

GA

Functional Motor Control Board



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Before operating the device, be sure to read this user manual carefully. Follow the steps described in the installation, electrical connection, and initial startup sections with attention. After completing these steps, the product owner/user must keep this manual in a known and easily accessible location for the entire service life of the product.



- Store the product in a dry environment. Otherwise, malfunctions may occur.
- In battery- or accumulator-powered products, batteries and accumulators are not covered under warranty. Similarly, failures caused by battery discharge or leakage in products that have exceeded their shelf life are not covered under warranty.
- All service and repair operations must be carried out exclusively by Kontal Elektronik technical service. The product must not be tampered with by unauthorized personnel.
- The operating voltage of each product is indicated on the label. Do not supply the device with a voltage different from the specified value.



- ✓ Failure to comply with the above-mentioned conditions may result in fire, serious personal injury, or damage to the product or the structure in which it is installed. In such cases caused by user negligence or misuse, **Kontal Elektronik San. ve Tic. Ltd. Şti.** assumes no responsibility.
- ✓ This symbol will be used to highlight important notes in the following sections.



- ✓ Do not touch the power supply terminals of the device with bare hands.
- This symbol will be used to indicate warnings related to voltage in the following sections.



- This symbol on the label indicates that the device operates with a DC supply voltage.



- This symbol on the label indicates that the device is equipped with reinforced insulation.



- This symbol on the product or its packaging indicates that the product must not be disposed of as household waste. Instead, it should be delivered to designated collection points for the recycling of electrical and electronic equipment. Improper disposal or destruction of the product may have adverse effects on the environment and human health.



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- Ensure that the system is properly grounded for the device to operate reliably.

1.DEFINITION

The **GA Functional Motor Control Board** is a versatile control unit engineered for industrial and residential automated gates, roller shutters, and motorized automation systems. Featuring user-friendly parameter configurations, advanced safety functions, and an integrated receiver, it ensures complete control and reliable, safe operation of your motor systems.

1.1 Box Content

1x GA – Functional Motor Control Board	1x GA User Manual
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**For special orders, the box contents may vary depending on the project or customer requirements.*

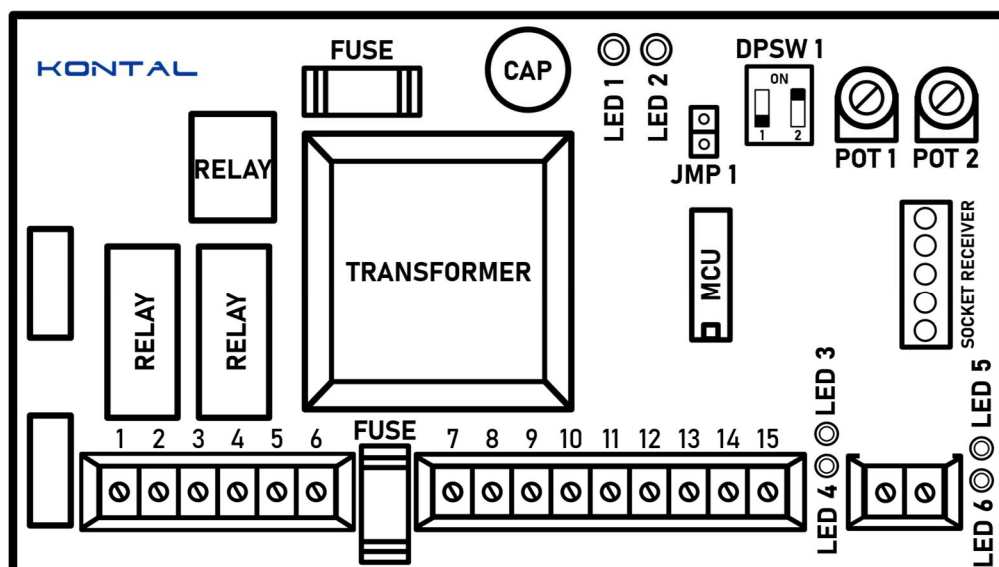
2.TECHNICAL SPECIFICATION

Model	GA Functional Motor Control Board
Product Code	K033-01
Operating Voltage	220V AC 50Hz
Operating Current	20mA @ 220V AC 50Hz
Operating Frequency	433,92MHz (Optional)
Operating Temperature	-20 °C +55 °C
Contact Type	220V AC
Contact Capacity	250V AC 10A (max.)
Contact Response Time	0,3sn(min.) / 180sn(max.) (Adjustable)
Weight	470gr
Dimensions (W X H X D)	98,3 x 157,5 x 50mm

3.GA – USER ADJUSTMENT

- **DPSW 1** : Enables or disables the automatic closing feature and allows you to reverse the motor drive direction.
- **POT1** : Adjusts the automatic closing time (delay) of the device.
- **POT2** : Adjusts the relay contact hold time (activation time) of the device.

4.GA – CONTROL BOARD

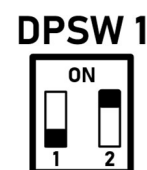


4.1 GA – LED`s STATUS

LED	ON	OFF
LED 1	24V Supply Voltage is on	Fuse or Transformer was burnt
LED 2	5V Active	
LED 3	Button is pressed	Button is not pressed
LED 4	Photocell Contact is Passive (No obstacle detected between photocells)	Photocell Contact is Active (Obstacle detected between photocells)
LED 5	1. Limit Switch active	1. Limit Switch passive
LED 6	2. Limit Switch active	2. Limit Switch passive

4.2 GA – Setting the Automatic Closing Time

Step 1 : Set DIP switch no. 2 to the **ON** position as shown in the figure.



Step 2: You can set the automatic closing time of the product using POT1. Turning POT1 clockwise increases the automatic closing time, while turning it counterclockwise decreases it. The automatic closing time can be adjusted between a minimum of 5 seconds and a maximum of 80 seconds.



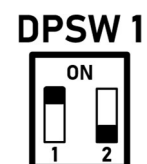
4.3 GA – Setting the Contact Response Time

Step 1: You can set the relay contact hold time of the product using POT2. Turning POT2 clockwise increases the hold time, while turning it counterclockwise decreases it. The relay contact hold time can be adjusted between a minimum of 0.3 seconds and a maximum of 180 seconds.



4.4 GA – Motor Direction Reversal

In the event of incorrect motor wiring, this feature allows you to reverse the operating direction of the system without disconnecting the cables. To activate this feature, set DIP switch no. 1 to the ON position. **Note:** If the gate stops and closes when an obstacle crosses the photocell during opening, change the position of DIP switch no. 1.

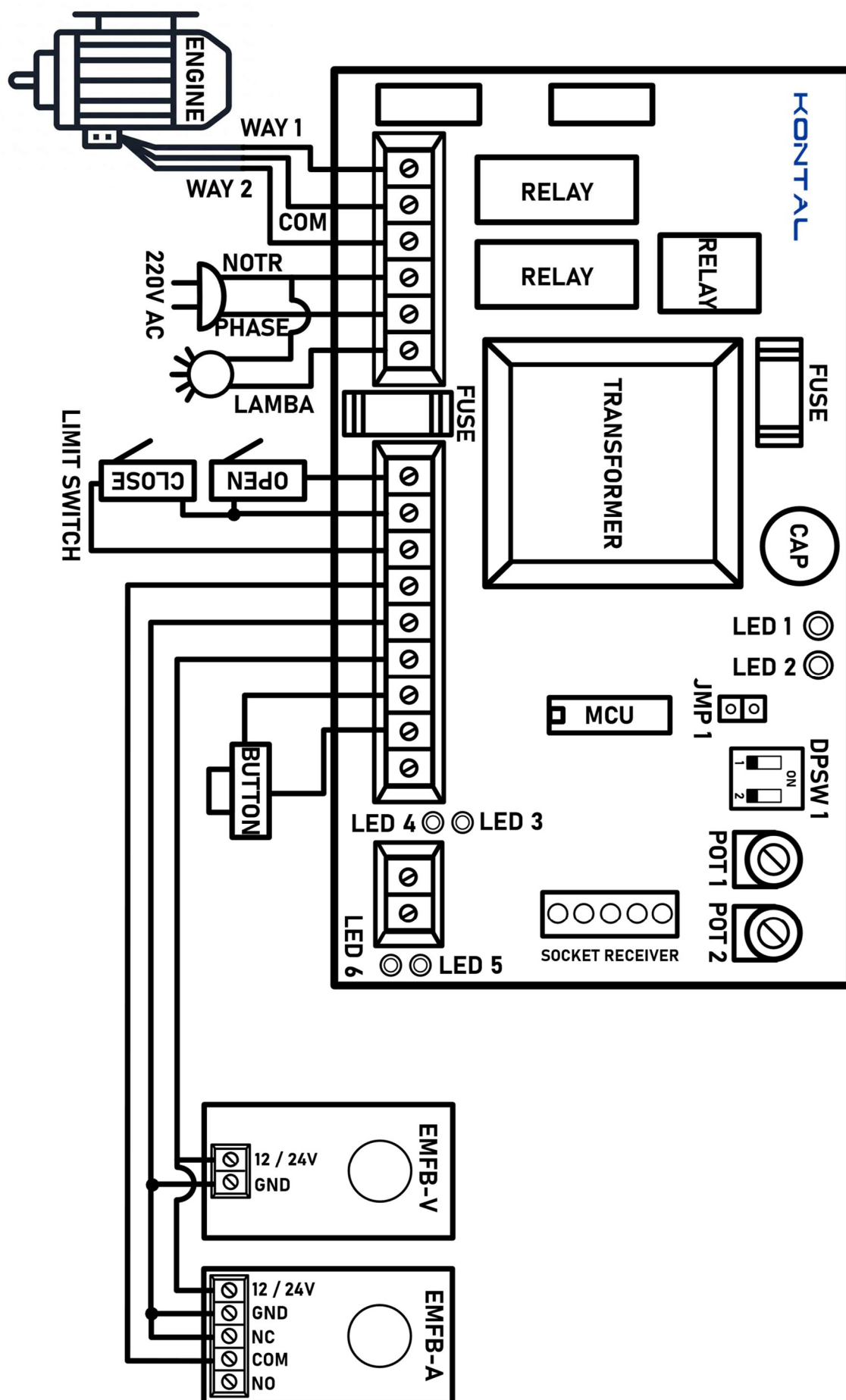


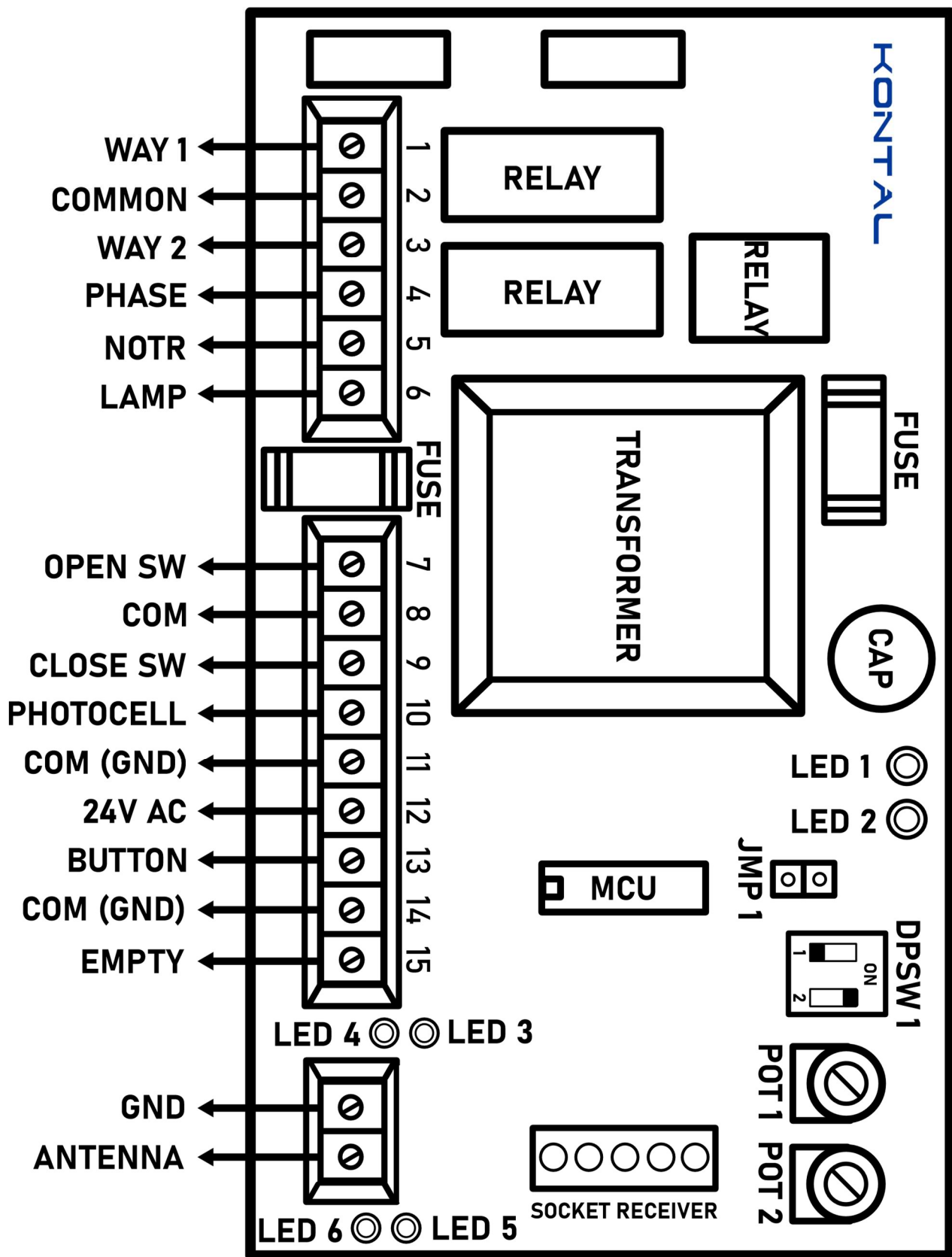
4.5 GA – Jumper State

JMP1 Active: If an obstacle is detected between the photocells during closing, the gate stops and automatically reopens.

JMP1 Inactive / Disabled: If an obstacle enters the photocell detection area during closing, the gate stops. Once the obstacle clears the area, the gate resumes closing from where it stopped.

5. GA – WIRING SCHEMA





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



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



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.



Three-Phase Motor Connection: If connecting a three-phase motor to the device, connect one of the two contactors driving the motor to terminals **1 and 2**, and the other contactor to terminals **2 and 3**.



Optima Model Input Wiring: On the Optima model, terminals **13 and 14** serve as the **Open** button input, terminals **10 and 11** as the **Close** button input, and terminal **15** as the **photocell contact**.

6. MOUNTING

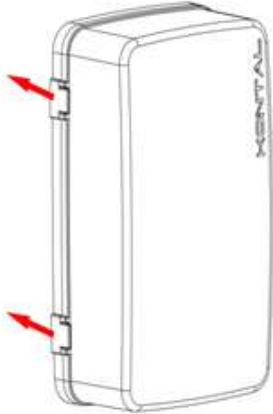


Figure 6.1 Removing the GA Top Cover

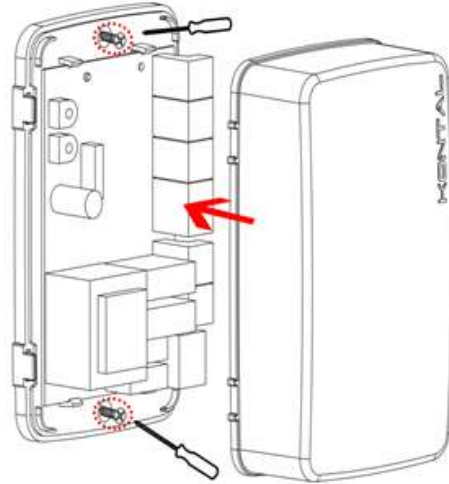
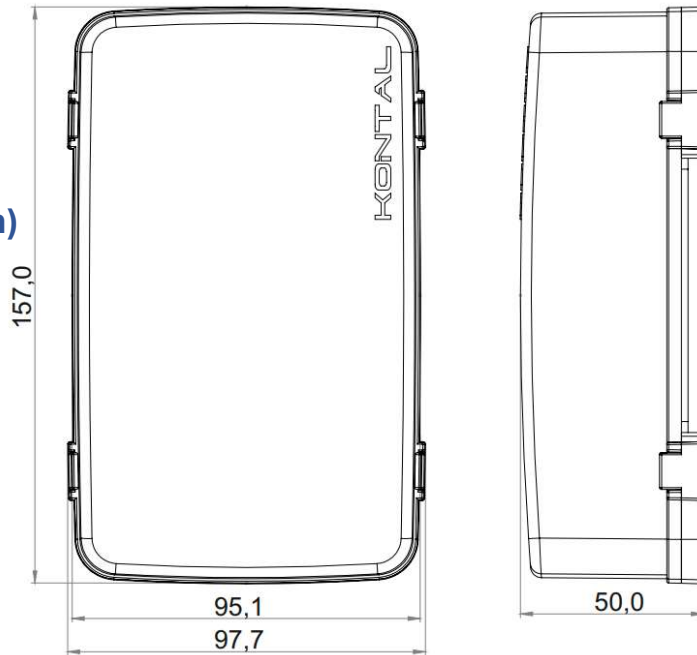


Figure 6.2 Screwing the GA onto a flat surface

Figure 6.3 GA dimensions
(Dimensions in mm)



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