

Nurse Call

MASTER **1** ► SUB **80** **NHX**

*Not available in Europe, Australia, nor New Zealand

Master station



NHX-50M
50-call master station

Add-on selector

- NHX-30G**
30-call add-on selector
Plugs into NHX-50M
- NHR-30K**
30-call add-on trunk card

Central control unit



NHX-80X
Central control unit

Duty station



NHR-SP
Duty station

Power supply

PS-2420S PS-2420UL PS-2420BF PS-2420 → P.124

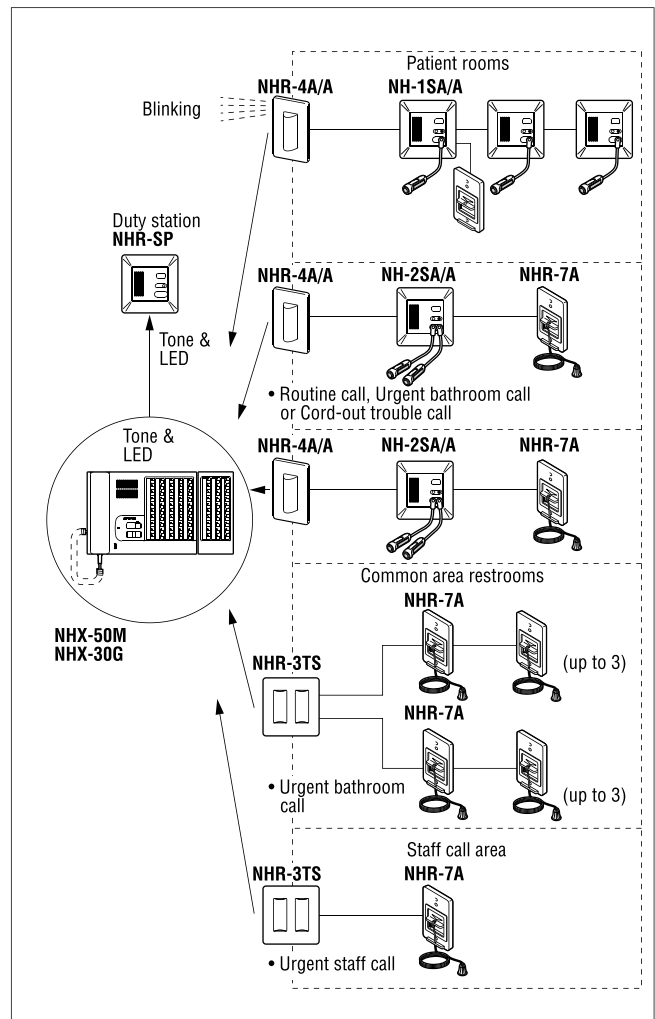
Features

- One master, up to 80 sub stations. Single and dual patient stations
- Multi-station capability per patient room
- Three types of call-ins from patient stations: Routine call, Bathroom call & Cord-out trouble call, identified by tone & blinking LED (w/priority according to urgency and time of call)
- NHR-3TS Common Area Call station is used for common area bathroom call or staff call (urgent)

Communication

1. At NHX-50M master, when called by a bedside sub, either lift handset or press TALK once to establish talk channel. To initiate a call, press the selector button of the sub. At the sub, pretone sounds and TALK is lit green. Corridor and zone lights do not turn on.
To silence the tone, press TONE-OFF button. Tone will resume after 90 seconds or when new call is placed.
2. Corridor lamp turns on with any type of call placed by sub station area. When talk channel is established, the light will turn off.
3. A call from NHR-3TS is of the same level as Urgent bathroom call. (no verbal communication)

Communication network



Sub station



NH-1SA/A
Single-jack bedside sub station



NH-2SA/A
Dual-jack bedside sub station



NHR-3TS
Calling zone light

Corridor lamp



NHR-4A/A
Corridor lamp w/red & white lamps



NHR-8C
Bedside call switch

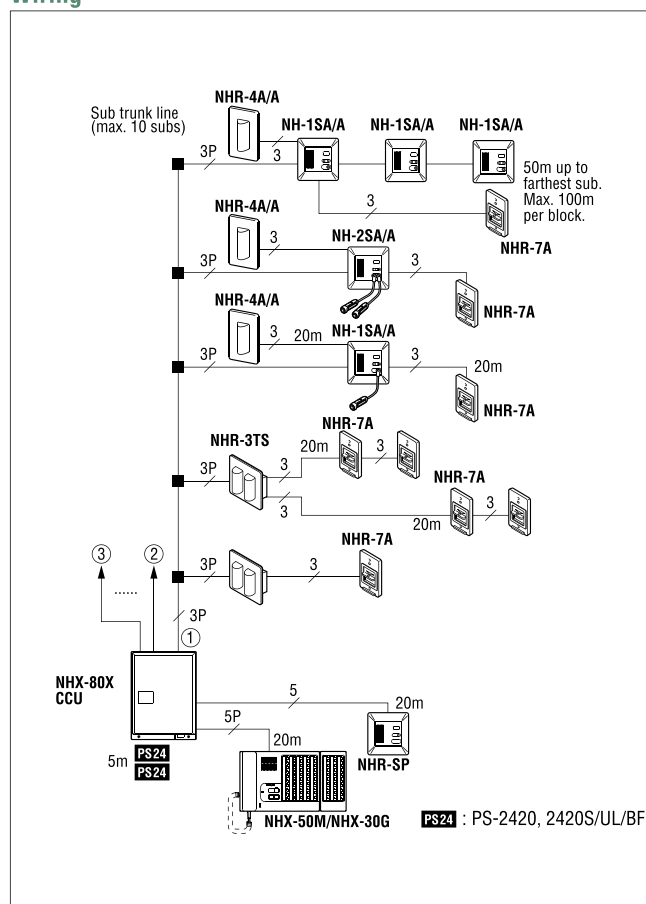


NHR-7A
Staff call / bathroom call switch
(pullcord included)

Call tone & light annunciation

TYPE OF CALL	TONE	LIGHT
Routine call At NHX-50M (& at Duty station) At Bedside sub At Corridor lamp	Single chime, every 6 sec. — —	Blinking, every 2 sec. 'CALL' steadily lit White lamp steadily lit
Urgent bathroom call or NHR-3TS At NHX-50M (& at Duty station) At Bedside sub At Corridor lamp	Single chime, every 2 sec. — —	Double blinking, every 1.8 sec. 'CALL' steadily lit Red lamp Blinking
Cord-out trouble call At NHX-50M (& at Duty station) At Bedside sub At Corridor lamp	Single chime, every 0.5 sec. — —	Blinking fast, every 0.4 sec. 'CALL' steadily lit White lamp Blinking
NHR-3TS in common area Bathroom call (urgent) Staff call (urgent)	— —	Red blinking (2 lamps) White blinking (one lamp)
Line-off trouble at NHX-50M Line-off at bedside sub Line-off at Duty station	Slow buzzer, intermittent Faster buzzer, intermittent	Lit 0.2 sec., every 2 sec. No light

Wiring



Sub trunk line: 6 wires (3P).

Each zone requires a separate common wire from NHX-80X.

Use twisted pairs with an overall shield, low capacitance, 0.65mm dia., solid conductors. (Rated capacitance level of wire: 25pF/30cm or less)

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NHX Components

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Central control unit



NHX-80X
Central control unit

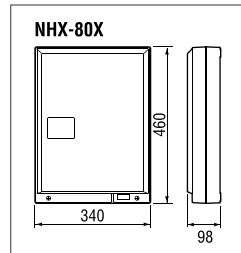


NHR-30K
30-call add-on trunk card

Features

Connect one NHX-50M and up to 80 sub stations. 1 ~ 8 trunk lines of up to 10 stations per trunk connected inside CCU. (3 pairs) 5 pairs to Master station. Terminates duty station, and power supplies(2). After installation, the NHX-80X must be initialized. During use, turn power switch off and back on to reset. Install NHR-30K Expansion Trunk Card when NHX-30G is used.

Unit dimensions



Specifications (NHX-80X)

Power Source	24V DC, 4A max.
Power supply	2 pcs PS-2420S, PS-2420UL, PS-2420BF, PS-2420
Station capacity	50 sub stations (max. 80 with NHX-30G & NHR-30K).
Calling	Routine call, Urgent bathroom call & Cord-out trouble call. Up to 5 calls can be displayed on NHX-50M.
Communication	Single and private talk channel. Press-to-talk or handset voice-actuation
Call-in priority	(1) Cord-out trouble call, (2) Urgent bathroom call and NHR-3TS common area bathroom call or staff call, (3) Routine call. Subs' call-ins on standby connected according to urgency level and time of call.
Warning tones	(1) Line-off trouble at Bedside or NHR-3TS sub & Duty station. (To stop tone on the Duty station, plug in, 2-pin jumper to CN104 in CCU).(2) 90 sec. elapse timer: Call tone goes up to HIGH level.(3) 90 sec. off-hook timer: Steady tone will notify that handset is off-hook.
Wiring	3 twisted pairs, CCU to Sub trunks 1~8. 5 twisted pairs, CCU to NHX-50M. 6 wires (parallel), CCU to NHR-SP. Use twisted pairs with an overall shield, low capacitance, 0.65mm dia., solid conductors. (Rated capacitance level of wire: 25pF/30cm or less)
Wiring distance	CCU to Sub (farthest) 50m(0.65mm) Sub trunk line 100m(0.65mm) CCU to NHX-50M 20m(0.65mm) CCU to Duty station 20m(0.65mm) CCU to PS-2420, 2420S/UL/BF 5m(1.0mm)
Mounting	3-gang wall-mounting. Or inside Electrical Enclosure with secured door (Provide a suitable, non-combustible mounting surface).

Master station



NHX-50M
50-call master station

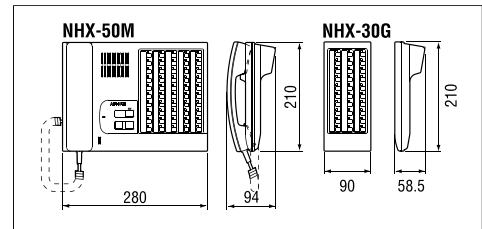


NHX-30G
30-call add-on selector

Features

Extremely compact 50-call desk console. Open voice communication with TALK button, or handset (voice-actuated). When called, simply press TALK or pick up handset to establish channel. Otherwise, press TONE-OFF button and go to calling location. To initiate a call, press a selector button first. NHX-30G is a 30-call add-on selector. Plugs into NHX-50M.

Unit dimensions



Specifications

Wiring	10-pin plug in connector (to NHX-80X). Provided with preset volume controls. Can verify connection of all sub stations.
Wiring distance	Install within 20m from CCU.

Duty station

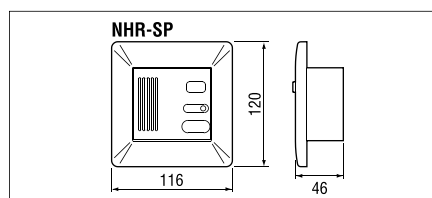


NHR-SP
Duty station

Features

Acknowledges any station call with tone and blinking LED. Go to the NHX-50M. Press TONE-OFF and identify the caller at Master station.

Unit dimensions



Specifications

Mounting	2-gang semi-flush mounting.
Wiring	CN1 (6 pin) to NHX-80X. When NHR-SP is installed, unplug Connector from CN104 on NHX-80X.

Bedside sub station



NH-1SA/A
Single-jack bedside sub station



NH-2SA/A
Dual-jack bedside sub station



NHR-3TS
Calling zone light



NHR-8C
Bedside call switch

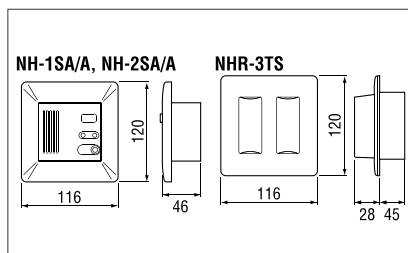
Features

Bedside station for calling and communication. Used with NHR-8C call cord. When call button is pushed, 'CALL' LED is lit red. When master replies, green 'TALK' LED is lit. Press CANCEL to reset the call. When NHX-50M calls in, pre-tone sounds and 'TALK' LED is lit green.

Specifications

Mounting	2-gang semi-flush mounting
Wiring	Sub Nos. 1 ~ 10 setting on SW1. CN1 (6 pin) to sub trunk line. CN2 (8 pin) for NHR-7A, NHR-4A/A.

Unit dimensions



Bathroom pullcord

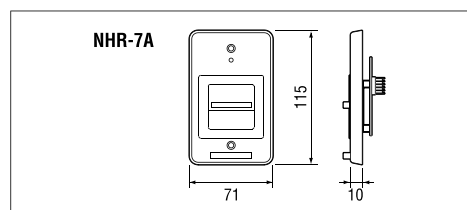


NHR-7A
Staff call / bathroom call switch (pullcord included)

Features

Mechanically locked calling device, used to place an urgent bathroom call from a patient room, common area bathroom or staff call location. Cannot be used alone, and must be used with NH-1SA/A, NH-2SA/A, or with NHR-3TS common area call station. Provides dry closure contact. Master-CALL LED indicates call placed. Ratings 24V DC, 100mA (min. 5mA or more).

Unit dimensions



Specifications

Mounting	Single-gang semi-flush mounting.
Wiring	3 wires to patient station or NHR-3TS.

Corridor lamp

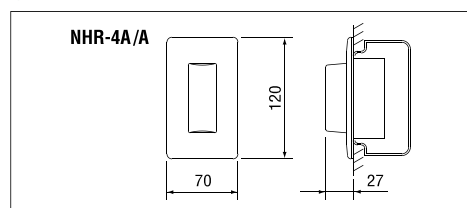


NHR-4A/A
Corridor lamp w/red & white lamps

Features

When a call is placed, the NHR-4A blinks red or is steadily lit white. Ratings: 24V DC (or more), 200mA max.

Unit dimensions



Specifications

Mounting	Single-gang semi-flush mounting.
Wiring	3 wires to Bedside sub station.

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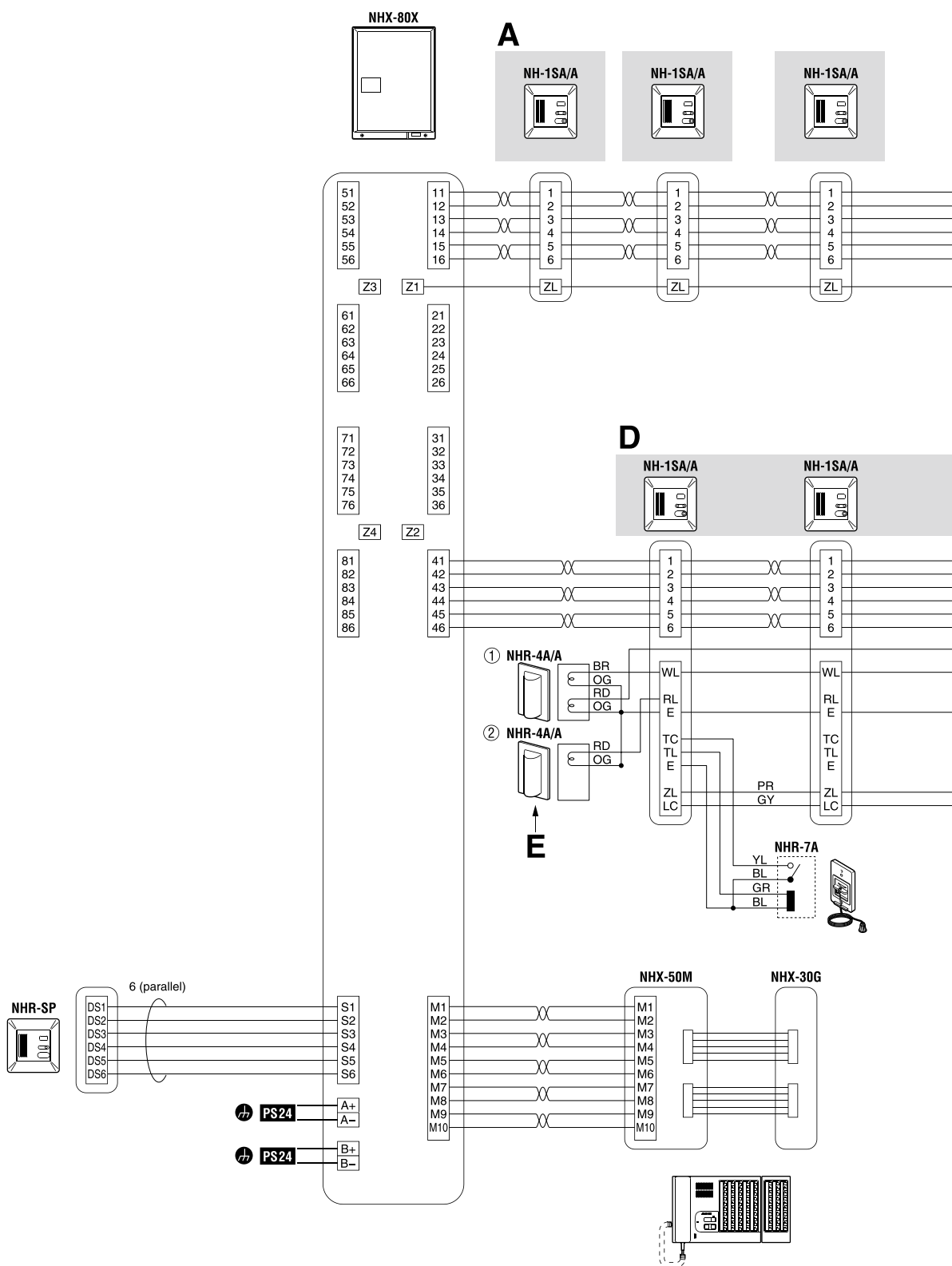
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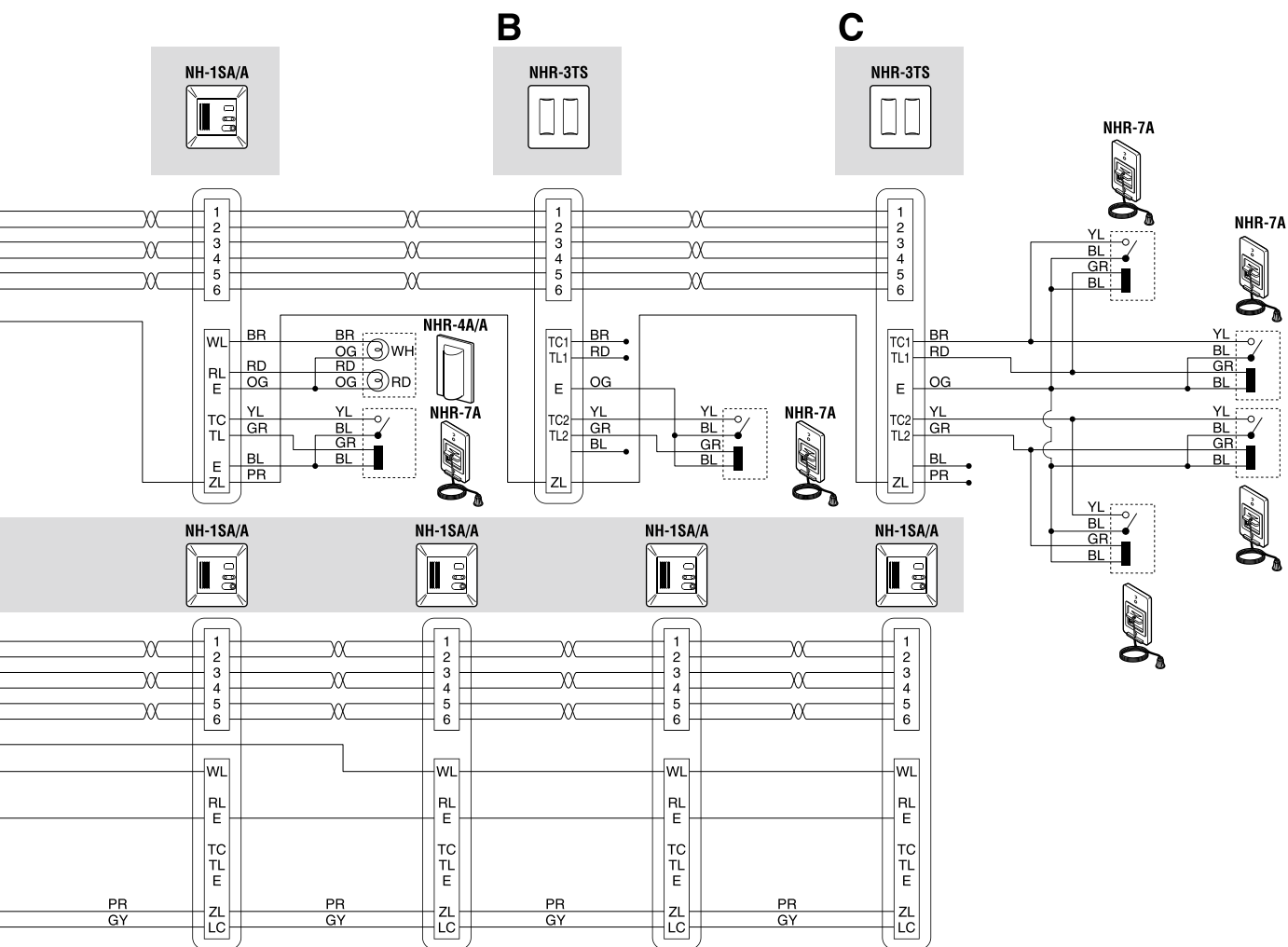
- A** Patient rooms w/a single bedside sub station
- B** Staff call (corridor)
- C** Bathroom call (common area)
- D** Patient rooms w/multiple bedside sub stations
- E** Corridor lamp NHR-4A/A

①: Two white lamps ②: One red lamp
 NHR-4A ② is required only when NHR-7A staff call / bathroom call switch is installed in a single and common bathroom.

PS24 : PS-2420S, PS-2420UL, PS-2420BF, PS-2420

Wire color identifications

NHR-4A/A BR: Brown OG: Orange RD: Red OG: Orange	NH-1SA/A BR: Brown RD: Red OG: Orange YL: Yellow GR: Green BL: Blue PR: Purple GY: Gray	NHR-3TS BR: Brown RD: Red OG: Orange YL: Yellow GR: Green BL: Blue PR: Purple
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Multi-station patient room applications

Multiple NH-1SA/A and NH-2SA/A bedside sub stations can be installed within a patient room, observing the following conditions;

1. Max. 6 bedside sub stations may be connected per room for max. 12 calls (when NH-2SA/A stations are used).
2. A corridor lamp inside (NHR-4A) must not be connected with more than 4 bedside sub stations.
3. Due to the above, install two NHR-4A/A corridor lamps when more than 4 sub stations are in one room, i.e. two WHITE lamps used in one NHR-4A/A, and one RED bulb used in the other NHR-4A/A.
4. NH-1SA/A and NH-2SA/A station numbers must be programmed in numerical order and connected to the same subs trunk line.
5. NHR-7A staff call / bathroom call switch is optional.

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