Scope

This guide provides the instructions for mounting the CRC22x plastic enclosure, connecting a mains supply to it and providing 12VDC power to locking devices.

These instructions apply to the following products:

CRC221-48-ENC-1

CRC221-48-ENC-2

CRC220-48-ENC-2

CRC220-48-ENC-4

The CRC22x Quick Installation Guide provides concise information on configuring the CRC220 and CRC221, connecting RS485 communications cables, attaching readers and wiring the main inputs and outputs to the CRC220 and CRC221 PCB's. Refer to the CRC22x Installation Manual for an explanation of all features of the controllers and a full explanation of the wiring options.

Overview

This range of aesthetically pleasing controllers is designed for easy installation in indoor locations. The enclosure includes a 12VDC, 3A power supply unit with individually fused outlets for powering locking devices. It can also support battery backup without any additional equipment (except the battery, which must be supplied by customer).

The enclosure is fitted with a tamper alarm and there are several optional interfaces for linking to third party fire and security systems/components.

Mounting the CRC220 Enclosure

Choose a location where there is sufficient space to run cables into one or more of the cable apertures (knockouts provided in top and bottom).

Loosen the cover retaining screws and lift off the front cover. Use appropriate screws and fixings through the 3 mounting holes in the back panel of the enclosure (shown with dimensions in Figure 1) to fit the enclosure to the mounting surface. An optional fourth hole is provided at the bottom of the back panel if extra stability is necessary.
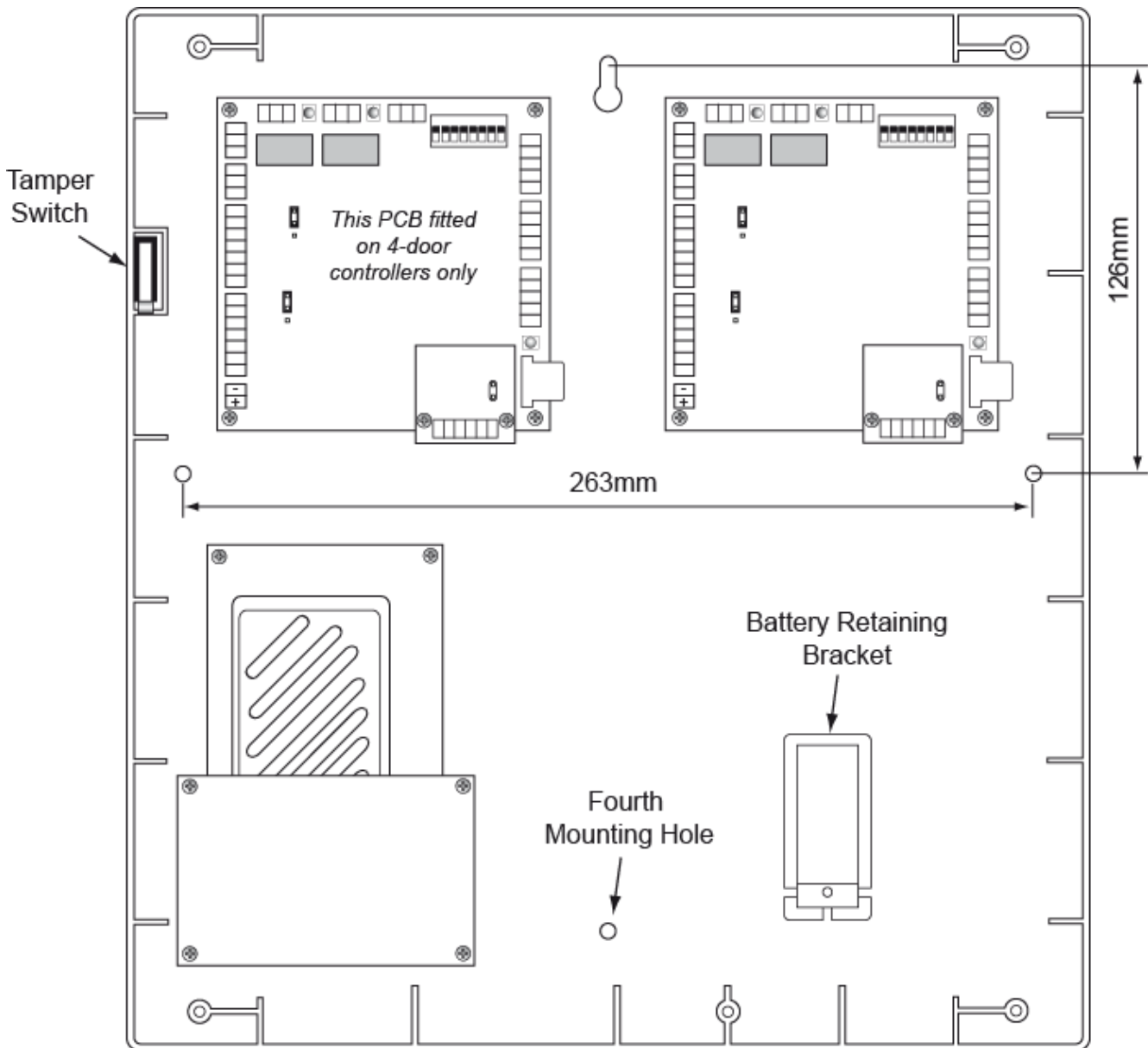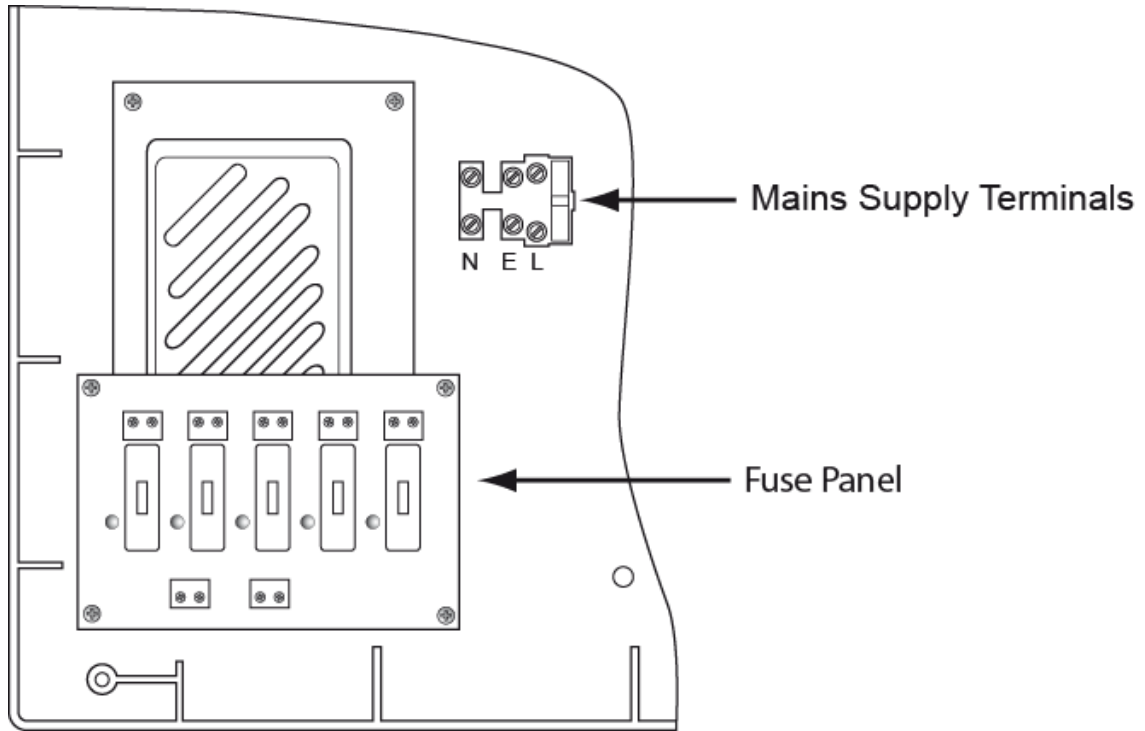
Figure 1

Connecting Power to the CRC22x Enclosure

The enclosure is fitted with an integral 12VDC, 3A power supply unit. Cable the fused mains terminals within the enclosure (see Figure 2) to a suitably fused 240VAC power supply using appropriate mains cabling.

Do not switch on the mains power before the unit is fully installed. Always disconnect the mains supply before working on any part of the unit.

Figure 2

Connecting 12V DC Power to Locking Devices

The fuse panel (see Figure 3) has five 12-volt DC outputs. Each output is protected by a 1A cartridge fuse (20mm glass bodied, quick-blow). Output 1 supplies power to the CRC22x PCB's (and the attached readers). Outputs 2 to 5 are available for powering locking devices. Each fuse holder is accompanied by an LED that will light if the fuse has ruptured or is missing when a load is connected to the output.
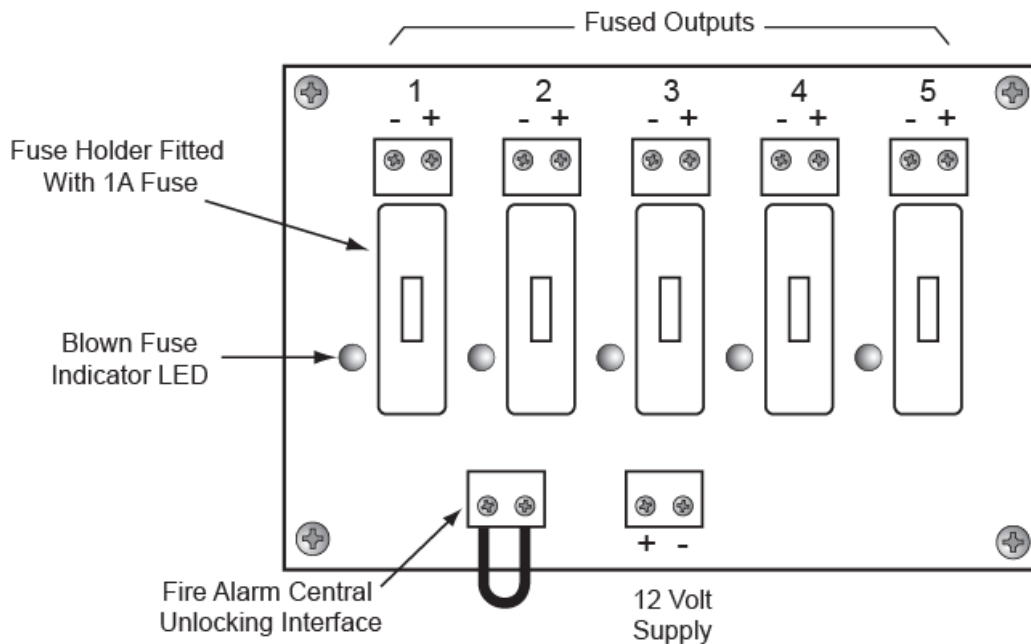
Figure 3

Where fail-safe locking devices are used (unlocked upon power failure), it is possible to enable a fire alarm panel to unlock all doors by disconnecting power from all locking devices (outputs 2 to 5) in the event of a fire. The fire alarm panel needs to have a normally closed, voltage free relay contact that opens when the fire alarm is sounded. Remove the wire link from the fire alarm interface and connect the terminals to each side of the normally closed contacts using a suitable cable.

Note: In addition to this feature, the controller has a fire alarm input, which when activated, causes all doors on the system to be unlocked (both fail-safe and fail-secure) using the door release contacts. For this to operate, all controllers need to be online to Norpas3 (refer to CRC22x Installation Manual).

Battery Backup

If a battery is to be fitted, it must be a sealed lead-acid rechargeable battery that can be mounted in the space to the right of the power supply unit. There is sufficient space to accommodate up to a 7 amp-hour battery (depending upon the model). Simply connect the spade connectors to the battery terminals.
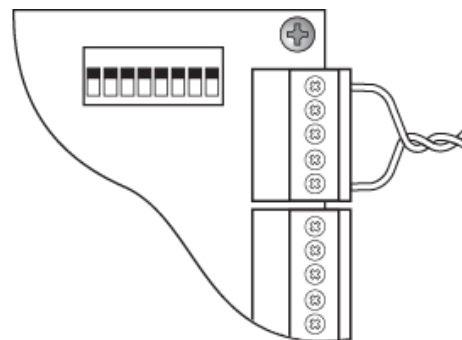
To avoid the risk of injury when the front cover is removed, the battery must be held securely inside the enclosure. A retaining bracket is attached the back panel of the enclosure (see Figure 1.) for this purpose. Carefully cut the 3 tabs to release the bracket and then use one of the supplied self-tapping screws to secure it to the hole just right of centre in the bottom edge of the enclosure.

Tamper Alarm

The tamper switch (shown in Figure 1) is wired to the tamper input of the CRC22x PCB. If the enclosure is fitted with two PCB's, the tamper switch is wired to the tamper input of the right-hand PCB. The tamper alarm input monitors the tamper switch, which has a closed contact when the front cover is fitted. When the front cover is removed, the contact opens and an alarm is raised. If you wish to use the tamper alarm, do not change the factory set connections. If two PCB's are fitted, the tamper input of the left-hand PCB is fitted with a wire jumper to simulate a closed contact thereby preventing false alarms. Do not remove this jumper.
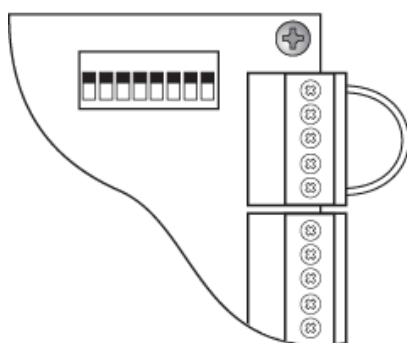
Left-hand PCB (if fitted)   Tamper Switch Input to Right-hand PCB