

## ELECTRONIC PANEL LRX 2035 NEW

GB

Single-phase electronic control unit for the automation of doors and rolling shutter with incorporated radio receiver for the implementation of commands given via Radio control and Command-button.

- Mod. **LG 2035 New** : Without radio receiver
- Mod. **LRS 2035 New** : 433.92 Mhz
- Mod. **LRS 2035 SET New** : 433.92 Mhz narrow band
- Mod. **LRH 2035 New** : 868.30 Mhz narrow band

### IMPORTANT FOR THE USER

- *The device can be used by children over 8 years of age and persons with reduced physical or psychological abilities or with little knowledge and experience only if supervised or educated in its operation and safe use, in order to also understand the dangers involved in its use.*
- *these instructions are also available at the website [www.seav.com](http://www.seav.com)*
- *Do not allow children to play with the device and keep the radio controls away from their reach.*
- *Frequently examine the system to detect any signs of damage. Do not use the device if it is in need of repair work.*
- *Always remember to disconnect the power supply before carrying out any cleaning or maintenance.*
- *Cleaning and maintenance must not be carried out by unsupervised children*

- **ATTENTION:** keep this instruction manual safe and observe the important safety requirements contained herein. Failure to comply with the requirements may cause damage and serious accidents.

### IMPORTANT FOR the INSTALLER

- 1) *Before automating the frame, check that it is in good condition, in compliance with the Machinery Directive and with EN 12604.*
- 2) *Check that the location where the installation is located enables compliance with operating temperature limits specified for the device.*
- 3) *The safety of the final installation and compliance with all prescribed Standards (EN 12453 - EN 12445) is the responsibility of the person who assembles the various parts to construct a total closing.*
- 4) *Use safety devices capable of monitoring the status of their connection to the electrical control unit.*
- 5) *Once installation is finished, it is recommended that all necessary checks be performed (appropriate programming of the control panel and correct installation of safety devices) to ensure that compliant installation has been performed.*
- 6) *Fix the control unit to a wall, using the relevant support which is fitted to the casing, in such a way as to leave said support facing downwards and insert the fixing screws in the special holes.*
- 7) *The control unit does not have any type of isolating device for the 230 Vac line. It is therefore the responsibility of the installer to set up an isolating device inside the system. It is necessary to install an omnipolar switch, surge category III. It must be positioned to provide protection from accidental closing, pursuant to point 5.2.9 of EN 12453.*

8) *Cables for power and connection to the motor suitable for insertion in the pg9 cable glands provided must have an outside diameter between 4.5 and 7 mm. The internal conductors wires must have a nominal section of 0.75mm<sup>2</sup>. If a raceway is not used, use H05RR-F cables. Pay careful attention when fastening the cables so that they are anchored in a stable manner. Furthermore, care is required when drilling holes in the outside casing where connecting and power supply cables will pass, and when assembling the cable glands, so that everything is installed so as to maintain the panel's IP protection characteristics.*

9) *The gear motor used to move the frame must comply with the requirements of point 5.2.7 of EN 12453.*

10) *In compliance with 5.4.2 of EN 12453, it is recommended to use gear motors equipped with an electrical-mechanical release device, so that the frame can be moved manually in case of necessity.*

11) *In compliance with 5.4.3. of EN 12453, use electrical-mechanical release systems or similar devices which stop the frame safely in the end run position.*

12) *The various electrical components external to the control unit must be cabled in accordance with standard EN 60204-1 as amended, and as set forth in point 5.2.7 of EN 12453. The power and connection cables must be secured through the use of cable glands supplied.*

13) *The assembly of a push button panel for manual control must be completed positioning the push button panel in such a way that the user is not placed in a dangerous position.*

14) *The safety function ensured by the control unit is active only during closing, therefore, protection on opening must be ensured in the installation phase with measures (guards or safety distances) independent of the control circuit.*

15) *For proper functioning of the radio receiver, if using one or more control units, the installation at a minimum distance of at least 3 metres one from the other is recommended.*

### The electronic control unit:

**LG 2035 New - LRS 2035 New**

**LRS 2035 SET New - LRH 2035 New**

they comply with the specifications of the Directives  
RED 2014/53/EU, EMC 2014/30/EU, LVD 2014/35/EU.



## TECHNICAL DATA:

- Power supply : 230 Vac 50-60Hz 900W (4A) max.
- Flashing light output : 230 Vac 50-60 Hz  
100W Resistive Load max.  
50W Inductive Load max.
- Motor output : 230 Vac 50-60Hz 750 W max.
- Services power supply output : 24 Vac 3 W max.
- Safety devices and controls in BT: 24 Vdc
- Operating temperature : -10 ÷ 55 °C
- Radio receiver : 433.92 Mhz "narrow band"
- Op. transmitters : 12-18 Bit or Rolling Code
- No. of devices that can be stored : 120 max.
- Board dimensions : 100x105 mm.
- Dimensions of container : 110x121x47 mm.
- Container: ABS V-0 ( IP54 ).

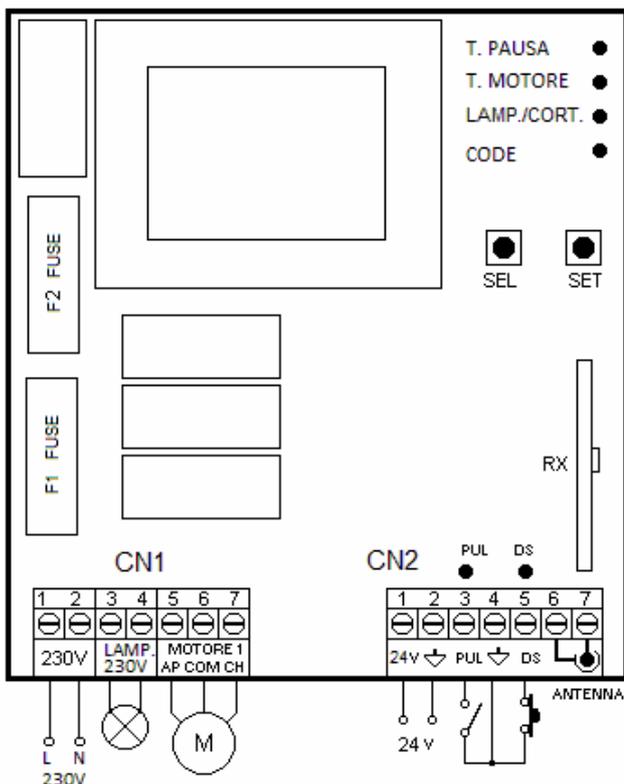
## TERMINAL BOARD CONNECTIONS:

### CN1 :

- 1 : 230 Vac line input (Phase).
- 2 : 230 Vac line input (Neutral).
- 3 : 230 Vac Flashing light Output (Neutral).
- 4 : 230 Vac Flashing light Output (Phase).
- 5 : Opening 230V Motor Output.
- 6 : Common 230V Motor Output.
- 7 : Closing 230V Motor Output.

### CN2:

- 1 : Power supply to photocells ( 24Vac 3W).
- 2 : Power supply to photocells (GND).
- 3 : Control button input (NA).
- 4 : Common GND input
- 5 : Safety device input (NC).
- 6 : Aerial earth input.
- 7 : Aerial hot pole input.



## OPERATING FEATURES:

### Step-by-step operation:

By using either the Radio Control, Transponder, Digital keyboard, Smartphone or the low voltage buttons to activate the frame, you obtain the following action:

the first impulse activates the opening mechanism until the motor time expires or the opening limit switch is reached, the second impulse closes the gate. If an impulse is sent before the motor time expires or one of the two end runs are reached, the control unit will **stop** both opening and closing movements. An additional control re-starts motion in the opposite direction.

### Operation with different radio control models:

Different radio control models can be programmed: store one code (1 key) for Step-by-Step cyclic operation (Opening - Stop - Closing); store two different codes (2 keys) for separate controls, the first for Opening and the second for Closing; store one code (3 "BeFree series" keys) for three separate controls, the first for Opening, the second for Stop and the third for Closing.

### Radio control operation with 1 Key:

Using the radio control with only one key, the following function is obtained: the first impulse commands Opening until the motor time expires. The second impulse commands Closing of the frame. If an impulse occurs before the motor time expires, the control unit stops the frame. A further impulse implements the re-starting of the motion in the opposite direction.

### Radio control operation with 2 Keys:

Using the radio control with 2 keys, the following function is obtained: the first key ("Up" associated to the Opening direction) commands Opening until the motor time expires, and the second key ("Down" associated to the Closing direction) commands Closing of the frame. If the Up command is given again during Opening, the control unit continues the Opening motion, while if a Down command is given, the control unit stops motion.

The same procedure is valid during the Closing phase.

### Radio control operation with 3 Keys (BeFree series):

Using the **BeFree** series radio controls, the following function is obtained: the Up key commands Opening until the motor time expires, the Stop key commands Stop, and the Down key commands Closing of the frame. If during opening or closing a Stop command is given, the control unit commands the frame to stop. If during opening or closing the command opposite the present motion is given, the control unit commands to run in the opposite direction.

### Automatic closing :

The control unit closes the gate automatically without sending additional commands.

The choice of this operating mode is described in the instructions for setting the delay period.

### Safety Device (Photocells):

The control unit allows for the connection and control of Photocells, Tyre sensors (NC).

#### - DS Input (NC)

Commands from the Safety Device are ignored during opening, whereas during closing they will reverse the direction of movement.

## PROGRAMMING :

**SEL key:** selects the type of function to be stored, selection is indicated by a flashing LED.

Repeatedly press the key to select the desired function. The selection remains active for 10 seconds, (indicated by the flashing LED); after 10 seconds, the control unit returns to its original status.

**The SET key:** this programs the information according to the type of function previously selected with the SEL button.

**IMPORTANT:** The function of the SET key can be replaced with the radio control, if programmed previously (CODE led on).

## MAIN MENU

The control unit is supplied by the manufacturer with the possibility of selecting a number of important functions.

----- MAIN MENU -----		
Led Reference	Led off	Led On
1) CODE	No code	Code entered
2) LAMP/CORT.	Flashing	Courtesy Light
3) T. MOT.	Motor time 30 sec.	Programmed time
4) T. PAUSA	No auto close	With auto close

### 1) CODE: (Programming the Radio controls)

The control unit can store up to 120 different Radio Controls.

#### **Programming the radio control with 1 or 2 Keys.**

The radio control transmission codes are programmed as follows: press the SEL key, the CODE LED will start flashing, at the same time send the first radio control code ("Up" associated to the Opening direction); now the CODE LED will start flashing rapidly, send the second code ("Down" associated to the Closing direction) to be stored, the CODE LED will remain on and programming will be complete. If the second code is not sent within 10 seconds the control unit will exit the programming phase and select the function with only one key of the radio control.

#### **Programming the "BeFree Series" radio control with 3 Keys.**

The control unit can store the whole "BeFree" radio control by programming only the UP Key.

The "BeFree" radio control codes are programmed as follows: press the SEL key, the CODE LED will start flashing, at the same time press the UP key of the desired radio control; the CODE LED will remain on and programming will be complete.

**Deletion:** All the stored devices are deleted as follows: press the SEL key, the CODE LED will start flashing, then press the SET key for a few seconds, the CODE LED will turn off and the codes are deleted.

#### **Device already stored or not compatible warning:**

The control unit can store up to 120 devices with different codes. If the user attempts to perform the programming procedure for a device which is already stored in the memory or which is not compatible, the CODE LED will start flashing rapidly for a few moments to indicate that this procedure cannot be performed. The unit then returns to the programming phase once again.

#### **Maximum number of devices that can be stored:**

The control unit can store up to 120 devices with different codes. If the maximum number of devices has been reached and a programming process started, the control unit will indicate that it has failed by flashing all the LEDs except the CODE LED which will remain lit and steady. After 10 seconds the control unit exits programming mode.

### 2) LAMP/CORT. : (Selection of the flashing light or the courtesy light)

The control unit has a 230 Vac output, for connection to a flashing light or a courtesy light.

The control unit is supplied by the manufacturer with the Flashing function enabled. If you wish to enable the flashing beacon function, including during pauses, proceed as follows: using the SEL key to move to the LAMP/CORT flashing LED then press the SET key, and the LAMP/CORT flashing LED will switch on steady.

Repeat the operation if you wish to restore the factory setting.

If you wish to enable the courtesy light, repeat the operation described above, pressing the SEL button twice instead of once (making the LAMP/CORT LED flash rapidly). Repeat the operation if you wish to restore the factory setting.

### 3) T. MOT: (Programming the motor operating time max. 4 minutes)

The control unit is supplied by the manufacturer with a working time motor predefined equal to 30 sec.

If the motor operating time has to be reprogrammed, it must be carried out when the gate is closed, as follows: use the SEL key to move to the flashing T.MOT LED, then continuously press the SET key. The frame will start moving up. When you have reached the required height, release the SET key and at the same time the motor time storage will be completed and the T. MOT. LED will remain lit and steady. If you want an infinite motor time, use the SEL key to navigate to the T.MOT LED when flashing and press the SET key for less than 1 second. At the same time the LED will turn off and the operation will be completed. It is advisable to store a time that is a few seconds longer after the frame has reached the end.

*During programming the radio control key of the control unit can be used instead of the SET key, if stored previously.*

### 4) T. PAUSA: (Automatic closing time programming max. 4 minutes)

The control unit is supplied by the manufacturer without automatic closing. If you wish to enable automatic closing, proceed as follows: using the SEL key to move to the flashing T. PAUSA LED, press the SET key briefly, then wait for the amount of time you wish to set for automatic closing; briefly press the SET key again, and in that moment the automatic closing time will be memorised and the T. PAUSA LED will stay on steady. If you wish to restore the initial condition (without automatic closing), move to the flashing T. PAUSA LED, then press the SET key twice within 2 seconds. The LED will switches off and the operation is complete.

*When programming, you can use the radio control key on the control unit instead of the SET key, if stored previously.*

## EXTENDED MENU 1

The control unit is supplied by the manufacturer with the option of selecting only the functions listed in the main menu.

If you wish to enable the functions described in extended menu 1, proceed as follows: press and hold the SET key for 5 seconds, after which the T. MOT. and T. PAUSA LEDs will start flashing alternately. The user then has 30 seconds to select the functions for extended menu 1 using the SEL and SET keys. After another 30 seconds the control unit will go back to the main menu.

----- EXTENDED MENU 1 -----		
Reference LED	LED Off	LED On
A) CODE	remote PGM = OFF	remote PGM = ON
B) LAMP/CORT	Step-by-Step	Automatic
C) T. MOT.	Alternate ON/OFF flashing light	
D) T. PAUSA.	Alternate ON/OFF flashing light	

### A) CODE

#### **( Remote programming of radio control ):**

The control unit allows the transmission code to be programmed remotely, without using the SEL key on the unit itself.

The remote transmission code can be programmed as follows: continuously send a previously-stored radio control code for more than 10 seconds. At this point the control unit switches to programming mode, as described above for the CODE LED in the main menu.

The control unit is supplied by the manufacturer with the remote transmission code programming function disabled. If you wish to enable the function, proceed as follows: check that extended menu 1 is enabled (T. MOT. and T. PAUSA LEDs flash alternately), use the SEL key to move to the flashing CODE LED, then press the SET key: at this point the CODE LED will light up steady and programming is complete. Repeat the procedure to restore the previous configuration.

**B) LAMP/CORT. (Step-by-Step / Automatic operation) :**

The control unit is supplied by the manufacturer with Automatic mode disabled. If you wish to enable the function, proceed as follows: check that extended menu 1 is enabled (T. MOT. and T. PAUSA LEDs flash alternately), use the SEL key to move to the flashing LAMP/CORT LED, then press the SET key: at this point the LAMP/CORT LED will light up steady and programming is complete.

Accordingly, using either the Radio Control, Transponder, Digital keyboard, Smartphone or the low voltage push button panel to operate the frame, you will obtain the following function: the first impulse commands opening until the motor time expires, the second impulse commands frame closing. If an impulse is sent before the motor time expires, the control unit **changes** the direction of motion in the opening and closing phases. Repeat the procedure to restore the previous configuration.

**EXTENDED MENU 2**

The control unit is supplied by the manufacturer with the option of selecting only the functions listed in the main menu.

If you wish to enable the functions described in extended menu 2, proceed as follows: access extended menu 1 (as described in the relative paragraph), then press and hold the SET key down again for 5 seconds, after which the T. MOT. and T. PAUSA LEDs will start flashing simultaneously. The user then has 30 seconds to select the functions for extended menu 2 using the SEL and SET keys. After another 30 seconds the control unit will go back to the main menu.

----- EXTENDED MENU 2 -----		
Reference LED	LED Off	LED On
A) CODE	NOT USED	
B) LAMP/CORT	Anti-Collision (pedestrian) CH = OFF	Anti-Collision (pedestrian) CH = ON
C) T. MOT.	Simultaneous ON/OFF flashing	
D) T. PAUSA.	Simultaneous ON/OFF flashing	

**A) CODE ( NOT USED ) :**

**B) LAMP/CORT ( Anti-Collision (pedestrian) function ) :**

The control unit is supplied by the manufacturer with the Anti-collision (pedestrian) Function disabled. If you wish to enable the function, proceed as follows: check that extended menu 2 is enabled (T. MOT. and T. PAUSA LEDs start flashing simultaneously), use the SEL key to move to the flashing LAMP/CORT LED then press the SET key: at that point the LAMP/CORT LED will light up steady and programming is complete. The control unit will now operate in Anti-Collision (pedestrian) mode.

If you wish to enable the Anti-Collision (pedestrian) function for the closing phase only, repeat the operation described above, pressing the SEL key twice (making the LAMP/CORT LED flash quickly). Repeat the procedure if you wish to restore the previous configuration.

**RESET :**

To reset the default configuration of the control unit, press the SEL and SET keys simultaneously; all **RED** indicator LEDs will switch on and after a few seconds off again.

**DIAGNOSTICS :**

**Control input test:**

On each low voltage control input, the control unit uses a LED signal to make the status readily known.

Operating logic: when a LED is on it means the input is closed, when a LED is off it means the input is open.

**MANAGING PROGRAMMING LEDES:**

After 3 minutes of inactivity in the programming procedure, the control unit will automatically switch off the programming LEDs to save energy. The LEDs will light up, depending on the previously set programs, only when the SEL or SET keys are pressed or when a motion command has been received.