Four Zone Call Controller

MUTE   RESET

Call

NC944

Four Zone Call Controller

CE

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:
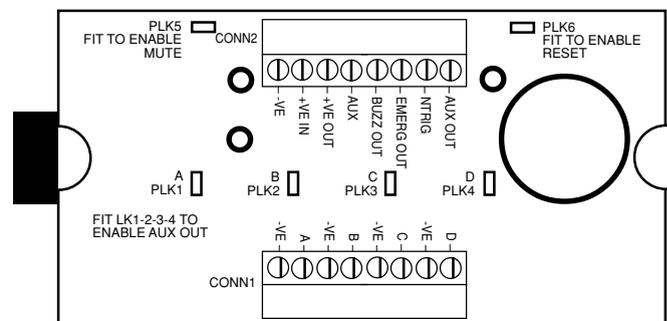

Fig.1 - PCB layout.

CONN1

A B C D	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.
-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.

TYPICAL WIRING CONFIGURATIONS

NC930

CONN2

Fig.2 - Connection of NC930 12VPSU to NC944 Four Zone Call Controller(s)

+VE
-VE
+VE
-VE

Important: A maximum of two NC944's can be
connected to one NC930. For information on
larger indicator panels contact your distributor.

PLK5
FIT TO ENABLE
MUTE

PLK6
FIT TO ENABLE
RESET

PLK5
FIT TO ENABLE
MUTE

PLK6
FIT TO ENABLE
RESET

-VE
+VE IN
+VE OUT
AUX
BUZZ OUT
EMERG OUT
NTRIG
AUX OUT

-VE
+VE IN
+VE OUT
AUX
BUZZ OUT
EMERG OUT
NTRIG
AUX OUT

A
PLK1
B
PLK2
C
PLK3
D
PLK4

A
PLK1
B
PLK2
C
PLK3
D
PLK4

FIT LK1-2-3-4 TO
ENABLE AUX OUT

FIT LK1-2-3-4 TO
ENABLE AUX OUT

-VE A -VE B -VE C -VE D

-VE A -VE B -VE C -VE D
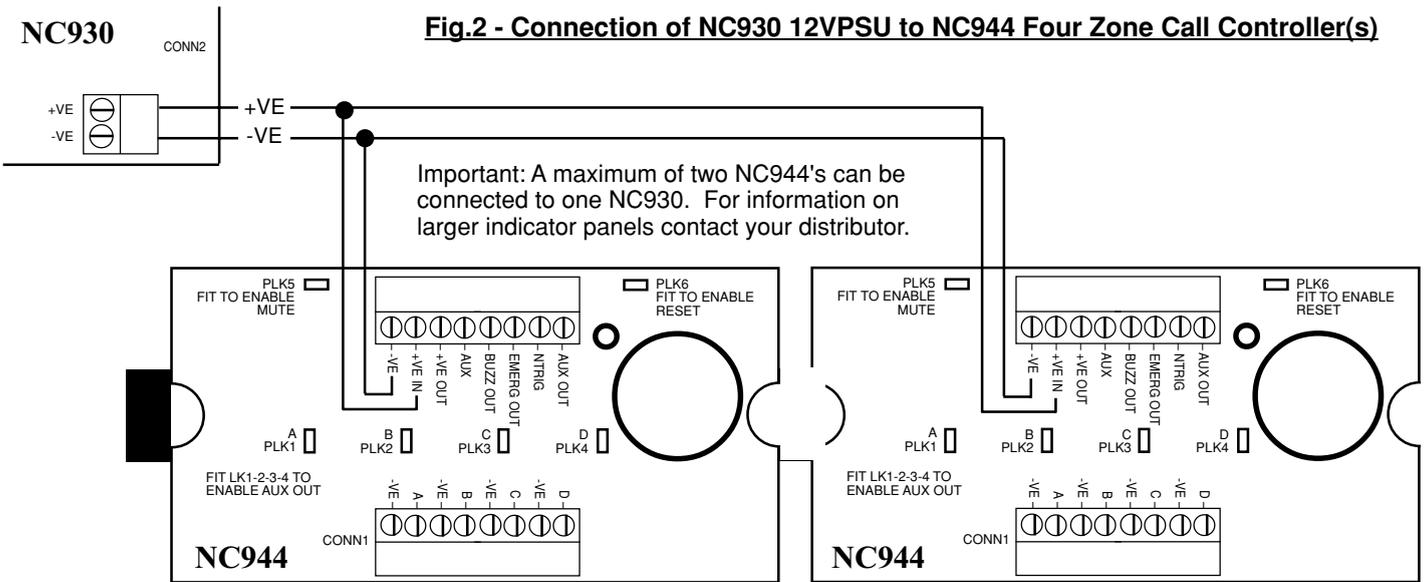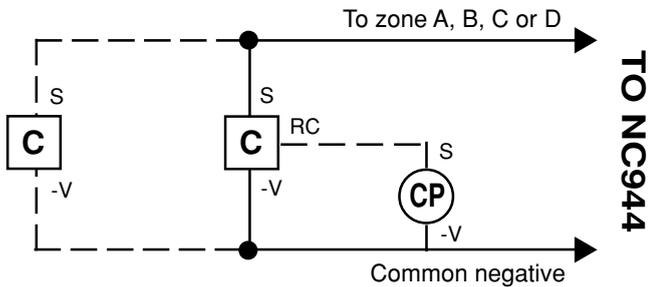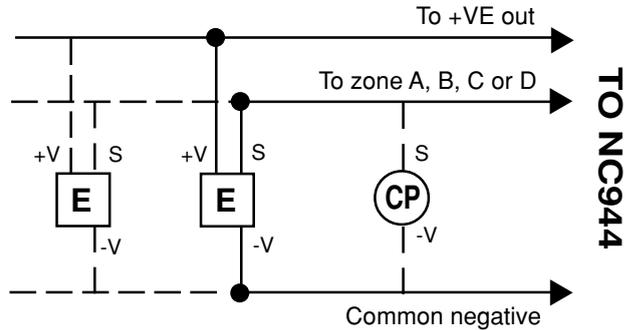
NC944   CONN1

NC944   CONN1

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

Typical wiring for Standard Call Points

To zone A, B, C or D

S

C

-V

S

C

-V

RC

S

(**CP**)

-V

Common negative

TO NC944

Typical wiring for Emergency Call Points

To +VE out

To zone A, B, C or D

+V   S

E

-V

+V   S

E

-V

S

(**CP**)

-V

Common negative

TO NC944

Typical wiring for Infra-Red Ceiling Receivers

To +VE out

To zone A, B, C or D

+V

SR

-V

IR

+V

SR

-V

IR

IR

+V

CR

-V

RES

S

R

-V

SW

+V

KR

-V

S

R

-V

Common negative

TO NC944
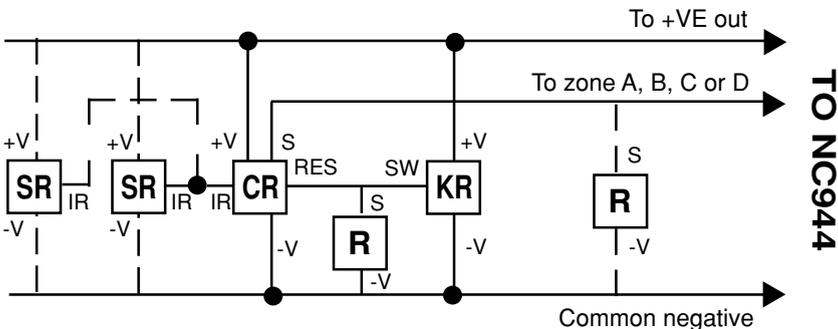
Typical wiring for Monitoring Points

magnetic
contact

To zone A, B, C or D

T

S

D

-V

NC or NO

Common negative

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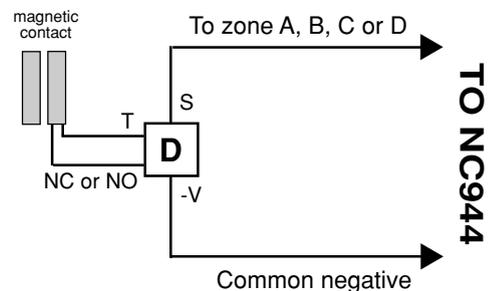
Please note:
For security reasons, master infra-red ceiling receivers do
not include an on-board reset facility. To reset standard calls
use either the 'RESET' button on the front of the NC944 or, if
preferred, a reset point connected as shown above. To reset
emergency calls use a keyswitch reset point.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

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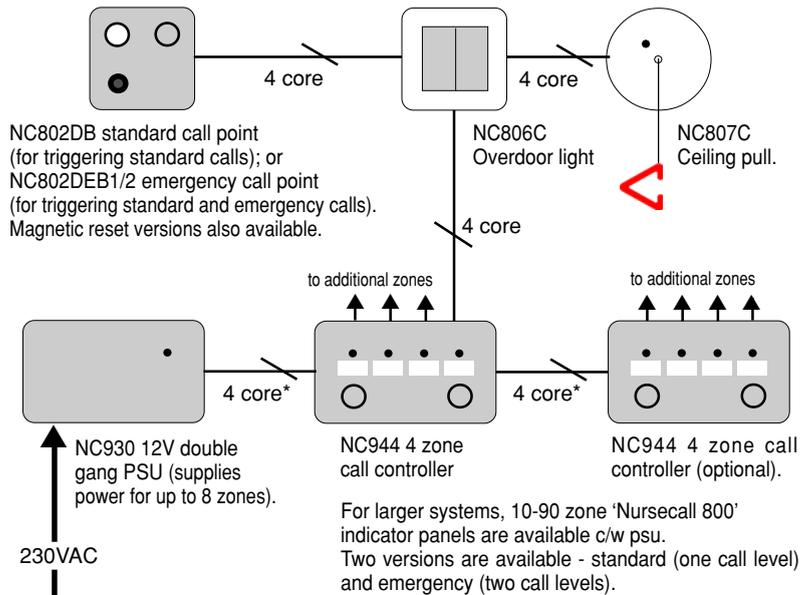
Example wiring configurations for these types of systems are shown on this page.

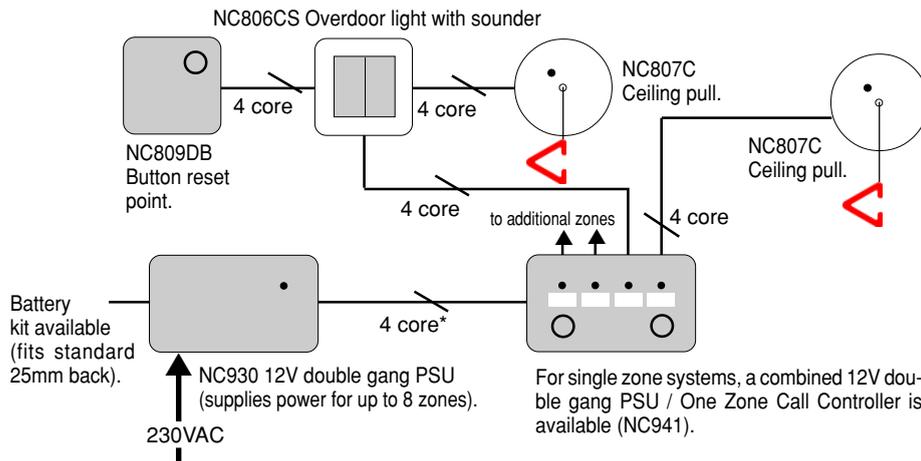All four core cables should be at least 7/0.2mm^2 alarm cable.

* 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.

4 core

NC802DB standard call point
(for triggering standard calls); or
NC802DEB1/2 emergency call point
(for triggering standard and emergency calls).
Magnetic reset versions also available.

4 core

NC806C
Overdoor light

NC807C
Ceiling pull.

4 core

to additional zones

to additional zones

4 core*

NC930 12V double gang PSU (supplies power for up to 8 zones).

230VAC

4 core*

NC944 4 zone call controller

NC944 4 zone call controller (optional).

For larger systems, 10-90 zone 'Nursecall 800' indicator panels are available c/w psu.
Two versions are available - standard (one call level) and emergency (two call levels).

MULTI-ZONE DISABLED PERSONS TOILET ALARMS
(typical applications : hotels, shopping centres and other public buildings)

NC806CS Overdoor light with sounder

4 core

4 core

NC807C
Ceiling pull.

NC807C
Ceiling pull.

NC809DB
Button reset point.

4 core

to additional zones

4 core

Battery kit available (fits standard 25mm back).

4 core*

NC930 12V double gang PSU (supplies power for up to 8 zones).

230VAC

For single zone systems, a combined 12V double gang PSU / One Zone Call Controller is available (NC941).

INFRA-RED STAFF PROTECTION SYSTEMS
(typical applications : GP surgeries, DHS offices, magistrate courts, etc)

NC312RXA Infra-red transmitter
(to trigger emergency calls); or
NC312RXCA Infra-red transmitter
(to trigger standard & emergency calls).

4 core

4 core

NC302RXCS 800 series slave infra-red ceiling receivers (up to three per NC302RXC).

Normally closed or normally open door contacts (supplied with NC894DKB).

NC894DKB Monitoring point (to protect areas to which access is restricted).

4 core

NC809DB Button reset point. (one per NC302RXC to reset standard calls).

4 core

NC302RXC 800 series master infra-red ceiling receiver.

NC899IRR Keyswitch reset point (one per NC302RXC to reset emergency calls).

4 core

to additional zones

4 core

to additional zones

Battery kit available (fits standard 25mm back).

4 core*

NC930 12V double gang PSU (supplies power for up to 8 zones).

230VAC

NC944 4 zone call controller.

4 core*

NC944 4 zone call controller (optional).

For larger systems, 10-90 zone 'AlertCall' indicator panels are available, supplied complete with integral power supply.