ELECTRONIC PANEL
LRX 2035 READER

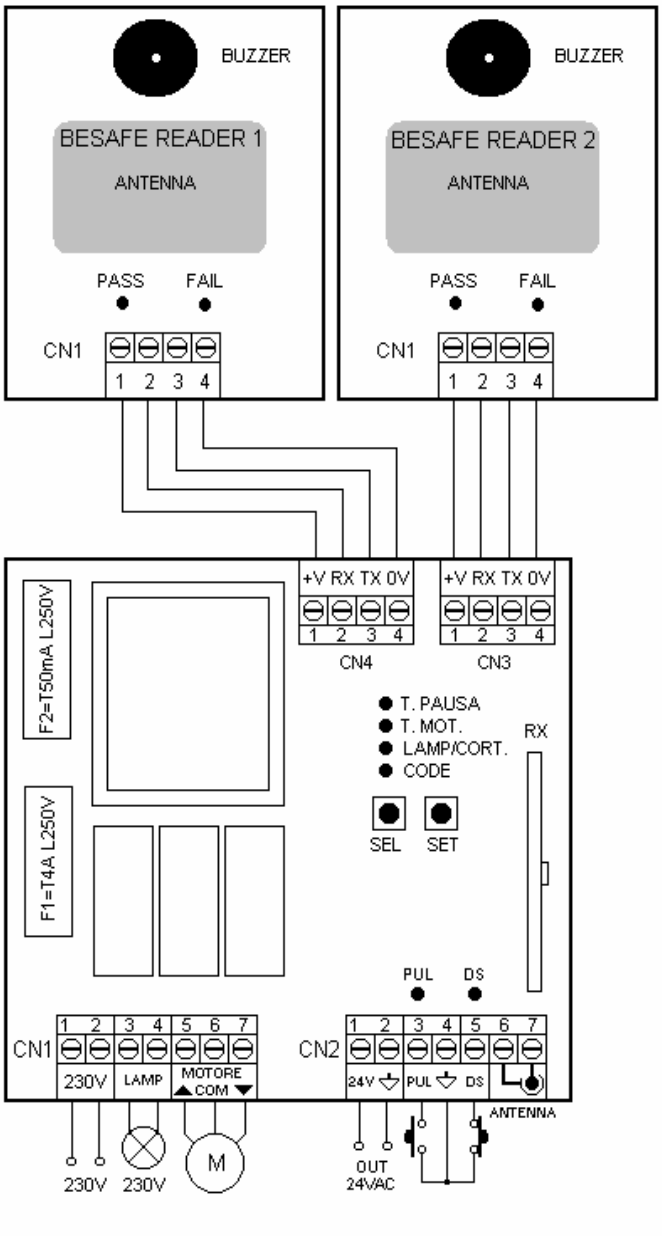
GB

Mono-phase electronic control unit, for the automation of sliding doors and rolling shutters with incorporated radio receiver and the possibility of connecting to 1 or 2 BeSAFE Proximity Readers to carry out proximity controls by means of BeSAFE CARD and BeSAFE KEY transponders.

- Mod. **LG 2035 READER** : Without Radio Receiver
- Mod. **LRS 2035 READ** : 433.92 MHz
- Mod. **LRS 2035 READER SET** : 433.92 MHz "narrow band"
- Mod. **LRH 2035 READER** : 868.35 MHz "narrow band"

TECHNICAL DATA:

- Power supply : 230 Vac 50Hz 4.5W max.
- Flashing light output : 230 Vac 50Hz
  100W Resistive Load max.
  50W Inductive Load max.
- Motor output : 230 Vac 50Hz 750 W max.
- Aux. power supply output : 24 Vac 3 W max.
- Button and safety device input :24 Vdc
- Working temperature : -10 ÷ 55 °C
- Radio receiver :see model
- Transmitter type : 12-18 Bit, or Rolling Code
- Transponder type : BeSAFE CARD / KEY
- N. of devices that can be stored :63 Max.
- Dimension of panel :110x121x47 mm.
- Container : ABS V-0 (IP54).



CONNECTIONS OF THE CN1 TERMINAL BOARD

1 : 230 Vac input (phase).
2 :230 Vac input (Neutral)
3 :230 Vac flash input (Neutral)
4 : 230 Vac flash input (phase).
5 : Opening motor output
6 : Common motor output.
7 : Closing motor output.

CONNECTIONS OF THE CN2 TERMINAL BOARD

1 :24 Vac 3 W service power supply output.
2 :24 Vac 3 W service power supply output.
3 : Open-close push button input (NA).
4 : Common GND input.
5 : Safety device input (NC).
6 : Antenna earth input.
7 : Antenna hot pole input.

CONNECTIONS OF THE CN3 TERMINAL BOARD

1: Reader power supply + VDC
2: Reader reception 1
3: Reader transmission 1
4: GND power supply

CONNECTIONS OF THE CN4 TERMINAL BOARD

1: Reader power supply + VDC
2: Reader reception 2
3: Reader transmission 2
4: GND power supply

INSTALLATION OF PROXIMITY READER

1 or 2 "BeSAFE Reader" proximity readers can be connected to the control unit.
The BeSAFE proximity reader is supplied inside of a container highly resistance to water and atmospheric agents. Use a shielded cable no longer than 15 meters for good operation between the BeSAFE Reader and the LRX 2035 Reader control unit.
The bottom part of the Reader where the antenna is placed must be free from obstacles and placed in easily visible points to facilitate use.

OPERATING FEATURES:

Step by step operation:
By using the low tension button panel to operate the frame and/or proximity controls by means of BeSAFE CARD and BeSAFE KEY transponders, commands will have the following effect: The first command impulse activates the opening mechanism until time expiry of the timing motor or the end run is reached. The second command impulse closes the frame. If a command impulse is received before end run is reached, the control unit will **halt** both opening and closing motions. A further input implements the re-starting of the motion in the opposite direction.

Operation with different radio control models:
It is possible to program different radio control models: memorising one code (1 button) Step by Step cyclical functioning is obtained (Open - Stop - Close); memorising two different codes (2 button) obtains distinct commands. The first to Open and the second to Close. Memorising three different codes (3 "BeFree" buttons) obtains distinct commands: the first to Open, the second to Stop and the third to Close.
Operation with 1 button radio control:
Using the radio control with only one button, the following operation is obtained: the first impulse commands Opening

until time expiry of the timing motor. The second impulse commands Closing of the frame. If an impulse is given before the motor time expires, the control unit stops the frame. A further input implements the re-starting of the motion in the opposite direction.

Operation with 2 button radio control:
Using the radio control with two buttons, the following operation is obtained: the first button ("Up" associated to Opening) commands Opening until time expiry of the timing motor and the second button ("Down" associated to Closing) commands the Closing of the frame. If the an 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.

Operation with 3 button radio control (BeFree series):
Using the **BeFree** radio controls, the following operation is obtained: the Up button commands opening until time expiry of the timing motor, the Stop button commands stopping and the Down button commands the 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 frame automatically without sending other commands.
Choice of this operating mode is described under the instruction for setting the delay period.

Safety device:
The control unit allows for the connection and control of Photocells, Tyre sensors (NC).
Command from these devices is ignored during opening whilst when the frame is closing they will reverse the direction of movement.
If not used the terminals must be jumped.

PROGRAMMING:

SEL button: selects the type of function to be memorised. The selection is indicated by a flashing LED.
By repeatedly pressing the button it is possible to choose the desired function. The selection will remain active for 10 seconds indicated by a flashing LED. If no other operations are executed during this period, the control board will return to its previous state.
SET button: programs the information relative the type of function previously selected with the SEL button.

LED Reference	LED Off	LED On
1) CODE	No code	Device activated
2) LAMP/CORT.	Flashing	Courtesy Light
3) T. MOT.	Unlimited timing	Programmed delay
4) T. PAUSE.	No automatic close	With automatic close

1) CODE: (Programming of the Radio controls and/or Transponder)

The control unit can memorise up to 63 different radio commands or Transponders.

Programming BeSafeCard/Key transponders:
The transponders are programmed as follows: press the SEL button. The CODE LED will start to flash and at the same time bring the transponder closer to the "BeSAFE Reader" proximity reader. The CODE LED will remain on for an instant signalling the memorisation. Afterwards the CODE LED will continue to flash for 10 seconds waiting for another transponder to be memorised, after which it will exit programming mode.

Programming of 1 or 2 button radio commands.
The transmission code is programmed in the following manner: press the SEL button until the LED CODE flashes. At the same time transmit the first code of the remote control ("Up" associated to opening). As soon as the LED CODE begins to flash rapidly, send the second code to be memorised ("Down" associated to closing). The CODE LED will remain lit and the programming is 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 button of the remote control.
Programming the 3 button "BeFree Series" remote control.
The control unit can memorise the whole "BeFree" radio control by programming only the UP button.
Code programming of the "BeFree" radio controls is carried out in the following manner: press the SEL button until the LED CODE flashes. At the same time press the UP button of the desired radio control. The CODE LED will remain on and the programming is complete.
Cancellation: Cancellation of all memorised devices is carried out in the following manner: press the SEL button and the LED CODE will start to flash. Then press the SET button. The procedure is now complete and the LED CODE will stop flashing.
Device already in memory or not compatible warning:
The control unit can memorise up to 63 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 begin to flash rapidly for a few moments, to indicate that this procedure cannot be performed. The unit then returns to the programming stage once again.
Maximum number of devices which can be stored:
The control unit can memorise up to 63 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 in a constant manner. 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 even with delay enabled. If you wish to set up the flashing light function, proceed as follows: use the SEL button to navigate to the LAMP/CORT LED when flashing and then press the SET button. The LAMP/CORT button will light up permanently.
Repeat the operation if you wish to put the previous configuration back into operation.
If you wish to set up the courtesy light, repeat the operation described above, pressing the SEL button twice instead of once (the LAMP/CORT LED will flash rapidly). Repeat the operation if you wish to put the previous configuration back into operation.

Flashing Light function even in delay: The 230 Vac output will be activated each time that the automation is moving, for the duration of the motor time. If the delay period is memorised, the 230Vac output will be active even during the delay.
Flashing function: The 230 Vac output will be activated each time that the automation is moving, for the duration of the motor time.
Functioning of the Courtesy light: The 230 Vac output will be activated for 3 minutes, each time that an opening command is given

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

The control unit is factory supplied with a predefined working time motor equal to 30 sec.
If a reprogramming of the motor operating time is needed, it must be carried out through the closed frame in the following manner: use the SEL button to navigate to the T. MOT LED when flashing, then continuously press the SET button. The rolling shutter will start the opening. When you have reached the required height, release the SET button and at the same time the motor time storage will be completed and the T. MOT. LED will remain lit and fixed. If you want an infinite motor time, use the SEL button to navigate to the T.MOT LED when flashing and press the SET button for less than 1 second. At the same time the LED will shut off and the operation will be completed. It is advisable to memorise a time that is a few seconds longer after the frame has reached the end.

4) T. PAUSE: (Maximum programmed automatic closing 4 minutes.)

The manufacturer furnishes the control unit with an automatic closure (pause time equal to 15 sec.). If a reprogramming of the automatic closing time is needed, it must be carried out through the closed frame in the following manner: use the SEL button to navigate to the T. PAUSE LED when flashing. Then press and hold down the SET button for a period equal to the desired pause interval between closing and opening operations. At expiration of the desired time release the SET button. At the same time the memorisation of automatic closing time will be determined and the T. PAUSE LED will remain lit.
If you do not want automatic closing, take position on the T. PAUSE LED when flashing. Then press the SET button for less than a second. At the same time the LED will shut off and the operation will be concluded.

EXTENDED MENU 1

The control unit is supplied by the manufacturer with the option of selecting only the functions listed in the main menu.
To enable the functions of extended menu 1, proceed as follows: press and hold the SET button for 5 seconds; the T. MOT. and T. PAUSE LEDs will start flashing alternately. The user then has 30 seconds in which to select the extended menu 1 functions using the SEL and SET buttons. After 30 seconds the control unit returns to the main menu.

---------- EXTENDED MENU 1 ----------		
LED Reference	**LED Off**	**LED On**
A) CODE	remote PGM = OFF	remote PGM = ON
B) LAMP/CORT	Step by step	Automatic
C) T. MOT.	Flashing light ON/OFF alternated	
D) T. PAUSE.	Flashing light ON/OFF alternated	

A) CODE
(Remote programming of radio control):
The control unit allows the transmission code to be programmed remotely, without using the SEL button on the unit itself.
To program a transmission code remotely, proceed as follows: send the previously memorised radio control code continuously for more than 10 seconds; the control unit will enter the programming mode as described above for the CODE LED in the main menu.
The control unit is supplied by the manufacturer with remote programming of a transmission code not enabled; to enable the function proceed as follows: check that the extended menu 1 is enabled (T. MOT. and T. PAUSE LEDs start flashing alternately), use the SEL button to navigate to the CODE LED when flashing and press the SET button: the CODE LED remains lit in a constant manner 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 the Automatic mode disabled. If you wish to enable the function, proceed as follows: check that the extended menu 1 is enabled (T. MOT. and T. PAUSE LEDs start flashing alternately), use the SEL button to navigate to the LAMP/CORT LED when flashing and press the SET button: press the SET button: the LAMP/CORT LED remains lit in a constant manner and programming is complete.
In this way, by using the low tension button panel to operate the frames and/or proximity controls by means of BeSAFE CARD and BeSAFE KEY transponders, commands will have the following effect: the first command impulse activates the opening mechanism until time expiry of the timing motor. The second command impulse closes the frame. If an impulse is sent before time has expired, the control unit will **reverse** motion direction both for opening and closing. 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.
To enable the functions of extended menu 2, proceed as follows: access extended menu 1 (as described in the corresponding paragraph), then press the SET button again and hold for 5 seconds; the T. MOT. and T. PAUSE LEDs will flash simultaneously: the user has 30 seconds within which to select the functions of extended menu 2 using the SEL and SET buttons. Then after a further 30 seconds the control unit returns to the main menu.

---------- EXTENDED MENU 2 ----------		
LED Reference	**LED Off**	**LED On**
A) CODE	Anti-Pass-Back = OFF	Anti-Pass-Back = ON
B) LAMP/CORT	Operator present CH = OFF	Operator present CH = ON
C) T. MOT.	Flashing light ON/OFF simultaneous	
D) T. PAUSE.	Flashing light ON/OFF simultaneous	

A) CODE (Anti-Pass-Back):
The control unit is supplied by the manufacturer with the Anti-pass-back function disabled. If you wish to enable the function, proceed as follows: check that the extended menu 2 is enabled (T. MOT. and T. PAUSE LEDs start flashing simultaneously), use the SEL button to navigate to the CODE LED when flashing and press the SET button: the CODE– LED remains lit in a constant manner and programming is complete. In this manner the control unit will operate in Antipassback mode, which means alternated functioning of Readers 1 and 2 (passage to reader 1 will be allowed only after having passed by reader 2 and vice versa).
Repeat the operation if wanting to restore the previous configuration.

B) LAMP/CORT (User present while closing function):
The control unit is supplied by the manufacturer with the user present while closing function disabled. If you wish to enable the function, proceed as follows: check that the extended menu 2 is enabled (T. MOT. and T. PAUSE LEDs start flashing simultaneously), use the SEL button to navigate to the LAMP/CORT LED when flashing and press the SET button: the LAMP/CORT LED remains lit in a constant manner and programming is complete. In this manner the control unit while operate in User present while closing mode. The input controls for Ascent (PUL = Step by step) and Descent (D.S. = User present) will be modified with the Normally Open operation. Repeat the operation if wanting to restore the previous configuration.

RESET:

To reset the default configuration of the control unit, press the SEL and SET buttons simultaneously; all **RED** indicator LEDs will switch on and then off again immediately.

DIAGNOSTIC:

In correspondence to each low voltage PUL e DS input command, the control unit uses LED signals allowing rapid status control. Functioning logic: a lit LED means input closed, an unlit LED means input open.

IMPORTANT FOR THE INSTALLER

The control unit was designed to be assembled together with other components (motor, shutter or gate, safety devices) to constitute a finished product (machine) in compliance with Machinery Directives.
The safety of the final installation and the compliance with all prescribed Standards is the responsibility of the person who assembles the various parts to construct a total closing.

It is also advised to comply with the following recommendations:

- *Before automating the frame, check that it is in good conditions, in compliance with the Machinery Directive and with EN 12604.*
- *Wiring of the various electrical components outside of the control unit must be carried out in compliance with that prescribed in Standard EN 60204-1 and its amendments at point 5.2.7 of EN 12453. Power supply and connection cables must be fixed using the cable glands provided.*
- *The gearmotor used to move the frame must comply with that prescribed at point 5.2.7 of EN 12453.*
- *Mounting of a push button panel for manual control must be done positioning the push button panel where the user is not in a dangerous position, in compliance with point 5.2.8 of EN 12453.*
- *The control unit does not have any type of isolating device for the 230 Vac line. It will therefore be the responsibility of the installer to arrange an isolating device inside the plant. It is necessary to install a mono-phase switch with over-voltage category III. It must be positioned where it can be protected from accidental closing, according to that prescribed in point 5.2.9 of EN 12453.*
- *In compliance with 5.4.2 of EN 12453, it is recommended to use gearmotors equipped with an electric-mechanical release device, so that the door can be moved manually in case of necessity.*
- *In compliance with 5.4.3. of EN 12453, use electric-mechanical release systems or similar devices which stop the door safely in the end run position.*
- *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 conductor wires must have a nominal section of 0.75mm^2. If a raceway is not used, use H05RR-F cables.*
- *Fix a warning sign near the place of installation, conform with ISO 3864, with minimum height of 60 mm.*
- *When installation is complete, carry out all the controls prescribed by EN 12453 - EN 12445 to be sure that the closing complies with the provisions.*
- *For a correct 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.*

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.
- Ensure there is no one immediately near-by as the door is not fully open or closed.
- 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.

Attention

All operations which require the opening of the casing (cables connection, programming, etc.) must be carried out by expert personnel during installation. For any further operation which requires the casing to be re-opened (re-programming, repair or installation amendments) contact the after-sales assistance.

The products:

Electronic control unit:

LG 2035 READER - LRS 2035 READER
LRS2035 READER SET - LRH 2035 READER

comply with the specifications of the Directives R&TTE 99/5/EC, EMC 2004/108/EC, LVD 2006/95.

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