PGU GSM GATEWAY

LIFT EQUIPEMENT

www.anepstore.com

SUMMARY

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GENERAL WARNINGS

GENERAL REMARKS

Pay close attention to the warnings in this section, as they provide important guidelines to ensure safe safe installation, correct use and maintenance of the product.

- The device must be used EXCLUSIVELY for its intended purpose, and ANEP cannot be held responsible for any damage resulting from improper use.
- As the product has been designed in compliance with current standards, installation must be carried out within compliant installations that meet the appropriate standards.
- Before carrying out any work inside or outside the product (cleaning, maintenance, etc.), disconnect the unit from the mains and the battery.
- Please contact our SAVTEL service department for repairs.
- Install the product in a well-ventilated room, taking into account the air vents, which must never be obstructed.
- Do not install the product in potentially explosive environments.
- Ensure that the product is installed as specified.
- Do not introduce objects, liquids or dust, and do not use sprays inside the product.
- Packaging components should not be left within the reach of children, as they can be a potential source of danger.
- To get the best possible reception from the 2G GSM network, install the gateway as high up in the building as possible, ideally at the top of the elevator shaft.

NIMH BATTERY RECOMMENDATIONS :

The NIMH battery has a lifespan of between **500** and **1500** charge/discharge cycles, or **between 2 and 3 years**.
If the operating time drops by more than 20% (*see code 52*), this indicates that the battery is nearing the end of its service life.

- no overload
- no deep discharge
- operating temperatures between 10 and 40°C
- no long-term storage

We recommend replacing the battery every 3 years.

WARNING

Risk of explosion if battery is replaced by an incorrect type.Dispose of used batteries according to instructions.

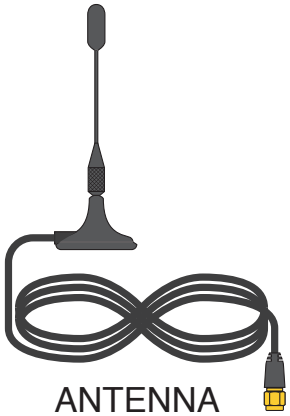
Electrical equipment must be recycled in accordance with Directive n°2012/19/UE of 04/07/12 on waste electrical and electronic equipment (WEEE).

DESCRIPTION

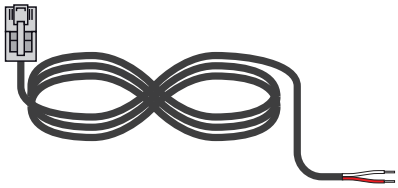
PGU is a device which, when connected directly to a landline telephone or remote alarm system, enables calls to be made and received via the mobile network. A **SIM** card is required for operation.

PGU is equipped with an internal back-up battery (to be connected)

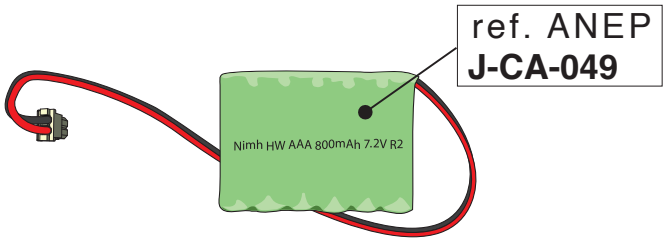
GATEWAY GSM PGU



ANTENNA
(2-meter cord)

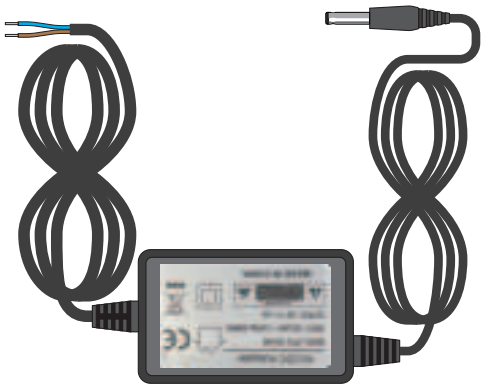


LINE CORD
(2-meter cord)

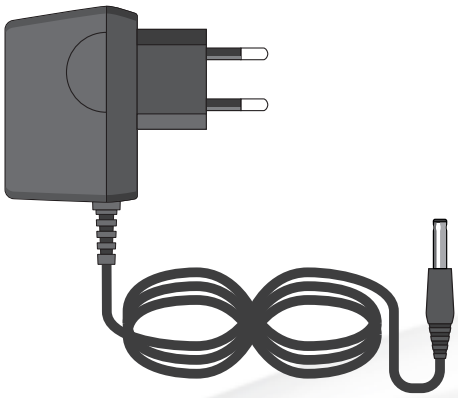


BATTERY
NI-MH 7,2V 800mAh
(To connect)

PGU with 2-WIRE mains unit
ref : **A-EA-017**



Optional :
Power supply socket
ref : **A-EA-015**



MAIN FEATURES

- Local programming via a telephone [DTMF].
- Remote programming via SMS
- Roaming service management
- Check for absence of power supply
- Remote firmware update (**with data package**)
- Checking battery charge level
- SMS power failure notification
- SMS notification of restored power
- Low battery notification SMS
- Power supply status under ANEP protocol
- 2G signal level readout
- Automatic conversion of the selected number
- Setting transmission and reception gains
- Remote reset
- LED signaling mobile network intensity
- LED for device status indication
- LED for line status indication
- LED power status indicator
- Transmission power 2W
- Input for direct 12Vdc supply
- Input for external transformer 230Vac / 12Vdc
- External antenna (cable L = 2m) / (antenna with optional 10m cable)
- External plug or two-wire adapter (input 230Vac 50 Hz, output 12Vdc 500mA)
- Dimensions : 140 x 96 x 28 mm
- Weight: 220g

LEDS

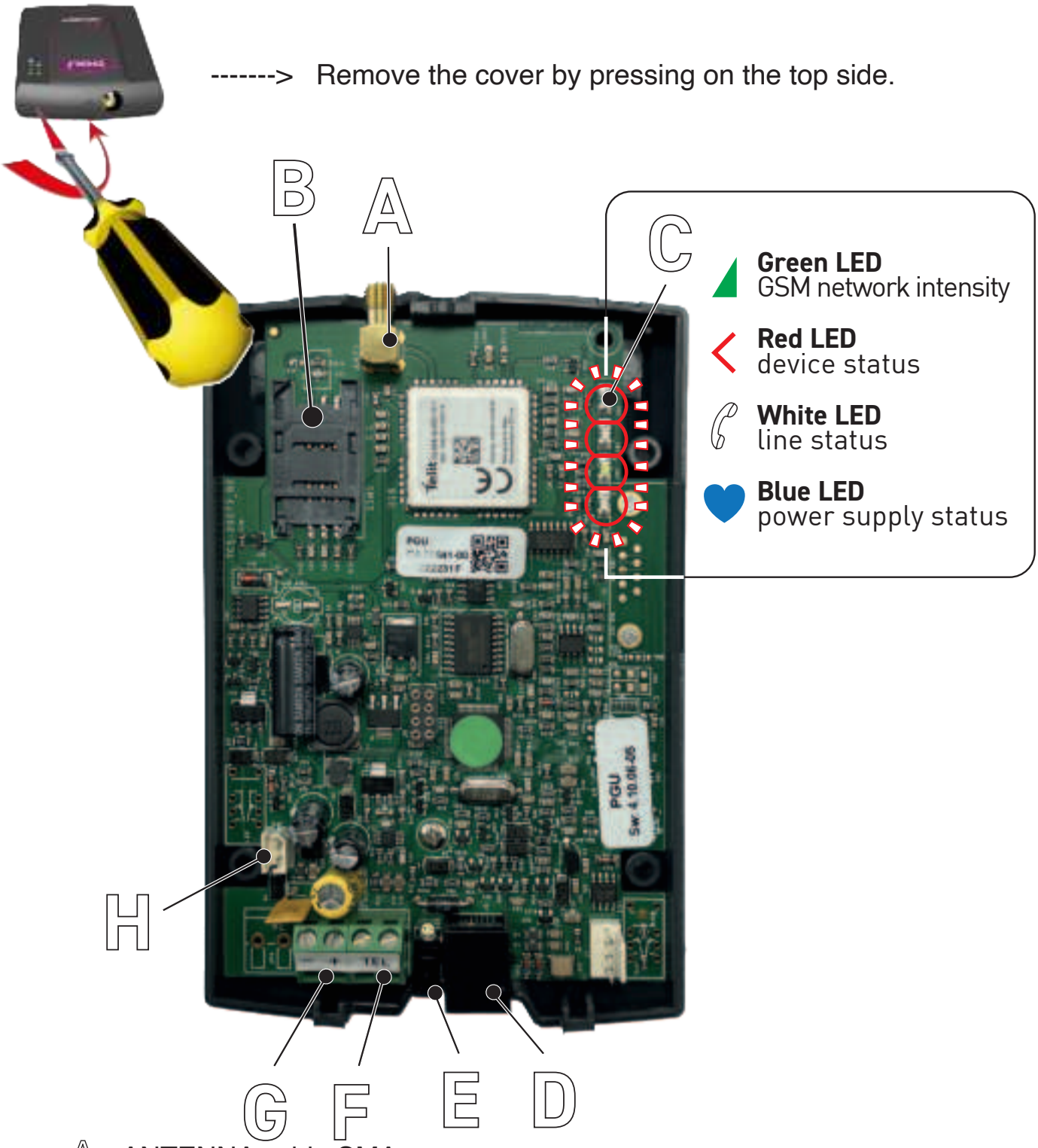
The **PGU** has 4 externally visible LEDs. For the meaning of the flashing LEDs, please refer to the "Signals" section (see pages 42 to 45).

Green LED: 2G mobile network intensity

Red LED: device status

White LED: line status

Blue LED: power status



A ANTENNA cable SMA connector
B SIM card slot (**standard SIM 2FF format**)
C 2G network reception level LED (green)
Device status LED (red)
Line status LED (white)
Power status LED (blue)
D RJ11 connector for connecting a landline telephone or remote alarm system
E Input for external transformer 230Vac / 12Vdc
F Terminal for connecting a landline telephone or remote alarm system
G Connection to external 12V power supply.
H Internal battery connection

INSTALLATION

Installation tips

• The **PGU** gateway must be installed in a place where the radio signal is sufficient for its correct use (Machinery or other or top of shaft). If the 2m antenna is not available, ANEP can supply an optional ANEP can optionally supply a 10m antenna (ref. A-EA-030), or a 5m extension cable (ref. A-EA-025).

• **The gangway must never be installed on the cabin roof.**

• It's important to leave enough space around the device to optimize maintenance operations.

• The **PGU** gateway cannot be installed outdoors, as it is not protected against atmospheric agents (rain, humidity, etc.) that could damage it.

• Do not install the **PGU** gateway near other electronic devices (radio or TV equipment, computers, broadcasting systems, etc.) or magnetic devices (credit cards, tickets, etc.) that may be subject to RF interference from the device: the recommended minimum distance is 2.5m.

• The **PGU** gateway must not be installed near medical devices. Its use may adversely affect hearing aids or pacemakers.

• Ensure that the gateway is authorized for use at the installation site it should not normally be installed in hospitals, airplanes, etc..

Consumption table

Power supply	10Vdc	12Vdc	13,8Vdc	10Vdc	12Vdc	13,8Vdc
	(internal battery disconnected)			(internal battery connected)		
Handset on-hook	30mA	30mA	25mA	40mA	60mA	50mA
Handset off-hook	90mA	80mA	70mA	100mA	105mA	90mA
Conversation	130mA	115mA	110mA	140mA	135mA	130mA
SMS transmission	75mA	60mA	55mA	85mA	80mA	75mA

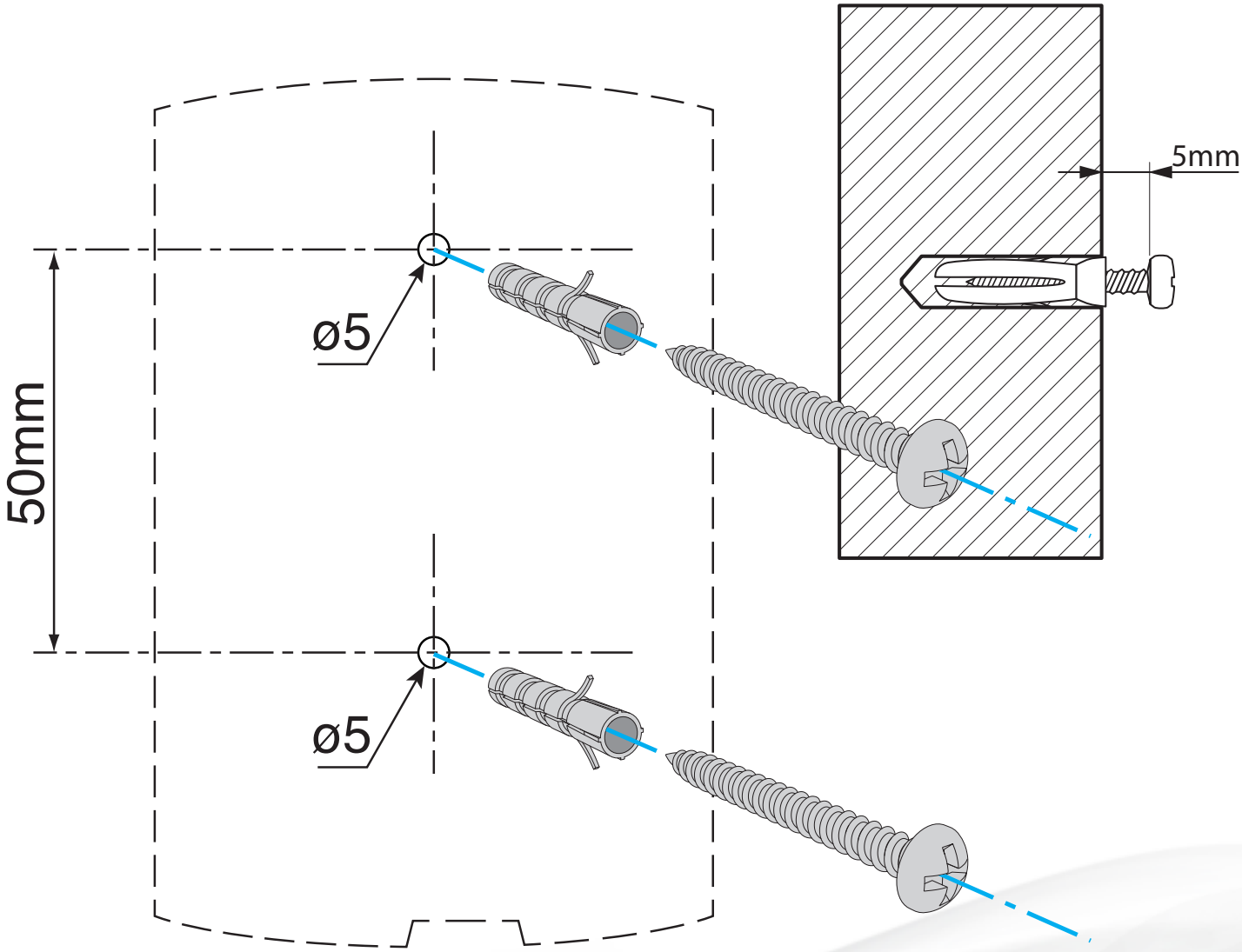
INSTALLATION

1 MOUNTING

Check mobile network strength using the green network strength LED (see "**Signals**" section, page 43).
Locate an area where the GSM signal is sufficient, ANEP recommends 3 flashes of the green LED.

Note: the network may vary depending on the telephone operator.

- Make two ø5 mm holes in the wall, spaced 50 mm apart.
- Insert the 2 wall plugs and screw in the screw up to 5 mm from the wall.
- Insert the **PGU** device through the two rear eyelets onto the 2 screws on the wall.



INSTALLATION

❷ SIM CARD

(STANDARD 2FF FORMAT)

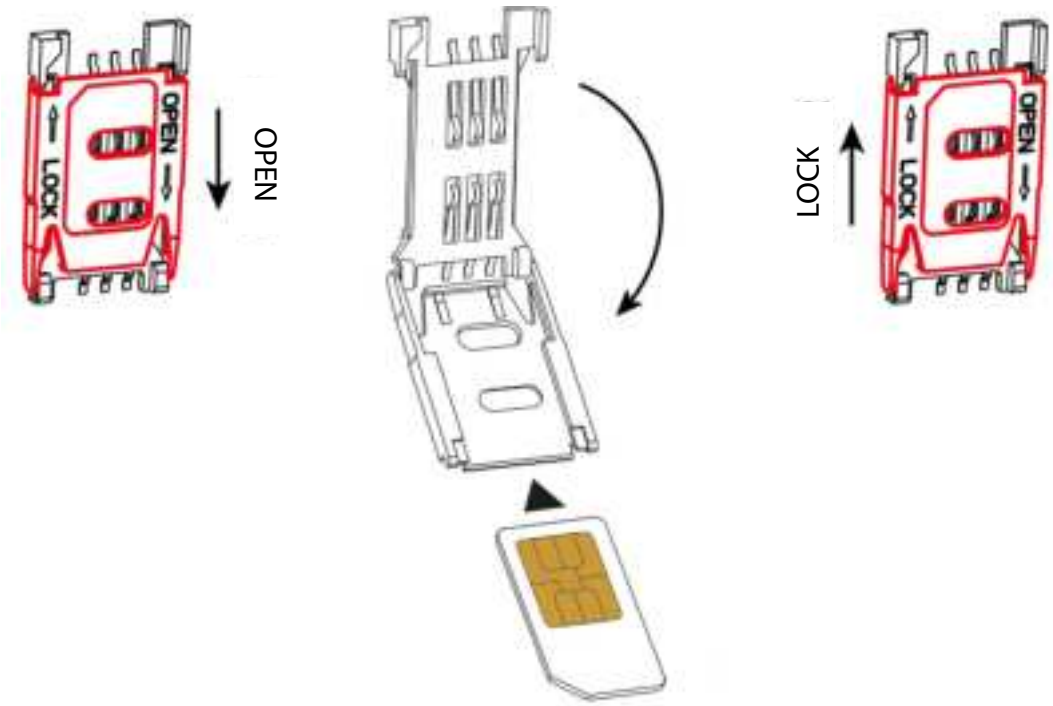
Before inserting the SIM card, make sure you are electrostatically discharged and that the device is switched off to avoid damaging it.

Take every precaution to avoid electrostatic discharge.

⚠ WARNING ⚠

If the SIM card PIN CODE is ON, please refer to page 37 (risk of SIM card being blocked).

Gently push the front of the SIM card slot downwards (until it releases) and lift up	Slide the SIM card into the slot on the front panel	Lower the front part and push it upwards until it locks.



INSTALLATION *(more)*

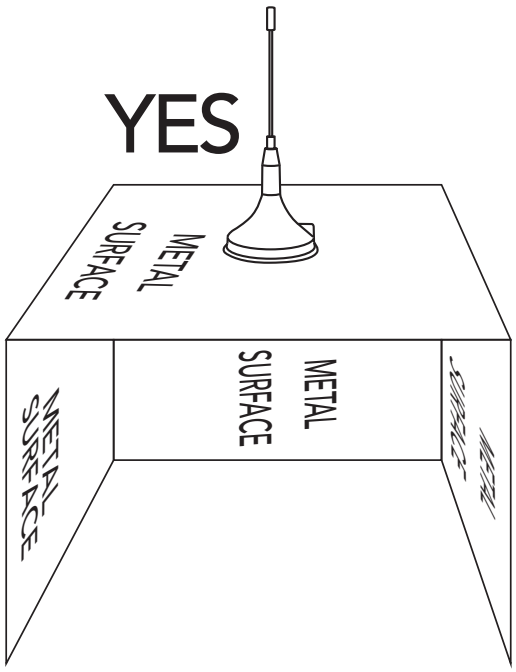
3 ANTENNA

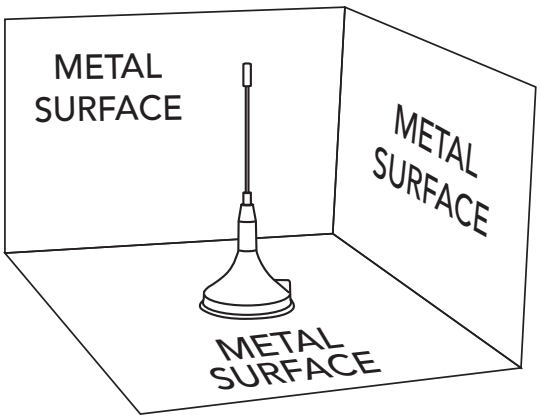
WARNING

To avoid damaging the device, NEVER power the PGUs gateway without first installing the antenna.

Screw the supplied antenna cable (2m) into the SMA connector (**A** in photo on page 8), fully extending the cable.

To ensure correct operation of the **PGU**, position the magnetic base antenna so that there are no metal structures to mask the signal.





WARNING

Do not install this product in the vicinity of other electrical or electronic equipment which is not designed for use with this product, and which may cause interference or disturbance.

INSTALLATION *(more)*

4 REMOTE ALARM

Connect the **PGU** to a landline telephone or remote alarm system via the RJ11 connector (**D** see photo on page 8).

or

Connect the **PGU** to a landline telephone or remote alarm system via the TEL terminal (**F**, see photo on page 8).

ANEP BOX connection diagram

White (Ring)
-52V

Rouge (Tip)
0V

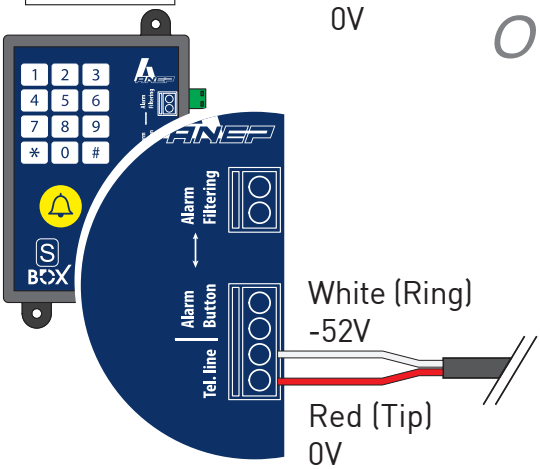
RJ11

White (Ring)
-52V

Red (Tip)
0V

OU

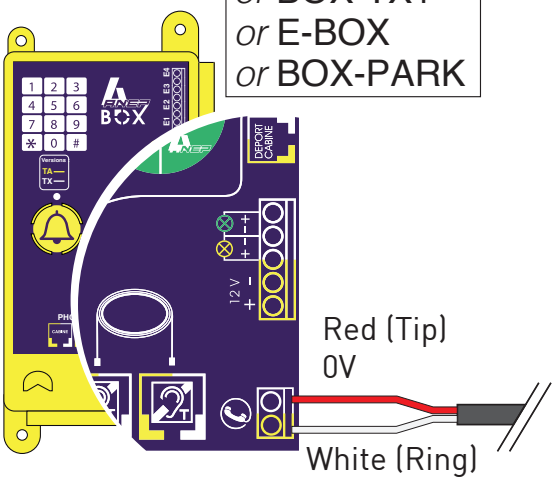
S-BOX



White (Ring)
-52V

Red (Tip)
0V

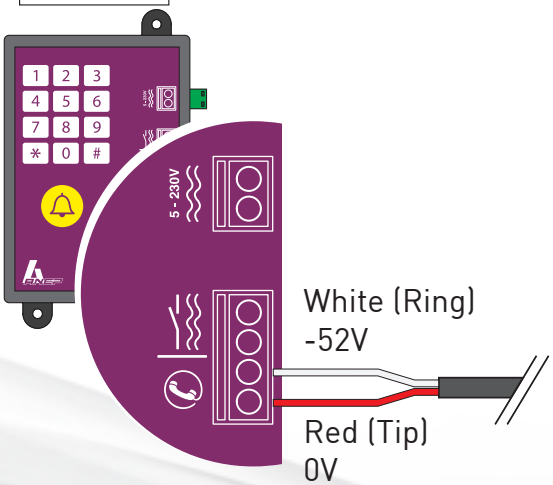
BOX-TA
or BOX-TA+
or BOX-TX
or BOX-TX+
or E-BOX
or BOX-PARK



Red (Tip)
0V

White (Ring)
-52V

BOX-C



White (Ring)
-52V

Red (Tip)
0V

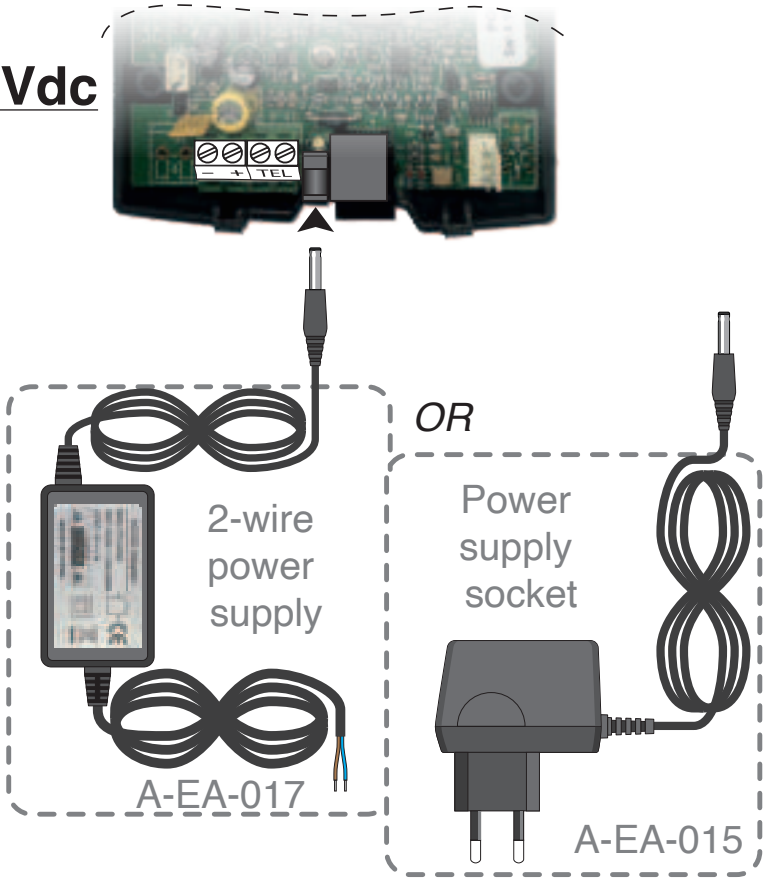
INSTALLATION *(more)*

5 TRANSFO POWER SUPPLY 230Vac / 12Vdc

Power supply via external adapter 230Vac / 12Vdc on **terminal E**

- Connect the external adapter to the appropriate **E** input (see photo on page 8)

Note : It is advisable to install appropriate electrical protection upstream of the product, so as to cut off the power supply in the event of a fault.

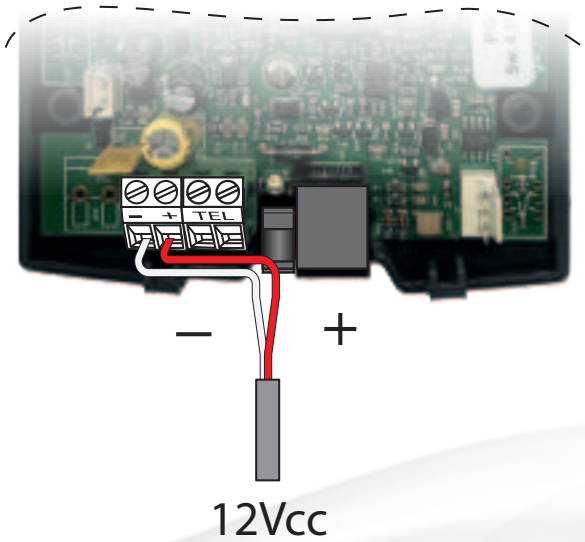


5 OR POWER SUPPLY via 12Vdc direct

Direct 12Vdc power supply (**terminal G**) (see photo on page 8)

- Connect the power cord to terminal **G** (see photo on page 8), observing the correct polarity.

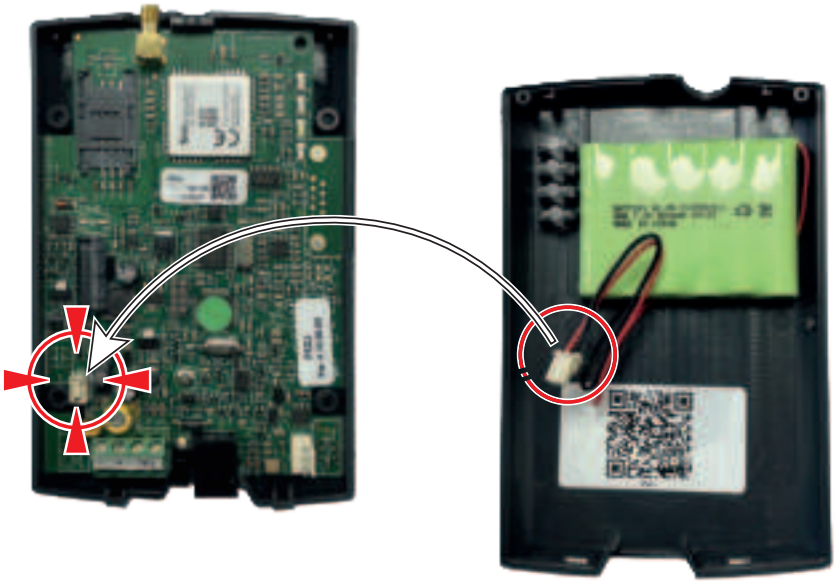
Note : **Maximum** supply voltage is **17Vdc**
Minimum supply voltage is **10Vdc**.



INSTALLATION *(more)*

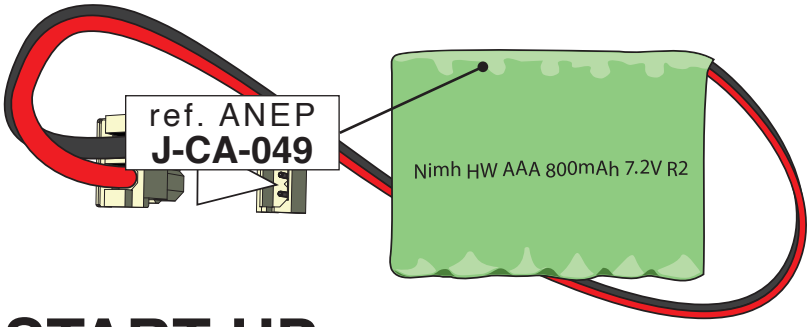
6 BATTERY

- Connect the battery as shown



WARNING
The backup battery must be connected **after** the **PGU** power supply.

- Close the device cover, paying attention to the power cord.



START-UP

- Supply power to **PGU** (see page 14)
- Wait at least 30 seconds to 3 minutes or more for the device to register correctly with the 2G mobile network.
- Ensure that the device status LED (RED) flashes rapidly once every 3 seconds as described in the "Signals" chapter (see page 44).

If the red device status LED flashes faster and stays lit longer (see page 44), the device is not correctly connected to the 2G network,

- Unplug the **PGU** and check that the SIM card is correctly inserted or not blocked by the PIN code.
- See also "**Troubleshooting**" (page 46).

PROGRAMMING BY TELEPHONE

Programming can be carried out manually using a multi-frequency telephone equipped with a keypad..

It is possible to program :

= (unhook)

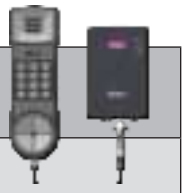
- Setting up the roaming service
- SMS warning number
- Administrator number
- The programming password
- Checking battery charge level
- Checking for absence of mains power
- Automatic conversion of the selected number
- Receiver gain setting
- Transmitter gain setting
- Front-end call number
- Gateway ID number

Note : During programming, no more than 5 seconds should elapse between one digit and the next**.**
At the end of the 5 seconds without digits, you will hear a deterrent tone and will have to hang up.

Note : At the end of each program, if it is correct, you will hear a confirmation tone; if it is incorrect, you will hear an error tone.
In all cases, the selection prompt tone will follow, and it will be possible to proceed with programming and make a call.

Note : Programming is possible even without a network.
The confirmation or error tone is followed by the no network tone.
You can either continue programming or hang up.

PROGRAMMING BY PHONE



Code	Function	format	Description / Information	
2	HOW TO USE	∗∗2X#	X : option from 1 to 4 **1 = by default** 2: recommended mode for remote alarms or other devices controlling line tones 3: recommended mode for remote alarms or other devices controlling line tones 4: recommended mode to reduce possible echoes during communication when connected to remote alarms and other line-tone monitoring devices	
5	BATTERY CHECK	∗∗5X#	X from 0 to 1 **X: 0 activated** X: 1 disabled	
5∗	ITINERANCE (roaming) (1)	∗∗5∗1#	**Roaming enabled by default**	Page 31
		∗∗5∗0∗XXX ∗YY#	Off XXX : MCC from your telephone operator YY : MNC of your telephone operator (When roaming is deactivated, if the gateway registers with a provider other than the one programmed, it is not possible to make or receive calls).	
7∗	DATE TIME	∗∗7∗1∗ ddmmyy ∗hhnn#	ddmmyy jour-mois-année (day-month-year) hhnn heure-minute (hour-minute) deactivate 7∗0∗#	
09	COUNTRY SETTINGS	∗∗09∗X...X#	X...X : the telephone code of the country where the gateway is installed	
		Default: automatic country setting		
10	TRANSMISSION GAIN ADJUSTMENT (2)	∗∗10∗X#	X : choice of 1 (minimum) to 7 (maximum) **4 = default value** (do not modify unless strictly necessary)	Page 31
11	RECEPTION GAIN ADJUSTMENT (2)	∗∗11∗X#	X : choice of 1 (minimum) to 5 (maximum) **3 = default value** (do not modify unless strictly necessary)	

Note: in the "Programming by telephone" table, the factory-set value is shown ***in bold type***.

PROGRAMMING BY PHONE

Code	Function	format	Description / Information
15	CALL CODEC SETTING (VOICE)	**15*X#	X : option, from 0 to 3 **0: EFR (enhanced full rate) and HR (half rate) activated with EFR preference** 1: EFR and HR activated with HR preference 2: EFR on, HR off 3: FR on, HR off
18	TELEPHONE NUMBER FOR ADMINISTRATION	**18*X...X *X...X#	Telephone number with country code (if programmed, this is the only number from which SMS programming is permitted)
		**18#	Deletion
19	PASSWORD PROGRAMMING	**19*X...X *Y..Y*Y..Y#	X...X : old password (max. 3 digits) Y...Y : new password (max. 3 digits) **0 default**
25	AUTOMATIC CONVERSION OF THE DIALED TELEPHONE NUMBER (3)	**25*X...X*Y* Z...Z*Z...Z#	CALL NUMBER ENTRY COUPLING X...X : programming password Y : table position, from 1 to 6 Z...Z : phone number
		**25*X...X*Y#	CALL NUMBER DELETION COUPLING X...X : programming password Y : table position, from 1 to 6
		**25*X...X*#	DELETE ALL CALL NUMBERS COUPLING X...X : programming password
26		**26*X...X*Y* Z...Z*Z...Z#	CALL NUMBER ENTRY ROUTING X...X : programming password Y : table position, from 1 to 6 Z...Z : phone number
		**26*X...X*Y#	DELETE CALL NUMBER ROUTING X...X : programming password Y : table position, from 1 to 6
		**26*X...X*#	DELETE ALL CALL NUMBERS ROUTING X...X : programming password

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PROGRAMMING BY PHONE

Code	Function	format	Description / Information	
30	SIGNAL LEVEL MEASUREMENT NETWORK (4)	∗∗30#	Tone. No network = No network 1 tone = Weak signal 2 tones = Signal Medium 3 tones = Signal Good 4 tones = Signal High	Page 32
34	SIM / USIM AUTHENTICATION	∗∗34∗X#	X : Select from 0 to 1 **x:0 SIM (default)** x:1 USIM	
40	TELEPHONE NUMBER FOR NOTIFICATION	∗∗40∗X...X ∗X...X#	X...X : designated phone number for SMS notifications of battery status, external power failure/restoration, mobile network and for SMS readings of SIM card expiry.	
		∗∗40#	Deletion	
42	TEL. NUMBER ANEP PROTOCOL	∗∗42∗X...X ∗X...X#	X...X : telephone number designated to receive the ANEP protocol	
44	ANEP PROTOCOL IDENTIFIER	∗∗44∗X...X ∗X...X#	X...X : identification number of the BOX (8 digits), or other ANEP product	
52	BATTERY THRESHOLD	∗∗52∗X#	X : Choice from 0 to 7 0 = 7 hours 1 = 6 h 30 2 = 6 h 00 3 = 5 h 30 **4 = 4 heure (by default)** 5 = 2 h 30 6 = 1 h 30 7 = 1 h 00 (Minimum number of hours of operation, in standby mode, guaranteed by battery charge) Below this threshold, an SMS notification is sent.	Page 33

PROGRAMMING BY PHONE

Code	Function	format	Descriptions / Informations
61	TELEPHONE LINE VOLTAGE	**61*X#	X : choice of 0 to 1 0 = 36 Vdc **1 = 52 Vdc**
72	PERIODIC TEST CALL NUMBER	**72*X...X*X....X#	X...X : telephone number to which to send the periodic test
73	PERIODIC TEST MODE	**73*X#	X: periodic test mode **0= CLI call** 1= SMS"
74	PERIODIC TEST PERIODICITY	**74*XX#	XX: frequency, value from 1 to 99 1-10: days 11-99: hours"
75	PERIODIC TEST TIME	**75*HHMM#	HH: Hours, MM: minutes **0400 default value**
81	EXTERNAL POWER SUPPLY FAILURE CHECK (6)	**81*XXYY#	XX : minutes of external power failure, from 01 to 99 YY : minutes to restore external power supply, from 01 to 99
		**81*0#	**Deactivation**

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PROGRAMMING BY PHONE

Code	Function	format	Description / Information	
82	PIN CODE CREATION (7)	∗∗82∗X...X∗X....X#	Pin code limited to 8 digits	Page 37
83	PIN CODE ACTIVATION / DEACTIVATION (7)	∗∗83∗X#	X: activate / deactivate pin code **0= Off** 1= On	
84	PIN CODE MODIFICATION (7)	∗∗84∗X...X∗X....X#	Pin code limited to 8 digits	
91	READING BATTERY STATUS (9)	∗∗91#	Tones : 0 tonalité = Battery missing, not connected, damaged 1 tone = 1 hour 2 tones = 2 hours 3 tones = up to 7 hours 4 tones = more than 7 hours	Page 39
98	RESTART (REBOOT) (10)	∗∗98#	Resetting the gateway does not modify its programming.	Page 40
99	RESET FACTORY SETTINGS (11)	∗∗99#	Restoring factory settings does not change the programming password or the parameters entered for the "Automatic dialed number converter".	

SMS PROGRAMMING

Programming via SMS can be carried out from any cell phone or other device capable of sending SMS messages.

If the administrator number has been configured, programming via SMS is only authorized via this telephone number.

A notification SMS confirming programming is sent from the **PGU** to the number that sent the programming SMS.

WARNING

SMS programming carried out and sent via the Internet may not work if the required format is not respected.

Message format

Each programming SMS must contain the password for access to programming and the codes for the programming to be carried out.

The message format must be as follows:

AN-GWU✱xxx#c..c#

Where :

AN-GWU : start of the programming chain
✱xxx# : password string (fault xxx = **0**)
c..c : programming code as shown in the table below
: programming code separator or end-of-string character

SMS notification of rejected order return : **AN?GWU✱xxx#c..cERR#**

SMS PROGRAMMING

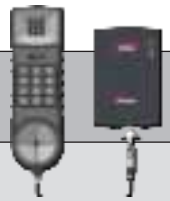
Code	Function	format	Description / Information	
2	HOW TO USE	AN-GWU*0#2X#	X : option from 1 to 4 **1 = by default** 2: recommended mode for remote alarms or other devices controlling line tones 3: recommended mode to reduce possible echoes during communication 4: recommended mode to reduce possible echoes during communication when connected to remote alarms and other line-tone monitoring devices	
		AN-GWU*0#2R	Reading the operating instructions Answer (example) AN?GWU*0#2**1**# => PGU is in mode 1	
5	BATTERY CHECK	AN-GWU*0#5x#	X from 0 to 1 **X: 0 on** X: 1 off	
		AN-GWU*0#5R	Reading of battery charge level control (from PGU gateway)	
5*	ROAMING (1)	AN-GWU*0#5*1#	**On (default)**	Page 31
		AN-GWU*0#5*0 *XXXY…Y#	Off XXX : MCC from your telephone operator Y...Y : MNC from your telephone operator (When roaming is deactivated, if the gateway registers with a provider other than the one programmed, it is not possible to make or receive calls.)	
		AN-GWU*0#5*R	Reading the itinerary	
7*	DATE/TIME	ANGWU*0#7*1* ddmmyy*hhnn#	Format: ddmmyy jour-mois-année (day-month-year) hhnn heure-minute (hour-minute) deactivate 7* 0* #	
09	COUNTRY CODE	AN-GWU* 0#09*X.X#	X...X = country code where the gateway is installed	
		AN-GWU* 0#09R	Reading the country code Answer (example) AN?GWU*0#09*208# => 208 = France	

SMS PROGRAMMING

Code	Function	format	Description / Information
10	TRANSMITTER GAIN (2)	AN-GWU*0#10*X#	X : value, from 1 (minimum) to 7 (maximum) **4 = by default** *(do not modify unless strictly necessary)*
		AN-GWU*0#10R	Transmitter gain readout Response (example) AN?GWU*0#10*4# => set gain to 4
11	RECEIVER GAIN (2)	AN-GWU*0#11*X#	X : value, from 1 (minimum) to 5 (maximum) **3 = by default** *(do not modify unless strictly necessary)*
		AN-GWU*0#11R	Receive gain readout Response (example) (exemple) AN?GWU*0#11*3# => set gain to 3
15	CALL CODEC (VOICE)	AN-GWU*0#15*X#	X : choice from 0 to 2 **0: EFR (enhanced full rate) et HR (half rate) activated with EFR preference** 1: EFR and HR activated with HR preference 2: EFR on, HR off 3: FR on, HR off
		AN-GWU*0#15R	Call codec playback Answer (example) AN?GWU*0#15*2*# => 2 = EFR and HR activated / ANEP
18	ADMINISTRATOR NUMBER	AN-GWU*0#18*X..X*X..X#	*X..X : telephone number with country code (if defined, this is the only number from which SMS programming is permitted)*
		AN-GWU*0#18#	Delete administrator number
		AN-GWU*0#18R	Reading the administrator number Answer (example) AN?GWU*0#18*0# => No. not entered
19	PROGRAMMING PASSWORD SETTING	AN-GWU*19*X..X*Y..Y*Y..Y#	X...X : old password (max. 3 digits) Y...Y : new password (max. 3 digits) **0 default**

Page 31

SMS PROGRAMMING



Code	Function	format	Description / Information	
25	AUTOMATIC DIAL NUMBER CONVERTER (3)	AN-GWU*0#25* X..X*Y* Z..Z*Z..Z#	CALL NUMBER ENTRY COUPLING X...X : programming password Y : table position, from 1 to 6 Z...Z : phone number	Page 30
		AN-GWU*0#25* X..X*Y#	CALL NUMBER DELETION COUPLING X...X : programming password Y : table position, from 1 to 6	
		AN-GWU*0#25* X..X*#	DELETE ALL CALL NUMBERS COUPLING X...X : programming password	
		AN-GWU*0#25* X..X*YR	READ CALL NUMBER PAIRING X...X : programming password Y : table position, from 1 to 6	
26	PREREGISTERED NUMBERS	AN-GWU*0#26* X..X*Y* Z..Z*Z..Z#	CALL NUMBER ENTRY ROUTING X...X : programming password Y : table position, from 1 to 6 Z...Z : phone number	
		AN-GWU*0#26* X..X*Y#	DELETE CALL NUMBER ROUTING X...X : programming password Y : table position, from 1 to 6	
		AN-GWU*0#26* X..X#	DELETE ALL CALL NUMBERS ROUTING X...X : programming password	
		AN-GWU*0#26* X..X*YR	READ CALL NUMBER ROUTING X...X : programming password Y : table position, from 1 to 6	
30	NETWORK SIGNAL LEVEL MEASUREMENT (4)	AN-GWU*0#30#	Level 0, 1 to 4 Answer (example) AN?GWU*0#30*3# => 3 out of 4 signal	Page 32

SMS PROGRAMMING

Code	Function	format	Description / Information
34	AUTHENTIFICATION SIM / USIM	AN-GWU*0#34*X#	X : choice of 0 to 1 **x:0 SIM (default)** x:1 USIM
		AN-GWU*0#34R	Read authentication type Answer (example) AN?GWU*0#34*0# => set to 0
40	NOTIFICATION NUMBER	AN-GWU*0#40*X..X*X..X#	X...X : designated phone number for SMS notifications of battery status, external power failure/restoration, mobile network and for SMS readings of SIM card expiry.
		AN-GWU*0#40#	Deletion
		AN-GWU*0#40R	Read the phone number assigned to receive SMS notifications
42	NUMBER TEL. PROTOCOL ANEP	AN-GWU*0#42*X..X*X..X#	X...X : telephone number designated to receive the ANEP protocol
		AN-GWU*0#42R	Reads the telephone number designated to receive the ANEP protocol
44	ANEP PROTOCOL IDENTIFIER	AN-GWU*0#44*X..X*X..X#	X...X : identification number of the BOX (8 digits), or other ANEP product
		AN-GWU*0#44R	Reading ANEP product identification number (8 digits)

SMS PROGRAMMING

Code	Function	format	Description / Information	
52	BATTERY THRESHOLD (5)	AN-GWU*0#52*x#	X : Choice from 0 to 7 0 = 7 hours 1 = 6 h 30 2 = 6 h 00 3 = 5 h 30 **4 = 4 hours (by default)** 5 = 2 h 30 6 = 1 h 30 7 = 1 h 00 (Minimum number of hours of operation in standby mode, guaranteed by battery charge) Below this threshold, an SMS notification is sent..	Page 33
		AN-GWU*0#52R	Battery threshold reading	
61	TELEPHONE LINE VOLTAGE	AN-GWU*0#61*X#	X : choice of 0 to 1 0 = 36 Vdc **1 = 52 Vdc**	
		Gateway reset required for validation .... 0#98#		
		AN-GWU*0#61R	Telephone line voltage reading Answer (example) AN?GWU*0#61*1# => Value of **1 (52V)**	

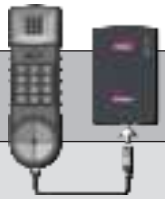
SMS PROGRAMMING

Code	Function	format	Description / Information
72	PERIODIC TEST CALL NUMBER	AN-GWU*0#72* X…X*X…X#	X...X : telephone number to which to send the periodic test
		AN-GWU*0#72R	Reading the periodic test call number
73	PERIODIC TEST MODE	AN-GWU*0#73* X...X*X...X#	X: periodic test mode **0= CLI call** 1= SMS
		AN-GWU*0#73R	Periodic test reading
74	PERIODIC TEST FREQUENCY	AN-GWU*0#74*XX#	XX: frequency, value from 1 to 99 1-10: days 11-99: hours
		AN-GWU*0#74R	Read periodicity of periodic test
75	TIME OF PERIODIC TEST	AN-GWU* 0#75*HHMM#	HH: Hours, MM: minutes **0400 default value**
		AN-GWU*0#75R	Periodic test time readout
77	ACTIVATING THE PERIODIC TEST	AN-GWU*0#77*X#	**0: Off** 1: On 2: Force periodic test
		AN-GWU*0#77R	Read activation of periodic test

SMS PROGRAMMING

Code	Function	format	Description / Information	
82	PIN CODE CREATION (7)	AN-GWU*0#82* X...X*X...X#	X...X: pin code The pin code must be identical to the sim code and limited to 8 digits...	Page 37
		AN-GWU*0#82R	Lecture du code PIN création	
83	PIN CODE ACTIVATION / DEACTIVATION (7)	AN-GWU*0#83*X#	**0: Off** 1: On	
		AN-GWU*0#83R	Read pin code activation/deactivation	
84	PIN CODE MODIFICATION (7)	AN-GWU*0#84* X...X*X...X#	X...X: Pin code The pin code must be identical to the sim code and limited to 8 digits..	
		AN-GWU*0#84R	Read pin code modification	
90	GATEWAY TYPE IDENTIFICATION (8)	AN-GWU*0#90#	AN?GWU*0#90PGU*209080500 Jan 18 2019 08:52:32 BGS2-W REVISION 04.030 A-REVISION 01.000.26 359206065733230#	Page 38
91	READING BATTERY STATUS (9)	AN-GWU*0#91#	Answer (example) AN?GWU*0#91*x# X : Choice from 0 to 4 0 = Battery missing, not connected, damaged 1 = 1 hour 2 = 2 hours 3 = up to 7 hours 4 = up to 7 hours	Page 39
97	REMOTE UPDATE	AN-GWU*0#97#	Remote gateway firmware update ***(DATA PACKAGE REQUIRED)***	
98	RESTART (REBOOT) (10)	AN-GWU*0#98#	Nota : Resetting the gateway does not modify its programming.	Page 40
99	FACTORY SETTINGS RESET(11)	AN-GWU*0#99#	Return to default settings	

SMS PROGRAMMING



Code	Function	format	Description / Information
C F G	APN SELECTED	AN-GWU*0#RCRFRG	Answer (example) AN?GWU*0#**C***objcobytel.com#**F**#**G**#
		AN-GWU* 0#Cx#Fy#Gz#	**x :** Operator APN (APN = Operator's Network Access Point) **y** : APN user *(in option)* **z** : APN password (optional) ORANGE -> AN-GWU*0#Corange#Forange#Gorange# BOUYGUES -> AN-GWU*0#Cmmsbouygtel.com#F#G# BOUYGUES -> AN-GWU*0#Cobjcobytel#F#G# -> (VoLTE) SFR -> AN-GWU*0#Csl2sfr#F#G# -> (VoLTE) Writing example (APN reset) AN-GWU*0#**C**#

(1) COUNTRY CODES / OPERATORS

MCC : cell phone country code

208: France

212: Monaco

MNC : mobile network code

01: Orange

10: SFR

20: Bouygues

10: Monaco Telecom

(2) GAIN SETTINGS

CODE	CODE	
10	**11**	See programming tables by PHONE or SMS

These settings allow you to adjust the gain of the transmitter and receiver.

WARNING

The default values stored are the optimum ones, modify them only if really necessary.

Transmission

Choice from 1 to 7,
If version > 04.10.06 : (by default) 6 otherwise 4

Reception

Choice from 1 to 5,
Default: 1

(3) AUTOMATIC CONVERSION OF DIALED PHONE NUMBERS (ROUTING AND PAIRING)

CODE	CODE	
25	26	See programming tables by PHONE or SMS

If the function is activated, instead of dialing the telephone number from the connected telephone (BOX-TA remote alarm or other telephone device), the gateway forwards the call to a predefined number.

Up to 6 telephone numbers can be preset, each of which can be combined by programming and/or activating the function.
Each of them can be associated, by programming and/or automatic learning, with a dialed number.

If the number dialed is not associated with a preset number, the call is automatically transferred to the first preset telephone number.

Nota : To activate the "Automatic Converter" service, simply pre-select a telephone number.

To deactivate this service, all pre-selected telephone numbers must be deleted.

Example: Preset table

Location	Selected phone number (code 25)	Predefined telephone number (code 26)
1	0123456789	0601020304
2	0123456790	0601020305
3	0123456791	0601020306
4	0123456792	0601020307
5	0123456793	0601020308
6	0123456794	0601020309

By selecting the telephone number 0123456789, the gateway will make a call to 0601020304

By selecting the telephone number 0123456790, the gateway will make a call to 0601020305 etc...

When you select a number not listed in the "Selected phone number" column, the gateway sends a call to the first phone number listed in the "Predefined phone number" column.

Automatic phone number matching

- Enter the number to be called in a location on the table using programming code 26..
- Enter the dialed number, to be associated, in the same location on the panel using programming code 25.

Automatic learning procedure

The automatic learning procedure automatically matches each predefined number with the numbers dialed by the telephone connected to the gateway (BOX remote alarm or other telephone device).

- Enter the number to be called using programming code 26.
- Dial a telephone number using the telephone connected (remote alarm BOX or other telephone device) to the gateway.

The gateway will check whether the number already corresponds to a predefined telephone number. If so, it will send a call to the predefined number.

If not, it will match the dialed number to the first available predefined number and place a call to this number.

If there are no predefined numbers available, but it is still possible to make associations, the number dialed will automatically be associated with the first predefined number.

If all 6 possible associations have been made, the call will be sent to the first predefined number.

An SMS containing the number dialed and the preselected number is sent to the administrator's number (if entered) when a new association is created.

A text message is also sent each time a different one of the 6 presets is selected.

(4) MEASURE SIGNAL LEVEL

CODE	
30	See programming tables by PHONE or SMS

This procedure lets you check the 2G (GSM) signal level via your phone, or by SMS.

By phone :

- Lift the handset and dial ∗∗30#.
- Wait for the signal to be read..

The gateway will send a number of short tones corresponding to the signal level:

Tones	Quality
No lack of network	No signal / No network
1 Tonalité	*Low (non-functional)*
2 Tonalités	*Average (random operation)*
3 Tonalités	*good (recommended level)*
4 Tonalités	high

As the signal may be subject to variations, we recommend repeating the code ∗∗30#, 2 or 3 times at intervals of a few seconds, to obtain a reliable signal.

Note : in the event of a weak or average signal, we recommend that you install the gateway in a different area with a better signal.

Note : if you receive a "no signal" tone, this means that the gateway has not been correctly registered by the network operator. We recommend that you try again after a few moments, and if this fails, check that the SIM card is working correctly.

(5) BATTERY ALERT
BATTERY CHARGE LEVEL CHECK

CODE	CODE	
50	52	See programming tables by PHONE or SMS

If the low battery check is enabled, the PGU checks the battery charge level at all times.
When the charge level falls below the level required to guarantee 4 hours of standby time, a warning message is sent to a pre-registered number.

This information is transmitted either by SMS (default) or to ANEPCenter by voice (DTMF)..

See "Signalling absence of external power supply or battery charge level via ANEPCenter".

SMS transmission (default) :

The device sends a single SMS warning.
A new SMS warning is sent only if the state of charge rises and then falls below the threshold required to guarantee 4 hours of standby autonomy.
Le texte du message envoyé est le suivant : *«Batterie déchargée»*

Internal back-up batteries guarantee 8 hours of standby operation and 1 hour of talk time.

In addition, when a remote alarm line is connected, a discontinuous dial tone is generated. This tone enables ANEP devices BOX-TA, TA+, TX or TX+, S-BOX, BOX-CAN, E-BOX and BOX-PARK to generate a "GSM battery fault".

(6) EXTERNAL POWER FAILURE CHECK

CODE	
81	See programming tables by PHONE or SMS

If external power failure monitoring is enabled, the gateway continuously checks the external power supply (230Vac or 12Vdc).

If the external power failure lasts longer than the predefined time interval, an SMS notification is sent with the following text message:

"External power supply failure

If external power is restored for an interval equal to the preset threshold, a new SMS is sent with the following text message:

"External power supply restored"..

(7) SIM CARD PROTECTION

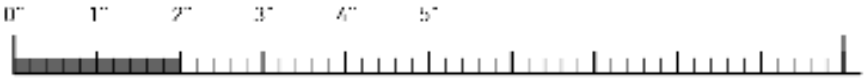
CODE	CODE	CODE	
82	**83**	**84**	See programming tables by PHONE or SMS

WARNING: The PIN code to be set in the gateway must match that of the SIM, otherwise the SIM will be blocked.

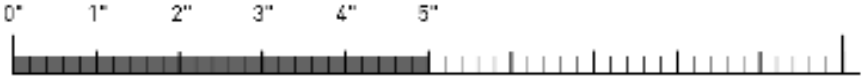
On power-up, the green LED indicates whether the SIM is protected by a PIN code.

If the PIN code is activated and corresponds to the SIM code, the green LED lights up for 2 seconds (1st graph).)
If the PIN code is activated and does not match that of the SIM, the SIM is blocked after 3 attempts by the gateway.
You need the PUK code to unlock it; the green LED is steady for 5 seconds (2nd graph).

Green LED operation on power-up



It indicates that the SIM card is protected by the PIN code.



It indicates that the SIM card is protected by the PUK code.

1- PIN code activation for 1st time on unprotected SIM

- ** 82* <pin code>* <pin code># (<pin code> must not exceed 8 digits)
- ** 83* 1# to activate the pin code
- ** 84* <pin code>* <pin code># if you wish to change the pin code

2- Changing the PIN code on an already protected SIM

- ** 83* 1# to activate the pin code
- ** 84* <pin code>* <pin code># if you wish to change the pin code

Example:
SIM with PIN code 0000
You need ** 82* 0000* 0000# then ** 83* 1#.

Versions from which PIN code protection is possible

PGU module Telit **SW** 4.10.06
PGU module Cinterion **SW** 2.09.12

(8) READING ADVANCED GATEWAY PARAMETERS

CODE

90	See SMS programming tables (only)

This procedure allows you to check the advanced settings of the device and the **PGU** GSM Gateway.

Send the following SMS to **PGU** : **AN-GWU✱xxx#90#**

where :

AN-GWU Start of program chain

✱xxx# password string (by default xxx = 0)

PGU will send one or two SMS messages to the number that sent the request, with the following information:

Values *(values shown are for illustrative purposes only)*	**Meaning**
AN?GWU*XXX#90PGU*	Start of chain
209080500 Jan 18 2019 08:52:32	PGU software version
BGS2-W	Radio module data
REVISION 04.030 A-REVISION 01.000.26	
359206065800872#	IMEI code

(9) READING BATTERY STATUS

CODE	
91	See programming tables by PHONE or SMS

If battery charge level monitoring is enabled, the **PGU** device can be interrogated for battery status..

This procedure allows you to check the battery status via your phone, or by text message..

The gateway sends a number of short tones corresponding to the number of hours of guaranteed operation in standby mode. :

Tones	Standby hours
No tone	Battery missing or damaged
1 Tone	1 hour
2 Tones	2 hours
3 Tones	up to 7 hours
4 Tones	more than 7 hours

(10) RESTART (REBOOT)

CODE	
98	See programming tables by PHONE or SMS

The **PGU** can be restarted at any time by telephone or SMS, without having to disconnect the power supply.

Note: : Restarting the **PGU** does not modify its programming.

(11) RESET FACTORY SETTINGS

You can return to the factory settings at any time by entering the code :

CODE	
99	See programming tables by PHONE or SMS

Factory settings :

Roaming	on
Checking battery charge level	on / 4h
Check for absence of power supply	off
Transmitter gain	4
Receiver gain	1

2G gateway model identification :

By SMS by sending code 90 (ref. page 29)

Return message for version **2G** : **AN?GWU✱0#90PGU...**

SERVICES

Incoming calls

Answers incoming calls.
When a telephone call is received, the line status LED (white) flashes briefly 4 times every 4 seconds, as described in the "Signals" section (see page 44), and the telephone rings..

- Lift the handset to answer the call.

The line status LED (white) and the device status LED (red) light up, and communication with the caller is established..

Outgoing calls

Allows you to dial a number on the 2G network.

If the gateway is connected to a PABX (autocom), please refer to the PABX manual..

If the gateway is connected to a telephone :

- Pick up the handset

The line status LED (white) lights up and the dialling tone sounds..

- Dial the number you wish to call.

When the called party answers, the device status LED (red) lights up..

Note : once you've dialed the number, you can either press **#** to send the number immediately, or you can wait for the call to be automatically transferred once the dialing time between digits has elapsed (default 5 seconds).

Note : if you receive a deterrent tone when you pick up the handset, check that the signal is present and that the SIM card is working properly.

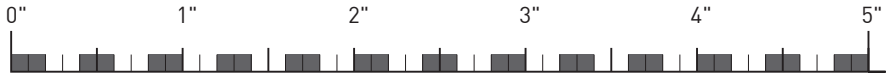
SIGNALS

TONALITY

Invitation to dial (continuous tone) :

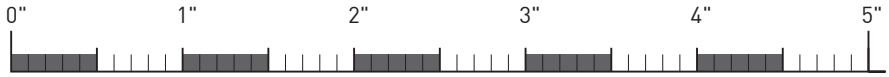
Indicates that the device is ready to receive the selection.

Deterrence :



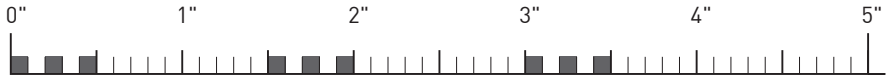
Indicates that there is a delay in programming selection, that the caller has hung up or that unauthorized access has been made..

Occupied :



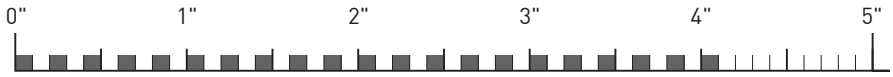
Indicates that the called party is busy.

Confirm :



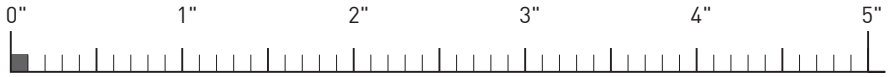
Indicates that the programming has been accepted.

Error :



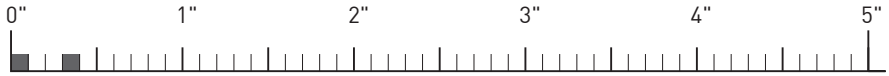
Indicates that programming has not been accepted.

Signal quality :



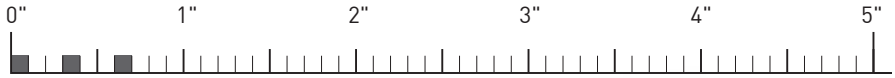
Indicates low signal level.

Signal quality :



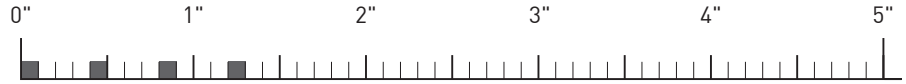
Indicates medium signal level.

Signal quality :



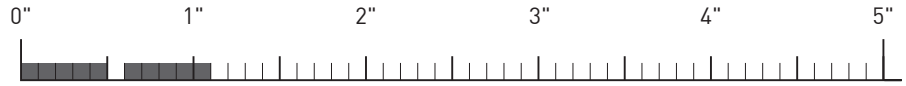
Indicates good signal level.

Signal quality :



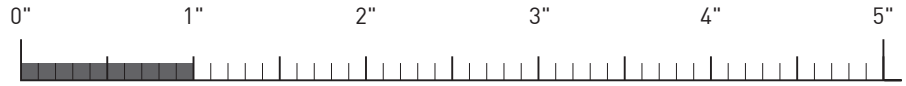
Indicates high signal level.

Signal quality :



Indicates absence of signal.

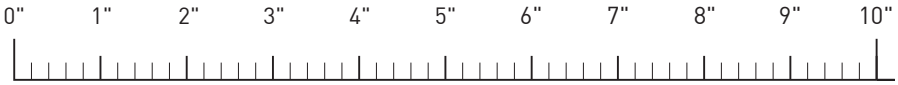
CALL SIGNALLING



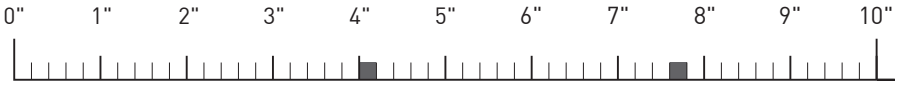
Indicates the arrival of an incoming call.

LED

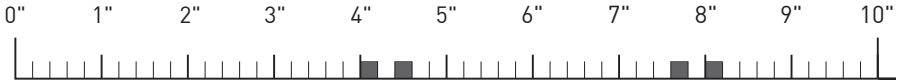
LED (GREEN) 2G network intensity



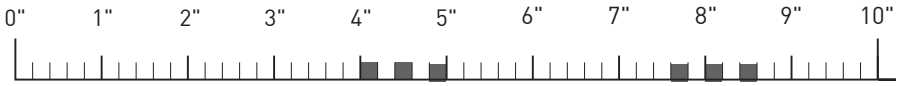
Indicates no signal.



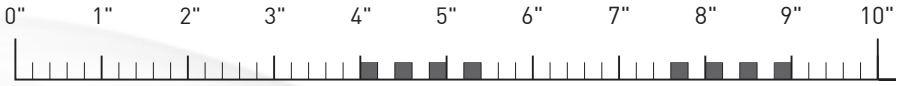
Indicates low signal level.



Indicates medium signal level.

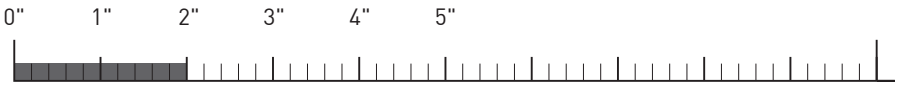


Indicates good signal level.

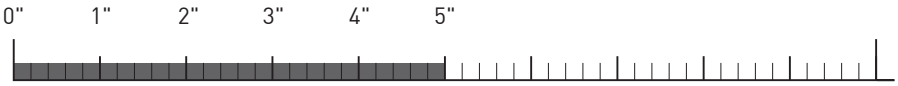


Indicates high signal level.

Operation of the green LED when the gateway is powered up



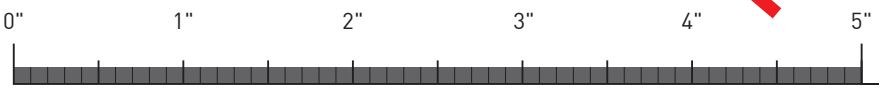
indicates that the SIM card is PIN-protected.



indicates that the SIM card is protected by the PUK code.

Device status LED (RED)

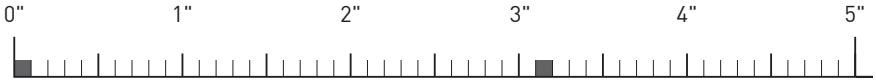
1



Indicates a voice connection in progress, remains steady if network cannot be received The red LED remains steadily steady under two conditions:

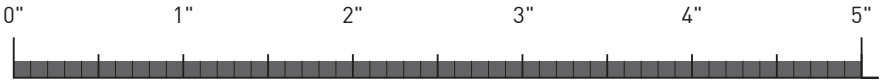
A- If a SIM card with PIN code is used
B- If you select a network that the Sim does not manage

2

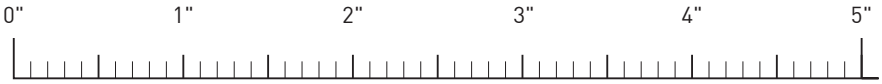


Indicates that the device is correctly registered to the network.

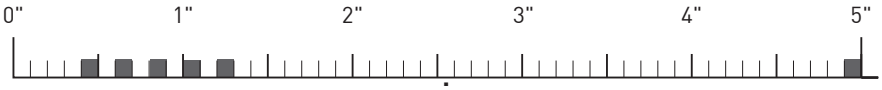
Line status LED (WHITE)



Indicates that the line is busy.

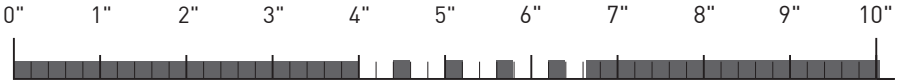


Indicates that the line is not off-hook.

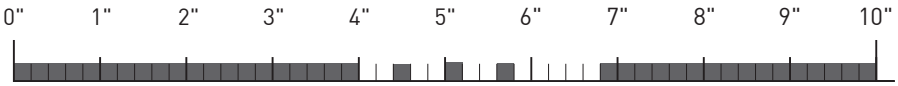


Indicates an incoming call

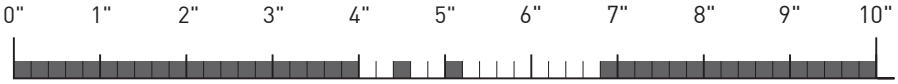
Power status LED (BLUE)



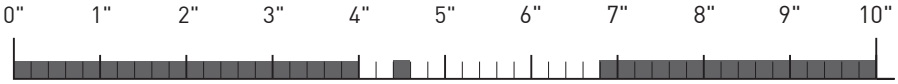
Indicates that the power supply is connected and the battery charge is at its maximum.



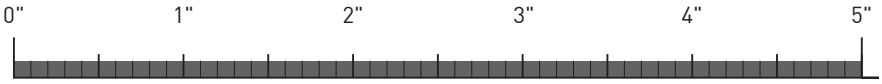
Indicates that the power supply is connected and the battery charge is high.



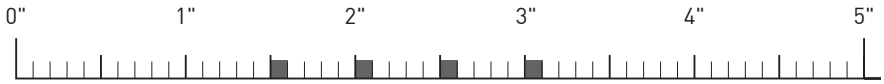
Indicates that the power supply is connected and the battery charge is average.



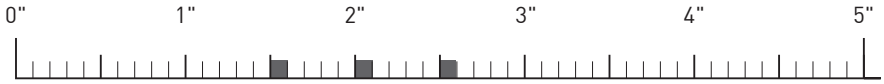
Indicates that the power supply is connected and the battery charge is low.



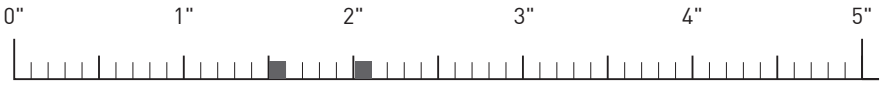
Indicates that the power supply is connected and the battery is damaged or not connected.



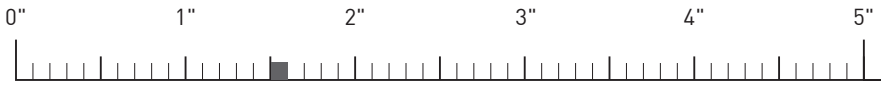
Indicates that the power supply is not connected and that the battery guarantees more than 7 h of standby operation.



Indicates that the power supply is not connected and that the battery guarantees up to 7 h of standby operation.



Indicates that the power supply is not connected and that the battery guarantees 2 h of standby operation.



Indicates that the power supply is not connected and that the battery guarantees 1 h of standby operation.

PROBLEM SOLVING

This chapter describes the most common problems that can occur. Before calling for technical assistance, perform these simple checks.

Condition	Causes	Solutions
All LEDs off	PGU not supplied	Check power supply
Red LED flashes (as shown in 1 page 44)	SIM card not inserted or inserted incorrectly	Insert the SIM card correctly into its slot
	PIN-protected SIM card	Remove PIN code with a cell phone
	Expired or damaged SIM card	Checking SIM card operation with a cell phone
	SIM card not compatible	Using a GSM SIM card
		Perform a control test with another operator's SIM card
	Antenna not connected or cable damaged	Check antenna connection and cable integrity
	Lack of mobile network coverage	Check mobile network coverage with a cell phone
	Insufficient power supply	Check power supply
	Problème générique de logiciel	Switching the PGU on and off
The red LED flashes (as shown in 2 on page 44) but the green one is off.	Mobile network signal level too low to guarantee call	Move the PGU and antenna to a position where the signal will be better.

NOTES

ANEP is committed to continuous development and reserves the right to make changes and improvements to any of the products described in this document without prior notice.

ANEP cannot be held responsible for any loss of data, as well as any special or incidental damage, resulting from incorrect implementation or improper use of the product.

The contents of this document are provided "as is". No warranty of any kind, expressed or implied, is made with respect to the accuracy, reliability or content of the document.
ANEP reserves the right to revise or withdraw this document at any time without notice.

WARRANTY

This product is guaranteed for **3 years** from the invoice date, with the exception of batteries, which are guaranteed for **6 months**.

However, this warranty does not apply in the event of:

- Use not in accordance with the instructions in this manual.
- Deterioration due to causes external to the product (vandalism, fire, flood, storm, power surge, etc.).
- Installation by an unqualified installer not approved by ANEP.
- Modifications or repairs carried out by entities not approved by ANEP.
- Opening of the product by a person not authorized by ANEP.

IMPORTANT

Particular care and attention must be paid to wiring and connection, in order to obtain the best sound results and optimum product reliability.
The equipment must be connected, installed and programmed in accordance with professional standards..

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