NURSE CALL MANUAL

EQUIPMENT

WIRING DIAGRAMS
• Equipment 1
Installation & Operation 2 & 3
Mimic Panel in wooden box 4
Mimic Panel in Aluminium extrusion 5
BHU & H07 Hand held unit 6
BHU & H05 Hand held unit 7
BHU & H02 Hand held unit 8
BHU & Pear push 9
Overdoor lights 10
Latching Push buttons 11
Bathroom Reset units 12
Pull cord units 13
• Wiring Diagrams 14
2 Bed with bathroom
(With Emergency) 15
4 Bed wiring
(Without Emergency) 16
Connector board wiring 17
Impulse pull cord wiring 18
Junction box wiring 19
Cable reticulation & TV audio wiring 20
TV audio wiring 21 & 22
• Equipment 

  Installation & Operation 2 & 3
  Mimic Panel in wooden box 4
  Mimic Panel in Aluminium extrusion 5
  BHU & H07 Hand held unit 6
  BHU & H05 Hand held unit 7
  BHU & H02 Hand held unit 8
  BHU & Pear push 9
  Overdoor lights 10
  Latching Push buttons 11
  Bathroom Reset units 12
  Pull cord units 13

• Wiring Diagrams 14

  2 Bed with bathroom (With Emergency) 15
  4 Bed wiring (Without Emergency) 16
  Connector board wiring 17
  Impulse pull cord wiring 18
  Junction box wiring 19
  Cable reticulation & TV audio wiring 20
  TV audio wiring 21 & 22
EQUIPMENT

Installation & Operation 2 & 3
Mimic Panel in wooden box 4
Mimic Panel in Aluminium extrusion 5
BHU & H07 Hand held unit 6
BHU & H05 Hand held unit 7
BHU & H02 Hand held unit 8
BHU & Pear push 9
Overdoor lights 10
Latching Push buttons 11
Bathroom Reset units 12
Pull cord units 13
GENERAL DESCRIPTION

The system allows a patient to call a Nurse for assistance, from a bed, toilet or bathroom unit. Ideal for Hospitals, Day Clinics, Old Age Homes and Frail Care Centres.

FEATURES

- Nurse Call.
- Emergency Call (optional).
- Large Reassurance Lamp.
- Pear Push Socket.
- Easily Cleaned.
- Duct or Surface Mount.
- Pull Cords.
- Large Over Door Lamps.
- Lamp or Mimic Panel Indication.
- Buzzer or Chimes Call Tone.

INSTALLATION

A typical system would consist of a Lamp Panel and Power Supply at the Nurses Station, and Call Units at the beds, bathrooms and toilets. Outside the Ward and Bathrooms in the passage would be an Over Door Lamp.

The central P.S.U. provides 24V DC to the Lamp Panel, O/D Lamps and all the Call Units.

WIRING

The bed, bath and toilet units connect to the same leads as described below. The units have various termination points indicated on the P.C.B.

+ = +24V DC from the P.S.U. (com.)
- = GND from the P.S.U. (com.)
L = Call line to the LED on the Lamp Panel.
O = Enable line to the O/D lamp in passage (com.)
O = Enable line to the O/D lamp in the Ward. Only used when the unit is in a bathroom in the Ward. (com.)
E = Emergency Call line from each Ward to the Emergency P.C.B. at the Nurses Station. Only used when the system has emergency call. (com.).

(Com.) indicated that the line is common to all beds in a ward or all the units in a bathroom or toilet.

The Over Door Lamp is connected between the positive line of the P.S.U. and the 'O' connection of the Call Units.

The Lamp Panel LEDs negative side is connected via a resistor to the 'L' connection of the Call Units. The positive side of LED's are all commoned to the +LED output of the buzzer (chime) PCB.

The Buzzer PCB has three connections indicated on the solder side of the buzzer PCB.

+ (large) = + 24V DC from the P.S.U.
- = GND from P.S.U.
+ (small) = +Common positive to the positive side of all the LED on the Lamp Panel.

The Emergency Buzzer PCB also has 11 connections down the side of the PCB. Each connection must be connected to the E line of the beds and bathroom / toilet units of an individual ward. This input switches off the normal Call buzzer and switches on the emergency Call buzzer when an Emergency Call is made in any Ward.
NORMAL NURSE CALL:

When a Normal Call is made from a bed, bathroom or toilet the following happens:

- The Reassurance Lamp lights up at the unit.
- The Over Door Lamp lights up in the passage.
- The Led on the Lamp Panel lights up.
- The Buzzer at the Lamp Panel turns on.

The Call can only be cancelled by pressing the cancel button on the unit that initiated the Call.
All functions return to normal.

EMERGENCY CALL:

This feature only applies to systems with Emergency. When an Emergency Call is made from a bed, bathroom or toilet the following happens:

- The Reassurance Lamp flashes at the bed.
- The Over Door Lamp flashes in the passage.
- The LED flashes on the Lamp Panel.
- The Emergency Buzzer flashes.

The Emergency Call can only be cancelled by pressing the cancel button on the unit that initiated the Call.
All functions return to normal.

Please note, a bed unit can have normal call only or normal and emergency call. Normal call on the the pear push or HHU (hand held unit) and emergency call from the bed head unit. A bathroom or toilet can only have either normal or emergency call.

MIMIC PANEL:

The "EMERGENCY" push button on the mimic enables the buzzer and LED light on all the other mimic panels when pressed.
The "NIGHT" push button reduces the chimes volume.
The "LAMP TEST" push button enables all the LED's for testing purposes.

SPECIFICATION:

CALL CANCEL UNIT:
Power Requirement:
24V DC @ 30 mA. Idle state.
and 80 mA. operated.
The Over Door output can drive two 2/3 watt 24V globes.
The Lamp Panel output can drive two LEDs.
Call Button.
Cancel Button.
Reassurance Lamp.
Pear Push socket.
Duct Mount.
Standard 4x4 or 4x2 Mounting.

POWER SUPPLY:
Input is 220 / 50 VAC selectable with 1 amp. fuse protection. Output is 24V DC 100VA max. 2 amp continuous load, 5 amp fuse protection.
The input and output is lightning protected.

OVER DOOR LAMP:
Festoon Lamp 24V 2 / 3 watt.
Red Prism shaped Lens.
One side always common to positive.

2 High-bright red LEDs.
White dome shaped lens.
Resistor protected for 24V.
**BEDHEAD & HO7 HAND HELD UNIT**

**WITH TV CONTROL**

- **Infra red LED**: (Point at TV to control)
- **Optional Loudspeaker for TV Audio**
- **Volume control for TV**
- **Press for emergency call**
- **Press cancel call**
- **Press to call a nurse**
- **Jack socket for TV audio headphones**
- **To switch reading light on and off** (Needs relay board to interface 220V)
- **Press for emergency call**
- **Press cancel call**
- **Also available with DB9 connector for easy removal of hand held unit**

**CHANNEL CONTROL FOR TV**

- **MICRO SOUND M02**

**REASSURANCE LED**

**Volume control for TV**

**Jack socket for TV audio headphones**

**Press to call a nurse**

**To switch reading light on and off** (Needs relay board to interface 220V)

**Infrared LED**

**Optional Loudspeaker for TV Audio**

**Volume control for TV**

**Press for emergency call**

**Press cancel call**

**Press to call a nurse**

**Jack socket for TV audio headphones**

**To switch reading light on and off** (Needs relay board to interface 220V)
DIAGRAMS

EQUIPMENT
BEDROOM UNITS

BEDHEAD & HO5 HAND HELD UNIT
WITH MUSIC SELECTION

- Radio on/off
- Reassurance light
- Press to call a nurse
- Optional Loudspeaker for TV Audio
- Volume control for TV
- To switch reading light on and off (Needs relay board to interface 220V)
- Press for emergency call
- Press cancel call
- Press for emergency call
- MICROSOUND M02
- Optional Loudspeaker for TV Audio

Also available with DB9 connector for easy removal of hand held unit

MICROSOUND M02

Volume control for TV

Press to call a nurse

Reassurance LED

Channel control for TV

MICROSOUND M02

Optional Loudspeaker for TV Audio

To switch reading light on and off (Needs relay board to interface 220V)

Press for emergency call

Press cancel call

Radio on/off

Press for emergency call

Optional Loudspeaker for TV Audio

Volume control for TV

Press to call a nurse

Reassurance light

To switch reading light on and off (Needs relay board to interface 220V)
BETEDHEAD & HO2 HAND HELD UNIT
WITH BEDLIGHT SWITCH

Press to call a nurse

Press for emergency call

Press cancel call

Optional Loudspeaker for TV Audio

To switch reading light on and off (needs relay board to interface 220V)

For light relay PCB activation

MICROSOUND HO2
Normal call on Pear push
Emergency call on bed head unit
OVER DOOR LIGHT

Red LED indication

Red lamp indication
LATCHING PUSHBUTTONS

- EMERGENCY MICROPHONE
  - Press to call & press again to cancel

- CALL MICROPHONE
  - Reassurance LED

- Red LED indication

- Red lamp indication
BATHROOM RESET UNIT

Press to call

Press cancel call

MICROSCOUND M02
PULL CORD UNITS

IMPULSE

CALL

MICROSOUND M02

Press to call
Press cancel call

LATCHING

Reassurance LED

CALL

MICROSOUND M02

Pull to call & cancel at reset unit

Pull to call & pull again to cancel
DIAGRAMS

WIRING DIAGRAMS

2 Bed with bathroom 15

(With Emergency)

4 Bed wiring 16

(Without Emergency)

Connector board wiring 17

Impulse pull cord wiring 18

Junction box wiring 19

Cable reticulation & TV audio wiring 20

TV audio wiring 21 & 22
WIRING DIAGRAMS

2 Bed with bathroom (With Emergency) 15

4 Bed wiring (Without Emergency) 16

Connector board wiring 17

Impulse pull cord wiring 18

Junction box wiring 19

Cable reticulation & TV audio wiring 20

TV audio wiring 21 & 22
2 BED WITH BATHROOM
WITH EMERGENCY
4 BED WIRING
WITHOUT EMERGENCY

LEGEND
Black K
White W
Blue B
Red R

DIAGRAM
WIRING
IMPULSE PULL CORD WIRING
WITH RESET UNIT

RESET UNIT

IMPULSE PULLCORD

OVERDOOR LIGHT

Negative from PSU
Lamp lead to mimic
Positive from PSU

LEGEND
Black K
White W
Blue B
Red R
Green G
Brown N
Yellow Y
Orange O
Pink P
Violet V

NB: If LED per room then join L1 & L2

L1 LED for bed 1 on mimic
L2 E Emergency (Per room)
B1 OD LED for bathroom on mimic

OD Overdoor light output

TV1 SCREENED CABLE FROM TV AUDIO
TV2 SCREENED CABLE FROM TV AUDIO
TO OVERDOOR LIGHT

MAIN FEED CABLE 4PR
FROM JUNCTION BOX

TV AUDIO TO HEADPHONE SOCKET ON HHU
JUNCTION BOX WIRING
WITH EMERGENCY

Black K
White W
Blue B
Red R
Green G
Brown N
Yellow Y
Orange O
Pink P
Violet V

24V POWER SUPPLY

220V

MIMIC PANEL

I.C.U.

MIMIC WIRING

EMERGENCY CHIMES UNIT

DIAGRAM WIRING
CABLE RETICULATION & TV AUDIO WIRING
2 BED SIDE VIEW

DIAGRAM WIRING

MIMIC PANEL

PSU (MPS-242)

JUNCTION BOX

MICROSOUND HO7

Mylar screened cable

Audio output of TV

HO7 Hand held

8 Core cable

24V POWER SUPPLY

220V RY

+ -

MICROSOUND REGULATED DC POWER SUPPLY

LIGHTING PROTECTED ADJUSTABLE VOLTAGE MPS-242

MICROSOUND PANEL

I.C.U. DUTY STATION

ISOLATION NEO NATAL ICU

NIGHT

18

CABLE RETICULATION & TV AUDIO WIRING
2 BED SIDE VIEW
TV AUDIO WIRING
4 BED (2TV) TOP VIEW
TV AUDIO WIRING
4 BED (4 TV) TOP VIEW