emea

iCall
290 SIP-Touch
V1.15.00

iCall
Flex IP nursecall

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Intended use

Use this product only for the purpose it was designed for; refer to the data sheet and user documentation for details. For the latest product information, contact IndigoCare Europe. This iCall 290 SIP-Touch guide is a working and supporting tool for certified engineers for installing and maintaining iCall installations.

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Revision history

Date	Revision	Description
2014-12-23	1.0	First version
2019-04-30	1.1	New layout and new firmware version 1.15.00

Index

1. Introduction

The iCall 290 SIP-Touch (NWATES0150) is one of the foundation blocks of the iCall call system and features a 7” full-colour resistive touch screen for easy use by rest home or hospital staff.

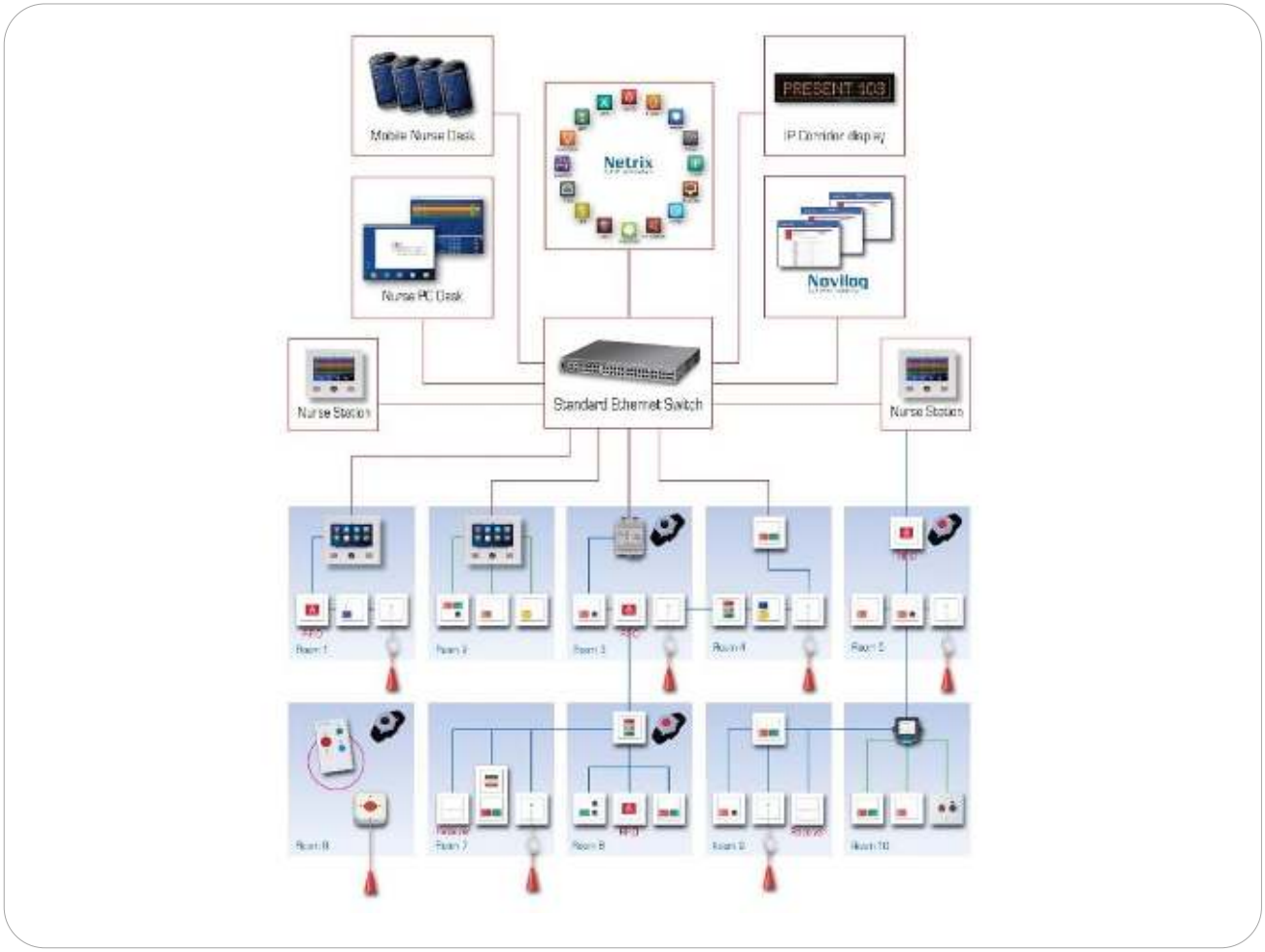
This unit is equipped with an iCall LB connection, ethernet, microphone, speakers, outputs and more. This makes the device ideal for VOIP communication and a useful overview of active calls, in addition, of course, to the standard functioning call system.

The installation and configuration is easy, through for example, the various power connectivity options such as POE, power injection or direct connection to external power. Furthermore the device supports up to 50 iCall LB products (max 5 where power supply takes place through PoE) per every appliance which can be set up via the web interface as well as the touch screen. The extra outputs also ensure flexibility and can, if desired, when connecting the appliance be set up via the screen.

The combination of these factors means that this device is one of the most versatile and flexible products within the iCall range.

2. Installation

2.1. Topology



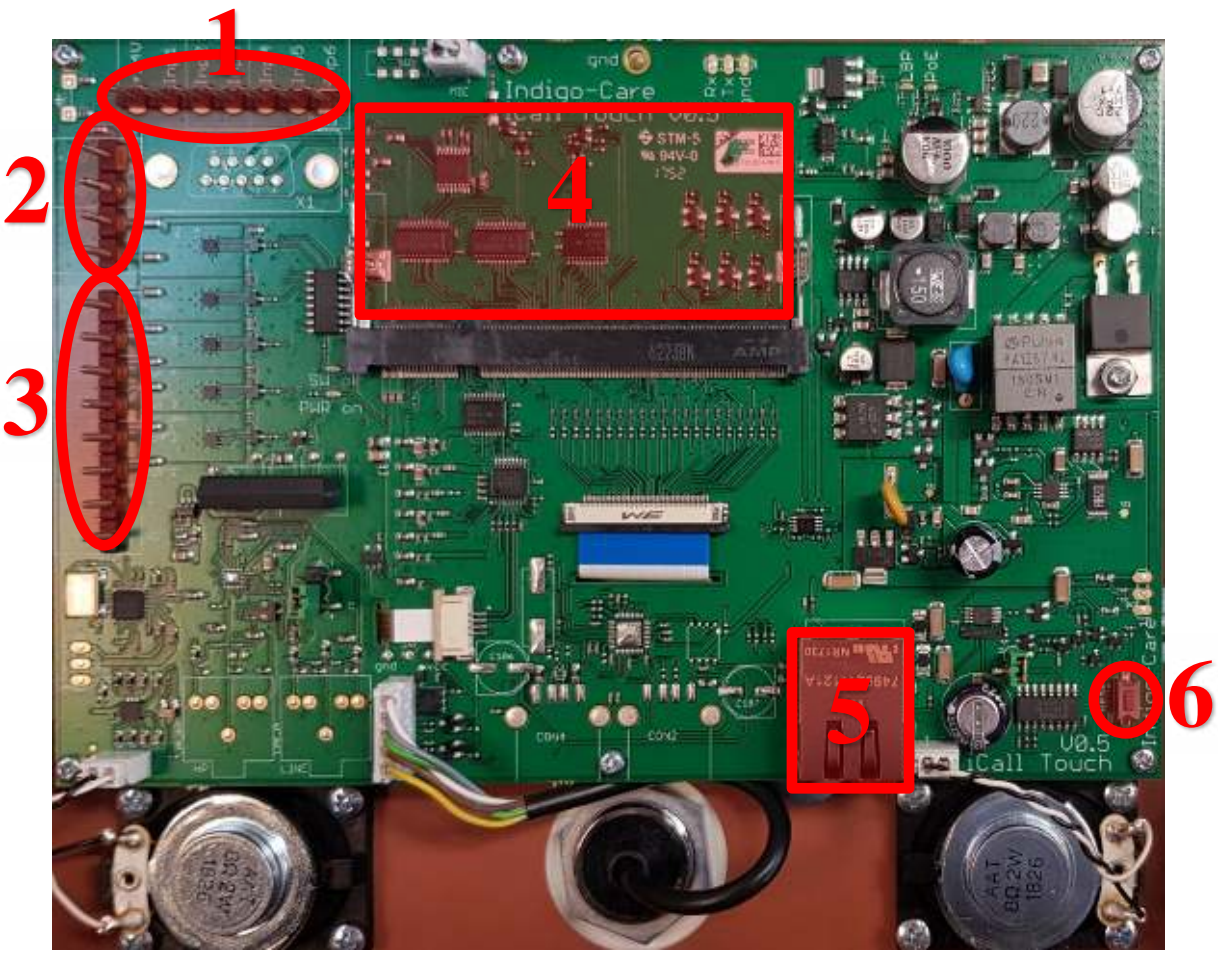
2.2. Wiring

A maximum of 50 local bus units are attached to each iCall 290 SIP-Touch. The units are connected using a four-wired cable. The bus is connected to the four-pin connector on the back of the iCall 290 SIP-Touch units.

The data network is connected through the LAN connector, POE is supported and can power the iCall 290 SIP-touch unit and maximum 5 local bus unit.

Also standard inputs and outputs are supported in this iCall 290 SIP-touch unit.
Further installation items can be found in the “Hardware installation manual”

2.3. Connections



1. Input connections (not used on the iCall 290 SIP-Touch))
    - +24V DC
    - Input 1, (Future use)
    - Input 2, (Future use)
    - Input 3, (Future use)
    - Input 4, (Future use)
    - Input 5, (Future use)
    - Input 6, (Future use)

2. Local bus connections
    - + , +24V DC
    - - , GND
    - Tx
    - Rx

3. Output connections
    - Output 1, open collector, configurable
    - Output 2, open collector, configurable
    - Output 3, open collector, configurable
    - Output 4, open collector, configurable
    - Output 5, open collector, configurable
    - Output 6, relay, max 500mA

4. CPU board plug in
    - iMX25 or iMX53 (future) board

5. LAN connection
    - 10/100/1000 Mbps

6. Reset button

2.4. Power Supply

There are 3 options as power supply to the iCall 290 SIP-Touch:

- POE (Power over Ethernet)
- Power injection
- Standard 24V DC on the local bus connector

3. Components

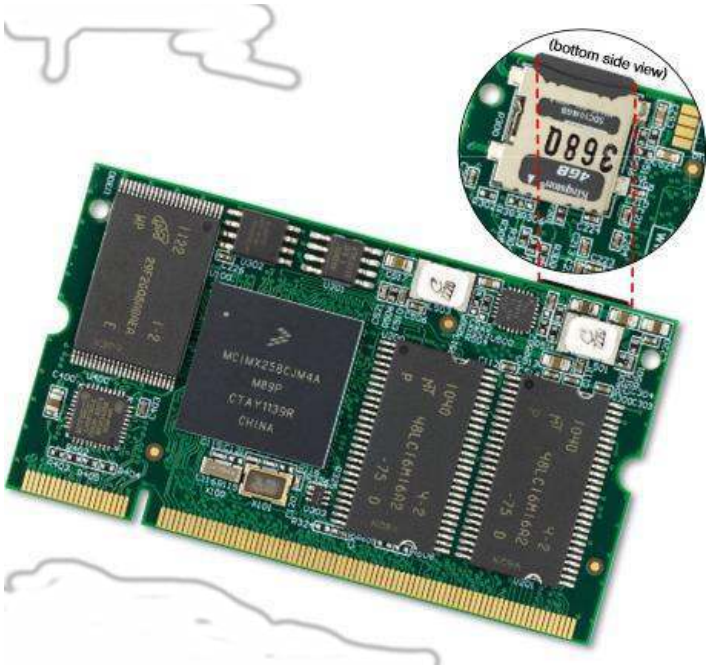
The iCall 290 SIP-Touch consists out of three modular components:

- Computer-On-Module (COM) with the processor
- µSD card
- Motherboard.

The advantage of this modular design is that components are easily interchangeable and replaceable.

3.1. Computer on Module

The COM board contains the i.MX25 or i.MX53 processor, RAM and the various electronic components required for the functioning as a computer system. The boot loader, the OS (Linux) and the various drivers are installed on the internal flash memory of this module.



Please note!
These electronics are very sensitive to electrostatic charges. Make sure you are ESD safe when touching this board.

3.2. µSD card

The µSD card contains the iCall application and the device's settings. In addition the necessary files for the proper functioning of the Linux OS are located here.
The file system is EXT4 making these cards unreadable in a Windows environment; a Linux operating system is required.
These cards are perfectly interchangeable with each other, meaning a defective µSD card can be quickly replaced. We are currently using versions from 2GB to 16GB.

3.3. Motherboard

The motherboard is built into the housing with full-colour resistive touch screen and takes care of all connections between the processor and the outside world. It includes an iButton reader, a microphone, speakers, various input and output capabilities, an ethernet port and a DIMM socket for connecting the COM module.

To remove the COM board from the motherboard the latches on the side need to be moved aside and the board removed from the connector at an angle. To place the daughter card back in the motherboard it must be slid into the connector at an angle of approximately 45°and pushed down.

4. Configuration

There are two different ways of configuring the unit:

- Via the touch interface on the screen
- Via the web interface

4.1. Touch interface

To enter in the settings screen you need to press the hidden setting screen key for 1 sec.
This key is in the right top corner of the touch screen. After the timeout you will get a technician login screen, the default login password is “456”.

TIP: The login password can be changed in the website on the settings page.

There are 5 icon selections in the technical screen:

Settings : All basic iCall 290 SIP-Touch settings can changed in this screen

I/O: Change the Outputs of iCall 290 SIP-Touch and display status of the outputs

Local bus: Shows all local bus buttons connected to the iCall 290 SIP-Touch and the status on each of the buttons. In addition all buttons and rooms can be programmed in this screen.

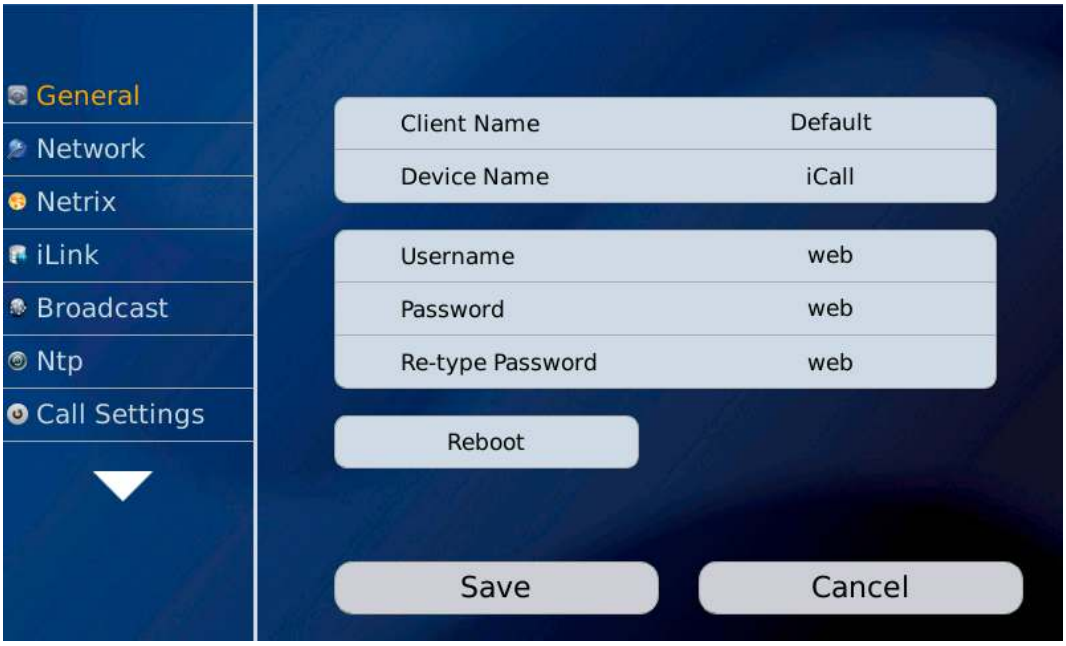
Status: Status shows a overview on the basic elements of the unit:

MAC address	.....	Ethernet Link
IP address		
SIP server	.....	Sip Registration
	.....	Sip Connection
Primary Netrix server	.....	Primary Netrix Connection
Secondary Netrix server	.....	Secondary Netrix Connection
iLink Server	.....	iLink Connection
NTP server	.....	NTP Connection
FTP server	.....	FTP Connection

Version iCall
Version File system
Version Kernel
CPU Load
RAM use

Back: Press this icon for 1 sec to go back in the main nurse call screen.

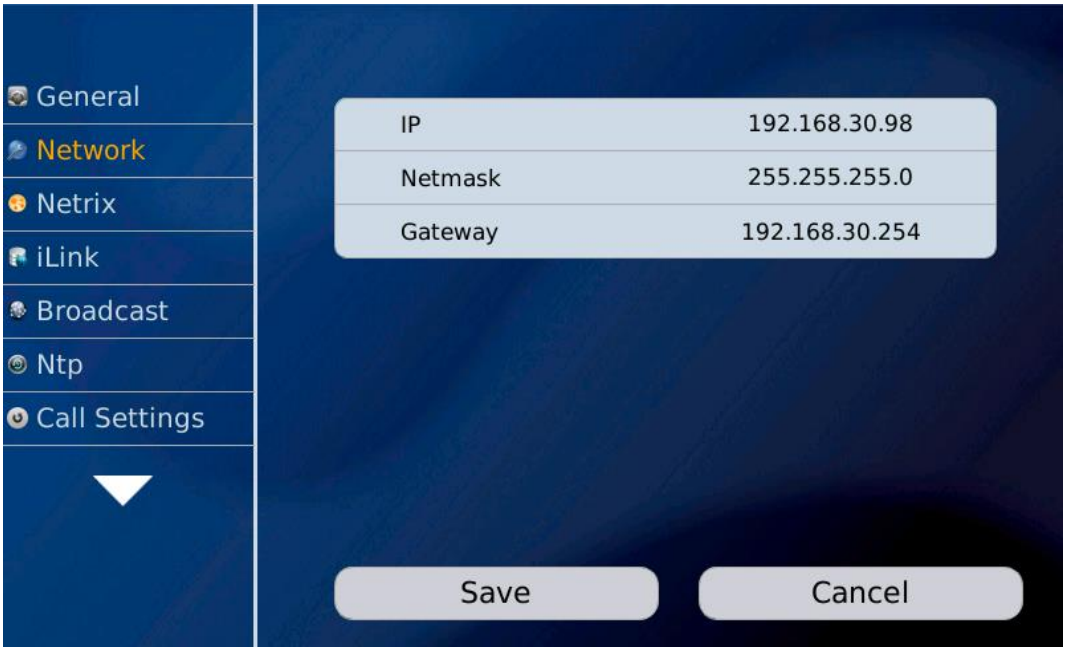
Setting icon:



Using the touch interface you can configure various settings such as network, iLink or Netrix settings. As shown in the figure, the following parameters can be set up in the general settings page:

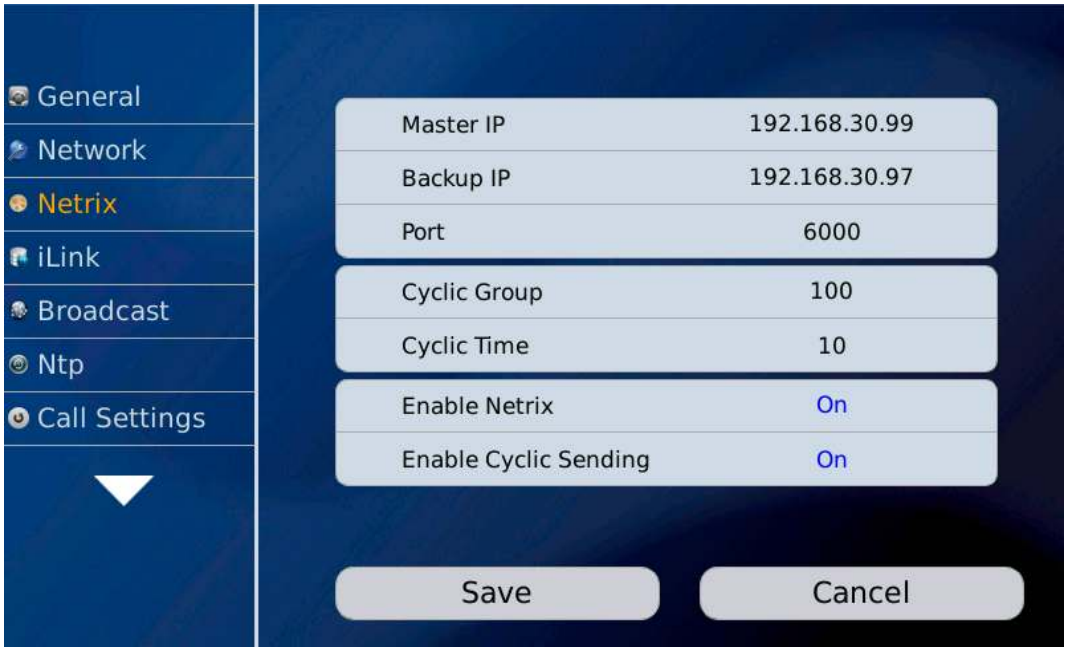
- *Client Name:* Name of the client
- *Device Name:* Name of the device
- *Username:* Login for web page
- *Password:* Password for web page
- *Re-type Password*: Re-type the password for web page

There is also a **reboot** button for restarting the system. This allows the system to restart without losing any settings.



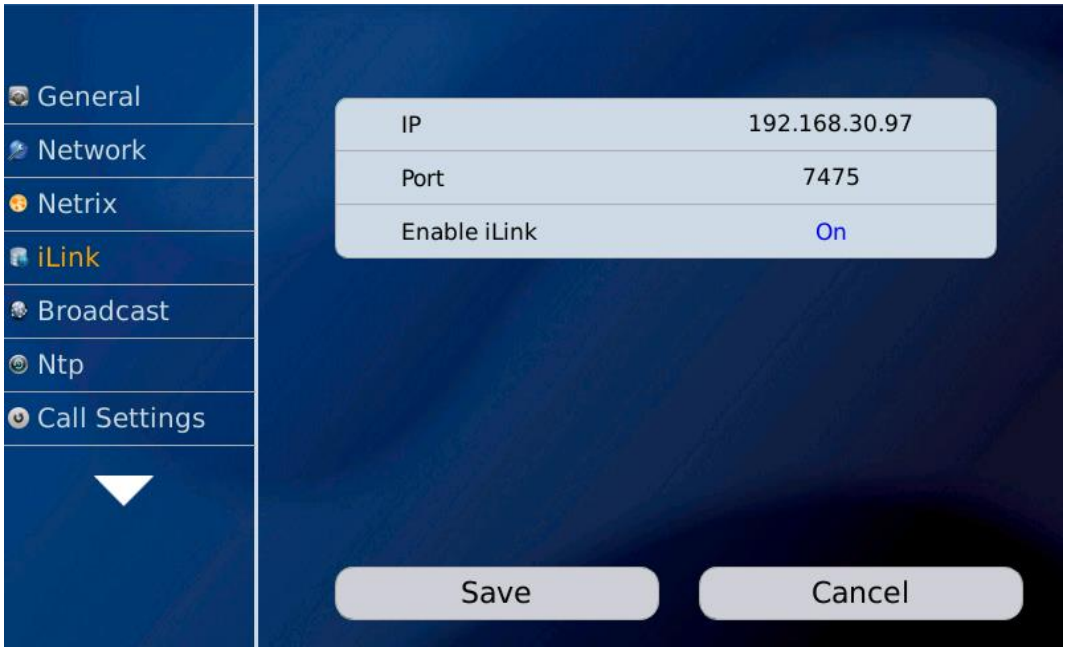
The following parameters can be set up in the network settings page:

- *IP:* IP address of the iCall 290 SIP-Touch in the network
- *Netmask:* Network subnet
- *Gateway:* Network gateway



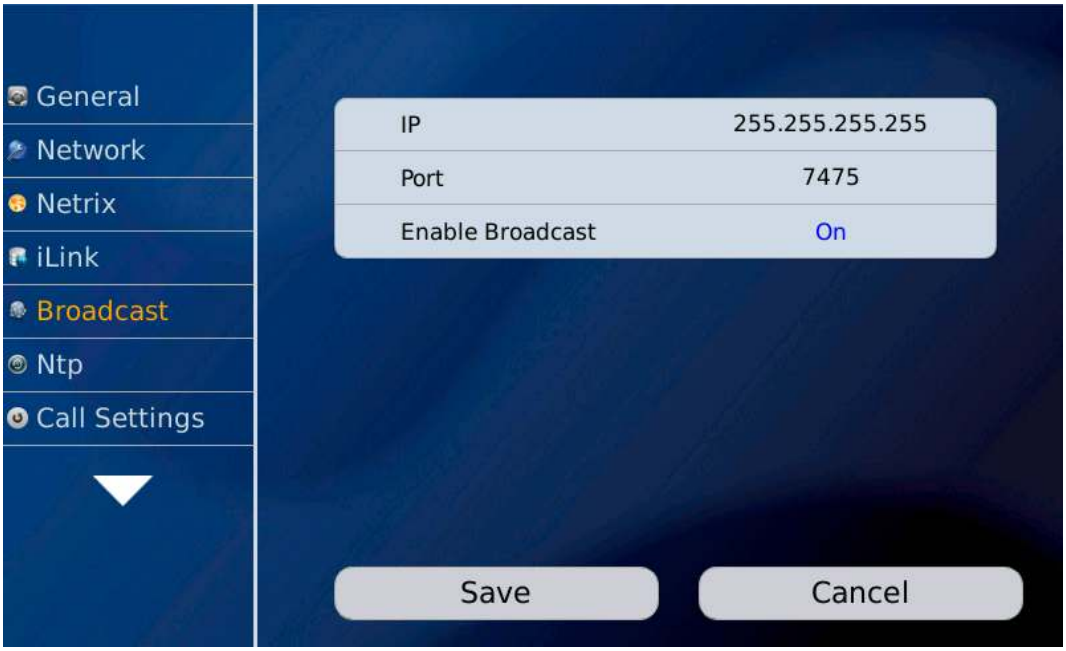
The following parameters can be set up in the Netrix settings page:

- *Master IP:* The Netrix IP address
- *Backup IP:* The backup Netrix IP address
- *Port:* Port for Netrix communication
- *Cyclic Group:* Cyclic ALIVE group in Netrix
- *Cyclic Time:* Interval for ALIVE messages
- *Enable Netrix:* Communication to Netrix on/off
- *Enable Cyclic Sending:* Cyclic sending on/off



The following parameters can be set up in the iLink settings page:

- *IP:* iLink IP address
- *Port:* iLink port IP address. Default 7475
- *Enable iLink:* Communication to iLink on/off



The following parameters can be set up in the Broadcast settings page:

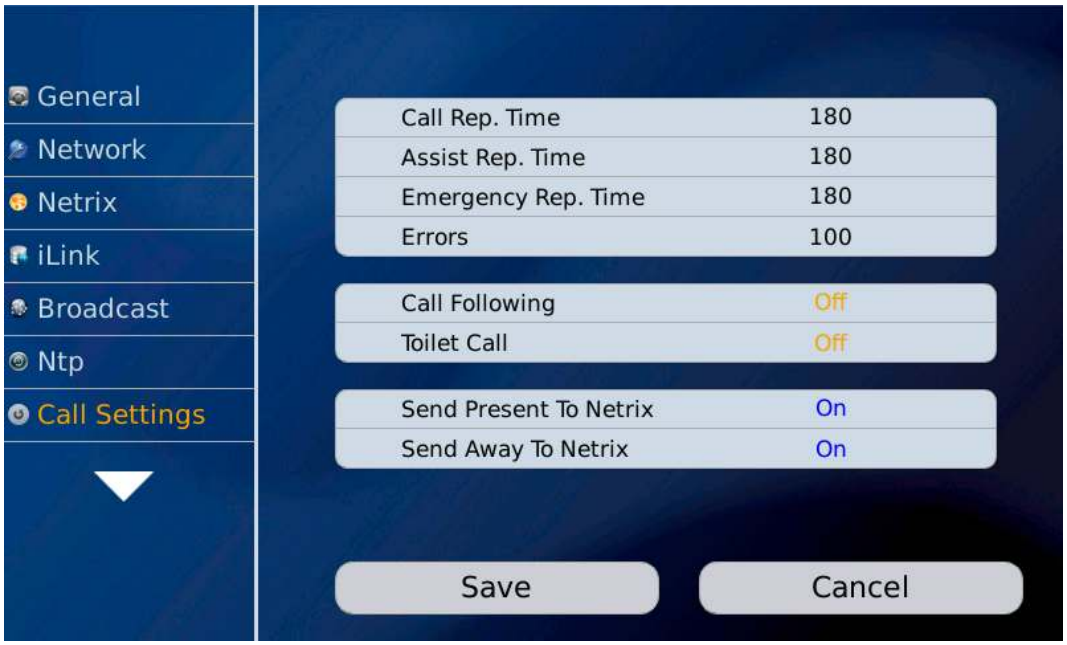
- *IP:* IP address of broadcast receivers. Default: 255.255.255.255
- *Port:* Port for sending UDP broadcast messages. Default 7475
- *Enable Broadcast:* Communication via broadcast on/off

TIP: The broadcast setting must always be enabled, if disabled the nurse stations will no longer function.

The following parameters can be set up in the NTP settings page:

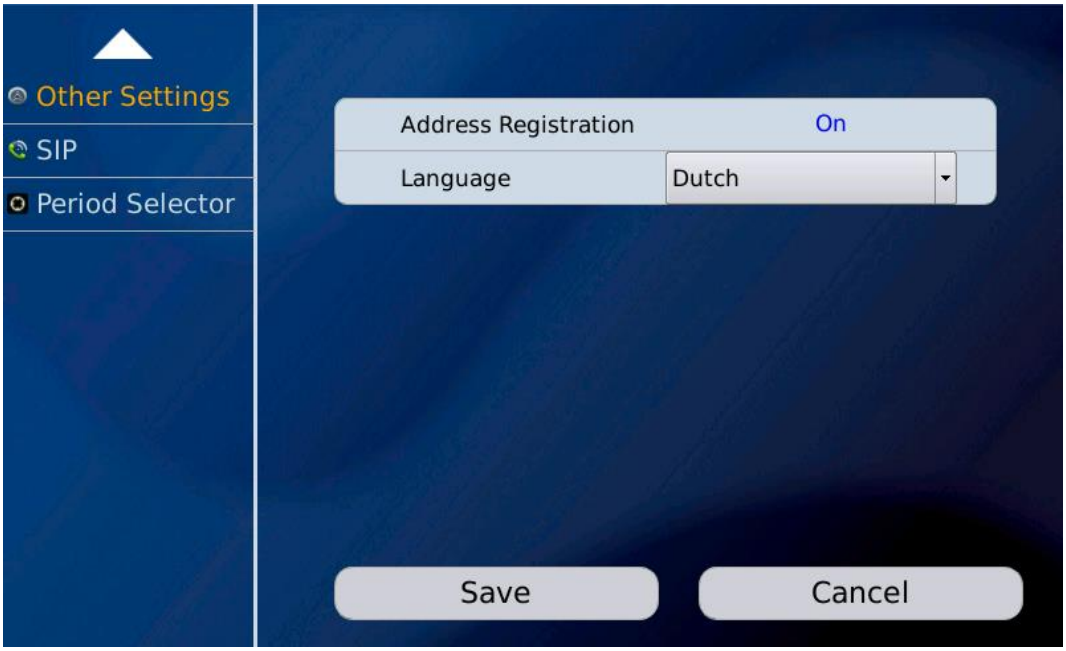
- *IP:* NTP server IP address
- *Enable NTP:* On/off of time adjustment via NTP

TIP: For NTP server you only can use the Indigocare NTP server for time synchronization.



The following parameters can be set up in the Call settings page:

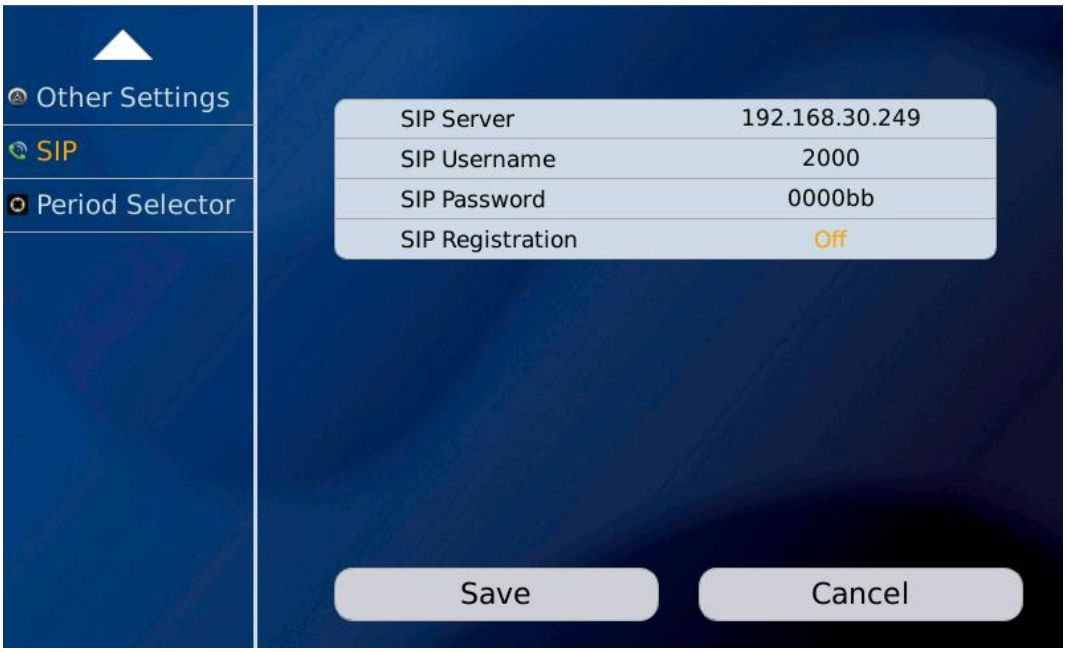
- *Call Rep. Time:* Interval time for repetition of active calls to the Netrix
- *Assist Rep. Time:* Interval time for repetition of active assistance calls to the Netrix
- *Emergency Rep. Time:* Interval time for repetition of active emergency calls to the Netrix
- *Errors:* Error group to the Netrix
- *Call Following:* Call following ON or OFF. Call following works for rooms that have the same location name.
- *Toilet Call:* If enabled a toilet call will only be visible on the dome light and the toilet buttons. Room calls are not visible on the toilet call stations. If disabled a toilet call will be indicated on all room call stations and toilet call stations as a call.
- *Send Present to Netrix:* Forward presences to the Netrix
- *Send Away to Netrix:* Forward absences to the Netrix



The following parameters can be set up in the Other settings page:

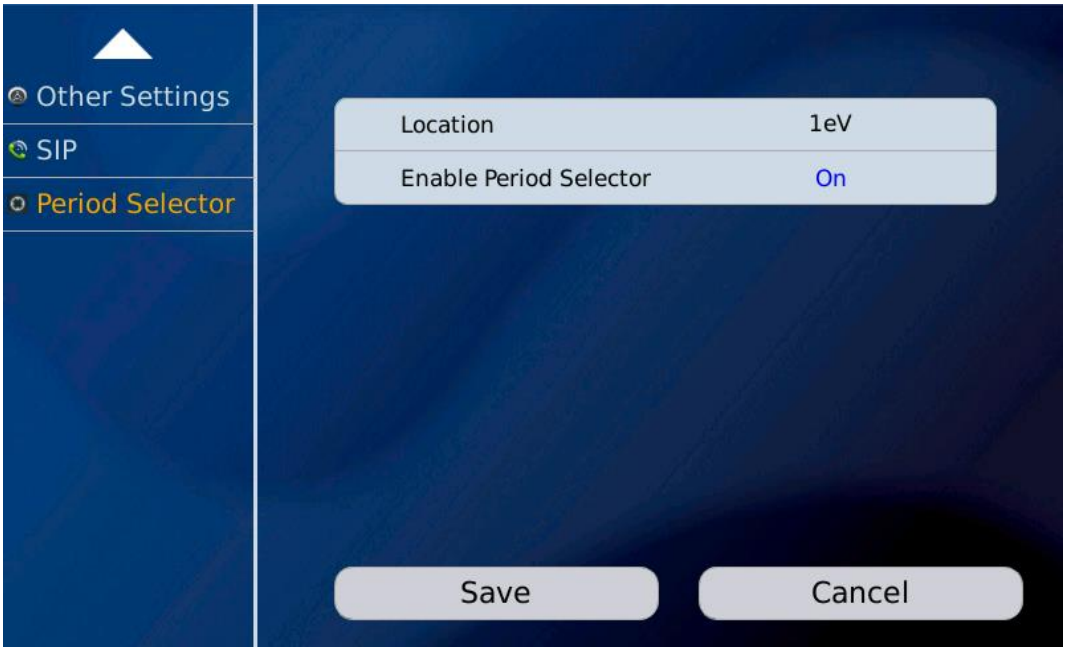
- *Address registration:* enable or disable the address registration. (if this selection is disabled no additional call stations can be registered on the local bus)
- *Language:* Select the language the unit must use, this language is only for the users displays, the programming website is always in English. Supported languages (Catalan, English, Icelandic, German, Dutch, French, Norwegian, Polish, Portuguese and Spanish)

TIP: At the end of the installation the address registration must be turned OFF



The following parameters can be set up in the SIP settings page:

- *SIP Server:* PBX IP address
- *SIP Username:* SIP device username
- *SIP Password:* SIP device password
- *SIP Registration:* SIP registration on/off



The following parameters can be set up in the Period Selector settings page:

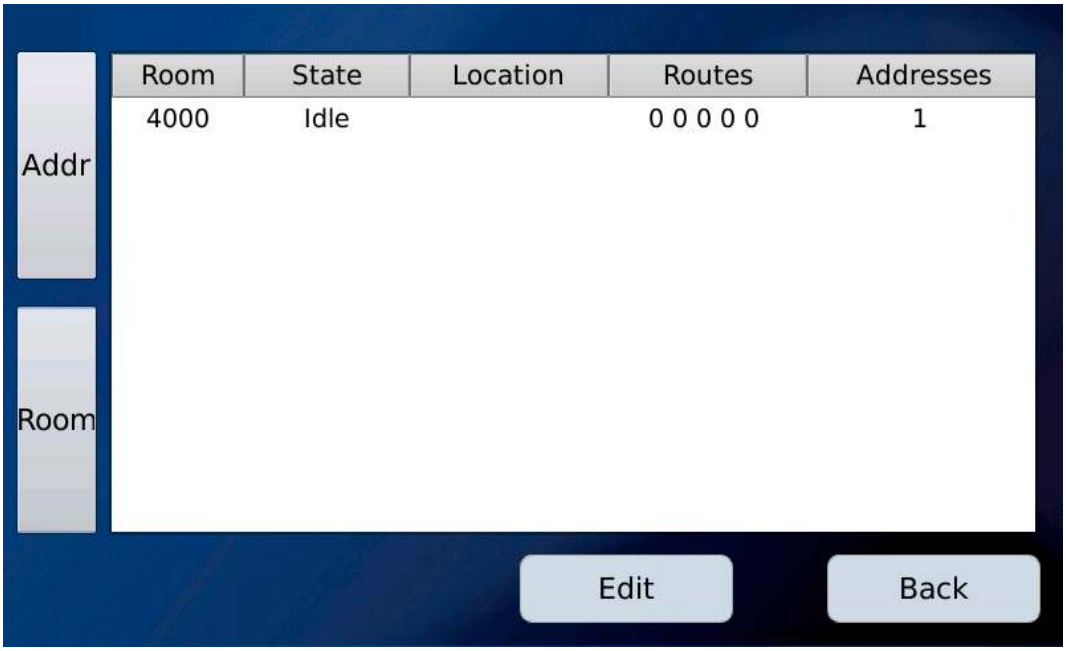
- *Location:* Location this advice listens to for period changeovers
- *Enable Period Selector:* Period Selector function on/off

I/O icon:

It is possible to modify the outputs from the iCall 290 SIO-Touch in the I/O screen.
There is a choice between CallsActive and Buzzer.

CallsActive: When a call is visible on the touch screen this output will be constantly triggered.
Buzzer: output will be triggered with the same cadence as the buzzer sound on the touch unit.

Local Bus:

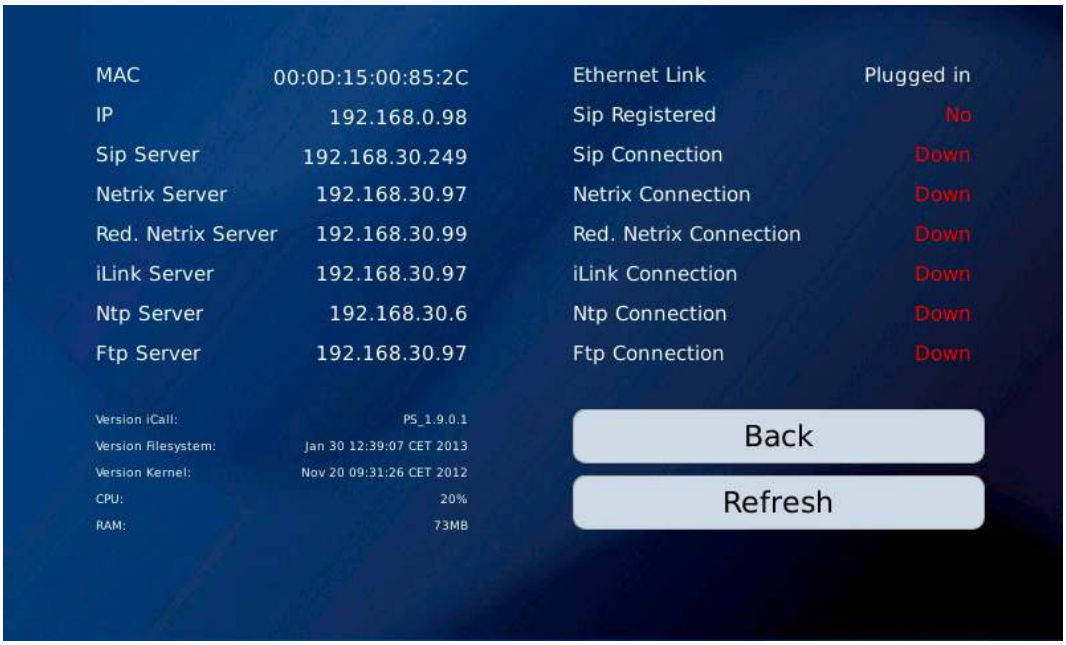


It is possible to program a room number, an addition and the location by clicking on the Edit button. Every new registered local bus button will be added in this list view.

Back:	Go back to the initial technical screen.
Edit:	If the screen is in Addr mode you can change the room number and the addition. If the screen is in Room mode you can change the room number and the location.
Addr:	The selection of this button will result in a list of all local bus buttons registered on the local bus.
Room:	The selection of this button will result in an screen indicating the room numbers. In this room screen also a third button is visible to create virtual rooms.

TIP: For changing the room, location or addition you first need to select the field followed by the Edit button.

Status icon:



Status shows an overview on the basic elements of the unit:

MAC address ..... Ethernet Link
IP address ..... Sip Registration
Sip Server ..... Sip Connection
Primary Netrix server ..... Primary Netrix Connection
Secondary Netrix server ..... Secondary Netrix Connection
iLink Server ..... iLink Connection
NTP server ..... NTP Connection
FTP server ..... FTP Connection

Version iCall
Version File system
Version Kernel
CPU Load
RAM use

Back: Go back to the initial technical screen.
Refresh: Refresh the status screen

4.2. Web interface

If navigation to the device's IP address takes place through an internet browser, you will end up in the web interface of the iCall 290 SIP-Touch. You can fully set up the unit here in accordance with your preferences. The menu on the left lists all the components. Click on a link to navigate to the specific component. Standard credentials to access the webpage of the touch unit.

IP address: 10.1.1.253
user: web
password: web

4.2.1. Addresses

All local bus stations that are registered on the iCall 290 SIP-Touch can be located on the addresses page. To find out the registration process for a particular local bus stations it's advisable to consult the hardware installation guide. A maximum of 50 LB stations can be connected to the iCall 290 SIP-Touch if powered on 24V DC, and maximum 5 LB Stations if powered on POE.

Addresses

Unprogrammed units will not be checked. Please disable addressregistration.

ID	Type	State	Room	Addition	Serial
1	Light	Urgence	21101		58507033
2	Room	Urgence	21101		31016985
3	Toilet	Urgence	21101		35008424
4	Bed	Urgence	21101		31504543
5	Bed	Urgence	21101		33013493
6	Light	Idle	21102		58507036
7	Room	Idle	21102		31016984
8	Toilet	Idle	21102		35008418
9	Bed	Idle	21102		31504542
10	Bed	Idle	21102		33013492
11	Light	Idle	21103		58507037
12	Room	Idle	21103		31016987
13	Toilet	Idle	21103		35008416
14	Bed	Idle	21103		31504540
15	Bed	Idle	21103		33013490
16	Light	Assistance	21104		58507031
17	Room	Assistance	21104		31016988
18	Toilet	Assistance	21104		35008422
19	Bed	Assistance	21104		31504541
20	Bed	Assistance	21104		33013488
21	Light	Idle	21105		58507030
22	Room	Idle	21105		31016992
23	Toilet	Idle	21105		35008417
24	Bed	Idle	21105		31504935
25	Bed	Idle	21105		33013491
26	Light	Idle	21106		58507035
27	Room	Idle	21106		31016983
28	Toilet	Idle	21106		35008423

TIP: The list can be sorted per header by pressing the header name on top of the column.
TIP: The next ID can be changed by pressing the "Next ID:" field.

ID: This is the ID of the call station. This ID can be a value between 0 and 50.
ID 0 is always reserved for the master, in this case the iCall 290 SIP-Touch. Local bus stations can therefore have an address of 1 to 50.

Room: Room number, up to 5 alphanumeric characters can be entered.
This is the room number to which this address belongs. In this way various Local bus stations that are physically installed in the same room can be linked to a specific room. You can link a maximum of 10 addresses to one room number.

TIP: For a dome light the "*" function can be used to allocate more beds (rooms) to the same dome light.

Example:

Bed 1 = room number	: 100A
Bed 2 = room number	: 100B
Dome light = room number	: 100*

Type: Select here the type of station connected to the bus on this address.
The system will automatically suggest a station type based on the serial number.

Type	Description	Part #
Bed	The button will be assigned as a bed call station, especially for call cord buttons	
Toilet	In this case the activation of the button will raise a toilet call	
Room + ID	The call button and present function by using ibutton identification	NWBAES2200 NWBAES2225
Emergency	In this case the activation of the button will raise an emergency call	NWBAES2600
IO	Old IO station from before January 2015	Not available
Light [3 fields]	Dome light with 3 light fields (red, yellow, green) or (red, white, green)	NWBAES3850 NWBAES3851
Emergency-Assistance	Special button offering yellow and blue function. Yellow = staff assist Blue = emergency	NWBAES2650
TeleAlarm receiver	Receiver for Telealarm wireless call points	NWBAES4900
Mini Display	Mini display for use in patient room, will indicate calls on the moment the nurse is present	NWBAES2800

IO (V2)	IO station, can connect up to 5 inputs and 4 outputs	NWBAES3900
WZ Receiver	Old receiver from before December 2014	Not available
Cancel Toilet	Special pull string button to cancel Toilet call, no present function possible	NWBAES2170
Acoustic	Call point that raise alarm based on acoustic thresholds (Q3-2019)	
RFID (Present)	RFID reader for present activation, this for nurse identification. Button function can be programed.	NWBAES2900 NWBAES2901
RFID (AccessControl)	RFID reader for access control, this button will use the RFID information to give access to a room or not	NWBAES2903
iButton (AccessControl)	iButton reader for access control, this button will use the iButton information to give access to a room or not	NWBAES2230
Light [5 fields]	Dome light with 5 light fields (red, yellow, green, white and blue), available Q3-2019	
Code Blue	In this case the activation of the button will raise a Code Blue call	NWBAES2700
Extended light	Dome light with 3 light and additional output for 2 extra lights, available Q3-2019	
Present Toilet	Special pull string button to cancel Toilet call, by using first the present mode	NWBAES2180

Addition: Any additional information up to 15 characters can be entered. The information in this field can be transported through the system, no system operation is influenced by this data.

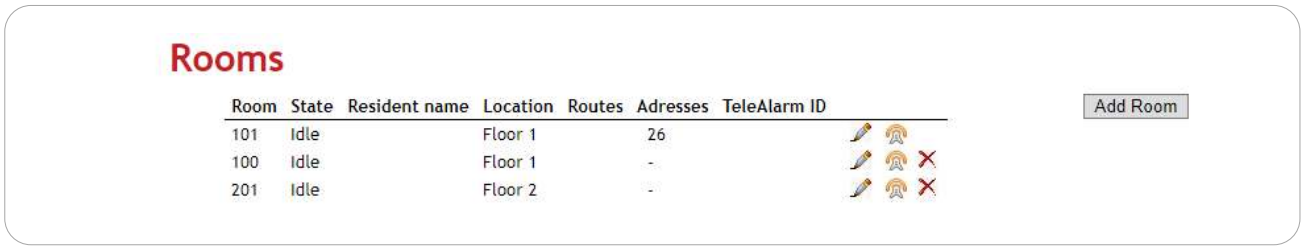
State: This is the actual status of the specific button.
The button can be in the following state:

- Idle
- Present
- Call
- Toilet
- Assistance
- Emergency
- Code Blue
- Search
- Error
- Unknown

Serial: The serial number associated with the specific call station.

4.2.2. Rooms

All rooms programmed on this device can be found on the room's page. The list of visible rooms is automatically generated based on the room numbers assigned in the address page. All addresses associated with one room number are grouped in this way.
As of firmware version 1.9.0 it will be possible to manually add virtual rooms if you only wish to use wireless call stations.



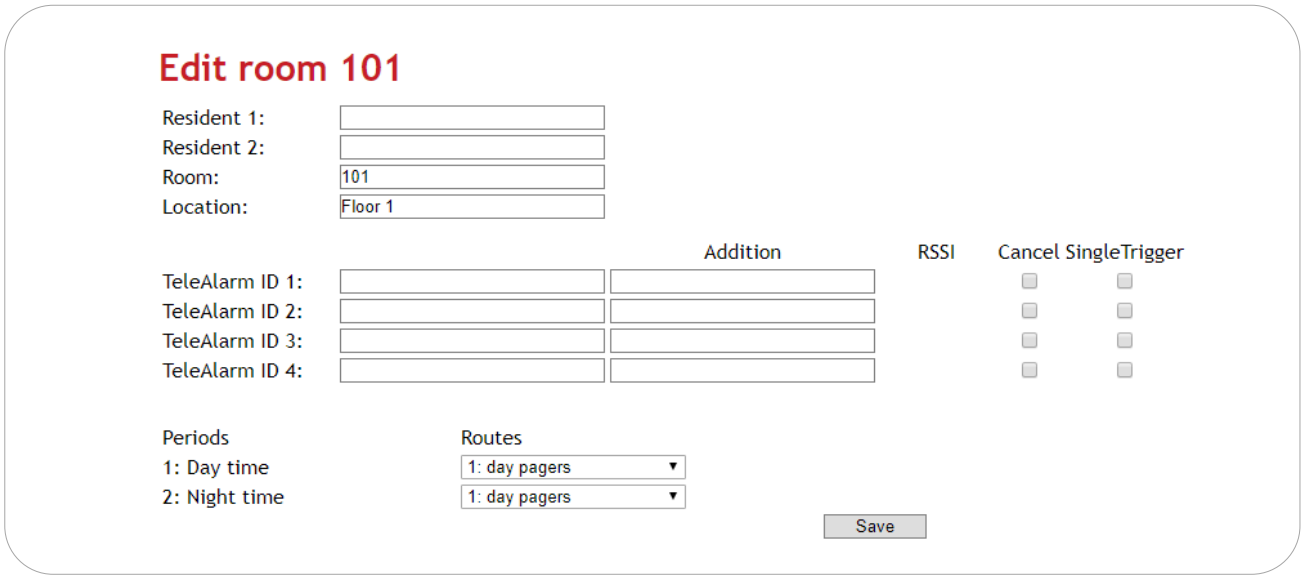
State: This is the actual status of the room.
The room can be in the following state:

- Idle
- Present
- Call
- Toilet
- Emergency
- Assistance
- Code Blue

This icon will activate the automatic learn function for the wireless call stations.

This icon indicates that automatic learn function is active, by activating the icon the automatic learn function will be disabled.
If the automatic learn function is active a call action on the wireless call station will result in adding the ID from this wireless call station to the room. A maximum of 4 wireless call stations can be added to a room.

Add Room: To add a new room where no wired buttons are available. If for example the system is mainly used in wireless environments, the call stations are connected to virtual rooms. A maximum of 150 virtual rooms can be assigned per iCall 290 SIP Touch.



Resident 1 or 2: If desired the name/names of the room occupants can be provided here. Up to two names can be entered. This info will be sent via broadcast when a room call is made.

Location: A room location can be provided here. Calls are always filtered by location, so, if for example there is a room 100 on the first and second floor, one would, for example, enter location **1st FL** and **2nd FL** for the rooms on the first and second floor respectively. A call from room 100 from the 1st floor will not affect the status of the room 100 on the second floor.

Room: The number of the room. Max 5 alphanumeric characters

ID 1-4: Assign the ID of the wireless transmitter related to this room, and the addition for this transmitter. A maximum of 4 transmitters can be assigned per room.

Addition: Any additional information up to 15 characters can be entered. The information in this field can be transported through the system, no system operation is influenced by this data.

RSSI: This is an indication on the value of the signal strength for the last transmission of the wireless call station.

Cancel: Activating this function will result in a direct cancel of the call if the cancel command is send out by the transmitter. (example: magnetic cancel on the wireless call station)
If this function is active, no present mode is possible.

Single trigger: Activating this feature will result in a single events send out to the message server if a call state is activated. The room will not go in call state.

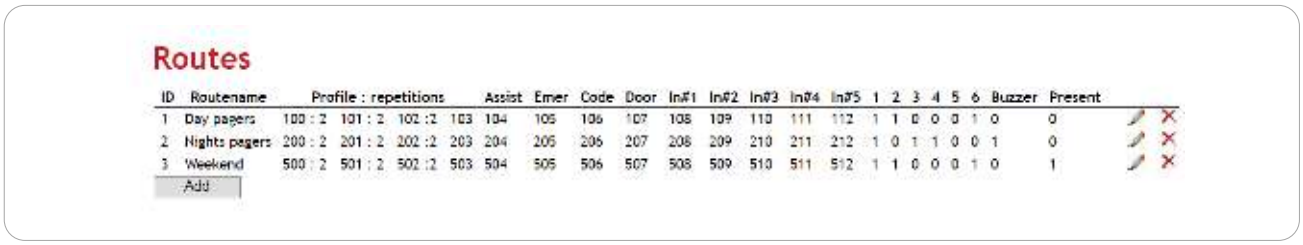
Routes: These are the routes followed for every period for this room. The route indicate which flow must be followed to the Netrix Server.

TeleAlarm ID: Up to 4 wireless TeleAlarm IDs can be assigned per room number. Each TeleAlarm wireless call station has one ID.

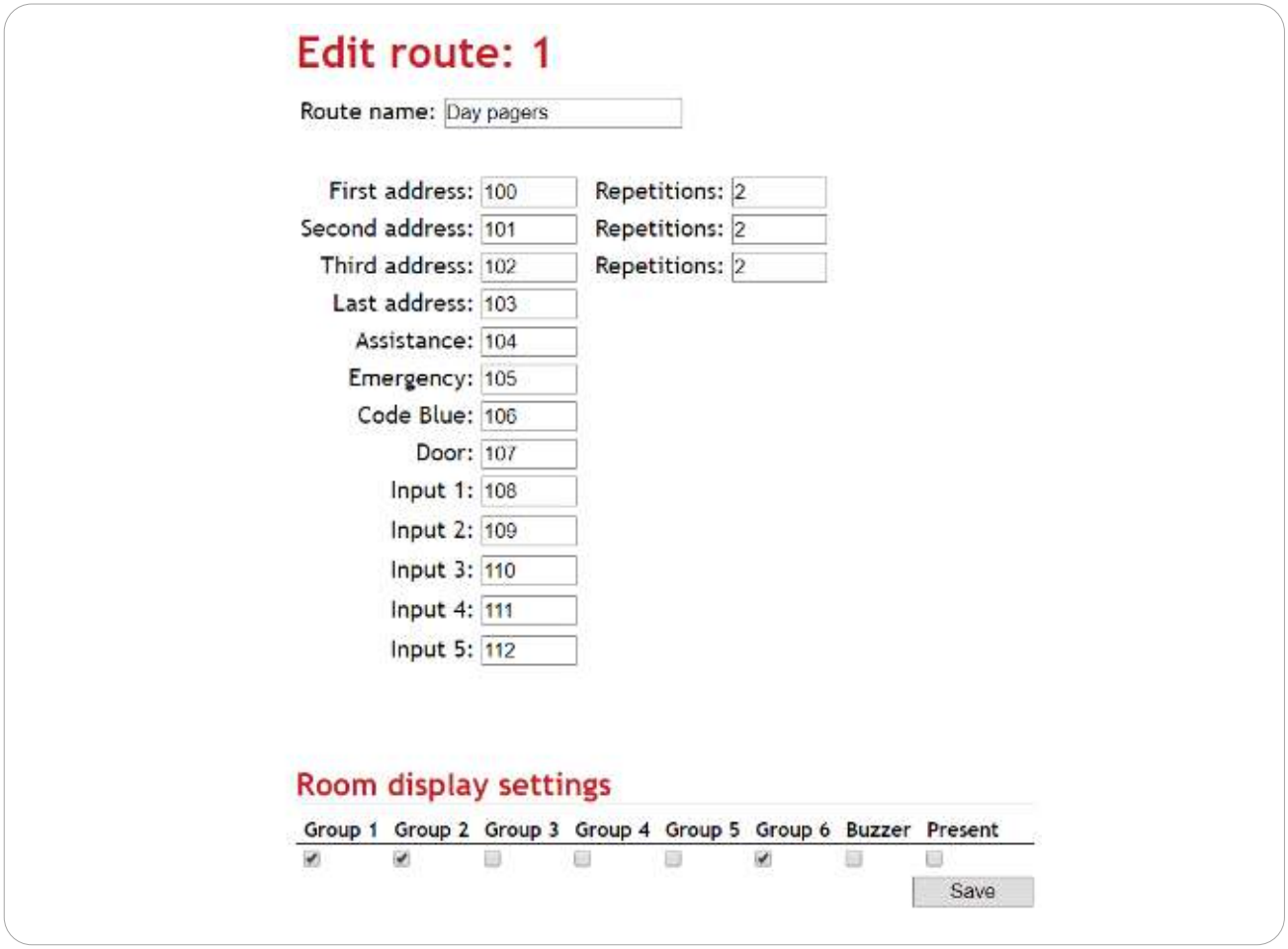
TIP: The room number and the location are the most important parameters. Especially if you need to make different departments on the nurse station. The nurse station can show calls per different department.

4.2.3. Routes

Routes indicate the group or profile on the Netrix to which the calls will be send. For each type of call a different group or profile can be configured. The call is sent X (repetition) times to this group or profile before proceeding to the following group or profile. An indicative name can be assigned to each route. This name is only used as a label. The repetition time can be programmed in the setting section. A maximum of 20 routes can be assigned.



To edit, click the icon.
To delete this route, click the icon.
Press add button to create a new route



First address:	First group that will be activated for a call or toilet call or medallion call, if present and away to Netrix is active in the settings screen also the present and away will activate this group in the Netrix.
Repetition:	Counter that indicates how many times the first address group must be executed
Second address:	Second group that will be activated for a call or toilet call or medallion call
Repetition:	Counter that indicates how many times the second address group must be executed
Third address:	Third group that will be activated for a call or toilet call or medallion call
Repetition:	Counter that indicates how many times the third address group must be executed
Last address:	Last group that will be activated for a call or toilet call or medallion call, if the call is active for a very long time this group will be activated every x time (see setting page) until the call is canceled.

TIP: The time between the group call escalations is programmed in the settings page.

Assistance:	The group that will be activated for a staff assist call
Emergency:	The group that will be activated for an emergency call
Code Blue:	The group that will be activated for a code blue call
Door:	The group that will be activated for a door activation
Input 1:	The group that will be activated for an input 1 activation
Input 2:	The group that will be activated for an input 2 activation
Input 3:	The group that will be activated for an input 3 activation
Input 4:	The group that will be activated for an input 4 activation
Input 5:	The group that will be activated for an input 5 activation

TIP: Door and Input 1-5 will not change the room status, these inputs will activate a group in the Netrix.

The following settings are related to the iCall local bus mini display NWBAES2800

Group 1-6:	Depending on the active route the display will show group number locations. The groups are allocated in the “Room display groups” section.
Buzzer:	The buzzer can be activated or deactivated, depending on the time of the day the display’s buzzer will be sounding or not.
Present:	Activating the present checkbox will show the present information on the iCall local bus mini display. Disable this if the display must indicate only active calls.

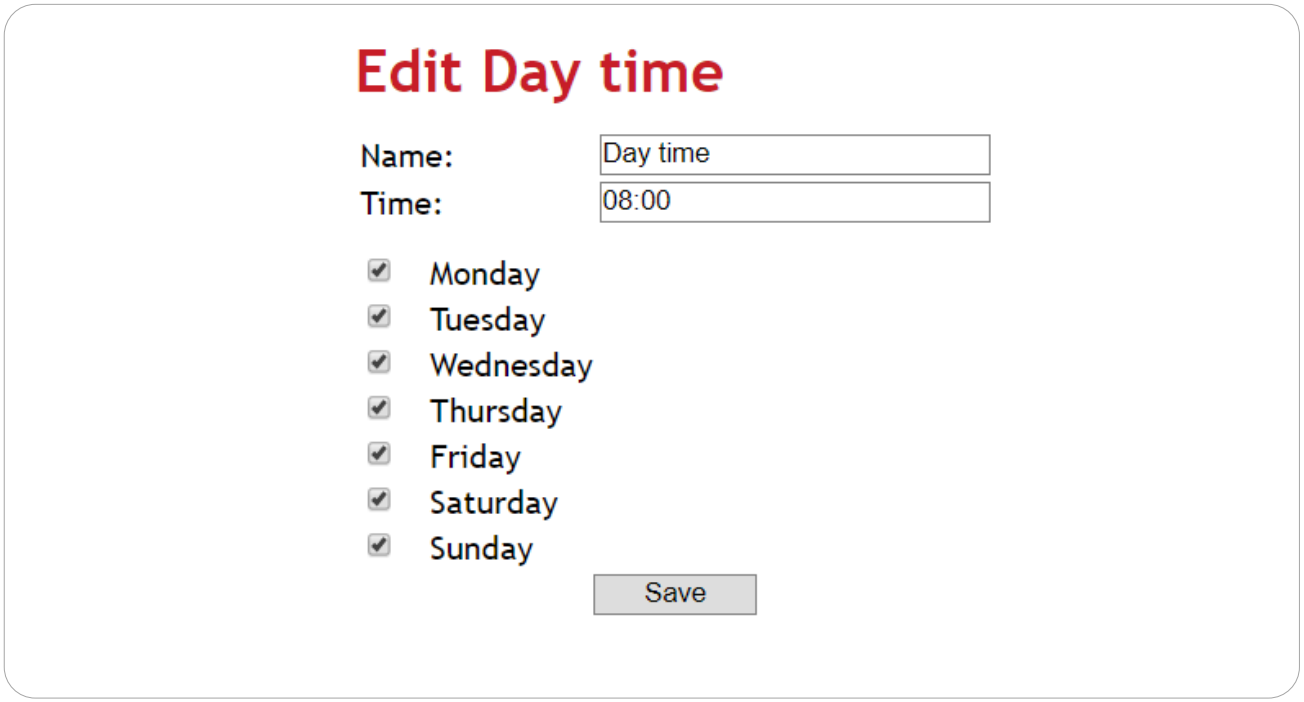
4.2.4. Time Scheme

The time schemes are used for selecting the time of the day, depending on the active period the related route for a room call will be followed. The result is that depending on the room and the period of the day a different group can be activated in the Netrix server.

Example:

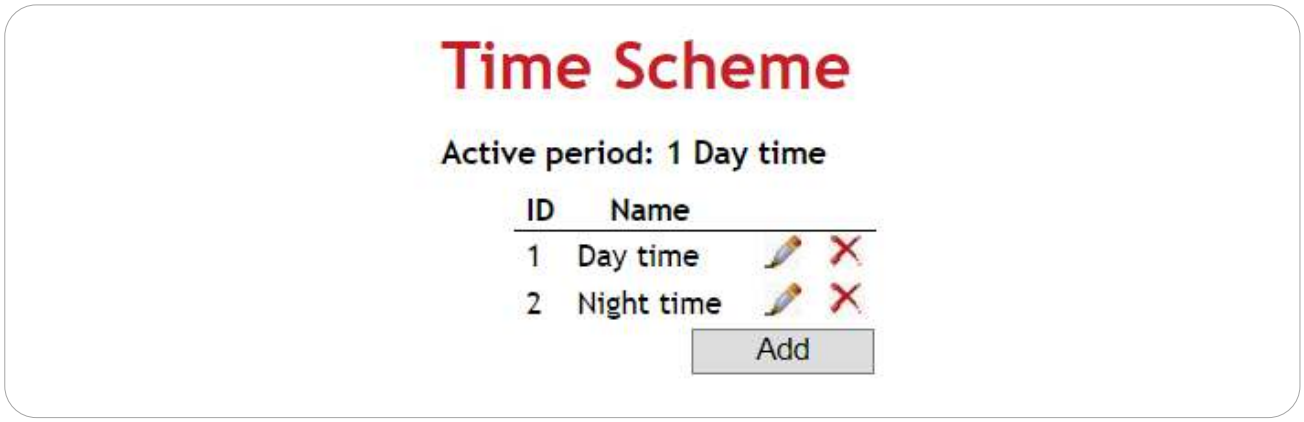
In “day mode” the mobile devices from the day nurses will get the annunciation of the call, in another period “night mode” other mobile devices get the annunciations.

By clicking the icon a different name (label) can be assigned to each time scheme. The time indicates when the scheme begins. You can also specify the days to which this applies. By clicking the icon the scheme will be removed. On top the indication from the period which is currently active.



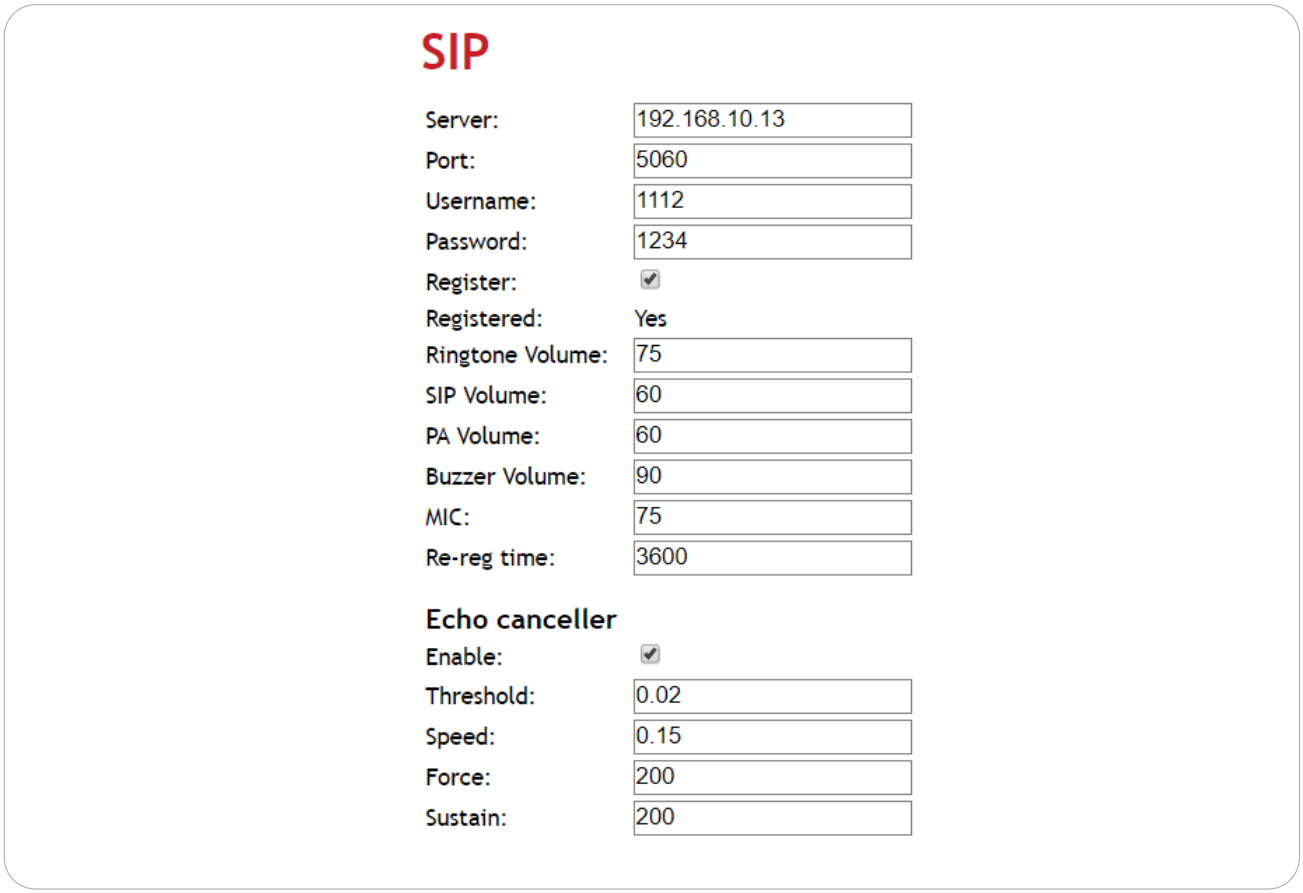
PS is enabled:

Time and date don't have to be filled out because this information is sent from the period selector to the iCall Sip-Touch 290, the period selector determines the switching of the time scheme of the day. The active period selector is programmed in the settings page.



4.2.5. SIP

All settings can be adapted for use of the integrated SIP client in the SIP page. The client needs to register with a PBX and support the following codes: **G.711 A-law** and **µ-law**.
It is also possible to apply an Acoustic Echo Cancellation (AEC) filtering during a conversation.



Server:	IP address of the sip server. The SIP client is tested and released on NEC, Alcatel and FreePBX (Asterisk based).
Port:	Port on the SIP server where the client has to make the registration. By default 5060 is used.
Username:	The username for the SIP registration.
Password:	The password for the SIP registration.
Register:	If enabled the SIP client will try to make registration on the SIP server.
Registered:	Status on the SIP registration.
Ringtone volume:	Volume of the sounder for an incoming voice call.
SIP volume:	Volume of the SIP conversation.
PA volume:	Volume of the public announcements page.
Buzzer Volume.	Volume of the buzzer for incoming nurse call.
MIC:	Sensitivity of the microphone.
Re-reg time:	Re registration time for the SIP registration on the sip server.
AEC enable:	Acoustic Echo Cancellation ON/OFF.
AEC Threshold:	Acoustic Echo Cancellation threshold.
AEC Speed:	Acoustic Echo Cancellation speed.
AEC Force:	Acoustic Echo Cancellation strength.
AEC Sustain:	Acoustic Echo Cancellation length of suppression.

Multicast groups:

UP to 18 public announcement groups (multicast groups) can be programmed. The group with the lowest number has the highest priority. The volume of the public announcement group can be programmed in the previous settings. Public announcement groups can be activated from the Netrix server or from the software “Audio gate”.

4.2.6. IO

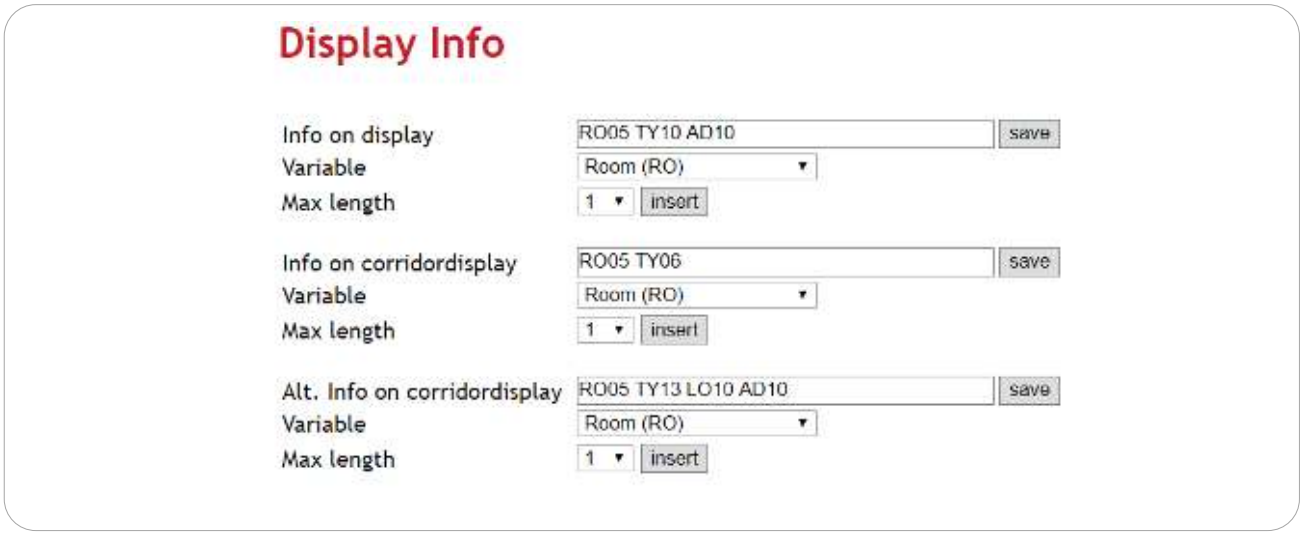
The iCall 290 SIP Touch has in total 6 outputs, 5 open collector outputs and one relay output. There are 2 functions possible on the outputs. Call active indication and an extra buzzer output.

Call Active	If a call is active (except when present), this output will be activated.
Buzzer	If the output is configured as a buzzer, the output will be activated according to the rhythm of the call with the highest priority. If the buzzer has been disabled for a certain call type, this output will also be disabled for this type.
Not Defined	The output is not used and is thus never activated. Note that it’s possible that this output is triggered during start-up.

4.2.7. Display info

In the Display info page you can choose which type of info from the iCall system you want to see on the screen and the corridor displays. For example it is possible to set it up in such a way that you see 5 characters from the room number and then 15 of the location.
The following options are available:

- Room (RO)
- Type (TY)
- Addition (AD)
- Location (LO)
- Nurse (NU)
- Resident 1 (R1)
- Resident 2 (R2)
- Time (TM)
- TeleAlarm Location (TL)



TIP: The timer function can only be shown on the screen, not on the corridor display.

Place the cursor in the desired text box, select the variable and number of characters then press insert. The correct code for this will then be automatically added to the existing current configuration. Press Save to store the settings in the memory.
In this way 3 configurations can be determined: the configuration of the calls that are visible on the device itself, the configuration of the calls on the corridor display and finally an alternative configuration for the corridor displays (see **ALT0001* netrix).
Keep in mind that all characters of the configuration string will be displayed, with the exception of each of the above placeholders. These placeholders will be replaced with actual information, and padded with spaces to comply with the needed length.

Example:

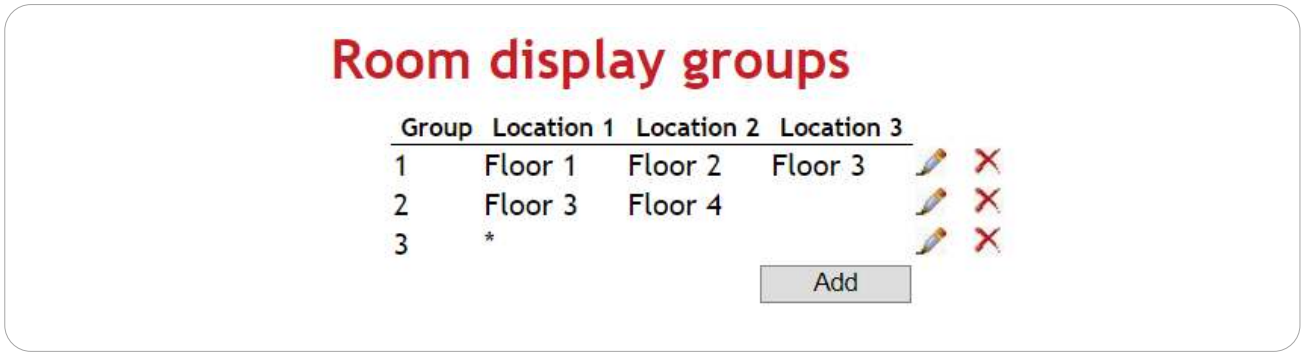
A **toilet** call from room **21101**,location **1eV** with addition **Bathroom** is made.
We use following configurations:

RO05 TY13 AD15 LO15	=>	**21101 Toilet Bathroom 1eV**
RO03 TY30 LO10	=>	**211 Toilet Bathroom**

4.2.8. Room display groups

The room display entries are used in the route to determine which location must be displayed on the local bus mini display (NWBAES2800). A maximum of 6 groups and maximum 3 locations per group can be assigned. The use of "*" will allow to show all locations. In the routing program can be decided which locations (groups) can be shown.

TIP: In the page Routes you can select which groups you want to see on the mini display for each route.



4.2.9. Corridor display

On the page entitled corridor displays is an overview of all IP corridor displays found in the network. When starting the unit a scan will always take place of IP corridor displays. If after starting, other IP corridor displays were added to the network, another scan will be required. This can be done by clicking on Scan Network.
It is possible to determine from this list which IP corridor displays need to be controlled and managed by this iCall 290 SIP-Touch unit. Do this by ticking the checkbox Enabled on or off and clicking on Save.

TIP: If certain IP corridors are not displayed, it will be necessary to use NetControl software to configure the corridor display.

4.2.10. Streaming

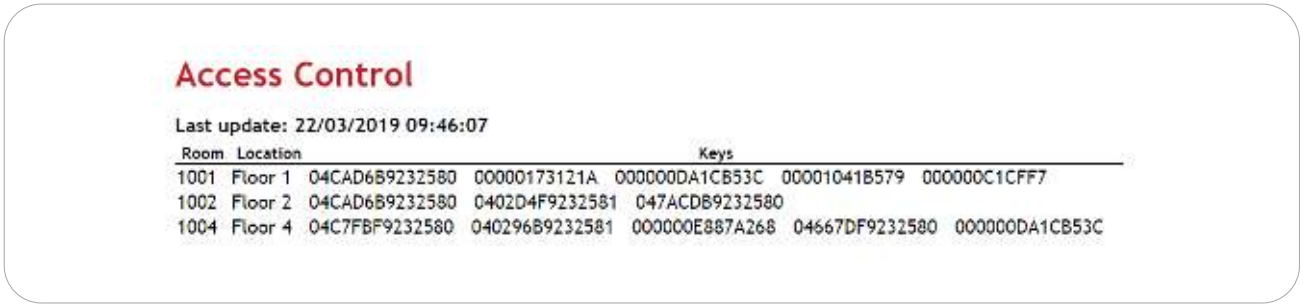
On the page streaming it is possible to add IP camera streams. These must be rtsp streams with following specifications:

- Resolution: 320 x 240
- Encoding: MPEG4 or JPEG
- Frames / sec. 5

The viewing area on screen is only 320 by 240 pixels large, so increasing the resolution has no effect on the level of detail. Due to the limited processing power of the CPU, we must use a low-CPU usage encoding method like MPEG4 or JPEG. The number of frames is also limited for this reason, and must be around 5 frames per second.
A maximum of 10 different streams on one device can be programmed. It is possible to link a SIP extension with a stream. Every incoming SIP call will be checked to see if the extension is linked with a camera stream. If that's the case, the video stream will be opened automatically and an audio and video link will be opened (SIP + rtsp). Due to the limited CPU power, it will take up to 5 seconds for a camera stream to be visible.
The DTMF action field allows values between '0' and '9'. If the SIP connection is enabled and you press the key button, the DTMF value will be sent to the end device. This feature is used for opening the a door related to this SIP call.

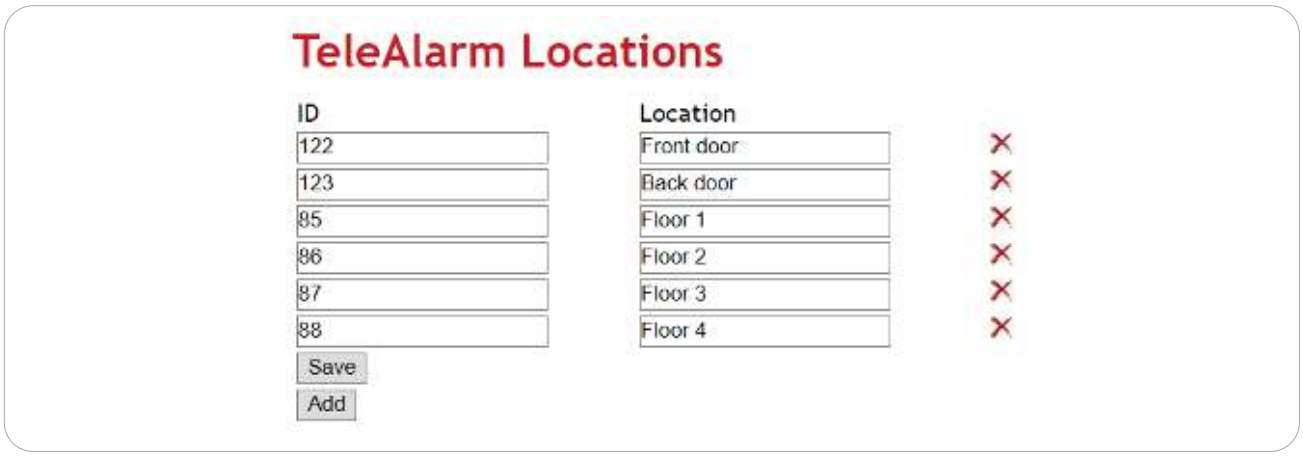
4.2.11. Access control

The Access control list is an only view screen, no changes can be made in this screen. The list is an overview from all ID card or buttons that have access to some rooms. The programming from the access can be done by using the Veripass software.(NWAAIN0100).



4.2.12. TeleAlarm locations

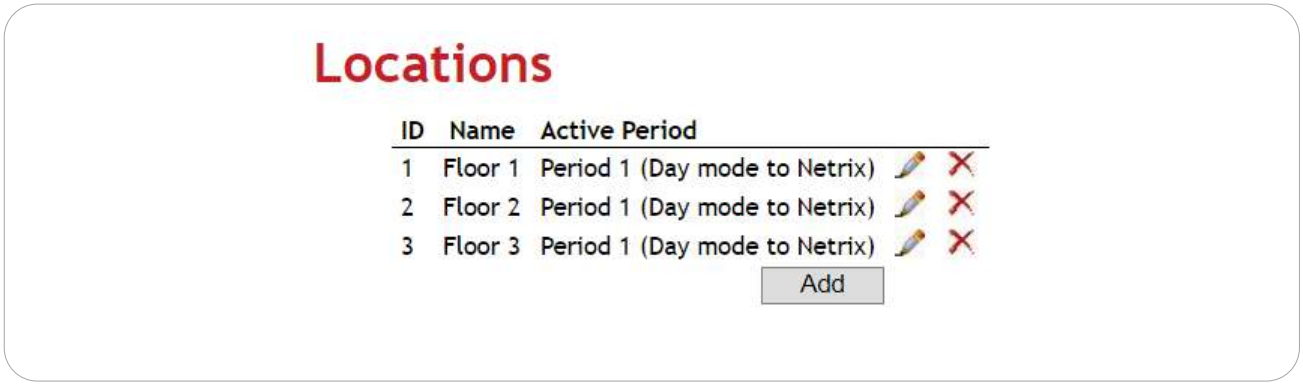
The TeleAlarm locations are used to identify the ID's from the TeleAlarm beacons. Every beacon can have his own name. So the end user does not have to remember the number, but he will get a name indication. The beacons are used to locate medallions in case they raise a call.



4.2.13. Locations

This section covers the Period Selector functions of the iCall 290 SIP-Touch. As already mentioned in the chapter on Time schemes, the periods for specific locations can be switched using the Period Selector function.

On this page you can assign the various locations present in the building. Furthermore the active period per location is visible in the overview.



A location can be added by clicking on the Add button. To modify a location click on *Edit* ( )

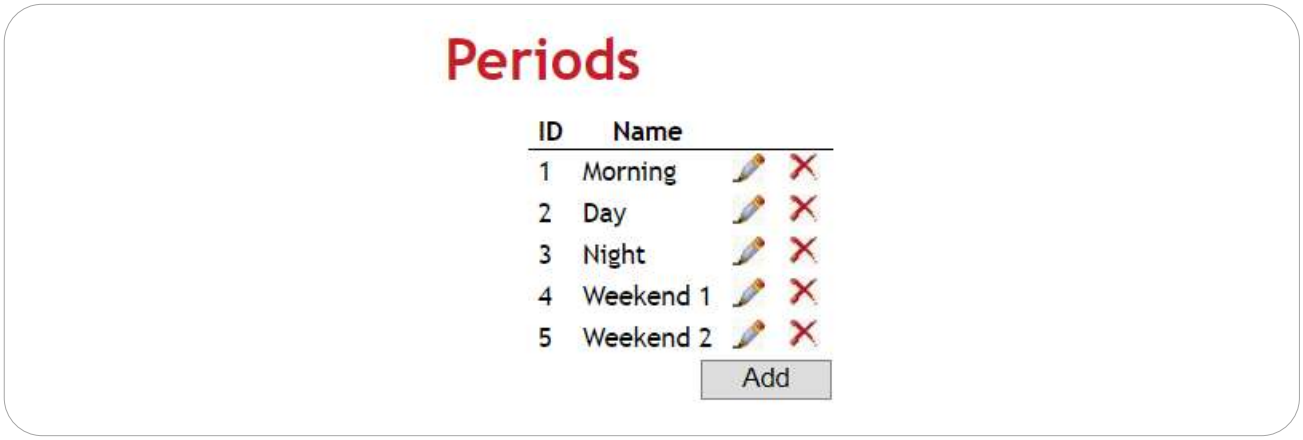
A location can be removed by clicking on *Delete* ( ).

4.2.14. Periods

On the page entitled Periods the various periods to be used can be set. A period is a specific time when specific settings are required. An example could be a 5 different work schedule: morning, day, night, weekend 1 and weekend 2.

Morning	06:00 – 14:00
Day	14:00 – 22:00
Night	22:00 – 06:00
Weekend 1	00:00 – 12:00
Weekend 2	12:00 – 24:00

Each period has fixed DECT telephones for nursing where calls are sent via the Netrix server. One can ensure that for every call within a certain time period another DECT is called by setting up another group in the routing of a room, for each of these periods.



These period settings largely correspond with the time scheme settings. The difference between them is the fact that the period's settings belong to the Period Selector functions in contrast to the time schemes that don't. This means that these periods can be used to modify all other iCall 220 SIP-Touch or IP-DIN time schedules from this central place and as a result of active routing allows switching.

It is essential to keep the name and ID of Periods and Time Scheme in both setting pages.

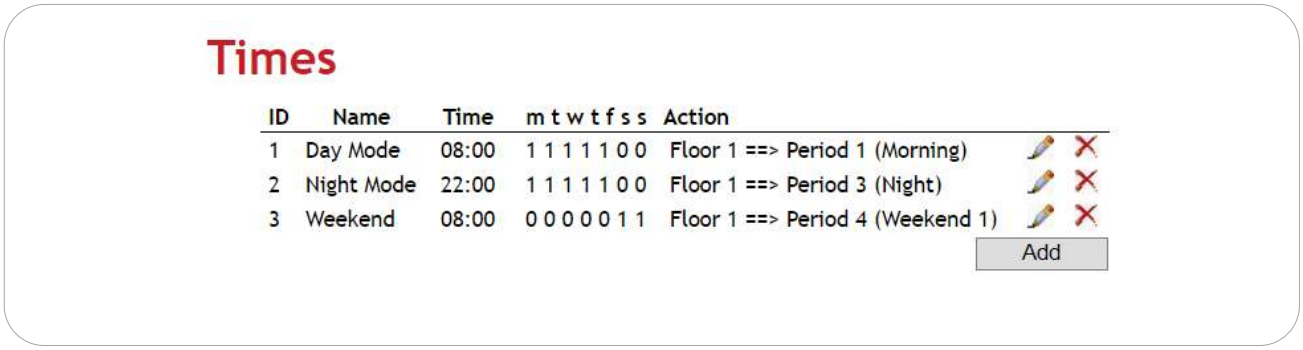
A period can be added by clicking on the Add button. To modify a period click on *Edit* ( ).

A period can be removed by clicking on *Delete* ( ).

4.2.15. Times

The page entitled Times allows you to set up what times and which days a given location switches to a given period.

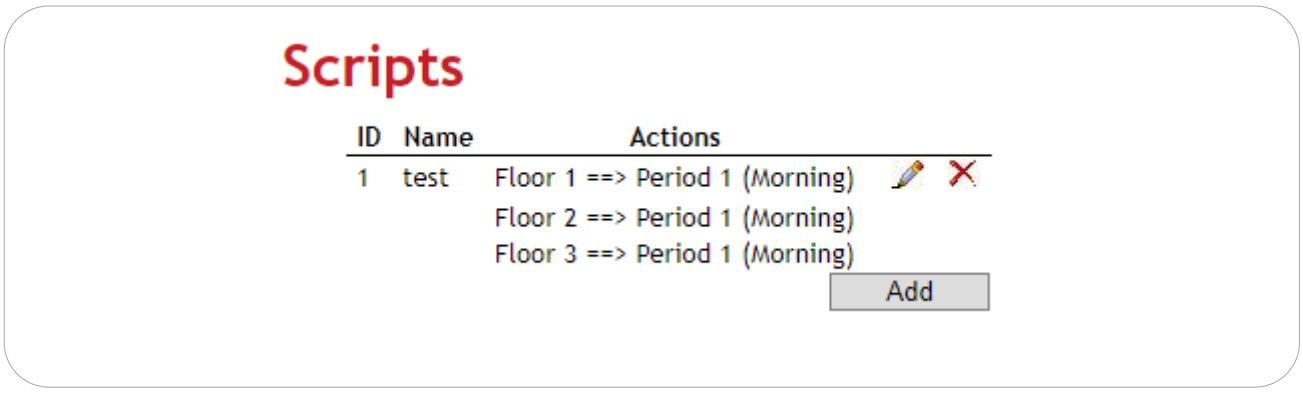
ID:	ID of the time plan, A maximum of 20 time schedules can be programmed.
Name:	The name of the time plan.
Time:	Set the time for the plan to get active.
m t w t f s s	Set the day of the week for the plan to get active.
Action	Action that need to be activated, this could be a script or a period switch for a given location.



A time plan can be added by clicking on the Add button. To modify a time plan click on *Edit* (). A time plan can be removed by clicking on *Delete* ().

4.2.16. Scripts

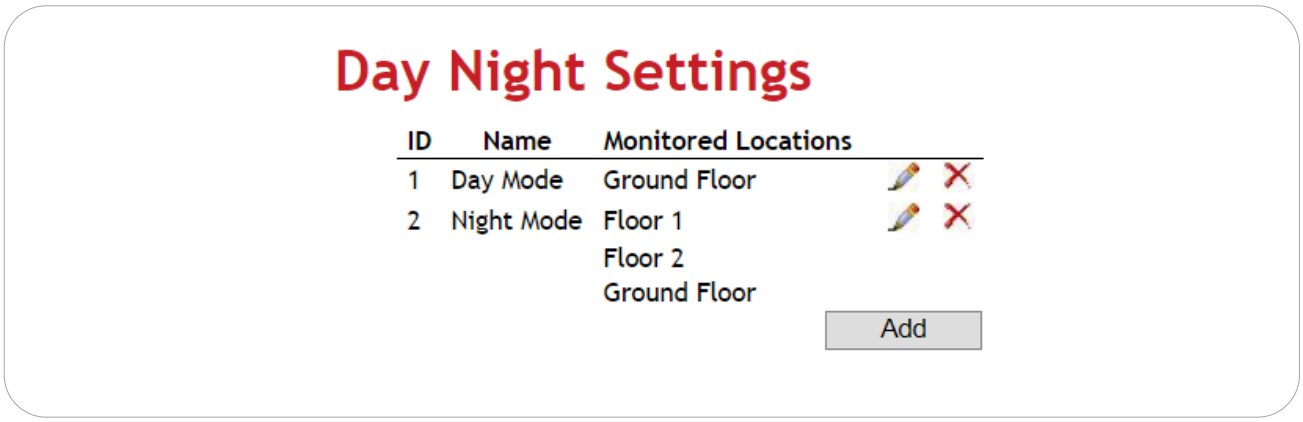
A script is a way of switching various locations to another period at the same time. This period does not need to be the same for the different locations.
When adding a script a name can be provided and for every location that is set (see 4.2.13) select which period needs to be linked to it. Furthermore by ticking the box on or off choose which location should be active with this script.
These scripts can be run automatically in the Times page (see 4.2.15) by selecting this script at a given time. A script can also be run manually by clicking on the correct icon on the display. (see 5.3)



A script can be added by clicking on Add. To modify a script click on *Edit* (). A script can be removed by clicking on *Delete* ().

4.2.17. DN Settings

Day/Night settings are designed to achieve a manual or time based switch of actively monitored locations. During the normal functioning of the iCall 290 SIP-Touch an overview is visible of all open calls. This list can be filtered by type, but also by location. It is, for example, possible to only see calls from location *Ground FL* during the day, and during the night all calls from locations *Ground FL*, *1st FL* and *2nd FL*. This switch can also be done manually (see 5.1).

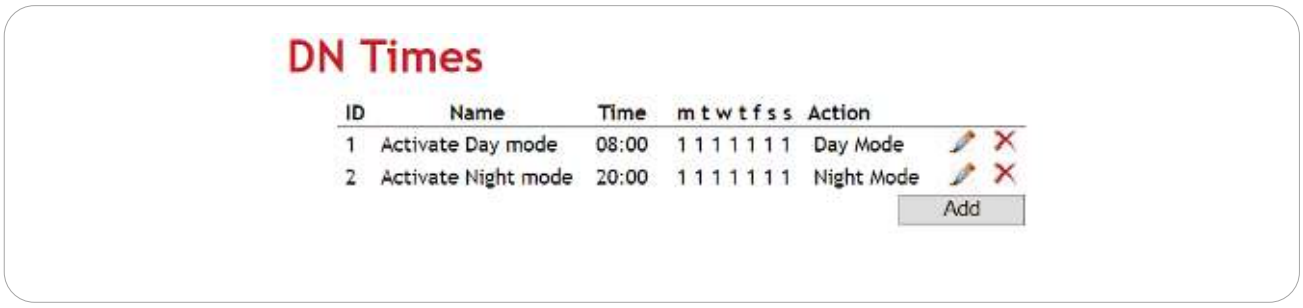


ID:	ID of the DN plan, a maximum of 20 DN plans can be programmed.
Name:	The name of the DN plan. This name will appear in the right top corner of the user screen.
Monit. Locations:	Overview of locations belonging to this DN setting and consequently also visible in the overview of calls. Each call or presence that comes from one of these locations will end up in the filtered list.

A DN setting can be added by clicking on the Add button. To modify a DN setting click on *Edit* ( ). A DN setting can be removed by clicking on *Delete* ( ).

4.2.18. DN Times

The setting to perform the switch between DN (Day/Night) settings at a given time can be found on the page entitled DN times.

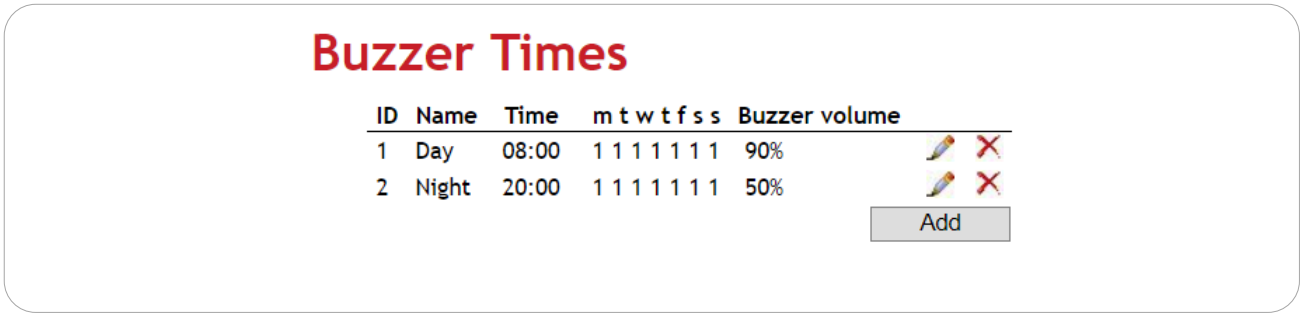


ID:	ID of the DN time plan, A maximum of 20 DN time plans can be programmed.
Name:	The name of the DN time plan.
Time:	Set a time where the time plan has to be started.
m t w t f s s	Set the day of the week for the time plan to get active.
Action	Action that needs to executed. This will set the DN setting (with active locations) which is visible on the device from this point in time.

A DN time can be added by clicking on the Add button. To modify a DN time to click on *Edit* ( ). To remove a DN time click on *Delete* ( ).

4.2.19. Buzzer Times

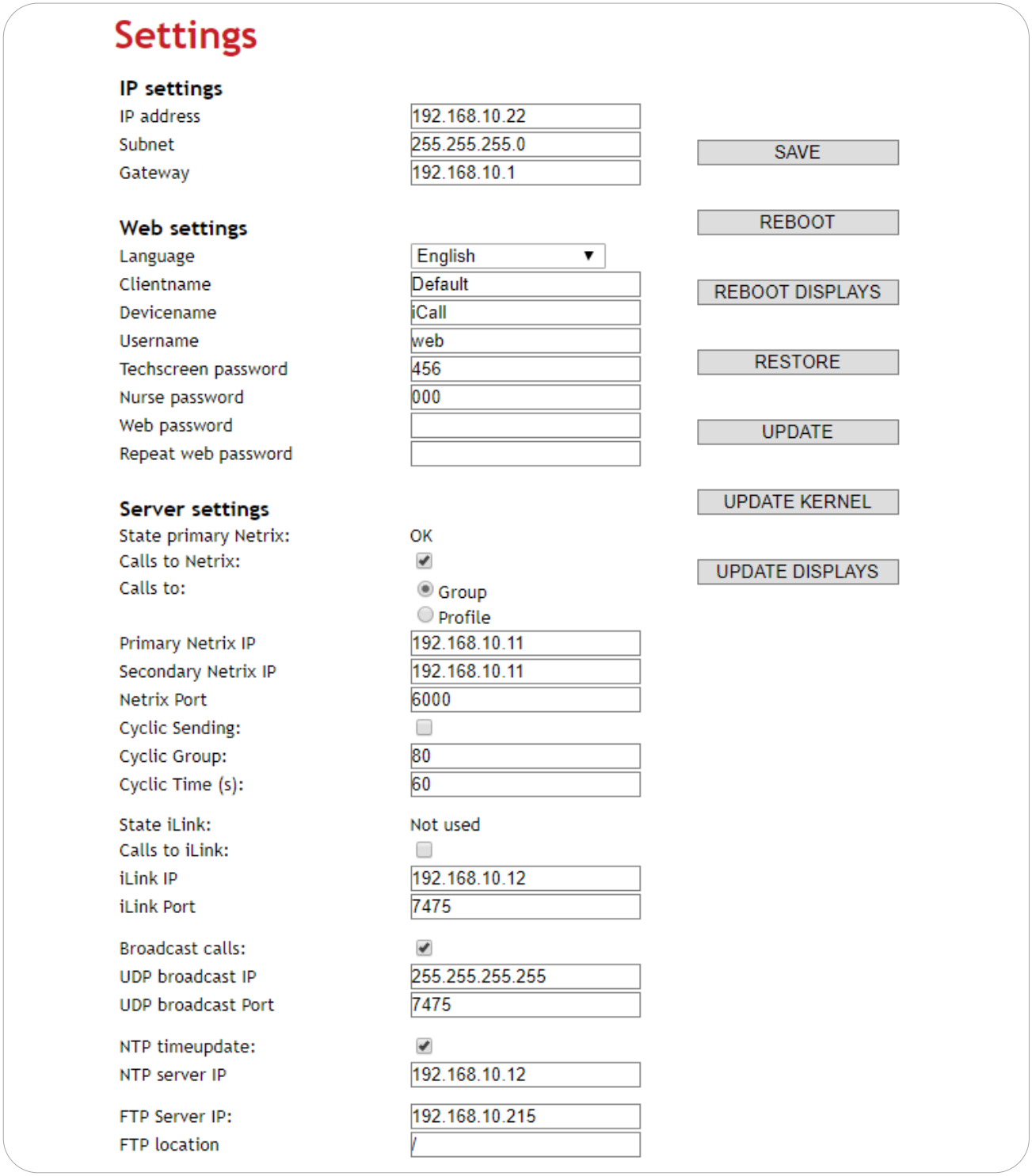
The buzzer volume can be changed depending on the time of the day. In the night the system can have a lower buzzer volume then in the day.



ID:	ID of the buzzer time plan, A maximum of 8 buzzer DN time plans can be programmed.
Name:	The name of the buzzer time plan.
Time:	Set a time where the buzzer time plan has to be started.
m t w t f s s	Set the day of the week for the buzzer time plan to get active.
Buzzer volume	The volume in percentage of the of the buzzer for this time period.

A buzzer time can be added by clicking on the Add button. To modify a buzzer time to click on *Edit* ( ). To remove a buzzer time click on *Delete* ( ).

4.2.20. Settings



IP settings:

- *IP address:* IP address of the unit. Enter the new IP address in the web browser to reconnect to the iCall 290 SIP-Touch unit.
- *Subnet:* Subnet corresponding to the IP address and the connected network.
- *Gateway:* The IP address of the Gateway for outgoing connections from the connected network.

Web settings:

- *Language:* Select the language the unit must use, this language is only for the user displays, the programming website is always in English. Supported languages (English, German, Dutch, French, Norwegian, Polish, Portuguese and Spanish)
- *Client name:* Name of the client. This name appears on every web page in the top right corner.
- *Devicename*: Name used in the network environment
- *Username:* User name for web access.
- *Techscreen password:* Password to access the technical screen.
- *Nurse password:* Password to enter the nurse settings.
- *Web password:* Password for web access.
- *Repeat web password: Repeat de password for the web access.*

Server settings:

- *State primary Netrix:* Indicates status of the Netrix server connection.
- *Calls to Netrix:* Switches the Netrix server connection ON or OFF.
- *Calls to:* Choose between group or profile to send calls to the Netrix.
- *Primary Netrix IP:* IP address of the first Netrix server.
- *Secondary Netrix IP:* IP address of the second Netrix server (used for the backup Netrix).
- *Netrix Port:* Port number where the IP-unit will make his connection to the Netrix server.
- *Cyclic Sending:* Enable or disable cyclic sending. Sends a message to the Netrix periodically.
- *Cyclic group:* Cyclic group in the Netrix.
- *Cyclic Time(s):* Repetition time between the messages send to the Netrix
- *State iLink:* Indicates status from the iLink server connection.
- *Calls to iLink:* Switches the iLink server connection ON or OFF.
- *iLink IP:* IP address of the iLink server.
- *iLink port:* Port of the socket connection.
- *Broadcast calls:* Send calls over the network (must be ON to make call following possible and displaying the info on the nurse stations).
- *UDP Broadcast IP:* Broadcast IP address for calls. Default: 255.255.255.255
- *UDP Broadcast port:* Port for broadcast. Default: 7475
- *NTP time update:* enable or disable update time via NTP server.
- *NTP server IP:* IP address of the NTP server.

! Only the IndigoCare NTP server may be used !

- *FTP Server IP:* enable or disable the use of an FTP server, for installing a new firmware version.
- *FTP location:* The path on the FTP server where the new software version can be downloaded.

Call settings:

- *Rep. Time Calls:* repetition time between calls send to Netrix server.
- *Rep. Time Assistance:* repetition time between assistance calls send to the Netrix server.
- *Rep. Time Emergency:* repetition time between emergency calls send to the Netrix server.
- *Rep. Time Code Blue:* repetition time between Code Blue calls send to the Netrix server.
- *Profile/Group errors:* Profile or group in de Netrix server for error message.
- *No errors:* Profile or group in de Netrix server if the error is solved
- *24H Group:* The group in the Netrix where the messages go if the a medallion not send out a message in time period of 24 hours.
- *CF BuzzerMode*: determine which buzzer must be active in the room.
    - *Default*: First call station in the room will annunciate
    - *All*: All call stations will annunciate
    - *Selectable:* The annunciate call station can be selected in the addresses page
- *Call following:* Call following ON or OFF. Call following works for rooms that have the same location name.
- *Toiletcall:* If enabled a toilet call will only be visible on the dome light and the toilet buttons. Room calls are not visible on the toilet call stations.
  If disabled a toilet call will be indicated on all room call stations and toilet call stations as a call.
- *Present to Netrix:* Send present status to the Netrix server.
- *Away to Netrix:* Send away status to the Netrix server.
- *Disable input deactivation to Netrix:*
    - Enabled: For all inputs programed to the Netrix server will send a Netrix message on an activation of the input 1-5
    - Disabled: For all inputs programed to the Netrix server will send a Netrix message on an activation and deactivation of the input 1-5
- *Boot info to Netrix:* Send every time the IP-unit starts a message to the Netrix server.

SD Card protection:

- Read-Write FS: If disabled the SD card is protected against writing. This include also the home directory.
- Read-Write Home: If enabled the SD card home directory has no protection against writing.

TIP: For a longer lifetime and reliability of the system the SD card protection must be secured.

Period Selector:

- *PS enabled:* Sets external period selector ON or OFF.
- *Location:* The location from the period selector.

Other settings:

- *Address registration:* enable or disable the address registration. (if this selection is disabled no additional call stations can be registered on the local bus)

TIP: At the end of the installation the address registration must be turned OFF

- *PS settings password:* If this setting is enabled the nurse don't need to enter a nurse password to change the day night settings.

- *Manual D/N*: If this setting is enabled. The user cannot change the day/night setting. The day/night mode will follow the configurate time tables.
- *Hide clock:* If this setting is enabled no time indication will be displayed not in the left top corner, not in the center of the screen when the terminal is in idle.
- *Show Mini-Display time:* enable or disable the time indication on the mini display
- *Broadcast Relay:* When enabled a received broadcast IP message will be send out again if the iCall 290 SIP Touch has a room with the right credentials. If disabled only local bus calls from the own bus will be broadcasted.
- *German LED:* Enable this function will result in a change on the dome light for a toilet call.
  - ➔ Enabled: red and yellow/white indicator on the dome light will be active for a toilet call
  - ➔ Disabled: yellow/white indicator on the dome light will be active for a toilet call
- *Keyboard layout: The touch screen keyboard can be used for 2 type of layouts*
  - ➔ *QWERTY*
  - ➔ *AZERTY*
- *Ram monitor:* If this feature is activated the iCall 290 SIP touch will reboot the unit if memory overflow is detected.(this feature is used in BETA testing versions)
- *Access Control Time (ms):* This is the time that the door lock will be activated when the access is granted.

Corridor Display settings:

- *Serial bus interface:* If selected the local bus will be used to connect serial corridor displays. You cannot use local bus buttons to connect to this type of bus. A maximum of 50 serial display interfaces can be connected. Each serial display interface bus can connect up to 2 serial displays.
- *Priority far assist /urg:* If this selection is enabled, only staff assist and emergency calls will be showed on the corridor display.
- *Buzzer ON [IP version only]:* Only for the IP version. If new information is sent to display a small beep will announced that there is a display change.
- *Show time:* If enabled the display will show the time of the day.
- *Scroll speed:* Select the scrolling speed for long texts on the display.

TIP: If the serial bus interface is enabled, there will no local bus address menu available.

Buzzer Settings:

- *Buzzer Call: Enable or disable buzzer for calls*
- *Buzzer Toilet: Enable or disable buzzer for toilet calls*
- *Buzzer Assistance: Enable or disable buzzer for staff assist calls*
- *Buzzer Info1: Enable or disable buzzer for info 1*
- *Buzzer Info2: Enable or disable buzzer for info 2*
- *Buzzer Info3: Enable or disable buzzer for info 3*
- *Buzzer Info4: Enable or disable buzzer for info 4*
- *Buzzer Info5: Enable or disable buzzer for info 5*
- *Buzzer Error: Enable or disable buzzer for errors*
- *Buzzer Low Battery: Enable or disable buzzer for low battery*

TIP: The buzzer settings can also be changed by the nurse in the nurse screen on the iCall 290 SIP Touch.

Show Settings:

- *Show Present: Enable or disable the present indications on the screen.*
- *Show Call: Enable or disable the call indications on the screen.*
- *Show Toilet: Enable or disable the toilet call indications on the screen.*
- *Show Assistance: Enable or disable staff assist call indications on the screen.*
- *Show Info1: Enable or disable info 1 indications on the screen.*
- *Show Info2: Enable or disable info 2 indications on the screen.*
- *Show Info3: Enable or disable info 3 indications on the screen.*
- *Show Info4: Enable or disable info 4 indications on the screen.*
- *Show Info5: Enable or disable info 5 indications on the screen.*
- *Show Error: Enable or disable Error indications on the screen.*
- *Show Low Battery: Enable or disable low battery indications on the screen.*

TIP: The show settings can also be changed by the nurse in the nurse screen on the iCall 290 SIP Touch.

TIP: For emergency and code blue there is no disable function possible, this for reason of regulation.

CF Buzzer Settings:

- *Buzzer Call:* enable or disable the buzzer in the room for the call following feature in case of a normal call.
- *Buzzer Toilet:* enable or disable the buzzer in the room for the call following feature in case of a toilet call.
- *Buzzer Assistance:* enable or disable the buzzer in the room for the call following feature in case of a staff assist call.
- *Buzzer Emergency:* enable or disable the buzzer in the room for the call following feature in case of an emergency call.
- *Buzzer Code Blue:* enable or disable the buzzer in the room for the call following feature in case of a Code Blue call.
- *Buzzer Info1:* enable or disable the buzzer in the room for the call following feature in case of an external information Info1.
- *Buzzer Info2:* enable or disable the buzzer in the room for the call following feature in case of an external information Info2.
- *Buzzer Info3:* enable or disable the buzzer in the room for the call following feature in case of an external information Info3.
- *Buzzer Info4:* enable or disable the buzzer in the room for the call following feature in case of an external information Info4.
- *Buzzer Info5:* enable or disable the buzzer in the room for the call following feature in case of an external information Info5.

Sip Settings:

- *Total block:* Totally block incoming SIP conversations.
- *Ringtone:* When enabled, incoming SIP calls need to be accepted.
- *Show SIP Callback:* If this setting is enabled and an active call in the screen is supporting SIP conversation, an additional icon will be shown at the end of the call indication.
- *Max.duration Call(s):*The maximum duration of SIP call. After expiring of this time the SIP conversation will be disconnected.

TeleAlarm:

- *TeleAlarm to netrix:* If enabled all wireless calls will be send to the netrix server direct
- *Show RSSI:* This will indicate the signal strength received from the wireless call station. This feature is supported from access point firmware version 2.1. , and if the access point is connected directly to the iCall 290 SIP Touch.
  The RSSI value will be shown at the end of the addition field
- *Accompany time (ms):* Timeout for accompany function (S37E)

Buttons:

- “Save” button saves the settings.
- “Reboot” button will restart the iCall 290 SIP Touch unit.
- “Reboot displays” all local bus mini displays will reboot
- “Restore”: go back to factory default settings.
- “Update”: This will update the application software. It will activate FTP download.
- “Update kernel”: This will update the kernel software. It will be using the FTP download functionality.
- “Update displays” the IP unit will send the selected language to the local bus mini displays

4.2.21. Log

All important events and errors that have taken place in the system can be found under the page entitled Log. Calls, registrations, period switches and ping and server problems can be found in this overview. It is important to look at this list in case of problems.
All events are listed with date and time indicated, making it easy to refer back and see when the system wasn't functioning as it should. This list is only maintained locally and will be empty following every reboot of the system.

Logging

06/07/2015 14:09:22	Assistance Address 17 to Netrix group 1005
06/07/2015 14:09:31	Urgence Address 1 to Netrix group 1006
06/07/2015 14:10:01	Urgence Address 1 to Netrix group 1006
06/07/2015 14:10:31	Urgence Address 1 to Netrix group 1006
06/07/2015 14:11:01	Urgence Address 1 to Netrix group 1006
06/07/2015 14:11:32	Urgence Address 1 to Netrix group 1006
06/07/2015 14:12:02	Urgence Address 1 to Netrix group 1006
06/07/2015 14:12:17	Call Address 42 to Netrix => All Calls group 1004
06/07/2015 14:12:19	Toilet Address 38 to Netrix => All Calls group 1004
06/07/2015 14:12:22	Assistance Address 17 to Netrix group 1005
06/07/2015 14:12:32	Urgence Address 1 to Netrix group 1006
06/07/2015 14:13:02	Urgence Address 1 to Netrix group 1006
06/07/2015 14:13:32	Urgence Address 1 to Netrix group 1006
06/07/2015 14:14:02	Urgence Address 1 to Netrix group 1006
06/07/2015 14:14:32	Urgence Address 1 to Netrix group 1006
06/07/2015 14:15:02	Urgence Address 1 to Netrix group 1006
06/07/2015 14:15:18	Call Address 42 to Netrix => All Calls group 1004
06/07/2015 14:15:19	Toilet Address 38 to Netrix => All Calls group 1004
06/07/2015 14:15:22	Assistance Address 17 to Netrix group 1005
06/07/2015 14:15:32	Urgence Address 1 to Netrix group 1006
06/07/2015 14:16:02	Urgence Address 1 to Netrix group 1006
06/07/2015 14:16:33	Urgence Address 1 to Netrix group 1006
06/07/2015 14:17:03	Urgence Address 1 to Netrix group 1006
06/07/2015 14:17:33	Urgence Address 1 to Netrix group 1006
06/07/2015 14:18:03	Urgence Address 1 to Netrix group 1006
06/07/2015 14:18:18	Call Address 42 to Netrix => All Calls group 1004
06/07/2015 14:18:19	Toilet Address 38 to Netrix => All Calls group 1004
06/07/2015 14:18:22	Assistance Address 17 to Netrix group 1005
06/07/2015 14:18:33	Urgence Address 1 to Netrix group 1006
06/07/2015 14:19:03	Urgence Address 1 to Netrix group 1006

4.2.22. Info

More information can be found on the current state of the system and the Indigo Care contact details on the page entitled Info.
The following details can be found here:

- System time: Current system time
- Uptime: System running time
- iCall Version: Current firmware version of iCall software
- File system Version: Current file system version
- Kernel Version: Current kernel version
- CPU: CPU usage
- RAM: Current amount of MB RAM in use
- ID: Hardware identification from HW version 0.5

5. User interface

In the idle screen, where no calls are active date and time indication is showed. In the left top corner there is also a date and time indication, this indication is also present if there are active calls on the screen. In the right top corner is an indication on which day/night profile is active.
This profile can be change time based or manually by the user.

5.1. Day Night icon 

Day/Night icon can be select after login, this will change the display mode to the call from selected locations.

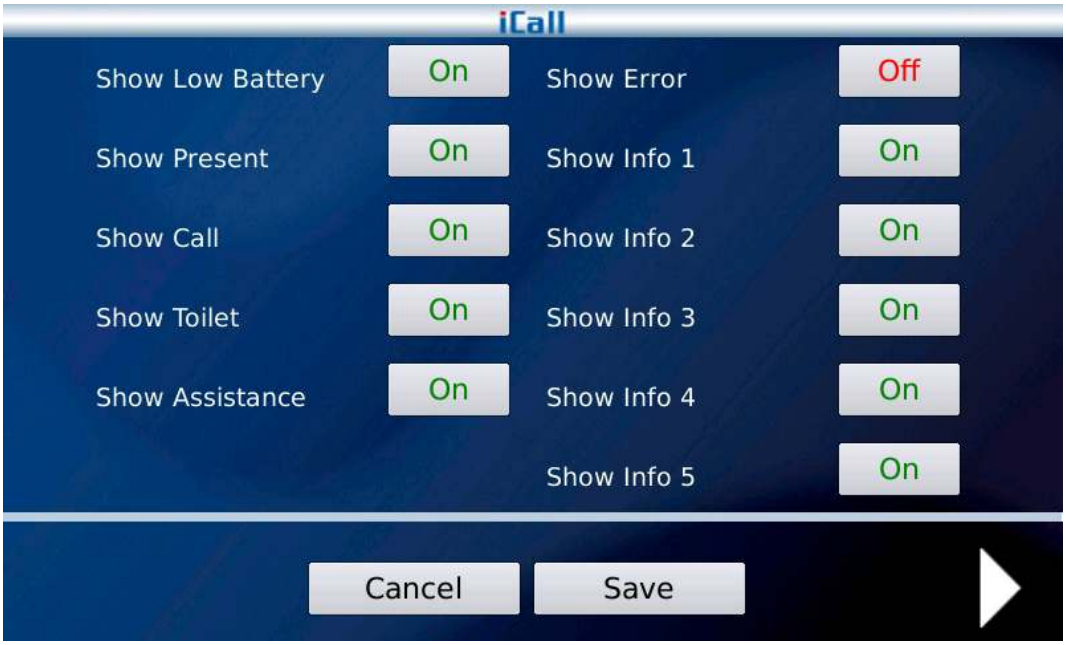
Example:

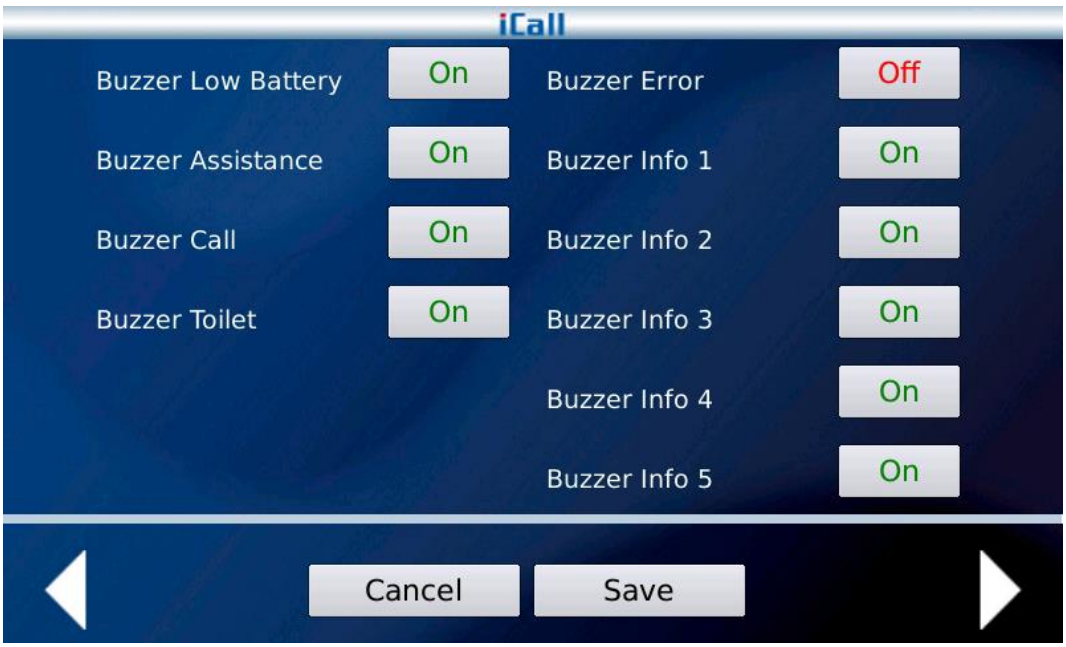
In day mode all calls from floor 1 are displayed.
In night mode all calls from floor 1 and floor 2 are displayed.

The profile “All Calls” is always available even if there are no profiles programmed.
In the “All Calls” profile the iCall 290 SIP-Touch will show all calls from the hole system and will not look in to the related location.

5.2. Setting icon

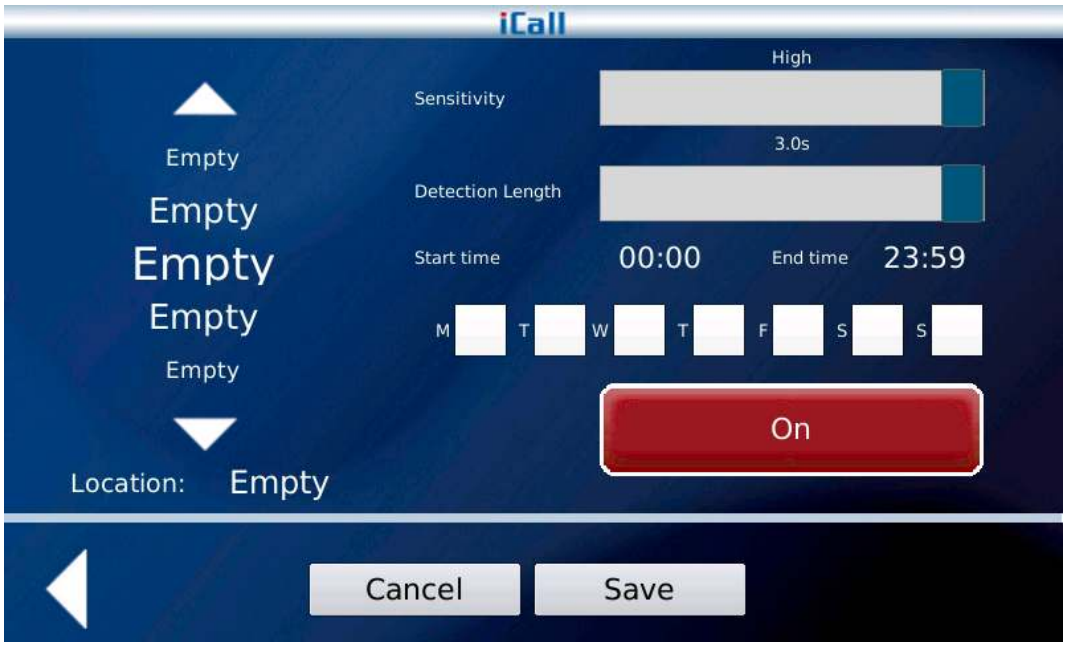
The settings icon can be used to change settings from the icall 290 SIP-touch.
The first selection allows you to select which type of call you want to see on the screen. There is an exception for code blue and emergency call. These type of calls are always shown and annunciate on the iCall 290 SIP Touch. The next setting screen is the same as the previous one, but for the Internal buzzer. The following settings screen allows you to connect wireless call stations to a room. The last settings screen will allow you to program acoustic calls stations. By pressing the save button at the end of the changes all settings will be stored in the internal memory.





TIP: Only the visible call with the highest priority in the list will determine the rhythm of the buzzer! If the assistant calls are not visible they will not be audible either.

A wireless call station can be connected to a single room. By pressing the learn button there is a time out of 20 seconds to bind wireless call stations to a room. A maximum of 4 wireless call stations can be connected to a room. On the left side you can select the room number. At the end, you can save the settings by pressing the save button.



The nurse station can be used for programming acoustic alarm call stations. The sensitivity and length of the acoustic trigger can be set together with the start time and end time and the day of the week the acoustic unit has to function. By pressing the on button the system will set it in service.

5.3. Periode selector icon

This icon allows you to change the period of the day for the whole system. The period of the day can be changed for one location or for multiple locations. For changing multiple locations, you have to use a script.

5.4. Speaker mute icon

The speaker mute icon will mute internal buzzer and the configured buzzer output. A code blue and an emergency call will override this mute function and activate the internal buzzer and configured output again.

5.5. Phone icon

This icon gives you access to the internal sip phone and make calls across the network to other registered SIP devices. Furthermore the volume can be modified and the microphone muted. The icon will light up green during a conversation to indicate that an open conversation is active.

Volume up button. Press this button to increase the volume from the ongoing conversation.

Volume down button. Press this button to decrease the volume from the ongoing conversation.

Microphone mute button. By pressing this button, the microphone will be disabled. Press the microphone mute button again to enable the microphone again.

Call — After entering the phone number press the green button to make the call.

Cancel — At the end of a voice communication press the red button to disconnect the call.

5.6. Camera icon

The camera view can give you access to a maximum of 10 video streams.

The key to open the door. This will send a DTMF tone to the end device.

If there is an audio device related to the video stream. By pressing this button, the conversation will start. At the end of the conversation, you can press this button again to end the call.

Go to the previous video stream.

Go to the next video stream.

5.7. Key icon

The key icon activate a login screen. After login the nurse has access to the settings. The password for the nurse is programmed in the website. Default password is set to “000”.

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