

# NC944



# Four Zone Call Controller

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

## GENERAL:

The NC944 is a four zone call controller which is compatible with virtually all 800 Series call points, ceiling pulls, overdoor lights, infra-red receivers and remote sounders.

Supplied on a double gang plate, the unit includes an on-board buzzer, four zonal alarm LEDs, a 'MUTE' button and a 'RESET' button, plus a number of special function outputs.

The power requirements are +12 to +14VDC. We recommend power is provided via the NC930 regulated 12V 250mA double gang power supply. Up to two NC944's can be connected to one NC930 for a maximum of eight call zones.

## OPERATION:

Depending on the type of devices connected to it, the NC944 can indicate two distinct levels of call:-

**1) STANDARD CALLS** – when triggered, the buzzer sounds constantly and the relevant zonal indicator(s) illuminate.

If desired, this type of call can be muted by pressing the NC944's 'MUTE' button. This silences the buzzer on the NC944 until a new call (standard or emergency) is triggered causing the buzzer to resound.

Pressing the NC944's 'RESET' button cancels all standard calls. Dependent on the type of device making the call, it is also possible to cancel standard calls at the point of origin (see wiring configuration diagram overleaf).

**Please note:** the NC944's MUTE and RESET buttons can be disabled by removing links PLK5 and PLK6 respectively on the PCB (see fig.1 - PCB layout).

**2) EMERGENCY CALLS** – when triggered, the buzzer pulses on and off and the relevant zonal indicator(s) flash.

This level of call takes priority over standard calls and cannot be muted or reset at the NC944. (Emergency calls can only be reset at the device from which they were triggered).

## INSTALLATION:

### Location

The NC944 must be sited indoors in an area where it can be seen and heard. The area should be clean and dry and the ambient light and sound levels should allow the indicators and buzzer to be observed. If required, overdoor lights and remote sounders can be connected to the NC944 to increase call indication levels (see connection details section in next column). Any likelihood of tampering or vandalism should also be taken into account.

### First Fix : Back Boxes

The NC944 must be fitted to a double gang back box (minimum depth 25mm or 1") that is securely fixed to a wall. (Square cornered MK or Delta back boxes are ideal for surface use). 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 : Wiring

All low voltage wiring coming into the NC944 must be carefully planned before starting the job. An example wiring configuration diagram showing how ancillary devices can be connected to the NC944 is shown overleaf.

To aid installation, the connection terminals CONN1 and CONN2 can be pulled from the PCB. Take care when reconnecting the connectors that they are the correct way round and, before screwing the plate to the wall, take care not to trap any wires. Details of what each terminal is used for appears below:

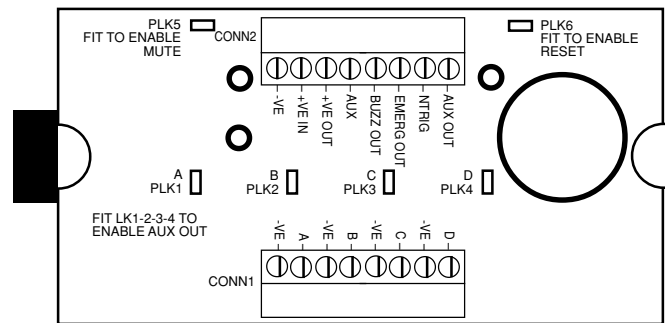


Fig.1 - PCB layout.

### CONN1

**A** **B** These are the zonal connections for the calling devices. When looking at the unit from the front, terminal A corresponds with the zonal indicator on the left hand side, B is second left, C is third left and D is far right.

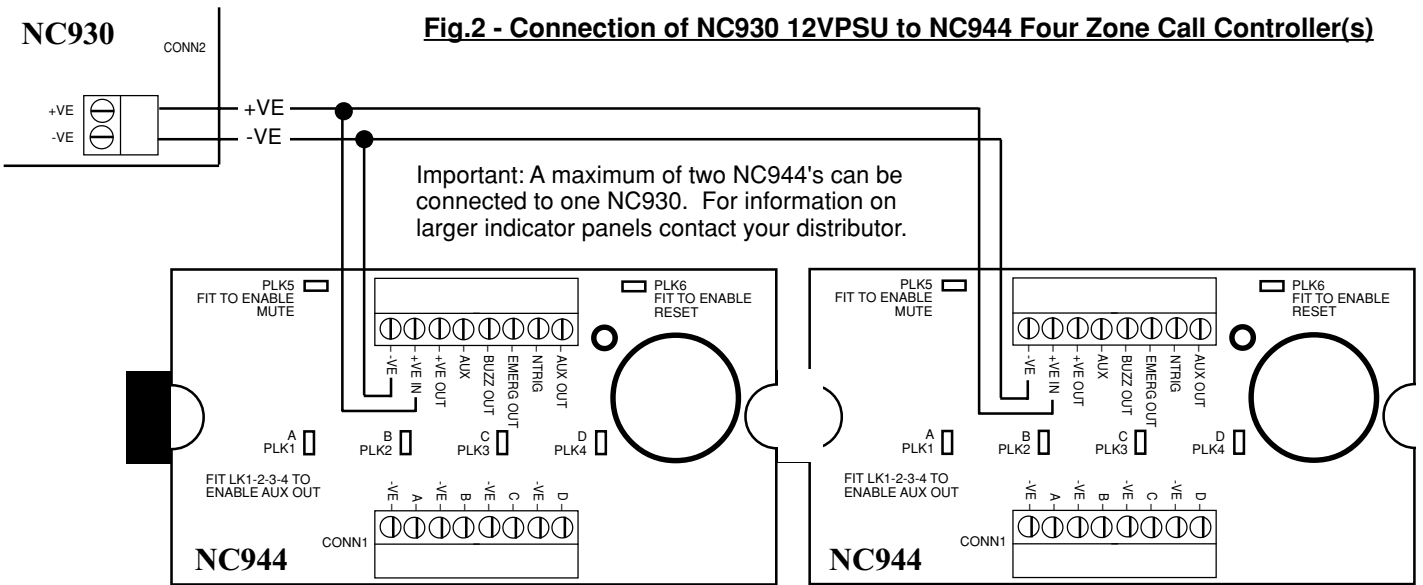
**C**  
**D**  
**-VE** Each zone has it's own -VE termination point. However, if preferred, one -VE terminal can be used for the common -VE termination of all zone wiring.

### CONN2

**-VE** -VE connection from PSU.  
**+VE IN** +VE connection from PSU.  
**+VE OUT** The local +VE supply for emergency call points, overdoor lights, etc.  
**AUX** Do not connect.  
**BUZZ OUT** Do not connect  
**EMERG OUT** This output goes to 0V when an emergency call is active on the system. It can be used to drive external indicators such as an overdoor light. The max. current this output can sink is 20mA.  
**NTRIG** Do not connect  
**AUX OUT** Provided the calling zone has it's AUXOUT enable link fitted (PLK1, 2, 3 or 4), this terminal will pulse at +12V for the duration of an emergency call or go to +12V steady for the duration of a standard call.  
 This can be used for triggering remote sounders to provide additional call indication when a particular zone(s) goes into call.  
 Please note: if a standard call and emergency call are both present on different zones and both of these zones have their respective AUXOUT enable links fitted, the AUXOUT terminal goes to +12V steady and will not pulse until the standard call is cancelled.

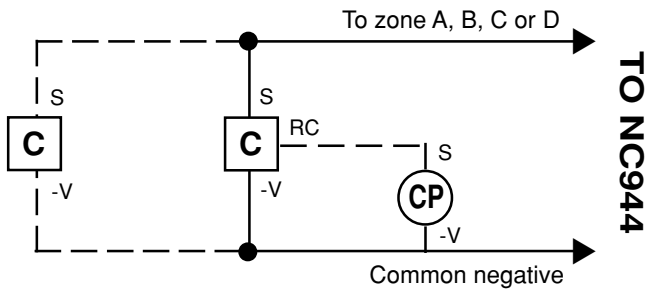
*continued overleaf >>>*

# TYPICAL WIRING CONFIGURATIONS

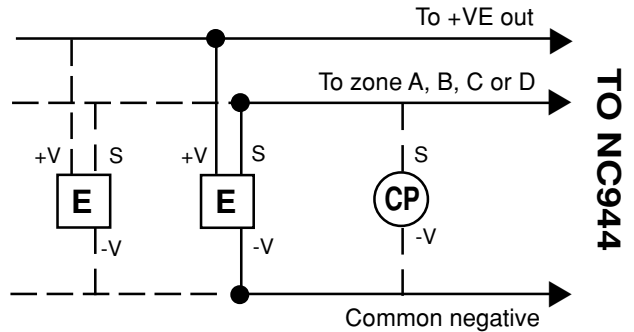


**Fig.3 - Typical Wiring of 800 Series devices to the NC944**

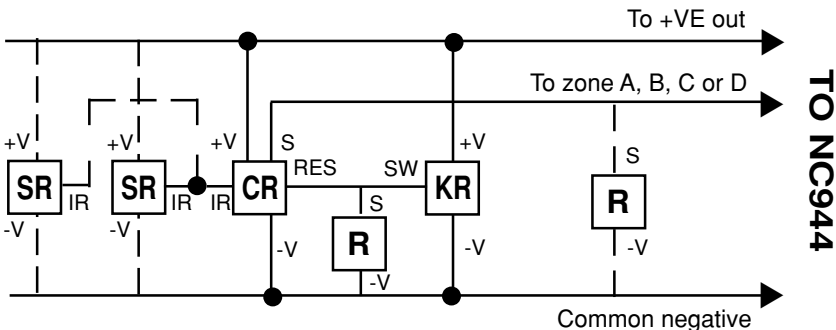
Typical wiring for Standard Call Points



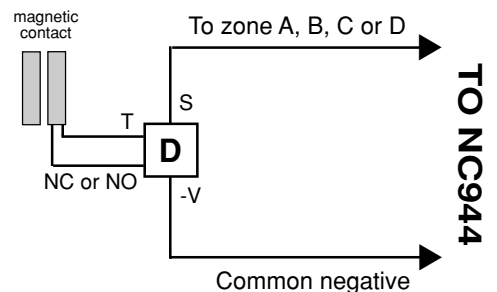
Typical wiring for Emergency Call Points



Typical wiring for Infra-Red Ceiling Receivers



Typical wiring for Monitoring Points



Please note:

For security reasons, master infra-red ceiling receivers do not include an on-board reset facility. To reset standard calls use either the 'RESET' button on the front of the NC944 or, if preferred, a reset point connected as shown above. To reset emergency calls use a keyswitch reset point. Up to three slave infra-red ceiling receivers can be connected to one master.

**KEY TO DIAGRAMS**

- |                        |                          |
|------------------------|--------------------------|
| C Standard Call Point  | SR Slave Receiver        |
| CP Ceiling Pull        | KR Keyswitch Reset Point |
| E Emergency Call Point | R Reset Point            |
| CR Ceiling Receiver    | D Door Monitoring Point  |

## CALL SYSTEMS

(typical applications : care homes, GP surgeries, etc)

**Fig.4 - Typical system diagrams.**

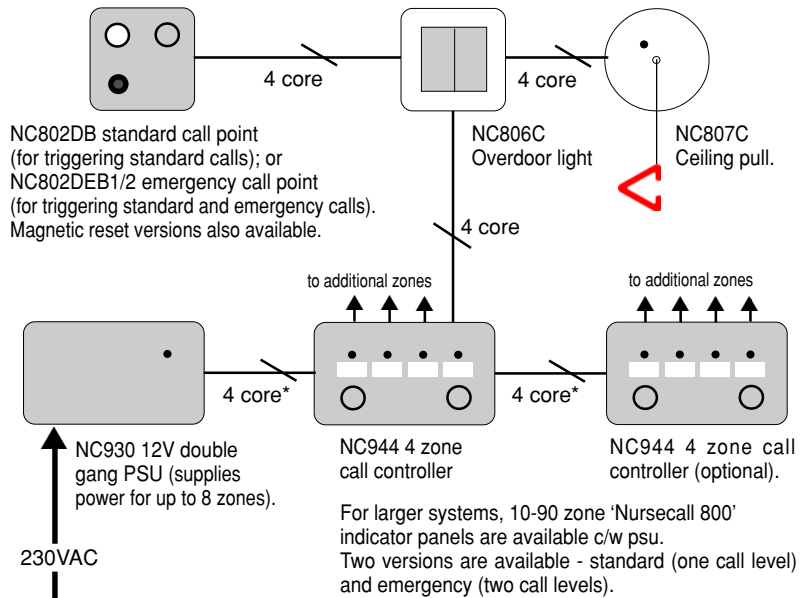
NC944 call controllers can be used for a variety of applications ranging from disabled persons toilet alarms to nursecall and infra-red staff protection systems.

Example wiring configurations for these types of systems are shown on this page.

All four core cables should be at least 7/0.2mm<sup>2</sup> alarm cable.

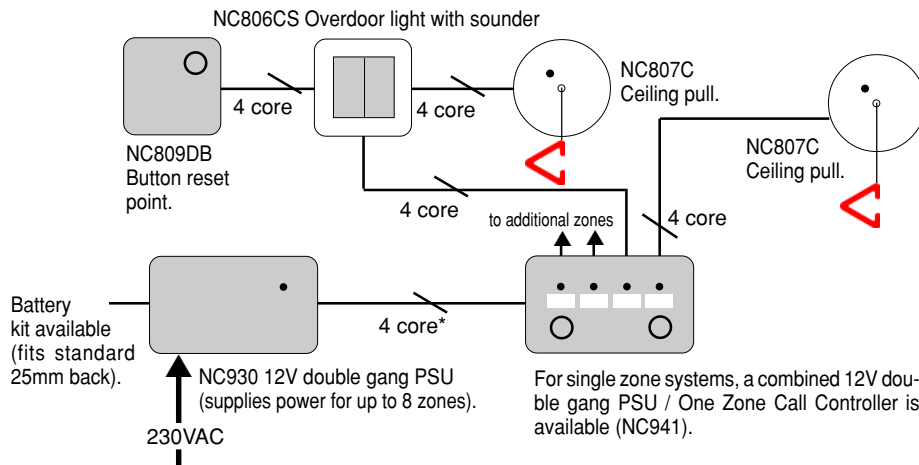
\* it is advisable to double-up cores between the NC930 power supply and the NC944 call controller to reduce the risk of voltage drop.

Contact your local distributor if you require any additional information.



## MULTI-ZONE DISABLED PERSONS TOILET ALARMS

(typical applications : hotels, shopping centres and other public buildings)



## INFRA-RED STAFF PROTECTION SYSTEMS

(typical applications : GP surgeries, DHS offices, magistrate courts, etc)

