

NC941



One Zone Call Controller c/w PSU

THIS EQUIPMENT MUST ONLY BE INSTALLED AND MAINTAINED BY A SUITABLY SKILLED OR TECHNICALLY COMPETENT PERSON

GENERAL

The NC941 is a one zone call controller with a built-in mains to regulated DC power supply providing 250mA at 13.5V. An on-board buzzer, reset button and LED indicator are provided, making it ideal for all types of single zone call communication applications including disabled persons toilet alarms. The NC941 is compatible with all 800 Series call points, ceiling pulls and remote sounders.

A remote battery back-up kit (part no. NC941B) can be connected to the NC941 to ensure it remains operational for a limited amount of time in the event of Mains failure.

OPERATION

The green 'ON' indicator indicates that the NC941 is powered up.

When a standard call is triggered at any device connected to the NC941 (*see wiring configuration diagram overleaf*), the buzzer will generate a constant tone and the red 'CALLING' LED will illuminate.

Once the nature of the call has been investigated, it can be cancelled by pressing the 'RESET' button on the front of the NC941. Standard calls can also be cancelled at the originating device itself (if it has a reset facility) or via a remote reset point (*see wiring configuration diagram overleaf*). If required, the NC941's 'RESET' facility can be disabled by removing link PLK1 on the PCB.

For call points with emergency trigger option:

If an emergency call is triggered, the NC941's buzzer will pulse and its red 'CALLING' LED will flash. Emergency calls override standard calls and can only be reset at the device from which they were generated.

The front of the NC941 may feel slightly warm. This is normal and does not affect the operation of the unit.

INSTALLATION

Location

The NC941 must be sited internally in an area where it is readily accessible by the person(s) designated to use it. The area should be clean and dry and the ambient light and sound levels should allow the status of the indicators and internal sounder to be seen and heard (please note, if required, overdoor lights and remote sounders can be connected to the NC941 to increase call indication levels). Any likelihood of tampering or vandalism should also be taken into account.

First Fix : Back Boxes

The NC941 must be fitted to a back box (minimum depth 25mm or 1") that is securely fixed to a wall. The back box, in conjunction with the front plate, comprises a fire compartment and therefore it must be made of a flame retardant material.

Any apertures must be sealed off so as not to compromise the integrity of the fire compartment. i.e any knockouts removed must be sealed with a flame retardant gland.

Any dust created during the fixing process must be kept out of the electrical and electronic systems, and care must be taken not to damage any wiring or components.

First Fix : Mains Wiring

The NC941 is a piece of Class 1 equipment and, as such, any metal parts used during installation (i.e. metal back box) MUST be earthed.

All mains wiring should be provided in accordance with the current edition of the IEE Wiring Regs, 16th Ed. (BS 7671 1993) or in accordance with the relevant national wiring rules.

The general requirement for the Mains supply to the NC941 is fixed wiring, using three core cables of not less than 0.75mm². This should be fed from an isolating

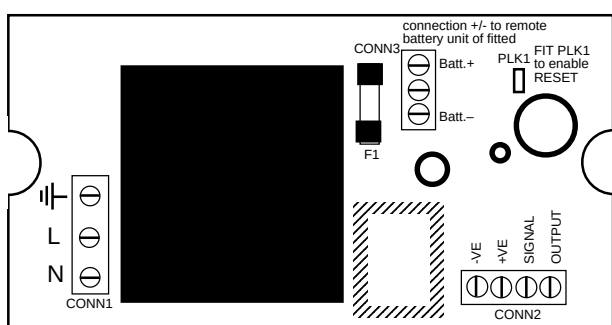
continued overleaf >>>

switched fused spur, fused at 3A, which is marked appropriately and secure from unauthorised operation. (As an alternative to a switched fused spur, any double pole isolating device with an air gap greater than 3mm when isolated may be used).

Live and neutral should be connected to the L and N terminals respectively. If a plastic back box is used, the earth connection should be made to the terminal marked ||- at the terminal block labelled CONN1 (see PCB layout diagram below). If a metal back box is used, the earth connection must be made to the earth bonding point on the back box.

All external wiring brought into the unit must be adequately insulated with PVC or Neoprene.

NC941 PCB LAYOUT



The terminal block CONN3 is provided for the connection of an optional NC941B remote battery back-up kit. Do not connect any other type of battery back-up facility to this unit. (See NC941B installation instructions for battery connection details).

First Fix : Low Voltage Wiring

All low voltage wiring coming into the NC941 must be carefully planned before starting the job. An example wiring configuration diagram showing how ancillary devices can be connected to the NC941 is shown in the Typical Wiring Configurations diagram below.

Always segregate low voltage wiring from mains wiring.

- VE** The common 0v terminal for all devices.
 - +VE** +12V nominal supply for powering emergency call points, overdoor lights, etc.
 - SIGNAL** The trigger line which activates the NC941.
 - OUTPUT** Goes to +12V when the buzzer sounds (20mA max o/p).
- Before screwing the plate to the wall, take care not to trap any wires.

Important: In the event of a short circuit (not on the mains), a low voltage fuse (F1) will blow to protect the unit from damage. When replacing this fuse, only use a 400mA T fuse, 20 x 5mm to IEC (EN60127 part 2). The NC941 is also protected by a thermal fuse in the mains winding of the transformer. This fuse will blow in the event of a serious malfunction or misuse of the unit. If this happens, the unit must be returned to the manufacturer for repair as this part is non-accessible and therefore non-replaceable by service personnel.

SPECIFICATIONS

Supply In : 230 VAC $\pm$ 10% @ 50/60 Hz
 Max current : 36 mA
 Supply Out : 13-13.8 VDC; 250mA @ 240VAC
 Physical Sizes : 147mm W x 87mm H x 34mm D.
 Protrusion depth into back box : 20mm. Weight: 275g.

TYPICAL WIRING CONFIGURATIONS

