Gate drive controller for 230Vac 500W motors

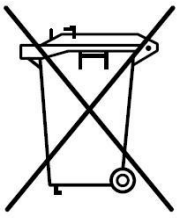
OPERATING MANUAL

eLB11E/eLB11H V3.

Irev.1.3/eLB11V3

SOFTWARE/VERSION

MARKING	NOTES
B11:3.x.1/1.x.x	eLB11E
B11:3.x.1/2.x.x	eLB11H
B11:3.x.2/3.x.x	Cooperation with optical encoder – 717 pulses per second
B11:3.x.3/4.x.x	Cooperation with HALL encoder – 23 pulses per second



In accordance with the applicable regulations on the disposal of unnecessary equipment by private users in the European Union, an item containing this symbol **MAY NOT** be disposed of with other waste. In this case, the user is responsible for the proper disposal by delivering the device to a designated point or a manufacturer who will take care of its further disposal. Separate collection and recycling of unnecessary equipment facilitates the protection of the environment and ensures that the disposal is carried out in a way that protects human health and the environment. This also applies to spent batteries.

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SIMPLIFIED EU DECLARATION OF CONFORMITY	Nr: 1/2020/D1	CE

HEREBY,
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declares that the equipment type eLB11 is in compliance with Directives:
EMC 2014/30/UE, LVD 2014/35/UE, RED 2014/53/UE, ROHS 2011/65/UE, MD 2006/42/UE

The full text of the EU declaration of conformity is available at the following internet address:
eldrim.pl

SAFETY RECOMMENDATIONS

Before installing and using the controller for the first time, read the manual carefully and keep it for future reference.

DESIGNATION OF SYMBOLS

IMPORTANT SAFETY INSTRUCTIONS!

NOTE!

In accordance with the applicable European regulations, the power-driven gate must be manufactured in compliance with Directive 2006/42/EC. It must also meet the requirements of the standards: EN 13241-1; EN 12445; EN 12453 and EN 12635.

In accordance with the provisions of the Machinery Directive 2006/42/EC, it is hereby declared that the product may not be put into service until the final machine into which it is integrated or of which it is a component has been declared in conformity with the directives and relevant provisions which the final machine must conform to.

GENERAL RECOMMENDATIONS

- It is essential that the person assembling, maintaining and all users of the drive are familiar with these Installation and Operating Instructions.
- Keep the installation and operating instructions in an accessible place.
- Use this product for its intended purpose.
- Observe and comply with the health and safety regulations and standards of the respective countries.
- Installation, connection and initial start-up of the gate drive may only be performed by qualified personnel.
- Only install the drive in properly fitted gates.
- Before performing any operations on the drive, de-energize it and secure it, protecting against accidental activation. This also applies to battery power.
- During any welding works located near the gate, disconnect the gate from the power source and disconnect the electronic circuits.
- Methods of completing electrical installation, as well as its protection against electric shock are defined by current standards and legal regulations.
- Install safety devices (photocells, edge bars, curtains, etc.).
- Install a warning sign on the gate – Gate with automatic movement.
- The manufacturer is not responsible for damages or malfunctions resulting from failure to observe these installation and operating instructions.

Observe all installation instructions. Improper installation can lead to serious personal injury.

SAFETY RECOMMENDATIONS

OPERATION

- Use the drive only if it has been installed in accordance with the applicable standards and guarantees its safety to the user.
- The gate may only be operated by trained personnel.
- Children and people with mental disabilities cannot control the gate.
- Do not insert your hands or other body parts into a moving gate or its moving parts.
- Do not insert any objects or mechanical components into the moving gate or its moving parts.
- Drive through the gate only after it is fully open.
- In case of automatic closing of the gate, secure the edges in accordance with the applicable standards.
- No children, adults, animals, or objects of any kind shall be within the operating area of the gate while it is in motion.
- Check the function of the safety components regularly.
- Malfunctions that may affect safety of use must be corrected immediately.
- Operate the drive in areas where there is no risk of explosion.
- Fluorescent lights must not be used as traffic signals.
- Do not use the drive in a room with an aggressive atmosphere.
- Perform inspection and maintenance work at least every 6 months.

INSTALLATION

- Gates that open automatically using a drive must comply with the applicable standards and directives, e.g. EN 12604, EN 12605.
- Use the drive only in perfect condition, for the intended use, observing the safety and hazard instructions and the assembly and operating instructions.
- The gate must not rest on tilted or uneven foundations when opening or closing.
- The gate must move correctly in the track and running rail, so that the operator can react accurately and shut down the gate in the event of a fault.
- The gate must be stable and rigid, i.e. it must not bend or twist when opening or closing.
- Observe OHS regulations during installation.
- Perform the installation in accordance with the applicable standards.
- The controller may only be installed by qualified persons with appropriate authorizations.
- The installation must be carried out with basic ESD protection.
- Do not connect the drive to the power supply earlier than specified, failure to do so may result in electric shock.

SAFETY CONSIDERATIONS

- It is illegal to pass or drive under a moving gate.
- Lifting or moving objects or persons through the gate is not permitted.
- Keep the control transmitter out of reach of children, as they may use it for play.
- Operate the gate only when the entire gate movement area is clear and free of obstructions.

DESCRIPTION OF THE DEVICE

INTENDED USE

The **eLB11E/eLB11H** controller is intended for gate drives using 230V AC motors of up to 500W. Perfect for continuous operation, it can be used on private properties and in businesses. Variable coding system of Microchip transmitters makes it inaccessible for unauthorized person.

ADVANTAGES OF THE CONTROLLER

- Soft start function for increased gate life.
- Controlled by remote control transmitters (28 pieces) on 433.92MHz frequency with Keeloq rolling code.
- Bell button control.
- **AUTO CLOSE** function.
- **OPEN ONLY** function.
- **PARTIAL OPENING** function.
- Thrust Adjustment.
- Overload control - with encoder operation enabled.
- Programmable coasting time.
- Operating Time Adjustment.
- Deceleration Function.
- Remote programming of motor operation (via transmitters).
- Traffic light with flashing option.
- The function of shortening the auto-close time after detecting a passage -**PHOTO CLOSE**.
- Support for NC and NO limit switches.
- Infrared barrier can be installed.
- Simple installation and programming procedure.

OPERATION METHOD

The drive is controlled via the transmitter button programmed in the **eLB11** or the bell button of the **SBS** sequential control. In the case of control from the **SBS** input and a transmitter assigned to this function, the operation consists in executing step-by-step **OPEN-STOP-CLOSE-STOP** commands or, if the **OPEN ONLY** function is activated, only gate opening is possible. After powering up, the first command is to open, if you give another command while the gate is moving, it will stop, and then you can start it in the closing direction. The **PARTIAL OPENING** function (partial opening) is controlled by pressing the button of the transmitter assigned to this function.

After the power is switched on, if the gate is not at the end position, the movement will be at slow speed. Synchronization occurs when the limit switch is reached.

Depending on the version the controller works with motors with and without built-in encoder. For versions with an encoder, it is also possible to disable its operation during the motor programming procedure. When the ENCODER LED is on, the operation is enabled.

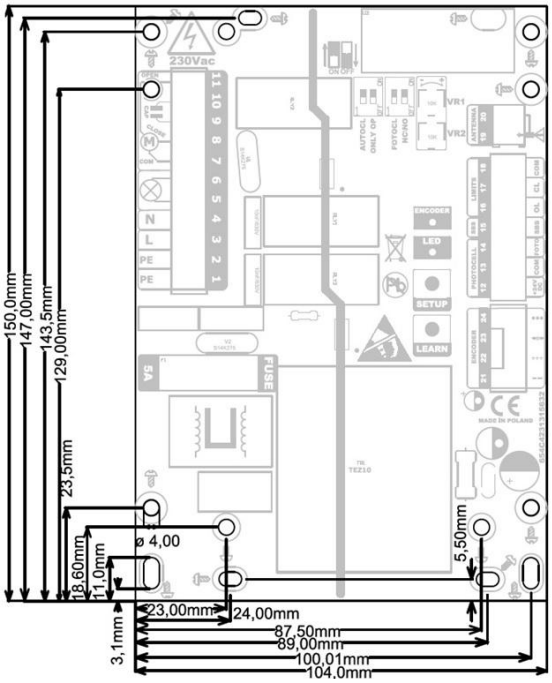
NOTE!

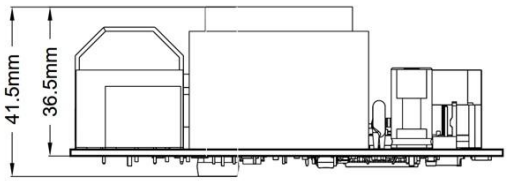
The encoder parameters must match the description in the SOFTWARE paragraph for the corresponding controller version.

TECHNICAL DATA

Power supply	*AC 230V+/-10% 50Hz*
Operation temperature range	*-20 to +70°C*
Power consumption at rest	*<3 W*
Radio receiver	*433.92MHz OOK*
Range	*up to 200 m*
Transmitter type **eLB11E** **eLB11H**	 *Keeloq eLdrim* *Keeloq (400µs Basic Pulse Element)*
Transmitter memory	*28 pc.*
Motor supply voltage	*AC 230V+/-10% 50Hz*
Maximum motor power	*500 W*
Impulse generator parameters **Power:** **Pulse period (50% fill)**	 *+5 V* *-as described in the version*
Auto shut-off/lighting time	*0s-25min/15s-25min*
Maximum operating time	*120s*
Fuse type	*5A/230V, ø5x20*
Housing	*none*
Weight	*435 g*

DIMENSIONS





DRIVER INSTALLATION

Ensure that all safety precautions are met before proceeding with installation.

All installation work must only be performed by qualified persons. The electrical installation and the connection of electronic devices may only be carried out by persons with appropriate electrical qualifications.

1. **Turn the power off.**
2. **Install the controller mechanically.**
3. **Pull out the quick connectors.**
4. **Connect the wires to the quick connectors as described or shown in the wiring diagram:**

4.1. Connection of limit switches for opening and closing.

The opening and closing limit switches are used to precisely stop the gate in a fully opened or closed position. Adjust the position of the magnets so that the gate opens and closes accurately.

16 OL -opening limit switch,
17 CL - closing limit switch,
18 COM - common wire,

The controller cooperates with limit switches – normally open **NO** or normally closed **NC** types. The selection is made using the **NC/NO** switch.

- **NC/NO** from **ON** position – normally open **NO**
- **NC/NO** in **OFF** position – normally closed **NC**

4.2. Connection of light barriers.

The infrared barrier is an essential security component that must be connected to the controller. It prevents the gate from striking a vehicle, person or object in its light. Photocells are essential for the correct operation of the device and ensure safety. If the encoder operation is deactivated, a safety curtain or other additional protection against crushing in the doorway is required. They should be connected in series with the photocells.

PHOTOCELL
12 +24VDC – plus photocell power supply
13 COM – minus photocell power supply
13 COM – photocell COM output
14 FOTO – NC contact for photocell

The power supply capacity of the 24V connector is < 450mA, so make sure that the total power supply load does not exceed this current value. An example of photocell wiring scheme is shown in Figure 2.

4.3. Connection of manual control

Manual control connection should be made with 2x 0.5mm cable (cable type should be in accordance with CEI 20-22; CEI EN50267-2-1 standards), the maximum length of the manual control cable depends on its electrical parameters, therefore the following rule should be adopted: with the required cable length, its resistance should not exceed 100 ohms. As a standard, the use of a 0.5 mm cross-section cable with a length of no more than 20m is sufficient for proper operation of the controller, for larger distances you can use 4x0.5(mm) cables by connecting the wires in parallel – in pairs, or by increasing the cross-section of the cable (2x 1mm).

15 SBS – bell button
18 COM – common wire

4.4. Connecting the encoder – OPTIONAL

The controller that operates the pulse generator located on the motor has an ENCODER connector. Installation consists of connecting appropriately labeled wires to this connector. Pay special attention that the markings on the wires match those on the PCB. If incorrectly connected, the overload control may not function properly and the encoder or controller may be damaged.

21 — — impulses from the encoder,
22 +++ encoder ground,
23 —**X**— encoder ground,
24 ••• encoder +5V power supply,

Next, make the electrical connections of the connector on the left side as shown in Figure 2.

4.5. Connecting the capacitor

Connect the capacitor to connector number 9 and 10, the polarity does not matter.

4.6. Motor connection

Connect the motor as described:

7 COM –common motor lead
11 OPEN – phase wiring of opening direction motor
8 CLOSE – motor phase wiring in closing direction
1 PE – PE protective conductor

4.7. Signal lighting connection

Connect a bulb not exceeding 15W/230V to connectors 5 and 6:

5 – lamp neutral conductor
6 – lamp phase wire

When using the flashing light function, do not connect a signal light with a built-in internal interrupter. This can lead to damage to the controller. In case of using an alarm device with a built-in interrupter, make sure that the light function is set to continuous mode before connecting it.

Fluorescent lights must not be used as signal lighting.

4.8. Power connection

The last step is to connect the power supply to the controller, connect the wires one by one:

2 PE – protective earth conductor
3 L – phase conductor
4 N – neutral conductor

Secure the controller's power supply with a residual current circuit breaker.

5. **Place the quick disconnects back into the controller.**

Before starting the unit, check the power supply, grounding, and wiring. The wires should not be too long, it is not permissible to coil the remaining wire into so-called "loops", to run the controller power, motor and control wires at the same time.

6. **Position the gate manually at the center.**
7. **Turn on the power.**
8. **Check the direction of opening.**

Pressing the manual push-button or the programmed hand-held transmitter activates the gate in the opening direction; if this is not the case, interchange the wires

connected to the **OPEN (11)** and **CLOSE (8)** terminals (after first de-energizing the power supply).

9. **Using the potentiometer VR1 (clockwise rotation increases the value, anticlockwise rotation decreases it), set the motor thrust (selected for the load according to the applicable standards).**

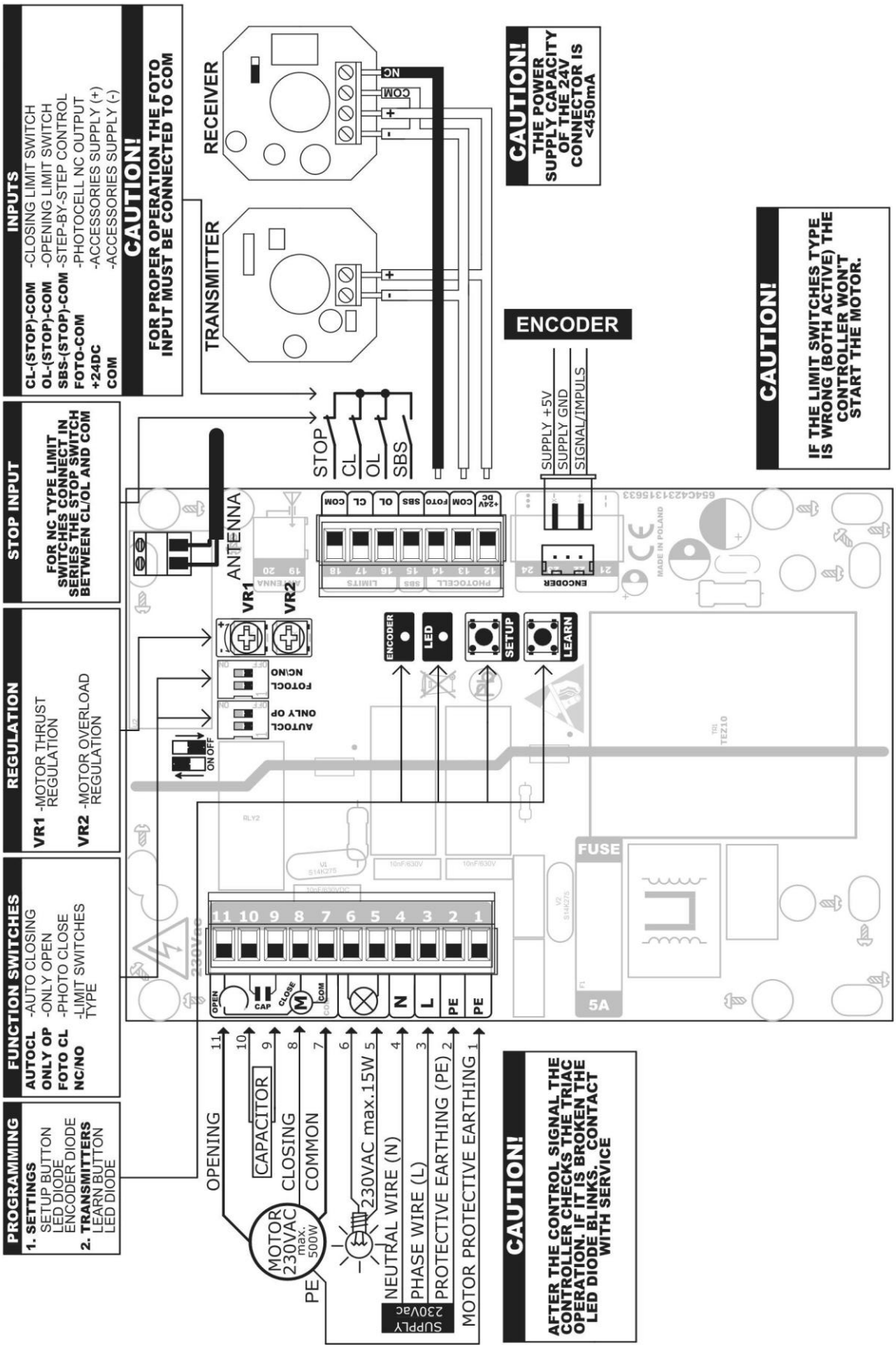
Adjustments should be made in accordance with applicable standards.

10. **Program the remote control transmitters.**
11. **Program the motor following the procedure described in the Programming paragraph.**
12. **For a motor with a pulse generator, adjust the sensitivity of the overload detection with the potentiometer VR2 overload detection sensitivity.**

Adjustments should be made in accordance with applicable standards.

13. **Check the operation of the entire automatic system and all connected safety, signaling and control elements (limit switches, photocell, edge strip, light signaling, etc.).**
14. **Set the available additional functions.**
15. **Train all gate users**.

WIRING DIAGRAM



SETTINGS PROGRAMMING

The controller is programmed using the **SETUP**, **LEARN**, **LED** and **ENCODER** buttons and 4 function switches located on the controller board**.**

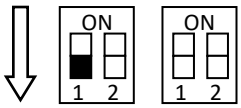
Programming can only take place when the gate is at a standstill. If you start programming the controller while the auto-close time is counting down, the countdown will stop and you will need to press the SBS button or remote control to close the gate.

SIGNAL LIGHTING

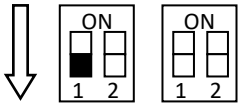
When the gate is moving, the traffic light can be operated in two modes: permanently on or flashing (slow when the gate is opening, fast when the gate is closing). In addition, it can act as auxiliary lighting for the driveway or garage with delayed shutoff.
*Perform programming with the **AUTO CL** switch turned off.*

SETTING OF THE LIGHT-OFF DELAY TIME

Set in the range from 0s to 25min with a step of 15s. Default: 0s

When the **AUTO CL** function is on, set the **AUTO CL** switch to OFF.	
Press and hold the **SETUP** button for less than **3s**. When pressed, the **LED** is illuminated.	
Release the **SETUP** button.	
The **LED** will blink rapidly.	
Start setting the time within **5s**. Press the **SETUP x** times. One press corresponds to **15s**. Each press of the button is indicated by the LED lighting up. If the button is not pressed within **5s**, the controller will set the time to **0s**.	
After **3s** from the last pressing, the **LED** will blink 3 times. The controller will save the settings and return to normal operation.	
Set the **AUTO CL** switch to the desired position.	

FLASHING ON/OFF (Default: on)

When the **AUTO CL** function is on, set the **AUTO CL** switch to **OFF**.	
Press and hold the **SETUP** button for less than **3s**. When pressed, the **LED** is illuminated.	
Release the **SETUP** button.	

The **LED** will blink rapidly.	
Press and hold the **SETUP** button again within **3s**. Pressing the button will be indicated by continuous lighting of the LED.	3s SETUP
The **LED** will blink rapidly.	
Release the **SETUP** button.	SETUP
When the button is released, the **LED** will indicate the current status of the function. The light turned on means active function, and off means inactive function.	Enabled Disabled
To change the status of the function to the opposite, press the **SETUP** button briefly within **3s**.	SETUP SETUP
After **3s** from the last pressing, the **LED** will blink 3 times. The controller will save the settings and return to normal operation.	3s 3x

AUTO-CLOSE FUNCTION

When the gate stops after the OPEN signal, the user-set time is counted down, after which CLOSE will occur. The light is on during the countdown. Photocells are required for user safety, (so that the gate will not close when there is an obstruction in it!). Additionally, when the **PHOTO CLOSE** function is activated, the photocells will shorten the auto-close time and after detecting a passage, the gate will close after 5s. If there is less than 5s remaining before the automatic shutdown, each detected pass will result in additional 5s countdown. If the gate is in the fully open position, any signal attempting to operate the gate in the open direction will cause the auto-close time to count up again.

NOTE If the gate is stopped by means of a hand transmitter or a control button during closing, the countdown stops and the control button has to be pressed again to close the gate – this can be used if it is necessary to leave the gate open for a while.

Set the **AUTO CL** switch to **ON** to **activate** the function.	ON 1 2 ON 1 2
Set the desired auto-close time according to the procedure.	**SETTING THE AUTO-CLOSING TIME**
To **disable** the function, set the **AUTO CL** switch to **OFF**.	ON 1 2 ON 1 2

SETTING THE AUTO-CLOSING TIME

Set in the range from 15s to 25min, with a step of 15s. Default: 6 min

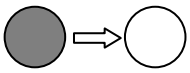
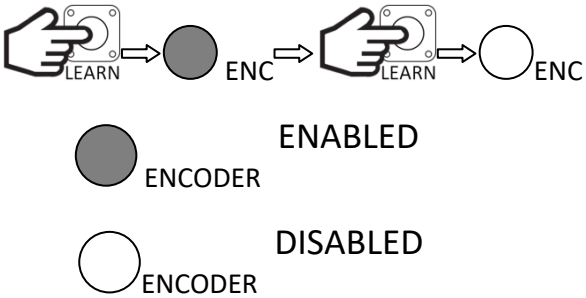
The **AUTO CL** switch must be in the **ON** position.	ON 1 2 ON 1 2

Press and hold the **SETUP** button for less than **3s**. When pressed, the **LED** is illuminated.	
Release the **SETUP** button.	
The **LED** will blink rapidly.	
Start setting the time within **5s**. Press the **SETUP x** times. One press corresponds to **15s**. Each press of the button is indicated by the LED lighting up. If the button is not pressed within **5s**, the controller will set the factory time.	
After **3s** from the last pressing, the **LED** will blink 3 times. The controller will save the settings and return to normal operation.	

PROGRAMMING MOTOR OPERATION

The maximum motor running time is 2min. The controller allows you to program the slowing down of the gate - during this time, the motor runs at a reduced speed reaching the end position. Adjust the settings so that the motor slows down approximately 50 cm before the end position.

DEFAULT FACTORY SETTINGS: 60s (no slowdown)

NOTE The photocell input is ignored during the procedure. Adjust the thrust on the **VR1** potentiometer according to the applicable standards.	
Press and hold down the **SETUP** button.	
The **LED** will light up and then turn off.	
Release the **SETUP** button.	
If the gate is in the fully closed position, the **LED** will blink rapidly and the **<u>subsections marked with * should be skipped</u>**. If the gate is not in the fully closed position, the LED will blink slowly.	
Briefly press the **<u>LEARN</u>** key to set whether the motor has a built-in pulse generator. Pressing the button changes the function state to the opposite. When the **ENCODER** LED is lit, the encoder operation is on, and when it is off, it is disabled. ***(For controller versions without encoder support, skip this item.***)	

* Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
* The gate will start closing with the power set at potentiometer **VR1**. The **LED** will be turned on.	F% M CLOSING
* When the gate reaches the fully closed position, the **LED** will blink rapidly.	M STOP CL
Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
The gate will begin to open and close with the power set at potentiometer **VR1**. The **LED** will be turned on.	F% M OPENING
To designate deceleration positions before full opening, press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS** function.	SBS or SBS
The gate will open at a slow speed. The **LED** will be turned on.	L% M OPENING
The gate stops in the fully open end position. The **LED** will turn off.	M STOP OL
Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
The **LED** will blink 3 times to indicate acceptance of the time and then start blinking while waiting for the operation settings in the closing direction.	3x ⇨
Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
The gate will start to close with the power set at potentiometer **VR1** . The **LED** will be turned on.	F% M CLOSING
To designate deceleration positions before fully closing, press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS** function.	SBS or SBS
The gate will close at a slow speed. The **LED** will be turned on.	L% M CLOSING
The gate stops at the fully closed end position. The **LED** will turn off.	M STOP CL
Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
The **LED** will blink 3 times to confirm that the settings are stored. The controller will return to	3x

normal operation.	
NOTE To return to normal operation without saving the settings, press the **SETUP** button for less than **3s**. The gate will stop and the **LED** will blink once.	SETUP ⇨ M STOP 1x
NOTE If you do not want to use the deceleration function, do not press the **SBS** button during programming when the motor is running in the given direction, and wait until the gate has reached its end position.	F% M SBS ⇨ M STOP OL/CL
NOTE Perform the motor operation programming procedure again after each motor power adjustment on potentiometer **VR1** .	⇨ MOTOR OPERATION PROGRAMMING
For encoder operation, adjust the overload with **VR2** potentiometer according to the applicable standards.	VR2

RETURNING TO DEFAULT SETTINGS – 60s operation without encoder and without deceleration.

Hold down the **SETUP** button.	SETUP
The **LED** will light up and then turn off.	⇨
Release the **SETUP** button.	SETUP
If the gate is in the fully closed position, the **LED** will blink rapidly, and if it is in any other position it will blink slowly.	M STOP CL M STOP ?
Hold down the **SETUP** button.	SETUP
The **LED** will blink 3 times.	3x
Release the **SETUP** button. The controller will return to normal operation.	SETUP

PARTIAL OPENING FUNCTION

Allows the gate to be partially opened to a programmed width using the remote control transmitters assigned to this function. The opening width can be programmed. With the **PHOTO CLOSE** function activated, the gate stops if an obstacle is detected during opening. It can be closed by pressing the manual control button or the remote control. In combination with activated functions **AUTO CLOSE** and **PHOTO CLOSE** during opening, when an object appears in the photocell range, the gate will stop, and after removing the object, it will automatically close after **5s**.

SET PARTIAL OPENING WIDTH

Press and hold down the **SETUP** button.	SETUP
The **LED** will light up, turn off, and light up again.	
Release the **SETUP** button.	SETUP
If the gate is in the fully closed position, the **LED** will blink rapidly and the subsections marked with * should be skipped.	M STOP CL
* If the gate is not in the fully closed position, the LED will blink slowly.	M STOP ?
* Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
* The gate will start closing. The **LED** will be turned on.	F% M CLOSING
* When the gate reaches the fully closed position, the **LED** will blink rapidly.	M STOP CL
Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
The gate will start opening. The **LED** will be turned on.	F% M OPENING
To determine the stop positions, press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS** function.	SBS or SBS
The gate will stop. The **LED** will turn off.	M STOP
Press the **SBS** sequential control button for less than **3s** or the transmitter button assigned to the **SBS**	SBS or SBS
The **LED** will blink 3 times to confirm that the settings are stored. The controller will return to normal operation.	3x
NOTE To return to normal operation without saving the settings, press the **SETUP** button for less than **3s**. The gate will stop and the **LED** will blink once.	SETUP M STOP 1x
NOTE After each adjustment of the motor power at the **VR1** potentiometer, perform the gate opening width programming procedure again.	SET PARTIAL OPENING WIDTH

DISABLING THE PARTIAL OPENING FUNCTION

Press and hold down the **SETUP** button.	SETUP
The **LED** will light up, turn off, and light up again.	
Release the **SETUP** button.	SETUP
If the gate is in the fully closed position, the **LED** will blink rapidly, and if it is in any other position it will blink slowly.	M STOP CL M STOP ?
Press and hold down the **SETUP** button.	SETUP
The **LED** will blink 3 times.	3x
Release the **SETUP** button. The controller will return to normal operation.	SETUP

COASTING TIME

During normal operation, the gate moves at full speed and in the deceleration position, power to the motor is turned off for the programmed coast down time (to account for inertia) and then it moves at slow speed. If there is a jerking effect when changing from full speed to slow speed, adjust the coast down time.

NOTE

The coast down time affects the determination of the deceleration position and must be programmed before programming the motor operation or perform the learning procedure again after changing the parameter.

Set in the range from 0.1s to 1s with a step of 0.1s. Default: 0.3s

Press and hold down the **SETUP** button.	SETUP
The **LED** will turn on, turn off, turn on, and turn off again.	
Release the **SETUP** button.	SETUP
The **LED** will blink rapidly.	

Start setting the time within **5s**. Press **SETUP x** times. One press corresponds to **0.1s**. Each press of the button is indicated by the LED lighting up. If the button is not pressed within these **5s**, the controller will set the factory time to **0.3s**.	
After **3s** from the last pressing, the **LED** will blink **3** times. The controller will save the settings and return to normal operation.	

OPEN ONLY FUNCTION

Facilitates entry-exit communication by ensuring that the gate does not close when another person operates the gate with a manual control button or remote control. **This function works only with AUTO CLOSE enabled.**

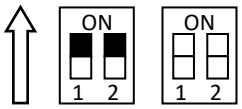
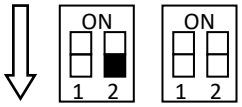
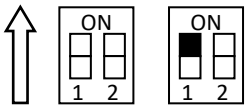
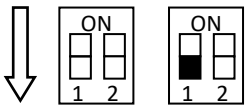
Set the **AUTO CL** and **ONLY OP** switches to ON to **activate** the function.	
To **disable** the function, set the **ONLY OP** switch to OFF.	

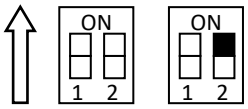
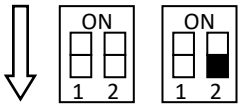
PHOTO CLOSE FUNCTION

Allows the gate to close faster and saves energy. When **<u>opening</u>** the gate, after triggering the photocells, the gate stops and with **AUTO CLOSE** activated, after detecting a passing person, the auto-close time is reduced, and the gate closes after **5s**.

Set the **FOTO CL** switch to **ON** to **activate** the function.	
To **disable** the function, set the **FOTO CL** switch to **OFF**.	

TYPE OF LIMIT SWITCHES

The controller works with both normally open and normally closed limit switches. The supported type is selected by the switch marked **NC/NO**.

For **NO** type switches, set the **NC/NO** switch to **ON**.	
For **NC** type switches, set the **NC/NO** switch to **OFF**.	

DELETING ALL TRANSMITTERS

When the memory is full or there are problems with programming the transmitters, you need to perform the erase procedure. We recommend performing this procedure first immediately after installing the receiver.

Press and hold down the **LEARN** button.	LEARN
The **LED** will light up, turn off, and start blinking.	
Release the **LEARN** button. The **LED** will turn on.	LEARN
Press and hold the **LEARN** button again within **3s**.	3s LEARN
The **LED** will blink 3 times.	3x
Release the button. Erasure procedure completed. When the LED stops blinking, the receiver will return to normal operation.	LEARN

DELETING TRANSMITTERS FROM A PARTICULAR FUNCTION

It is possible to delete transmitters only from a particular function **(SBS** or **PARTIAL OPENING**).

Enter the transmitter programming procedure for the function.	TRANSMITTER PROGRAMMING PROCEDURE
Hold down the **LEARN** button while waiting for the transmitter code.	LEARN
The **LED** will blink 3 times.	3x
Release the button. When the **LED** stops blinking, the reset procedure is complete and the controller will return to normal operation.	LEARN

TRANSMITTER PROGRAMMING

You can program up to **28** transmitters with Keeloq rolling code. Each button must be taught separately. It is possible to change the buttons that control a function of an already programmed transmitter by reprogramming another button. When programming changes, remember that when programming to a function, an unprogrammed button will override a previously programmed button in that function. A button previously programmed for one function when programmed for a second function only works in the second function.

Program the transmitter for the SBS sequential control function.

Press and hold **LEARN** button for less than **3s**.	LEARN <3s
The **LED** will blink rapidly.	

Press the transmitter button within **10s** .	10s
Correct programming will be indicated by the **LED** blinking 3 times. 2 blinks indicate full memory. 1 blink indicates the end of the learning time.	**3x – programmed** **2x – full memory** **1x – end of time**
After correct programming, you have another **10s** to program the remaining transmitters etc.	10s
To end the procedure, wait **10s** after the last programming or press the **LEARN** button briefly. **LED** will blink and the receiver will return to normal operation.	LEARN <3s 10s **1x**

Programming the transmitter for the PARTIAL OPENING function

Allows the gate to open to a set width. With the **PHOTO CLOSE** function activated, the gate stops if an obstacle is detected during opening. It can be closed by pressing the manual control button or the remote control assigned to this function. In combination with the activated **AUTO CLOSE** and **PHOTO CLOSE** functions during opening, when an object appears within photocell range, the gate will stop, and after removing the object, it will automatically close after 5s.

Press and hold down the **LEARN** button.	LEARN
The **LED** will light up and then turn off.	
Release the button.	LEARN
The **LED** will blink rapidly.	
Press the transmitter button within **10s** .	10s
Correct programming will be indicated by the **LED** blinking 3 times. 2 blinks indicate full memory. 1 blink indicates the end of the learning time.	**3x – programmed** **2x – full memory** **1x – end of time**
After correct programming, you have another **10s** to program the remaining transmitters etc.	10s
To end the procedure, wait **10s** from the last programming or press the **LEARN** button briefly. **LED** will blink and the receiver will return to normal operation.	LEARN <3s 10s **1x**

REMOTE PROGRAMMING OF TRANSMITTERS (FOR SBS FUNCTION) –eLB11E

Remote programming of the transmitters is performed when the gate is **fully open** and a 4-channel transmitter (e.g. type 4E433) has been programmed in advance.

The gate must be fully open.	M STOP OL
Press and hold buttons **A** and **B of the programmed** transmitter simultaneously for approx. **5s**.	A B
The indicator lamp will turn on, or if the light-off delay is enabled, it will flash once (the **LED** will turn on).	OR 1x
Release the **A** and **B** buttons.	A B
Within **5 seconds**, press the button of the **programmed** transmitter that controls the **SBS** or **the PARTIAL OPENING** function. **NOTE** *The new transmitter will be assigned to the function for which the pressed button is programmed.*	5s
The signal lamp will turn off (**LED** will blink rapidly).	
Press the button of the transmitter you want to program within **5 seconds**.	5s
Correct programming will be indicated by the indicator lamp and **LED** flashing 3 times. 2 blinks indicate full memory. 1 blink indicates the end of the learning time.	**3x – programmed** **2x – full memory** **1x – end of time**
Check the correctness of the operation. When the programmed button is pressed, the action should be according to the assigned function.	

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Distributor / Seller