



# TeleAlarm® NurseCall12

INSTALLATION AND PROGRAMMING MANUAL

FOR USE WITH MODEL NCM2

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PLEASE READ THE ENTIRE  
INSTALLATION AND PROGRAMMING  
MANUAL PRIOR TO START OF  
INSTALLATION AND USE.

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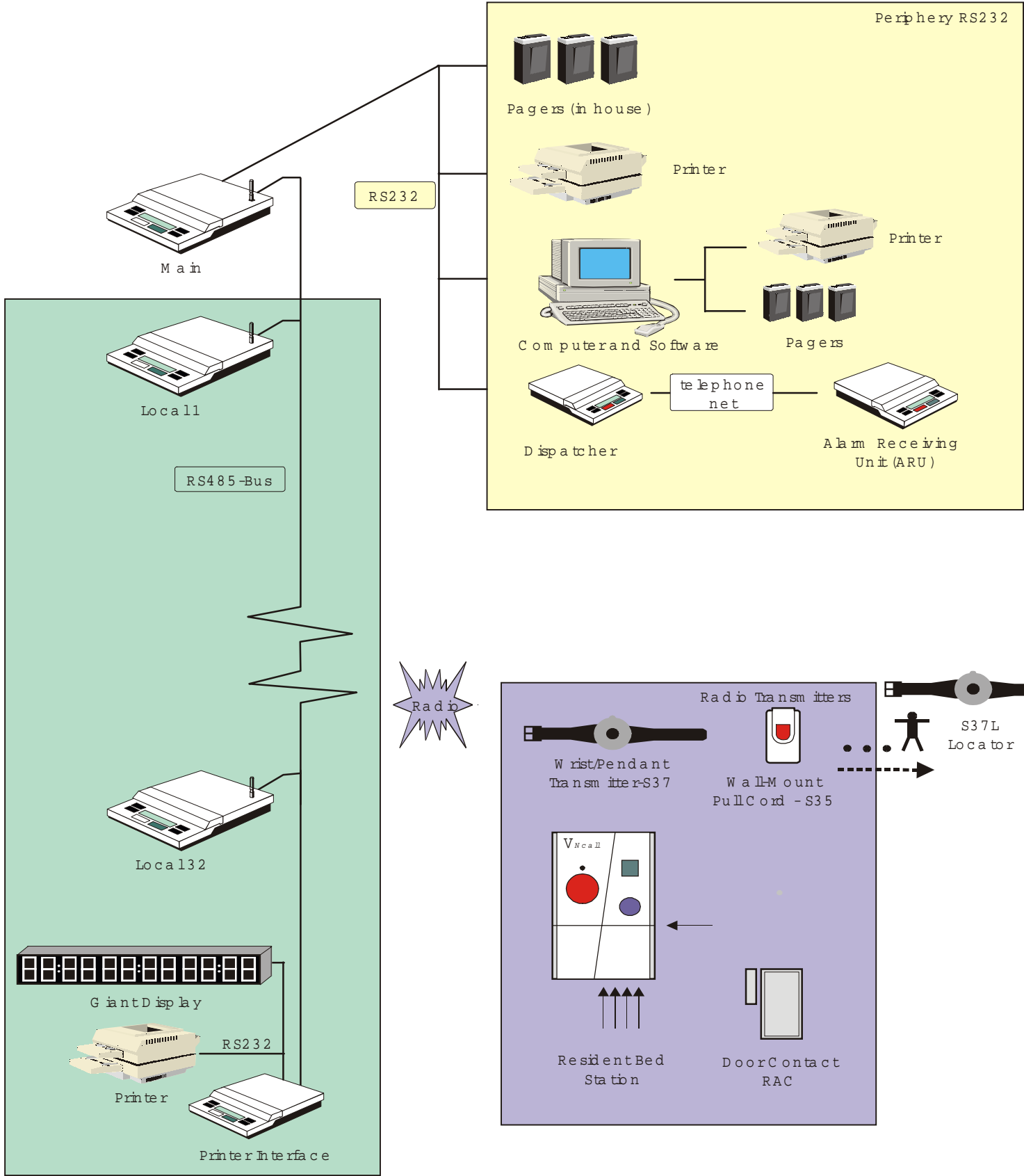
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SYSTEM OVERVIEW



## ➤ TeleAlarm® **NurseCall 2** : Advanced Wireless Nurse Calling System

The TeleAlarm® **NurseCall 2** is a user-friendly system designed for use in assisted living facilities, retirement homes, nursing centers, and hospitals.

The primary purpose of the Fidelity TeleAlarm **NurseCall 2** is to alert staff to a Call for Help signal that may be patient-initiated or staff-initiated and provide a means to reset (cancel) the alarm. The **NurseCall 2** system performs the following fundamental operations:

- a) When a patient triggers a Call for Help by pressing the button on his transmitter, the Main Receiver at the nurses' station annunciates to alert staff. The room number (or room/floor/bed) of the person who triggered the alarm shows visually on the LCD Display of the NurseCall Main Receiver. Other information available includes: date and time of the alarm, strength of the signal, the number of other alarms being sent, and the Local Receiver that picked up the signal.
- b) Each Call for Help also annunciates at the Local Receiver installed in each wing of the facility and shows visually on the LCD Display of that Local Receiver.
- c) A dome light over the door of each patient room is wired into an open/close contact within the Resident Bed Station (N45). When a Call for Help is triggered, the contact opens and the dome light turns on, thus alerting staff.
- d) When a Call for Help is triggered by pressing the Red Button on the Resident Bed Station (N45), the red LED on the N45 lights up to visually indicate that the Call for Help has been transmitted.
- e) After a Call for Help is addressed, the Call may be reset (cancelled) from the resident's room by pressing the Green Button on the Resident Bed Station (N45).

A variety of wireless transmitters send alarms or messages to the **NurseCall 2** Main Receiver by radio signal.

- Resident Bed Station N45 (different alarms/messages) **D**
- Wrist/Pendant Transmitter S36, S37 and S37L (Call for Help) **E**
- Wall Mount Pull-Cord Transmitter S35(Call for Help), S35A (Call for Assistance)
- Wireless Door Contact RAC35 (Call for Help) **G**

The system transmits through radio frequency, is highly flexible, and quickly installed. The radio signal range is determined by the signal strength of the transmitted alarms when received at the Main Receiver. For a more detailed explanation please see Chapter « Display Indications. »

## INITIAL SETUP

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The Resident Bed Station (N45) is capable of sending up to 13 different alarms/messages that cover the range of tasks required by the staff members in the performance of their duties.

The Wrist/Pendant Transmitter S36, S37 and S37L can be worn all the time. The Wrist Transmitter does not disturb the user, even during sleep. These transmitters are waterproof to a depth of three feet and may be used in the bathroom.

The **NurseCall 2** Main Receiver (NCM2) may control up to 300 transmitters using programming numbers 000-254.

In its simplest configuration the Main Receiver can handle incoming data as a stand-alone receiver with alarms signaling visually and acoustically.

If the Main Receiver is connected to other devices by the RS232 Interface, the information is also transmitted to these devices. According to your needs several other configurations are possible (see System Overview on page 3).

The chapter "RS232-Interface" explains how you may connect the **NurseCall 2** to a printer, paging system, computer with **TeleAlert Alarm** Management Software (TAMS) or to a separate receiver (Dispatcher) that allows transmission via the telephone.

The chapter "Connecting Local Receivers through the RS485-Interface" explains how to connect several Receivers together in one system (main-local configuration) in order to extend radio frequency coverage.

The following alarms and events alert staff visually and acoustically; alarms and events are also automatically transmitted to any connected devices (pagers, computer, serial printer etc.)

- Identification of alarm/message
- Floor number / room number / bed number or a single number
- Date and time
- Quality of the received radio signal
- Identification of the receiver that has received the alarm/message (main/local)

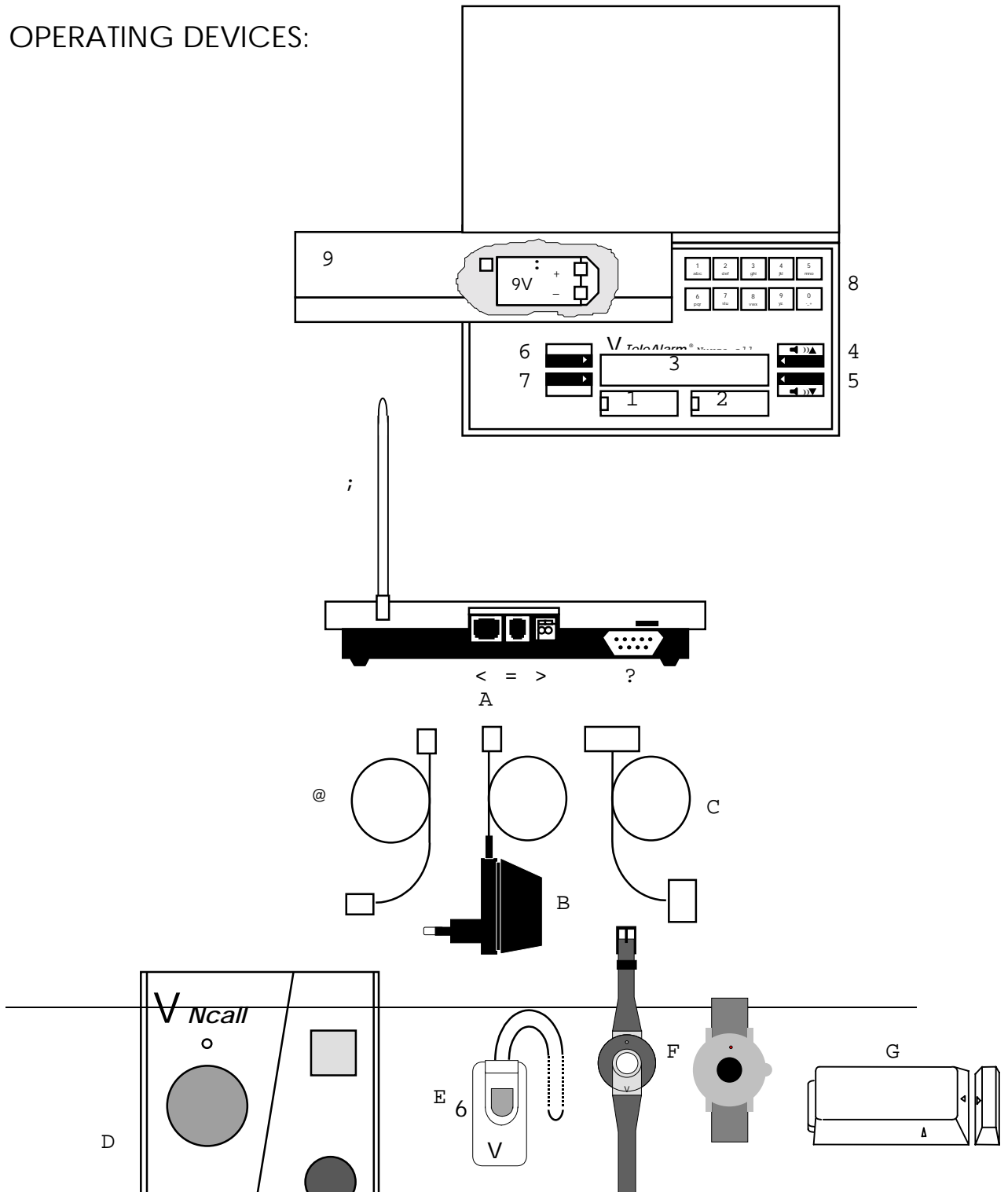
The standard antenna ; usually supplies sufficient radio reception. However, the location of the receiver and the construction of the building can influence the reception range. If you wish to improve your radio reception range, you may connect additional receivers (up to 32) using the RS485 Interface. < The maximum distance between the first and last receiver should be no further than 4000 feet.

**Locate 1**®, a resident locator option, may be integrated into the **NurseCall 2**. When a resident triggers an alarm, the LCD Display will

## INITIAL SETUP

indicate **who** sent the alarm and **where** the call originated. For a more detailed description refer to the chapter entitled "**Locate 1**® Resident Locator System." If you incorporate **WanderCall**, a wander alert option, the system will alert staff when a resident nears a wander-controlled door, and staff will have the opportunity to intercept the resident before he can exit the door.

## OPERATING DEVICES:



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**NurseCall 2: Main Receiver**

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- 1 White Button, Erase Button
- 2 Green Button, Confirm Button
- 3 Display
- 4 Button « Volume higher »
- 5 Button « Volume lower »
- 6 Selection Button 1
- 7 Selection Button 2
- 8 Keyboard
- 9 Battery Cover
- : Backup Battery
- ; Antenna
- < RS485-Connection
- = Power Connection
- > Output Relay
- ? RS232-Connection
- @ Cable to RS485-Connection
- A AC Adapter - Small Plug
- B AC Adapter - Large Plug
- C Cable to RS232-Connection

**NurseCall 2: Transmitters**

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- D Resident Bed Station (N45)
- E Wall Mount Pull-Cord Transmitter (S35)
- F Wrist/Pendant Transmitter (S36/S37)
- G Wireless Door Contact (RAC35, RAC45)





# INITIAL SETUP

IMPORTANT! If the installation requires more than 300 transmitters, you must use Main Receiver NCM2S, not NCM2. Do not use this manual for NCM2S.

## ➤ How to Connect Optional Components to the RS232 Port

Before programming the **NurseCall 2**, you will want to set the jumpers located inside the Main Receiver if you intend to connect a Paging System, a Computer, a Printer, or the S10 Dispatcher to the RS232 port located at the back of the Main Receiver.

To access the pins, use a screwdriver to loosen, but not completely remove, the screws in the underside of the Main Receiver. Being careful not to detach the cable ribbon, lift the cover. The jumper pins are located in the upper right hand corner just to the left of the antenna enclosure. Labels on the circuit board next to the pins identify the pins.

If you will be using a standard RS232 cable (computer cable) to connect a device, you may set the jumpers positions as follows:

A. Paging system (By default the jumpers are set for connection to a paging system.)

-> TxD on (3), RxD on (2)

B. Computer

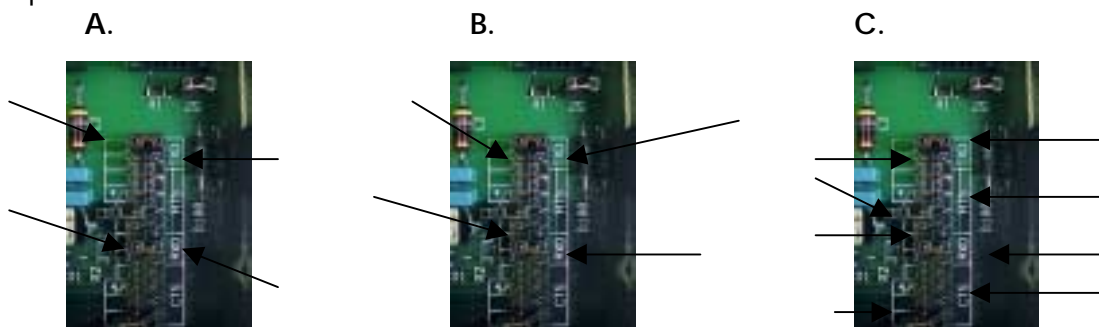
-> TxD on (2), RxD on (3)

C. S10 Dispatcher

-> TxD on (3), RxD on (2), CTS on (8) and RTS on (7)

D. Printer

-> Settings vary according to the printer. Check instructions supplied with the printer.



## ➤ How to Install Backup Battery and Connect to Power Supply

1. Slide the battery cover 9 slightly to the left. Lightly lift the left end to free it from the catch, and slide the cover to the right. Insert the 9V NiMH rechargeable battery (accumulator.) c Follow the polarity indications engraved in the battery compartment.

**Note:** After insertion of the new Backup Battery, press button '9' of the keyboard to test its quality.

**WARNING:** Always insert the battery first. Plugging in the NurseCall receiver to an electrical outlet without first inserting the battery may result in

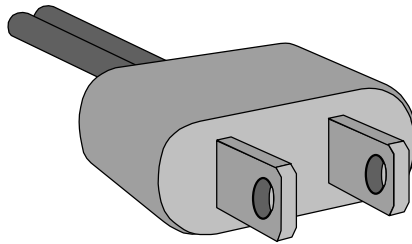
Every Main and Local Receiver must always have in place a 9V NiMH rechargeable accumulator \* backup battery because the receiver checks the backup battery automatically once a day.

\* Accumulator is another word for battery.

When a power outage occurs, the backup battery will keep the system running for about 5 hours. Once the power returns, the battery will recharge automatically.

The Display will show « CHANGE ACCUMULATOR » when the backup battery is being charged. The charging period may last up to 48 hours. If after 48 hours « CHANGE ACCUMULATOR » still appears on the Display, you need to change the backup battery. When changing the battery, be sure to follow the directions above.

2. Second, insert the jack connector of the AC adapter **A** into the jack input = at the back of the **NurseCall 2** Receiver. Then plug the AC adapter **B** into an electrical outlet (120V).



Install the **NurseCall 2** Receiver in a dry place, away from any source of heat.

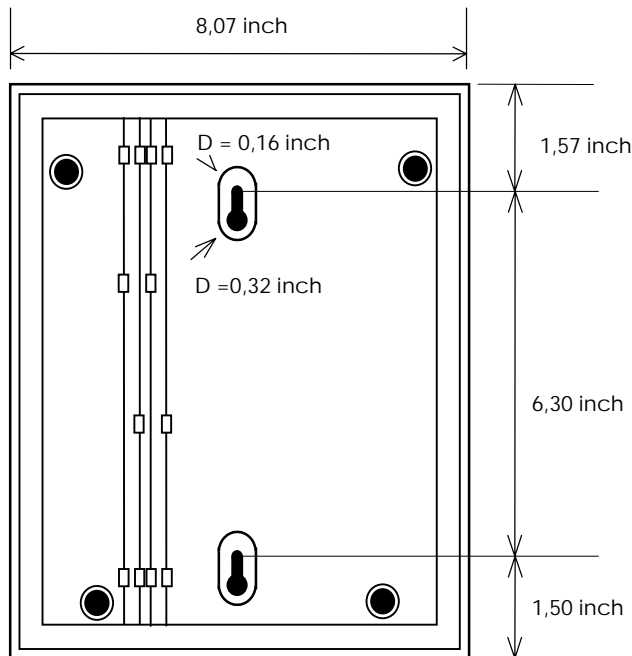
➤ Installation on a Table or Nurses' Station

Install the **NurseCall 2** Receiver on a non-sliding surface. Avoid close proximity to other electronic devices. The same methods of installation are used for both Main and Local Receivers.

While the **NurseCall 2** is in operation, the antenna ; should never be removed.

➤ Wall Installation

The **NurseCall 2** Receiver may be installed with two screws. The design below indicates the position of the screws. At the bottom of the housing two channels are provided for cables.





# HOW TO PROGRAM THE **NurseCall 2**

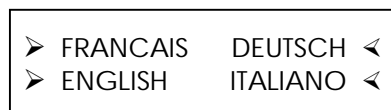
## ➤ Default Parameters

The following values are defined as default values. When your Main Receiver (NCM2) is delivered (delivery state), it will be configured as follows:

Date and time	01.01.97; 00:00:01
Transmitters	none
RS232-Connection	none
Local Receipt	not enabled
Remote Receipt	none
Relay output	closing contact
Language	to be defined
Indication mode (floor/room/bed or a single number)	to be defined
Jumpers for RS232-Interface systems	set for connection to paging systems

## ➤ Select Language and Transmitter ID Code

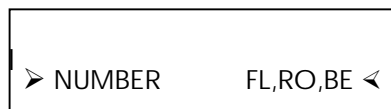
The first screen to appear on the Display 3 asks you to select the language.



K Select « ENGLISH » with button 7.

The second screen on the Display 3 asks you to select the transmitter identification mode. You must program all transmitters (N45-S35-S36-S37-S37L-RAC) choosing a 'single number' or 'floor number/room/bed.'

**You may select only one ID mode. Once you select the transmitter ID mode, you must program all transmitters using the same ID mode.**



- K Use buttons 5 or 7 to select the transmitter identification mode. Decide whether you want to program a 'single number' or 'floor/room/bed' for the transmitter identification.

**NOTE:** *If at any time you want to change the ID mode, you must reset the Main Receiver (return to the delivery state). All programming will be lost, and you must program all parameters again.*

### ➤ Limitations of ID Code Numbers

When selecting the transmitter ID mode, be aware of certain limitations:

1. No number may exceed '254.'
2. If you are planning to use the residents' room numbers as the transmitter ID code, and the room numbers exceed the number '254,' you may have more options if you select the 'floor/room/bed' mode.

### ➤ How to Program the **Locate 1** Option

If your **NurseCall 2** system will incorporate the **Locate 1** option, you will want to program that feature next.

Step 1: Enter the combination « 2347 » on the keyboard 8.

The Display will indicate:

➤ ON RELAY ON/OFF <

Step 2: Enter the code « 173956 ».

Step 3: Answer the question Reset + Code with YES.

Step 4: Again enter the code « 173956 ».

The Display will Indicate:

➤ NO/NON LOCATOR? YES/OUI <

Answer the question with YES.

**NOTE:** Following the programming of the **Locate 1** feature, the Main Receiver returns to the delivery state and the language selection again shows on the Display:

➤ FRANCAIS	DEUTSCH	◀
➤ ENGLISH	ITALIANO	◀

K Select « ENGLISH » with button 7.

At the Choice « ENGLISH », the Display shows:

➤ NUMBER	FL,RO,BE	◀
----------	----------	---

K Select the transmitter ID Code again with buttons 5 or 7.

The **Locate 1** function has already been programmed during the initial programming; do not program this feature a second time. *(Whenever you choose 'YES' or 'NO' to the locate question, all previously programmed parameters will be erased. Therefore, you want to make this selection only at the initial programming.)*

Follow the instructions in the following section entitled « How to Access the Programming Mode » to program the rest of the parameters of the system.



## ➤ How to Access the Programming Mode

To access the programming mode of the Main Receiver, enter the code « 234 » on the keyboard 8.

Then select the single program by pressing one of the keyboard buttons '1'-'7':

1 abc	2 def	3 ghi	4 jkl	5 mno
6 pqr	7 stu	8 vwx	9 yz.	0 -_+

- Button '1': Date and Time
- Button '2': Transmitter ID Numbers
- Button '3': RS232-Connection
- Button '4': Local Receipt (Reset)

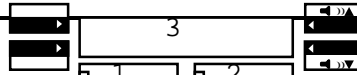
## HOW TO PROGRAM THE **NurseCall 2**

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- Button '5': Remote Receipt (Reset)
- Button '6': Language
- Button '7': Relay as Closing or Switching Contact
- Button '8': Enabling programming with « Nps-Software »)

If you are already in the programming mode, you need enter only the single number of the parameter that you wish to program. If 90 seconds has elapsed since you last programmed a parameter, you need to enter the programming code and the parameter number, for example: '2341.'

**NOTE:** *The Main Receiver does not receive any alarm/message in the programming mode!*



The programming itself is performed with the help of menu indications at the Display 3:

Notes: You can correct false entries by pressing the White (Erase) Button 1.

You must confirm every entry by pressing the Green Button 2. You may also use the Green Button to move forward in the programming menu step by step until you reach the Ready State. When you reach the Ready State, the Display shows the Date and Time and the system is ready to receive alarms.

After 90 seconds without activity the Main Receiver automatically returns to the Ready State.

If you press a non-valid button, you will hear an acoustic signal.

### ➤ Programming « Date and Time » (Button '1')

When you press Button '1' or '2341' on the keyboard 8, you will notice that one of the fields showing on the Display 3 (month, day, year, hour, minutes or seconds) is underlined.

DATE:	0 <u>5</u> .05.97
TIME:	09:45:30

To edit the underlined field:

K Select the field you wish to edit with buttons 6 (DATE) or 7 (TIME).



## HOW TO PROGRAM THE **NurseCall 2**

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K Move forward with button 4 or backward with button 5.

K Press the Green Button 2 to return to the Ready State.

### ➤ Programming « Transmitter ID Number » - (Button '2')

After pressing Button '2' or '2342' on the keyboard 8 the Display 3 indicates:

WAITING FOR  
TRANSMITTER CODE ...

K You are now ready to trigger the transmitter you wish to program (N45, S35, S36, S37, S37L or RAC). All versions of each transmitter are programmed in the same manner.

Each transmitter may be triggered as follows:

1. N45 - Press the **Green Button** of the Resident Bed Station. The Green Button programs the N45 into the system and it also resets alarms. **(If you press the Red Button to program the N45, the N45 will start its repetition cycle and continue to send an alarm every two minutes until the alarm is reset, which may interfere with the programming of other transmitters).**
- 2) S35 - Press the **Red Button** of the Wall Mount Pull-Cord Transmitter.
- 3) S36 - Press the **Red Button** of the Wrist/Pendant Transmitter.
- 4) S37 - Press the **Black Button** of the Wrist/Pendant Transmitter.
- 4) RAC - Line up the **arrows** at the ends of the radio transmitter (large part) and the magnet (small part) of the Door Contact. Then separate the two parts. If the RAC is already installed, open the door to separate the magnet.

**NOTE:** *After each transmitter is programmed, check its accuracy and confirm by pressing the Green Button 2 and viewing the display to check that the indication mode is correct.*

You may correct a false entry by pressing the White (Erase) Button. 1

When you have completed programming all transmitters, press the Green Button until the Display indicates the date and time. The Display also shows the date and time when there are no alarms.

## HOW TO PROGRAM THE NurseCall 2

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DATE:	05.05.97
TIME:	09:45:30

- K Using the keyboard 8, enter the ID number of the 'floor/room/bed' or 'single number' for each individual transmitter.

### ➤ How to Program 'Floor/Room/Bed'

FLOOR NUMBER:	
---------------	---

- K Select the floor number with the keyboard 8 ('000' - '254').
- K Confirm your selection by pressing the Green Button 2.

ROOM NUMBER:	
--------------	---

- K Select the room number with the keyboard 8 ('000' - '254').
- K Confirm your selection by pressing the Green Button 2.

BED NUMBER:	
-------------	---

- K Select the bed number with the keyboard 8 (0-9).
- K Confirm your selection by pressing the Green Button 2.

### ➤ How to Program 'Single Number'

NUMBER:	
---------	---

- K Select the single three-digit number with the keyboard 8 (000-254)
- K Confirm your selection by pressing the Green Button 2.

After programming the transmitter ID number of each transmitter, you need to attribute a user number for the paging system. Unless you have ordered specifically programmed pagers, all alarms will be transmitted to all caregivers using the default Paging Group '00.' If using a computer in the system, the Paging Group '00' is used also.

## HOW TO PROGRAM THE **NurseCall 2**

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If your system will use specially ordered, specifically programmed pagers, you can program one of 25 paging groups for each transmitter. (See Chapter « Paging System.»)

PAGING GROUP : 00 (00 - 24)
--------------------------------

- K Select the number of the PAGING GROUP with the keyboard 8 ('00' – '24').
- K Confirm your selection by pressing the Green Button. 2.

If you trigger a transmitter that has been previously programmed, the Display will show the originally programmed ID number. You have two options:

1. By pressing the Green Button 2, you can keep the originally programmed ID number;
2. By pressing the White Button 1, you may erase the former number and program a new ID number.

**NOTE:** *If the transmitter is a new transmitter that has never before been programmed, and an already programmed transmitter ID number appears on the Display when you first trigger it, the new transmitter may have the same code as a previously programmed transmitter. In this case, contact your distributor for a replacement. DO NOT CHANGE THE TRANSMITTER ID BECAUSE THE PREVIOUSLY PROGRAMMED TRANSMITTER WILL NO LONGER BE ABLE TO REPORT CORRECTLY.*

- J A maximum number of 300 transmitters using numbers (000-254) can be programmed for each system using the NCM2.

**ATTENTION:** After a transmitter has been programmed, remove it from close proximity to the Main Receiver because it may emit an occasional signal that could interfere with the programming of another transmitter.

Check that the newly programmed transmitter is programmed with the correct ID by pressing the alarm button of the transmitter and checking that the correct ID appears on the Display.

**RECOMMENDATION:** Mark each fixed transmitter (N45, S35, RAC) and each mobile transmitter (S35, S36, S37, S37L) immediately after programming to make certain that the correct transmitter is installed in each room and dispensed to each resident/patient.

- ) The usual transmitter programming is to program every transmitter used in a room with the same ID ('floor, room, bed', or 'single number'). This identical

## HOW TO PROGRAM THE **NurseCall 2**

programming is especially important if the Resident Bed Station (N45) is used in the system because the N45 will reset alarms only from identically programmed transmitters.

If the N45 is not used in the system, and there is a need to know which transmitter is sending an alarm, the following programming is possible:

**Example:** Wall Mount Pull-Cord in bathroom = floor 001, room 012, bed 1  
Wrist/Pendant Transmitter = floor 001, room 012, bed 2  
RAC Door Contact = floor 001, room 012, bed 3

With this method, when an alarm is indicated on the Display, you will know which transmitter triggered the alarm. Transmitters programmed in this manner can be reset remotely by a remote reset transmitter.

### ➤ Programming « RS232-Connection » - (Button '3')

After pressing button '3' or '2343' on the keyboard 8, the Display 3 indicates:

➤ PRINTER	* PCRUF	◀
➤ NONE	OTHERS	◀

K Select the device you wish to connect to the RS232 Port with the buttons either to the right or to the left of the Display screen (Buttons 4, 5, 6 or 7). A square cursor will indicate the selected device.

*NOTE:	<i>Choose PCRUF to connect the Main Receiver (NCM2) to a Computer.</i>
--------	--

K Confirm your choice by pressing Green Button 2.

K If you choose 'OTHERS' the Display 3 indicates:

➤ S10-Du	PAGING	◀
NONE	DECT	

K Select the device that you wish to connect to the RS232 Port with the buttons to the right or to the left of the Display screen (Buttons 4, 6 or 7.) A square cursor will indicate the selected device.

K Confirm your choice by pressing the Green Button 2.

K If you choose 'PAGING' the Display 3 indicates:

## HOW TO PROGRAM THE **NurseCall 2**

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RPE 670 ?	
➤ YES	NO ◀

K Select 'YES' (Button 7) if you are connecting the PAGING SYSTEM.

K Confirm your choice by pressing the Green Button 2.

K After choosing "YES," the Display 3 indicates:

PAGER DAY-NIGHT	
➤ YES	NO ◀

K Press "YES" with button 5 if you wish to differentiate the pagers that accept alarms during the day and during the night.

K Press 'NO' with button 7 if all pagers will accept all alarms at all times.

K Press the Green Button 2 to confirm your choice.

K After choosing "YES," the Display 3 indicates:

START OF NIGHT
TIME: 20 : 00 : 00

K Set the start time using Buttons 4, 5, 6 or 7.

Buttons 4 and 5 move the cursor under the hour, minute, or second that you want nighttime paging to start.

Buttons 6 and 7 move the hour, minute, or second forward or backward to the correct time to start nighttime paging.

K Press the Green Button 2 to confirm your choice.

K The Display 3 then indicates:

END OF NIGHT
TIME: 06 : 00 : 00

K Set the end time using buttons 4, 5, 6 or 7.

Buttons 4 and 5 move the cursor forward and backward under the hour, minute, or second that you want nighttime paging to end.

## HOW TO PROGRAM THE **NurseCall 2**

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Buttons 6 and 7 move the hour, minute, or second forward and backward to the correct time to end nighttime paging.

K Press the Green Button 2 to confirm your choice

K The Display 3 then indicates:

➤ ESPA 4.4.4.	ALPHA
➤ NONE	MEP ◀

K Select ESPA 4.4.4. by pressing button 6.

K Press the Green Button 2 to confirm your choice.

KAt the choice 'ESPA 4.4.4.' the Display 3 indicates:

➤ ID PAGING SYSTEM	2
➤ ID NurseCall	1

K Select the default ID of the Paging System using button 6. Then press the number '2' on the keyboard to enter the identification number of the paging system.

K Select the default ID of the **NurseCall 2** using button 7. Then press the number '1' on the keyboard to enter the identification of the **NurseCall** system.

K Press the Green Button 2 to return to the Ready State.

### ➤ Programming « Local Receipt » (Reset) (Button '4')

After pressing button '4' or '2344' on the keyboard 8, the Display 3 indicates:

LOCAL RECEIPT	
➤ YES	NO ◀

K Press the 5 button next to 'NO' if you do not wish to reset alarms at the Main and Local Receivers.

K Press button 7 next to 'YES' if you do wish to reset alarms from the Main and Local Receivers.

## HOW TO PROGRAM THE **NurseCall 2**

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K Press the Green Button 2 to confirm your choice.

When you choose 'YES,' the Display 3 indicates:

ACCESS CODE <span style="color: cyan;">■ ■</span>
---

K Enter Access Code « 45 »

After having typed « 45 », the Display 3 indicates:

ACCESS CODE	
➤ YES	NO ◀

K Press button 7 next to 'YES' if staff must enter the Access Code « 45 » before resetting every alarm at either the Main or Local Receivers.

K Press button 5 next to 'NO' if staff may reset alarms without using any Access Code.

K Press the Green Button 2 to return to Ready State.

### ➤ Programming « Remote Receipt » (Reset) (Button '5')

After pressing button '5' or '2345' on the keyboard, 8 the Display 3 indicates:

REMOTE RECEIPT	
➤ YES	NO ◀

K Press button 5 next to 'NO' if you do not want staff to reset alarms remotely from residents' rooms or from wherever an alarm is sent.

K Press button 7 next to 'YES' if you do want staff to reset alarms from residents' rooms or from wherever an alarm is sent.

K Confirm your choice by pressing the Green Button 2.

After choosing 'YES' to enable Remote Receipt, the Display 3 indicates:

RECEIPT CODE	
➤ NEW	ERASE ◀

## HOW TO PROGRAM THE **NurseCall 2**

---

- K Press button 7 next to 'NEW' if you wish to program a new 'remote receipt' transmitter.
  
- K Press button 5 next to 'ERASE' if you wish to erase all existing reset transmitters. You can erase a single transmitter only with 'Nps' Programming Software. *(If you erase all 'remote receipt' transmitters, you will need to immediately program at least one new reset transmitter to keep active the 'remote receipt' function.)*

At the choice 'ERASE,' the Display 3 indicates:

WAITING FOR  
TRANSMITTER CODE ...

K Trigger the 'remote receipt' transmitter you wish to program.

*NOTE #1: You need to program only one S35R as a 'remote receipt' transmitter because all S35R transmitters are specifically designed to have the same code. When using the S35R, you may have unlimited remote reset transmitters.*

*NOTE #2: If you are using another transmitter as a 'remote receipt' transmitter, you will need to program each individual transmitter because they will not be coded alike. In this case you are limited to 5 'remote receipt' transmitters.*

*NOTE #3: The same transmitter may not be used as an alarm transmitter and a reset transmitter at the same time.*

*NOTE #4: Do not answer "NO" to both 'local receipt' and 'remote receipt' because then you will have no way to reset alarms. You may, however, answer "YES" to both methods of receipt.*

### ➤ Programming « Language » (Button '6')

After pressing button '6' or '2346' on the keyboard 8, the display indicates:

➤ FRANCAIS    DEUTSCH    <  
➤ ENGLISH    ITALIANO    <

- K Select the language using the buttons 4, 5, 6 or 7. The Main Receiver will return automatically to the Ready State.



## HOW TO PROGRAM THE **NurseCall 2**

### ➤ Programming « Relay as Closing or Switching Contact » (Button '7')

After pressing button '7' or '2347' at the keyboard 8, the Display indicates:



K Select the relay function (Closing = ON; Switching = ON/OFF) by pressing buttons 5 or 7.

K After pressing buttons 5 or 7, the Display indicates:



☛ Using buttons 5, 6 or 7, choose the kinds of alarms when you want the relay to activate. Choose whether you want the relay activated at all calls for calls for HELP and ASSISTANCE, for FIRE calls only, or for calls for ASSISTANCE only.

☛ Press the Green Button 2 to return to the Ready State.

### ➤ Nps Programming Software (Button 8)

FIDELITY TeleAlarm offers you the ability to program the **NurseCall 2** with « Nps-Software ».

☛ Press button '8' or '2348' on the keyboard 8, to set the Main Receiver to program with « Nps-Software ».

**NOTE:** *After 15 seconds without activity, the Main Receiver will automatically return to the Ready State.*

« Nps-Software » allows you to download, copy, and manipulate programmed parameters from an existing Main Receiver (NCM2) and upload them to another Main Receiver (NCM2). In addition, you may program other Main Receivers with a system identical to an existing system. The software also allows you to change programmed parameters remotely.

### ➤ How to Erase All Parameters

To erase all of the programmed parameters and return to the delivery state, enter the Programming Mode by Pressing '0' on the keyboard. 8. See Chapter « Programming Mode».

## HOW TO PROGRAM THE **NurseCall 2**

---

Press button '3' or '2343' on the keyboard 8. The Display 3 indicates:

➤ PRINTER	PCRUF	◀
➤ NONE	OTHERS	◀

K Type the RESET-Code « 194156 » on the keyboard 8.

The Display indicates:

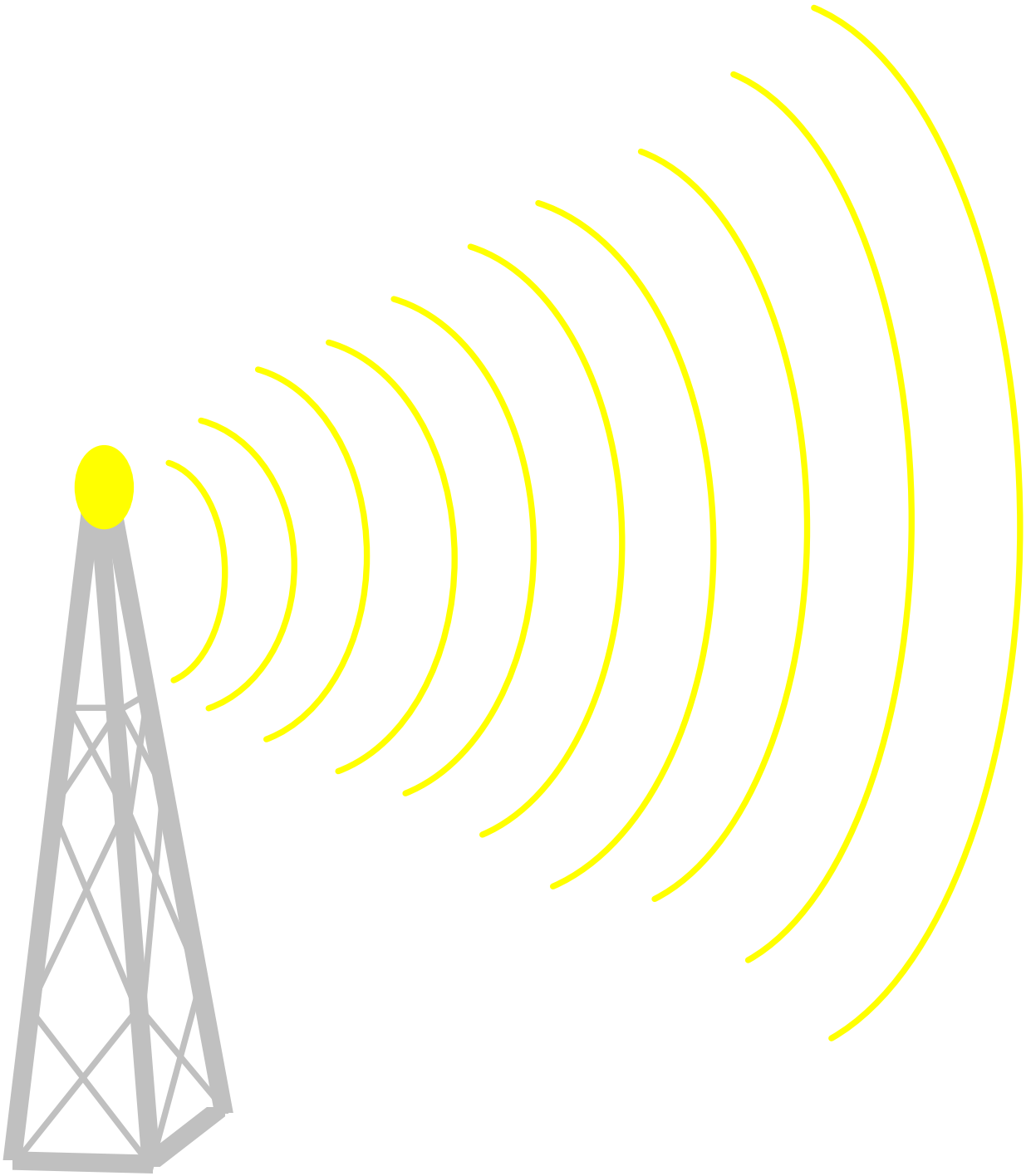
RESET ?		
➤ NO		YES ◀

K Press button 5 next to 'YES' to erase all programmed parameters and return to the default values. For 5 seconds the Display will indicate:

PLEASE WAIT
----------------

After 5 seconds the Display will indicate the menu for choosing the language (as at first use).

➤ FRANCAIS	DEUTSCH	◀
➤ ENGLISH	ITALIANO	◀



# HOW TO USE THE NurseCall 2

## ➤ Alarm and Event Buffers

All **NurseCall 2** Receivers use an « alarm buffer » and an « event buffer » to record and store two types of events. The « alarm buffer » contains only active alarms. The « event buffer » contains a history of all possible events (alarms that have been reset and messages.) You may view the alarm and event buffers on the Display of any Main or Local Receiver.

The following alarms/messages are recorded in the alarm buffer:

- Call for Help
- Call for Assistance
- Reserve Call (Call for Help 2 for second bed in a room.)
- Technical Call (Monitors elevator, telephone, etc.) (Also Call for Help 3.)
- Fire Call
- Battery Low Message
- Error Message
- Disconnection of a Local Receiver from the RS485-bus

If alarms are repeated, only the original entry is kept in the buffer. The Call for Assistance supercedes the Call for Help, Reserve Call and Technical Call in the alarm buffer.

All possible entries are stored in the event buffer. The following messages are directly stored in this buffer:

- Receipt (Reset)Call (Receipt N45)
- Receipt (Reset)Call (Receipt S35/S36/S37/S37L)
- Daily Message
- Personnel Arrival Message (A, B, C and D)
- Personnel Departure Message
- Local Receipt (Receipt at the Reception Receiver NurseCall 2)
- Power Outage of a Reception Receiver
- Return of Power at a Reception Receiver
- Backup Battery Low of a Reception Receiver
- Interruption of the Connection Interface RS232 NurseCall 2 <-> PC
- Return of the Connection Interface RS232 NurseCall 2 <-> PC

## HOW TO USE THE **NurseCall 2**

- Connection of a Local Receiver to the RS485-bus

The alarm and event buffers have a maximum capacity of 18 entries.

The event buffer stores the last 18 entries (both alarms and events); the alarm buffer indicates only the alarms that need to be addressed. After an alarm has been reset, it moves to the event buffer.

**NOTE:** *If a computer station is used with the **NurseCall 2**, unlimited alarms and events may be stored.*

➤ You may switch between the alarm and event buffers at any Receiver by pressing '0' on the keyboard 8. To review all of the data stored in the alarm or event buffers, use button 6 to scroll upwards or button 7 to scroll downwards.

➤ The alarm buffer is displayed by default. If you are in the event buffer, the Receiver automatically returns to the alarm buffer after one minute with no activity.

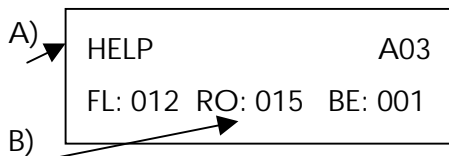
If there are no alarms pending, the Display shows the actual date and time.

DATE: 05.05.97  
TIME: 09:45:30

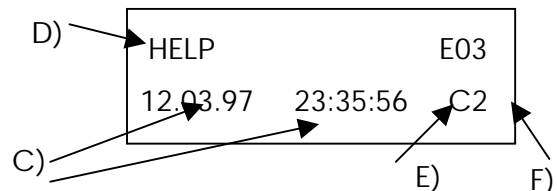
### ➤ Display Indications

#### ➤ Viewing the Information Blocks on the Display

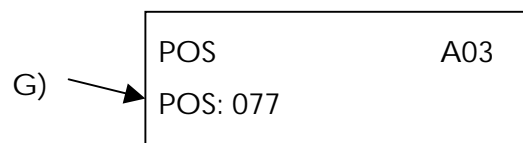
Only part of the information is visible on the Display 3 at one time. By pressing the White Button 8 on the keyboard, you may switch among the available information blocks.



**Information Block 1:** alarm buffer



**Information Block 2:** event buffer



Information Block 3: Location Buffer (Available only with **Locate 1** option.)

**Note 1:** The number of active alarms received by the alarm buffer is shown at the top right corner of Information Block 1. You can immediately see how many alarms still need to be addressed (in the example above A03 means that there are a total of 3 alarms received at the NCM2.)

Information Block 2 shows the reset alarms from Information Block 1 as they would appear in the event buffer. (In the example above E03 corresponds to the third most recent entry in the event buffer; E01 would indicate the most recent entry).

**Note 2:** In a Main-Local configuration the letter of the Receiver that captured the strongest radio signal and the strength of the signal appear in the lower right corner of Information Block 2, and are not transmitted to pagers, printer, or computer. (In the above illustration, the strongest signal was captured by Local Receiver 'C'. The strength of the signal was '2'.)

### ➤ Information Indicated on the Display

When the **NurseCall 2** receives an alarm/message, the following information shows on the Display:

- (A) Identification of the alarm/message
- (B) Identification of the Transmitter ('floor/room/bed' number or 'single number')
- (C) Date and time
- (D) Identification as an Alarm or as an Event
- (E) Identification of the Receiver that received the alarm: (either Main or Local - A....Z; a....f)
- (F) Strength of the received radio signal: (When testing signal strength, '2', and '3' indicate strong, reliable transmissions with '3' being the stronger signal.)
- (G) **Location of the resident who sent the alarm.**

### ➤ How to Reset Alarms/Messages

- A) You may reset alarms from the Main or Local Receivers by pressing the Green Button 2. (This method of reset is called **Local Receipt**). When programming this feature, you must decide whether or not caregivers need to enter an access code.
- B) You may reset alarms/messages by pressing the Green Button 2 of the Resident Bed Station (N45) if this transmitter is used in your system.

## HOW TO USE THE **NurseCall 2**

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The N45 also allows staff to reset other transmitters if they have been programmed with the same ID ('floor/room/bed' or 'single number').

C) If the N45 is not used in your system, you may still reset transmitters remotely with a reset

transmitter (S35R). (This method of reset is called **Remote Receipt**.)

**K To reset transmitters remotely (remote receipt), follow the procedure described below:**

- Step 1:** Press the button of the caregiver's reset transmitter.
- Step 2:** Wait 2 seconds to allow the radio transmission to take place. (The red light goes out.)
- Step 3:** Press the button of the resident's alarm transmitter within 5 seconds.

When an alarm is reset in one of the above-mentioned ways (A, B or C), it is removed from the alarm buffer and transferred to the event buffer where it can be found from then on.

### ➤ Signaling of Alarms

#### ➤ Optical Signaling

The LED in the Green Button shines green if the **NurseCall 2** Receiver is connected to a 120 V electrical outlet. The LED flashes green if power is supplied by the Backup Battery alone. At the entry of an alarm, the **LED** in the white button shines red.

#### ➤ Acoustical Signaling

The Main and Local Receivers signal acoustically when they receive any of the following alarms/messages:

Continuously, two tones:	Call for Assistance
4 Second interval, one tone:	Call for Help, Reserve Call, Technical Call
15 second interval, one tone:	Error Message
30 second interval, one tone:	Battery Low Message
1 minute interval, one tone:	When a Local Receiver becomes disconnected from the RS485-bus

**NOTE:** *When a computer is interfaced with the **NurseCall 2**, there is no acoustical signaling from the Main Receiver (NCM2). However, the Local Receivers (NCL2) still signal*

*accoustically.*

When the event buffer receives any of the following messages, the Main and Local Receivers emit a short beep:

- E. **Remote Reset** from a N45
- F. **Remote Reset** from remote set transmitters
- G. **Daily Message**
- H. Personnel Arrival Message
- I. **Personnel Departure Message**
- J. **Local Reset**
- K. **Power Outage** of a Main or Local Receiver
- L. **Return of Power** at a Main or Local Receiver
- M. **Backup Battery Low** of a Main or Local Receiver
- N. Interruption of the computer connection. (**Computer Off**)
- O. Return of the Computer Connection
- P. Connection of a new Local Receiver to the RS485-bus

### ➤ Volume Regulation

The volume can be regulated with the buttons 4 (« Volume higher ») and 5 (« Volume lower ») on the Main Receiver.

### ➤ Output Relay

Located at the rear of the housing is a potential free low current switching contact. The relay > (potential free, switching power: max. 48 V / 0.5 A) is activated at a Call for Help or a Call for Assistance. It can be programmed to function as a closing or a switching contact (cycle of 10 seconds on / 10 seconds off). If desired, you may use this contact to install a siren or a light to signal an alarm.

### ➤ **Locate 1** Resident Locator System

As an option, **Locate 1**™, a resident locator system, may be incorporated into the *NurseCall 2* at delivery. The system functions through Beacon Modules (IS75) installed on selected doors and/or hallways. Residents wear a Wrist/Pendant Transmitter (S37L) that logs in the location when the resident passes one of the beacon modules. When a resident triggers an alarm, the dual-



## HOW TO USE THE **NurseCall 2**

purpose **Wrist/Pendant Transmitter (S37L)** transmits its identification (**who** sent the alarm) and the location of the last passed module (**where** the alarm was triggered). To activate this option, please refer to the chapter entitled «How to Program the Locate 1 Option. »

### ➤ Testing the Backup Battery

To test the quality of the 9V NiMH accumulator backup battery, press button '9' on the keyboard 8.

The Display 3 will read:

CONTROLLING  
ACCUMULATOR

If the backup battery is defective, not inserted properly, or not inserted at all, in a few seconds the Display 3 will read:

CHANGE ACCUMULATOR  
Nurse-Call 2

You should then insert a new 9 V NiMH accumulator. (Follow polarity indications engraved on the battery support).

Note: After inserting the battery, press button '9' on the keyboard 8 to test its quality. You may press button '9' at any time to test the battery.

### ➤ How to Change Transmitter Batteries

There are two kinds of transmitters used with the **NurseCall 2**:

1. SUPERVISED TRANSMITTERS: The battery status of supervised transmitters is checked automatically once a day. The **NurseCall 2** offers the following supervised transmitters:

- N45 Resident Bed Station
- S35S Supervised Wall Mount Pull-Cord (Red Button)
- S35A Priority Wall Mount Pull-Cord (Blue Button)
- S37 and S37L Wrist/Pendant Transmitters

2. UNSUPERVISED TRANSMITTERS: The battery status of unsupervised transmitters is checked at each triggering. Transmitters that fall into this category include:
  - S35U Wall Mount Pull-Cord (Red Button)
  - S35R Reset Pull-Cord (Gold Button)
  - RAC35 and RAC45 Door Contacts

➤ Wrist/Pendant Transmitter S37, S37L



**ElectroStatic Discharge Warning:**

The S37 contains highly sensitive electronic components. It should be opened only in an ESD protected environment with respect to the following precautions:

- Discharge yourself from electrostatic loads by touching a grounded conductive surface before opening the S37.
- Avoid touching conductive parts inside the device if not absolutely necessary.

## Opening Of The Case

The S37 has a pressure back cover that has to be opened with an appropriate tool available from Fidelity TeleAlarm or "Watch-Manufacturing Tools" suppliers.



**Picture 1**

Remove the wristband from the unit and insert the tool in the gap at the position as on

**Picture 2** and lift the back cover until it pops up.



**Picture 2**

## Replacing the Battery

Once the case is opened, the battery falls out of the case. You will find yourself with three different parts:

- The upper cover with the Electronic Assembly
- The back cover
- The battery (Energizer CR2025 3V or similar)
- 

### Warning:

Do not touch or remove the Electronic Assembly from the upper cover. Note that the S37L has a ring of small red wires around the inside circumference of the unit; this is the antenna for the locate function. Be careful not to break these wires or the locate function will not work!

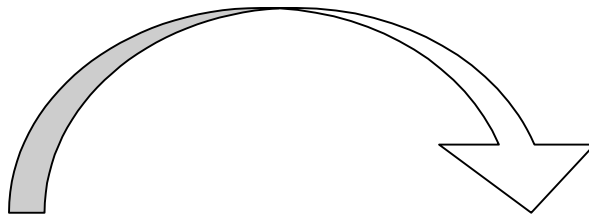
Discard the old battery and place a new one in the back cover. Place the positive (+) polarity against the back cover. The negative (-) polarity will fit towards the Electronic Assembly.

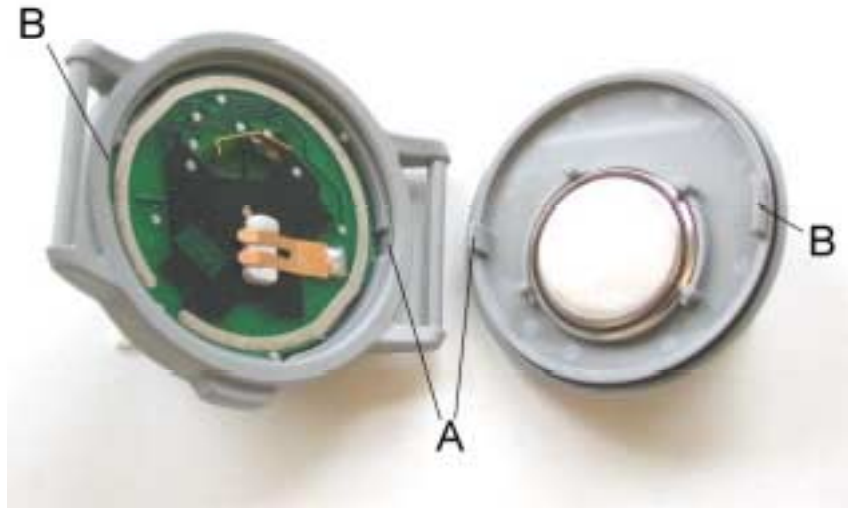
## 3. Closing The Case

Place the upper cover over the back cover taking care to line up the small positioning guide "A", the battery contact and the large positioning guide "B" (see **Error! Reference source not found.**).

Close the case by pushing the covers together. Apply the same pressure all around the back cover until you hear or feel a small "snap" and the two halves look like they are properly joined.

Replace the wristband and test the unit for proper operation prior to use.





Picture 3

➤ Resident Bed Station N45

The battery of the Resident Bed Station (N45) can easily be changed in the Connection Compartment. First, remove the cover by sliding downward. Remove the old battery and insert the new battery in the battery compartment according to the polarity indications. Then replace the cover. Use a good quality 9V alkaline battery.

➤ Wall Mount Pull-Cord S35, S35S, S35A, S35R

Unscrew the 4 screws of the Pull-Cord Transmitter and change the battery (pay attention to insert battery with the correct polarity). Use only good quality 6 V Lithium batteries.

**Attention: Danger of explosion if not inserted correctly.**

Change battery only with the same type battery. Dispose of discharged batteries in appropriate waste.

➤ Wrist/Pendant Transmitter S36

The user cannot replace the battery in the S36. Fidelity TeleAlarm must replace the battery. Call your distributor for return instructions.

➤ Wireless Contact RAC35, RAC45

## HOW TO INSTALL OPTIONAL COMPONENTS

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Open the case to change battery (pay attention to insert battery with the correct polarity).

Use only good quality 6 V Lithium batteries.

**Attention: Danger of explosion if not inserted correctly.**

Change battery only with the same type battery. Dispose of discharged batteries in appropriate waste.



# HOW TO INSTALL OPTIONAL COMPONENTS

## ➤ RS232-Interface

A 9-pin female serial port ? located at the back of the Main Receiver can be used to connect the following devices:

- Serial printer
- S10 Dispatcher – a separate receiver that allows alarm transmission through the telephone network.
- Paging system
- PC with software

### ➤ How to Install a Serial Printer

To maintain a record of all alarms and events, you may connect a serial printer with a roll of endless paper to the RS-232 Interface.. Printers with a parallel port may need to use a serial-parallel converter. The serial printer prints every alarm and event received by the **NurseCall 2** Main and Local Receivers.

Data rate is 9600 Bauds. Transmission is asynchronies with a 10 bit-structure 1 startbit, 8 databits, no parity, 1 stopbit.

The **NurseCall 2** does not monitor the status of the printer or alert when the paper runs out.

### ➤ How to Install the Multitone Paging System RPR 670 Series

The TeleAlarm **NurseCall 2** interfaces with the Multitone RPR 670 series of paging systems. The **NurseCall 2** offers two protocols: the standard ESPA 4.4.4 protocol and a specific Multitone Protocol (MEP).

To install, connect the Multitone main console to the RS232 port of the **NurseCall 2**, and select the ESPA 4.4.4 protocol. You will need a 9-pin male-male adapter to make the connection. If using a computer, connect the paging system to the RS232 port of the computer.

The TeleAlarm **NurseCall 2** can direct alarms through any of the RPE 670 series of paging systems. Up to 25 different groups of pagers may be selected. Alarms from different floors or wings can be directed specifically to the caregivers serving each area. When the **NurseCall 2** receives an alarm, it is immediately transferred to the pre-selected pagers. The room from which the alarm was sent (floor, room, bed, or single number) will appear on the pager screen.

Data rate 9600 Bauds. Transmission is asynchronies with a 10 bit-structure (1startbit, 7 databits with even parity, 1 stopbit) in the half-duplex mode.

Upon delivery the RPE 670 will be correctly configured to interface with the TeleAlarm **NurseCall 2**.

All the alarms that enter the alarm buffer are transmitted to the pagers. When programming, select number "1" as the identification of the **NurseCall 2**. Select number "2" as the identification number of the RPE 670. The transmission is fully alphanumeric. The alarms are repeated every 5 minutes until they are reset.

## HOW TO INSTALL OPTIONAL COMPONENTS

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The **NurseCall 2** Main Receiver transfers all alarms to the Multitone user-number that was attributed to the transmitter when it was programmed. **Unless specially programmed pagers are ordered, all pagers are programmed to default group '00.'**

The attribution table is as follows :

Group	User number
00	12GG
01	13GG
02	14GG
03	15GG
04	16GG
05	17GG
06	18GG
07	19GG
08	20GG
09	21GG
10	22GG
11	23GG
12	24GG
13	25GG
14	26GG
15	27GG
16	28GG
17	29GG
18	30GG
19	31GG
20	32GG
21	33GG
22	34GG
23	35GG
24	36GG

If you have programmed transmitters with « floor/room/bed », be sure to use alphanumeric pagers that can store more than 16 characters.

### Change day/night

If you select the day/night option, the **NurseCall 2** transfers all alarms at "night" to group 24. During the day, all groups 00-24 can be used. At the moment of the switching from "day" to "night" or vice versa, the message "DAY-NIGHT" is transmitted to the activated pagers to signal the change.

### Priority alarms

Calls for Assistance (from the N45 and S35A) and fire alarms are priority calls and are transmitted to all pagers. Priority calls are repeated. If the alarms/messages are not reset within 7 minutes, the call repetitions are also sent to Group 23.



## HOW TO INSTALL OPTIONAL COMPONENTS

### ➤ Dispatcher (Transmission to Monitoring Centers)

The Dispatcher is used as an intermediate receiver between the **NurseCall 2** and a monitoring center. Alarms and messages can be transmitted through the telephone network to a monitoring center that uses the Alarm Receiving Unit (ARU). Transmission through the telephone network can take place only when transmitters are programmed using the "single number" mode.

**NOTE:** *All alarms and messages are transferred all of the time. There is no ability to have ON/OFF periods.*

### ➤ Connecting Local Receivers through the RS485 Interface

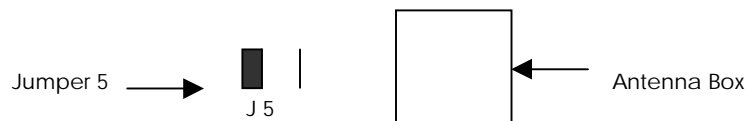
To extend the radio frequency range, additional Receivers (up to a total of 32 receivers) can be connected together by using the RS485-connection < and the supplied cable @ (cable with two FCC 6/4 plugs).

The maximum distance on the RS485-bus is 4000 feet. Use only twisted pair (CAT 5) cable for the RS485-bus connection and install as a daisy chain (on-line). Each Local Receiver at the point of installation needs to be connected to a 120V electrical outlet and a RJ11 jack using the outside wires for the connection (usually black and yellow). The bus is connected to the two exterior wires of the FCC 6/4 plug.

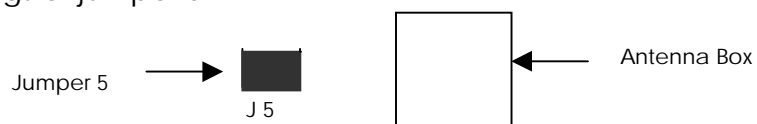
**NOTE:** Keep polarity equal when connecting further receivers to the RS485-bus!

Before connecting the Receivers (whether Main or Local) at each end of a bus that is longer than 2000 feet, you first need to set jumper 5 inside each of the two Receivers. If the bus is shorter than 2000 feet, you do not need to set jumper 5.

When you open the **NurseCall** Receiver, jumper five is located in the upper right hand corner to the left of the metal antenna box and directly under the RJ11 jack input.



To set jumper 5, lift the jumper cover (shown in black) and place sideways over the two prongs of jumper 5.



## HOW TO INSTALL OPTIONAL COMPONENTS

### ➤ How to Connect Local Receivers

In the main-local configuration you must always connect the Main Receiver first. The Local Receivers must then be connected to the RS485-bus one after the other (not at the same time).

**IMPORTANT:** You must make all programming decisions before installing Local Receivers. The programming menu moves forward in quick succession; you do not have time to make programming decisions as you proceed.

**NOTE:** *If you make a mistake in programming, power down the Local Receiver by unplugging the AC adapter first and then removing the backup battery. Then reinsert the backup battery, plug in the AC adapter, and start the programming procedure again.*

**Step 1:** Make sure that Main Receiver is connected correctly.

**Step 2:** Insert one end of the supplied cable into the larger jack input at the back of the Local Receiver. Then insert the other end of the cable into the RJ11 jack connected to the bus line.

**Step 3:** Slide the battery cover 9 slightly to the left. Lightly lift the left end to free it from the catch, and slide the cover to the right. Insert the 9V NiMH rechargeable battery (accumulator.) c Follow the polarity indications engraved in the battery compartment.

**Step 4:** Insert the jack connector of the AC adapter a into the smaller jack input = at the back of the **NurseCall 2** Receiver. Then plug the AC adapter b into an electrical outlet (120V).

**Step 5:** The Display will Indicate:

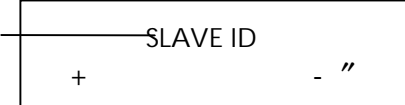
LOCATOR?  
➤ NO/NON      YES/OUI    ⬅

Answer the question with YES if you selected YES to the locate option when you programmed the Main Receiver or NO if you selected NO when you

## HOW TO INSTALL OPTIONAL COMPONENTS

programmed the Main Receiver. Main and Local Receivers must have identical programming, or they cannot operate properly.

**Step 6:** Once you have answered YES or NO, the Display reads:

... f)  Identification ( or A ... Z; a

The identification must show a black field .

**NOTE:** *If a letter appears instead of a black field ( ), press the White Button to change the letter to a black field ( ).*

**Step 7:** Press the Green Button. The Display shows the Date and Time with the next available Local Receiver ID in the lower right hand corner:

DATE:	05.05.97
TIME:	09:45:30 C

If the connection procedure is not followed correctly, the Display will show:

TELEALARM
SLAVE OFF !!!

This screen indicates that the Main Receiver cannot find the Local Receiver. Make sure that all steps in installation and programming were correctly done.

As each Local Receiver is connected to the RS485-bus, the ID is automatically assigned in sequence (A to Z... a to f) in the order in which it was connected for a maximum of 32 Receivers.

If you need to switch an already installed Local Receiver with a new one, and you want to keep the original ID, you can manually re-assign the prior, reserved ID using the following procedure:

**PROCEDURE:** K When a letter used previously shows on the Display, press the White Button to turn the field to a black field ( ).

## HOW TO INSTALL OPTIONAL COMPONENTS

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K Use buttons 5 and 7 to scroll forwards and backwards until you come to the desired ID.

K Confirm your choice by pressing the Green Button.

Local Receivers function in the same manor as the Main Receiver in most ways but do not have the capability to program the system. Programming can be done only at the Main Receiver. Also, Local Receivers are not equipped with a RS232 serial port.

If a Local Receiver was previously programmed, then disconnected, the Main Receiver will show « slave off » and the letter previously assigned. If you want to change the letter assigned to that Local Receiver, you must reset the Main Receiver by pressing the Green Button and entering the code '45.'

When a new alarm/message is received, the 'room/floor/bed' or 'room number' is indicated on the Displays of all Receivers (Main and Local), and the alarm and event buffers of all Receivers (Main and Local) are updated.

If one of the Local Receivers becomes unplugged from the power source, the ID number of that Receiver is transmitted to the rest of the Receivers so that staff will immediately know which local receiver to reconnect.

If a Local Receiver becomes disconnected from the RS485-bus, an alarm is generated, and the ID number of the disconnected Receiver shows on the Display 3 of all Receivers so staff may reconnect the Receiver.

TELEALARM  
SLAVE OFF !!! C

Reconnect the Local Receiver to the RS485-bus by inserting the supplied connecting cable into the RJ11 jack.

If the disconnected Local Receiver is not reconnected within 4 minutes, the disconnected Receiver generates an acoustic warning.

### ➤ How to Connect a Printer Interface

You may add a « Printer Interface » to the RS485-bus to connect an optional serial printer. In this configuration an in-house paging system and a serial printer

## HOW TO INSTALL OPTIONAL COMPONENTS

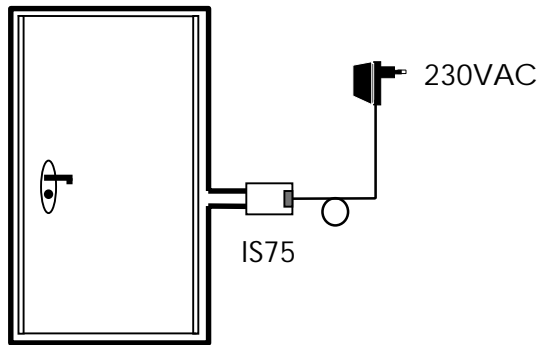
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may be installed without the necessity to use a Computer Station. The « Printer Interface » is not assigned an ID as are the Local Receivers.

**NOTE:** *Should you wish to change the language or the indication mode, you need to reset the « Printer Interface ».*  
*Procedure: Enter the combination « 234 » on the keyboard, and confirm reset by pressing the Green Button 2.*

## ➤ How to Install the IS75 Locate Beacon

The IS75 should be mounted on a wall near the doorframe where it is to be used. Because it is light in weight and small in size, double-sided tape is all that is usually required. Mounting on the wall with screws is not advised because it may interfere with the RF field of the antenna wire loop. Because the IS75 uses an external power supply, a 120V AC outlet is needed.



For the antenna loop use 22 or 24 gauge insulated wire. Connect the wire to the blue terminal block inside the module. If the loop is to go around an opening that is less than 4 feet wide, such as a standard-size door, it is necessary to use two loops instead of one. Using only one loop may cause internal heating of the circuitry and shorten the life of the IS75.

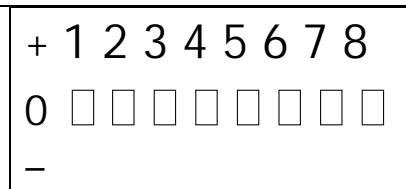
Take care to make sure both loops go in the same direction; having the two loops going in different directions will cause the field to be cancelled. In the case of a larger opening, such as a corridor or a cargo door, one loop will suffice. As a rule of thumb, if the total perimeter of the opening to be looped is 24 feet or less, use two loops.

If the doorframe is metallic, the loop must be installed at least four inches outside the frame; if the door is wooden, the loop may be placed immediately outside the frame. If, for some reason, it is not possible to have the IS75 beacon installed directly at the frame of the opening where it is to be used, you must twist the antenna wires together between the IS75 and the loop to ensure that no false position readings are triggered. The total length of this twisted antenna wire must be 40 feet or less.

### **Programming:**

Eight DIP-switches inside the IS75 beacon are used to set the position value of each IS75 locate beacon. Each of the eight DIP-switches has a weighted value; position 1 is equal to 128 and position 8 is equal to 1.

## HOW TO INSTALL OPTIONAL COMPONENTS



The value of each dipswitch is as follows:

Switch #1 = 128

Switch #2 = 64

Switch #3 = 32

Switch #4 = 16

Switch #5 = 8

Switch #6 = 4

Switch #7 = 2

Switch #8 = 1

The example below shows the DIP-switches set to register the ID number **248**.  
The set DIP-switches are shown in white.

(Switch 1) **128** + (Switch 2) **64** + (Switch 3) **32** + (Switch 4) **16** + (Switch 5) **8**.  
128+64+32+16+8—248.

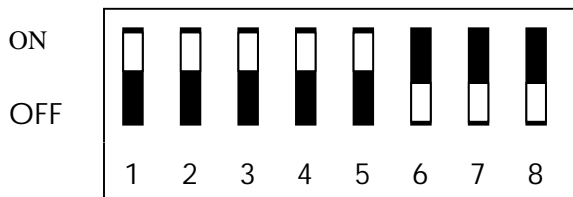


Figure 3.

Any combination of dip-switches allows you to program positions that range from 001 to 254. Select position numbers 001-229 for the **Locate 1** option. In this mode, when a resident triggers an alarm, the ID of the resident and his location in the facility are transmitted to the **NurseCall 2**.

Choose position numbers 230-254 for the **WanderCall** option. In this mode the Wrist/Pendant Transmitter (S37L) sends an automatic alarm when the resident approaches a beacon. When programming the IS75 modules, be sure that each module has a different number and there are no duplications.

Reading the position:

When a resident sends a Call for Help, all receivers of the **NurseCall 2** (Main, Local, and Printer Interface) will indicate the location where the call originated. The location (example: POS: 077) will show on the Display in the third information block that may be accessed by pressing the white button.

**Third information block:**

## HOW TO INSTALL OPTIONAL COMPONENTS

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HELP POS: 077	A03
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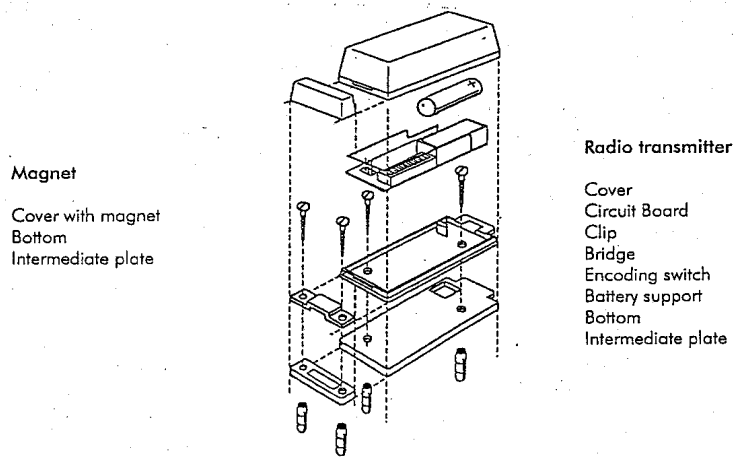
If transmitters in addition to the S37L are used in the system, these transmitters should be identically programmed to the position 000. (Place all DIP-switches in the OFF position.)

The Call for Help and the Location information are automatically transmitted to devices connected to the RS232 port: Pager ↔ Computer ↔ Printer



## Σ How to Install the Wireless Door Contact RAC

### Magnet Radio Transmitter



#### Recommendations:

- ◆ Minimum height above the ground: 1 ft.
- ◆ Avoid metallic surfaces. Otherwise, use both intermediate plates.
- ◆ Mount the magnet on the movable part (door or window) and the radio transmitter on the frame.
- ◆ Avoid two-sided tape.
- ◆ The RAC is not waterproof.

Open the cover of the RAC transmitter by pressing both narrow sides. The circuit board comes out when pressing the back clip.

#### Never touch the electronic parts.

The bottom of the radio transmitter is mounted by means of two screws. Use the intermediate plate to compensate for width or to separate the radio transmitter from a metallic surface. Carefully put the circuit board back in its place, connect the battery (taking into consideration the polarity indications engraved on the battery support) and close the cover.

The radio transmitter is fitted with two REED contacts; the location of each REED contact is indicated by an arrow on the cover.

The magnet bottom is fixed by means of two screws. The distance between the radio transmitter and the magnet should not exceed **1/4 inch** when closed (check that the arrows on both covers correspond to each other). Use the intermediate plate to compensate for width or to separate the magnet from a metallic surface. Lastly, attach the cover.

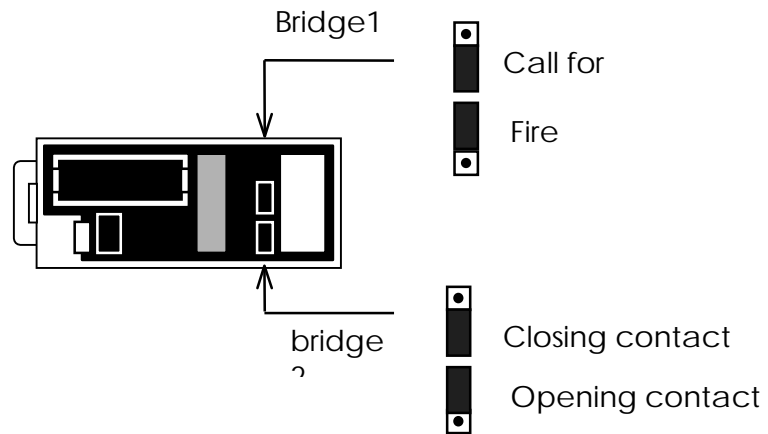
Only one magnet is authorized per RAC transmitter.

## ➤ Jumper Definitions for Wireless Contact RAC

### RAC : Jumper definitions

**Bridge1** represented below defines whether the RAC is configured for Fire or Call for Help.

**Bridge2** represented below defines whether the RAC is configured as an Opening or as a Closing Contact.



At delivery, the RAC is configured as an opening contact.

## ➤ Cleaning

Clean the **NurseCall 2** Main Receiver from time to time with a dust cloth. Avoid cleaning products or detergents.

## ➤ Storage

The **NurseCall 2** Main Receiver does not lose its programmed parameters when the power supply and the Backup Battery are disconnected.

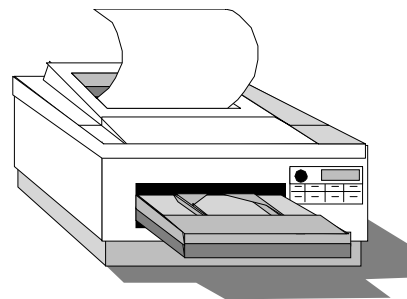
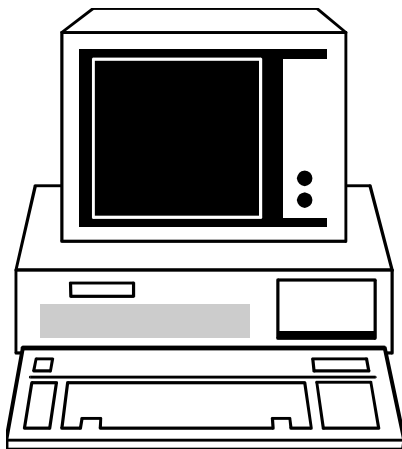
Notes: When storing any **NurseCall 2** Receiver, it is very important to remove the Backup Battery.

Transmitters may be stored without removing batteries.

## ➤ Computer Station

A computer station may be interfaced with the **NurseCall 2**. The computer station includes the following components:

- Computer
- Monitor
- Keyboard
- Mouse
- UPS
- Printer



## IMPORTANT SAFETY INSTRUCTIONS

When using your Fidelity TeleAlarm® **NurseCall 2**, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Clean the **NurseCall 2** Receiver with a dust cloth. Avoid cleaning products or detergents.
4. Do not use any **NurseCall 2** Receiver near water.
5. It is recommended that the **NurseCall 2** Receiver be put on a non-sliding surface. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage. The **NurseCall 2** Receiver may also be mounted on a wall. Always keep antenna fully unfolded.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in an enclosed environment unless proper ventilation is provided.
7. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.
8. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
10. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect re-assembly can cause electric shock when the appliance is subsequently used.
11. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - A. When the power supply cord or plug is damaged or frayed.
  - B. If liquid has been spilled into the product.
  - C. If the product has been exposed to rain or water.
  - D. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
  - E. If the product has been dropped or the cabinet has been damaged.
  - F. If the product exhibits a distinct change in performance.
12. Interference Information: **NurseCall 2** equipment generates and receives radio waves and, if not installed and used properly, may pick up interference. To prevent interference:

Avoid locations such as heating appliances, electrical equipment (e.g. fluorescent lamp, TV, radio, refrigerator), places subject to direct sunlight, excessive dust, moisture, or vibrations, etc.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

The **NurseCall 2** Main and Local Receivers comply with Part 15 of FCC Rules.

FCC ID: MIYNC2

This device complies with Part 15 of the FCC Rules.  
Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received,  
including interference that may cause undesired  
operation.

The Wrist/Pendant Transmitter S36 and S37 comply with Part 15 of the FCC Rules:

FCC ID: MIYS36-10

This device complies with Part 15 of the FCC Rules.  
Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received,  
including interference that may cause undesired  
operation.

FCC ID: MIYS37

This device complies with Part 15 of the FCC Rules.  
Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received,  
including interference that may cause undesired operation.

The Wall Mount Pull-Cord Transmitter S35, and the Wireless Door Contact RAC comply with Part 15 of the FCC Rules:

FCC ID: MIYMOD-10

This device complies with Part 15 of the FCC Rules.  
Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received,  
including interference that may cause undesired  
operation.

The Resident Bed Station N45 complies with Part 15 of the FCC Rules

FCC ID: MIYN45

This device complies with Part 15 of the FCC Rules.  
Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received,  
including interference that may cause undesired  
operation.

The Beacon IS75 complies with Part 15 of the FCC Rules:

FCC ID: MIYIS75

This device complies with Part 15 of the FCC Rules.  
Operation is subject to the following two conditions: 1) This device may  
not cause harmful interference, and 2) this device must accept any  
interference received, including interference that may cause undesired  
operation

TeleAlarm® **NurseCall 2**: Installation and Programming Manual, Document No. NC2-01.1

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The **NurseCall 2** is manufactured in La Chaux-de-Fonds (Switzerland) by TELELECTRONIC SA. Design and specifications subject to change without notice.

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2501 KUTZTOWN ROAD  
READING, PA 19605-2961  
Phone: (610) 929-4200  
Fax: (610) 929-6861

## LIMITED WARRANTY

### IMPORTANT! SALES SLIP OR EVIDENCE OF PURCHASE DATE REQUIRED

This limited warranty gives you specific legal rights; you may also have other rights which vary from state to state.

The limited warranty is extended only to the original consumer of a Fidelity TeleAlarm NurseCall product and is valid only with respect to consumers within the United States and Canada.

The limited warranty is subject to the following conditions, should this product prove defective by reason of improper workmanship or materials:

1. During the period of one (1) year from the date of original purchase, Fidelity TeleAlarm will repair or, at its option, replace the product without charge for parts or labor.
2. This limited warranty does not apply: (a) to any product damaged by accident, misuse, improper line voltage, lightning, fire, water, or other acts of nature, (b) if the product is altered or repaired by anyone other than Fidelity TeleAlarm, LLC or one of its authorized warranty stations or if the FCC-approved connector plugs are removed.
3. Batteries.

Except to the extent prohibited by applicable law, all implied warranties made by Fidelity TeleAlarm in connection with this product are limited in duration to a duration of two (2) years from the date of original purchase, and no warranties, whether expressed or implied, shall apply to this product after said period.

**SHOULD THIS PRODUCT PROVE DEFECTIVE IN WORKMANSHIP OR MATERIAL, THE CONSUMER'S SOLE REMEDIES SHALL BE SUCH REPAIR OR REPLACEMENT AS IS HEREIN-ABOVE PROVIDED. UNDER NO CIRCUMSTANCES SHALL FIDELITY TELEALARM BE LIABLE FOR ANY LOSS OR DAMAGE DIRECT, CONSEQUENTIAL, OR INCIDENTAL ARISING OUT OF THE USE OF OR INABILITY TO USE THIS PRODUCT.**

Some states do not allow limitations on how long an implied warranty lasts or the exclusion of limitation or incidental or consequential damages, so the above limitations or exclusion may not apply to you.

In order to obtain warranty service, you must provide evidence of purchase date. For your convenience, keep the dated bill of sale or delivery ticket as evidence of the purchase date.

All repairs must be performed by the Fidelity TeleAlarm, LLC Service Department. If trouble is experienced with the NurseCall system, for repair or warranty information, please contact:



Fidelity TeleAlarm, LLC  
Service Department  
2501 Kutztown Road  
Reading, PA 19605-2961  
Toll Free: 800-483-0888 Fax: (610) 929-6861



