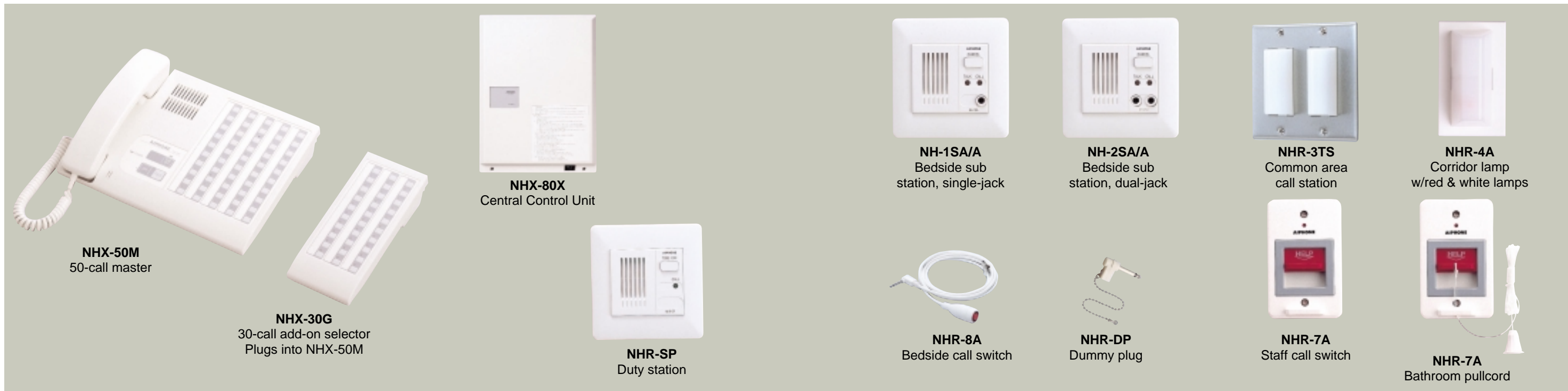


Nurse Call

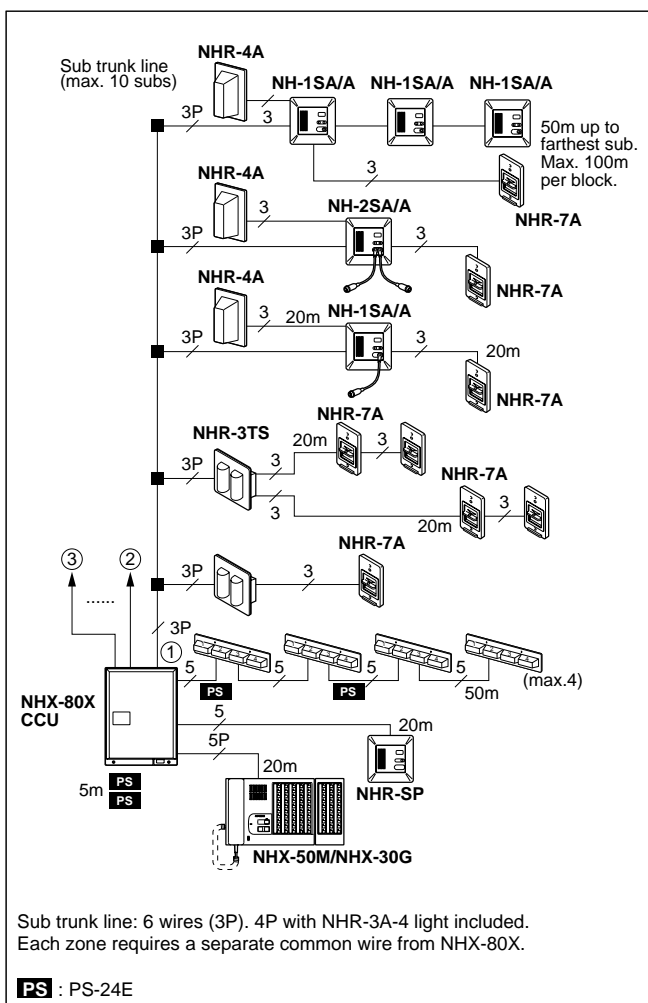
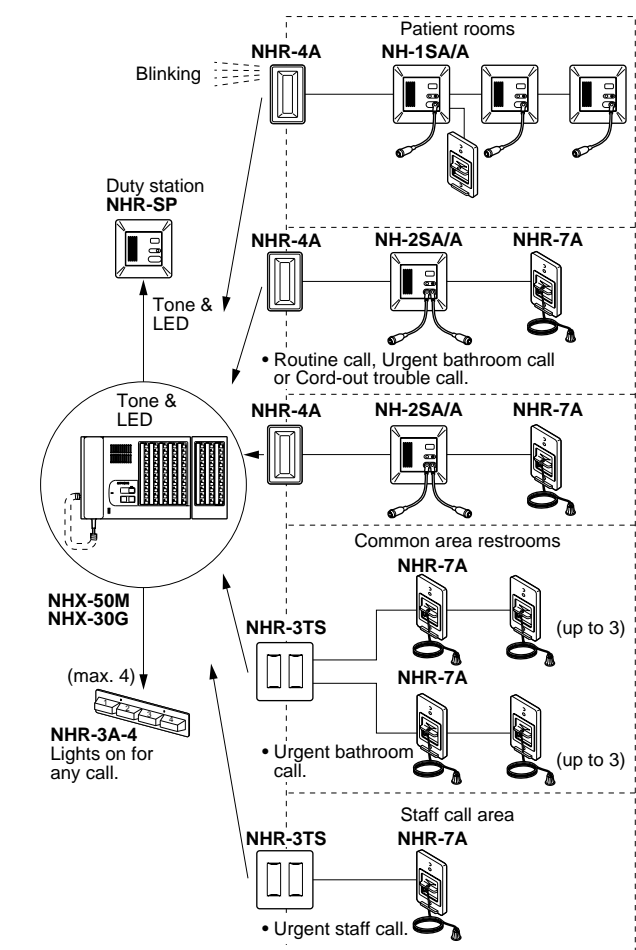


- One master, up to 80 sub stations. Single and dual patient stations.
- Multi-station capability per patient room.
- Three types of call-ins from patient stations: Routine call, Bathroom call & Cord-out trouble call,

- identified by tone & blinking LED (w/priority according to urgency and time of call).
- NHR-3TS Common Area Call stations is used for common area bathroom call or staff call (urgent).
- Optional zone light (max. 4).

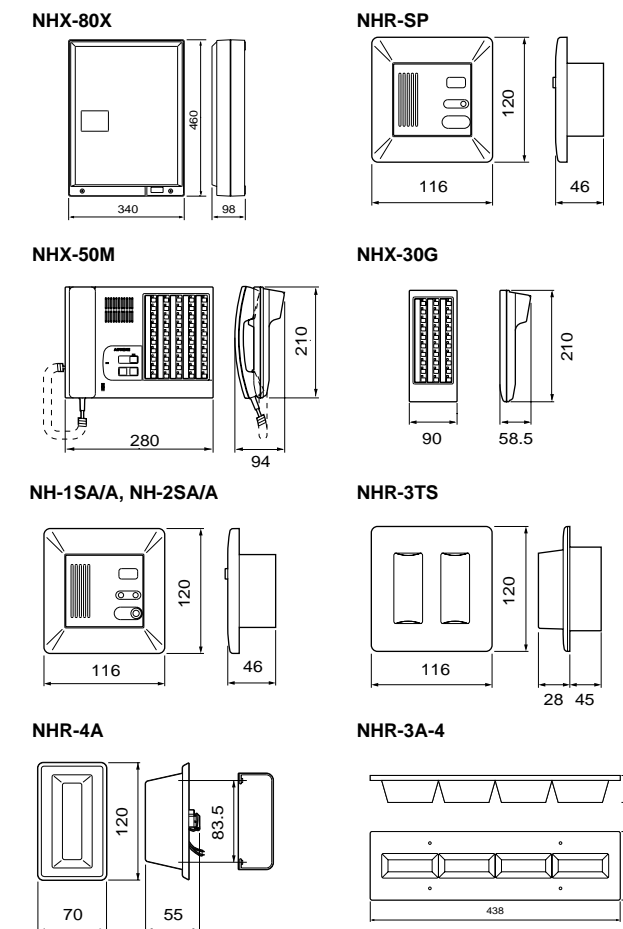


Communication network & wiring

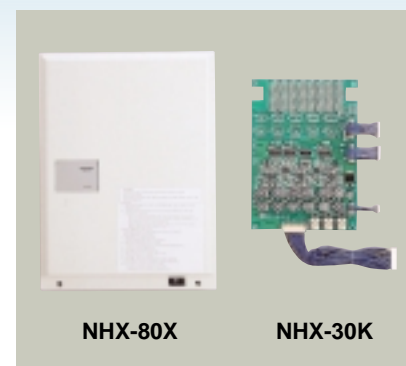


System components

- **NHX-80X:** Central Control Unit.
 - **NHX-50M:** 50-call master console.
 - **NHX-30G:** 30-call add-on selector.
 - **NH-1SA/A:** Bedside sub station, single-jack.
 - **NH-2SA/A:** Bedside sub station, dual-jack.
 - **NHR-3TS:** (1) Common area call station, used w/NHR-7A bathroom pullcord. (2) Urgent staff call sub station, used w/NHR-7A mech. lock SW.
 - **NHR-30K:** 30-call add-on trunk card.
 - **NHR-3A-4:** 4-zone indicator light.
 - **NHR-7A:** Staff call switch (or Bathroom pullcord).
 - **NHR-8A:** Bedside call switch.
 - **NHR-4A:** Corridor lamp.
 - **NHR-DP:** Dummy plug.
 - **NHR-SP:** Duty station.
- **Power supply**
 - **PS-24E:** 24V DC, 2A. Two PS-24E's required for NHX-80X only. Two NHR-3A-4's powered by a PS-24E.



NHX Components



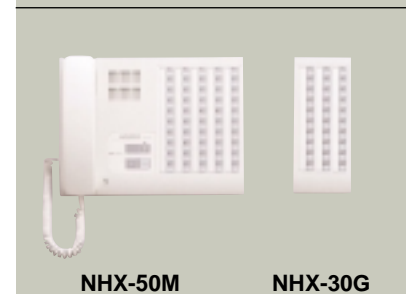
Central Control Unit (NHX-80X)

Controls the NHX-50M and up to 80 sub stations. 1~ 8 trunk lines of up to 10 stations per trunk connected inside CCU. (3 pairs, or 4 pairs if zone light is installed). 5 pairs to Master station. Terminates in CCU Zone light (4 in loop), Duty station, and power supplies(2).

After installation, the NHX-80X must be reset. During use, turn power switch off and back on to reset.

- Mounting: 3-gang wall-mounting. Or inside Electrical Enclosure with secured door (Provide a suitable, non-combustible mounting surface).

- Install NHR-30K Expansion Trunk Card when NHX-30G is used.



Master station (NHX-50M)

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.

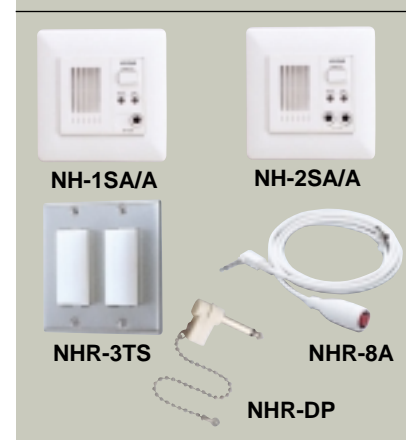
- Wiring: 10-pin plug in connector (to NHX-80X). Provided with preset volume controls. Can verify connection of all sub stations.
- Install within 20m from CCU (wiring distance). NHX-30G is a 30-call add-on selector. Plugs into NHX-50M.



Duty station (NHR-SP)

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

- 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, NH-2SA/A)

Bedside station for calling and communication. Used with NHR-8A 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.

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

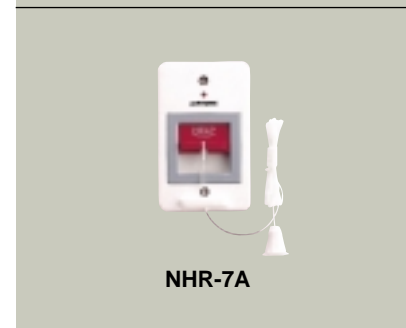
Dummy plug (NHR-DP)

Plugs into jack unused on bedside sub stations.

Bathroom pullcord (NHR-7A)

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: DC 24V, 100mA (min. 5mA or more).

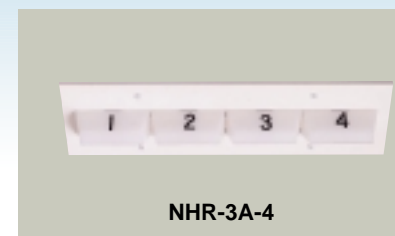
- Mounting: Single-gang semi-flush mounting.
- Wiring: 3 wires to patient station or NHR-3TS.



Corridor lamp (NHR-4A)

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

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



Zone light (NHR-3A-4)

Zone lamp turns on when any call is placed on the system, indicating which zone has a call placed. Up to 4 zone lights can be installed in one system. Install one PS-24E for every 2 zone lights. Lamp ratings: DC 24V ~, 200mA.

Specifications (NHX-80X)

Power source:	24V DC, 4A max.														
Power supply:	2 pcs PS-24E power supplies														
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 for the latter, remount connector 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.														
Wiring:	3 (or 4*) twisted pairs, CCU to Sub trunks 1~8. (*when zone light is installed) 5 twisted pairs, CCU to NHX-50M. 6 wires (parallel), CCU to NHR-SP. 5 wires (parallel), CCU to NHR-3A-4.														
Wiring distance:	<table border="1"> <tr> <td></td> <td>1.0mmø</td> </tr> <tr> <td>CCU to Sub (farthest)</td> <td>50m</td> </tr> <tr> <td>Sub trunk line</td> <td>100m</td> </tr> <tr> <td>CCU to NHX-50M</td> <td>20m</td> </tr> <tr> <td>CCU to Duty station</td> <td>20m</td> </tr> <tr> <td>CCU to Zone light</td> <td>50m</td> </tr> <tr> <td>CCU to PS-24E</td> <td>5m</td> </tr> </table>		1.0mmø	CCU to Sub (farthest)	50m	Sub trunk line	100m	CCU to NHX-50M	20m	CCU to Duty station	20m	CCU to Zone light	50m	CCU to PS-24E	5m
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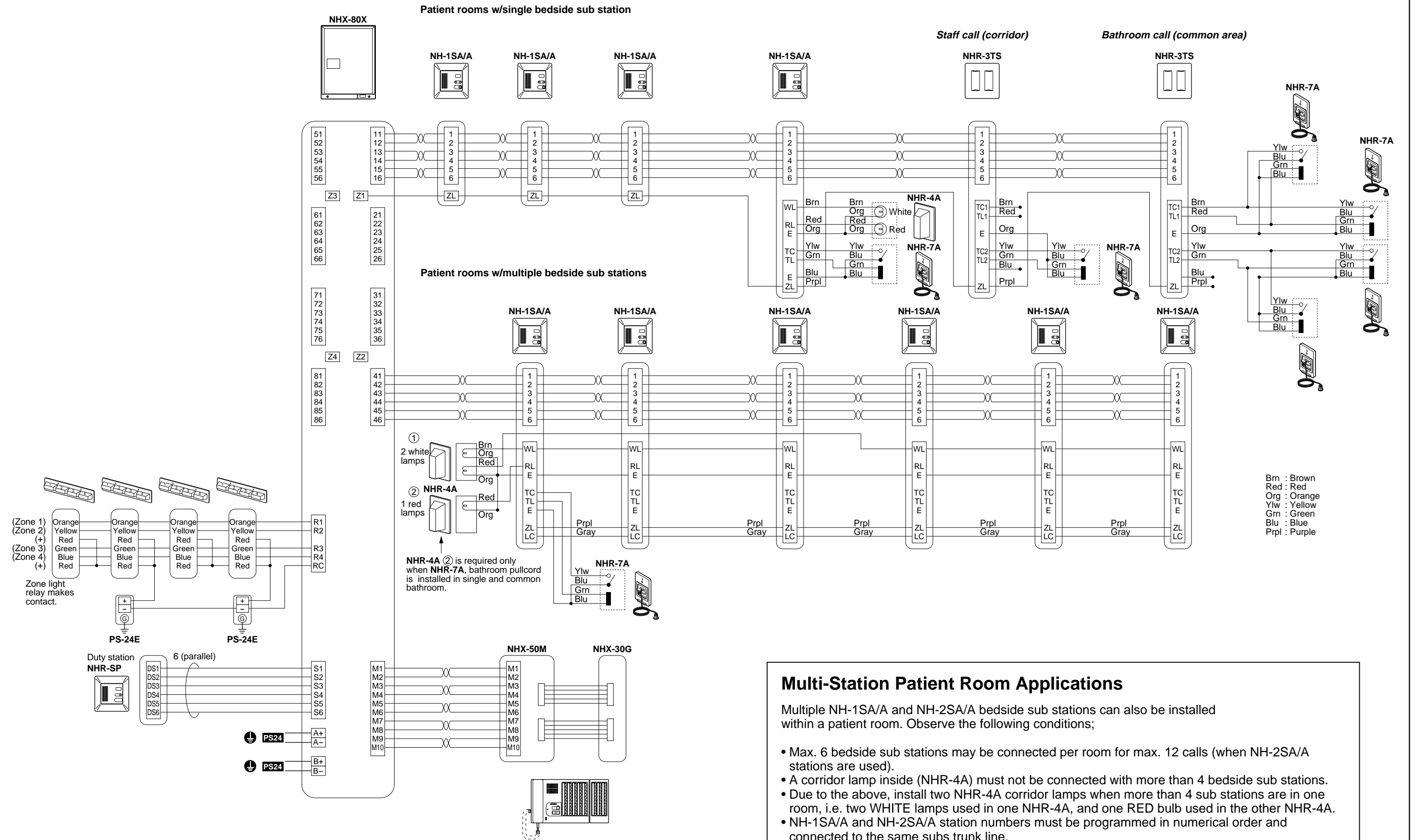
Communication at NHX-50M

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 a selector button of the sub. At the sub, pretone sounds and TALK is lit green. Corridor and zone lights do not turn on. For direct caring, press TONE-OFF to silence tone only, and go to a calling location.
2. Corridor lamp & Zone 1~4 light turn on with any type of call placed by sub station area. Upon the talk channel established, two lights will turn off.
3. A call from NHR-3TS is of the same level as Urgent bathroom call. (no verbal communication)

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 & on pullcord Red lamp steadily lit
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 & on pullcord White lamp steadily lit
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 DIAGRAM



Multi-Station Patient Room Applications

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

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

PS24 : PS-24E