

QULP-G

Functional Motor Control Board



KONTAL

CE



Before using your device, be sure to read the user manual. Follow the steps described in the installation, electrical connection, and initial start-up sections carefully, in the order given. After this stage, the product owner/user must keep this user manual in a known and accessible location for the entire service life of the product.

- Store the product in a dry environment. Otherwise, the product may malfunction.
- For products powered by a battery or rechargeable battery, the battery is not covered by the warranty. Likewise, faults caused by battery discharge or leakage in products that have reached the end of their shelf life are not covered by the warranty.
- All service and repair operations may only be carried out by Kontal Elektronik technical service. The product must not be tampered with by any other person.
- The operating voltage of each product is indicated on its label. Do not supply the product from any source other than this voltage value.



- ✓ Using the product in a manner that does not comply with the items stated above may cause fire, serious personal injury, or damage to the product or the structure it is installed on. Kontal Elektronik San. ve Tic. Ltd. Şti. accepts no responsibility for such situations caused by the user.
- ✓ This symbol will be used for important points in the following sections.



- ✓ Do not touch the power supply points of the product with bare hands.
- This symbol will be used for voltage-related warnings in the following sections.



- This symbol on the label indicates that the product's supply voltage is DC.



- This symbol on the label indicates that the product has reinforced insulation.



- This symbol on the product or its packaging indicates that this product must not be treated as ordinary household waste. Instead, the product must be handed over to the designated collection points for the recycling of electronic equipment. Improper disposal of the product may have negative effects on the environment and human health.



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- Make sure the system is properly grounded for the product to operate correctly.

1. DESCRIPTION

QULP-G - Functional Motor Control Board is a versatile control module that provides advanced and flexible control of motorized gate and barrier systems. The device can be controlled **wirelessly with QULP series remote controls**, or **by wire via button inputs**. Through the settings on the board, the user can easily configure **the motor running times, relay pull-in times, and automatic closing functions**. The **photocell inputs, limit switch inputs**, and various **configurable digital inputs** on the board increase system safety and functionality. These features allow for applications customized to different field requirements.

1.1 Box Contents

1x QULP-G – Functional Motor Control Board	1x QULP-G User Manual 1x 8cm Internal Wire Antenna
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**For custom orders, the box contents may vary depending on the project or customer request.*

2. TECHNICAL SPECIFICATIONS

Model	QULP-G
Product Code	K142-01
Operating Voltage	220V AC
Operating Current	30mA @ 220V AC
Operating Frequency	868.35MHz
Operating Modes (Adjustable)	Step by Step – Open/Close – Press-and-Hold
Operating Temperature	-20 °C +55 °C
Contact Type	220V AC
Contact Capacity	250V AC 10A
Contact Pull-in Time	5-300s (Adjustable)
Remote Control Capacity	500
Weight	450g
Dimensions (Width x Length x Height)	109 x 150 x 45.5mm

3. Qulp-G – USER SETTING COMPONENTS

- **LEARN BUTTON:** This component allows you to enroll the **QULP** series remote controls that let you control your control board.
- **RELAY TIME BUTTON:** This component lets you set the relay pull-in time of your control board.
- **AUTO CLOSE TIME BUTTON:** This component lets you set the automatic closing time of your control board.
- **DIPSWITCH:** This component lets you set the operating modes of your control board.



Always disconnect the power to the device before making electrical connections. Otherwise, electric shock or device malfunction may occur.



The photocell and stop button are of NC (Normally Closed) type. Disconnect the power before making any connection changes. Otherwise, the device may operate incorrectly.



Never touch the connection points after the power connections of the product have been made!



The fuses on the product have been positioned in the design so that you can easily access and replace them whenever necessary.

4. Qulp-G – CONTROL BOARD

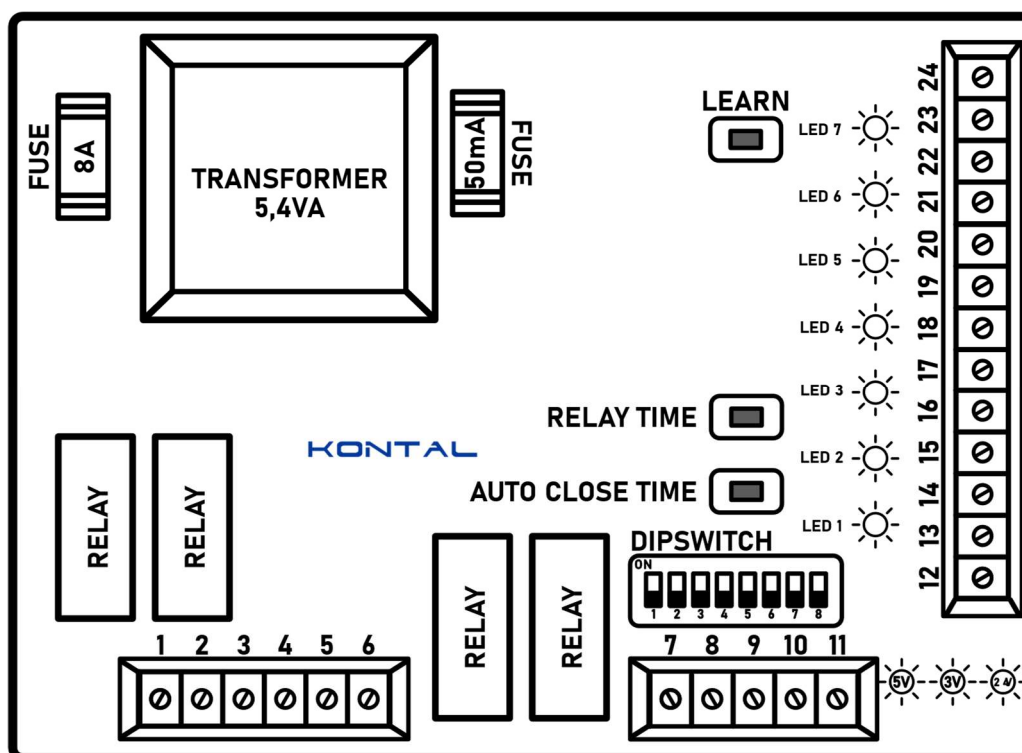


Figure 4.1 Qulp-G Control Board



To perform the steps below, you must connect a stop button to the product. If you will not use a stop button, you must short-circuit the **STOP BUTTON** input to **GND** (terminals 22 and 23). Otherwise, you will not be able to perform any of the steps described below!

4.1 Qulp-G – Dipswitch Functions

	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
REMOTE CONTROL			✓					✓
EXTERNAL BUTTON	✓		✓					
RELAY TIME						✓		
PHOTOCELL				✓	✓			
OTHER		✓					✓	

Dipswitch No.	Dipswitch Position	Dipswitch Function
1	ON	When the external buttons are pressed, the system moves either until one of the limit switch inputs becomes active or until the defined relay pull-in time elapses.
	OFF	The system moves for as long as the external buttons are pressed. Pressing once is sufficient for the opening operation. The gate continues to move until one of the limit switches becomes active or the set relay pull-in time elapses.

2	ON	Automatic closing mode is active.
	OFF	Automatic closing is inactive.
3	ON	The button or remote control that triggers the system activates the gate; the same button or remote control can return the gate to the inactive position again (open/close function).
	OFF	The feature described in the ON position of dipswitch No. 3 is disabled.
4	ON	When an obstacle enters the detection area of the photocells, it opens the gate, then continues closing the gate once the obstacle leaves.
	OFF	When an obstacle enters the detection area of the photocells, it opens the gate; if automatic closing is active, it closes the gate at the end of the set time.
5	ON	While the motor is running in the closing direction, if an obstacle enters the detection area of the photocells, the gate stops; afterward, once the obstacle leaves, the gate continues moving in the closing direction.
	OFF	The features of dipswitch No. 4 apply.
6	ON	The transition time between relays is short (particularly suitable for bollard barrier systems).
	OFF	The transition time between relays is long.
7	ON	The limit switch inputs operate on the NO (Normally Open) principle.
	OFF	The limit switch inputs operate on the NC (Normally Closed) principle.
8	ON	The automatic learning feature for remote controls is active.
	OFF	The automatic learning feature for remote controls is inactive.

5. Qulp-G – Remote Control Enrollment / Deletion

5.1 Remote Control Enrollment



To enroll a new remote control to the control board, QULP series remote controls must be programmed using the QULP-X programming device.

Step 1: Press and hold the LEARN button on the control board until you hear a beep from the buzzer. (1/2s)

Step 2: When you hear the beep from the buzzer, release the button, then **press/release** the corresponding buttons on the remote controls you want to enroll. The buzzer will sound **two short beep** for every successfully enrolled remote control. The control board stays in learning mode for 10s; if no new remote control is enrolled during this time, the control board will exit learning mode after 10s and return to normal operating mode. Up to **500 QULP** series remote controls can be enrolled to the control board.

5.2 Remote Learning Mode *(Only for Kontal-Coded QULP Series Remote Controls!)*



For this feature to be used, dipswitch No. 8 must be active.

It allows you to add a new remote control to the system via an existing remote control, without opening the board cover.

Step 1: Press **buttons 1 and 2** of any remote control already registered to the control board at the same time. When the remote control's LED lights up steadily, release your fingers and then press, in order, **button 1 seven times and button 2 three times**. (When the LED on the control board turns on and the buzzer starts beeping, this means the mode has been entered.)



Channel Matching Requirement

When enrolling a new remote control, the same button/channel used on the old remote control must be selected.

- Example: If you enrolled the old remote control using button 1, you must also enroll the new remote control by pressing and releasing button 1. If a different button is used, the system will not save the new remote control.

Step 2: Press and release **the corresponding channel** of the new remote control you want to enroll (**you must enroll it using the same channel you used for the old remote control**). The buzzer will sound **two short beep** for every successfully enrolled remote control. The control board stays in learning mode for 10s; if no new remote control is enrolled during this time, the control board will exit learning mode after 10s and return to normal operating mode. Up to **500 QULP** series remote controls can be enrolled to the control board.

5.3 Automatic Learning Mode

(Only for Non-Kontal-Coded QULP Series Remote Controls!)



For this feature to be used, dipswitch No. 8 must be active.

In this mode, you can enroll QULP series remote controls that are not yet registered to the control board but share the same manufacturer code as a remote control already registered, simply by pressing and releasing the relevant buttons, without accessing the control board directly. The buzzer will sound **two short beep** for every successfully enrolled remote control. Up to **500 QULP** series remote controls can be enrolled to the control board.

5.4 Delete Remote Controls

Step 1 : Disconnect the power from the control board, then press and hold the LEARN button while reconnecting the power.

Step 2 : The buzzer on the board will emit a beeping sound; keep holding the button until the sound stops. Release the button once the sound ceases. When you hear 2 beeps from the buzzer, all remotes will be erased.

6. Qulp-G – OPERATING MODES

6.1 Step-by-Step Mode

This is the default mode of the control board. In this mode, using only 1 button of the remote control, you can perform both open–stop and close–stop operations.

6.2 Open – Close Mode

In this mode, when the control board is triggered with an enrolled remote control, the relevant (i.e., enrolled) button of the remote control triggers the system in the opening direction, while the next button triggers it in the closing direction.

To switch to this mode, follow the steps below;

Step 1: Press and hold the LEARN Button on the control board for approximately 10s.

Step 2 : After 10s, when the control board beeps 4 times, its operating mode will have changed. After this signal, release the button. If you want to switch back to the previous mode (Step-by-Step), repeat the same steps again.

6.3 Press-and-Hold Mode

To use this mode, press and hold the relevant button of the remote control enrolled to the control board for approximately 1.5s; after this time, the remote control will send a "run for as long as pressed" signal to the control board, allowing you to run the system until you release the button. No setting is required to switch to this mode — simply press and hold the enrolled remote control for 1.5s or for as long as you want, to control the output of the control board.

7. Qulp-G – SETTING THE CONTACT (RELAY) PULL-IN TIME

Step 1: Disconnect the power to the device

Step 2: While pressing and holding the **RELAY TIME** button on the board, reconnect **power to the device**.

Step 3: Keep pressing the button until you hear **5 beeps from the buzzer**, then release it when you hear the sound.

Step 4: The system starts running in the closing direction (*the buzzer beeps once per second*).

Step 5: When the gate reaches the desired point, press the **RELAY TIME** button again. The elapsed time is saved as the contact time.



If the button is not pressed again, the gate runs until it reaches the limit switch, and that time is saved (*maximum time: 5 minutes*).

8. Qulp-G – SETTING THE AUTOMATIC CLOSING TIME



This setting applies if the automatic closing feature has been activated via the dipswitch; when the gate remains open, it automatically closes the gate at the end of the set time.

Step 1: Disconnect the power to the device.

Step 2: While pressing and holding the **AUTO CLOSE TIME** button on the board, reconnect **power to the device**.

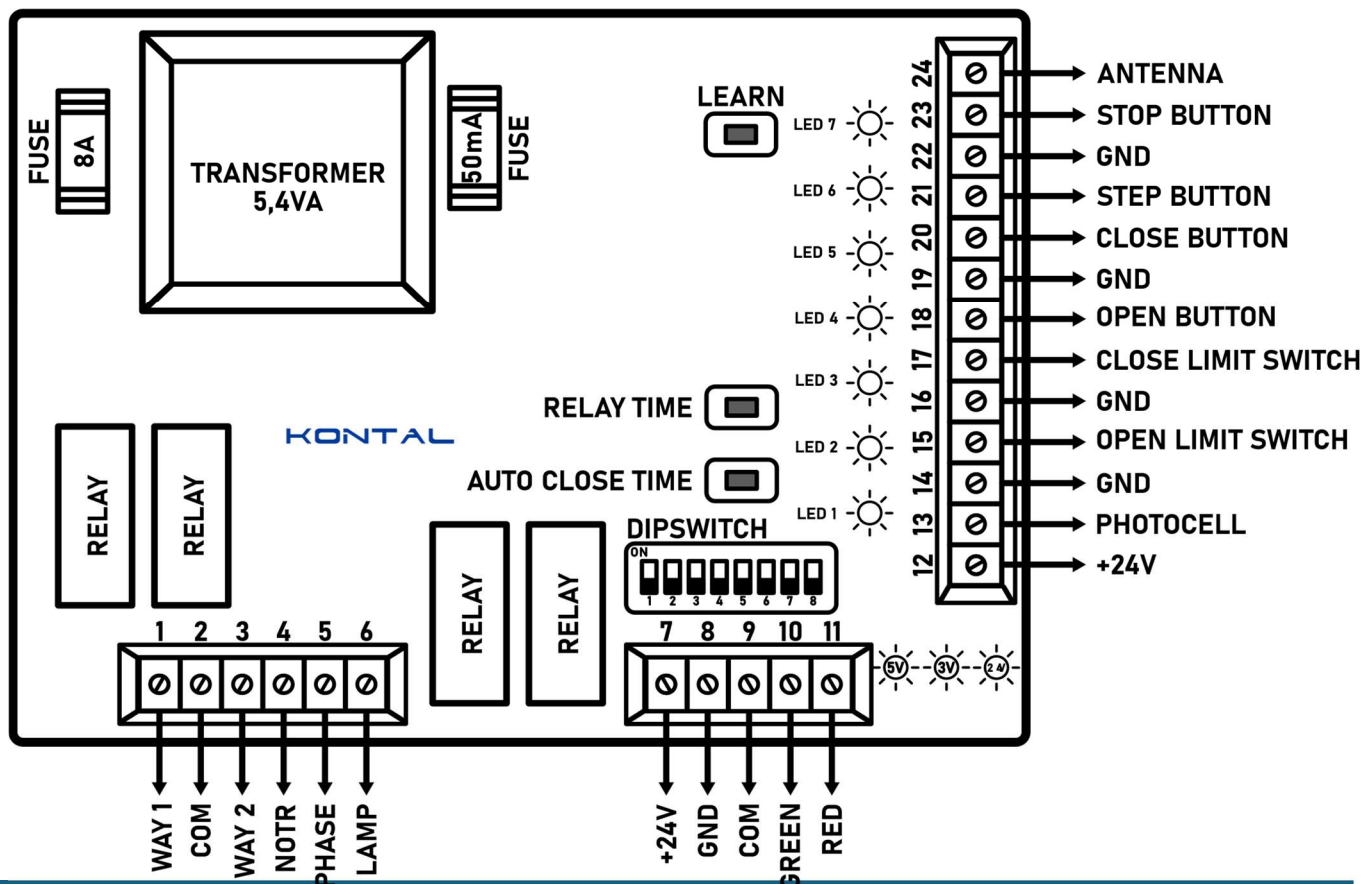
Step 3: Keep pressing the button until you hear **5 beeps from the buzzer**, then release your finger when you hear the sound. (*The buzzer starts beeping once per second*).

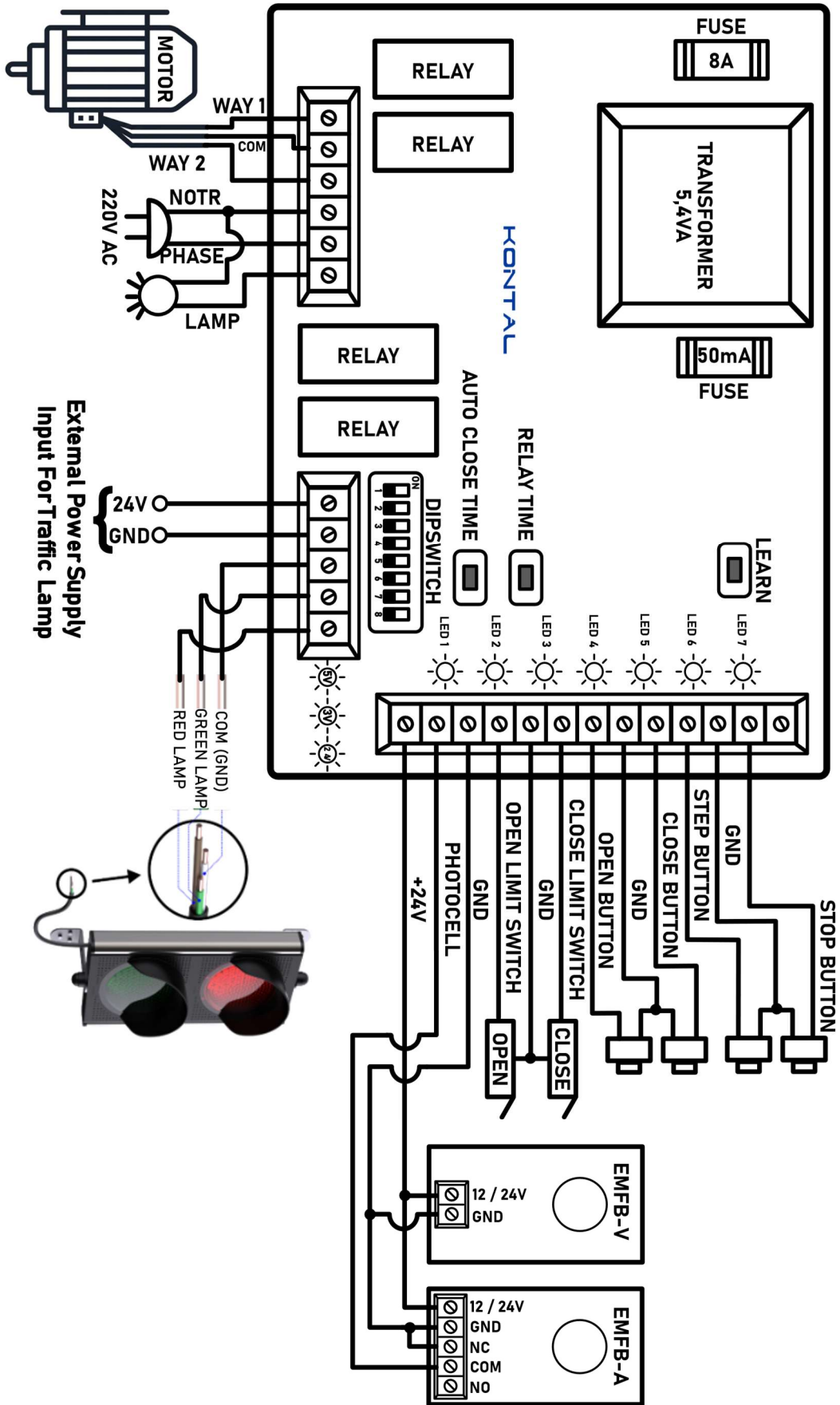
Step 4: Wait for the desired **automatic closing time to elapse**, then press **AUTO CLOSE TIME** again. The buzzer stops and the elapsed time is saved.



If the button is not pressed again, the system saves the maximum time of 2 minutes as the automatic closing time.

9. WIRING DIAGRAM





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