-3:2017 PD6662:2017
RoHS Directive	EU 2015/853 | UK RoHS regulation 2012
RE Directive	2014/53/EU | Radio Equipment Regulations 2017 (RED)
Emissions	EN 55032:2015+A11:2020

Emissions	EN 55032:2015+A11:2020
Immunity compliance	EN 50130-4:2011+A1:2014
Environmental class	II

PCB Overview



A. Terminals for external inputs

B. Shock sensitivity button

C. Jumper headers

D. Contact/zone 2 learn button

E. Tamper switch

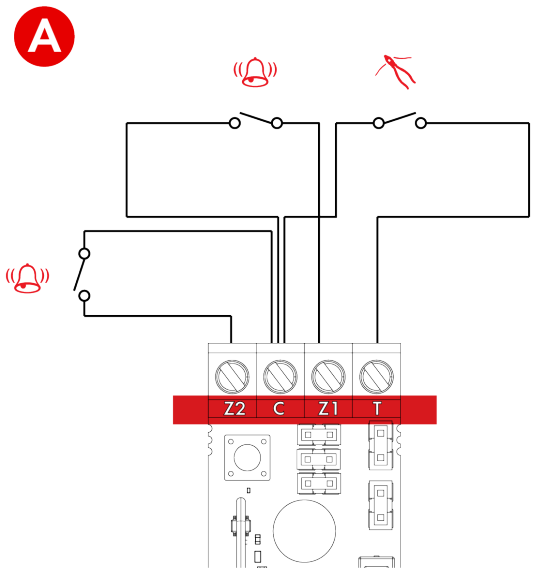
F. Shock/zone 1 learn button

G. LEDs

H. Reed switch

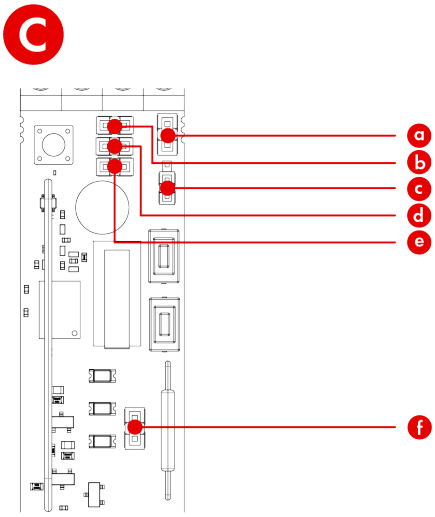
I. CR123A battery (replaceable)

A. Terminals



The device has four terminals that can be wired to utilise external inputs. The inputs must be wired in a double pole configuration between the common (C) and the zone/tamper terminal.

C. Jumper header overview



a. Zone 1 external input enable/disable

b. Supervision retries enable/disable

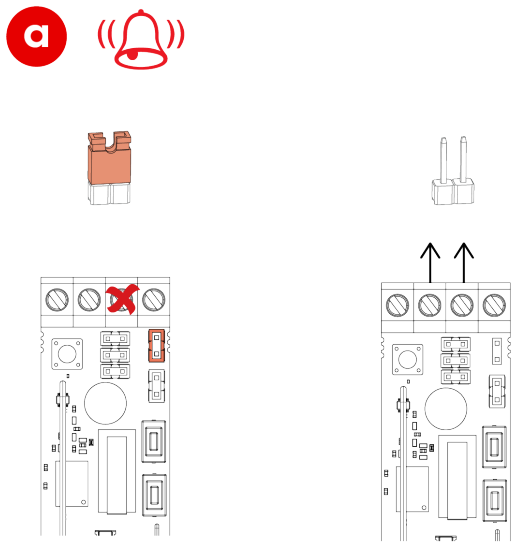
c. Zone 2 input type selector

d. External tamper enable/disable

e. Internal tamper enable/disable

f. Reed switch enable/disable

Jumper information

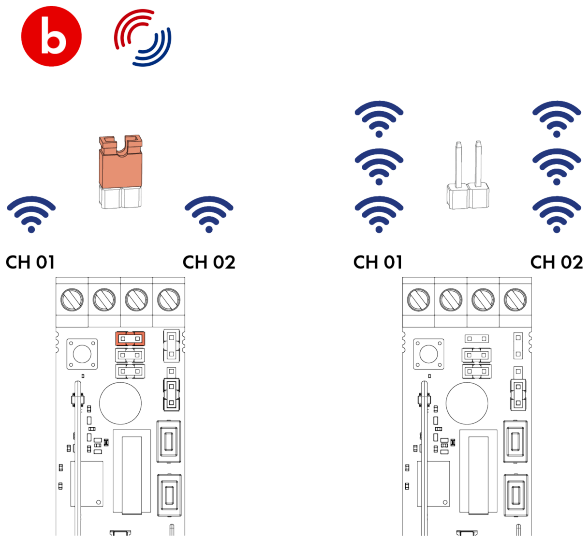


a. Zone 1 external input enable/disable

When this two pin header is linked out with a jumper, the Z1 terminal is disabled.

This should be left linked out if the shock sensor feature is being utilised on its own.

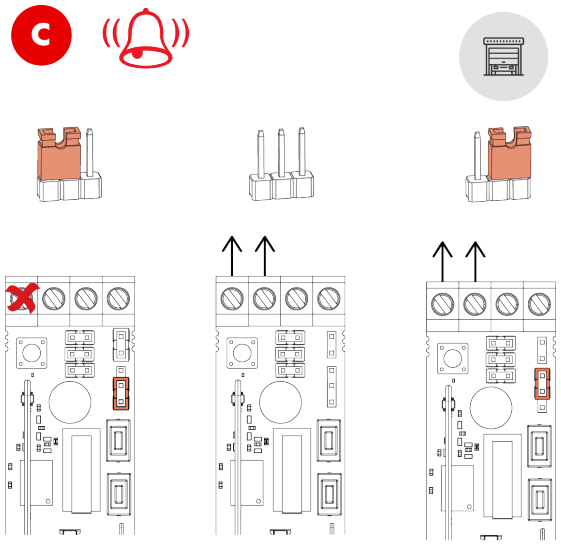
If the link is removed, the device can be activated by either external input or shock.



b. Supervision retries enable/disable

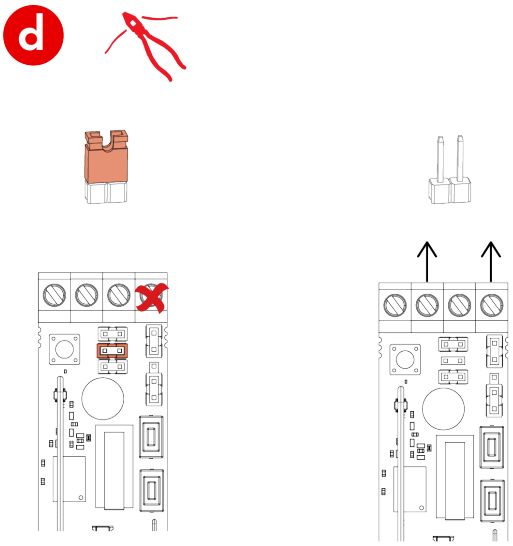
This header is used to determine the number of times the device will poll trying to get a supervision acknowledgment from the panel.

If this header is linked out, the device will poll to the panel once on each channel every 5 minutes. Otherwise, the device will poll on each channel a maximum of 3 times on each channel.



c. Zone 2 input type selector

This is used to determine the type of input



d. External tamper enable/disable

Putting a jumper on this two pin header

for zone 2.

Descriptions below are given holding the device vertical with the battery to the bottom.

Bottom 2 pins linked

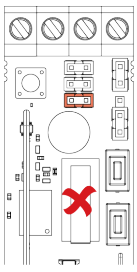
The external input is disabled.

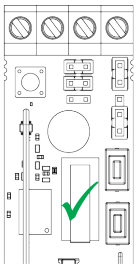
No pins linked

Double pole external input wired to Z2 terminal.

Top 2 pins linked

External roller shutter input wired to Z2 terminal.

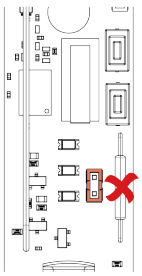


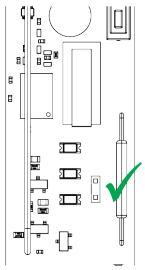


e. Internal tamper enable/disable

Linking this two pin header out with a jumper disables the internal front and rear case tampers on the PCB.

disables the T terminal.

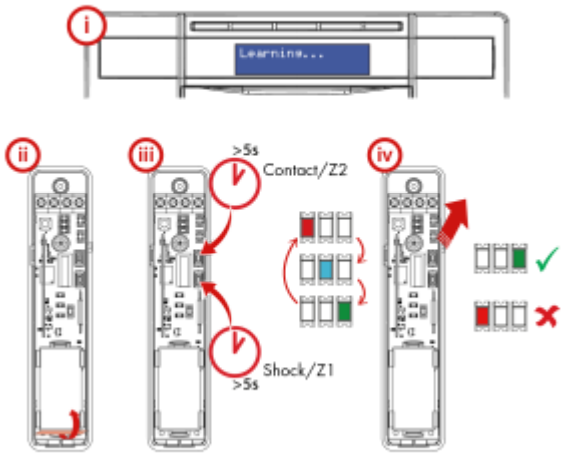




f. Reed switch enable/disable

The two pin header next to the reed switch is used to disable it. This is generally used when the external zone input is being utilised.

Wireless Device Control



i. Prepare the system for pairing with the device.

– Please refer to control panel instructions.

ii. Remove the piece of polyester film that is separating the battery from the battery contacts.

iii. Press and hold the ‘learn button’ on the device for at least 5 seconds and then release.

– To learn the shock sensor or zone 1 external input, press the bottom button.

– To learn the magnetic contact or zone 2 external input, press the top button.

– The three LEDs will cycle through on the device whilst the button is held.

iv. On releasing the learn button, the device attempts to pair with the system and will indicate via the LEDs whether it has been successful or failed.

– The red LED will flash 5 times to indicate the device has successfully paired zone 1 with the system and has adequate signal.

– The green LED will flash 5 times to indicate the device has successfully paired zone 2 with the system and has adequate signal.

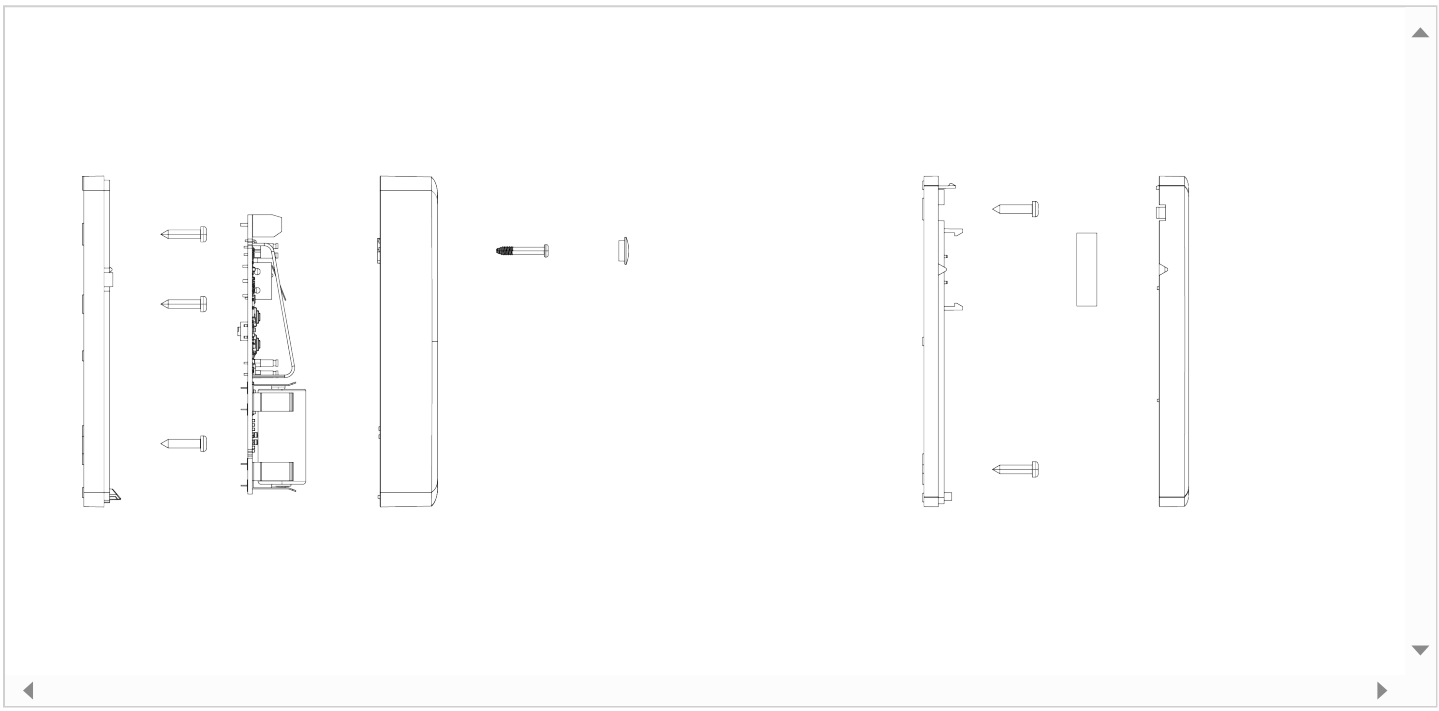
– If the device fails to pair with the system, the device will return to the alternating flashing green and red.

Programming

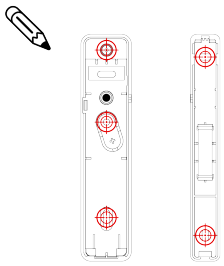
Once learnt to the system, the zone or zones need to be programmed so that the system responds as intended when the device is triggered.

Please note: Refer to the installation or programming guides provided with the control panel for advice.

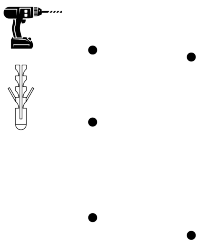
Installation



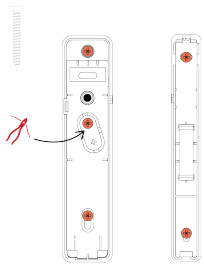
Physical installation of device and magnet



Mark where the device and the magnet are to be installed.



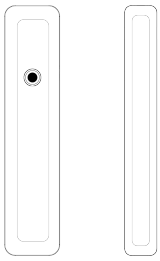
If the device is to be installed in a brick or plaster wall, drill out the holes and insert the appropriate wall plugs.



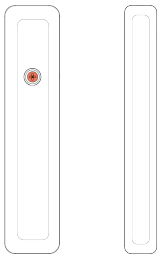
Securely affix the device and magnet. In order to comply with

standards, the centre screw through the knock out must be utilised.

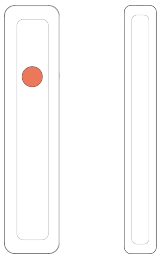
Insert the F magnet is l switch and headers (https://ww we/docum guide#C.+.



Place the covers on top of the device and the magnet



Secure the top of the device with the screw.



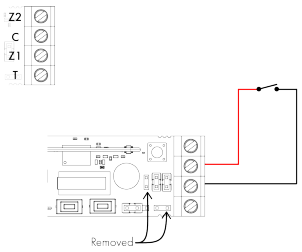
Cover the screw hole with the cover provided.

Installation using external input terminals

For any of the configurations utilising the external alarm circuit input, the reed switch of the device should be linked out. See section “C. Jumper headers (https://www.support.pyronix.com/uk/product/mc1z1-we/documentation/mc1z2-shock-we-installation-guide#C.+Jumper+header+overview)”.

Please note: The colours for the circuits below are indicative and not the colours required to make the circuit work.

Zone 1 Alarm Circuit Only

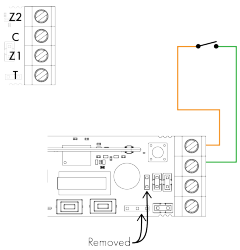


Remove the jumper to enable the internal tamper switches.

Remove the jumper to enable the Z1 terminal.

Wire a normally closed circuit between the Z1 and C terminals.

Zone 2 Alarm Circuit Only

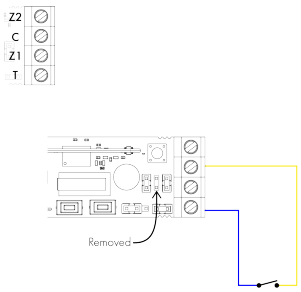


Remove the jumper to enable the internal tamper switches.

Remove the jumper to enable the Z2 terminal.

Wire a normally closed circuit between the Z2 and C terminals.

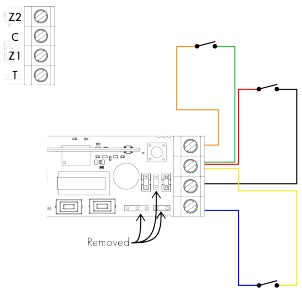
Tamper Circuit Only



Remove the jumper to enable the external tamper terminal.

Wire a normally closed circuit between the T and C terminals.

Zone 1, 2 and Tamper Circuit



Remove the jumper to enable the external tamper terminal.

Remove the jumpers to enable the Z1 and Z2 terminals.

For external tamper protection of this device, or the tamper protection of an external input, wire a normally closed circuit between the T and C terminals.

For the first external input, wire a normally closed circuit between the Z1 and C terminals.

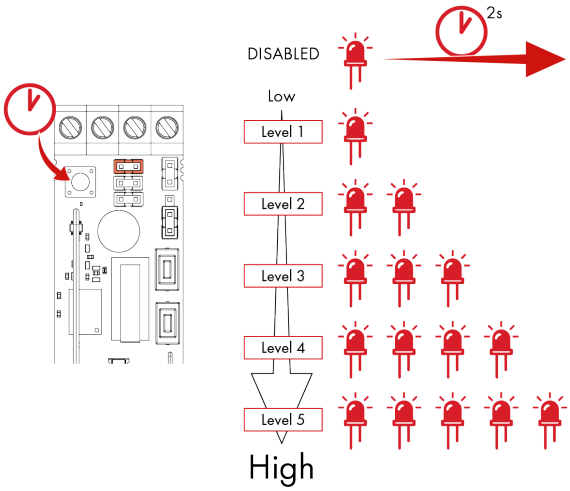
For the second external input, wire a normally closed circuit between the Z2 and C terminals.

Shock Sensitivity

The shock has 5 levels of sensitivity, 1 being the lowest and 5 the highest. It also has the capability if being completely disabled as well.

Follow these steps to set the sensitivity:

1. Press and hold the button positioned at the top left corner of the PCB.
2. The red LED will flash, pause for a second, and then flash again.
3. The number of flashes indicate the sensitivity level that the device is set to. After the pause, it will move to the next level until it reaches 5 flashes.
4. After 5 flashes, the LED will illuminate for 2 seconds indicating that the shock sensor is disabled. If the button is still pressed, the cycle is restarted at level 1.
5. Release the button at the number of flashes (level) required.



A short press of the button will indicate the sensitivity level that the device is currently set to. It will indicate this by flashing the red LED between 1 and 5 times.

Wiring in a Roller Shutter

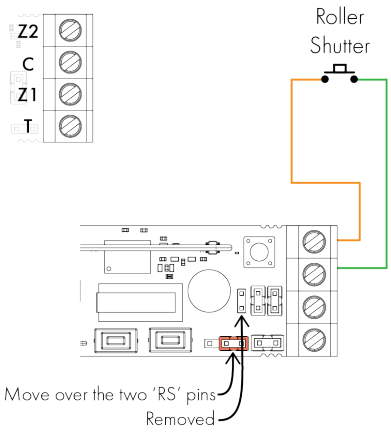
Remove the jumper to enable the internal tamper switches.

Move the jumper over from the two pins linking out Z2, so that it now links the RS pins.

Wire the roller shutter circuit between the C and Z2 terminals.

When the device is configured in ‘roller shutter mode’, it requires 7 activations to trigger the zone into alarm. These 7 activations have to be sequential without a 30 seconds period of inactivity. If 30 seconds elapses without an activation, the counter will reset to 0.

E.g if all 7 activations are 29 seconds apart, the device will trigger into alarm.



Calibration Mode

For the first 5 minutes after the device is powered up, the device enters calibration mode. This allows the installer to check that the zones are triggering as intended.

During this period, the blue alarm LED is disabled whilst the green and red LEDs indicate whether zone 1 or zone 2 are being triggered:

The red LED will flash when the shock or the external wired input into zone 1 is triggered.

The green LED will flash when the reed switch or the external input wired into zone 2 is triggered.

After this period of 5 minutes, up until an hour has passed, the blue alarm LED will light up if any of the shock sensor, reed switch or external inputs are triggered.

After 1 hour from power up, all LEDs on the device will be disabled however, this sequence can be initiated again by tampering the device.

Battery Information

The batteries supplied have been chosen to provide long service life whilst, for safety reasons, having limited output current.

The battery is protected on purchase by a piece of plastic that must be removed for operation. When disposing of the product, the battery must be removed and disposed of separately in accordance with the local regulations.

Product Warning Information

For electrical products sold within the European Community. At the end of the electrical products life, it should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice in your country.

To prevent possible damage to components, any static charge on your body needs to be eliminated before touching the inside of the unit. This can be accomplished by touching some grounded/earthed metallic conductor such as a radiator/pipework immediately before replacing the batteries.

Warranty

This product is sold subject to our standard warranty conditions and is warranted against defects in workmanship for a period of two years (battery excluded). In the interest of continuing care and design, Pyronix Ltd reserves the right to amend specifications, without giving prior notice. Please see the control panel programming manuals for further information or visit: www.pyronix.com/uk/terms-conditions-sales/ (http://www.pyronix.com/uk/terms-conditions-sales/)