

# N86 Room Transmitter

## N86 Room Transmitter with Two Relays



The N86 Wall Transmitter is a multifunctional radio alarm transmitter, designed for patients and nursing staff to make an emergency call, summon assistance, or cancel a call directly in the patient's room. It is designed for use with the TeleAlarm Nurse Call NC8 system and is easily expandable.

The N86 exists in two variants, with and without relay outputs. The embedded relays of the N86 Room transmitter with two relays allow the device to control over-door signal lights, notably compliant with VDE 0834 recommendations.

### Installation and Configuration

The Nurse Call NC8 Main Unit guarantees very easy and convenient installation. The system is programmed either by using the NPS software or directly via the keypad and display of the main unit. Programming of the Nurse Call NC8 Main Unit via the NPS software requires a PC to be connected by an RS-232 cable. Easy upgrades can be carried out by a specialist via PC and a dedicated programming cable.

### Functions

The main function of the N86 Wall Transmitter is to enable easier handling of help, assistance or emergency alarms directly from the patient's room. Its large red button with textured surface makes it easy to identify and to press, raising a call for help. If, upon arriving, a nursing staff member requires additional help, a call for assistance can be sent by pressing the round blue button. It is also possible to make an emergency call by pressing the two buttons simultaneously.

The presence and alarm LED indicators enhance the signalling of alarms. Depending on the set parameters, there is an automatic call repetition until cancel of the call. Cancelling can be made directly on the room transmitter with the smaller green button and/ or with the B81 acknowledgment transmitter and/or with the B80A accompany transmitter.

The staff members are able to notify presence in the room by using their Acknowledgment Transmitter B81, or also with an Accompany Transmitter B80A; these acknowledgement devices are specific to authorized staff only (see the related datasheets). The green button is also

- Simple and quick installation (no cables required)
- Call for help and assistance call buttons
- Emergency call possible
- Direct cancel function
- Simple and extended presence functions
- Terminal blocks for external buttons, fully configurable triggers
- Status indication with two LED indicators
- Optional external status indication possible with two internal relays
- Battery supply and/or ext. supply
- Daily radio message
- Wireless parameter programming
- Wireless FW upgradable
- Radio link monitoring compliant with VDE 0834
- Battery level monitoring
- Bi-directional radio

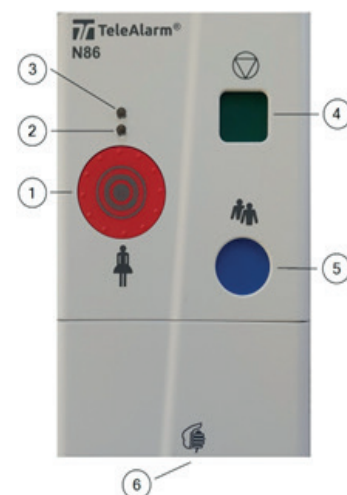
used to deactivate this presence mode. An extended presence mode can be set, allowing monitoring of several persons and different cancellation modes.

The N86 Wall Transmitter is equipped with a 3V battery offering a lifetime of 3 years or more. It can also be powered with an external 6-30V DC voltage. In addition, the N86 offers voltage monitoring and an automatic daily message for self-checking.

The N86 Wall Transmitter has numerous features available, including a socket for pear-push button and internal terminal connections for wired peripherals. Optionally, the device can include relay contacts for over-door lights. An optional pull cord switch set can be mounted on the N86.

### System Overview

1. Call for help red button
2. LED indicator for alarm
3. LED indicator for presence
4. Acknowledgment green button
5. Assistance call blue button
6. Jack plug for pear-push button



## Certifications and Approvals

RED 2014/53/EU - EMC 2014/30/EU LVD 2014/35/EU

RoHS 2011/65/EU WEEE 2012/19/EU

EN 62368-1 (2014 + AC :2015)

EN 62479 (2010)

EN 50130-4 (2011-06 + A1 :2014)

EN 300 220-2 V3.1.1 (2017-02)

EN 301 489-1 V2.2.2 (Final draft :2019),

EN 301 489-3 V2.1.1 (2019)

EN 50581 (2012-09)

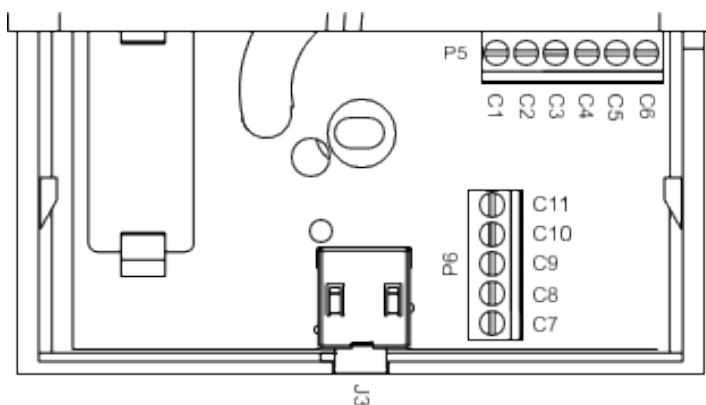
VDE 0834-1 (2016-06) - VDE 0834-2 (2017)

## Parts Included

Quantity	Component
1	N86, including battery (delivered beside)
1	Leaflet with instructions

## Ordering information

Part	Designation	Reference
N86-NC	N86 Room Transm.	T.240.001.486
N86-2R-NC	N86 Room Transm. with two relays	T.240.001.505
Mounting Plate	Set of 10 pcs Mounting Plate N46	F.01U.165.446
3V battery	3V Lithium CR2 Battery (Min. 5 pcs)	T.000.001.640
PPB-N86-NC	Pear-Push Button (cable length 3m)	T.240.001.588
PPB-Ext	Extension cable for PPB-N86-NC (4m)	T.200.001.582
PCS-N86-NC	Pull Cord Set for N86	T.200.001.589



TeleAlarm SA  
Rue du Pont 23  
2300 La Chaux-de-Fonds  
Switzerland  
www.telealarm.com

TeleAlarm Europe GmbH  
Hertzstraße 2  
04329 Leipzig  
Germany

Contact in UK:  
Tel.: +44 (0) 333 0124392  
info-uk@telealarm.com

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## Technical specifications

Dimensions (H × W × D)	133 × 82 × 26mm
Weight	110g
Frequency	868.8MHz bidirectional
External power supply	Replaceable 3V lithium battery CR2 or external 6-30VDC voltage
Consumption	Transmission: max. 25mA Reception: max. 15mA Idle mode in battery mode: max. 4-10µA
Receiver category	Complies with Cat 1.5 as specified in EN 300220-1 V3.1.1
Battery life	Up to 3 years (according to VDE 0834-1: 5 alarms/day, supervision every 30 seconds) Up to 10 years (5 alarms/day)
Automatic battery test	Daily check and
at every alarm	Bi-colour
Battery alarm	At approx. 10% remaining
Operating temperature	-10°C to 55°C
Storage temperature	-20°C to 80°C
Frequency stability (-10°C to +55 °C)	< 2.5kHz
Modulation	FSK
Antenna	Integrated printed
Radiated power	Typ. 3mW
Housing	ASA white
Environmental class	I
Maximum range in free field	Up to 300m

## Pinout

Pin	Function
C1	Input analog external power supply: 6-30 VDC, 100 mA min to source
C2	GND (external power supply)
C3	Relay 1 (alarm) output NO (normally open)
C4	Relay 1 (alarm) output C (common)
C5	Relay 2 (service) output NO (normally open)
C6	Relay 2 (service) output C (common)
C7	Auxiliary input digital. NO=Trig 5, NC=Trig 6 (*) By default: NO = Trig Auxiliary Help 1. NC = Disabled
C8	GND (inputs reference)
C9	Technical alarm input digital. NO = Trig 9, NC = Trig 10 (*). By default: NO = Trig Technical Alarm. NC = Disabled
C10	GND (inputs reference)
C11	Auxiliary pear-push input digital. NO=Trig 7, NC=Trig 8 (*). By default: NO = Trig Auxiliary Help 2. NC = Disabled
J3	Jack plug for pear-push button

(\*) NO (Normally Open): Trigger selected when closed to GND NC (Normally Closed): Trigger selected when open from GND Relays contacts support 0.3A @30 VDC or 125 VAC. IEC 60601 standard must be respected in electrical medical equipment system.