

# LRX 2217/M ELECTRONIC CONTROL UNIT

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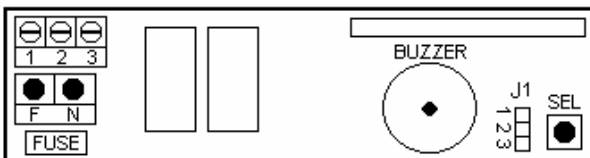
Electronic control unit with radio receiver incorporated, for the remote control of rolling window shutters, sun blinds and Venetian blinds. Possibility of coupling with one or more radio-controls and Wireless sensors for the individual or centralised control (for the simultaneous manoeuvre of various appliances).

- Mod. **LRS 2217/M** : 433.92 MHz
- Mod. **LRS 2217/M SET** : 433.92 MHz "narrow band"

( ) Product destined to countries where use is allowed

## TECHNICAL DATA

- Power supply: 230V~ 50/60 Hz 600W
- Motor output: 230V~ 500W Max
- Working temperature: -10÷55°C
- Radio receiver: see model
- Radio-controls type: 12-18 Bit, or Rolling Code
- Amount of Radio-controls that can be memorised: 6 Max.
- Amount of Wireless Sensors that can be memorised: 3 Max.
- Container dimensions: 102x27x23mm
- Container: plastic ABS+PC V0
- Protection rating: IP 65



## CN1: CENTRAL POWER SUPPLY CONNECTIONS

- N - Blue - Line input 230V~ (Neutral)
- F - Brown - Line input 230V~ (Phase)

## CN2: MOTOR CONNECTIONS

- 1 - Black - Motor output 230V~ ASCENT
- 2 - Blue - Motor output 230V~ COMMON
- 3 - Brown - Motor output 230V~ DESCENT

## INITIAL FUNCTIONING CONDITION

The device can only work coupled with one or more radio-controls and Wireless sensors, upon first ignition the control unit does not contain a radio-control or Wireless sensor in the memory.

## FUNCTIONING WITH DIFFERENT RADIO-CONTROLS MODELS

The programming of different radio-controls models is possible by memorising a code (one key) a Step-by-Step cyclical functioning is obtained; (Ascent-Stop-Descent) by memorising two different codes (two keys) distinct controls are obtained. The first for Ascent, and the second for Descent, by memorising three different codes (three keys) distinct controls are obtained, the first for Ascent, the second for Stop and the third for Descent. It is also possible to set the Venetian blind functioning.

### Functioning with radio-control 1 Key:

Using the radio-control with only one key, the following functioning is obtained: the first impulse controls the Ascent until the motor time equal to 3 minutes expires. The second impulse controls the Descent of the fastening; if an impulse occurs before the motor time expires, the control unit stops the fastening; a further impulse carries out the motion re-start in the opposite direction.

### Functioning with radio-control 2 Keys:

Using the radio-control with 2 keys, the following functioning is obtained: the first key ("Up" associated to ascent) controls the Ascent until the motor time equal to 3 minutes expires, and the second key ("Down" associated to descent) controls the Descent of the fastening. In case during Ascent the Up control is given again, the control unit continues to Ascent whereas, if the Down control is given, the control unit stops.

The same procedure is valid during Descent phase.

## Functioning with radio-control (BeFree Series) 3 Keys:

Using the radio-control with 3 BeFree Series keys, the following functioning is obtained, the Up key controls the Ascent until motor time expires, equal to 3 minutes, the Stop key controls the stop and the Down key controls the Descent of the fastening. In case during ascent or descent a Stop control is given, the control unit stops the fastening. In case during ascent or descent a control is given of the same current moving direction, the control unit continues the movement. In case during ascent or descent a control is given of the opposite current direction, the control unit reverses gear.

## OTHER FUNCTIONING MODALITIES

### Venetian Functioning:

If, by pressing the Up or Down key of a memorised radio-control for at least 2 sec. during this phase, an operator present type functioning is obtained: in this way, it is possible to carry out slight rotary movements, in one direction or the other of the Venetian reeds, to modulate the filtering of the light to ones' liking. If the radio-control key is pressed for more than 2 sec., the blind moves up or down, depending on the which key has been pressed, until the motor time expires, equal to 3 minutes; if, during ascent or descent, a Stop control is given, the control unit stops the fastening. In case during ascent or descent a control is given of the same current moving direction, the control unit continues the movement.

In case during ascent or descent a control is given of the opposite current direction, the control unit reverses gear.

### Operator present functioning:

In this modality, it is necessary to constantly keep the control for the fastening movement in the direction relating to the pressed key, active. The movement stops when the control is released.

### Functioning with Infinite motor time:

By pressing the radio-control in this modality, the control unit is started for an infinite time, unless a further control is given, deactivating it.

## GROUP OR MAIN CENTRALISATION

IT IS also possible to insert equal radio-control codes (keys) to all control units or by group, at a distance not higher than 20 metres from the control point, in order to obtain the main or partial movement of more automations.

## RADIO-CONTROL AND/OR WIRELESS SENSORS PROGRAMMING THROUGH "SEL" KEY

*The programming of the transmission codes of the radio-control and/or Wireless sensors can be carried out as follows:*

### Programming with 1 or 2 Keys radio-control:

press the "SEL" key (for example, with the point of a pen), located at the extremity of the box, three sounds will be heard at the same time, confirming programming entry, press the key of the radio-control to be associated to the ascent movement continuously for 5 seconds until the control unit emits a confirming sound, subsequently, press the second key of the radio-control to be associated to the descent movement continuously for 5 seconds until the control unit emits two confirming sounds and, after one second, the control unit will emit four confirming sounds, signalling programming end.

If, after programming of the first code the second code is not given, the control unit exits programming emitting four confirming sounds and selecting functioning with only one code.

### Programming with radio-control (BeFree Series) 3 Keys:

press the "SEL" key (for example, with the point of a pen), located at the extremity of the box, three sounds will be heard at the same time, confirming programming entry, press the BeFree Series radio-control Up key to be associated to the ascent movement continuously for 5 seconds until the control unit emits a confirming sound, subsequently, after one second, the control unit will emit four confirming sounds signalling programming end.

### Programming with Wireless sensors:

press the "SEL" key (for example, with the point of a pen), located at the extremity of the box, three sounds will be heard at the same time, confirming programming entry, press the dedicated key inside the Wireless Sensor until the control unit emits a confirming sound, subsequently, after one second, the control unit will emit four confirming sounds signalling programming end.

### No communication.

In case of no communication between the Wireless Sensor and the control unit, the safety ascent of the fastening will automatically start after 20 minutes. In case no communication persists, further controls will always bring the control unit in safe conditions.

## FURTHER RADIO-CONTROLS AND/OR WIRELESS SENSORS PROGRAMMING

It is possible to repeat the above described programming operations to insert further Radio-controls, up to a maximum of 6 different ones and up to a maximum of 3 different Wireless sensors, inside the control unit memory.

In case the memory already contains 6 memorised Radio-controls and/or 3 memorised Wireless sensors, by carrying out the programming procedure, the control unit will emit six confirming sounds warning that the memory available is full.

## ENABLING OF SOLE WIRELESS SENSOR WITH 3 KEYS RADIO-CONTROL (BeFREE X3 - X6):

The control unit is supplied by the manufacturer with the Sole Wireless Sensor enabled. The enabling of the Sole Wireless Sensor can be carried out as follows: continuously press for 5 seconds the (+) key of a previously memorised radio-control; the control unit will move Up/Down for 1 second to confirm the occurred enabling of the Sole Sensor. It is possible to repeat the operation to disable the Sole Sensor using the same procedure, but by continuously pressing the (-) key for 5 seconds.

## ROTATION MOVEMENT INVERSION

In case of verifying that when giving the (Up) control on the radio-control the control unit, instead of associating the ascent of the fastening associates the descent, it will be sufficient to repeat the programming procedure by pressing the (Down) key instead of the (Up) key, or invert the Ascent wire with the Descent wire of the motor.

## PROGRAMMING OF THE VENETIAN FUNCTIONING

To activate this functioning modality, move jumper J1, located on the board inside the plastic container, from position 2-3 to position 1-2. Carry out this operation with the control unit disconnected from the 230V electric network.

## PROGRAMMING OF OPERATOR PRESENT FUNCTIONING

To activate this functioning modality, extract Jumper J1 located on the board inside the plastic container. Carry out this operation with the control unit disconnected from the 230V electric network.

## INFINITE MOTOR TIME PROGRAMMING

To set an infinite motor time proceed as follows: keep the SEL key pressed and simultaneously power the control unit by connecting it to the electric network until the control unit emits seven confirming sounds. To restore the motor time at three minutes, repeat the described operation or carry out the Reset procedure.

## RESET THROUGH "SEL" KEY

To restore the control unit to the default configuration, proceed as follows: press the SEL key continuously for 5 seconds until the control unit emits five confirming sounds and the operation is completed.

## SOUND SIGNALS

- 1 BEEP = First radio-control or Wireless sensor code memorised
- 2 BEEPS = Second radio-control code memorised
- 3 BEEPS = Programming phase start
- 4 BEEPS = Programming phase end
- 5 BEEPS = Restore default configuration
- 6 BEEPS = Memory end for new radio-control or Wireless sensor.
- 7 BEEPS = Motor time programming

## IMPORTANT FOR THE INSTALLER

- *The device must never be used by children or persons with reduced physical-psychological abilities, unless supervised or trained on the functioning and the use modalities.*
- *Do not allow children to play with the device and keep the radio-controls away from their reach.*
- *ATTENTION: keep this instruction manual and respect the important safety prescriptions contained herein. The non compliance with the prescriptions may cause damages and serious accidents.*
- *Frequently examine the plant to detect any signs of damaging. Do not use the device if a repair intervention is necessary.*
- *To carry out maintenance or cleaning of the plant, we recommend firstly disconnecting the device from the mains.*
- *In case of needing to replace the cables (powering or motors output) contact experienced and qualified staff.*

## IMPORTANT FOR THE INSTALLER

*The control unit has been designed to allow the installer to automise fastening in order to submit to regulatory prescriptions. The effective compliance with the obligations and achievement of the minimal safety requirements are, however, the responsibility of the installer. Once installation is completed in compliance with EN 60335-2-97 "Safety of household and similar electrical appliances" part 2 "Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment", it is necessary to verify that:*

- *There are no accidental movements*
- *There are no unwanted movements due to power supply voltage variation.*
- *The impact force of the main closing edge does not exceed:  
- 25 N for more than 5s  
- 150 N for more than 0.5s.*

*In case the latter indication is not satisfied, it is alternatively possible, through the Operator present functioning, to use the radio-controls to obtain a release control type operation without self-hold. Although in this case it is essential to use the radio-control only when in the fastening is perfectly visible (wall mounted).*

*It is also recommended to comply with the following warnings:*

- *For a correct functioning of the radio receiver, in case of using one or more control units, the installation at a minimum distance of at least 3 metres one from the other is recommended.*
- *The control unit does not show any type of isolating device, it will therefore be the responsibility of the installer to arrange an isolating device inside the plant. It is necessary to install a single-phase switch with over-voltage category III. It must be positioned so as to be protected against accidental closures.*

*The product:*

### **LRS 2217/M – LRS 2217/M SET Electronic Control Unit**

*is in compliance with the specifications of the R&TTE 99/5/EC, EMC 2004/108/EC and LVD 2006/95/EC Directives.*

