

# **Bell System (Telephones) Ltd.**

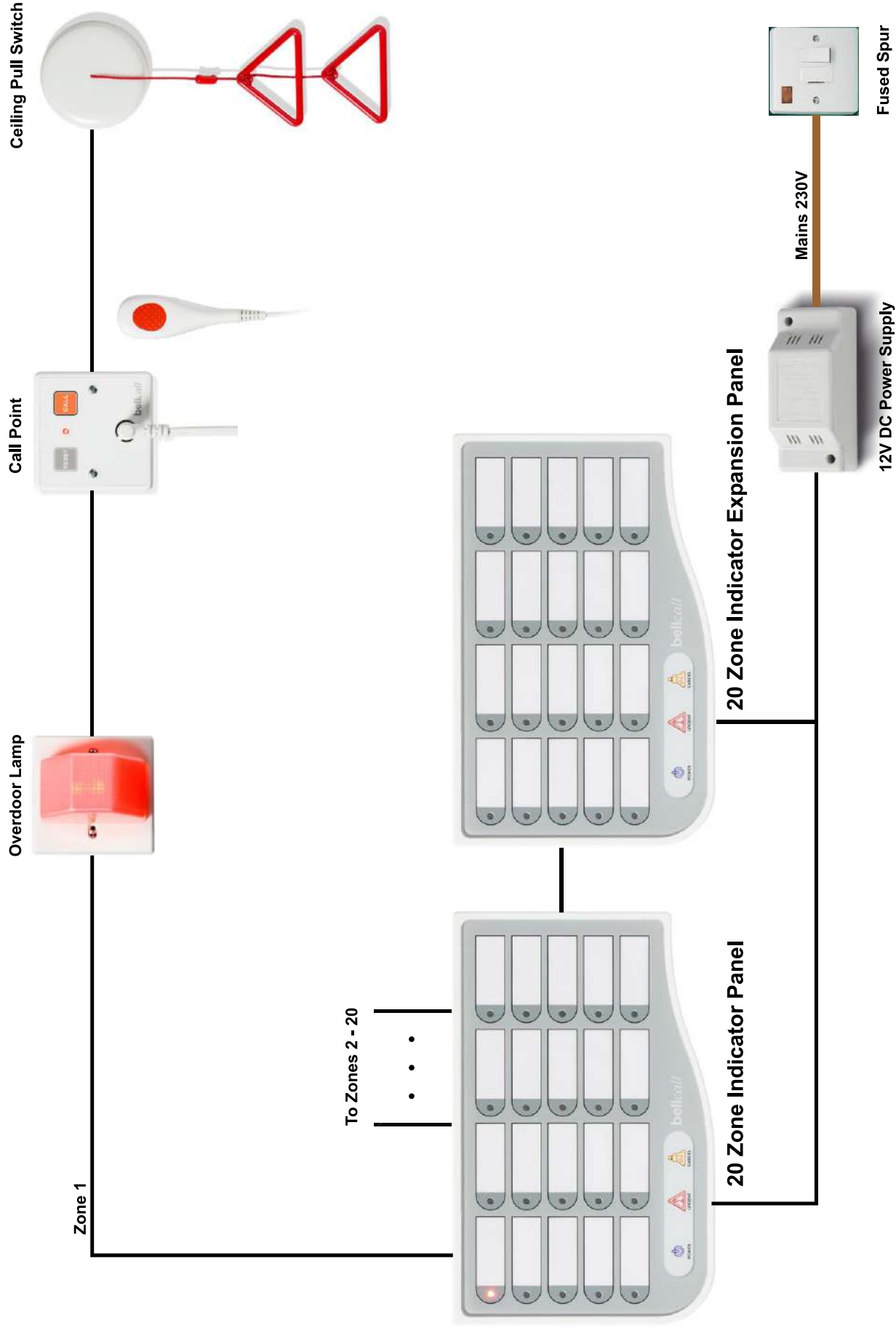
## **Installation Instructions**

**bellicall**

**Emergency Call System**

**10, 20, 30 Zones**

# Overview of Basic Bellcall System



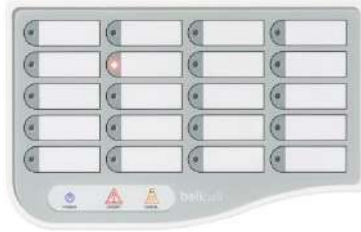
## Overview

The Bellcall is a versatile emergency call system which lends itself to a multitude of applications in a number of different markets such as Care Homes, Nursing Homes, Private Hospitals and Hostels.

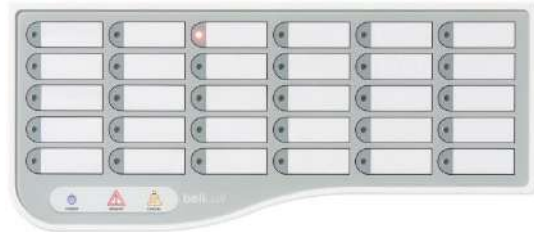
## Indicator panels



10 Zone Indicator  
Model BC-10






20 Zone Indicator  
Model BC-20



30 Zone Indicator  
Model BC-30


Indicator panels are available with 10, 20 and 30 zones and can be combined to produce larger systems of up to 120 zones (or larger on request). For each zone, the panel has an LED indicator lamp alongside a name label to identify the origin of the call.

Each Indicator Panel has a Touch Control Panel with an indicator for:

Power  ; Standard Alarm calls  (Cancel) and Emergency Alarm calls  (Urgent).

Additionally, a sounder will alert attending staff to the presence of a new call.

## Standard Calls

A standard call can be generated by a Call Point, a pendant switch or a ceiling pull switch. On the Indicator Panel an LED for the corresponding zone will illuminate and the sounder will operate continuously. Staff can temporarily silence the alarm by touching the  symbol (Cancel). The alarm will remain muted until another alarm is activated. The alarm call can be permanently cancelled by visiting the room where the call originated and resetting the Call Point using a magnetic key (or just pressing the reset button, if so configured).

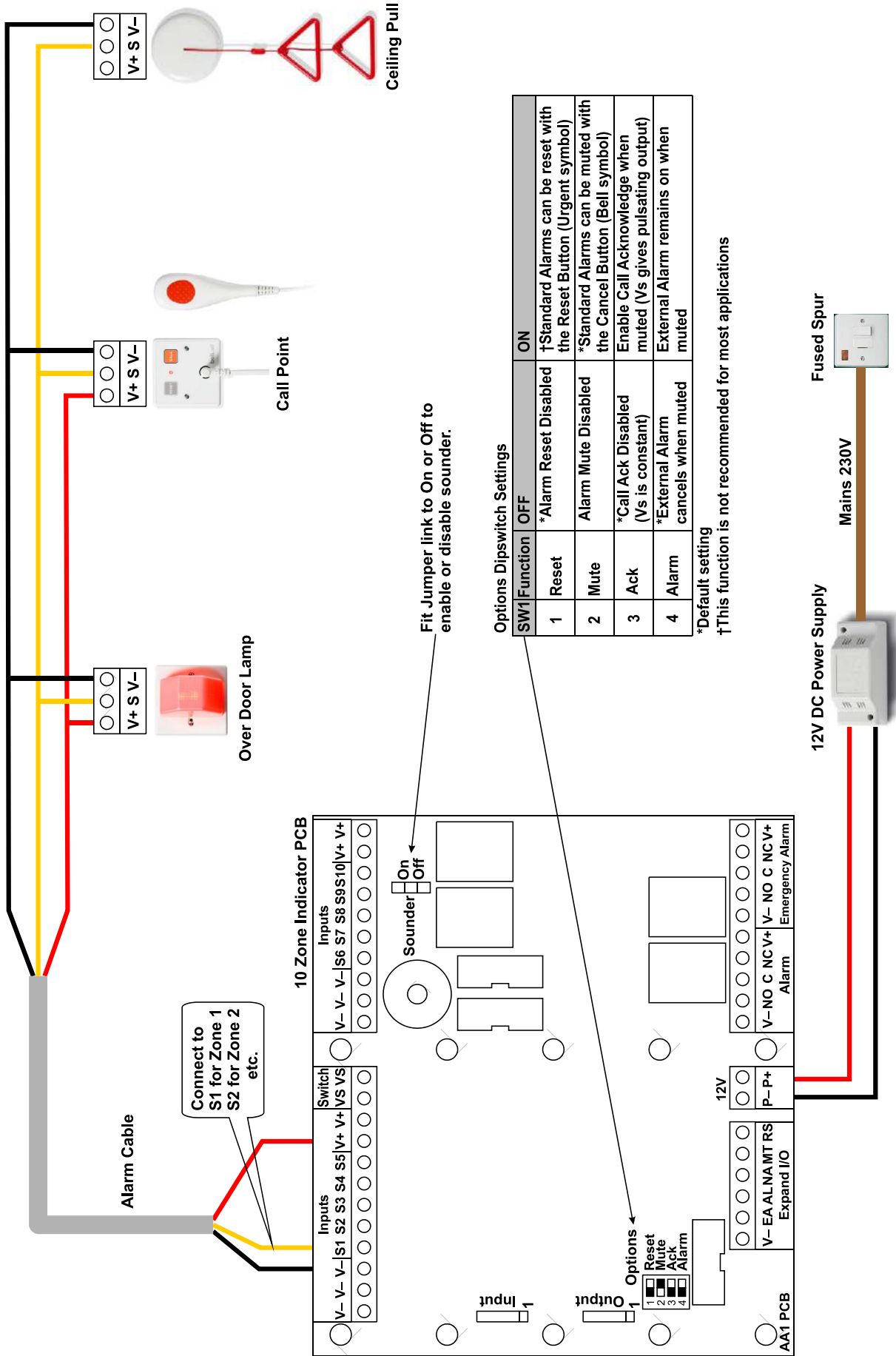
## Emergency Calls/Call for Assistance

Emergency calls can be activated by an Emergency Call Point or the Alert button on an Alert Call Point. In this case the zone LED will flash and the sounder will pulse on and off to create a greater sense of urgency. In the case of an Emergency call, the sounder cannot be muted; the call can only be reset at the originated Call Point.

## Name labels

Each Indicator panel is supplied with strips of Name labels which can be accessed by removing a magnetic cover strip at the top of the panel. These strips can either be hand written or individual printed adhesive labels can be applied. Additionally, the strips are available on perforated A4 sheets which can be printed on a desktop printer.

# Wiring Diagram For a Basic Bellcall System



# Indicator Panel Installation

## Fitting to the wall

Carefully remove the screws on the underside of the panel and swing the front plate upwards from the bottom whilst pivoting on the catches at the top. The front plate can then be lifted off. Use the base as a template to mark the position of the mounting holes and the cable entry points. Remove the base to avoid contamination and then drill the required holes. Use wall plugs suitable for No 8 screws. Reposition the base and fix to the wall with the screws. Refit the front plate to protect the electronics from dust, removing only when making electrical connections or setting the dipswitches.

## Cabling

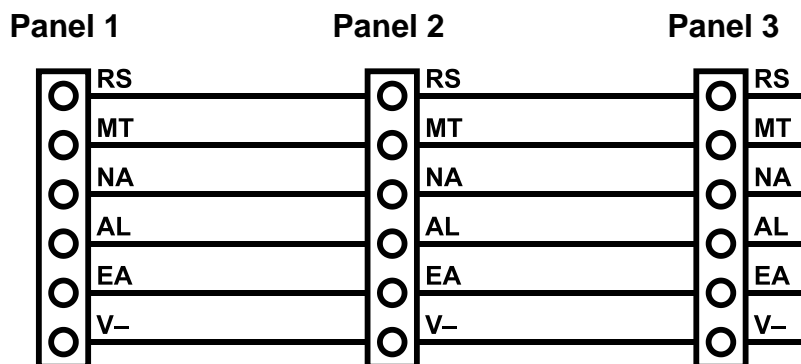
Connect the indicator panel according to the diagram opposite using standard 4-core alarm cable and observing the indicated colour code. For most systems only 3 cores are used. Connect the red wire to any convenient V+ terminal and the black wire to any convenient V- terminal. The yellow wire connects to one of the terminals S1 thru S10 according to the required zone. Several installation options can be set using the PCB dipswitches (See diagram opposite for details).

## Name labels

Each Alarm panel is supplied pre-fitted with blank name labels. To remove the labels, lift the cover strip at the top of the indicator panel (it is held in place magnetically) and pull out the name strips by the folded tabs. When all strips are labelled, slide them back into position and replace the magnetic cover strip, allowing it to snap into place. A4 sheets are also available which can be printed on a standard computer printer.

## Extension/Repeater Indicator Panels

Larger Systems can be created by connecting several panels together (up to 4 panels) using the 6 way expansion connector:



A **Repeater Panel** can be created from an extension panel by simply tying the inputs together (S1 to S1 etc)

## External Alarms

The main 10-Zone PCB in each indicator panel has terminal outputs for both Standard and Emergency Alarms. These may be connected to suitable external devices such as sounders or lamps. Each output has a changeover volt-free contact as well as V+ and V-.

## Callpoints

There are three basic models of Call Point, each of which is available with or without a jack socket:



Standard Call Point with Jack Socket (BC-CPJ)



Alert Call Point with Jack Socket (BC-APJ)



Emergency Call Point with Jack Socket (BC-EPJ)

### Standard Call Point: (Models BC-CPJ & BC-CP)

This has a Call button which generates a **Standard Call** and a Reset Button which can be configured at installation for either push button or magnetic key operation.

### Emergency Call Point: (Models BC-EPJ & BC-EP)

This has a Call button which generates an **Emergency Call** and a Reset Button which can be configured at installation for either push button or magnetic key operation.

### Alert Callpoint: (Models BC-APJ & BC-AP)

This has a Call button which generates a **Standard Call** and an Alert button which generates an **Emergency Call**. Both the Alert button and the Reset Button can be configured at installation for either push button or magnetic key operation.

## Magnetic Key

A magnetic key can be used to operate the Reset button on all Call Point models and also the Alert button on Alert Points, whilst providing protection from accidental or unauthorised use.



It is available in a pack of 10 (BC-K10) or 50 (BC-K50)

## Call Point Installation

The Call Point is designed to be fitted onto a standard, single-gang, surface or flush electrical box (not supplied) and with a minimum depth of 35mm. It is connected to the Indicator Panel using 3 cores of standard 4-core alarm cable.

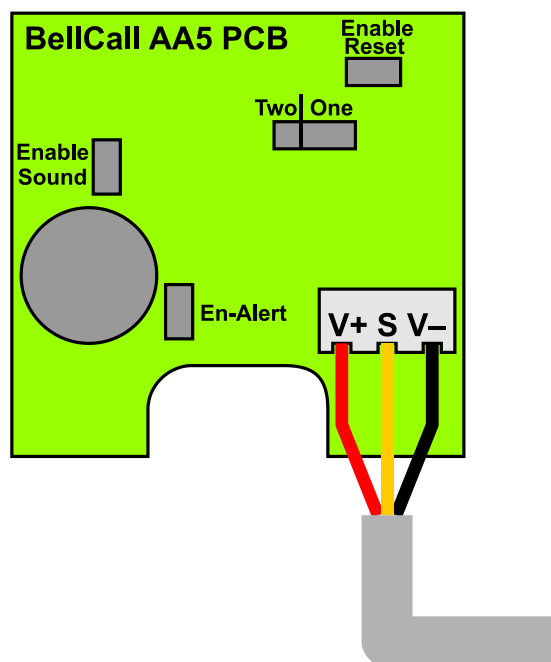
## Sounder

All models of Call Point are fitted with a sounder which gives a high pitch tone whenever an alarm is activated. This can be disabled if required.

There are several options that can be set during installation using jumpers:

Jumper Name	Pins	Models	Function
Enable Sounder	2	All Models	The Sounder is active by default; remove jumper* to disable Sounder
Enable Reset	2	All Models	The Reset Button is enabled by default; remove jumper* to disable (Use Magnetic Key only)
En-Alert	2	BC-AP, BC-APJ only	The Alert Button is enabled by default; remove jumper* to disable (Use Magnetic Key only)
Two/One	3	BC-AP, BC-APJ only	One: Operate Alert only for an emergency call Two: Press both Call and Alert

\* Store the link by hooking over one pin only



**Pendant (“Peardrop”) switch (Models BC-PD2 or BC-PD3)**

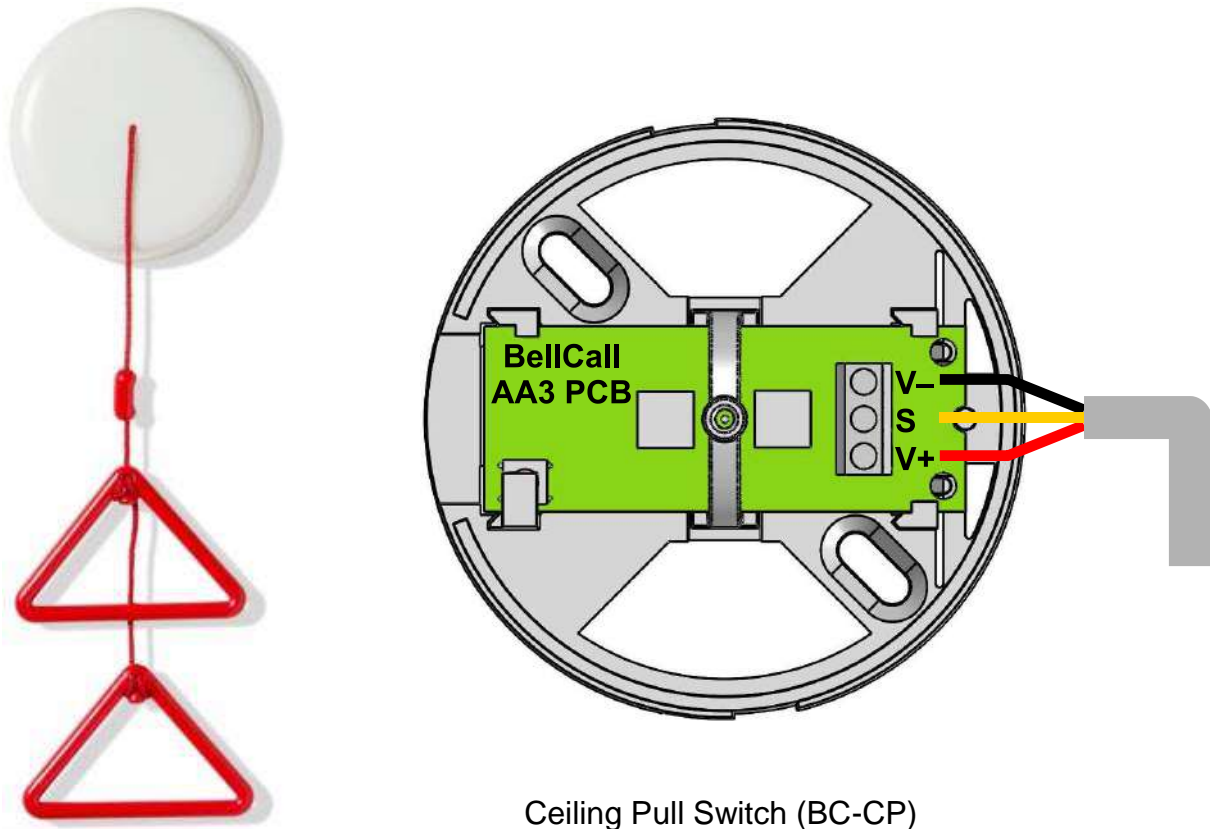
The Call Point models fitted with a jack socket (J suffix) can be used to connect a Pendant (“peardrop”) switch. This is usually supplied for bed-ridden patients or those with limited mobility. It is available with either 2 or 3 metres of cord. An alarm is made by pressing the orange button which will illuminate for reassurance. By design, the peardrop switch will also generate an alarm whenever it is plugged in or removed.





## Ceiling Pull Switch

The Ceiling Pull Switch allows additional call points to be placed around a room or an apartment within convenient reach of the resident or patient. Common locations are adjacent to a bed or in a bathroom. Each Ceiling Pull Switch is pre-fitted with a red cord and two red triangles which allow the devices to be operated from all levels whether the resident is standing, seated or lying on the floor.



Ceiling Pull Switch (BC-CP)

At least one Call Point (see Page 6&7) is required within the Alarm Zone in order to reset the Ceiling Pull Switch(es). This is usually placed in the same room.

### Installation

To fit the ceiling pullswitch, remove the translucent cover by twisting it anti-clockwise and giving it a gentle pull. The base of the unit has two fixing points for No8 screws and two large areas for cable entry. Mark the position of the holes and then remove the base while drilling. If required, use standard wall plugs. Fix the base with the screws and feed and connect the cable as shown in the diagram above. To replace the cover carefully push on and rotate clockwise until aligned and then twist to lock.

To accommodate different ceiling heights and differing needs of each user, the position of the triangles can easily be adjusted without removing them from the cord, and the cord length can be trimmed as required.

## Over Door Lamp

The Over Door lamp is an optional device which can be placed above a door, external to the room, to assist staff in locating the source of an alarm call. Alternatively, the Over Door Lamp may be placed in a common area such as a corridor and connected to up to 4 Alarm Zones.



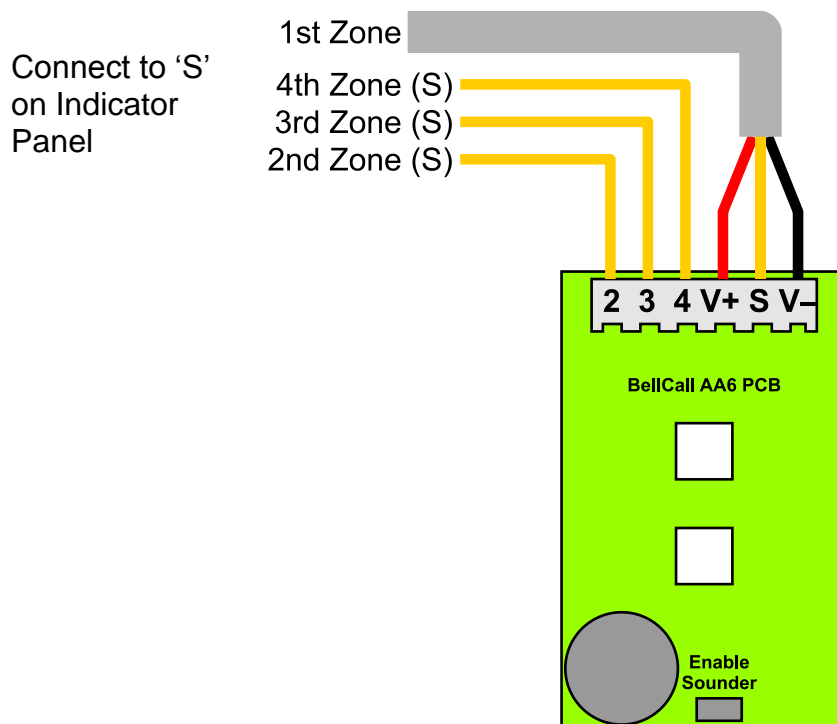
Over Door Lamp

**BC-OD**

Over Door Lamp

**BC-ODS**

Over Door Lamp  
With Sounder



## Installation

The overdoor lamp can be fitted to the wall or ceiling with No 8 screws and standard wall plugs. To access the fixing points remove the cover by gently squeezing the ends.

## Power Supply



340C 12V 1.5A



640 12V 1.5A Battery Backup Supply

Note. The mains connection to the power supply must be wired to a 3A spur by a qualified Electrician.

The 12V connection should be wired to the indicator panel using 1mm<sup>2</sup> cable.

### For most systems:

- Model 340C 12V DC, 1.5A
- Model 640 12V DC, 1A with battery backup.

### For systems with more than 10 Over Door lamps

- Model PS4 12V DC, 4A for systems.
- Model 840 12V DC, 4A with battery backup.

Bell System is unable to guarantee functionality for third party power supplies.

## **Standards**

This product complies with European directive 2004/108/EC on Electromagnetic Compatibility and Low Voltage Directive 2006/95/EC.

Emissions: Generic BSEN 61000-6-3

Immunity: Generic BSEN 61000-6-1

Low Voltage: Generic BSEN 60950

