

EL35.002 – User's Handbook

The EL35.002 incorporates a latest generation GSM dual band engine.
Follow the instructions in this handbook carefully to install and use the device correctly.

Caution

The EL35.002 is a low voltage two-way transmitter that sends and receives radiofrequency energy when operating.
The device may cause interference when used near radios, TVs, telephones or electronic devices in general.
The EL35.002 may be subject to interference that can affect its performance.
Do not place the EL35.002 near medical equipment.
Do not use the EL35.002 in contact with the body. Do not touch the antenna unless strictly necessary.

Installation

Make sure temperatures are within -5°C - $+45^{\circ}\text{C}$ when you install the product you've purchased.
Put the product on a stable surface. Make sure there is a good GSM network signal.

Programming the SIM Card

To make the device work correctly, you must insert the Plug-In SIM Card for receiving and sending text messages. First you must programme the SIM card.

Programming the SIM card:

- Insert the SIM card in a mobile phone
- Disable the "Enter PIN code"
- Delete all phone numbers in the SIM address book
- Enter the four-number password you want to use in position number one in the SIM address book (and not in the mobile phone memory), e.g.: name: PW; number: 1234 (*this is the password*)
- Remove the SIM card from the mobile phone.



N.B.: to make sure the password is in the right position, delete all phone numbers in the SIM address book.

Inserting the SIM card:

- Make sure the device is turned off
- Locate the SIM card slot, and gently press the (yellow) button to with a pencil open the SIM slot.
- Insert the SIM card in the slot, making sure it's the right way round
- Push the SIM card slot (gently) to close



N.B.: to make sure you've programmed the SIM card correctly, turn on the device (after putting the SIM card in and connecting the antenna), wait one minute, then press the button to manually change output. If this doesn't work, the SIM card has not been programmed correctly.

Power supply

The device must have a power supply from 9 - 12V DC with a current from 300mA - 500mA DC.

Check the polarities as shown on the device (Figure 1).

N.B.: a short-circuit protected power supply must be used.

Connecting the antenna

To connect the antenna:

- Make sure the device is off
- Screw the antenna onto the connector (gently)

Checking reception

You can check GSM reception and connection to the GSM network (after powering the device) in one of the following ways:

- Call the phone number of the SIM card in the device. The device is connected to the GSM network if there is a ring tone.
- Look at the "Network" status LED: if it flashes on and off quickly (i.e. the LED is nearly always off) the device is connected to the GSM network.

When the device is being turned on, and when it is operating, the Network LED may:

- Flash on and off slowly (i.e. the LED is on for longer). This means the device is not connected to the GSM network and is searching for a mobile phone frequency, or the SIM card has not been inserted correctly.
If the device has just been turned on, wait a few moments. If this slow pulse continues, make sure the device is in the right position and the SIM card has been inserted correctly.
- Flash on and off quickly (i.e. the LED is nearly always off). This means the device is connected to the GSM network.

Controls

You can text message the following commands to the device. This will affect output as follows:

- **A** : Turn on
Dual-colour LED is GREEN → The NC contact is short-circuited with the COM, the NO contact is open
- **S** : Turn off
Dual-colour LED is RED → The NO contact is short-circuited with the COM, the NC contact is open
- **D** : request current status
No effect on output

The text message with the command to send to the phone number of the SIM card inserted in the device is as follows:

Password	#	Command
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The device will then carry out the command (if correct) and will send a text message to the sender's mobile phone number to confirm. The device will send one of the following messages:

- Remote control: Device off
- Remote control: Device on
- Remote control: ERROR!
For example, if the password is 1234, the command
1234#A

will short-circuit the NC contact with the COM, and will open the NO contact. The return text message will be:

Remote control: Device on

The device will send an error message

Remote control: ERROR!

if the text message command is wrong: wrong password, non-existent command, wrong format.

N.B.: text messages may sometimes be delayed

Manually changing output

Besides text message operation, the device's output can be manually changed using the button between the two LED.

Press the button to invert the output status of the system.

The dual-colour LED shows the current output status:

- Green: NC contact short-circuited with the COM, NO contact open
- Red: NO contact short-circuited with the COM, NC contact open

External devices

The EL35.002 has been specifically designed for the remote control of systems connected to it (irrigation systems, timer thermostats, boilers, etc.).

These systems must have a control line that can be connected to the product you've purchased (see the device's relay output rating).

N.B.: the EL35.002 has not been designed for use as a switch to install on the power line of the system to be controlled.

To ensure a correct association between output status, external device status (on or off) and the dual-colour LED status, when you install the device, make sure you take the following steps:

- If the external device you want to control comes on when the control line is closed, connect this line to the NC and COM terminals.
- If the external device you want to control comes on when the control line is open, connect this line to the NO and COM terminals.

If you follow these instructions, the association between the status of the connected device and the dual-colour LED will be:

- Green LED → External device on
- Red LED → External device off

Accessories

Available accessories:

- Magnetic base antenna with 2.5 m lead and adaptor.

Declaration of CE Conformity

ELETTROTERM Srl, certifies that the device **EL35.002** conforms to fundamental requirements and other regulations of the EC directive 1999/5.

Rating

Power:

voltage: 9-12V DC

current: 500mA max

Average input:

standby: 40mA

sending / receiving text messages: 100mA

Output:

type: bistable signal relay

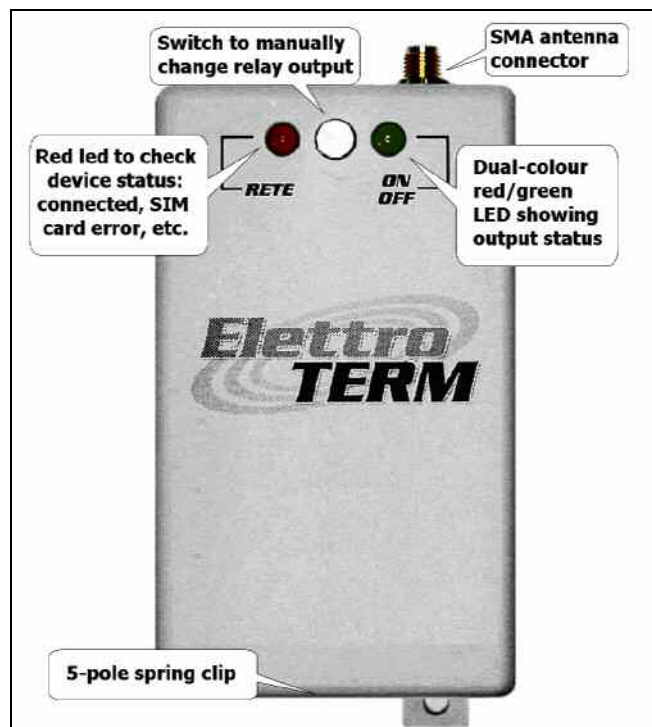
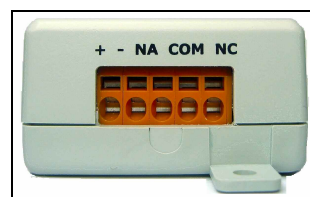
rating:

0.3A	125VAC
0.3A	110VDC
1A	30VDC

Diagrams

The diagrams in this section show the LED, button and connections of the device.

In particular, the diagram on down shows the polarity of the power terminals, and output contacts of the device.



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