

**Installation Manual**  
**For**  
**Nurse call system**  
**Ver. 2.0.1**

**Manufactured by**

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## Introduction


Nurse call system has to meet all the basic requirements such as call activating, audible alert, handling multiple calls and allowing the call to be cleared only after the patient is attended to.

## Features


- Durable and dependable hardware
- Comprehensive call activity
- Low Maintenance
- Scalability for future expansion needs
- Compact, reliable and optimised
- High performance with good quality & patient safety
- Patients call should remain registered until the nurse attends and clears it

## Functionality

**Call Initiation & response:** When patients initiate a call by pressing

“CALL” button (  ) from the bed side or by pressing the bed switch attached to the coil cord or by pulling a cord in the toilet, call will be registered at the Nurse Station and standard audible alarm “Attention Patient calling” will be generated along with the visual indication of corresponding room window flashing. The LED indicator on the calling unit also will light up. The door indicator of that patient room will get lighted up in RED colour.

This registered call is acknowledged by pressing the mute button on the Nurse Station display. This action will suppress the voice alert in the Nurse Station display and also makes the particular room window glow steady.

**Call Clearing:** Call can be cleared by pressing “CLEAR” button (  ) on the calling unit. This action turns off the room window at the Nurse Station, the indicator at the calling unit and the door indicator.



## Product Information

**Nurse Station:** The CMS is a microprocessor based intelligent system with wall mountable panel. The CMS consists of a windows dedicated for each call point. The models are available in multiples of 8. The CMS operates on 12 V DC supply. A dedicated cat5e cable is connected to each nurse call point via Main distribution board.

A power button is provided to shut the power of the CMS panel. When the button is long pressed, the power to the panel will be shut off. A mute button is provided to silence the announcement from the panel. Test button is provided to test the working condition of all LEDs, room indicators, annunciator and call point.

**Nurse Call Point:** The Unit is designed with soft touch key pad consisting of one key for call initiation and another for clearing call which is required to be done by the nurse attending to the patient. Addition push button switch is integrated to this unit by means of a coil cord to enable a patient to initiate a call from the bed itself. When a call is initiated, the LED blinks conforming that the call is registered. When the mute button is pressed in NCMS, the LED glows steady. When reset is pressed, the LED stops glowing.

**Room Indicator:** A dome shaped indicators can be mounted on the wall near the patient's door so that, nurse walking through the corridor can see it from a distance. These are made of super bright LEDs to indicate patient's call pending which can be seen from the corridor itself. When a call is initiated, the high bright RED led blinks at 1 Hz constant. When the mute button is pressed in NCMS, the RED LED glows steadily. When the call is cleared, the RI stops glowing.

## Wiring details



Fig - a

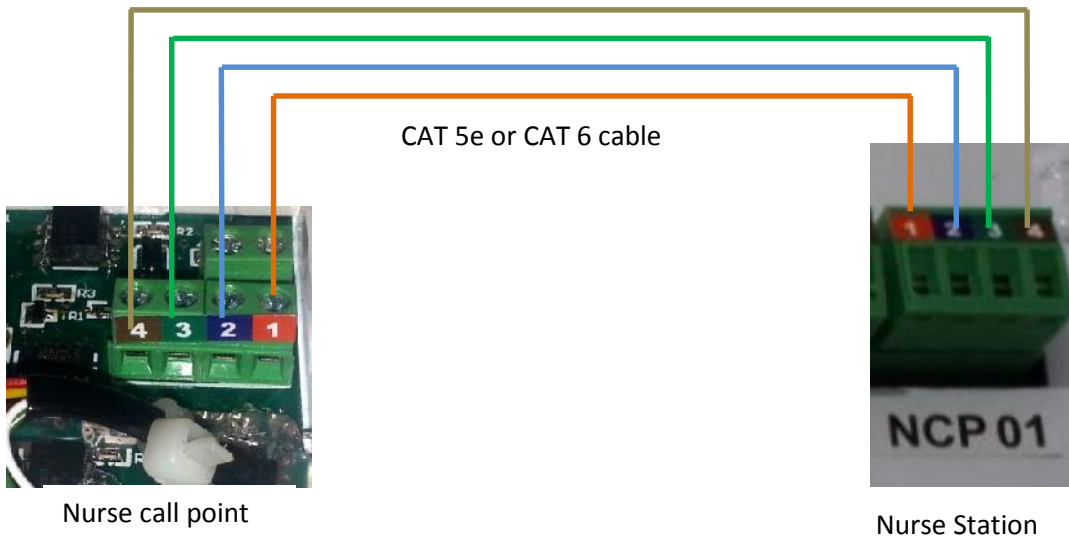


Fig - b

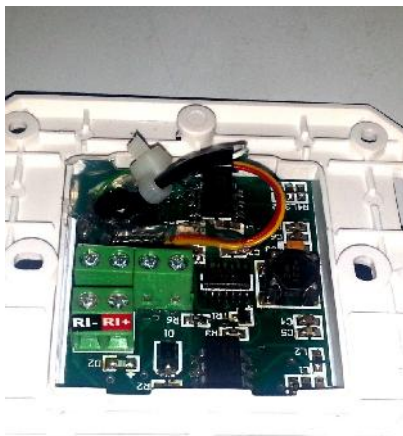
The fig - a shows the terminals of an 8 window Nurse station and fig - b shows the terminals of Nurse call point. All the terminals are marked with colours and numbers.

Cat 5e / Cat 6 or 4 core 0.75 sq.mm cables shall be used to connect between the Nurse Call point and nurse station.

There are four colours and 4 numbers (1 to 4) marked in the terminals. The cable shall be terminated as 1 to 1, 2 to 2, 3 to 3 & 4 to 4 as shown below.



### Termination of Room Indicator:



The fig above shows the terminals provided in the nurse call point. RI+ has to be terminated in the +ve terminal and RI- to the -ve terminal of Room Indicator. The Room Indicator connection can be taken from any nurse call point near to the room indicator and the configuration can be done in the programming.

## Installation

Before fixing the Nurse station, ensure that all the cables are brought near the panel and terminated using the detachable 4 pin terminals plugged in the back side of panel. Prepare the room numbers / names nomenclature in a poly carbonate sheet and cut the sheets to suit the dimension of the window led as shown in the fig –c below.



Fig –C

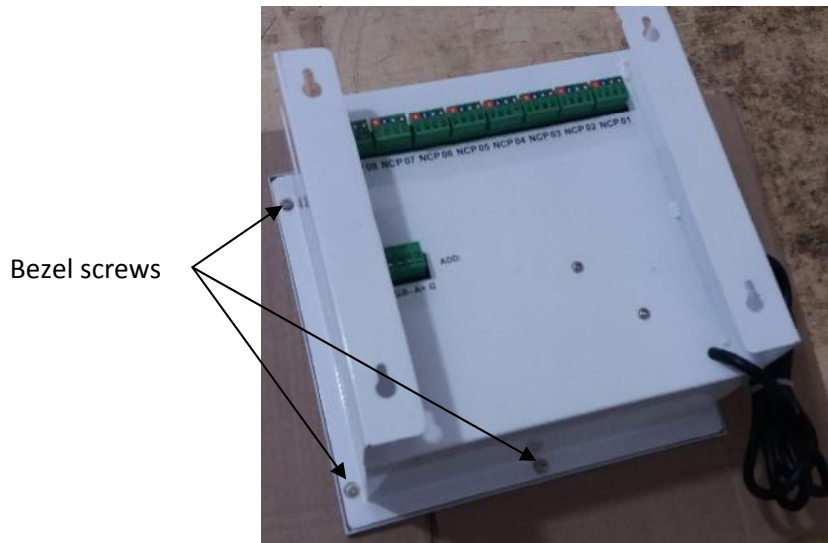


Fig –D

Unscrew the bezel screws on all the 4 sides. The front bezel can be removed and the static windows are accessible. Remove the black cover fixed in the window LED assembly. Remove the RED acrylic transparent sheet placed in the window. Place the prepared poly carbonate sheet in the appropriate window and place back the RED acrylic transparent sheet back in position. Place back the black cover.

**Nurse station:** The nurse station has built in power supply unit and a 230V AC mains power cord is provided to power up the panel.

**NOTE: The Nurse Station requires UPS power supply. Raw power may lead to unexpected failure of hardware / firmware. So as a manufacturer, we strictly recommend providing UPS power to the Nurse station.**

The Nurse Station is a wall mountable panel. The above figure shows the provisions of key holes provided in the "C" channel. Fix 4 nails on the wall



by measuring the distance between key holes in the panel and hang the panel and ensure the nail heads are locked in the key notch.

### **Nurse Call Point:**

The nurse call point has a back box and front panel. The back box is 3 x 3 inch standard electrical box which can be concealed in the wall. The front panel is again a 2 modular switch holder which can be fixed by screws. A bezel is provided to hide the screws which are again a press to lock type.

### **Room Indicator:**

Room Indicator is a metal enclosure having dimension of 90 x 90 x 40 mm. The back box can be concealed in the wall and the front plate can be fixed by screws.

## Commissioning

Before powering up the Nurse station, ensure that all the above points are taken care of and also ensure wirings are terminated as per the document.

1. Ensure all the nurse call points are terminated in the appropriate terminals at the back of Nurse Station.
2. Plug the 3 Pin plug to the UPS power point and switch ON the supply.
3. Press the "ON" key in the Nurse Station and hold the button for more about 5 seconds.
4. The panel powers up and a RED LED blinks near the nurse image in the panel.
5. Press "Test" button so that the entire window LEDs glow constantly & the Audible voice also hears. All Room Indicators also glows constantly.
6. Initiate a call from any nurse call point by pressing the "Call" button. The RED Led glows constantly behind the image of nurse in the Nurse Call point.
7. Simultaneously, the corresponding window LED starts blinking in the Nurse station with audible voice. The corresponding Room Indicator (if installed) will start flashing.
8. To acknowledge the call, press the "Mute" button in the Nurse station so that the window LED glows steady and the audio mutes. The corresponding Room Indicator (if installed) will glow constantly.
9. TO clear / reset the call, press the "CLEAR" button in the Nurse Call point.
10. The window LED is shut off and the Room indicator goes off.
11. To configure the Room Indicator, Connect terminals A+ & B- to a RS485 to USB converter. The USB port should be connected to a LAPTOP. Run the MODSCAN software provided in the CD. The procedure to configure Room Indicator is available in the Installation notes in the CD.

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