Battery backup enable/disable (link PLK2)

Link PLK2 (supplied) enables or disables the call controller's on-board battery backup facility. When enabled (link PLK2 fitted), the battery backup supply will continue to power the system for approximately 24 hours (standby) plus 15 minutes (alarm running time) in the event of a mains failure. This will be indicated by the call controller's green power 'On' LED flashing. Should the mains supply remain disconnected for a prolonged period of time, the battery backup facility will automatically shutdown to prevent the batteries from deep discharge.

Note: Link PLK2 is not fitted in the call controller when dispatched. This is to conserve battery life and ensure the safety of the call controller during storage/transit.

Sounder and LED test facility

With no calls on the system, pressing the call controller's 'Call Accept' button with link PLK1 fitted in the Reset (b) position will make its sounder and red 'Calling' LED activate. When the button is released, the sounder and LED will switch off.

BASIC OPERATION

The green power 'On' LED indicates that the call controller is powered up.

When a standard call is triggered at any device connected to the controller (see figure 1), the controller's sounder generates a constant tone and its red 'Calling' LED will illuminate steady. The controller's relay will also switch and any external equipment connected to the relay contacts will operate as configured. The call is accepted by pressing the controller's 'Call Accept' button. Note that standard calls can be cancelled at any connected device that has a reset facility.

Note: *Instead of accepting an alarm call, a selectable link inside the call controller also allows its button operation to be set up to reset the system, or have no effect. Refer to 'Engineer Selectable Functions' section of this document for details.*

When an emergency call is triggered at any device connected to the controller (see figure 1), the controller's sounder generates a pulse tone and its red 'Calling' LED will flash. The controller's relay will also pulse and any external equipment connected to the relay contacts will operate as configured. Note that emergency calls override standard calls and can only be reset at the device from which they originated.

NC943B TECHNICAL SPECIFICATION

Mains supply:	Voltage 230Va.c. 50/60Hz; Max. current: 23mA.
Outputs:	PSU voltage 12Vd.c. / current 140mA. Volt-free relay contacts (NO/C/NC) rated 30Vd.c. @ 1A.
Currents:	Zone current 18mA; Alarm current 23mA.
Battery backup:	500mA, rechargeable, 24 hours standby plus 15 minutes alarm run time.
Indicators:	Red alarm 'Calling' LED; Green power 'On' LED (flashes green when battery backup is active).
Sounder:	Active in alarm, volume adjustable.
Controls:	'Call Accept' button (link-selectable for accept, reset, or no function).
Weight:	300g
Dimensions:	117 mm x 79 mm x 18.5 mm (W x H x D).
Mounting:	25mm UK double gang back box (flush or surface).
Ingress Protection:	IP31 when correctly installed.
Operating Temp.:	-5ºC to +40ºC; Max. relative humidity (RH) 95% non-condensing.

NC943B

Single Zone Call Controller c/w 12V 140mA PSU

This equipment must be installed and maintained by a suitably skilled and technically competent person.

This call controller is a piece of Class 2 equipment. However, any metal parts used during installation, i.e. a metal back box, MUST be earthed. The earth termination point on the call controller is provided for installer convenience only and, as such, should only be used if an earth connection is not required elsewhere.

FEATURES

- Part No. NC943B.
- Single zone call controller c/w 12Vd.c. 140mA PSU and rechargeable backup battery.
- Includes a volume adjustable sounder, a link-selectable Call Accept/Reset button, power 'On' and alarm 'Calling' LEDs.
- Volt-free relay output for optional connection to externally powered devices.
- Backup battery provides up to 24 hours standby plus 15 minutes alarm running time.
- Capable of indicating standard and emergency calls.
- Mounts on a standard UK 25mm double gang back box (flush or surface).
- Compatible with C-TEC's entire range of 800 Series Call System components.
- Also available as part of the NC951 Accessible Toilet Alarm Kit.

INSTALLATION INSTRUCTIONS

800 SERIES

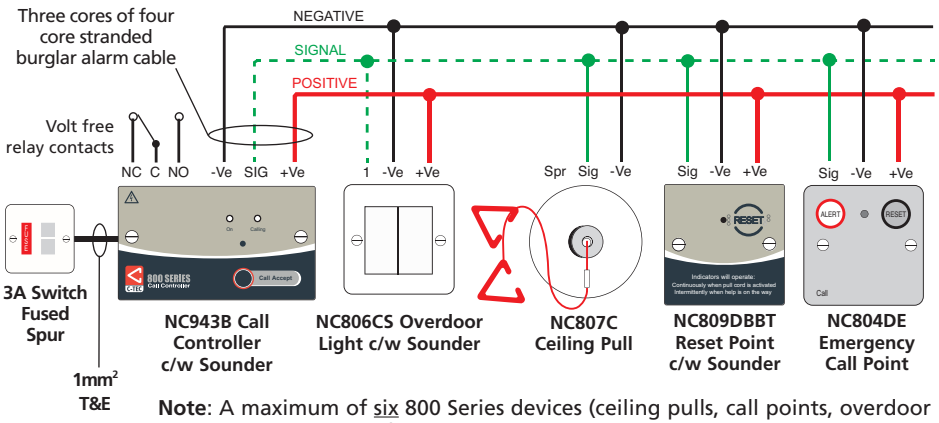
CE

INSTALLATION

ALWAYS ENSURE THE MAINS SUPPLY IS ISOLATED BEFORE MAKING ANY CONNECTIONS.

The call controller should be sited indoors on a standard UK double gang back box (minimum depth 25mm) 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 LEDs to be seen and on-board sounder heard.

Figure 1 : Example NC943B Call Controller Wiring



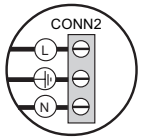
Note: A maximum of six 800 Series devices (ceiling pulls, call points, overdoor lights, reset points, etc.), can typically be connected to the call controller. Always refer to the instructions supplied with each device before installation.

Mains wiring

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

The general requirement for the mains supply to the call controller is fixed wiring, using three core cable of not less than 1mm². This should be fed from an isolating switched fused spur, fused at 3A, which is marked appropriately and secure from unauthorised operation.

Live and neutral should be connected to the controller's L and N terminals respectively. If a plastic back box is used, make the earth connection to the terminal marked ⏚ at connector block CONN2. If a metal back box is used, the earth connection must be made to back box's earth bonding point.



Extra low voltage (ELV) wiring

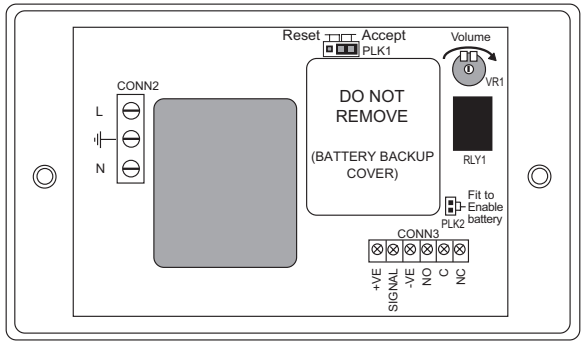
Always segregate ELV wiring from mains wiring.

Four core stranded burglar alarm cable is ideal for ELV wiring on most installations. All wiring must be carefully planned before starting the job. In the event of a short circuit on the ELV wiring, an on-board self-resetting fuse will temporarily isolate the system until the fault is cleared. The call controller is also protected by a non-serviceable thermal fuse in its transformer winding which will blow if there is a serious malfunction. If this happens, return the controller for repair.

ENGINEER SELECTABLE FUNCTIONS

The NC943B call controller has a number of engineer selectable functions (see figure 2 below). This section explains how these functions work and how to set them.

Figure 2 : Rear View of the NC943B Call Controller



Call Accept button operation (link PLK1)

Link PLK1 (supplied) allows the call controller's Call Accept button to be set up as follows when a call signal is active:

(a) Accept the call

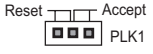
In this factory-fitted position, pressing the Call Accept button when a standard call is active will accept the call and send a slow pulsing signal to any equipment connected to the call controller, e.g. overdoor light and reset point. All sounders and LEDs will remain active until the system is reset, e.g. at a reset point inside a WC.

(b) Reset the system

In this position, pressing the Call Accept button when a standard call is active will return the system to its normal state.

(c) Have no effect

With no link fitted, pressing the Call Accept button will have no effect.

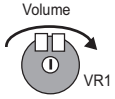


(no link fitted)

Note: It is recommended the call controller's button is set up to 'Call Accept' operation, which is the factory setting. 'Reset' and 'no effect' operations are outside the scope of BS 8300 and therefore not recommended for use in accessible toilet alarm installations. However, they may be suitable for use in other applications subject to the approval of the responsible person(s).

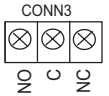
Volume control (potentiometer VR1)

Turn VR1 clockwise to increase (or anti-clockwise to decrease) the volume of the call controller's on-board sounder.



Volt-free relay operation (RLY1)

The call controller includes an on-board volt-free relay with normally open (NO), normally closed (NC) and common (C) contacts. The relay contacts are rated 30Vd.c. @ 1A and can be optionally used to switch externally powered devices such as sounders, beacons, strobes, or other ancillary devices.



When no calls are on the system, the normally closed contact is made. When a call is received by the controller, the relay switches and the normally open contact is made.