

NURSECALL 800

WIRING DETAILS

These instructions are for the *NURSECALL 800* system. The *800E* emergency system is similar and is described in separate instructions which are available from your supplier.

IMPORTANT

The Social Services control rest homes and Health Authorities control nursing homes. Please check the system complies.

WIRING

Do not use solid core cable as it breaks easily. Four core stranded burglar alarm wire (7/0.2) is ideal for call points and sounders. Multi-core cable may be used to reduce wiring runs but more joints will result.

Panels. Run 1 core per zone plus 4 control wires between panels.

Sounders. Run 1 core plus 1 or 2 common cores to the nearest panel.

Call Points. Run 1 signal wire per zone plus a common negative to the nearest panel.

Overdoor lights. Connect to the signal wire of the zone being indicated and to common negative and common positive.

We strongly recommend you leave about 20–25% spare cores in each cable run.

DEFINITIONS

Call points are used to make a call and should be installed in bedrooms, bathrooms, WCs and communal rooms.

Each light on a panel indicates a separate *zone*. A *zone* is usually one room and can contain several call points.

An *area* is a group of zones connected so as to operate a light whenever any zone calls.

A *call* is a signal made by any call point.

A call is *reset* by an attendant using a standard or magnetic reset key or pressing a button at the room.

Master reset buttons cancel all calls on the system and are not usually allowed. If required, cut the panel label, push the button into place and connect to the terminals marked RST.

VERY IMPORTANT

Standard call points and reset points *must* be reset using the NC803C reset keys supplied with the panel. If any other device, such as a 3.5 mm jack plug, is used, the reset socket *will* be damaged and the call point *will* fail.

Magnetic call points and reset points must be reset using the NC803M reset key.

GENERAL

Call points and ceiling pulls use similar electronics and can be wired on one zone.

Ceiling pulls and latch modules need a separate reset point.

One master and up to three repeater panels can be connected.

Up to three sounders can be connected to *each* panel.

A set of auxiliary relay contacts in each panel operate when there is a call.

A 240 VAC to 12 VDC 400 mA power supply is fitted in master panels

A 12 Volt 1.9 AHr sealed lead-acid battery may be fitted for standby use.

1ST FIX

Use 25mm square cornered, single gang boxes for all wall mounted accessories.

Mount call points above final bedhead height to stop damage to tail call leads when beds are moved.

Latch modules and input expanders are small (30 x 20 x 15 mm) sealed units with self adhesive fixing and wire termination. Mount them in any suitable box.

Single and two channel **tone** radio pager transmitters are boxed with their own power supply and aerial and are triggered via the auxiliary relay contacts in a nursecall panel.

Numeric and alphanumeric **display** pagers can be connected via the Nursecall 800 datalogger.

The Nursecall 800 **datalogger** provides a printed record of all calls and resets.

Panels are surface mounted.

All panels are 406 mm wide x 83 mm deep.

Ten to thirty zone panels are 191 mm high.

Forty to sixty zone panels are 380 mm high.

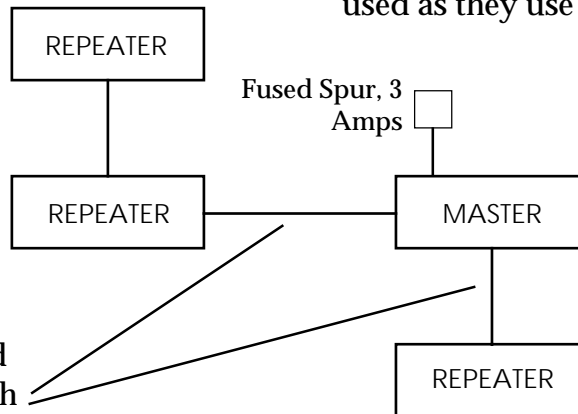
Seventy to ninety zone panels are 565 mm high.

Larger panels are available to order.

After 1st fix remove panel fronts from site and cover mounting boxes with blank plates until 2nd fix.

BASIC WIRING DIAGRAMS

Contact your supplier if you need more information.



The number of cores required between panels is one for each zone being used plus four control cores. (Plus spares.)

INTER-PANEL WIRING

One master panel and up to three repeater panels may be fitted. If more repeaters are required, emergency system repeaters must be used as they use very much less current.

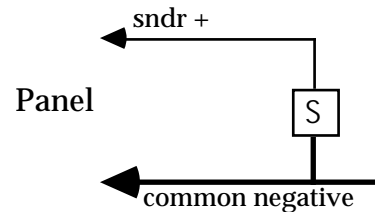
All inter-panel connections are in parallel. The master panel is best placed centrally to minimise volt drop but may be anywhere. Call points etc. do not need to be connected directly to the master panel and can be wired to the most convenient repeater panel.

KEY

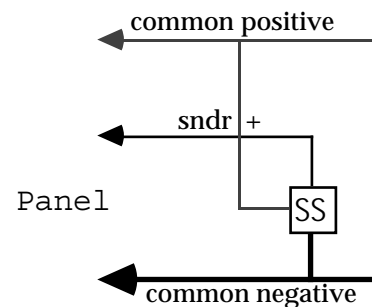
S	REMOTE SOUNDER
SS	SWITCHABLE SOUNDER
C	CALL POINT
⊙	CEILING PULL
R	RESET POINT
R	MAGNETIC RESET POINT
L ▷	OVERDOOR LIGHT

SOUNDER WIRING

Remote sounders need two connections, a sndr positive from the nearest panel and a common negative. Up to 3 can be connected to each panel.



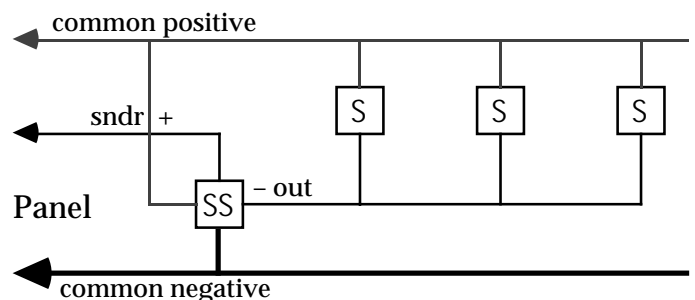
Switchable sounders need a common positive.



OPERATION

The resident calls by pressing a button on a call point or pulling a ceiling pull cord. The "CALLING" light comes on and the relevant panel light(s) and overdoor light comes on. A call is also made if a remote lead is plugged in or out. Calls can only be reset by staff attending the room and using a reset key or pressing a button away from the resident.

Up to three remote sounders may be activated by a switchable sounder.



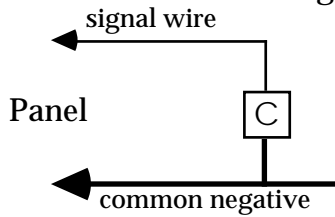
ZONE WIRING

Signal wires from call points connect to any terminal A to J at the nearest panel.

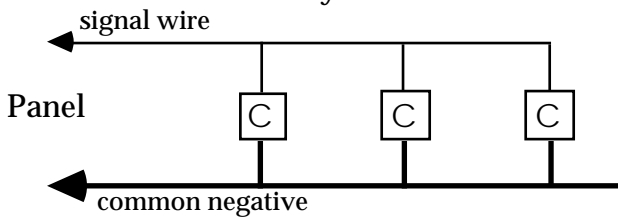
CALL POINTS, CEILING PULLS & RESETS

A *call point* connects to a common negative and a signal wire.

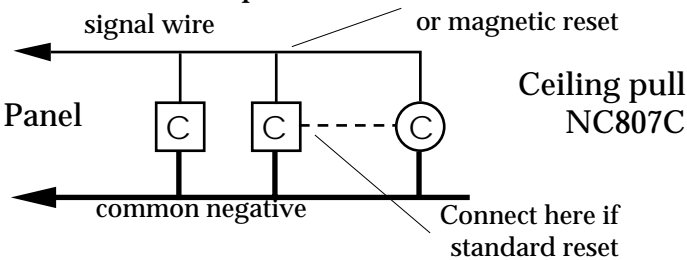
Call Point (NC802C, NC802CM, or NC802CB)



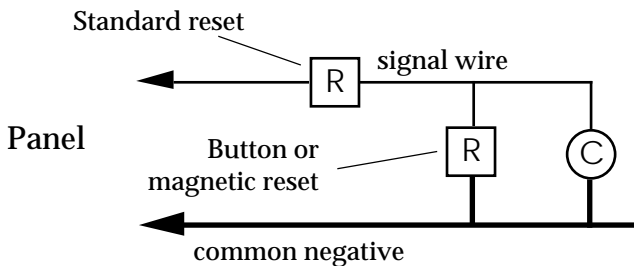
Any number of call points can be connected to one zone but if more than one calls at once only the last will hold the call. The other call points will reset automatically.



A *ceiling pull* in an en-suite bathroom can be reset at **one** standard or at any magnetic or button reset call point.

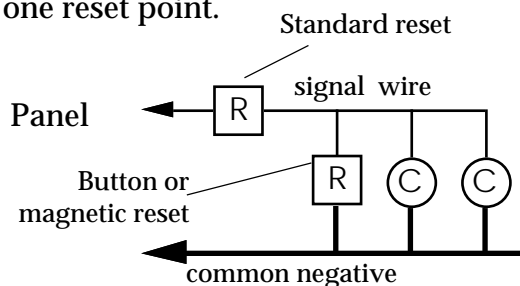


Ceiling pulls are reset at a *reset point*.



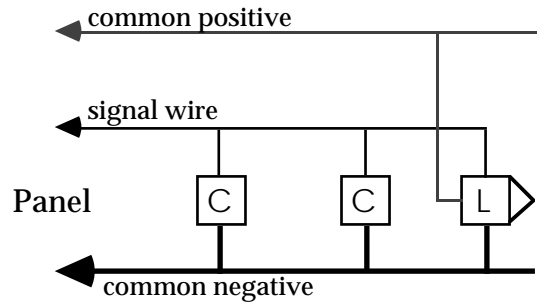
Magnetic & button resets (NC809CM & NC809CB). Standard reset point (NC809C)

Several ceiling pulls on the same zone can be reset at one reset point.



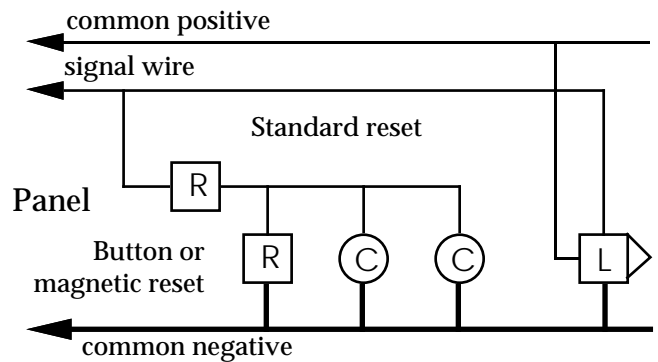
OVERDOOR LIGHTS

Overdoor lights connect to the common negative, common positive, and the signal wire of the zone they indicate.

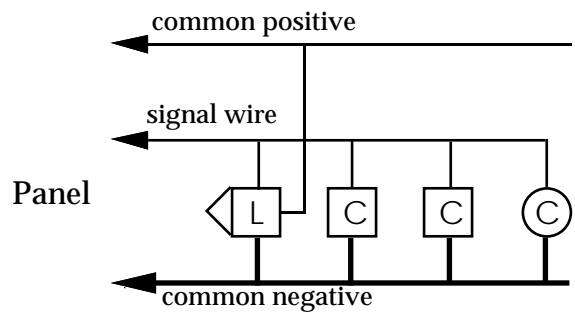


Connecting an overdoor light to call points.

When overdoor lights are connected to ceiling pulls the connection to the signal wire must be on the panel side of a standard reset point or the ceiling pull won't reset.



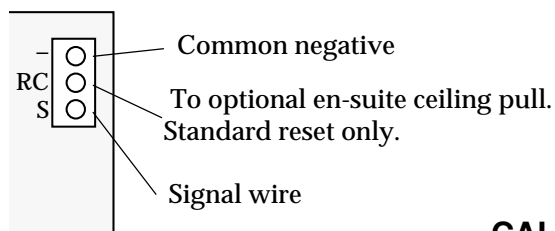
The most common layout is one or two ceiling pulls, an en-suite wc and an overdoor light. A four core alarm cable to the nearest panel is the simplest wiring.



AREA INDICATION

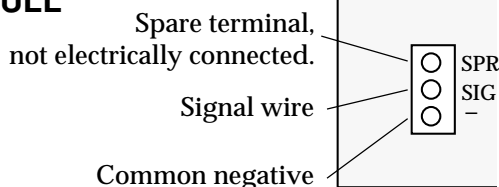
Contact your supplier for details of using overdoor lights and input expanders to give area indication.

2ND FIX

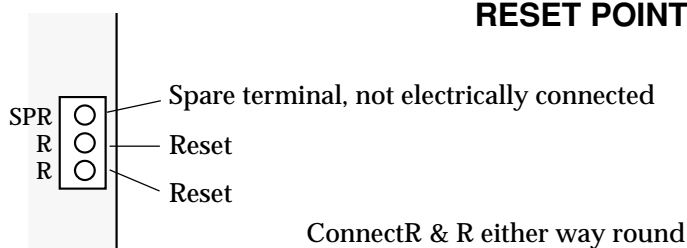


CALL POINT

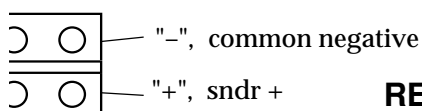
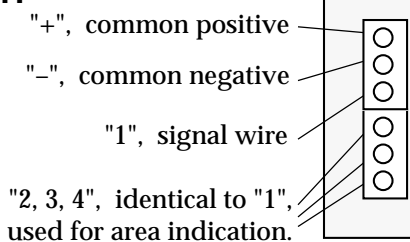
CEILING PULL



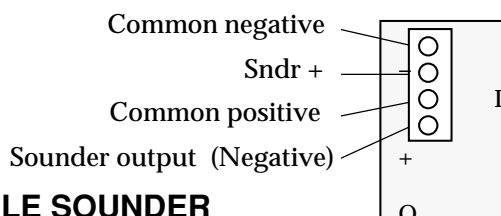
RESET POINT



OVERDOOR LIGHT



REMOTE SOUNDER



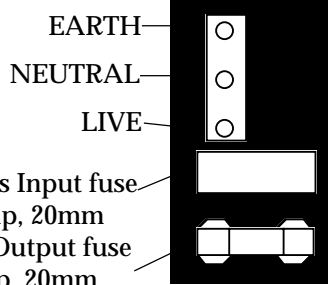
SWITCHABLE SOUNDER

POWER SUPPLY

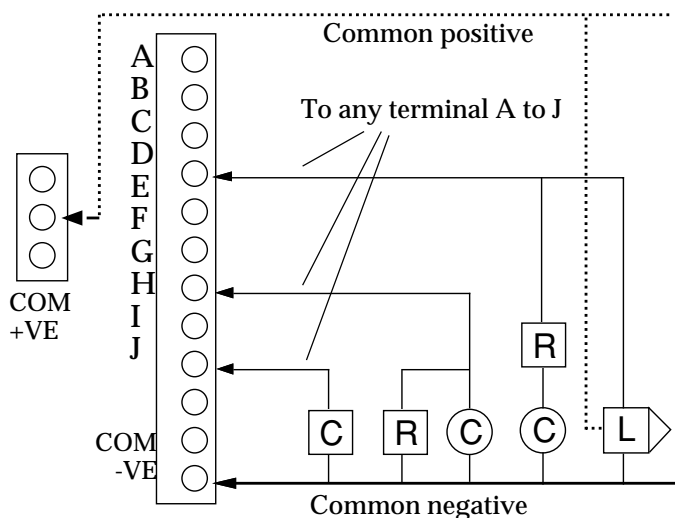
Connect to a fused spur fused at not more than 3 Amps.

A 12 Volt 1.9 AHr sealed lead-acid battery may be connected to the battery leads if required.

Standby time will usually be over 24 hours.

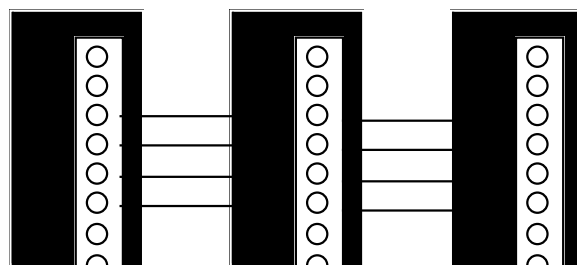


CONNECTING CALL POINTS TO PANELS



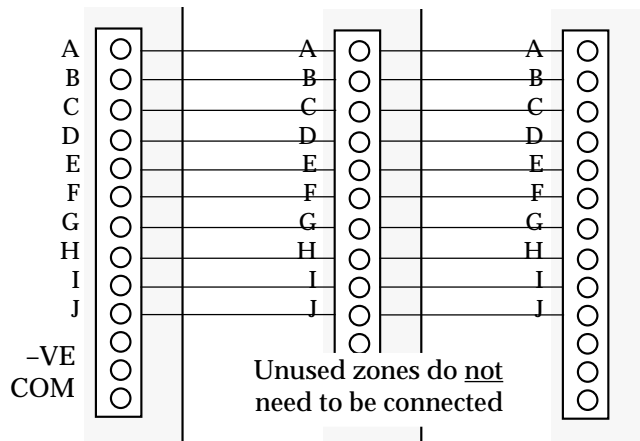
The "Call points" end of master and repeater circuit boards

CONTROL WIRES BETWEEN PANELS



The control wires must be connected between the main boards in each panel. (The board with the power light)

SIGNAL WIRES BETWEEN PANELS



AUXILIARY RELAYS AND SOUNDER

Relay contacts rated at 1 Amp 12VDC maximum. Use external relays to switch larger loads.

MAIN BOARD IN MASTER AND REPEATER PANELS

Errors and omissions excepted. The manufacturers pursue a policy of continuous development and whilst every effort has been made to ensure this information is correct no liability will be accepted for errors. NC800 2.3 Document number DNU800C001 © ADS February 1992