

User Manual

TA74

TA74+, TA74 GSM, TA74 GSM IO

TA74_UM_EN_V2.2_2018.03



THIS PAGE IS LEFT INTENTIONALLY BLANK

Table of contents

1	Safety	6
1.1	Intended use	6
1.2	Improper use	6
1.3	User qualification	7
1.4	Used warnings and symbols	7
1.5	Safety instructions	7
2	Features	9
2.1	Product comparison	10
3	Scope of delivery	11
4	Product description	12
4.1	Unit description	12
4.2	Emergency call button	12
4.3	Action button ("S" button)	13
4.3.1	Cancel emergency call	13
4.3.2	Take the first incoming call	13
4.3.3	Action button: service call	13
4.3.4	Action button: unit status	13
4.4	Daily button	14
4.5	Sign in / sign out button	14
4.5.1	Sign out	14
4.5.2	Sign in	15
4.6	Device indications	15
4.6.1	Light signals	15
4.6.2	Local voice announcements from the unit	17
4.6.3	Error messages	18
5	Installation	19
5.1	Installation recommendations	19

5.2	Placing the TA74	21
5.2.1	Placing on a surface	21
5.2.2	Wall mounting	21
5.3	Connecting the TA74	22
5.3.1	PSTN connection	22
5.3.2	External telephone connection	23
5.3.3	Ethernet (LAN) connection	24
5.3.4	GSM (cellular network) connection	25
5.3.5	External GSM antenna connection	27
5.3.6	I/O connection	28
5.3.7	Power connection	30
5.3.8	Perform a test	30
5.4	Switch off	31
6	Programming	32
6.1	Programming methods	32
6.2	Vocal reminders	32
6.3	Special key functions	33
6.3.1	Maintenance button	33
6.3.2	Reset the TA74	33
6.3.3	Restore the TA74 to default settings	33
6.3.4	Enter Service mode	34
6.3.5	Exit Service mode	35
6.4	Wireless transmitters 1 and 2 registration	35
6.5	DHCP setting and IP address announcement	36
6.6	Wireless transmitter range test	37
6.7	GSM signal level test	38
6.8	Call progress tones audible	38
7	Additional devices	39
7.1	Wireless transmitters	39
7.2	Necklace installation	40
7.3	Shortening the necklace's cord	41
7.4	Wireless detectors	41

8	Operation	42
8.1	Emergency call to an alarm receiving centre	42
8.2	Emergency call to a landline telephone	42
8.3	Emergency call to a SIP phone	43
8.4	Key functions on a landline telephone or a SIP phone	43
8.5	Taking phone calls	44
8.6	Test instructions	45
9	Maintenance	46
9.1	Cleaning	46
9.2	Device disposal	46
9.3	Replacing the backup battery	47
9.4	Replacing the wireless transmitter battery	50
10	Appendix	51
10.1	Technical specifications	51
10.2	Certifications and approvals	52
10.3	Licences	53
10.4	Conformity	53

1 Safety

This user manual contains important information for a safe installation and operation of the TA74 devices.

A proper installation and configuration of the TA74 is the basis for a reliable communication between persons requiring assistance at home and an alarm receiving centre or telephone.

A prerequisite for the error-free functioning of the unit is that you have read and understood these instructions before using it.

If you require additional information about the TA74, please contact TeleAlarm or visit the website at www.telealarm.com

1.1 Intended use

Intended use means that the TA74 may only be operated within the limits of its technical specifications and in conformity with the information given in these instructions. Any other use will be regarded as misuse and can result in malfunctions and damage.

The TA74 is used:

- as part of a social alarm system to send emergency calls to an alarm receiving centre,
- or as a standalone unit to send emergency calls to a private phone,
- for voice connections between the person who requires assistance and the call receiver,
- as an activity monitor,
- for automatic vocal reminders,
- to receive signals from external wired equipment (e. g. mechanical pull switches) via the input/output connection (TA74 GSM IO only),
- to trigger external wired equipment (e. g. door openers) via the input/output connection (TA74 GSM IO only).

The operator (operating company) is responsible that the TA74 is used as intended. The operator has to ensure that the operating staff fulfil all the required conditions for the installation and utilisation of the unit.

1.2 Improper use

Improper use of the TA74 is any unauthorised and therefore non-permitted usage or modification of the hardware. For any damage resulting from this, the operator of the tool is solely responsible.

The TA74 must not be used:

- as medical reminder,
- as audio baby-monitor.

1.3 User qualification

For the configuration and parametrisation of the TA74, specific tool and device knowledge is required. These tasks may only be carried out by trained and authorised personnel.

The TA74 and the wireless transmitter should be serviced and repaired by an authorized service partner only.

1.4 Used warnings and symbols

Depending on the hazard level, the warnings and notes used in this manual have the following meaning:

**WARNING!**

means that death or serious injury can occur if the mentioned precautions are not taken.

**NOTICE**

means that damage to the equipment or an undesired condition may occur if the mentioned precautions are not taken.

**INFO**

General notes and additional information.

1.5 Safety instructions

Adhere to the following safety instructions to avoid personal injury, equipment damage and malfunctions:

- Do not install the unit near a heating appliance.
- Do not expose the unit to direct sunlight.
- Do not install in a wet or humid environment.
- Never touch the power adapter with wet hands.
- Do not attempt to open the unit or the power adapter.
- When unplugging the unit from the power outlet, never pull on the power cord but always grip the power adapter.
- Connect the TA74 only to a professionally installed 100 - 240 V AC, 50/60 Hz power outlet with an up to 16 A fuse.
- Connect the power adapter in a power outlet near the TA74.
- Do not install the TA74 in the proximity of DECT/GSM telephones, TV sets, large metal objects, microwave appliances or radio telephones. This will impair the reception of signals from the wireless transmitter.

- Use only original equipment for cables and power supply. Any other power adapter could damage the unit. For replacement, use the same type of power supply as the one delivered with the product.
- Use the unit only in the intended country where it has been delivered.
- Electrolytes or gases may be emitted from the battery should it leak under exceptional circumstances. If this happens, deactivate the unit by isolating it from the network and power supply. Battery replacement must be carried out by trained service personnel only.
- Comply with your national regulations, guidelines and requirements for the disposal of end-of-life electrical equipment and batteries.
- Be sure to allow the required space around the device. The TA74 must be easily accessible.
- The wireless transmitter provided with the TA74 contains a button cell battery. If the 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 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.

Electrostatic discharge



NOTICE

The TA74 contains highly sensitive electronic components. It should be opened only in an ESD protected environment. Discharge yourself from electrostatic loads by touching a grounded conductive surface before opening the unit.

2 Features



INFO

In this manual, 'TA74' refers to the models TA74, TA74+, TA74 GSM and TA74 GSM IO.

The TA74 has been designed to ensure maximum security for persons living in their own homes or in locations where assistance could be needed. The device can be used to send emergency calls to an alarm receiving centre or a private phone, using different media and protocols.

The person requiring assistance activates a call by pressing a button on the TA74 or by using a wireless transmitter. This action establishes a voice connection between the person requiring assistance and the call receiver.

The device has two basic operating modes:

1. The TA74 is part of a social alarm system that consists of an alarm receiving centre that can be reached at any time and the device itself. Calls are sent to this alarm receiving centre.
2. The TA74 is operated as a standalone unit, in which case emergency calls will be sent to private phones.

The TA74 can be used with up to 20 wireless transmitters.

The TA74 is able to store up to 10 different recipients (telephone number or IP address). When an emergency call is sent and if the call to the first recipient is not successful, the TA74 will try the next one. If the final number has been dialled unsuccessfully, the unit starts with the first recipient again and continues until it sends an emergency call successfully. A single programmed number will be tried 12 times. The maximum number of dial attempts is set to 15 attempts.

Besides the emergency calls feature, the TA74 offers other useful functionalities such as support of activity monitoring (home/away, intrusion, personal staffing), support of intrusion and motion detectors and 'environmental' peripherals (smoke detectors, gas detectors, flood detectors, etc.), vocal reminders, or wired input/output connection.



NOTICE

Program the internal date and time of the device to ensure that the activity monitoring and vocal reminders features function correctly.

To set the date and time, use the different programming methods described in chapter 6 *Programming*.

**NOTICE**

This unit shall be tested weekly. See section 8.6 *Test instructions*.

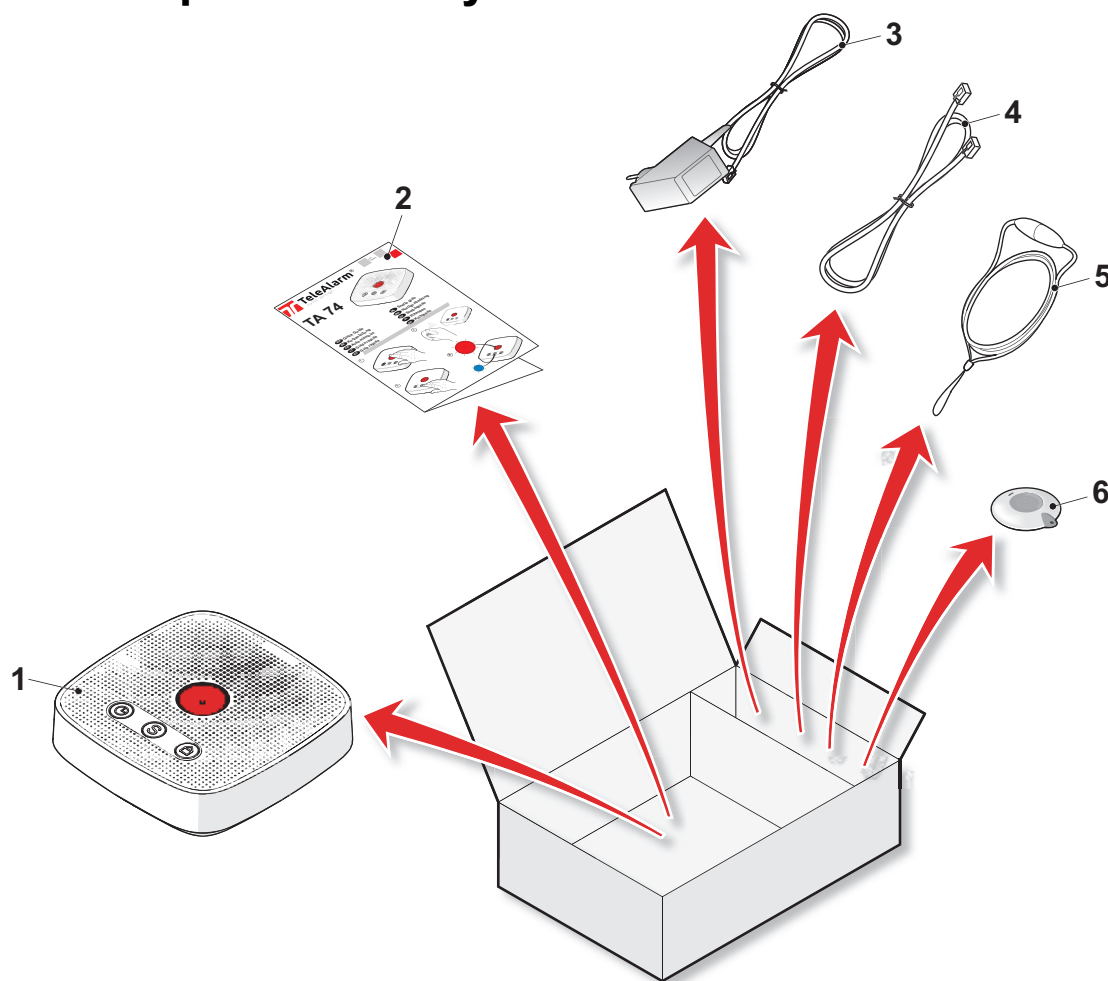
2.1 Product comparison

	TA74	TA74+	TA74 GSM	TA74 GSM IO
Multi-protocol	✓	✓	✓	✓
Recordable voice message	✓	✓	✓	✓
PSTN connection	✓	✓	✓	✓
Ethernet (LAN) connection	✓	✓	✓	✓
External phone connection	✓	✓	✓	(✓)*
Extended alarms types management	✓	✓	✓	✓
Energy saving mode	✓	✓	✓	✓
Vocal reminders	✓	✓	✓	✓
Activity monitoring	✓	✓	✓	✓
Socket for GSM module	✗	✓	✓	✓
Embedded GSM module	✗	✗	✓	✓
Voice call initiation from Alarm Receiving Centre over GSM	✗	(✓)**	✓	✓
Internal Input/Output	✗	✗	✗	✓
Max. number of wireless transmitters and detectors	20	20	20	20
Programmable call destinations	10	10	10	10

*) Only possible with a special external splitter (see also section 5.3.6 *I/O connection*)

**) When the optional GSM module is mounted

3 Scope of delivery



1. TA74 including pre-installed rechargeable backup battery
2. Quick guide
3. Power adapter
4. Phone cable with country-specific telephone plug and optional network cable
5. Necklace or bracelet
6. Wireless transmitter (battery included)

**WARNING!**

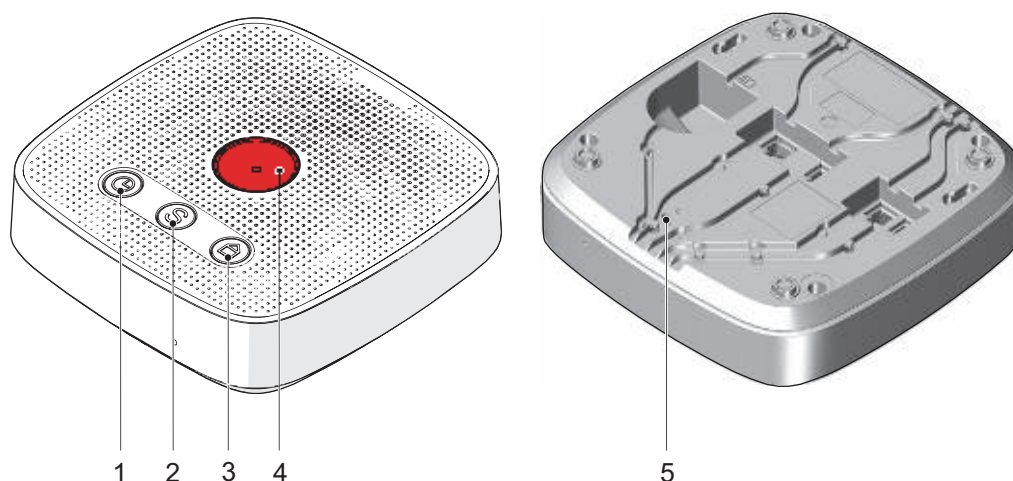
To reduce risk of fire and electric shock, replace only with identical components and parts.

**INFO**

Additional accessories can be supplied on request.

4 Product description

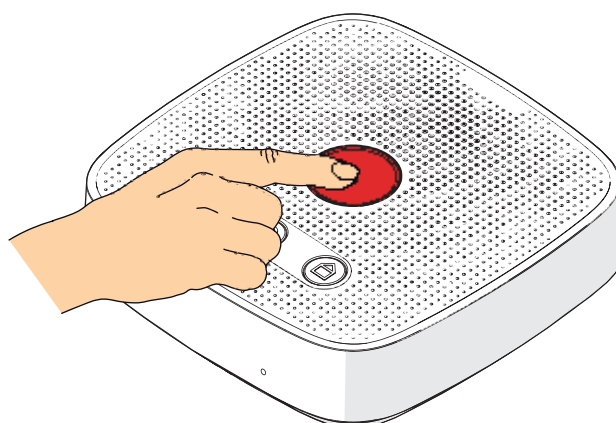
4.1 Unit description



1. **Daily** button
2. **Action** button
3. **Sign in / sign out** button
4. **Emergency call** button
5. **Maintenance** button

4.2 Emergency call button

If you require help, press the **Emergency call** button to initiate a call.



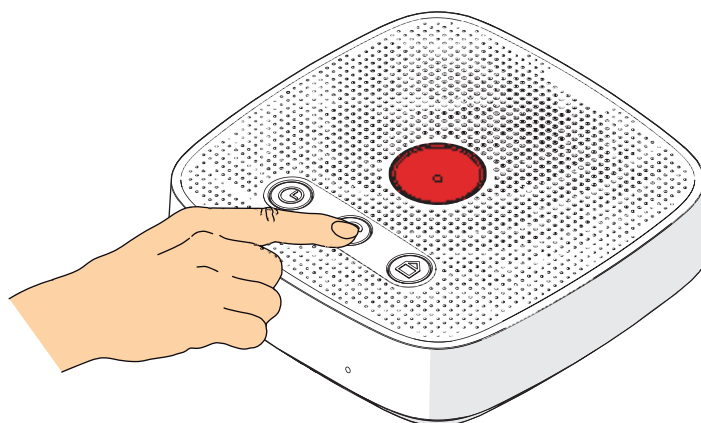
The call will be answered either by a person at the alarm receiving centre or a relative or other individual, according to the programmed destination.

4.3 Action button ("S" button)

4.3.1 Cancel emergency call

If you have pressed the **Emergency call** button by mistake, you can cancel the call with the **Action** button during the pre-alarm time.

Press the **Action** button until the unit announces <Stop>. Calls cannot be cancelled after the pre-alarm time.



4.3.2 Take the first incoming call

If your TA74 is delivered to you unprogrammed, this special function allows you to accept the first incoming call (PSTN connection only).

► Press the **Action** button 3 times within 3 seconds.

If the first incoming call is from your alarm receiving centre that supports this functionality, the operator can start a remote programming session. Refer to the *Reference Manual*.

4.3.3 Action button: service call

The **Action** button can also be used as a service button. If you press the **Action** button and hold it for at least 2 seconds, the unit dials a call number that has been programmed for the service call and you hear the announcement <Service call>.

4.3.4 Action button: unit status

If there is a malfunction the **Action** button flashes.

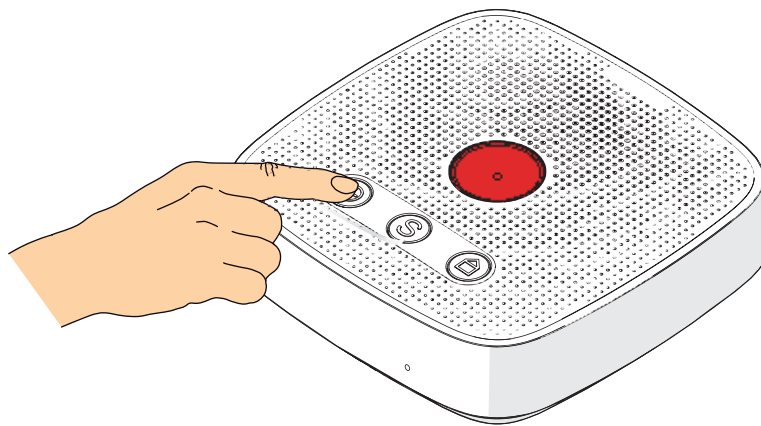
Press the **Action** button to announce the detected problem.

4.4 Daily button

The TA74 has a built-in activity monitor, which ensures that an emergency call is made automatically if the **Daily** button is not pressed within a preset period of time. The light on the **Daily** button lights up when it should be pressed.

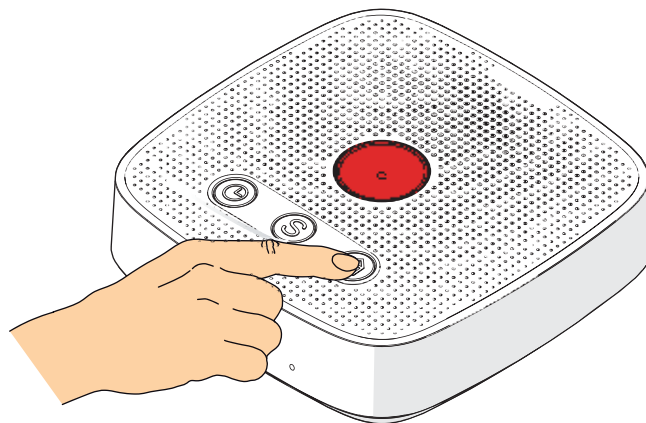
The activity monitor can also be reset by a transmitter. The **Daily** button is also used for presence marking by staff:

- ▶ Press the **Daily** button for 2 seconds upon arrival.
- ▶ Press the **Daily** button for a short time upon departure.



4.5 Sign in / sign out button

Pressing the **Sign in / sign out** button tells the unit whether you are currently at home or not.



4.5.1 Sign out

When you leave home, press the **Sign in / sign out** button. You hear the announcement <Sign out>. The activity monitor is temporarily disabled.

4.5.2 Sign in

When you return home, press the **Sign in / sign out** button again. You hear the announcement <Sign in>.








INFO














Calls can be made with the **Emergency call** button or a wireless transmitter at any time, even after a sign out. This signs you in.








4.6 Device indications











4.6.1 Light signals

The TA74 has four indicator lamps that display the status of the unit. The symbols have the following meanings:

	Lamp shines bright
	Lamp shines dull
	Lamp blinks (0.5 s)
	Lamp blinks twice (0.5 s)
	Lamp flashes (0.1 s)

Status	Description or action	Blue	Red
Initialization	After power on		
Device not programmed	The device will continuously beep 5 times every 10 seconds and the LED will alternatively blink		
Error	Error message is announced once. Press the Action button to repeat. See section 4.6.3		
Standby normal mode	Unit is in standby		
Standby battery operated			
Standby mode with the Action button set as service button			
Pre-alarm	Can be cancelled with the Action button		
Connection	Established connection		

Status	Description or action	Blue	Red
Speak	Speak (indication for the hearing impaired)		
Listen	Listen (indication for the hearing impaired)		
Repeated call	When a call is repeated		
Call activated	If the call is not acknowledged, a new call will be sent		
Callback waiting time	Pressing the Action button acknowledges the alarm		

Status	Description or action	Yellow	Green
Initialization	After power on		
Signed out, normal mode	The Sign in / sign out button has been pressed. The activity monitor is inactive		
Signed out, battery operation			
Signed in, normal mode	The activity monitor is active. Press the Daily button every day		
Signed in, battery operation			
Active time frame, normal mode	Press the Daily button now		
Active time frame, battery operation			
Pre-alarm activity monitor	Cancel with the Daily button		
Sign in by staff			

4.6.2 Local voice announcements from the unit

Voice announcement	Meaning
<Emergency call>	When the Emergency call button is pressed
<Call activated>	Connection failed - unit is calling again
<Stop>	The call is cancelled by pressing the Action button during the pre-alarm time
<Service call>	When the Action button is pressed, if it is programmed as a service button
<Emergency call cleared>	When a repeated call is acknowledged on the unit
<Call ended>	When a callback is acknowledged on the unit
<Radio button [x]>	When a wireless transmitter button is pressed, x being the number of the transmitter, from 1 to 10
<Sign in>	When the Sign in / sign out button is pressed
<Sign out>	When the Sign in / sign out button is pressed
<Activity monitor, press yellow button please>	Message before the activity monitor expires. Press the Daily button to reset
<Activity monitor reset>	When the Daily button is pressed before the end of the time frame
<Activity monitor alarm>	When an activity monitor alarm is sent
<Alarm input>	When the external input is activated (TA74 GSM IO only)

4.6.3 Error messages

Error messages are announced by the TA74 locally and/or by the telephone in phone protocols. When the TA74 is in synthetic speech disabled mode, error messages are only announced by beeps.

Voice announcement	Media	Synthetic speech disabled mode	Meaning and action needed
<Power failure>	Local & phone	1 beep	Main power failure. Check the power connection
<Power restored>	Phone	–	Main power failure restored
<Line failure>	Local & phone	2 beeps	Connection to PSTN or IP network has been lost. Check the connection
<Unit battery empty>	Local & phone	3 beeps	The backup battery is empty. Connect to the main power
<Transmission failure>	Local	4 beeps	Emergency call not sent. Contact the alarm receiving centre
–	Local	5 beeps	Device is not operational. Refer to the <i>Reference Manual</i>
<Failure zero-one>	Phone	4 beeps	Radio frequency jamming. Another radio emitter disrupts the radio signal
<Failure two [x]>	Phone	3 beeps	Wireless transmitter [x] battery empty. Exchange the wireless transmitter battery
<Failure three [x]>	Phone	4 beeps	Wireless transmitter [x] radio transmission failure. Check the wireless transmitter

5 Installation



INFO

Before starting to install and program the TA74, read the safety instructions in chapter 1 *Safety* and the following recommendations carefully.

5.1 Installation recommendations

- Place the TA74 on a flat and non-slippery surface.
- Do not cover the microphone (right-front side of the unit) and the loudspeaker (top of the unit).
- The TA74 must be connected with the original power adapter.
- To send an alarm, at least one alarm receiver (an alarm receiving centre or a private phone) must be programmed.
- The power adapter of the TA74 must be placed at least 10 cm away from the device.
- The power adapter must be plugged into a wall socket in the proximity of the TA74 and must remain easily accessible at all times.
- Construction materials affect the range of the device. For example, reinforced concrete walls hamper the radio signal more than a brick wall.
- Location of the TA74 affects the range of the wireless transmitter. The best place to locate it is a central room.
- For an optimized battery operating time, place the TA74 GSM or TA74 GSM IO at a location where the GSM signal level is as good as possible. In case of a very low GSM signal the battery operating time could be reduced.



NOTICE

When multiple media (PSTN, LAN, GSM) are used during the alarm call sequence, multiple paths are used to transmit the alarm. Therefore, using a combination of transmission methods increases the reliability of the alarm transmission.

This device can transmit alarms over a dial tone PSTN network using analogue protocols like RB2000, TTNew+, CPC or BS8521. As technology advances and competition for broadband bandwidth increases, the PSTN providers will convert to compressed digital transmission for all their voice phone transmissions. Because of this technology change from an analogue to a digital environment, problems can occur. This means that an alarm transmitted using analogue protocols over PSTN becomes difficult and unreliable.

A similar technological limitation concerns the GSM media when using analogue protocols. Indeed, the GSM system converts analogue audio signals into digital form to be compressed and coded onto the radio channel. This means that alarm transmissions using analogue protocols over GSM is not 100 per cent reliable as an alarm transmission method. The alarm might successfully pass sometimes, but it cannot be guaranteed.

A shift to digital IP telecommunication is inevitable and already underway. This is why TeleAlarm strongly recommend the use of digital protocols like RBIP or SCAIP to ensure reliable alarm transmission.

The best way to ensure alarm transmission to the alarm monitoring centre is to vary the connection paths (e.g. LAN and GSM) and the protocol types, preferably digital protocols, within the alarm call sequence of the device.

5.2 Placing the TA74

5.2.1 Placing on a surface

The TA74 is designed for use at home. Many items of furniture are coated with a variety of paints, varnishes and plastics. The feet of the TA74 may leave marks on furniture as a result of chemical processes.

5.2.2 Wall mounting

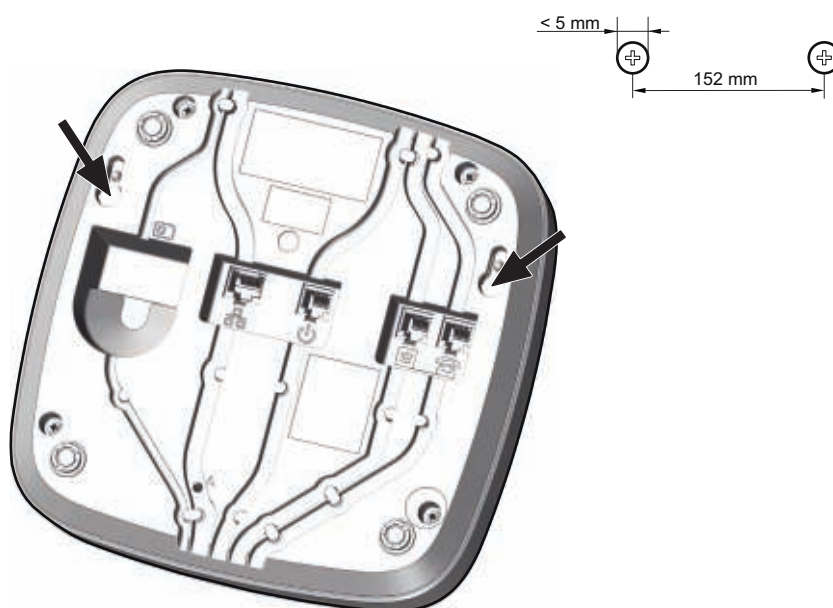
You can mount the TA74 directly onto a wall. You will need two screws with a shank diameter of less than 5 mm and a head diameter between 7 and 9 mm, and two suitable wall plugs.

1. Position the plugs and screws so that the distance between the screw centres measures 152 mm: see the drawing below.
2. Locate the intended location for the screws on the back of the unit.
3. Adjust the screw depth.



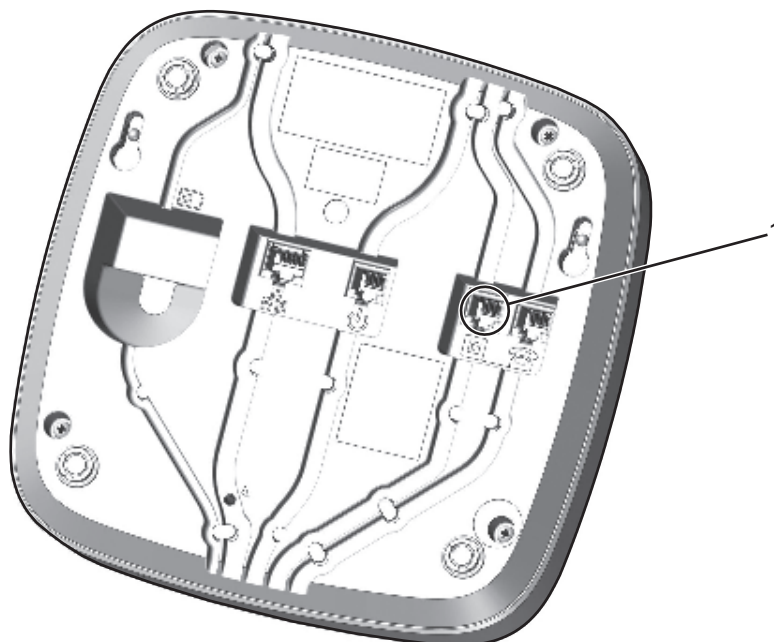
INFO

When the device is mounted on the wall the cable can be fed through the cable channels and through the openings on the front of the unit.



5.3 Connecting the TA74

5.3.1 PSTN connection



1. Insert the plug of the telephone cable into the socket **(1)** on the TA74. Feed the cord through the cable channel and through the opening on the back of the unit.
2. Fit the plug of the telephone cable into the socket of the telephone outlet.

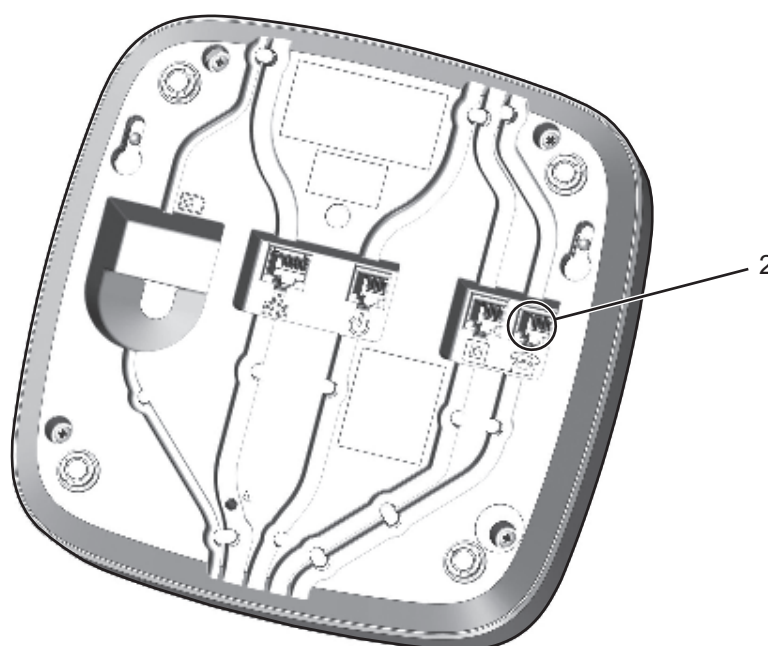


NOTICE

Only connect the unit to a telephone outlet that has been correctly installed by your telephone service provider. The TA74 is designed to be connected to the public telephone network.

5.3.2 External telephone connection

(all models except TA74 GSM IO)



1. Insert the plug of the external telephone cable into the socket **(2)** on the TA74. Feed the cord through the cable channel and through the opening on the back of the unit.
2. Fit the other end of the external telephone cable into your telephone.



WARNING!

Risk to the person in need of assistance from failed emergency calls.

In the event of an emergency, the unit must be able to send out an emergency call even if a phone call is in progress at the time.

To check whether an emergency call can be sent:

1. Make a phone call as you normally would.
 2. When the phone call is in progress, press the **Emergency call** button.
- If the setup is correct, the phone call will be interrupted immediately after the pre-alarm.

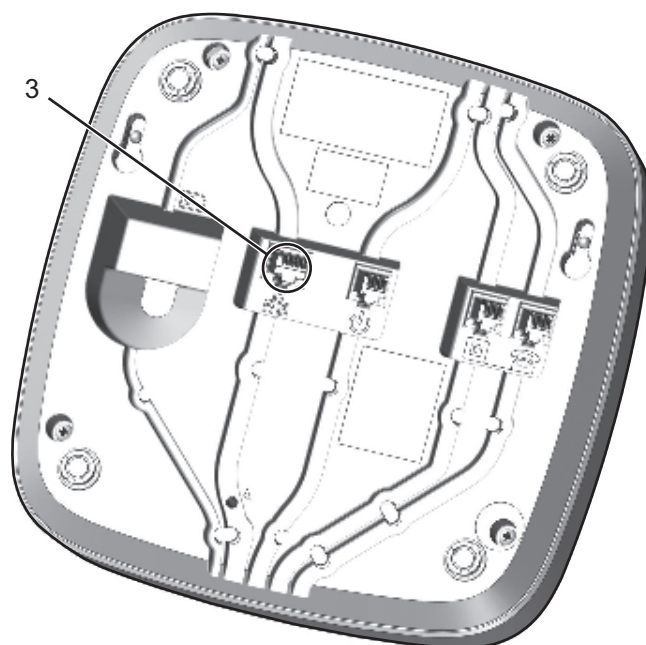


WARNING!

Risk to the person in need of assistance from failed emergency calls.

With a private branch exchange (PABX or a digital box) there is no guarantee that a phone call will be interrupted by the emergency call.

5.3.3 Ethernet (LAN) connection



1. Insert the plug of the network connection cable into the socket **(3)** on the TA74. Feed the cord through the cable channel and through the opening on the back of the unit.
2. According to your installation, fit the other end of the network connection cable into your router outlet or switch.

**NOTICE**

Be aware of potential limitations due to network availability. In case of a DSL or cable equipment, be aware of power failures. Prioritizing an emergency call may not always be possible.

**NOTICE**

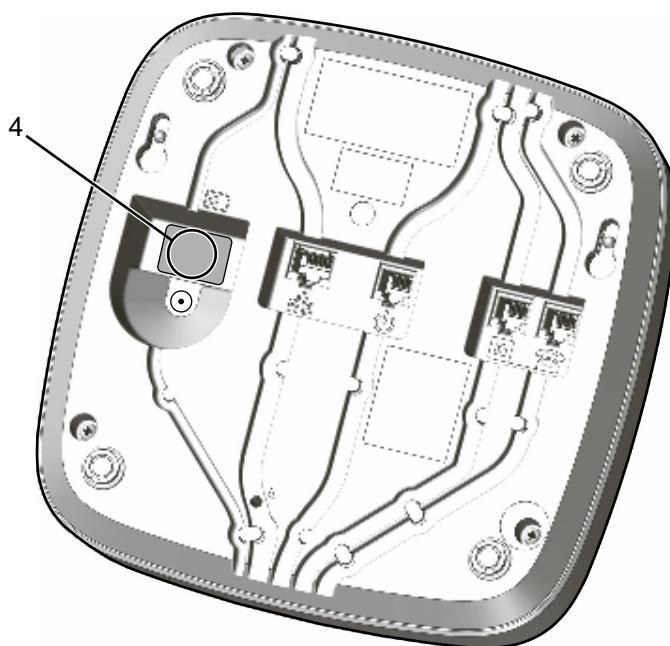
The TA74 shall be connected only to a device with the autonegociation procedure enabled for the Ethernet communication.

**NOTICE**

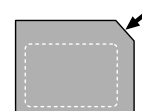
Use only the original flat LAN cable supplied by TeleAlarm.

5.3.4 GSM (cellular network) connection

(TA74+ if a GSM module is installed, TA74 GSM and TA74 GSM IO only)



1. Remove the cover over the SIM socket (4).
2. Open the metal clamp of the SIM card slot by sliding it to the left, and then lift the clamp up.
3. Place a micro-SIM card (external dimensions 15 mm × 12 mm) on the SIM card connector with the cut-off edge in the upper right corner. The contacts must face down.
4. Close the metal clamp and press it gently onto the SIM card then slide it to the right, until it is locked.
5. Replace the cover.



NOTICE

When using GSM connection, it is strongly recommended to use the RBIP or SCAIP protocol (refer to the *Reference Manual* for more information on programming). Other protocols are accepted, but they will be transmitted through the GSM voice band. Quality of the communication depends on the chosen protocol, the GSM signal strength and the service provider.



NOTICE

Be aware of potential limitations due to network availability. Prioritizing an emergency call may not always be possible.



NOTICE

Check the duration and conditions of the SIM contract. Make sure the SIM contract has no restrictions in data connection, voice connection, credit or time. Do not use pre-paid contracts.

**INFO**

The TA74+ is upgradeable by adding an internal GSM module.

5.3.5 External GSM antenna connection

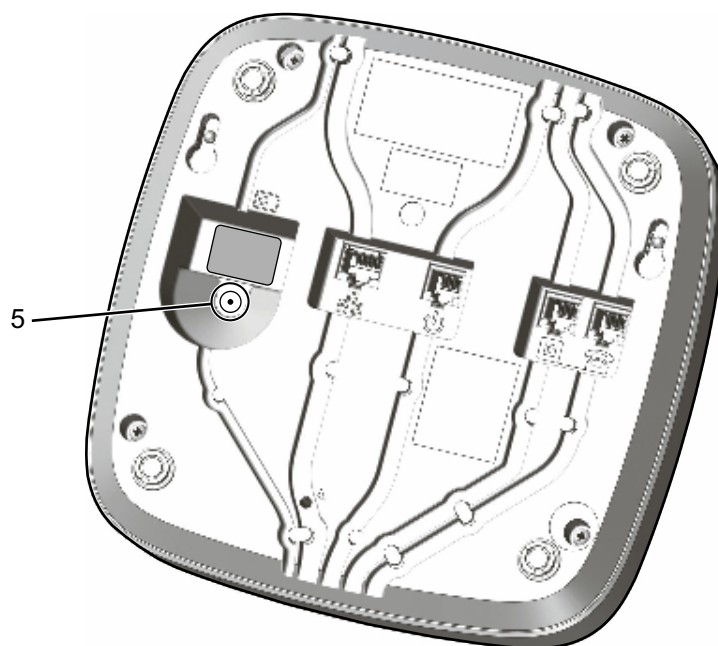
(TA74+ if a GSM module is installed, TA74 GSM and TA74 GSM IO only)

The TA74 is equipped with an internal GSM antenna. If required, an external antenna can be connected.



NOTICE

Connect only an original TeleAlarm antenna, otherwise the functionality is not insured.



1. Remove the power plug from the socket **(6)**, see figure in section 5.3.7 *Power connection*.



NOTICE

The internal date and time are erased and must be set again after reconnection.

2. Connect the antenna to socket **(5)**. Feed the cord through the cable channel and through the opening on the back of the unit.



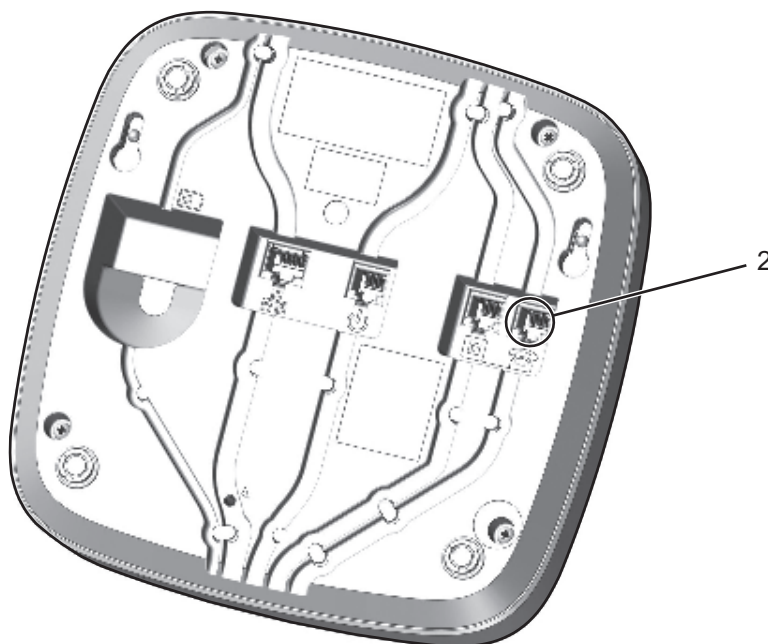
NOTICE

Place the antenna at minimum 1 meter from the TA74. The antenna can be fixed with the magnetic holder, with screws or with the integrated adhesive tape

3. Reconnect the TA74 to the power supply.
 - The device will be restarted and the antenna is activated automatically.

5.3.6 I/O connection

(TA74 GSM IO only)



For the I/O connection of the TA74 GSM IO use the socket of the external telephone **(2)**.



INFO

You cannot connect an external telephone to socket **(2)** of the TA74 GSM IO. It is possible, though, to plug an external telephone together with the phone line to the PSTN connector, using a special splitter. The splitter can be ordered at TeleAlarm.

1. Remove the power plug from the socket **(6)**, see figure in section 5.3.7 *Power connection*.



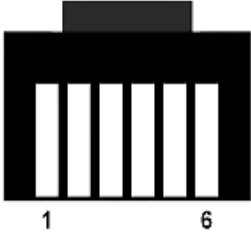
NOTICE

The internal date and time are erased and must be set again after reconnection.

2. Connect the external equipment to the I/O cable.
3. Insert the plug of the I/O cable into the socket **(2)** on the TA74. Feed the cord through the cable channel and through the opening on the back of the unit.

Connector pin assignment

The relay output and an external equipment are connected using a cable with an RJ12 plug.

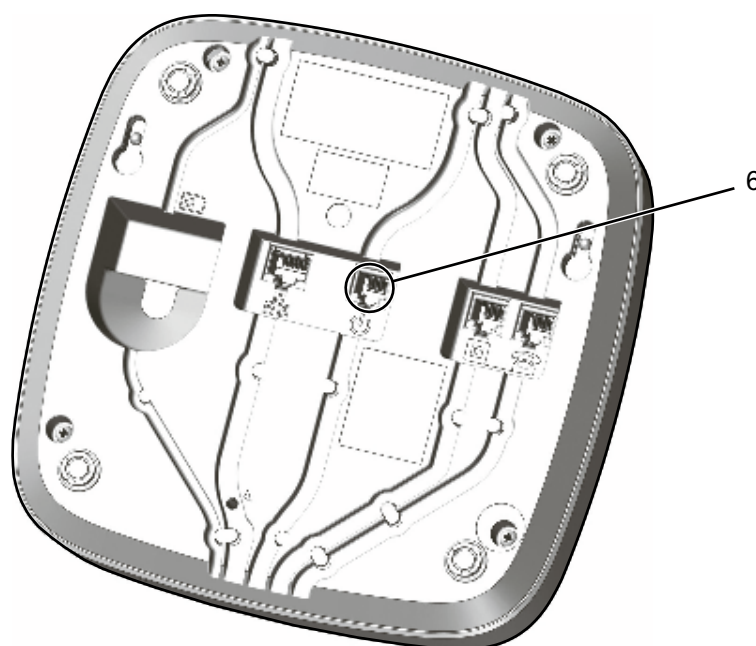
Pin view	RJ12 plug	Function
	Pin 1	External input
	Pin 2	Relay output NO (normally open)
	Pin 5	Relay output C (common)
	Pin 6	External input GND

The TA74 GSM IO provides one isolated, normally open relay contact (1 A, 30 V DC, 0.3 A, 30 V RMS) and one potential-free input.

The external input is pulled by a resistor (Pin 1).

A switch or an external relay can be used to connect the input signal to ground (Pin 6).

5.3.7 Power connection



1. Insert the plug of the power adapter into the socket **(6)** on the TA74. Feed the cord through the cable channel and through the opening on the back of the unit.
2. Plug the power adapter into the power outlet.

All the indicator lights will illuminate up for approx. 2 seconds, this is a battery test. The unit enters into standby mode and can now be programmed (refer to the *Reference Manual* for more information on programming).



INFO

The backup battery will charge up when the TA74 is connected to the main power supply. The specified standby time is available when the battery is fully charged, after approx. 16 hours.

If the unit is disconnected and stored, connect it to the main power supply at least once every 6 months, to allow the battery to charge.

5.3.8 Perform a test

Once the unit is installed and programmed, perform a test immediately by triggering an alarm with the wireless transmitter. See also section 8.6 *Test instructions*.

5.4 Switch off

To switch the TA74 off without battery operation, remove the power plug from the socket (6).



NOTICE

The internal date and time are erased and must be set again after reconnection.



INFO

If you remove the power adapter from your power outlet, the unit announces '**power failure**'. The unit will switch to battery operation.

6 Programming

Before you program the TA74 you must be familiar with all of the unit's functions. Programming is specifically intended for trained and authorized personnel only.



NOTICE

Correct programming of the TA74 is highly important for the full function of the unit. If the device is put into operation for the first time, the red and blue LEDs will flash alternately, and the device will emit five beeps every 30 seconds. This warning signal indicates the need of initial programming.

Please refer to the *Reference Manual* for more information on programming.

6.1 Programming methods

Three programming methods are available to program your TA74:

- The Configuration Manager software
- The TeleAlarm® Cloud Services
- A compatible alarm receiving centre

Please refer to the corresponding documents for more information.



INFO

Check the remote programming possibilities with your alarm receiving centre.

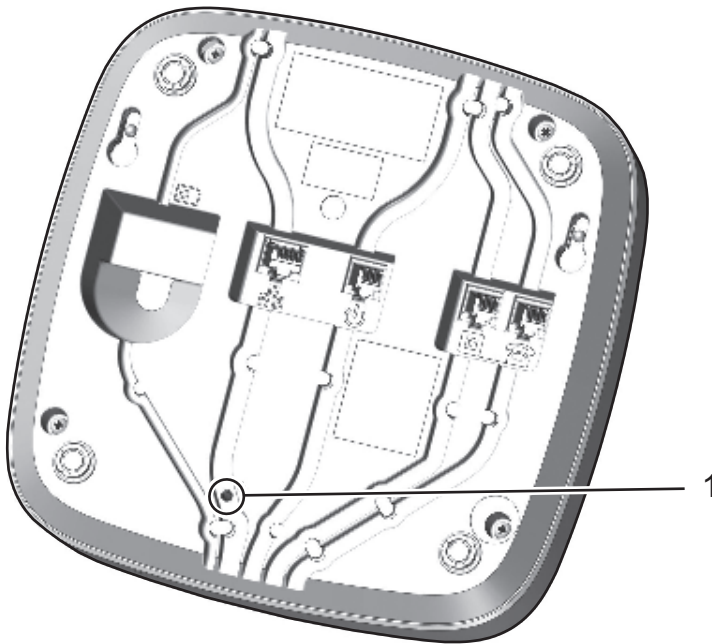
6.2 Vocal reminders

Three reminder messages can be recorded. Each notification can be automatically played on a configured day and time. It is repeated every 20 seconds until the **Daily** button is pressed or the preset time has elapsed. If the reminder message is not acknowledged, the device can send an alert to the alarm receiving centre.

Please refer to the *Reference Manual* and the *Configuration Manager Manual* for more information on programming.

6.3 Special key functions

6.3.1 Maintenance button



To press the **Maintenance** button (1), use something long and thin, such as an unfolded paper clip.

6.3.2 Reset the TA74

1. Press the **Maintenance** button for 0.5 to 2 seconds and then release it.
2. The unit beeps and reboots.

6.3.3 Restore the TA74 to default settings

1. Press the **Maintenance** button for at least 20 seconds.
2. The unit announces <Setup reset>.

The unit is now non-operational. You have to program it with the Configuration Manager or TeleAlarm® Cloud Services. Please refer to the *Reference Manual* for more information on programming.



NOTICE

This function deletes all user settings and restores the default settings.

6.3.4 Enter Service mode



INFO

To enter the Service mode is only possible when the device is on standby (no running alarm).

1. Press the **Maintenance** button for about 6 seconds to enter the Service mode.
 - The unit plays beeps and the blue LED blinks until time out or the **Action** button is pressed.
2. Press the **Action** button once. The unit announces <1>.
 - Press the **Action** button again. The unit announces <2>.
 - Press the **Action** button again. The unit announces <3>.
 - Press the **Action** button again. The unit announces <4>.
 - Press the **Action** button again. The unit announces <5>.
 - Press the **Action** button again. The unit announces <6>.
- If the Action button is pressed again, a new cycle begins and the unit announces <1>, etc.
3. When the desired number is announced, press the **Emergency call** button to access the related feature. Features 3 and 6 play their current status automatically after two seconds.

Service mode features:

Feature	Description
Feature 1	Wireless transmitter 1 registration, see section 6.4, page 35
Feature 2	Wireless transmitter 2 registration, see section 6.4, page 35
Feature 3	Dynamic Host Configuration Protocol (DHCP) mode setting and IP address announcement, see section 6.5, page 36
Feature 4	Wireless transmitter range test, see section 6.6, page 37
Feature 5	GSM signal level test, see section 6.7, page 38
Feature 6	Call progress tones audible, see section 6.8, page 38



INFO

To use feature 4, the wireless transmitter must already be registered into the TA74.

6.3.5 Exit Service mode

The TA74 automatically exits the Service mode after performing feature 1, 2, 3 or 6.
Press any button on the TA74 to exit feature 4 or 5.



INFO

If no button is pressed for eight seconds, the TA74 will automatically exit the Service mode.

6.4 Wireless transmitters 1 and 2 registration

This feature allows the registration of a wireless transmitter to the TA74 (without using any software).



INFO

The wireless transmitter, which is delivered with the TA74, is already paired. Assigning another transmitter using feature 1 will replace the original transmitter with the new one.



INFO

The description below is valid for features 1 and 2.

Assign a wireless transmitter to the TA74

1. Press the **Maintenance** button and use feature 1 or 2.
 - ▶ If needed, see section 6.3.4 *Enter Service mode*, page 34.
 - ▶ It is possible to assign up to two wireless transmitters to the TA74 (the first with feature 1 and the second with feature 2).
2. Press the **Emergency call** button to confirm the feature selection.
3. Press the wireless transmitter button to register the device with the TA74.
4. Press the wireless transmitter button a second time to confirm the pairing between the 2 devices.
 - ▶ After having performed the pairing, the TA74 automatically exits Service mode.

6.5 DHCP setting and IP address announcement

If feature 3 is selected, it will announce the Dynamic Host Configuration Protocol (DHCP) and the IP status.

The first digit corresponds to the state of the DHCP (<0> = disabled, <1> = enabled). The IP address of the device is then announced.

The status of the DHCP could then be set (disabled or enabled).

Switch on/off the DHCP

1. Press the **Maintenance** button and use feature 3.
 - ▶ If needed, see section 6.3.4 *Enter Service mode, page 34*.
 - ▶ The TA74 will automatically announce the DHCP status and its IP address.
2. Press the **Emergency call** button to switch on/off the DHCP.
 - ▶ After performing the change of the DHCP mode, the TA74 exits Service mode automatically.



INFO

If the DHCP is disabled, the device will have a static IP address. See the *Reference Manual* for more information. The default address is 192.168.1.10.

6.6 Wireless transmitter range test

It is possible to set the TA74 into test mode in order to test the radio range of the wireless transmitter. By pressing the wireless transmitter button the TA74 plays an acoustic signal without starting an alarm.



INFO

In order to test the wireless transmitter's range, it must first be registered into to the TA74.



INFO

If no acoustic signals are emitted from the TA74 when the wireless transmitter is pressed, it means that the transmitter is out of range or something is blocking the transmission.

Enter and use wireless transmitter range test mode

1. Press the **Maintenance** button and use feature 4.
 - ▶ If needed, see section 6.3.4 *Enter Service mode*, page 34.
 - ▶ When you enter the wireless transmitter range test mode, a 3-minute timer starts. The unit will automatically exit the wireless transmitter range test mode at the end of the 3 minutes.
 - ▶ The red light flashes every 2 seconds and the TA74 emits a short beep every 5 seconds to indicate that the test mode is enabled.
2. Press the wireless transmitter button.
 - ▶ When the TA74 receives the signal from a registered wireless transmitter, it emits an acoustic signal.
3. Press any button on the TA74 to exit the test mode.



INFO

Every time the TA74 receives a signal from a registered wireless transmitter, the 3-minute timer will reset.

If no signal is received during 3 minutes, the TA74 will automatically return to standby.

6.7 GSM signal level test

(TA74 GSM and TA74 GSM IO only)



INFO

The GSM signal level test mode is only available:

- if the micro-SIM card is correctly inserted in the TA74,
- if the GSM module is configured (SIM card PIN code, provider APN, etc.),

Do not move the device after the GSM signal level test.

Repeat the test at each new location of the device.

This test mode will announce a number between 0 and 5 corresponding to the GSM signal level:

<0> = no signal,

<5> = best signal available.

The message is repeated every 3 seconds.

If an error is sent back, or if the GSM module does not answer, only a beep will be emitted from the device.

Enter and use the GSM signal level test mode

1. Press the **Maintenance** button and use feature 5.
 - ▶ If needed, see section 6.3.4 *Enter Service mode, page 34*.
 - ▶ When you enter the GSM signal level test mode, a 3-minute timer starts. The unit will automatically exit the GSM signal level test mode at the end of the 3 minutes.
 - ▶ The red light flashes every 2 second and the unit announces the GSM signal level every 3 seconds.
2. Press any button on the TA74 to exit the test mode.

6.8 Call progress tones audible

This feature toggles the call progress tone audible parameter of the TA74 when the **Emergency call** button is pressed. See the *Reference Manual* for more information.

Setting of the "call progress tones" functionality:

1. Press the **Maintenance** button and use feature 6.
 - ▶ If needed, see section 6.3.4 *Enter Service mode, page 34*.
2. Press the **Emergency call** button to change the status of the "call progress tones" parameter.
 - ▶ After performing the change, the TA74 announces the new status (<0> = disabled, <1> = enabled) and exits Service mode automatically.

7 Additional devices

7.1 Wireless transmitters

The wireless transmitter that is supplied with the TA74 allows you to trigger emergency calls from any place in your home within radio range.



Always carry the wireless transmitter with you when you are at home.

To make an emergency call using the wireless transmitter:

1. Press the button on the wireless transmitter.
 - ▶ The indicator lamp lights up once as confirmation.
 - ▶ The TA74 announces <Radio button x> (x is the number of the wireless transmitter) and the call sequence starts.

An emergency call made by mistake can be cancelled during the pre-alarm by pressing the **Action** button on the TA74.



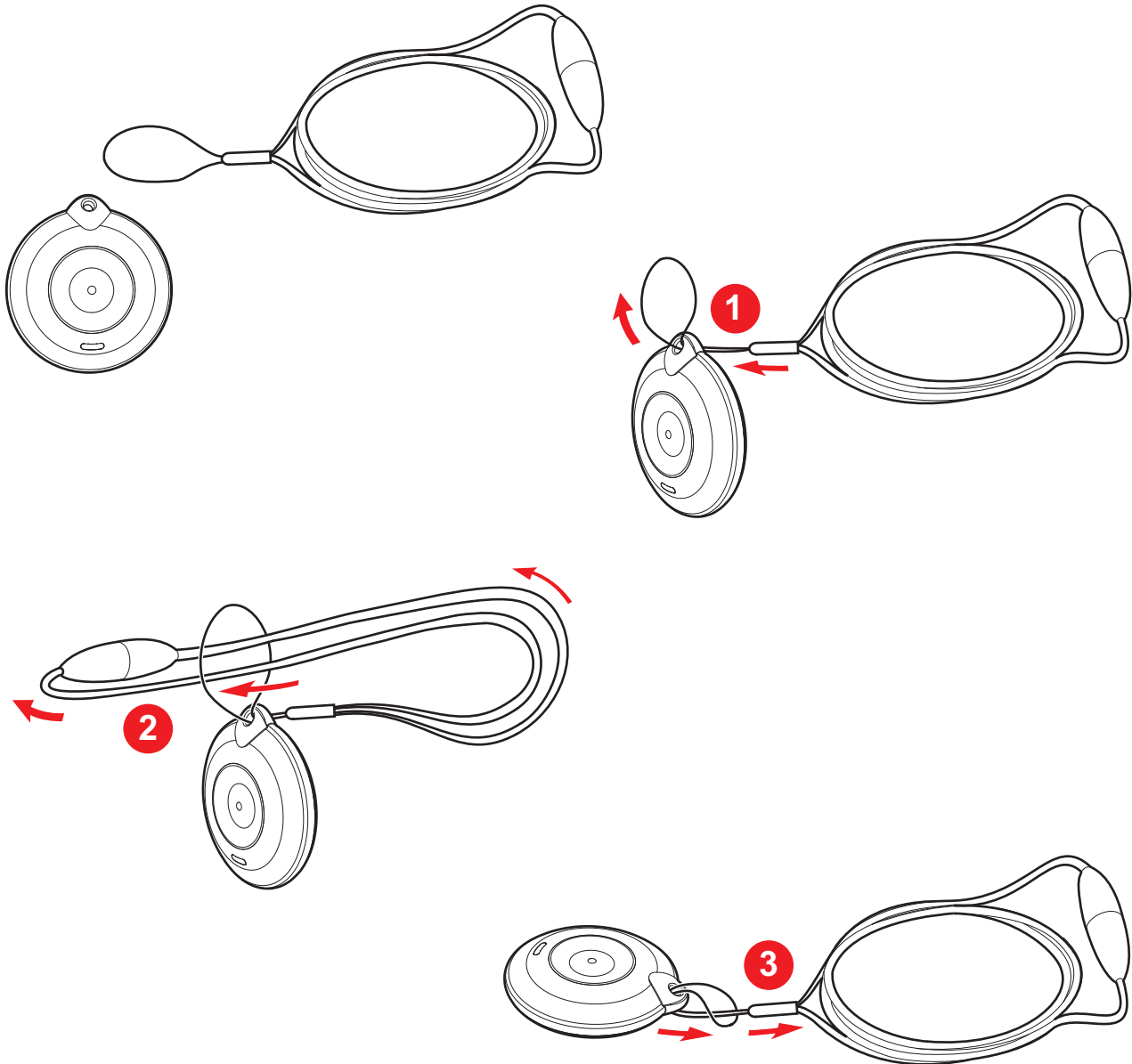
WARNING!

Risk to the person in need of assistance from failed emergency calls.

The radio range between the wireless transmitter and the TA74 depends largely on the environment in which the devices are used. Test the range of the wireless transmitter within your entire home area.

7.2 Necklace installation

1. Insert the thin wire in the hole of the ring.
2. Pass the necklace cord in the loop formed by the thin wire.
3. Pull the necklace cord until the thin wire is passed around the ring.



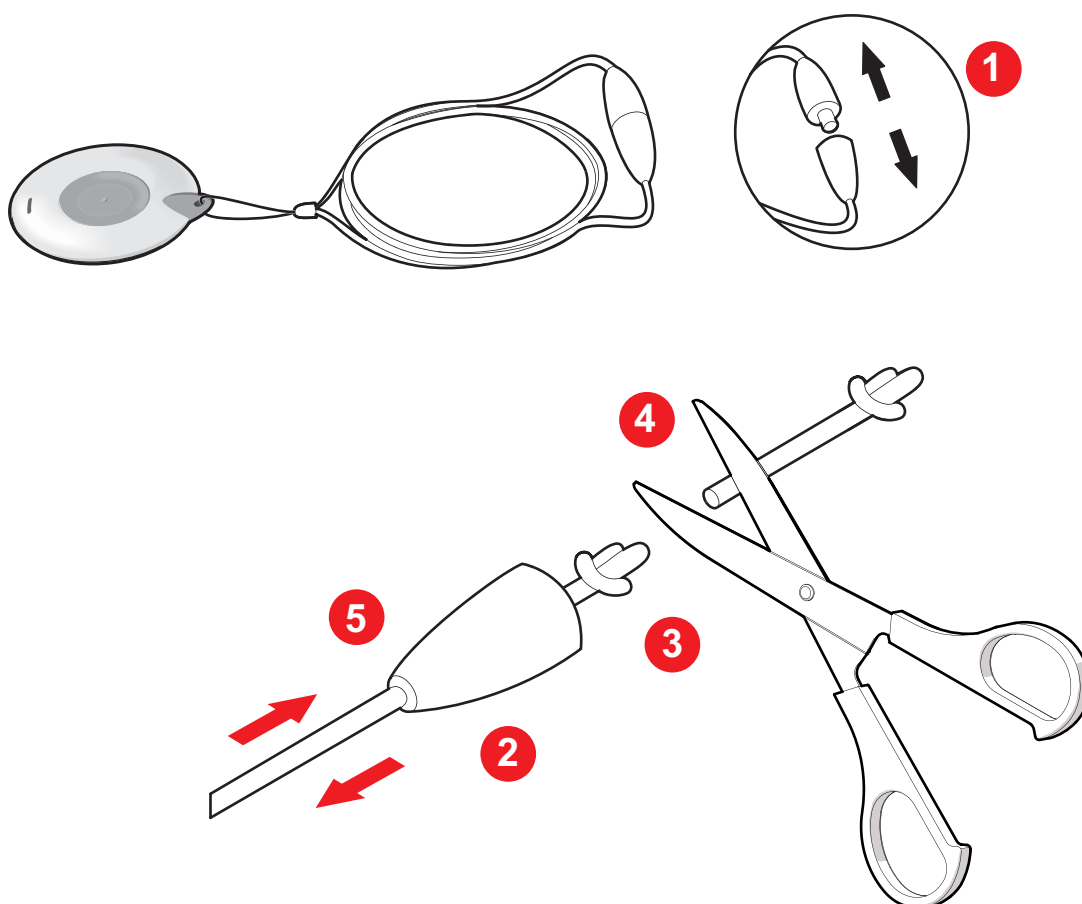
7.3 Shortening the necklace's cord

1. Open the necklace's cord with the two connectors.
2. Push the female connector back to the beginning of the cord.
3. On the cord of the female connector, make a knot at your preferred length.
4. Using scissors, cut the excess cord after the knot.
5. Place the knot in the connector and close the two connectors.



NOTICE

Do not tie knots in the cord.



7.4 Wireless detectors

Up to 20 wireless transmitters can be registered to your TA74. They must be paired to your device to work correctly.

For more information, refer to the *Reference Manual*.

8 Operation

8.1 Emergency call to an alarm receiving centre

How the emergency call is processed at the alarm receiving centre

1. Initiate an emergency call with the TA74 or the wireless transmitter.
2. The emergency call is sent.
3. An operator at the alarm receiving centre takes your call.
4. Speak to the operator.
5. Wait until assistance arrives.

8.2 Emergency call to a landline telephone

The TA74 can be programmed to send an emergency call to a landline telephone or a cell phone via the public switched telephone network (PSTN). The emergency call from the TA74 is received just like a normal phone call.

How the emergency call is received on a landline telephone

1. Initiate an emergency call with the TA74 or the wireless transmitter.
2. The emergency call is sent.
3. The person picks up the phone.
4. The TA74 plays its announcement message, up to the number of times defined in the parameter **Number of announcements when calling a telephone**.
5. The called person must press the key **7** once to accept the call, anytime during the announcement message. The communication is then established in full duplex.



INFO

If key **7** is not pressed on the phone, the TA74 hangs up after playing its message, then continues the call sequence.

6. Once the call has been accepted, the following features are available (see table in section 8.4 *Key functions on a landline telephone or a SIP phone*, page 43).
7. The communication remains active for about three minutes. When it reaches this limit, a 3-beep tone is played regularly to indicate the communication will be stopped. To continue the call for another three minutes, press key **1** twice.
8. Press **0** twice to terminate the call.



NOTICE

If the emergency call is not terminated by pressing **0** twice, the call will not be properly acknowledged. The TA74 will automatically dial the next call number.



INFO

Instead of the subscriber number, a personal message can be recorded, e.g. <This is Mrs. Brown's emergency call unit...>, refer to the *Reference Manual* for more information.

8.3 Emergency call to a SIP phone

The TA74 can be programmed to send an emergency call to a SIP phone. The emergency call from the TA74 is received like explained in section 8.2 *Emergency call to a landline telephone*, except for the following differences:

- Immediate full duplex when the person picks up the phone
- No announcement message
- No need to press **7** to take the call

8.4 Key functions on a landline telephone or a SIP phone

If the destination number is programmed with the telephone protocol or the SIP protocol, the respective key function needs to be pressed twice in order to confirm the selection.

Key	Function
0+0	Terminate and acknowledge the call
1+1	Extend the call by another three minutes
2+2	Repeat the alarm message
3+3	Speak with normal volume to the TA74
4+4	Listen to the TA74
5+5	Increase the volume and speak to the TA74
6+6	Reduce the volume and speak to the TA74
7+7	Interrupts all messages played by the TA74 and switches to duplex mode (two way operation)
8+8 + 0+0	Cancel the repeated call function for the call by pressing 8 then 0 twice respectively
9+9	Reject the call and terminate. The TA74 dials the next number on the list
#+ #	Activate the relay output for 10 seconds (TA74 GSM IO only). INFO: The parameter Activate output must be set to "Remote activation"

8.5 Taking phone calls



INFO

This feature is only available on the PSTN and GSM connection.



INFO

This feature is only available on the GSM connection:

- if the micro-SIM card is correctly inserted in the TA74,
- if the GSM module is configured (SIM card PIN code, provider APN, etc.).

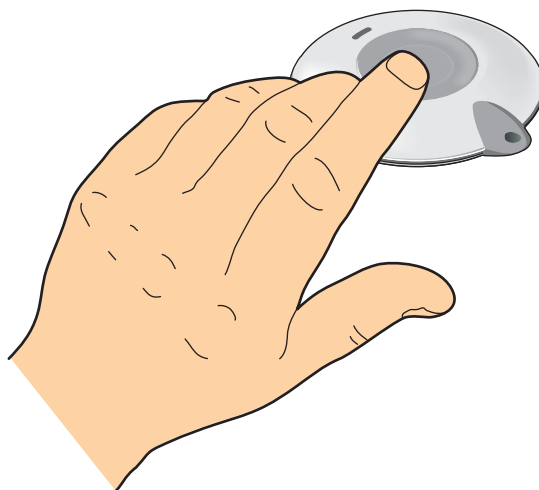
The TA74 can be programmed in order to answer phone calls pressing the **Emergency call** button of the unit, or the button of the wireless transmitter. For this, the parameter **Incoming call recognition** must not be set to "OFF". Refer to the *Reference Manual*.

Taking phone calls with the TA74

1. To answer a phone call with the TA74, press the **Emergency call** button when the phone rings.
2. To terminate the call, press the **Emergency call** button again.

Taking phone calls with the wireless transmitter

1. To answer a phone call with the wireless transmitter, press the button of your wireless transmitter when the phone rings.
2. To terminate the call, press the button of the wireless transmitter again.



8.6 Test instructions

Make sure you perform a test regularly, by sending a manual test alarm with the wireless transmitter. This will test the wireless connection between the wireless transmitter and the TA74. It will also test the connection of the TA74 to the alarm receiving centre.



WARNING!

Risk to the person in need of assistance from failed emergency calls.
Test the emergency call function at least once a week.

Perform a test

Press the button of the wireless transmitter.

- The TA74 should call the alarm receiving centre or the private phone.

9 Maintenance

The installer should perform the following checks:

- Check the unit's housing for damage such as cracks or chips.
- Test the key functions and check that the spaces in between the keys are clean.
- Check the cords regularly for damage.
- Check compliance with safety instructions (see section 1 *Safety*).

9.1 Cleaning

- Regularly clean the surface of the TA74 with a soft cloth. If required, dampen the cloth lightly with a pH-neutral cleaning product.



- Do not spray cleaning products onto the unit housing. The surface of the housing can be damaged by abrasive products or those containing alcohol, cleaning products containing alcohol or vinegar, cleaning products for glass or plastics, disinfectants except Incidur®, methylated spirits, petroleum ether, other aggressive agents.



- If a liquid is spilled into the loudspeaker holes or the buttons of the TA74, simply hold the unit upside down to remove the liquid from the unit. Gently shake if necessary. Perform a test to check proper speech function (see section 8.6 *Test instructions*).

9.2 Device disposal

Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive). To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned. Old backup battery should be handled in the same manner.



9.3 Replacing the backup battery

The backup battery of the TA74 has a limited lifetime and should be replaced after three years, or if the device announces the error <Unit battery empty>. Replace the battery even if the TA74 is powered all the time by the main power.

**NOTICE**

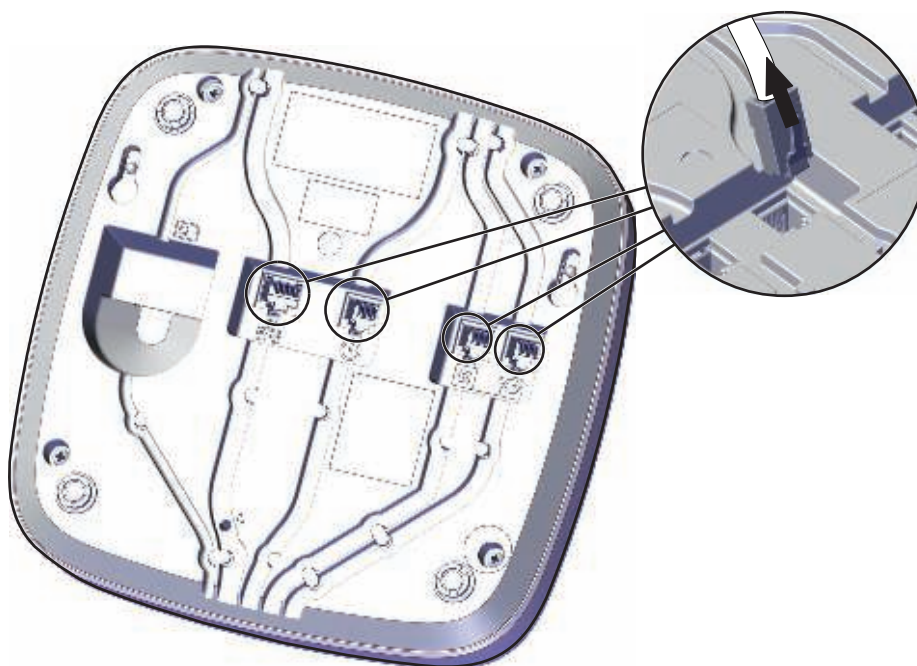
The TA74 should be serviced by trained and authorized personnel only.

**NOTICE**

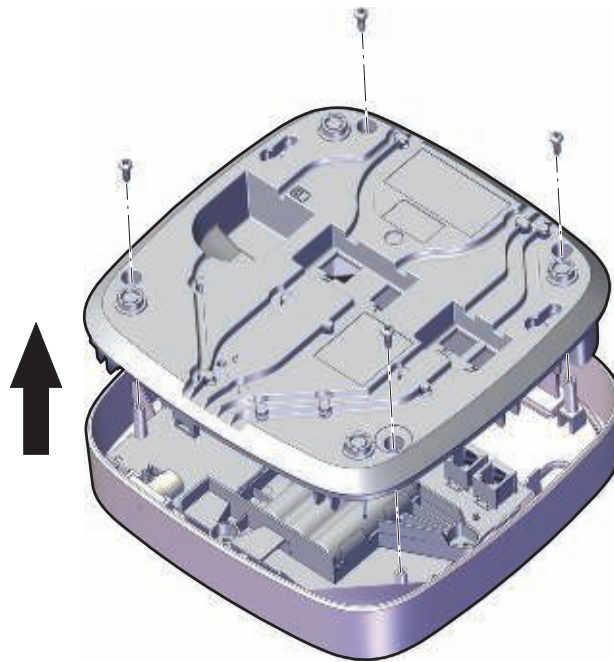
Use only original batteries made for the related device and supplied by TeleAlarm. Any other batteries could damage the unit.

To replace the battery:

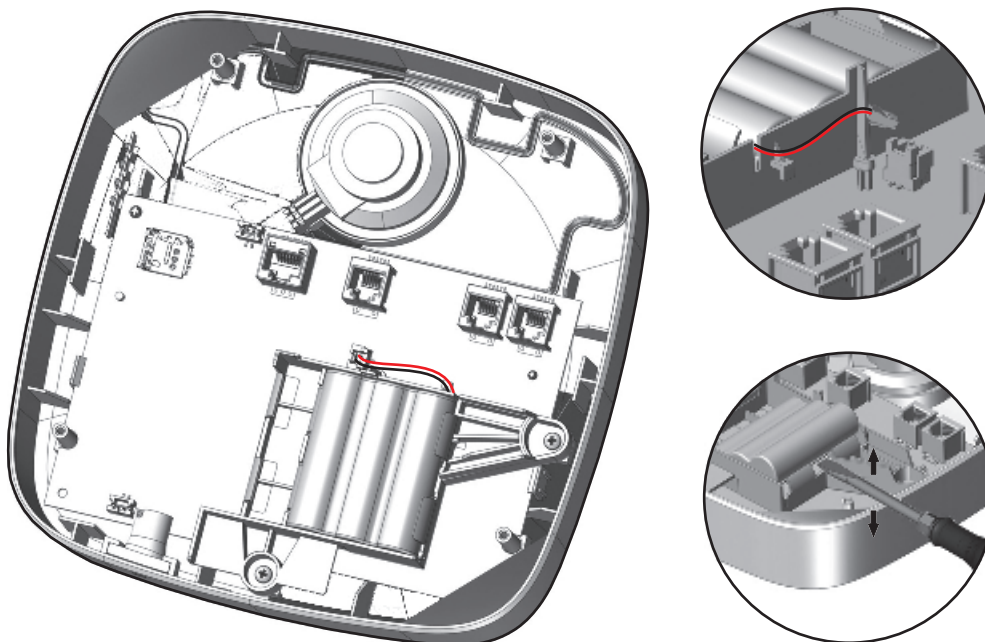
1. Disconnect all the connected plugs from the unit, starting with the power plug.



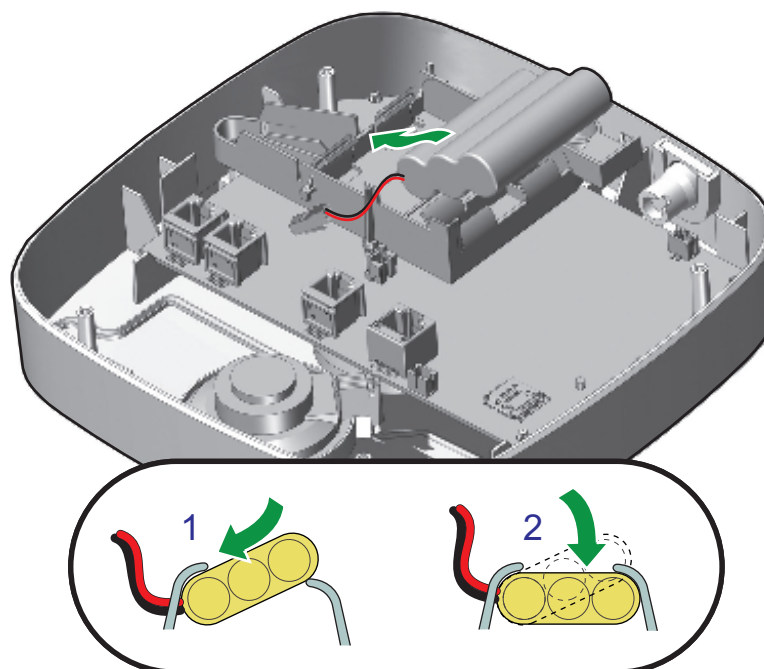
2. Unscrew the four screws on the bottom of the device and remove the back cover.



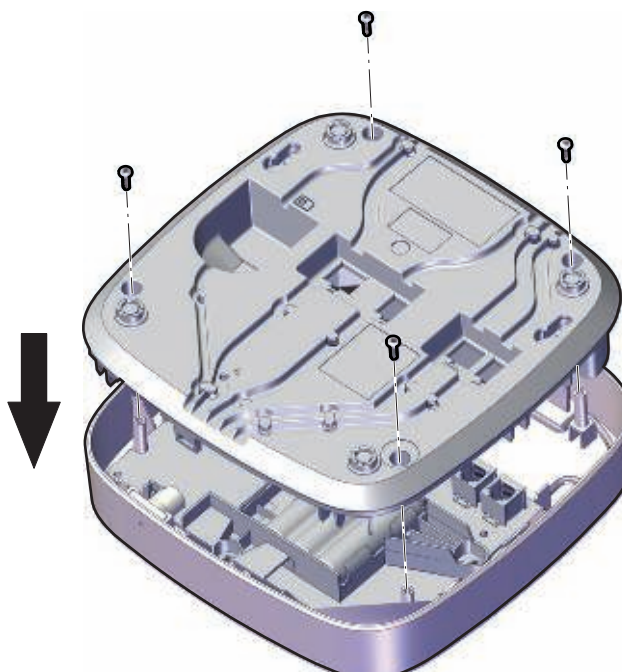
3. Disconnect the plug of the backup battery from the device.
4. Lever off the battery with a screwdriver and release it from the two braces. Pull it out gently from its location.



5. Place the new battery with one brace engaged.
6. Push the side of the new battery over the other brace until it is clipped.
7. Connect the plug of the backup battery to the device.



8. Place the cover back on the device and screw in the four screws.



9. Reconnect all the plugs to the unit, as explained in *section 5.3 Connecting the TA74*.
10. Perform a test as explained in *section 8.6 Test instructions*.
11. Discard the old battery according to *section 9.2 Device disposal*.

9.4 Replacing the wireless transmitter battery

The battery of the wireless transmitter should be replaced when the integrated LED flashes three times when the button is pressed.

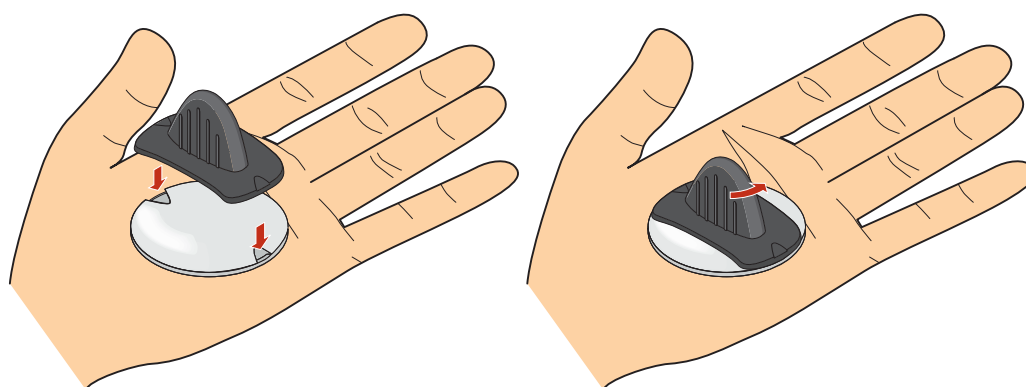


NOTICE

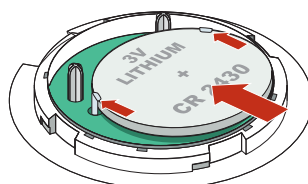
The wireless transmitter should be serviced by trained and authorized personnel only.

To replace the battery:

1. Open the wireless transmitter in using the dedicated tool.



2. Remove the old battery.
3. Insert the new battery (CR2430).



4. Carefully close the wireless transmitter, using the dedicated tool.
5. Perform a test as explained in *section 8.6 Test instructions*.
6. Discard the old battery according to *section 9.2 Device disposal*.

WARNING!



Swallowed button cell batteries can cause severe internal burns 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 a battery has been swallowed or is inside any part of the body, seek immediate medical attention.

10 Appendix

10.1 Technical specifications

Dimensions (H x W x D)	50 x 191 x 191 mm
Weight	approximately 0.6 kg
Permissible temperature	<ul style="list-style-type: none"> – Operation: +5 °C to +40 °C – Storage: - 20 °C to +60 °C
Maximum relative humidity	93%
Altitude	up to 5000 m
Switched-mode power	AC Adapter 100 – 240 V AC, 50/60 Hz, 0.4 A Input, 6.1 V DC, 1.6 A Output
Backup battery	3.6 V NiMH battery, 2.2 Ah
Battery operating time	TA74, TA74+: min. 48 h with one 30 min. call. TA74 GSM, TA74 GSM IO: min. 36 h with one 30 min. call. All values at date of purchase with a fully charged battery
Current consumption	<ul style="list-style-type: none"> – approx. 160 mA in standby with power – approx. 35 mA in standby with battery operation
Communication connections	All devices: PSTN, Ethernet/VoIP. TA74 GSM, TA74 GSM IO: GSM/GPRS/UMTS
Frequency	869.2125 MHz
RF Receiver	Complies with category 1 as specified in EN 300220-1 V3.1.1
Ingress protection class	<ul style="list-style-type: none"> – All TA74 devices: IP32 (IP30 wall mounting) – Wireless transmitter: IP67
Environmental class	Class 1 as specified in EN 50134-3
Max. number of wireless transmitters and detectors	20
Emergency call protocols	Multi-protocol (RB2000, RB2000E, TTnew+, CPC, BS8521, telephone, RBIP, SCAIP, SIP)
Programmable call numbers	10 call destinations freely assignable to any type of trigger group
Volume settings	8 levels
Voice message	Recordable, max. 10 seconds
Hands-free range	> 5 m
Available languages	Dutch, English, French, German, Spanish, and tone only
User guidance	Synthetic speech and LED indication
User assistant	Synthetic speech disabled mode
Programming options	<ul style="list-style-type: none"> – LAN using the Configuration Manager – Remote programming via TeleAlarm® Cloud Services – Remote programming from an alarm receiving centre – Service mode

Connectivity	<ul style="list-style-type: none"> – Phone line (PSTN) – External telephone – LAN/Ethernet (10/100 MB/s) connection – micro-SIM card socket (TA74+, TA74 GSM, TA74 GSM IO) – Internal I/O (TA74 GSM IO only)
Vocal reminders	<ul style="list-style-type: none"> – 3 recordable (15 sec.) reminder messages (timing day/hour)

10.2 Certifications and approvals

CE Directives	LVD 2014-35-EU, EMC 2014-30-EU, RED 2014/53/EU, RoHS 2011/65/EU
Standards complied with	<ul style="list-style-type: none"> – EN 50134-1 – EN 50134-2 – EN 50134-3 – EN 50134-5 – EN 301489-1 V2.1.1 – EN 301489-3 V1.6.1 – EN 62368-1 – EN 62479 – EN 50130-4 – EN 55032 – EN 301 511 V12.5.1 (for GSM module only) – EN 301 908-2 V11.1.1 (for GSM module only) – EN 301 489-7 V1.3.1 (for GSM module only) – EN 301 489-24 V1.5.1 (for GSM module only) – EN 300220-2 V3.1.1 (Category 1 radio receiver)

10.3 Licences

The TA74 firmware contains a library, called lwIP, which is licensed under the BSD licence: Copyright © 2001-2004 Swedish Institute of Computer Science. All rights reserved.

The lwIP library redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.

This software is provided by the author "as is" and any express or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed. In no event shall the author be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this software, even if advised of the possibility of such damage.

10.4 Conformity

All connected parts must meet the electrical insulation requirements of TNV3, EN 60950. The TA74 is designed for operation on the public analogue telephone network, Ethernet or GSM network. The wireless transmitter that is supplied with the unit uses the frequency specially reserved for social alarm calls in Europe.

We, TeleAlarm®, declare that the above mentioned products are manufactured in compliance with EU Directives LVD 2014/35/EU, EMC 2014/30/EU, RED 2014/53/EU, RoHS 2011/65/EU.

THIS PAGE IS LEFT INTENTIONALLY BLANK

THIS PAGE IS LEFT INTENTIONALLY BLANK

TeleAlarm SA
Rue du Pont 23
2300 La Chaux-de-Fonds
Switzerland
www.telealarm.com
© Copyright TeleAlarm SA, 2018

TeleAlarm Europe GmbH
Hertzstraße 2
04329 Leipzig
Germany

Contact in UK
Tel: +44 (0) 333 0124392
info-uk@telealarm.com