INSTALLATION, ASSEMBLY AND OPERATING MANUAL FOR THE GATE CONTROL UNIT AL-BR01

Failure to comply with this Manual may result in injury or death.

Keep the Manual for reference.

1. Installation safety

NOTE: Follow these instructions: non-compliant installation and/or removal may cause severe injury!

- Read this Manual before installing the product.

- Have this control unit installed/removed and wired by a suitably licensed electrician (with an electrician's license for electrical installations ≤ 1 kV).

- Caution: Disconnect the power cable from the supply voltage before removing the product.

- The control unit is intended for operation in dry indoor rooms. Do not expose it to weather.

- The control unit requires a separate power supply line, connected to the power sub-distribution switchboard with a short-delay current breaker, e.g. a B10 over-current CB.

- If the control unit power cable is damaged, replace it.

- Fasten and route the power cable to prevent the condensate (water) from flowing into the control unit enclosure.

- A single control unit must not operate more than one drive unit

- Install the control switch at a safe distance from all moving parts of the roller shutter / gate and at a distance which will permit watching the operation of the roller shutter / gate, and at least 1.5 m above the floor (the minimum height above the floor requirement does not apply to key-operated switches).

- After installation, make sure that the gate / roller shutter inverts directions properly.

- The installer must comply with the standards and regulations in force in the country where the installation is carried out.

- Users should be trained to operate the control unit.

2. Safety of control unit operation and maintenance

NOTE: Follow these instructions: non-compliant operation and/or maintenance may cause severe injury!

- Keep children away from the central unit and its controls: they are not toys.

- Isolate the power supply from the control unit before cleaning, maintenance or replacement of parts.

- Do not operate the control unit if it needs to be repaired or readjusted.

- Whenever the roller shutter / gate is running there must be no obstacles on its way until is completely closed or open.

- Test the control unit for proper reversing of the sense of rotation at least every month.

- Do not attempt to open the roller shutter / gate if it is stuck with heavy ice.

- Do not attempt to alter or modify the product without authorization; otherwise your product warranty will be void and the product may become hazardous in use. Have all maintenance and repairs done by a qualified technical service provider, the manufacturer, or the manufacturer's authorized agent.

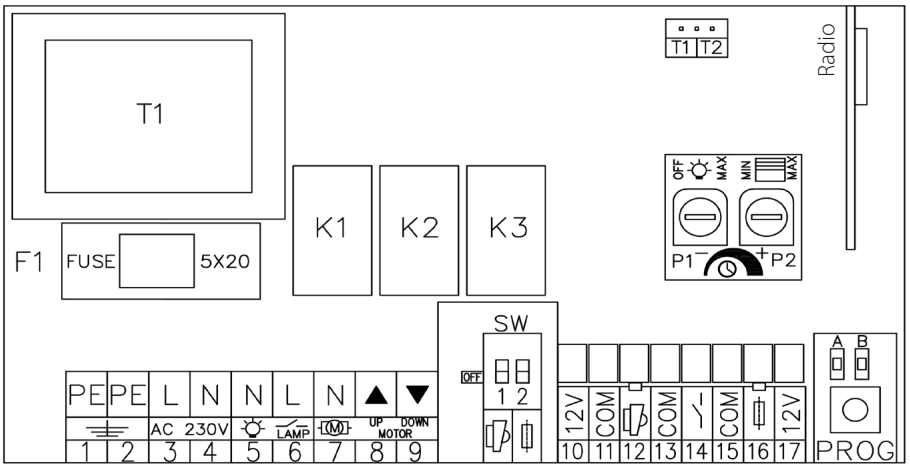
In accordance with the provisions of the Directive of the European Parliament and of the Council 2012/19 / EU of 4 July 2012 on waste electrical and electronic equipment (WEEE), it is prohibited to place of used equipment together with other wastes, marked with crossed out wheeled bin symbol. The users are obliged to transfer their used equipment to a designated collection point for proper processing. The marking means, at the same time, that the equipment was put on the market after 13 August 2005. These legal obligations have been introduced to reduce the amount of waste generated from waste electrical and electronic equipment and to ensure an appropriate level of collection, recovery and recycling. The equipment does not contain any dangerous components, which would have any particularly negative impact on the environment and human health.

3. Technical specifications.

- Power supply: ~230V/50Hz
- power consumption: 0,4 W
- fuse: 250VAC / 4A
- works with motors up to 230 Nm
- Frequency: 433.92 Mhz
- up to 12 transmitters can be programmed
- Operating temperature: ~ -20˚C ~ +55˚C
- Average range: 200 meters (in open space)
  35 meters (inside buildings)
- Dimensions: 150x100x70 mm

Company reserves the tolerance of catalog data due the different conditions usage.
Works with S, BD and M versions of tubular motors and can match all DC remote controllers..

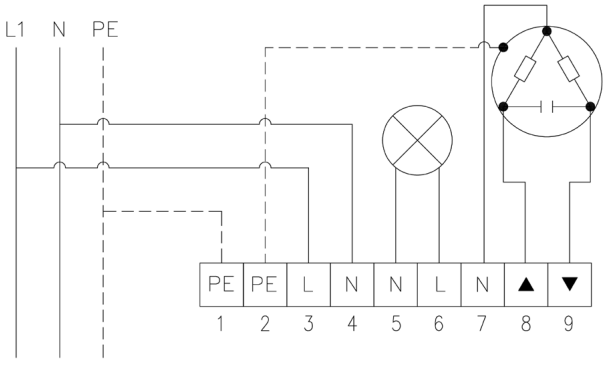
4. layout of the elements



T1 - power transformer
F1 - fuse: 250VAC / 4A
K1, K2, K3 - relays
P1 - potentiometer (lighting operation time)
P2 - potentiometer (drive operation time)
1-9 - input / output AC
10 - 17 - input / output DC
SW1 - DIP 1 - photocell connection
SW2 - DIP 2 - optical bar connection
PROG - programming button
T1, T2 - photocell jumper

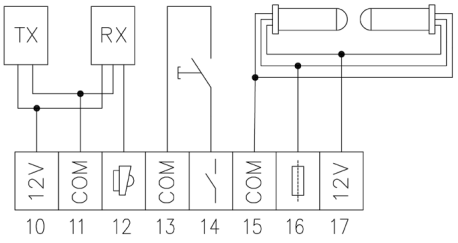
4.1. Wiring diagram.

input / output AC



1, 2. protective wire
3. 230V AC supply – L wire (phase)
4. 230V AC supply – N wire (neutral)
5. Lighting supply – N wire (neutral)
6. Lighting supply – L wire (phase)
7. Drive supply – N wire (joint)
8. Drive supply – L1 wire (UP direction)
9. Drive supply – L2 wire (DOWN direction)

input / output DC



10, 11. Photocell supply 12V DC)
12. Photocell input (NC)
13, 14. External button (monostable)
15, 17. Optical bar supply (12V DC)
16. Optical bar input.

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5. Control unit programming.

5.1. Programming the first transmitter.

With the power on, press the PROG button or 3x the button connected to inputs 13 and 14 which will be confirmed by lighting of the A **LED**.

Within 10 seconds press the „P2" button *

Correct programming of the transmitter will be confirmed by lighting of the **LED B** and short supply of voltage to outputs 5 and 6

* - In case of lack of „P2" button its function is performed by a combination of "STOP" and "UP" buttons.

5.2. Adding another transmitter.

Press the „P2" * button twice of the already **programmed** transmitter

Press the "P2" * button of the new transmitter

Each button press will be confirmed by lighting of the **LED B** and short voltage supply to outputs 5 and 6

* - In case of lack of „P2" button its function is performed by a combination of "STOP" and "UP" buttons.

5.3. Deleting the transmitter.

Press the „P2" button*

Press the „STOP" button

Press the „P2" button*

Each button press will be confirmed by lighting of the **LED B** and short voltage supply to outputs 5 and 6

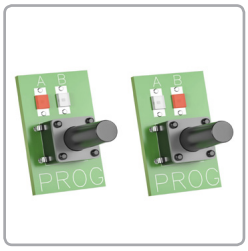
* - In case of lack of „P2" button its function is performed by a combination of "STOP" and "UP" buttons.

5.4. Return to factory settings.

Returning to factory settings deletes all the transmitters programmed in the control unit.

With the power on, press the PROG button 7x

Each button press will be confirmed by lighting **LED A**



Successfully completed procedure will be confirmed by lighting of **LED A, LED B**

6. Configuration.

6.1. Lighting connection and control.

The lighting should be connected to terminals 5 and 6. Working time is adjusted by the P1 potentiometer (range from 0 to 180 seconds - 15 seconds step). When opening and closing the gate lighting is automatically switched on, when gate is not operated lighting can be activated by pressing STOP button.

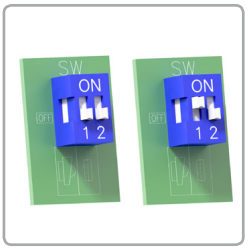
NOTE: *Automatic control of lighting can be disable by setting potentiometer to „0" position and lighting can be turned on / off using the STOP button..*

6.2. Drive connection and control.

The drive should be connected to terminals 7, 8 and 9, where terminal 7 is common to both directions of movement.
P2 potentiometer adjusts working time (range from 6 to 180 seconds - 15 seconds step).
The control unit can be controlled by any DC series transmitter or monostable button connected to terminals 13 and 14 (operates in the sequence UP - STOP - DOWN - STOP).

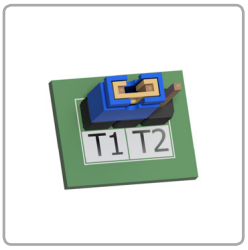
6.3. Photocell connection.

NOTE: *In accordance with standard EN 12453 governing the safe use of motorised doors, control of the garage door not visible to the user requires the installation of a photoelectric cell type safety device and/or optical bar.*

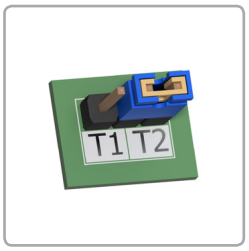


DIP switch SW1 should be set to **ON position**.
The photocell must be connected in **NC** mode (normally shorted) to terminals 10, 11 and 12 (see diagram in section 4.1).
Photocell error is signaled by a flashing red LED under terminal No. 12.
The error may occur in the case of:
1. no connection,
2. photocells damage ,
3. collision.

NOTE: *The gate will be disabled if an error occurred*



Pin jumper **T1**
Activation of the safety device during closing will automatically cause move in opening direction

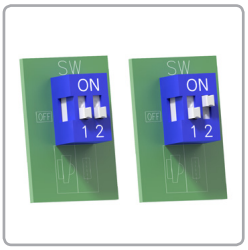


Pin jumper **T2**
Activation of the safety device during opening / closing stops the operation of the gate.

NOTE: *Required setting for rolling grilles control.*

6.4. Optical bar connection.

NOTE: *In accordance with standard EN 12453 governing the safe use of motorised doors, control of the garage door not visible to the user requires the installation of a photoelectric cell type safety device and/or optical bar.*



DIP switch SW2 should be set to **ON position**.
The optical bar must be connected to terminals 15, 16 and 17 (see diagram in section 4.1).
Optical bar error is signaled by a flashing red LED under terminal No. 16.
The error may occur in the case of:
1. no connection,
2. optical bar damage
3. collision.

NOTE: *The gate will be disabled if an error occurred*