



# TL-12 2 CHANNELS R.F. EMITTER.



The two channels R.F. Emitter TL-12, allows to emit a signal till approximately 100 m omnidirectional. This signal could be recognised and executed by any CEBEK radio frequency (R.F) receivers, with one or two channels (TL-1, TL-2, TL-3, TL-4, TL-7, TL-8, TL-9 and TL-10).

The security code could be configured between 13.122 different combinations. It includes micro-switches to select the code, indicator Leds, 12 V battery and enclosure.

## TECHNICAL CHARACTERISTICS.

Voltage.....	12 VDC Battery (type A23).
Minimum consumption (without emission).....	0 mA.
Maximum Consumption. (emitting).....	1,3 mA.
Emission frequency.....	433,92 MHz.
Maximum reach (approximately).....	100 m.
Protection against inversion polarity. (P.I.P.).....	Yes.
Antenna length.....	148 mm.
Sizes, (without antenna).....	90 x 60 x 24 mm.

## ANTENNA INSTALLATION.

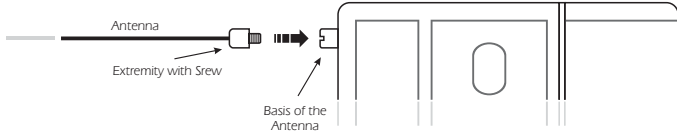
**ANTENNA INSTALLATION.** The TL-12 module requires an antenna to emit with the maximum power and efficiency. This one is supplied with the module and it has to be installed before to emit.

The inferior part of the antenna includes a metallic piece with a screw. Place and screw it on the module basis, reserved to this application. See Fig. 1. Do never use a tool to screw this union and avoid ant excessive pressure. The pressure make by your finger will be enough to adjust both pieces.

The TL-12's antenna is made with flexible steel, nevertheless, don't fold the antenna, in right position.

Don't use any other antenna type, different than supplied one. If the supplied one will be damaged, contact your CEBEK distributor and ask for a new original. If you don't respect this point, the module doesn't properly work r and the module's warranty will be cancelled.

Fig. 1. Connection of the Antenna.



## OPERATING MODE.

**TO CONFIGURE SECURITY CODE.** All CEBEK Remote Control work with the regulated European Frequency 433,92 MHz. For this reason, they includes a micro-switches battery composed by 8 trinary switches, allowing to configure a security code, which make the difference and exclusivity of each module.

To adjust the micro-switches battery, firstly you have to remove the cover of the battery connector. See paragraph "Battery Substitution" to correctly do this operation.

Once the micro-switches battery discovered, you have to check the position of 8 switches, each one could be placed in three different position: "-", "0"; and "+". Change the original position (supplied form factory), moving and selecting you own personal code. **Don't forget that the emitter's configuration has to be the same than the receiver. If you don't insert the same code, the communication between them will be impossible.**

The micro-switches battery allows to establish till 13.122 combinations, which will make the difference between your emitter and others with similar characteristics. Once the code selected and all connection in the receiver done, you

## OPERATING MODE.

only have to press one of push buttons and see how the corresponding output is connected. The Led will intermittently light till you maintain pressed the push button, to indicate that it is emitting. If the Led doesn't light, check the battery position, if the polarity is correct, or if it is not discharged.

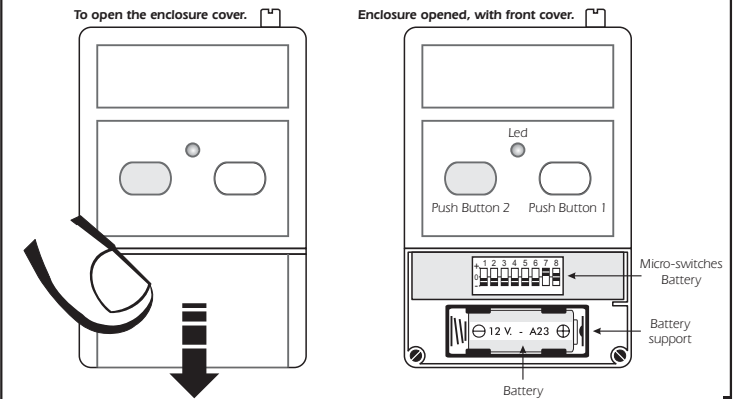
Don't press at the same time both push buttons, the emitter will only emit a single signal from on of them. If you wish to connect at the same time both outputs in the receiver, or if you wish to exclusively assign one of two push buttons to a one channel receiver, check the corresponding paragraph in the Instruction manual of these modules.

## BATTERY SUBSTITUTION.

**HOW TO OPEN THE ENCLOSURE AND SUBSTITUTE THE BATTERY.** The TL-12 enclosure could be opened pressing to the outside the removable enclosure cover. See the drawing.

With the front cover, removed from the rest of the enclosure, you could accede to the battery and micro-switches battery. The new battery has to be identical than the previous one: 12 V and A23 type. When you will remove the old battery you note that it is covered by a plastic cylindrical piece. Don't cast off it but place it on the new battery before to place again it on the battery support; it's function is to correctly maintain both elements.

See and respect the indicated battery polarity and insert it carefully without forcing.



## TECHNICAL CONSULTATIONS.

If you have any doubt, you could contact your wholesaler or our Technical Department.

- E-Mail, [sat@cebek.com](mailto:sat@cebek.com) | Fax: 34-93.432.29.95 | by mail. P.O. Box. 23455 - 08080 Barcelona - Spain.

- **Keep the invoice of this module.** For any repair, the corresponding invoice had to be added. If the invoice is not presented together with this module, the module's warranty will be automatically cancelled.

All the module's CEBEK have **3 years of total warranty** in technical repairing, and spares from the date of buy.



Much more CEBEK module's are aviable in our products range, please, require our general catalogue or visit our Web side.  
[Http://www.cebek.com](http://www.cebek.com)

