neat
A brand of **legrand**

User manual

Table of Contents

Safety Notes

- Read instructions prior to use.
- Always test the system per instructions prior to use.
- Always check the function of the product after making adjustments.
- This product may not be suitable for all persons and should not be a substitute for the routine visual monitoring protocol by a caregiver.
- Must not be used in situations where a delay in the arrival of appropriate medical care, could lead to a potentially life-threatening situation.
- Our units are NOT intended for any life support device, thus intending a device whose malfunction may result in damage to a life.
- Check the device regularly and replace when necessary.
- Do not integrate with other systems other than those specified in this document.
- Always keep the device dry. Exposure to excessive moisture can cause malfunction.
- The product will not cause electromagnetic disturbances under normal working conditions.
- The product can be placed near other products or devices as long as mechanical vibration is not present.
- Remove batteries if the unit is to be out of use or stored for an extended period of time.
- Do not ingest battery. Chemical burn hazard.
- SMILE contains a button cell battery. Swallowing the battery can cause severe internal burns in just 2 hours and can lead to death.
- Keep new and used batteries away from children.
- If the battery compartment does not close securely, stop using the product and keep it away from children.
- If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

Introduction

The NOVO is a unit designed for the purpose of providing security and a sense of comfort and safety for the user. The unit is primarily designed for people living in their own residence or in nursing homes.

Overview

What's in the box

1. NOVO unit
2. AC Adapter *
3. LAN Cable *
4. SMILE Pendant
   SMILE accessories (not shown)

* Depending on mode/market

Top / Bottom View

The NOVO appears as in the picture below. The unit has been designed to make it as simple as possible to handle with maximum safety. The size of the plastic cover is: 128 x 180 x 65 mm.
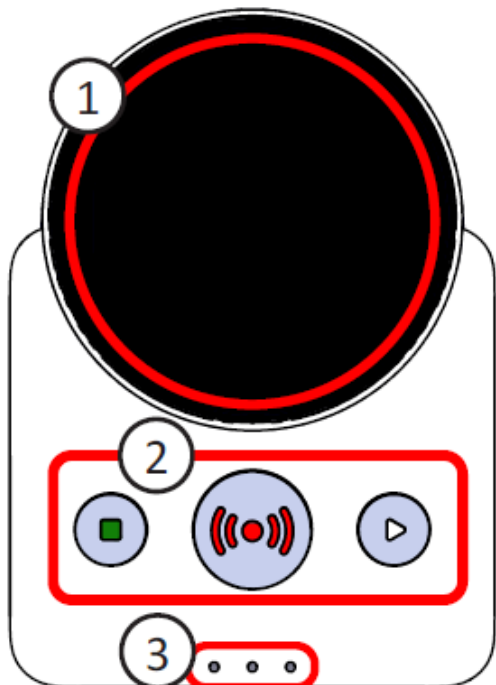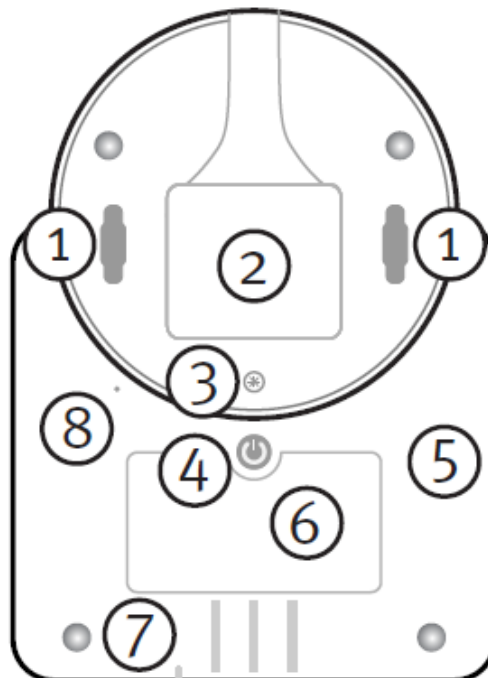
NOVO top view   NOVO bottom view

TOP
1. Speaker
2. Buttons
3. Front LEDs

BOTTOM
1. Keyholes x 2 (for mounting the unit)
2. Connector well (under the connector lid)
3. Bottom cover screw
4. Power button
5. SIM Card slot *
6. Product label
7. Microphone
8. Reset hole

* The SIM Card slot is accessible through a soft SIM-hatch

Buttons and LEDs
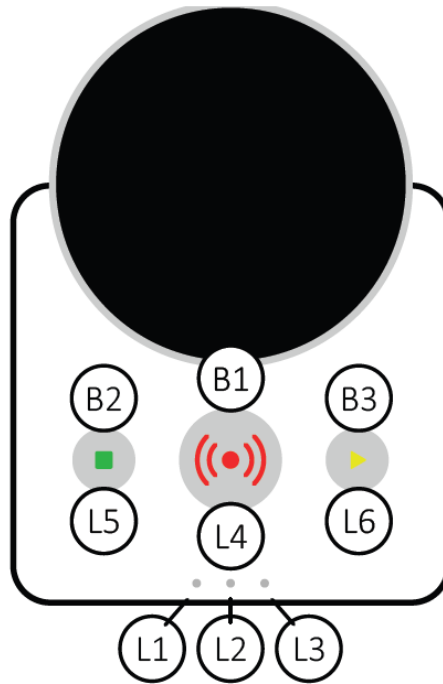
Buttons

The NOVO unit has three distinct buttons located on the front cover.

#	Button	Colour
B1	Alarm button	Red
B2	Reset button	Green
B3	Extra button	Yellow

Alarm Button (B1)

A user alarm can be activated by pressing the red **Alarm button (B1)**.

This button is also used in Control Mode and Service Menu.

Reset Button (B2)

Before making an alarm call, NOVO can be configured to play a pre-call signal. During that time the user has the option to reset the alarm by pressing **Reset button (B2).**

The unit will then play the disconnection signal to indicate this (if alarm is configured as audible), cancel the call and return to idle mode. This function can also be enabled, through configuration, between call attempts.

This button is also used in Control Mode and Service Menu.

The **Extra button's (B3)** default function is to toggle and indicate Home/Away.

This button is also used in Control Mode, Service Menu.

Visual LED indications

#	Colour	Position (seen as above)
L1	Green	Leftmost LED in front
L2	Red	Middle LED in front
L3	Yellow	Rightmost LED in front
L4	Red	Behind the Alarm button (B1)
L5	Green	Behind the Reset button (B2)
L6	Yellow	Behind the Extra button (B3)

When the unit is running on battery power some LED indications will switch to blinking to consume less power. See the tables below for all supported indications.

Note that the individual visual error indications can be disabled by configuration. Furthermore, all visual error indications can be disabled with a specific configuration parameter.

LED L1-L3 Indications

In normal operation the front LEDs (L1 – L3) are off. When an error occurs, the corresponding LED will indicate the error. The significance of the LEDs is indicated on the bottom label of the unit.

Status	L1 (Network)	L2 (AC Power)	L3 (Battery)
Normal mode, no failures	Off	Off	Off
Network failure (IP/4G)	On	Off	Off
AC failure	Off	0.5s On/4.5s Off	Off
Battery failure	Off	Off	On
Network and AC failure	0.5s On/4.5s Off	0.5s On/4.5s Off	Off
Network and Battery failure	On	Off	On
AC and Battery failure	Off	0.5s On/4.5s Off	0.5s On/4.5s Off
Network, AC and Battery failure	0.5s On/4.5s Off	0.5s On/4.5s Off	0.5s On/4.5s Off
Radio Interference	0.5s On/4.5s Off	0.5s On/4.5s Off	0.5s On/4.5s Off
SIM card failure	0.5s On/4.5s Off	Off	Off
AC and SIM card failure	0.5s On/4.5s Off	0.5s On/4.5s Off	Off

LED L4 Indications

Ongoing call

During an ongoing alarm call the unit will indicate "call in progress" if the alarm type is configured to allow visual indications. See Alarm button (L4) LED Indications table below.

NB The unit can be configured to disable visual call indications when powered by backup battery.

Wait between calls

When the NOVO enters "wait between calls" for an alarm type configured to have visual indications it will indicate this as described in Alarm button (L4) LED Indications table below.

No more call attempts

If a call sequence has failed to transfer an alarm type configured to have visual indications the unit will indicate this as is described in Alarm button (L4) LED Indications table below.

Alarm button (L4) LED Indications

Status	AC Mode	Battery Mode
Normal operation	On *	Off
Call in progress	0.5s On / 0.5s Off	0.5s On / 0.5s Off
Wait between calls	1.0s On / 1.0s Off	1.0s On / 1.0s Off
No more call attempts **	2.5s On / 2.5s Off	Off

* Indication can be disabled by configuration
** No more call attempts are indicated when all call attempts have been exhausted without success. The alarm has failed.

LED L5 Indications

The following indications are made with the Reset button LED (L5).

Status	AC Mode	Battery Mode
Firmware download over ftp *	0.5s On / 0.5s Off	0.5s On / 0.5s Off
Passive notification	0.5s On / 0.5s Off	0.5s On / 0.5s Off

* The behaviour depends on whether the sender has enabled indication or not. If it is disabled there is no indication during download. There is **NO** indication when downloading over USB.

LED L6 Indications

The following indications are made with the Extra button LED (L6).

Status	AC Mode	Battery Mode
Away mode	On	0.5s On / 4.5s Off
Home mode	Off	Off

Other

The unit boot / start-up is a two-step process and is indicated as follows:

1. The boot process is indicated by a Chase sequence whereby L1 flashes, followed by L2, then L3 and then repeated for 3 seconds.
2. After the boot process completes successfully the unit will start up. The start-up process normally takes 1-3 seconds and is indicated by LEDs L1-L3 all lit constantly.

When the boot / start-up process is completed, the unit will return to normal operation and indicate accordingly

Status / Mode	L1	L2	L3	L4	L5	L6
Control Mode	Off	Off	Off	On	On	On
Service Menu	Off	Off	Off	On	Off	Flash
Unit boot	Chase	Chase	Chase	na	na	na
Start-up	On	On	On	na	na	na
Normal Operation	Off	Off	Off	na	na	na

Audible indications

If acoustical warning is activated, an error is indicated with a blipp and/or voice message. It is repeated regularly until the problem is solved or the B2 green button is pressed to silence the warning sound.

Pre-call signal

Before starting an alarm sequence the unit can be configured to play a pre-call signal for a configurable amount of time. The pre-call signal will only be played if the alarm type that triggered the event is configured to allow pre-call signal.

If a new alarm with higher priority is received during pre-call status the unit will stop the current call sequence, put the interrupted alarm back in the alarm queue and handle the new high priority alarm type immediately according to its configuration.

Note that during the pre-call signal the alarm type can also allow the user to cancel the alarm event by pressing the Reset button (B2). If the alarm type is configured to play disconnection signal it will do so to confirm the action before returning to idle mode.

Dial tones in speaker

The unit can be configured to play dial tones to the speaker if the current alarm type is configured as audible. When this is enabled the unit will play tones to the speaker indicating process of dialling the number. It will also play to the speaker an indication that the call is active before a voice connection has been established.

Entering wait between calls

When unit enters wait between calls while handling an alarm type that is configured as audible it will play two tones to the speaker to indicate this.

Disconnection signal

An alarm call is considered successful depending on demands put on the call by the protocol used and on the configurable parameter for the current alarm type, Demand disconnection.

When an alarm call is successfully concluded for an audible alarm type the unit will play the disconnection signal.
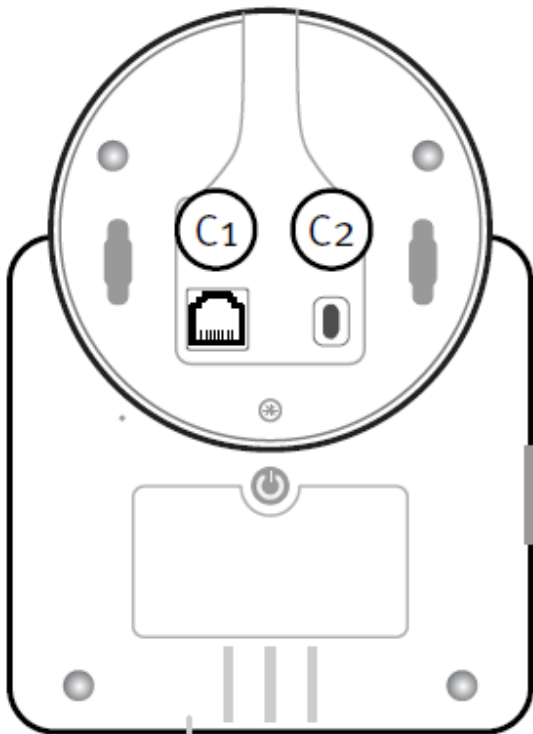
The disconnection signal is also played when an audible alarm is cancelled during pre-call or wait between calls.
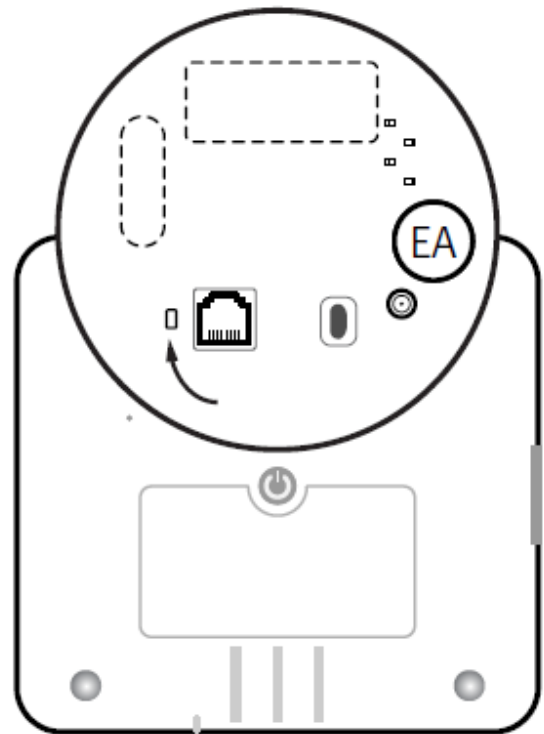
Sounds

The most common sounds used in NOVO IP are:
- OK – "Blipp"
- Disconnection – "Di-Du-Da"
- Error – "Blurp"
- Pre-call signal – "Melody"

Connectors

NOVO with connector lid removed

NOVO with battery lid removed

The connectors are located in a well under the connector lid in the bottom of the speaker. Access the well by removing the connector lid.

Connector #	Purpose	Type
C1	Ethernet	RJ45
C2	AC Power	Micro-USB
EA	External antenna	SMA Connector (female)

Ethernet (C1)

The Ethernet connector (C1) is an RJ45 female connector and is used for IP traffic over cable.

AC Power (C2)

Connect the adapter to the outlet marked AC in the bottom well of the NOVO as per the Installation instructions.

⚠ *Only use the AC adapter supplied with your device*

External antenna (EA)

See Connecting the External antenna

## On/Off button (PS1)

The **On/Off button (PS1)** is not connected in series with the power source. This means that the processor (CPU) can control when the unit shall be powered on and off. The CPU can for instance shut off the unit to save the backup battery.

> Please note that it isn't enough to disconnect the AC plug to shut off the unit. The unit will switch to the backup battery as power source.

Installation and testing

Installing NOVO
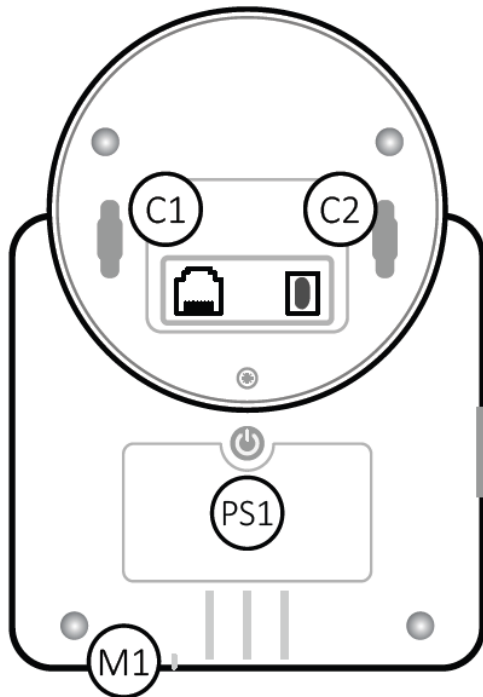
1. If used, connect the network cable to the router/switch or equivalent and the network cable to the Ethernet connector (C1).
2. Connect the included AC adaptor to the wall socket.
3. Connect the AC adaptor's Micro USB connector to the DC connector (C2).
4. Power on the unit by pressing the power button (PS1).
5. Check Cellular Signal Strength
6. If needed, connect the external antenna
7. Test the Radio coverage
8. Make a test call to the Customer Care Centre to ensure proper operation.
9. If applicable, mount the NOVO

NOVO is now ready for use

Checking Cellular Signal Strength

Units that support 4G as carrier will perform Mobile coverage test during range test.

It will measure the mobile signal strength every 2 seconds and indicate the signal strength with LEDs as shown below.

| Signal	L1	L2	L3	L4	L5	L6
Very weak (a)	Flash	Off	Off	Flash	Flash	Flash
Weak (2)	On	Off	Off	Flash	Flash	Flash
Average - (3)	On	Flash	Off	Flash	Flash	Flash
Average + (4)	On	On	Off	Flash	Flash	Flash
Strong (5)	On	On	Flash	Flash	Flash	Flash
Very strong (6)	On	On	On	Flash	Flash	Flash
Mobile not Installed *	Flash	Flash	Flash	Flash	Flash	Flash
Mobile not active	Off	Off	Off	Flash	Flash	Flash

* If Range test is initiated directly after start-up, Mobile not installed will be indicated until the mobile module is initiated and running.

To check Cellular Signal Strength
- Enter Control Mode by shortly pressing button PS1 when unit is in Idle mode. When the unit is in Control Mode LEDs L4-6 (i.e. B1-3) are lit. The unit returns automatically to Idle Mode after function execution or 5 seconds of inactivity.
- Whilst in Control Mode, press and hold button B3 (yellow button) for around 3 seconds until the unit announces "Add transmitters"
  NB When in Service Menu, LED4 (B1 red button) is lit and LED6 (B3 yellow button) blinks.
  NB When entering each function, NOVO IP plays the function sound / announcement.
- Press and release B3 to step to the next Service Menu, repeat until you reach the Service Menu option you want. i.e. **Range test mode**
- Enter the function by pressing B1 (red button).
  NB After finishing programming in a selected function NOVO IP automatically returns back to the Service Mode.
- Monitor the L1-L3 behaviour and using the table above determine the status
  NB It takes a couple seconds before the status is initially reported, until then it will appear to report **Mobile not active**
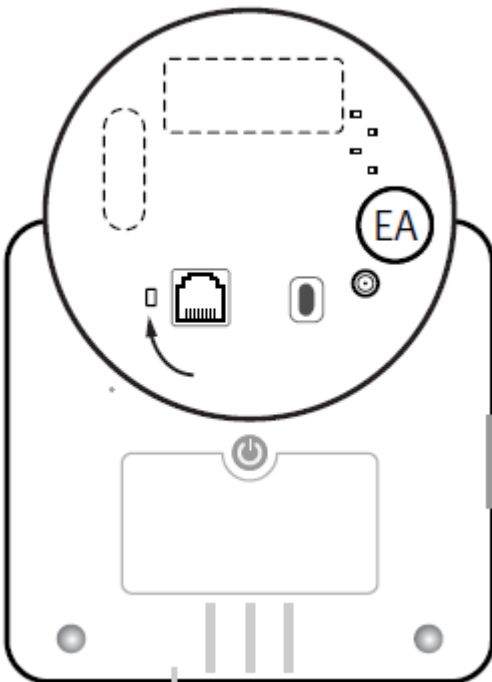- To Exit press B2 (green button)

Connecting the external antenna

1. If an external antenna is to be used, the plastic flange (marked in red in the illustration below) must be removed from the bottom cover.
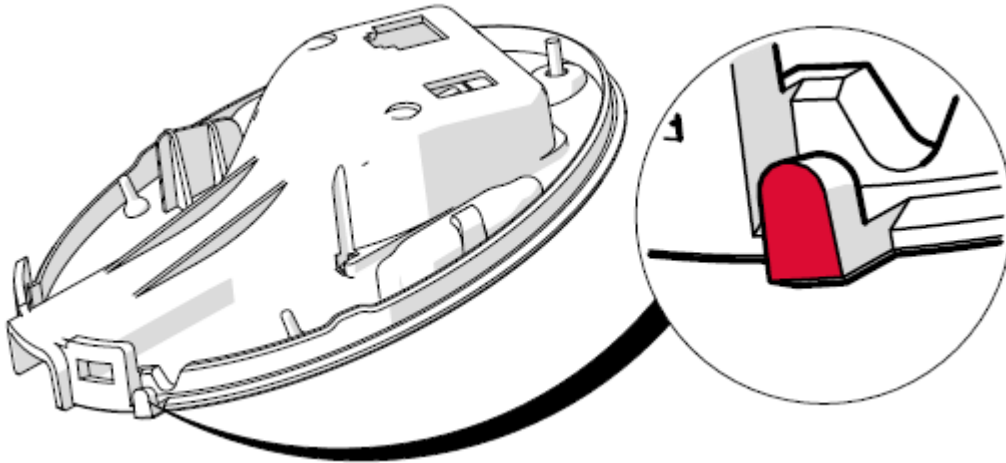
Remove the plastic flange if an external antenna is to be used

2. Locate the SMA contact (**EA**).

SMA connector (EA)

3. Remove the power and network cables.
4. If unit is On, turn off the unit with the On/Off button. Remove the battery lid by unscrewing the screw just below the connector lid.
5. Gently screw the antenna connector clock wise onto the SMA contact **(EA)**.

6. Place the cable between the small plastic "heels" to lead the antenna out of the cover.
7. Refit the bottom cover.
8. Refit the AC and finally the network cable and start up the unit.
9. Activate the external antenna in the Service Menu.
   - Enter Control Mode by shortly pressing button PS1 when unit is in Idle mode. When the unit is in Control Mode LEDs L4-6 (i.e. B1-3) are lit. The unit returns automatically to Idle Mode after function execution or 5 seconds of inactivity.
   - Enter Service Menu by pressing and holding B3 (Yellow Extra button) for more than 3 seconds, until unit announces: add transmitters, release B3 and then press and hold B3 again until unit announces: range test mode
   - Unit plays a voice message to indicate the current antenna status. To change the status, press and hold the **Alarm button (B1)** until the new status is indicated by a voice message.
   - NOVO returns to Service Menu after 10 seconds of inactivity.
   - NOVO indicates that the function has been chosen by LED L2 flashing and LED L1 on.
   - The unit will automatically return to Service Menu after execution.
10. Re-test the Cellular Signal Strength

Radio Transmitters

SMILE Pendant

SMILE is a portable alarm trigger that can be worn either in a necklace or with wristband. The supplied SMILE is already connected to NOVO IP and ready to use. The picture below demonstrates how to mount the necklace (A) or wristband (B).

Testing the Installation

Press the Alarm button (B1). A pre-call signal is played where-after NOVO IP starts dialling. During the pre-call signal it is possible to cancel the alarm by pressing the Reset button (B2).

Mounting the NOVO

There are two key holes for wall mounting the unit. The holes are designed to be used together with screws with a head diameter of 7-8 mm. The screw head should be approximately 4 mm out of the wall for best fit.
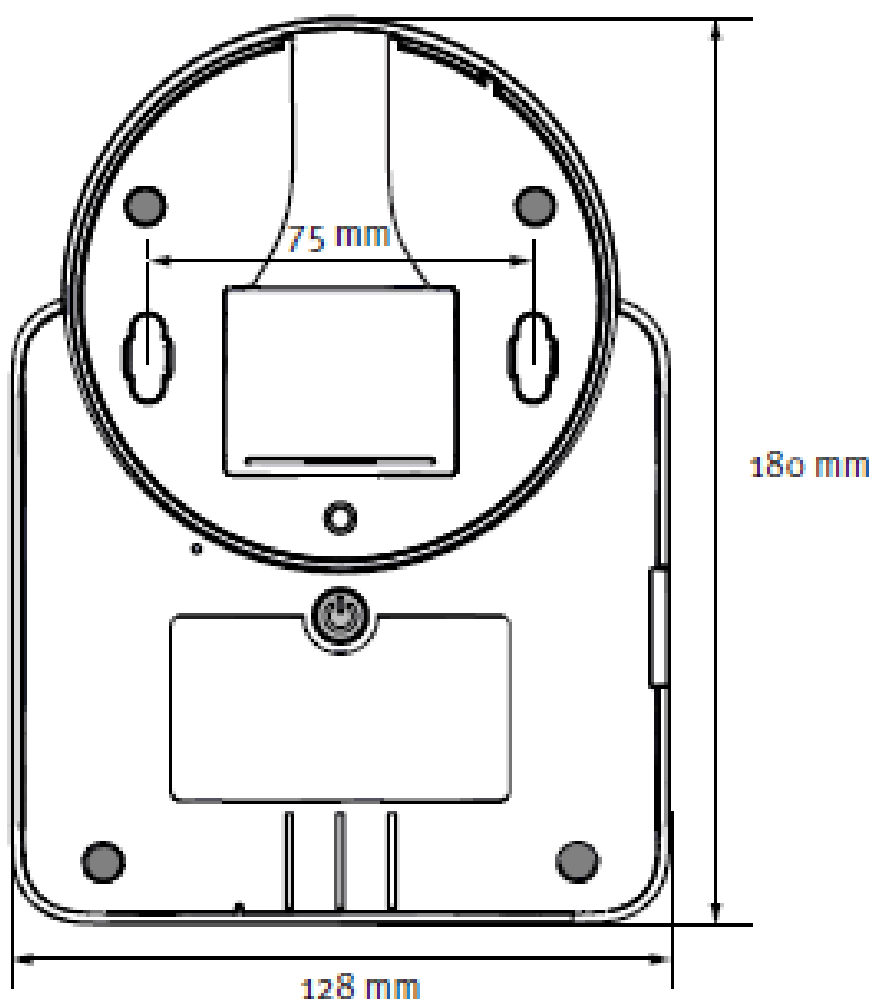
Control Mode and Service Menu

NOVO IP is normally in Idle Mode, i.e. is not processing any user-initiated (e.g. user alarm) nor automatic event/action (e.g. test alarm). Control Mode and Service Menu are ways of easily configuring the unit.

Control Mode functions

Enter Control Mode by shortly pressing button PS1 when unit is in Idle mode. When the unit is in Control Mode LEDs L4-6 (i.e. B1-3) are lit. The unit returns automatically to Idle Mode after function execution or 5 seconds of inactivity.

#	Control Mode functions
1	Toggle Alarm button (B1) illumination
2	Change volume (conversation/signal)
3	Enter Service Menu

Toggle Alarm button (B1) illumination

- Enter Control Mode by shortly pressing button PS1 when unit is in Idle mode. When the unit is in Control Mode all LEDs L4-6 (i.e. B1-3) are lit.
  NB The unit returns automatically to Idle Mode after function execution or 5 seconds of inactivity.
- Press and hold B1 for more than 3 seconds to toggle B1 illumination. Release when the unit announces "function is off" or "function is on"

Change volume

- Enter Control Mode by shortly pressing button PS1 when unit is in Idle mode. When the unit is in Control Mode all LEDs L4-6 (i.e. B1-3) are lit.
  NB The unit returns automatically to Idle Mode after function execution or 5 seconds of inactivity.
- Press and hold B2 for more than 3 seconds to toggle conversation level, release when the desired volume is played.
- Press B2 again (and hold) within 5 seconds to toggle signal level, release when the desired volume is played.

Service Menu functions

Enter the Service Menu

- Enter Control Mode by shortly pressing button PS1 when unit is in Idle mode.
When the unit is in Control Mode all LEDs L4-6 (i.e. B1-3) are lit.
NB The unit returns automatically to Idle Mode after function execution or 5 seconds of inactivity.
- Whilst in Control Mode, press and hold button B3 (yellow button) for around 3 seconds until the unit announces "Add transmitters"
NB When in Service Menu, LED4 (B1 red button) is lit and LED6 (B3 yellow button) blinks.
NB When entering each function, NOVO IP plays the function sound / announcement.
- Press and release B3 to step to the next Service Menu, repeat until you reach the Service Menu option you want.
- Enter the function by pressing B1 (red button).
NB After finishing programming in a selected function NOVO IP automatically returns back to the Service Mode.
- To Exit press B2 (green button)

The list below assumes you have already stepped into Service Mode and have navigated to the requested function.

#	Service Menu functions
1	Add transmitters
2	Range Test mode
3	Erase transmitters
4	External GSM Antenna Status
5	Home/Away/Passive function

- Enter [Control Mode](#) PS1
- Whilst in Control Mode, press and hold button B3 (yellow button) for around 3 seconds until the unit announces "**Add transmitters**"
  NB When in Service Menu, LED4 (B1 red button) is lit and LED6 (B3 yellow button) blinks.
  NB When entering each function, NOVO IP plays the function sound / announcement.
- Enter the function by pressing B1 (red button).
- Add a transmitter by pressing B3 to step to radio position 1 indicated with one short "beep", press B3 again to step to position 2, now indicated with two short "beeps". Step to desired position by pressing B3 and when NOVO IP beeps the number of times corresponding to the desired radio position.
- Add the transmitter by activating it (e.g pressing the Alarm button on SMILE). A short beep confirms the addition and also the transmitter battery status.
  - Short beep – action OK and transmitter battery OK
  - Long beep – action OK and transmitter battery low
  - Error sound – the transmitter is already present at other radio position.
- To Exit press B2 (green button)

Test the Radio Coverage

- Enter [Control Mode](#) PS1
- Whilst in Control Mode, press and hold button B3 (yellow button) for around 3 seconds until the unit announces "Add transmitters"
  NB When in Service Menu, LED4 (B1 red button) is lit and LED6 (B3 yellow button) blinks.
  NB When entering each function, NOVO IP plays the function sound / announcement.
- Press and release B3 to step to the next Service Menu, repeat until you reach the Service Menu option you want. i.e. **Range test mode**
- Enter the function by pressing B1 (red button).
  NB After finishing programming in a selected function NOVO IP automatically returns back to the Service Mode.
- In Radio coverage it's possible to test the radio connection between a connected transmitter and NOVO IP. When in Radio coverage, activate the connected transmitter, (e.g pressing the Alarm button on SMILE) and NOVO IP responds with a "blipp" if the radio coverage is OK. On SMILE the LED blinks green to acknowledge radio coverage is OK.
- To Exit press B2 (green button)

Remove a transmitter

- Enter Control Mode PS1
- Whilst in Control Mode, press and hold button B3 (yellow button) for around 3 seconds until the unit announces "Add transmitters"
  NB When in Service Menu, LED4 (B1 red button) is lit and LED6 (B3 yellow button) blinks.
  NB When entering each function, NOVO IP plays the function sound / announcement.
- Press and release B3 to step to the next Service Menu, repeat until you reach the Service Menu option you want. i.e. **Erase transmitters**
- Enter the function by pressing B1 (red button).
  NB After finishing programming in a selected function NOVO IP automatically returns back to the Service Mode.
- Remove a transmitter by pressing B3 to step to radio position 1 indicated with one short "beep", press B3 again to step to position 2, now indicated with two short "beeps". Step to desired position by pressing B3 and when NOVO IP beeps the number of times corresponding to the desired radio position.
- To remove a transmitter press B1 > 3 seconds at the desired radio. A short beep confirms the removal.
- To Exit press B2 (green button)

Check External GSM Antenna Status

- Enter Control Mode PS1
- Whilst in Control Mode, press and hold button B3 (yellow button) for around 3 seconds until the unit announces "Add transmitters"
  NB When in Service Menu, LED4 (B1 red button) is lit and LED6 (B3 yellow button) blinks.
  NB When entering each function, NOVO IP plays the function sound / announcement.
- Press and release B3 to step to the next Service Menu, repeat until you reach the Service Menu option you want. i.e. **External GSM Antenna Status**
- Briefly press B1 (red button) to receive current status On or Off
  NB After finishing programming in a selected function NOVO IP automatically returns back to the Service Mode.

Check Home/Away/Passive function

- Enter [Control Mode](#) PS1
- Whilst in Control Mode, press and hold button B3 (yellow button) for around 3 seconds until the unit announces "Add transmitters"
  NB When in Service Menu, LED4 (B1 red button) is lit and LED6 (B3 yellow button) blinks.
  NB When entering each function, NOVO IP plays the function sound / announcement.
- Press and release B3 to step to the next Service Menu, repeat until you reach the Service Menu option you want. i.e. **Home Away Passive function**
- Briefly press B1 (red button) to receive current Passive Mode status On or Off
  NB After finishing programming in a selected function NOVO IP automatically returns back to the Service Mode.

Using the NOVO

Alarm calls and alarm handling

Any event in the NOVO that will result in the transmission of an alarm is an alarm event.

- Alarm events can be user initiated, e.g. pressing the Alarm button (B1).
- Alarm events can be initiated by the unit as a result of any kind of surveillance of the status of the unit, e.g. detection of mains failure.
- Alarm events can be initiated by the unit as a result of any kind of surveillance of registered transmitters, e.g. Radio out of range.
- Alarm events can be received from registered transmitter, e.g. Smoke alarm.

Make an alarm call

To make an alarm call:

- Press the Red Alarm button (B1)
- NOVO will play a "Melody" to indicate that an alarm call is in progress
- When the alarm call is registered at the Customer Care Centre, the NOVO announces "incoming call established"
- NB The Red Alarm button (B1) flashes to indicate that the call is still in progress
- When the Care Consultant selects the call, the loudspeaker will engage, before the Care Consultant is heard introducing themselves.

To make an alarm call using the SMILE Pendant:

- Press the push-button
- The SMILE LEDS will flash red followed by green to indicate that the alarm has reached the NOVO unit
- NOVO will play a "Melody" to indicate that an alarm call is in progress
- When the alarm call is registered at the Customer Care Centre, the NOVO announces "incoming call established"
- NB The Red Alarm button (B1) flashes to indicate that the call is still in progress
- When the Care Consultant selects the call, the loudspeaker will engage, before the Care Consultant is heard introducing themselves.

Other Alarm calls

When non-User calls or events are being raised, the NOVO may behave differently dependent upon the type of event, examples:

Home/Away. The Yellow Extra button will dim or illuminate to indicate status and the NOVO will announce either Home or Away. The background call

logged to the Customer Care Centre is done without any visual or audible indication

Environmental Sensors may contact the Customer Care Centre silently, but once connected, open up a full duplex speech path for the Care Consultant to speak and listen to provide assistive actions

Technical status' such as Mains failure will show visual and audible indications at the NOVO unit as specified in Troubleshooting section of this document, however the logging of the events to the Customer Care Centre are completed silently with no call back to the NOVO unit.

Alarm calls to the Customer Care Centre

When you have triggered an alarm call by pressing the button on the NOVO or on the SMILE pendant, a voice connection to the Customer Care Centre is automatically established. A Care Consultant will answer your alarm call and speak to you via the NOVO's speakerphone system.

- Tell the Care Consultant why you have generated the alarm call, and they will immediately arrange for assistance if needed.

If you are unable to speak or hear, the Care Consultant will still arrange for assistance because the Customer Care Centre automatically knows that the alarm call is from you. The Customer Care Centre has all the information, such as your name and address, that is needed to help you quickly.
As soon as the Customer Care Centre ends the alarm call, NOVO is ready to make further alarm calls.

Cancel an alarm call

To prevent false alarms it is possible to cancel an alarm call before it is connected to the Customer Care Centre.

To cancel an alarm call:
- During the pre-alarm "Melody" press the Green Cancel button (B2). The unit will play a descending tone and the "Melody" will cease.

NB If you do not cancel an accidental activation in time, do not worry, our Customer Care Consultants are always happy to hear from you.

Maintenance and Cleaning

- All parts in the NOVO IP kit can be cleaned with a mild soap solution and a damp cloth. Dry with a dry cloth.
- Strong chemicals, grease and other harsh substances must not be used when cleaning or handling the parts in the NOVO IP kit.
- NOVO IP must be disconnected from the power socket before cleaning.
- After cleaning, confirm that the NOVO works properly by sending a test alarm to the Customer Care Centre.

Disposal and Recycling

At the end of the product's use life, please dispose of it at appropriate collection points provided in your country. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance (EIA, www.eiae.org). In the European Union, the bin label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling or returned to your distributor.

Battery information
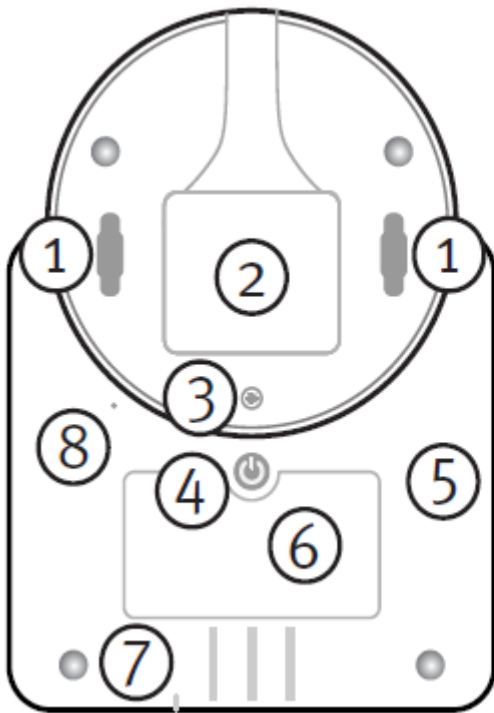
Battery lid screw (3)
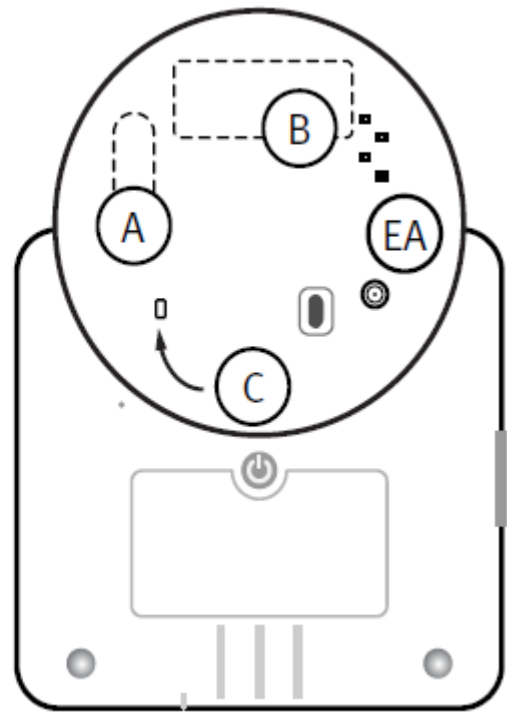
Battery compartment

The pictures above display the internal battery compartments for the standard (A) and large (B) battery. The battery connector (C) is pictured as well.

#	Description
A	Standard capacity battery compartment
B	Large capacity battery compartment
C	Battery connector

To open the battery lid, remove the cover screw (marked 3 in Picture 10). The battery compartment for the backup battery is under the lid. When replacing a backup battery, note that the battery must be of the correct type and delivered from NEAT.

> Always disconnect the AC adapter and all other cables before opening the battery lid.

Battery replacement should only be performed by trained personnel.
NOVO can be equipped with either of two battery types:
- the standard battery with 400 mAh capacity.
- a large capacity battery with 2000 mAh capacity.

> Note that NOVO IP/4G model requires the large capacity battery.

All batteries should be disposed of in accordance with the latest legislation.

**CAUTION: Do not ingest battery, chemical burn hazard.**

The pendant with this product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children.

If the battery compartment is not closed securely, stop using the product and notify your supplier. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

⚠ **WARNING**

THIS PRODUCT CONTAINS A BUTTON BATTERY

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

# Troubleshooting

Reset button
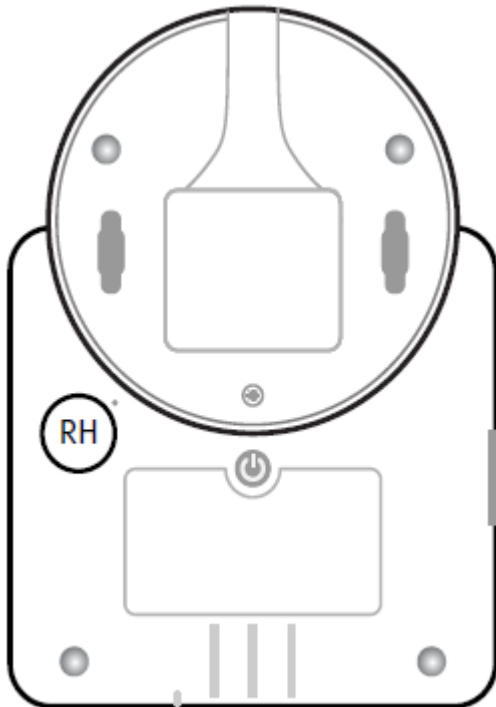
Reset hole (RH) location

The Reset button is accessible through the **Reset hole (RH)**. To do a manual reset of the unit, bypassing On/Off button, carefully push a pin with a dull end through the hole until unit reboot.

After a manual reset the unit will restore alarm and event queues as well as the previous Home/Away state and Presence/Ready state. It will also restore status on whether Radio interference has been reported and whether Mobile network failure, IP network failure or Mains failure alarms and/or events have been reported.
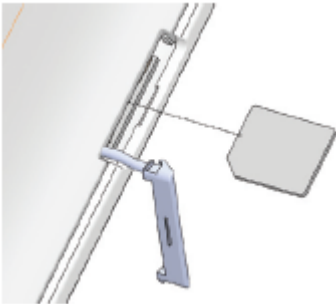
Mounting the SIM card
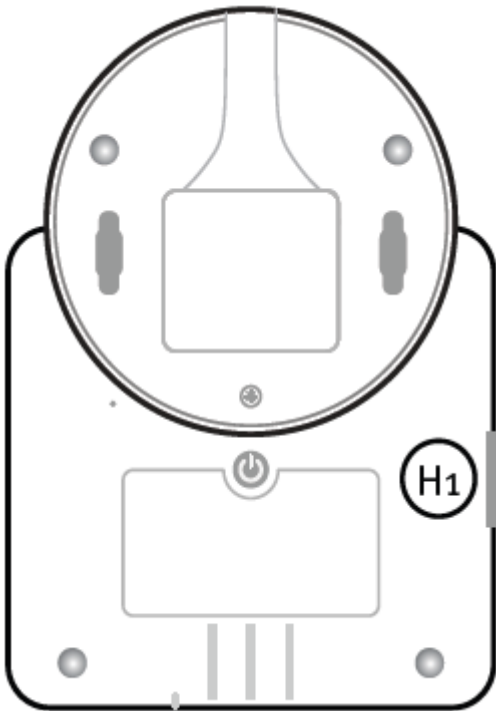
SIM Hatch (H1) location

ℹ️ NOVO IP/4G only support micro SIM (3FFF).

Insert SIM card into SIM slot

1. Power off the unit.
2. Open the SIM-hatch (**H1**). Note that the hatch should not be entirely removed.
3. Insert the SIM card according to the sketch in the bottom label.
4. Refit the SIM-hatch (**H1**).
5. Power on the unit. A reboot the NOVO is required after inserting the SIM-card.

Technical Data

Environment

- Temperature range: +5 - +55°C
- Do not damage the unit or its parts. If damaged, immediately contact authorized personnel.
- Do not expose to direct sunlight.
- Keep away from dust, moist and dirt.
- Do not drop, knock, twist or shake the device.
- Do not warm up the device or use it near fire.

Measurements	175 x 130 x 68 (H x W x D)
Weight	250g (inc. Battery)
Frequency, RF	916 MHz
Communication	IP / 4G LTE
Max transmission power	50.000 µV/m
Recommended AC-adapter - Australia	Model: HK-AP-050A100-AU Input: 100-240V ~ 50-60Hz 0.2A Output: 5V ⎓ 1.0A

Contact Details

Australia

Tunstall Australasia Pty Ltd

ABN 44 059 121 863

Locked Bag 1

985 Kingsford Smith Drive

Eagle Farm QLD 4009

Telephone: 1800 603 377

Fax: 1800 435 570

Sales enquiries: au.sales@tunstall.com

Support enquiries:
au.info@tunstall.com

www.tunstallhealthcare.com.au

New Zealand

Tunstall New Zealand Ltd

Business No. 3502431

PO Box 13153

Tauranga 3110

NEW ZEALAND

Telephone: 0800 488 678

Fax: 07 571 2685

Sales enquiries: nz.sales@tunstall.com

Support enquiries:
nz.info@tunstall.com

www.tunstall.co.nz

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