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Gira nurse call system Plus

Operator's manual

Gira nurse call system Plus

Operating instructions for end users

GIRA

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1. Introduction

The Gira nurse call system Plus is a wired call system with voice option which fulfils all of the requirements of the standard DIN VDE 0834.



Important! Display and functions are examples.

The displays and functions shown in these instructions are examples which can vary depending on the configuration of the system.

1.1 General Information

The technical data and specifications contained in this document may be changed without prior notification. The illustrations are also non-binding.

Subject to technical modifications!



Note:

Up-to-date information is available on the Gira website.

As the device you have purchased is constantly being further developed and updated, information in this manual may no longer be up-to-date.

Up-to-date product information is always available on the Gira website:

<http://www.gira.de>

Current software updates and documentation for your product are available at

<http://www.download.gira.de>

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1.2 Areas of application

The Gira nurse call system Plus is used to signal emergency situations and alert personnel.

In general, a call system is comprised of the following elements:

Elements of a call system	Devices
Call triggering elements	Call buttons, patient hand-held device and pear button in various characteristics and functions as well as pull-cord button and pneumatic call button.
Call display elements	Signal lights, hallway displays, room/duty room terminal, duty room terminal CT9 and room modules in various characteristics and functions.
Call switch-off elements	Switch-off and presence buttons in various characteristics and functions.
Power supply elements	Power rectifier, with and without UPS.
Controlling and logging elements	Ward control centre and system central control unit.

Table 1: The elements of a call system



Note: Improper use.

Gira assumes neither legal responsibility nor provides a guarantee for errors and damage of any kind as a result of improper use and/or unprofessional installation of the Gira nurse call system Plus.

2. Function

2.1 Intended use

Important! Connecting external devices and systems

Gira assumes no liability for the external devices and systems connected to the system interface of the Gira nurse call system 834 Plus. The operator must ensure that the functions and the proper operation of the nurse call system 834 Plus are not affected by these devices and systems and that the DIN VDE 0834 is respected.

Mobile devices, such as DECT devices of a telecommunications system, are not components of the call system. Connection is made via the VOIP SIP interface of the nurse call system; the protocol RFC 3261 applies. In cases of special telephone system requirements, it is the responsibility of the operator to carry out suitable measures for the proper functioning of the Gira nurse call system 834 Plus.

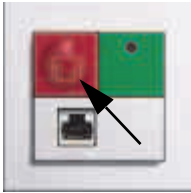
In accordance with Directive 93/42/EEC, the Gira nurse call system 834 Plus is not marketed by Gira as a medical device. If the Gira nurse call system 834 Plus is used as part of an MEE system, the requirements of DIN EN 60601-1-8 (VDE 0750-1-8) must be observed. Certification as an MEE system is the sole responsibility of the operator. The operator is solely responsible for connecting medical products to the system interface (e.g. diagnosis socket). In such cases, the Gira call system becomes a part of the medical electrical system and can only be used for forwarding information in compliance with DIN EN 60601-1-8. It may not be used as part of a distributed alarm system in accordance with DIN EN 60601-1-8 because reliable transmission of signals (alarms) is not guaranteed. If the operator changes the intended purpose and uses the Gira nurse call system as part of a medical electrical system for forwarding alarms, it then becomes an in-house product according to Section 12 of the Medical Products Law. If the operator uses the Gira call system as part of a distributed alarm system as defined by DIN EN 60601-1-8, then the operator is not using the Gira call system for the intended purpose defined by Gira.

2.2 Functional description

Call If a red call button (patient hand-held device/pear button or pull-cord button or pneumatic call button) is actuated, it triggers a call. The call is displayed with a reassurance light in the call button (or in the housing of the pull-cord button or the pneumatic call button) and at the same time a room signal light is signalled with the red continuous light.

WC call	If a call is triggered in a bathroom unit / a WC, this so-called WC call is displayed with a red and white continuous light in the room signal light.
Call forwarding	A triggered call is signalled with a buzzer tone in all the rooms in which presence is marked by pressing the green or yellow presence button. This function is referred to as call forwarding. The presence is displayed with green or yellow continuous light in the presence button and the room signal light.
Emergency call	An emergency call is triggered if the red call button is pressed when presence is marked. The emergency call is signalled by the red flashing light of a room signal light.
WC emergency call	If the call is triggered in a bathroom unit / a WC when presence is marked, this so-called WC emergency call is displayed with a red and white flashing light in the room signal light.
Doctor alert	A doctor alert is triggered by pressing the blue doctor alert button. This is signalled by a red flashing light in the room signal light, but in contrast to the emergency call it has higher priority and a higher flashing frequency in the room signal light.
Voice call	If a call is triggered by a voice-compatible device, a voice connection can be established to the patient by pressing the receiver symbol of the room terminal or duty room terminal.
Call forwarding	<p>Calls can be forwarded to a (duty) room terminal or a room module (call forwarding). (Emergency) calls are switched off with a switch-off button or the presence button in the room in which the call was triggered.</p> <p>Remote switch-off of a call is only permitted for a voice call after a query.</p>
Logging	<p>During system start-up, all necessary parameters are defined in the configuration software, e. g. the division/grouping of the rooms in organisational units, determinations of services, etc. The system central control unit or the ward control centre logs all the events of the system, e. g. calls and emergency calls, marking presence and malfunctions.</p> <p>Following power failure, a triggered call is retained.</p>

2.3 Call triggering

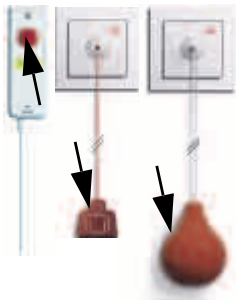


- **A call is triggered with the red call button.**

The red call buttons (also in patient hand-held device, pear button, pull-cord button) are provided with a distinct symbol for better detectability and have a location light/reassurance light in the button (in the housing).

- **Emergency calls are also triggered with the red call buttons.**

However, the functionality of an emergency call is only given if presence has first been marked with the green or yellow presence button.



- **Additional call triggering devices**

Patient hand-held device, pear button, pull-cord button, pneumatic call button.



- **Diagnostic call (monitor call)**

Call from an electrical medical device according to the standard DIN EN 60601 (VDE 0750).

The diagnostic connection cable (Order No.: 2961 00) is inserted here

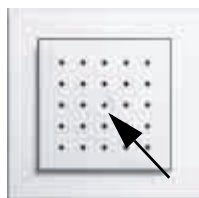


- **A doctor alert is triggered with the blue call button.**

The blue call button is provided with a distinct symbol for better detectability, and there is a location light/reassurance light in the button.

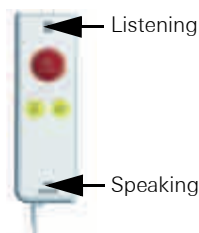
However, the functionality of a doctor alert call is only given if presence has first been marked with the green or yellow presence button.

2.4 Voice options



- **Hands-free feature**

After a call / an emergency call has been triggered from a call button, a voice connection can be established from the ward/nurses' station to the patient. In doing so, the voice module functions as both a loudspeaker and a microphone.



- **Discreet speaking**

If a call has been triggered by pressing the red call button on the patient hand-held device, a voice connection can be established from the room or duty room terminal (e.g. ward station) to the patient. If the patient then presses the red call button on the patient hand-held device again, so-called discreet speaking is possible via the patient hand-held device. The patient hand-held device is held to the ear like a telephone receiver for this purpose.

2.5 Switching light on

- **Switching room light and reading light**

By pressing a yellow button, the room (ceiling) light and/or the reading light at the bed is switched on or off.



2.6 Patient hand-held device test

After plugging the patient hand-held device into an ancillary plug contact, a device test is necessary according to the standard DIN VDE 0834.

- **LED in red button of the patient hand-held device flashes in rapid flashing frequency**

The red call button on the patient hand-held device must be pressed once to carry out the patient hand-held device test. If this test is not carried out, a call is triggered via the system.



2.7 Marking presence and switching off a call

When entering and leaving a room, the green or yellow presence button is pressed.

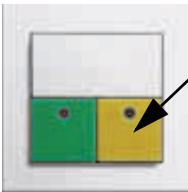


- **Marking presence 1 and switching off a call**

The presence of the care personnel is marked by pressing the green presence button and displayed with a green continuous light in a room signal light. An active call is switched off at the same time.

Exception for bathroom unit/WC call: This call can only be switched off with the switch-off button in the bathroom unit/WC.

The presence is also indicated in the display of a duty/room terminal (if available). If the care personnel is working in various rooms at the same time and presence is set in each case, the display of the duty/room terminal indicates the presences successively.



- **Marking presence 2 and switching off a call**

The presence of a further member of the care personnel is marked by pressing the yellow presence button and displayed with a yellow continuous light in a room signal light. An active call is switched off at the same time.

Exception for bathroom unit/WC call: This call can only be switched off with the switch-off button in the bathroom unit/WC.

The presence is also indicated in the display of a duty/room terminal (if available). If the care personnel is working in various rooms at the same time and presence is set in each case, the display of the duty/room terminal indicates the presences successively.



Note:
Possible special feature in call switch-off.

For the call and switch-off button with ancillary plug contact (Order No. 5903 ..), the call can only be switched off at the patient's bed.

2.8 Display

Emergency situations are displayed via a red and/or white light in the room signal lights and acoustically signalled using buzzers (call forwarding). In addition, calls are also indicated in the displays of the duty/room terminal and/or hallway display.

The way text is displayed in the duty/room terminals and the hallway displays depends on how this text was entered in the system central control unit and how the parameters were defined in the system central control unit.

The display of the presence of care personnel is signalled with green and yellow light in the room signal lights and triggered with the green or yellow buttons.










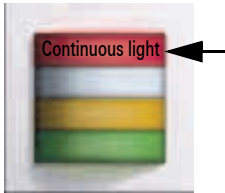
Call type	Type and cycle sequence of the calls			
	Visual display	Colour	Acoustic signal	
(Normal) call		Continuous light	red	$t_{on} = 1 \text{ sec.}$, Pause 5 ... 10 sec.
Emergency call		Flashing light, long interval on/off each approx. 1.2 sec. ...		Tone sequence $t_{on} / t_{off} = 1.2 \text{ sec.}$
Doctor alert		Flashing light, short interval on/off each approx. 0.3 sec. ...		Tone sequence $t_{on} / t_{off} = 0.3 \text{ sec.}$
Diagnostic call		Continuous light		$t_{on} = 1 \text{ sec.}$, Pause 5 ... 10 sec.
(WC) bathroom unit call		Continuous light	red and white	$t_{on} = 1 \text{ sec.}$, Pause 5 ... 10 sec.
(WC) bathroom unit emergency call		Flashing light	red and white	Tone sequence $t_{on} / t_{off} = 1.2 \text{ sec.}$
Presence 1		Continuous light	green	w/o
Presence 2		Continuous light	yellow	w/o
Signalling for malfunction		Continuous light	red	w/o

Table 2: Overview of the call types

2.9 Call types and signalling

- **(Normal) call**



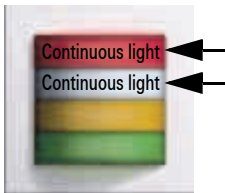
Triggering a call by pressing a red or blue call button.

The (normal) call is displayed with a red reassurance light in the call button and red continuous light in the room signal light (See table Page 11).

Each bed is assigned a unit for call triggering which the bedridden patient can reach comfortably and safely.

A red LED is installed in the call button, pear button, cover of the pull-cord button or the pneumatic call button to easily find it in the dark.

- **WC call**

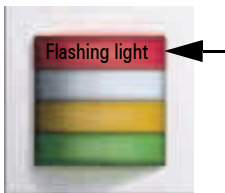


Call from a bathroom unit or from separate WC rooms or rooms with bathtub or shower.

The WC call is displayed with a white continuous light (in addition to the red continuous light) in a room signal light.

It is a call which must be switched off by pressing the green switch-off button on-site, i.e. in the bathroom unit/in the WC.

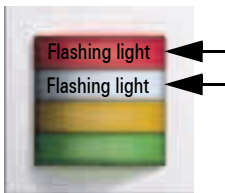
- **Emergency call**



When the presence marking in a room is switched on, emergency triggering is prepared because an emergency call is triggered if the red call button in the room is pressed again.

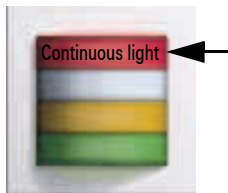
The emergency call is displayed with a red flashing light in a room signal light (See table Page 11).

- **WC emergency call**



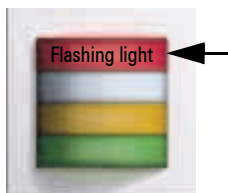
When the presence marking in a room with a WC area is switched on, emergency triggering is prepared because a WC emergency call is triggered if a red call button, pull-cord button or a pneumatic call button in the WC/bathroom area is actuated again.

The WC emergency call is displayed with a red and white flashing light in a room signal light (See table Page 11).



- **Diagnostic call**

Call from an electrical medical device according to the standard DIN EN 60601 (VDE 0750). This type of call also referred to as a monitor call must be made via separate plug-and-socket outlets.



- **Alarm call/doctor alert**

Doctor alert can only be triggered with the blue doctor alert button when Presence 1 or Presence 2 is set. Doctor alert is a call with its own signal (rapid flashing frequency).



- **Signalling plug removal**

If a patient hand-held device or pear button is removed consciously or unconsciously, a (normal) call is displayed from the room signal light. The message **Plug** appears in the displays of the duty room terminals and room terminals. In order to switch off the call, the green (not yellow) presence/switch-off button must be pressed for at least **3 seconds**.



Important: Check functionality.

Check the functionality of the patient hand-held device or pear button after restoring the plug connection.



- **Call forwarding buzzer signal**

The call forwarding function is activated in each room in which presence is set. If a call / emergency call is triggered in another room (which belongs to the same organisational unit/ward), a buzzer signal becomes audible in the room in which presence is set. In the display the message **Emergency call room number** appears.



- **Signalling in case of malfunction**

In case of e. g. a wire fraction in a room, the message ***Fault Rm. XX*** appears.



Important: Inform service technician.

Have the functionality of the system restored by a service technician.



- **Signalling emergency function**

When a control device fails, a message appears on devices with displays.

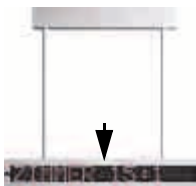
Display of the message ***SSZ error***. The system central control unit has failed. Cross-ward functions (e.g. services or interconnections) no longer function. All functions within the ward continue to be carried out.

Display of the message ***Bus error***. The ward control centre has failed. All the devices of the ward are in emergency mode. Cross-ward functions (e.g. services or interconnections) no longer function.



Important: Inform service technician.

Have the functionality of the system restored by a service technician.



- **Signalling with hallway display**

A call in plain text indicating the room number is displayed in the hallway display.

If there is not an active call, the hallway display shows the date and time.

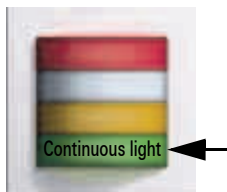


Note: Presence is not displayed.

Presence is not displayed on the hallway display.

2.10 Signalling presence and switching off a call

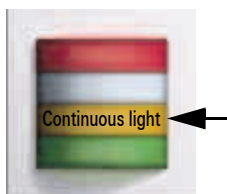
By marking the presence, there is a signal that care personnel is in the room. The *emergency call* functionality and *call forwarding* are activated when presence is set.



- **Signalling presence 1 and switching off a call**

The presence of a member of the care personnel is marked by pressing the green presence button and displayed with a green continuous light in a room signal light. Active calls are switched off by pressing the green presence button. Exception for bathroom unit/WC call: This call can only be switched off with the switch-off button in the bathroom unit/WC.

The presence is also indicated in the display of a duty/room terminal (if available). If the care personnel is working in various rooms at the same time and presence is set in each case, the display of the duty/room terminal indicates the presences successively.



- **Signalling presence 2 and switching off a call**

The presence of a second member of the care personnel is marked by pressing the yellow presence button and displayed with a yellow continuous light in a room signal light. Active calls are switched off by pressing the yellow presence button.

Exception for bathroom unit/WC call: This call can only be switched off with the switch-off button in the bathroom unit/WC.

The presence is also indicated in the display of a duty/room terminal (if available). If the care personnel is working in various rooms at the same time and presence is set in each case, the display of the duty/room terminal indicates the presences successively.

2.11 Priority of the calls

The call system always gives the call with the highest priority precedence for the display.

If there are calls with the same priority, they are indicated alternating in the displays.

Priority	Display device	Display
Doctor alert	Room signal light	Red flashing light, rapid cycle
	Duty/room terminal	Text: <i>Doctor alert Rm. XX</i>
Diagnostic call	Room signal light	Red continuous light
	Duty/room terminal	Text: <i>DIA Rm. XX</i>
WC emergency call	Room signal light	Red and white flashing light, slow cycle
	Duty/room terminal	Text: <i>WC emergency call Rm. XX</i>
Emergency call	Room signal light	Red flashing light, slow cycle
	Duty/room terminal	Text: <i>Emergency call Rm. XX</i>
WC call	Room signal light	Red and white continuous light
	Duty/room terminal	Text: <i>WC call Rm. XX</i>
Call	Room signal light	Red continuous light
	Duty/room terminal	Text: <i>Call Rm. XX</i>
Presence 1	Room signal light	Green continuous light
	Duty/room terminal	Text: <i>PR 1 Rm. XX</i>
Presence 2	Room signal light	Yellow continuous light
	Duty/room terminal	Text: <i>PR 2 Rm. XX</i>

Table 3: Priority of the calls

2.12 Handling the duty room terminal

Interconnections can be activated or deactivated with the duty room terminal. This makes it possible to react to organisational necessities.

Example:

Night duty with interconnection of wards.



Note:
Settings in the configuration software.

The determination which rooms belong to an organisational unit (ward) as well as the textual representation in the display is carried out in the system central control unit.



- **Display and operating elements of the terminal**

Display (1) for two-line messages.

The capacitive keypad (2) on the black glass surface has 3 symbols:

- „OK“, to confirm / select.
- „Down arrow“, opens menu and navigation.
- „Telephone receiver“ to accept a voice call.

The corresponding action is triggered by touching one of the symbols with a finger.



- **Accepting and ending a voice call**

An incoming call is indicated in the display and where applicable signalled acoustically with a buzzer.

- Accepting voice call

Receiver symbol in the display must be visible (is triggered e.g. by a call to a voice-compatible device).

Touch the „receiver symbol“ button with a finger. Communication is established to the person calling.

- End voice call (set call to hold)

After a query of the call, touch the receiver symbol again; call is then active again after 5 minutes.

- End voice call (switch off call remotely)

End call by pressing the „OK“ symbol.



- **Call up menu of the duty room terminal**

Presence must be set.

Touch the **arrow symbol** with a finger. The menu opens (1st menu entry).

Touching the **arrow symbol** again displays further menu entry, etc.

Select/activate/deactivate a menu entry by touching the **OK symbol**.

The following menu entries can be selected (see also the menu structure of the duty room terminal on page 19):

Collective call: To all rooms. (voice function only in one direction.)

Collective call: To all rooms with presence set. (voice function only in one direction.)

After approx. 3 seconds without an entry, the display switches back to the original display.



- **Interconnection of several organisational units/ward(s)**

Only interconnections of organisational units are displayed which were created before in the system central control unit.

Presence must be set.

Touch the **arrow symbol** with a finger. The menu opens (1st menu entry).

Touching the **arrow symbol** again displays the 2nd menu entry (interconnections).

Select the main menu **Interconnect** with the **OK symbol**. All available interconnections including status are displayed.

Touch **arrow symbol** to toggle between the interconnections.

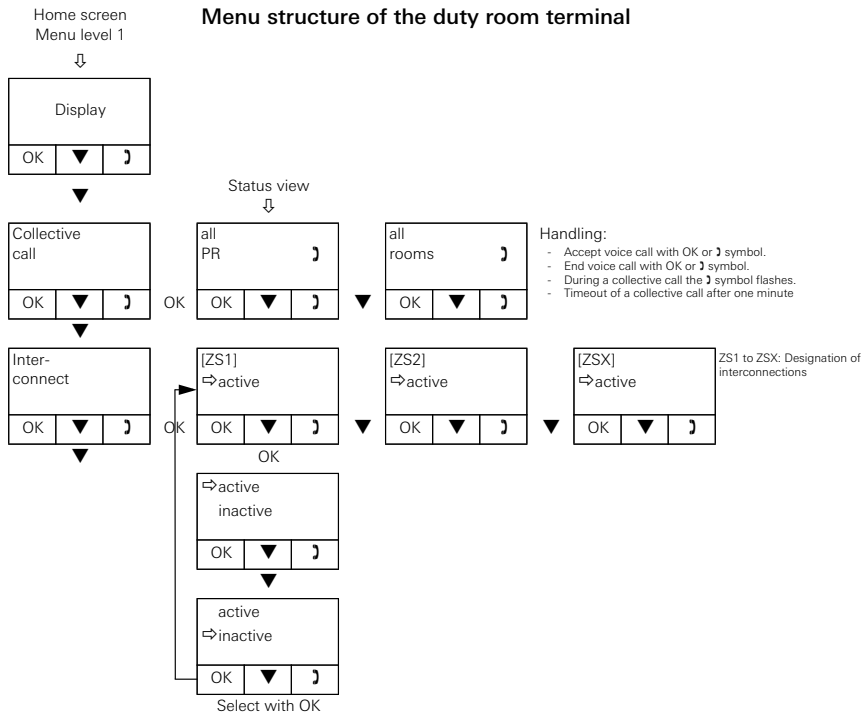
Select the interconnection to be edited by touching the **OK symbol**.

Touch **arrow symbol** to toggle the status (**active** or **inactive**).

Touch **OK symbol** to save the settings.

After approx. 3 seconds without an entry, the display switches back to the original display.

See also the menu structure of the duty room terminal on page 19.



2.13 Handling the duty room terminal CT9

The start screen is displayed after starting the duty room terminal CT9.



Touch screen interface

Touch icons with a finger.

Areas of the start screen:

- (1) Status line. Displays the current date and time.
- (2) Left screen area. Provides information about interconnections and presences within the assigned organisational units (**Information** register) or offers a menu for selecting various functions (**Function** register).
- (3) Right screen area. A list displaying events from the assigned organisational units that must be responded to. The displayed text depends upon the parameterisation in the configuration assistant of the system central control unit or ward control centre.
- (4) Call elements of a duty room terminal. The call elements function like the buttons of a duty room terminal. The buttons presence 1 (green), presence 2 (yellow), call (red) and doctor alert (blue) are available.

- **Collective call**

Displays a list of possible collective calls. Pressing the button of a specific collective call triggers the call directly. Collective calls are voice connections that can be established simultaneously to several participants of an organisational unit. The configuration of organisational units is carried out in the configuration assistant of the system central control unit or ward control centre.
- **Room call**

Displays a list with rooms in organisational units (e. g. wards) that can be called. Pressing the button of a specific room call triggers the call directly. Room calls are voice connections that can be established to individual rooms. Rooms can be called by selecting the corresponding ward in accordance with the organisational structure. Room calls are "eavesdropping-blocked". They can not be answered. Answering is only possible when the call button is pressed after this has been requested, for example by the care personnel.
- **Interconnections**

Displays a list of interconnected organisational units. The interconnections are preset in the configuration assistant of the system central control unit or ward control centre and activated when required in the duty room terminal CT9.
- **Ward log**

Displays a list of all events for the current day.
- **Rapid selection 1**

Enables jumping to any page. Configuration of the button is via Expert mode.
- **Rapid selection 2**

Enables jumping to any page. Configuration of the button is via Expert mode.
- **Cleaning function**

Blocks the screen for a specific time period. The time period is set in Expert mode.

- **Settings**
 - **Volume settings**

Enables setting the volume for the device (signal tones and conversations).
 - **Brightness**

Enables setting the brightness for the screen.
 - **Expert mode**

Enables basic setting possibilities for the duty room terminal CT9.
To make changes in this area, please contact the responsible system administrator or electrician.

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