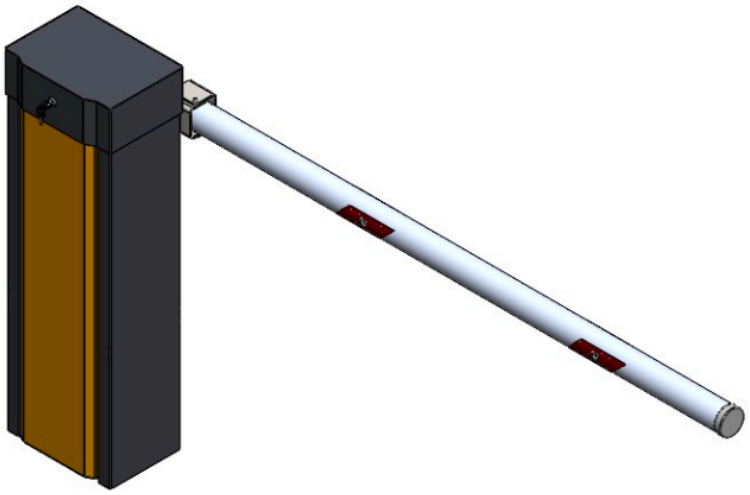
TECHNICAL INSTALLATION MANUAL

246 DC PRO

Boom Barrier



Arma Kontrol
www.armakontrol.com
2026

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1 Warnings and Symbols

DANGER
Indicates an obviously hazardous situation which, if not avoided, will result in death or injury.

WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or injury.

CAUTION
Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to warn against unsafe practices.

NOTICE
Indicates only situations that may result in accidents causing damage to the equipment or property damage.

INFORMATION
This symbol indicates useful tips or additional information.

Electric Current
Indicates components and operations that involve a risk of electric shock.

Personal Protective Equipment
Indicates the use of safety shoes, work gloves and protective goggles.

Waste Electrical and Electronic Equipment
This product bears the separate collection symbol for waste electrical and electronic equipment.

2 Some Special Definitions

Accessories: Equipment supplied with the unit that must be installed in accordance with the instructions given in the documents.

Optional Equipment: Equipment that can optionally be combined with the products in accordance with this manual.

Equipment Supplied on Site: Equipment that must be installed in accordance with the instructions given in this manual but is not supplied by Arma Kontrol.

3 General Safety Precautions

Do not install the product in areas where there is a risk of explosive gas; gas or flammable vapours pose a serious hazard. Before installing the barrier, complete all structural modifications relating to the protection or segregation of all areas where there is a risk of impact, cutting or dragging, to all hazardous areas and to the safety clearances.

Safety devices must protect every area where there is a risk of crushing and cutting, as well as against other risks arising from the barrier system itself. Be aware of the hazardous area required by the applicable regulations. Every installation must be clearly indicated in the identification details of the barrier system. Before making the power connection, make sure that the label details correspond to the mains supply.

Wear an earthed antistatic conductive wrist strap when handling electronic parts. The manufacturer of the barrier system declines all liability if component parts that are not compatible with safe and correct operation are fitted.

Safety devices (photocell, loop detector, etc.) must be installed taking into account the applicable laws and directives, good working practice, the installation conditions, the operating logic of the system and the forces produced by the barrier system.

During installation, maintenance and repair, disconnect the power supply before working on live parts. Use earthed antistatic gloves to handle electronic parts.

Keep remote control units and other transmitting devices away from children in order to prevent uncontrolled operation.

Maintenance, repairs and direct interventions must be carried out only by personnel holding a certificate of authorisation.

Do not allow children to approach the boom barrier while it is operating. Only original spare parts must be used to repair or replace the product. Make sure that the existing structure meets the standards in terms of strength and stability.

4 Environmental Health and Risks

Packaging materials (plastic, polystyrene, etc.) are a potential source of danger; do not dispose of them in the environment or leave them within reach of children.

5 Warranty

Provided that all work is carried out in accordance with the Operating and Installation Manual and that no unauthorised intervention is made inside the units, the 246 DC PRO product and all its mechanical and electrical components are guaranteed for 2 years.

6 Declaration of Conformity

We declare that our products are under our responsibility. Our product has been designed and manufactured, within the scope of Machinery Directive 2006/42/EC, to be integrated into another system or combined with other barriers in order to form a barrier system. It meets the essential health and safety requirements of the EU directives listed below:

- 2006/95/EC Low Voltage Directive
- 2004/108/EC Electromagnetic Compatibility Directive

It is further declared that it is prohibited to put the product into service until the machine into which it is to be integrated, or of which it is to become a part, has been declared to be in conformity with the provisions of Directive 2006/42/EC and subsequent amendments.

7 Qualified Technical Personnel

Assign qualified technical personnel holding a service competence certificate to product installation, assembly and commissioning, maintenance and repair work. Intervention by unauthorised persons can cause serious damage. The manufacturer is not liable for risks arising from the user's choice of personnel.

8 Introduction

Thank you for choosing the 246 DC PRO product.

This manual supplied with the product contains very important information and instructions on assembly, installation, commissioning and maintenance work, so it must be read carefully. All assembly and installation work must be carried out in accordance with this manual.

Definition: This is a high-security boom barrier product with an automatic system specially designed to prevent the passage of unauthorised vehicles.

Scope: This manual has been prepared so that technical service teams and users can complete and continue their work safely.

Model Designation: 246 DC PRO — ARM

Product Label: In accordance with the European machinery directive, the product label must be clearly visible and permanently fixed to power-operated machines.

Technical Stages: The descriptions and images in this manual are not binding. The manufacturer reserves the right to change the product design and the basic features of the equipment, or to make any necessary changes, for technical and commercial reasons without prior notice.

9 Technical Specifications

Model	246 DC PRO
Motor Operating Voltage	24V (± 10) (DC) 50/60 Hz.
Supply Voltage	220v
Boom Closing Time	3m-3 s, 5m-4.5 s, 6m-5.5 s
Boom Length	Maximum 6 metres
Mounting Points	M16 X 110 Sleeve Type Steel Anchor Bolt – 4 pcs
Control Panel	Main Board
Operating Temperature Range	-25 °C / +50 °C

Protection Class	IP 54
Product Certificates	CE, Domestic Goods Certificate
Quality Management System	ISO (20000-1:2011, 9001:2015, 10002:2018, 14001:2015), OHSAS 18001:2007
Colour	Barrier Cabinet Ral 7024 Electrostatic Powder Coating / Front Cover Ral 1028 Electrostatic Powder Coating
Power Supply	24V / 10A
Motor	24V DC brushless motor

10 Optional Accessories

Loop Detector
It provides opening, closing and safety at vehicle entrances and exits.

Barrier LED Lighting
May be required in certain climatic conditions.

Illuminated Warning Markers
Flashing Light / Traffic Light

Photocell Post
Used where photocell installation is required.

Boom Rest
A support accessory used depending on the barrier boom length.

Flashing Light
It is a visual warning system.

Flashing Light with Buzzer
A flashing light with an audible warning feature.

Synchronisation Board
The board that allows the barriers to operate synchronously.

11 Overview

The dimensional drawing below shows the main external dimensions of the barrier cabinet and the boom opening. The dimensions may vary depending on the boom length of the model.

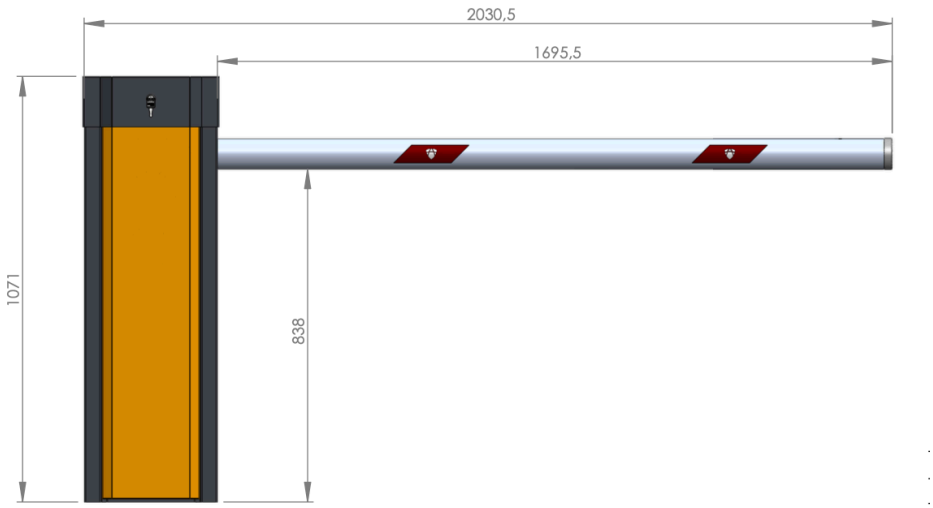


Figure 1 — Overview Dimensional Drawing

12 Detail Views

These are exploded view drawings showing the details of the internal mechanism and the boom rest.

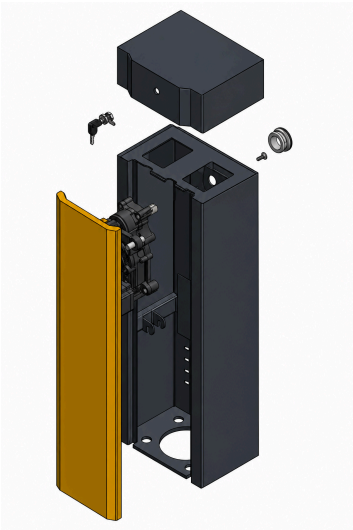


Figure 2 — New image area

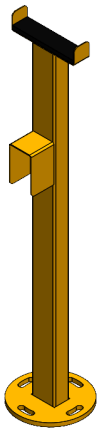


Figure 3 — Detail View of the Boom Rest

13 Barrier Boom Lengths and Suitable Operating Times

Boom Length	Opening Time	Closing Time
2-3 m	3	3
4-5 m	4,5	4,5
6 m	5,5	5,5



Figure 4 — Boom Lengths

14 Transport

The product is protected against ambient conditions by using materials that comply with packaging waste control requirements and regional regulation drafts.

- Barrier Cabinet
- One of the following options: Boom Rest, Pendulum Support or Photocell Post
- Barrier Boom
- Photocell
- Mounting and connection equipment
- Technical Installation Manual

Product	246 DC PRO BOOM BARRIER
Packaging Size	460 x 450 x 1270 mm
Net Weight	75 KG
Gross Weight	80 KG
Description	Carton packaging with plastic rope tensioning

15 Assembly and Installation

Preparation: During the excavation work to be carried out at the site, the existing infrastructure distribution lines must be checked. The material must be undamaged and complete according to the parts list / order form. Tools, measuring equipment and auxiliary devices must be ready at the site. The voltage value must comply with the installation instructions of the barrier unit.

Site Requirements: Warning signs, tape measure, spirit level, multimeter, spray paint (for marking out the excavation limits), basic electrical hand tools and consumables (terminal block, insulating tape), ready-mixed concrete C30.

Excavation Work: The barrier must be mounted on a concrete base. The concrete foundation must be 10 cm high with respect to the area where the barrier will be installed.

Barrier Base Ground: The area planned for excavation must be marked out to the specified dimensions and the top layer must be cut with a circular saw. An excavation 300 mm deep must be made in the installation area for the concrete foundation. The electrical connections must be made before the concrete is poured. The concrete foundation must measure 500 mm x 500 mm.

Laying the Cable Line:

- The laid cables must be routed through a flexible conduit underneath the concrete foundation.
- The flexible conduit diameter must not be less than 12 mm.
- The power cable must be min. 3x2.5 mm TTR.
- The photocell / trigger button cable must be at least 4x0.75 mm TTR cable.
- A 6x0.75 mm cable is recommended for the photocell.

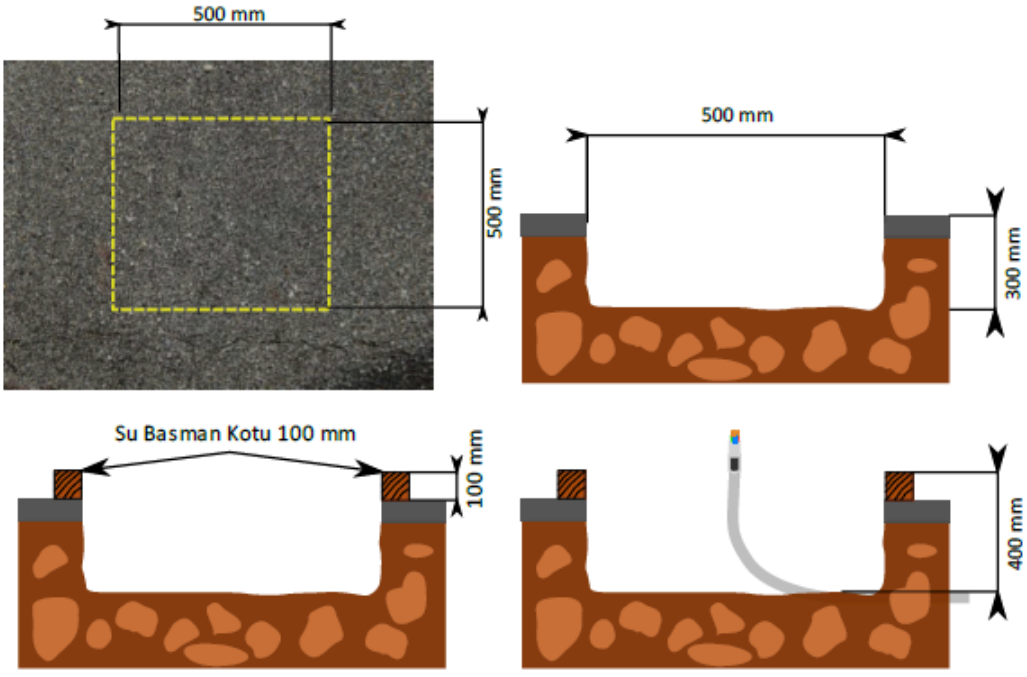


Figure 6 — Excavation and Ground Dimension Drawing

16 Barrier Cabinet Installation

There are a total of 4 Ø30 mm mounting holes on the barrier for its installation. The mounting holes have a centre-to-centre distance of 200 mm horizontally and 135 mm vertically.

During installation of the barrier, mark the hole centres in accordance with the specified dimensions and, using suitable fasteners, fix the main board firmly and evenly to the surface.

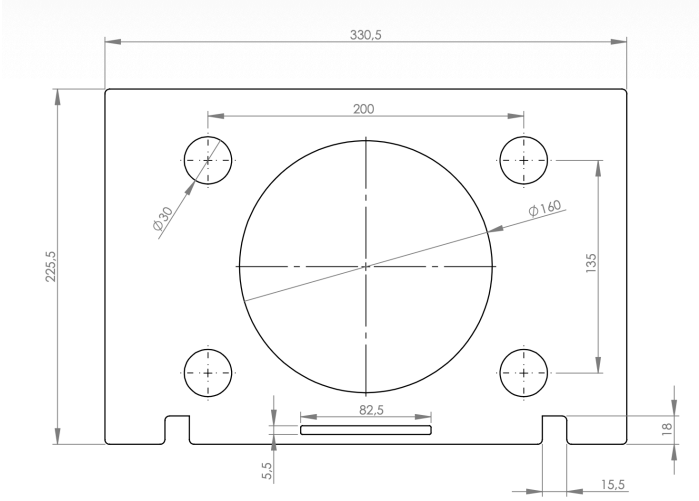


Figure 7 — Cabinet Installation Dimension Drawing

17 Installing the Barrier Boom

The barrier boom is fitted onto the boom holder and secured with bolts to the mounting holes on the boom holder.

Tools Required for Boom Installation:

- M6 Allen Key Set
- M6 Bolt Wrench
- Drill

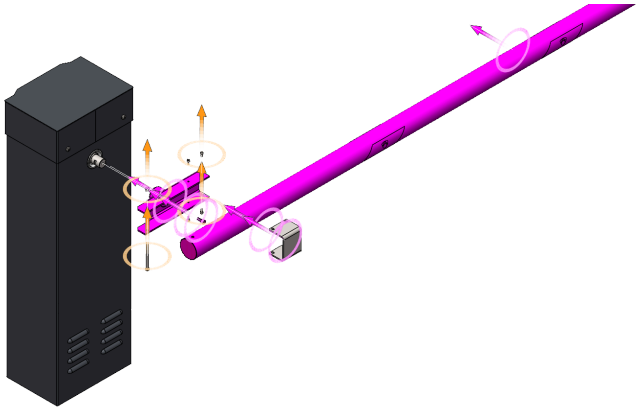
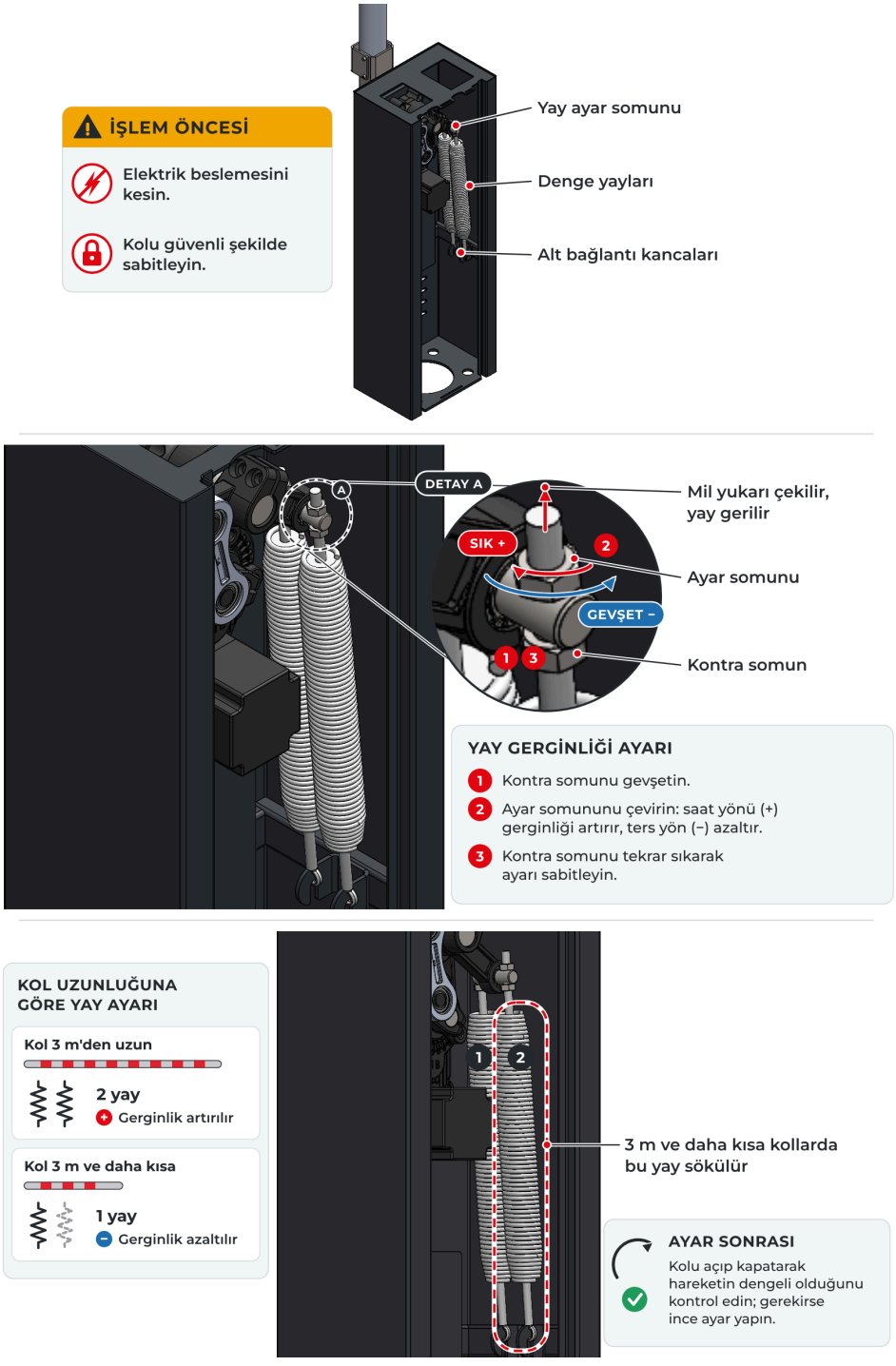


Figure 8 — New image area

18 Adjusting the Spring Tension

Adjust the spring tension according to the length of the barrier boom. Increase the spring tension for long booms and reduce it for short booms. For boom lengths of 3 metres and shorter, reduce the number of springs to one. Set the spring so that the boom opens and closes in a balanced manner. After the adjustment, check the movement of the boom and carry out the necessary fine adjustments. Before the operation, disconnect the power supply and secure the boom safely.



19 Boom Barrier Commissioning Steps

Step 1 — Match the shaft and the spring:
Stop the barrier boom at approximately 45 degrees and check whether the boom slowly drops or rises in this position. If the boom rises, the spring tension is too high (when the spring tension is high, the boom rises despite the brake mechanism). If the boom drops, the spring tension is insufficient.

Step 2 — Checking the Hall sensor settings:
At the normal start-up of the control unit, "00:00" and "e-00" are displayed alternately. Press and hold the "close/open" key for 2 seconds; the boom runs in the closing direction. The control unit shows "0 0 0 0" scrolling from left to right and a rhythmic warning sound is heard. When the motor has run to the closing limit, the unit shows "0 0 0 0", the sound stops and the closing calibration is completed.
Then press and hold the "open/close" key for 2 seconds; the boom runs in the opening direction and the opening calibration is completed in the same way. After this step, the boom barrier can be operated normally.

Step 3 — Horizontal and vertical position adjustment:
If the boom exceeds 90 degrees in the vertical position, increase parameter P-9; if it is less than 90 degrees, decrease P-9. If the boom is above the horizontal position, decrease P-6; if it is below level, increase P-6. After the corrections, operate the product to see the change in position and check the sensors.

20 Loop Detector System

LOOP DETECTOR SYSTEM

The loop detector system is a vehicle detection system used for the vehicle detection and safety functions of the boom barrier.

The loop winding placed in the passage area of the boom barrier creates an electromagnetic field. When a vehicle enters this field, the change occurring in the electromagnetic field is detected by the loop detector. The detected vehicle information is transmitted to the main board of the boom barrier through the relay outputs on the loop detector.

The loop detector can be used for the Anti-Smashing (vehicle safety) function of the boom barrier, and it can also be used to trigger the OPEN or CLOSE commands depending on the operating scenario of the system.

INSTALLING THE LOOP WINDING

Correct installation of the loop winding is important for the reliable operation of the vehicle detection and safety functions of the boom barrier.

When starting to lay the loop winding, leave approximately 3 metres of slack at the starting end of the cable so that the connection can be made.

In the standard application, the loop winding is prepared with 3 turns. To do this, determine the vehicle detection area of the boom barrier on the ground, cut a channel around this area and run the cable 3 turns inside the channel.

After the winding is completed, twist the winding ends left outside the ground around each other to form a spiral/twisted pair. Route the cable prepared in this way up to the point where the loop detector is located.

Route the connection cable of the loop winding from the loop area to the loop detector as straight and uninterrupted as possible.

After the loop winding has been placed in the ground, close the channel with a suitable filler or sealing material. This is done to prevent the winding from being damaged by vehicle traffic, water, moisture and other external factors.

After the connection is completed, measure the loop winding ends with a multimeter and check the continuity of the circuit. Once it has been verified that the winding forms an uninterrupted circuit, connect the loop detector to the main board of the boom barrier.

Use single-core NYAF cable with a cross-section of 1 mm² or 1.5 mm² for the loop winding.

GROUND CHANNEL SECTION FOR THE LOOP WINDING

To install the loop winding in the ground, cut a channel around the specified vehicle detection area.

Prepare the ground channel to the following dimensions:

* Channel depth: 5 cm
* Channel width: 5 mm

While placing the cable in the prepared channel, avoid sharp bends and any practice that could crush the cable. Take particular care not to damage the insulation of the cable.

After the winding has been placed in the ground and the connection ends have been brought to the point where the boom barrier is located, close the channel completely.

After the connection of the loop winding is completed, connect it to the inputs on the main board of the boom barrier that correspond to the intended use. Follow the wiring diagram of the relevant boom barrier model for the Anti-Smashing, OPEN and CLOSE connections.

- After the cable has been laid, seal the loop slot with chemical epoxy.

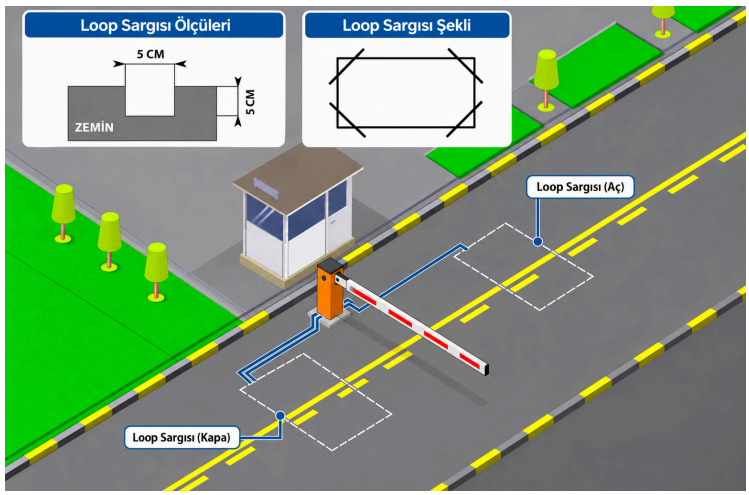


Figure 10 — New image area

⚠ Do not damage the insulation of the cable while laying the loop winding. Twist the connection ends of the loop winding around each other in a spiral and route them in this form up to the loop detector. Do not energise the boom barrier before the connection and circuit check have been completed.

⚠ As the dimensions and geometry of the loop winding change, the required number of turns may also change. Determine the number of turns of the loop winding according to the technical specifications of the loop detector used and the dimensions of the application area.

21 Manual Opening and Closing

After the supply voltage to the barrier unit cabinet has been switched off, turn the motor flywheel lever to raise and lower the boom.

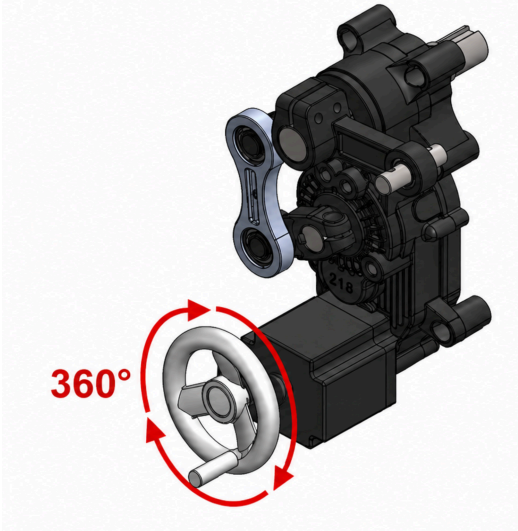


Figure 11 — View of the Manual Release Lever

⚠ Do not turn the motor flywheel lever while the system is energised.

22 Main Board Connection Inputs

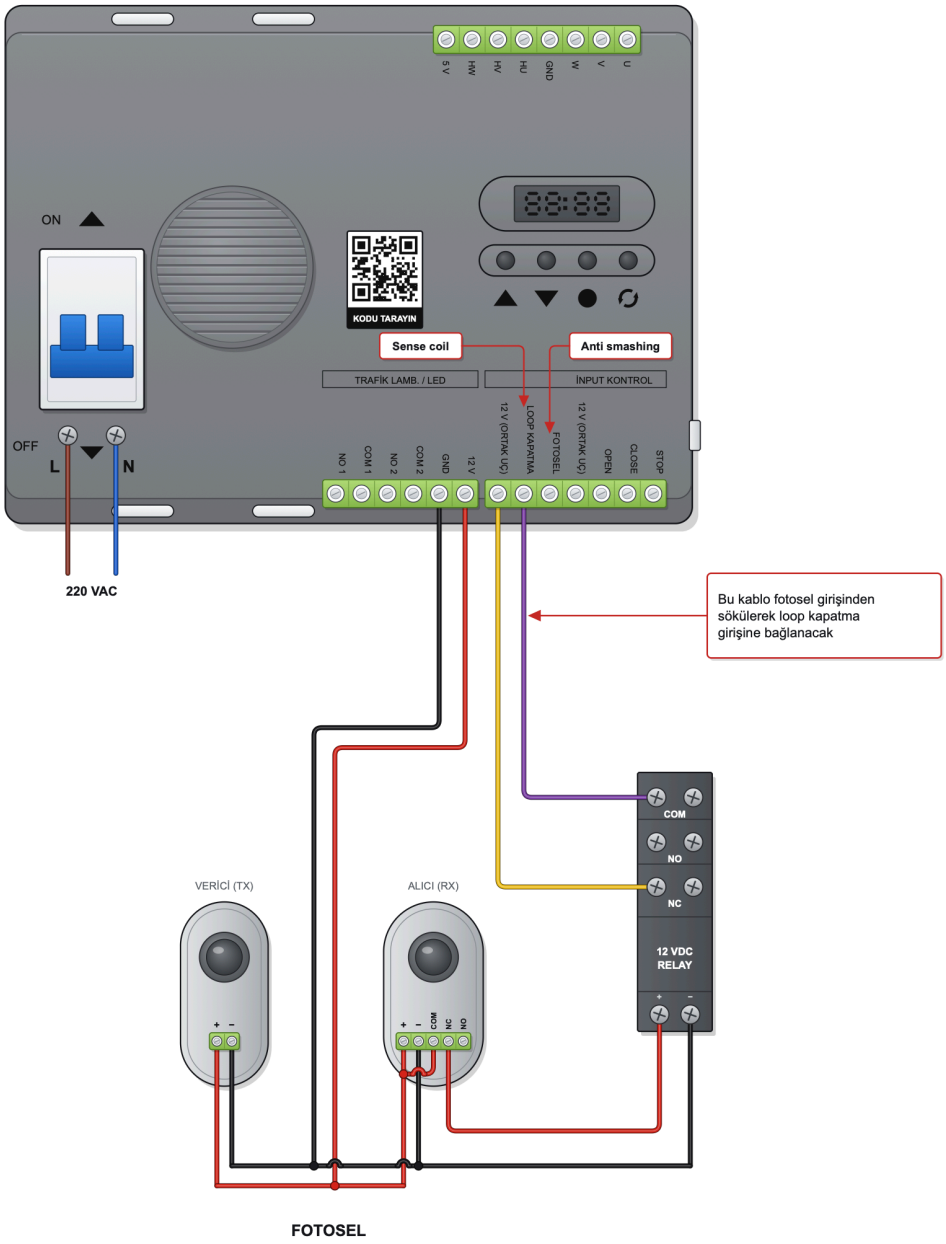
The connection points on the 246 DC Barrier Main Board allow the power supply, motor, hall sensors, safety equipment and external control elements to be connected to the system.

Make the connections in accordance with the function and electrical values of the relevant terminal. During installation, make sure that the cables are connected to the correct terminals and that the connections are securely fastened.

Check all connections before switching on the power. Incorrect or faulty connections can damage the main board and the connected equipment or cause the barrier to malfunction.

- STOP: Used to stop the barrier movement.

- CLOSE: Used to give the barrier a close command.
- OPEN: Used to give the barrier an open command.
- 12V (Common Terminal): The common connection terminal for the OPEN, CLOSE and STOP inputs.
- SENSE COİL: Used for the closing operation after passing the photocell.
- ANTİ SMASHİNG: The loop/photocell detector is used as a safety device.
- 12V (Common Terminal): The common connection terminal for the Anti Smashing and Sense coil inputs.
- GND: The negative (–) connection of the 12 V supply.
- 12V: 12 V DC supply output for external equipment.
- COM1 / COM2: The common connection terminals of the relay contacts.
- NO1 / NO2: The normally open (NO) contact terminals of the relays.



> ⚠ Electrical connections must be made only by authorised personnel with the necessary technical qualifications, with the power completely switched off.

23 Control Panel

The connection and setting information for the circuits on the control panel is listed below.

PHOTOCELL Photocell Connection

Making the Photocell Connections

To make the automatic safety system (Anti-Smashing) connection, connect the signal leads coming from the photocell to the Anti-Smashing and 12V/GND connection inputs on the main board.

1. Photocell Power Connection
To supply power to the photocell, connect the +12V and GND leads coming from the photocell to the 12V and GND inputs on the main board.
2. Anti-Smashing Signal Connection
Connect the Anti-Smashing/signal leads coming from the photocell to the relevant Anti-Smashing and 12/GND inputs on the main board.
3. Connection Check
After making all connections, check that the cables are connected to the correct terminals and with the correct polarity. Once the connections are complete, make sure that the photocells are aligned with each other and in working order.



> ⚠ An incorrect connection may damage the photocell or the main board. Make sure that the power to the main board is switched off during the connection work.

PUSH BUTTON **Push Button**

246 DC BOOM BARRIER MANUAL PUSH BUTTON CONNECTION

The manual (wired) push button allows the user to control the Open (OPEN) and Close (CLOSE) operations of the 246 DC Boom Barrier.

1. PUSH BUTTON CABLE CONNECTIONS

1.1. Remove the cover of the manual push button.

1.2. Connect the cables required for the Open (OPEN) and Close (CLOSE) commands to the connection terminal blocks located under the cover.

1.3. In the standard application, the Open (OPEN) button is green and the Close (CLOSE) button is red.

2. CONNECTING THE PUSH BUTTON TO THE 246 DC BOOM BARRIER

2.1. Connect the cables coming from the Open (OPEN) button to the OPEN and 12V inputs on the 246 DC Boom Barrier main board.

2.2. Connect the cables coming from the Close (CLOSE) button to the CLOSE and 12V inputs on the 246 DC Boom Barrier main board.

2.3. After completing the connections, check all terminal block connections. Energise the boom barrier and test that the Open (OPEN) and Close (CLOSE) commands work correctly.



Figure 14 — Push Button Connection Image

FLASHING LIGHT

Flashing Light

After the flashing light cables have been connected, connect the flashing light connection ends to the W and GND terminals on the main board. Once the connection has been made correctly, the flashing light will operate without any problem according to the operating state of the barrier.



Figure 15 — Flashing Light Image

⚠ Before making the connection, make sure that the power supply is disconnected. Connect only a 24 V DC flashing light of suitable specification to the W and GND terminals.

FLASHING LIGHT SETTING

Setting the Flashing Light Operating Modes

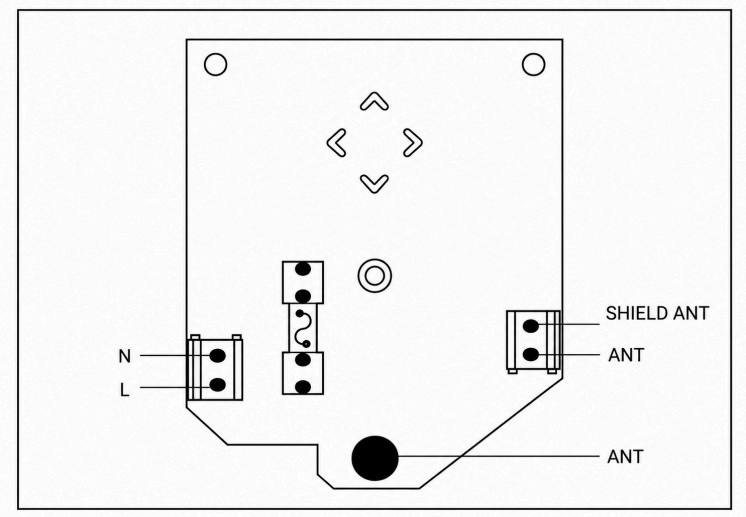


Figure 16 — Flashing Light Board Jumper Diagram

WIRING DIAGRAM

General Wiring Diagram of the Control Panel

All motor/hall sensor, traffic light/LED, photocell, push button, remote control receiver and 24 VDC adapter connections are shown in the diagram below.
Motor terminals: 5V, HW, HV, HU, GND, W, V, U
Traffic light/LED terminals: NO 1, COM 1, NO 2, COM 2, GND, 12 V
Input control terminals: 12V (common), ANTISMASHING, SENSE COIL, 12V (common), OPEN, CLOSE, STOP

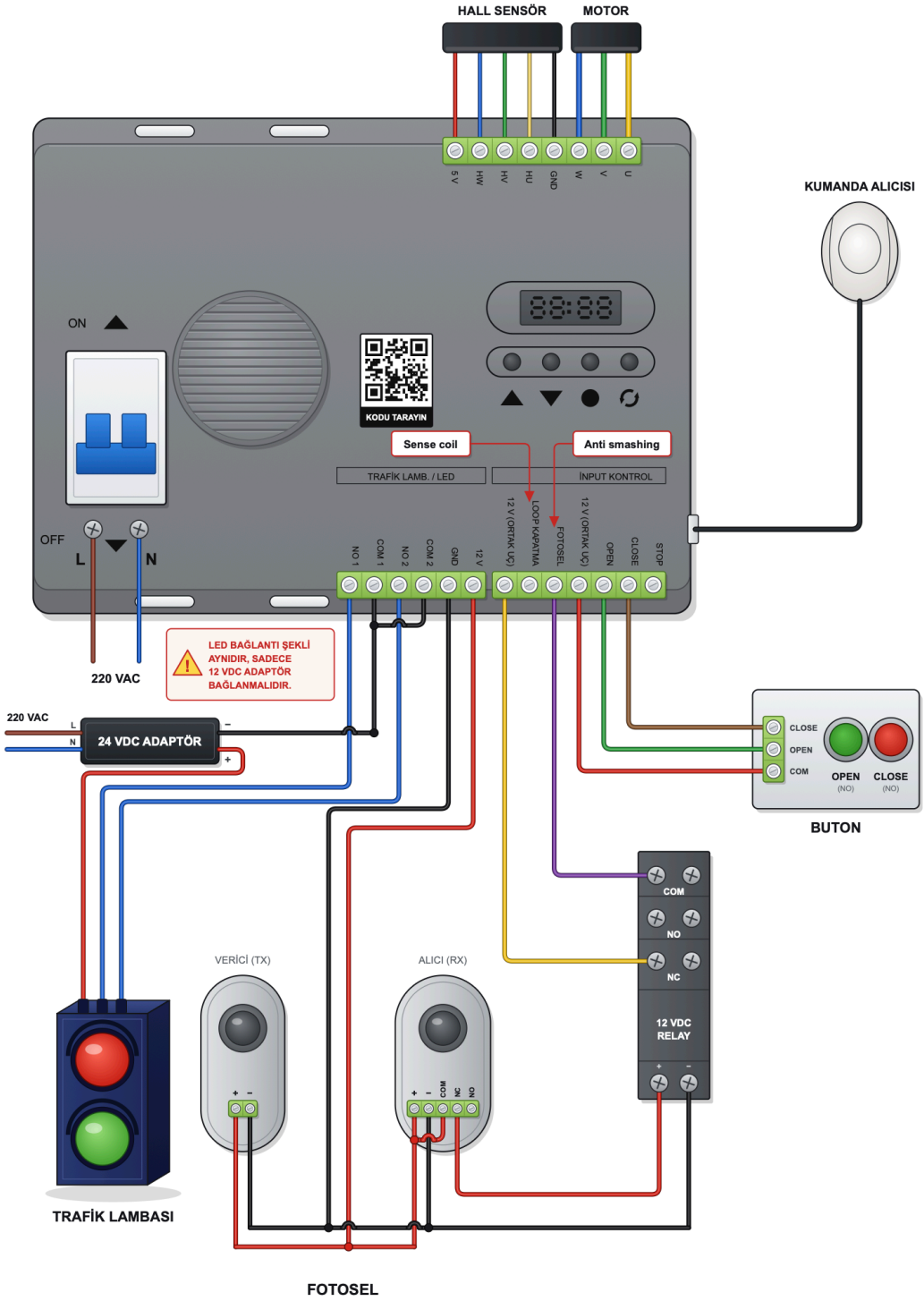


Figure 17 — General Wiring Diagram of the Control Panel

It is best to use BVR (TTR) type cable; do not use network cable.

The LED connection is the same; only a 12 VDC adapter must be connected.

FACING (SYNCHRONISED) OPERATION

Wiring Diagram for Facing (Synchronised) Operation

For the facing (synchronised) operation of two barriers, the board terminals, photocell, push button, relay and remote control receiver are connected according to the diagram below.

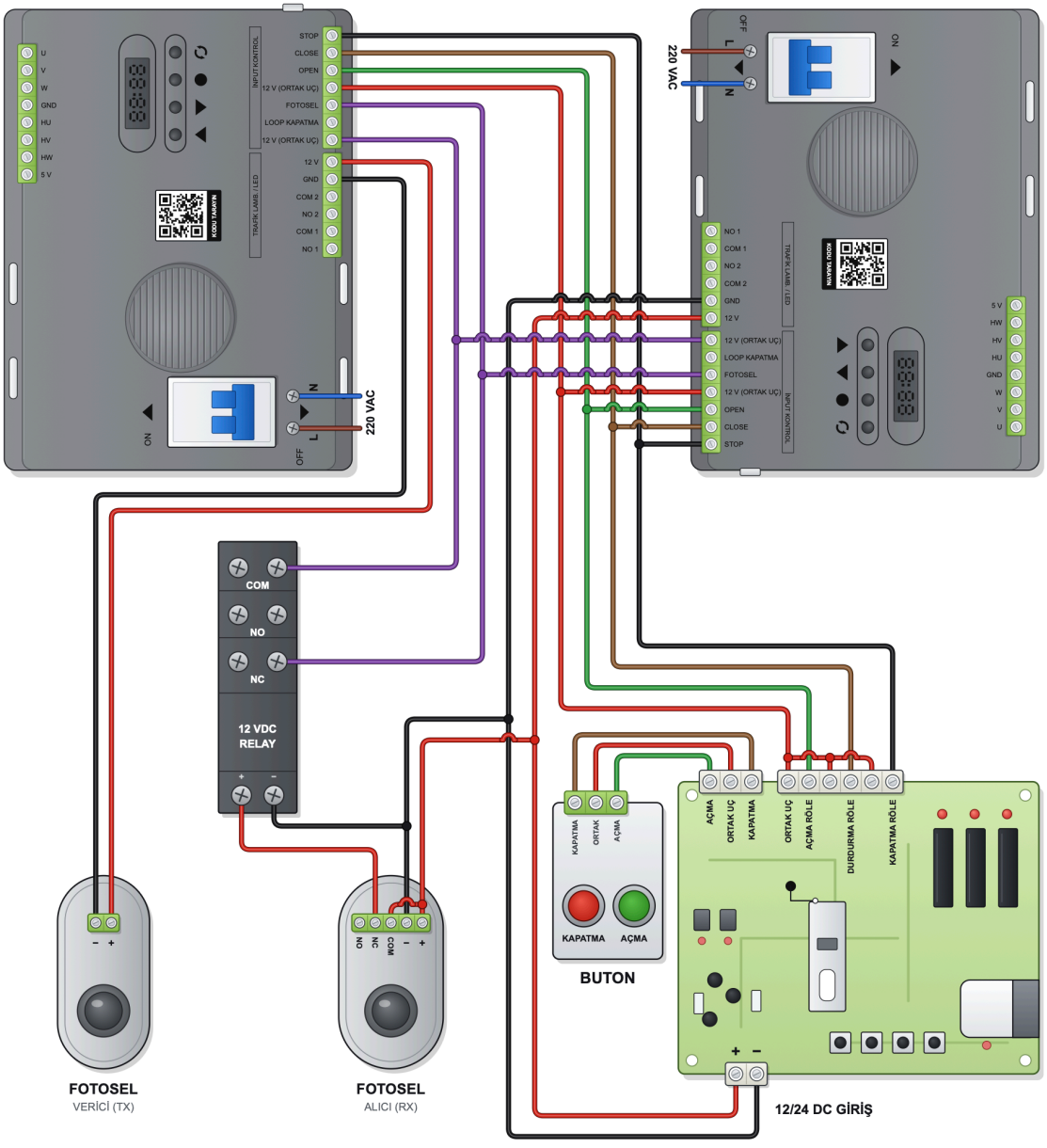


Figure 18 — Wiring Diagram for Facing (Synchronised) Operation

A 2-key contact remote control must be used for facing barrier operation.

KEYS Control Board Keys

There are four buttons on the control unit: on/down, off/up, set/save, stop/return. The parameters of the main board are set with these keys.

When the "on/down" key is pressed while the motor cable is not connected, the software version number is displayed; then, when the "off/up" key is pressed once, the software date is displayed.

When the "set/save" key is pressed briefly and repeatedly in normal operating mode, the present current value, the change rate of the system, the internal voltage value of the controller and the power supply voltage value are displayed in this order.

Key	In normal operation	In setting mode
Set / Save	Enters the setting mode.	Saves the set value.
On / Down (Opening)	Opens the barrier.	Advances the menu item or increases the value. A short press increases it one by one; if the key is held down, the value rises to the maximum and then continues from the minimum.
Off / Up (Closing)	Closes the barrier.	Steps back the menu item or decreases the value. With a long press the value falls to the minimum and then continues to decrease from the maximum.
Stop / Return	Stops the boom barrier.	Exits the setting mode or returns to the previous menu.

ARMA BOARD ARMA MAIN BOARD

The 246 DC Barrier Main Board is designed to suit different barrier applications thanks to its various parameters that can be set according to the application scenario. Carrying out the installation, connections and parameter settings in accordance with the instructions given in this manual is important for the safe and correct operation of the system.



Menu	Function	Status	Default	Value Range
*P-1	Opening speed	The higher the value, the higher the speed	60	20-90
*P-2	Closing speed	The higher the value, the higher the speed	50	20-90
*P-3	In-position closing tolerance of the barrier	The smaller the value, the more stable it is. If it is too small, it may not close properly (50 cushioning disabled)	15	4-50
*P-4	Impact sensitivity	The smaller the value, the more sensitive it is. If it is too small, it may rise automatically	20	5-255
-P-5	Motor power	This parameter is used together with P-22 to reverse the starting force	30	10-250
*P-6	Horizontal adjustment angle	The smaller the value, the smaller the brake shaft angle	20	2-255
*P-7	Ageing test mode (changing it is not recommended)	0: manual, 1-5: normal ageing, 6: half-travel operation	0	0-6
-P-8	Ground detection count	0: without counting, 1: with counting, 4: Fleet mode	0	0,1,4
*P-9	Vertical adjustment angle	The smaller the value, the smaller the opening angle	20	2-255
*P-L	Deceleration angle when opening	Deceleration starts from the horizontal position according to the numerical angle value.	65	20-85
*P-b	Closing deceleration angle	Deceleration starts from the horizontal position according to the numerical angle value.	30	10-50
*P-c	Impact force sensitivity setting	The higher the value, the greater the anti-impact driving force. If the value is greater than 100, the anti-impact function is disabled	65	5-101
*P-d	Motor direction change	If the movement is the same as the control board button, this parameter is not changed. Otherwise, change this parameter	1	1-2
-P-E	Motor starting speed	The larger the value, the higher the speed. Used only for self-check and closing at power-on	20	2-90
*P-F	Remote control learning and deletion (black, 4-button, with cover)	At 000, the remote control learning is performed; at 253, the remote controls are deleted.	0	000-253
*P-H	Section 2 opening section deceleration extension	The parameter is set within the first deceleration.	0	0-30

Menu	Function	Status	Default	Value Range
*P-P	Power-off opening voltage point	When the power is off, if the voltage is detected below this value, raise the boom (batteries or super capacitor boards must be added). Unit: 0.1V	225	100-250
*P-18	Relay use in output mode	0: traffic light mode 1: down and up position mode 3: Light detection mode	0	0-5
*P-19	Closing after photocell/loop	The unit is seconds.	0	0-255
*P-20	Automatic closing	The unit is seconds. "0" cancels automatic closing	0	0-255
*P-21	Empty (rs 485)	empty	1	1-255
-P-22	Reverse buffer setting	Reverse the buffer stroke; the larger the value, the smaller the buffer stroke.	50	1-90
-P-23	Photocell sensitivity	-	75	10-100
-P-24	Self-check opening speed	The larger the value, the higher the speed. Used only for self-check and gate opening at power-on	20	2-90
*P-25	In-position stability of the barrier opening	The smaller the value, the more stable it is; if it is too small, it may not reach the desired position.	15	4-50
*P-26	Anti-collision function	0: Off, 1: On	1	0-1
*P-27	Overcurrent protection	The unit is 0.1A	80	20-100
-P-28	Locking shaft force (changing it is not recommended)	The greater the value, the greater the force during locking. We recommend fine-tuning starting from a suitable value. If this value is too small, locking may not take place. If this value is too large, it is bad for the movement and for the main board.	80	45-160
-P-29	Locking shaft return speed	The greater the value, the higher the speed. The recommended speed must not be too high	70	10-255
*P-30	Start-up detection delay when the power is off	Set the delay value; 0 indicates that the power-off start-up function is disabled	0	0-200
-P-31	Recovery point of power-off start-up	After the power is switched off and on again, there is still power on the battery or supercapacitor board. At this time, this is the comparison point for mains power calls. Unit: 0.1V	235	200-250

Menu	Function	Status	Default	Value Range
*P-32	Ground detection fast boom lowering (valid for closing after photocell)	Once enabled, when detection fails the boom does not wait to reach the fully open position but closes immediately; 0: off, 1: on	0	0-1
*P-33	Second opening signal switch	When P26=0, the corresponding port can be used as the second opening signal switch; 0: off, 1: on	0	0-1
*P-34	Motor high voltage comparison point	The unit is 0.1V. When there is no spring and the boom weight is heavy, braking during lowering can generate high voltage; when the spring tension is too high, braking during raising can also generate high voltage. This value can be adjusted appropriately for better operation	310	250-450
P-35	Deviation notification after closing	After closing in position, it leaves a larger value. This value reflects the degree of deviation. The greater the value, the greater the deviation	10	10-250
*P-36	Restore factory settings	1: Clear the parameter table only 2: Clear the parameter table and the remote control 3: Data backup 4: Restore the backup 5: Clear the remote control only 6: Self-check again	0	0-6
*P-37	Extension of deceleration in closing section 2	The parameter is set within the first deceleration	0	0-30
*P-38	Locking	0: Function off 1: Lock in the closed position 2: Lock in the open position 3: Lock in both the open and the closed position	0	0-3
*P-39	Ground detection angle cancellation	0: Ground detection active over the entire angle. (Disables the ground/obstacle detection function of the barrier at certain angles.)	0	0-45
*P-40	Obstacle detection angle	0: Obstacle detection active over the entire movement. (Sets the obstacle detection of the barrier at certain angles.)	0	0-90
*P-41	Speed control method	Determines the speed control mode of the motor. 0: Standard speed control mode 1: Advanced speed control (generally used for motors faster than 1.5 seconds.)	0	0-1

AUTOMATIC CLOSING

Automatic Closing Setting

Press the "Set/Save" button for 3 seconds to enter the parameter setting state.
Find parameter P-20 and enter the automatic closing time you want to set in seconds (in the range 0-255 seconds).
A value of "0" cancels automatic closing.



Figure 20 — Automatic Closing Connection

ERROR CODES

Error Codes and Solutions

Error codes displayed on the control board screen and the actions to be taken.

Error Code	Detail	Solution
E-00	The calibration has been disabled because of a power failure.	For calibration, press the down key for 2 s; after the barrier boom has completed its downward travel, press the up key for 2 s. When the boom has completed the upward travel, the calibration ends and the system is ready for operation.
E-01	System fault	Check whether the motor line sequence is correct. Check whether the motor hall sensor is damaged. Check whether the motor line contact is reliable.
E-02	Overcurrent	Occurs when the P-27 setting is too low or the spring force is too strong.
E-03	Undervoltage	Check whether the output voltage of the power supply is normal.
E-04	Overvoltage	Check whether the output voltage of the power supply is normal.
E-05	Short circuit of the three-phase motor (any input/output is invalid)	Check whether the output voltage of the power supply is too low.

Error Code	Detail	Solution
E-06	Indicates that an obstacle was encountered while the boom was rising.	This may be caused by an excessively high opening speed (low anti-crushing force) or by a very low closing speed.
E-07	The motor does not move or does not travel far enough.	Check whether the motor terminals are connected in the correct order, whether the connections are loose or without contact, whether the self-test speed is sufficient and whether the spring tension is appropriate.
E-09	The hall sensor feedback signal sequence is incorrect.	Check whether the motor terminals are connected incorrectly and whether the connections are loose or without contact.

ⓘ When the power supply voltage is too high (> 27V) or too low (< 18V), the controller automatically provides protection and triggers an alarm.

23.1 Remote Control Programming Procedure

Remote Control Pairing: Press and hold the "set/save" button on the control board for three seconds, find the item P-F and press the "set/save" button again to display the value "000". At this point, press any button on the remote control. After the board emits a long beep, the display changes to P-F and the remote control is registered.

23.2 Clearing the Memory

Deleting the Remote Controls: Press and hold the "set/save" key on the control board for three seconds, find the P-F item and press the "set/save" key again to display the value "000". Set the value to 253 and press the "set/save" key again. After the control board emits a long beep, the display changes to P-F and all registered remote controls are deleted.

24 External Receiver Board in Synchronised Connection

If a synchronised connection is to be made and two barriers are to operate together, an external receiver board must be used.

The following steps describe only the remote control programming procedure within the scope of the synchronised connection.

Code learning and code deleting methods

Press the learning (Learning/Study) button on the receiver and release the button after the LED lamp lights up. At this stage the receiver enters learning mode and the LED lamp goes out.

Then press the remote control button that will be used to operate the control unit. If the LED lamp on the receiver flashes 5 times and then goes out, the remote control has been learned successfully.

* Learning button 1 → Relay 1
* Learning button 2 → Relay 2

Once the learning procedure has started, only inching (momentary/pulse operation) mode can be used.

If a remote control is lost and all remote controls are to be deleted from the memory, press and hold learning button 1 or learning button 2 for more than 5 seconds. When the LED lamp goes out, the receiver automatically clears the stored memory content.

If the remote control is to be used again, the learning/pairing procedure must be carried out once more.

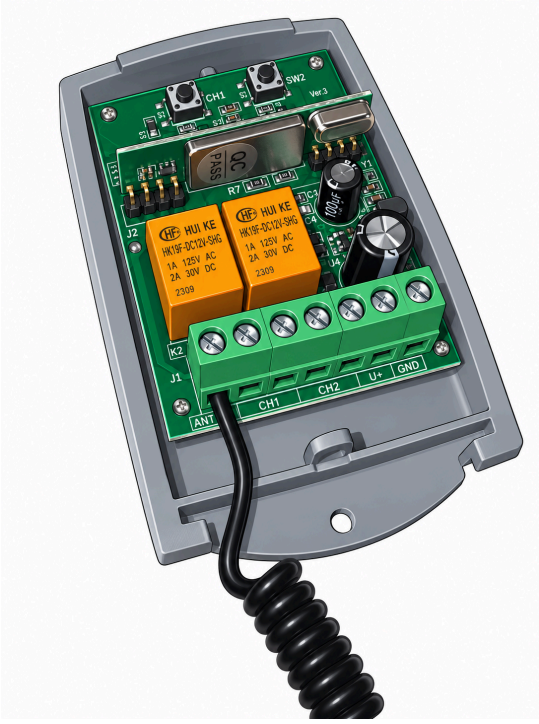


Figure 21 — New image area

25 Troubleshooting

The Barrier Does Not Close Automatically

- Possible cause: A vehicle in the photocell/loop area may have waited longer than the automatic closing time.
- Solution: Connect the photocell NO terminal to the SENSE COIL input. Then set the P-19 value so that it is the same as the P-20 automatic closing value.

The Barrier Does Not Close After Passing the Photocell

- Possible cause: The closing-after-photocell connection may not have been made, or the P-19 setting may not have been made.
- Solution: Connect the photocell cables to the SENSE COIL and 12V inputs on the main board. If necessary, set the time in seconds via P-19.

The Barrier Boom Rises Upwards

- Possible cause: The spring tension may be too high.
- Solution: Check the spring tension and adjust it to the correct level.

The Barrier Boom Drops Downwards

- Possible cause: The spring tension may be insufficient.
- Solution: Check the spring tension and adjust it to the correct level.

The Barrier Boom Is Not in the Horizontal Position

- Possible cause: The P-6 horizontal angle setting may not be correct.
- Solution: If the boom is above horizontal, decrease the P-6 value; if the boom is below the horizontal level, increase the P-6 value.

The Barrier Boom Does Not Reach the 90° Vertical Position

- Possible cause: The P-9 vertical angle setting may not be correct.
- Solution: If the boom exceeds 90°, increase the P-9 value; if it stops short of 90°, decrease the P-9 value.

The Barrier Boom Keeps Running at the End Position

- Possible cause: The horizontal position setting may not be correct.
- Solution: Adjust the P-6 parameter to the level at which the motor no longer keeps running when the boom reaches the end position.

The Loop Detector Does Not Work as a Safety Device

- Possible cause: The loop contact type or its connection may not be correct.
- Solution: For safety use, make sure that the contacts are in the NC position and connect the relevant outputs to the ANTI SMASHING / 12V inputs.

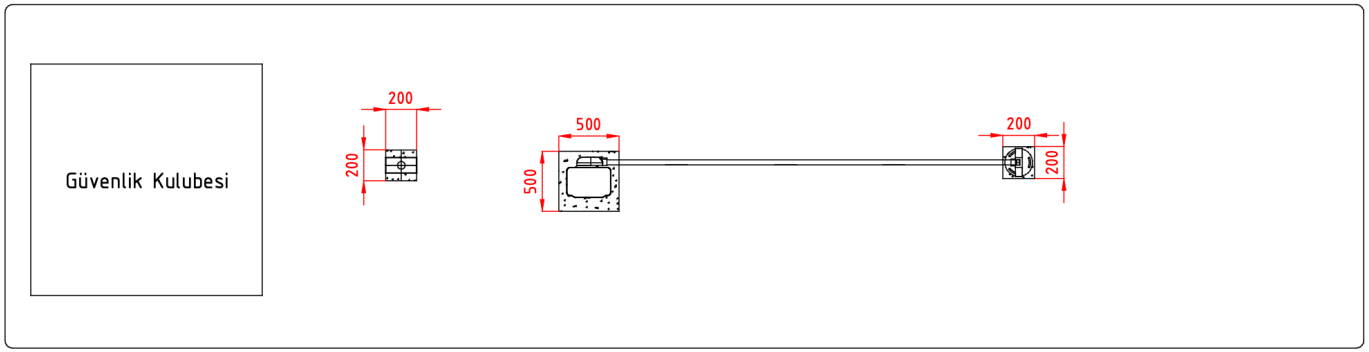
The Loop Detector Does Not Give an Open/Close Command

- Possible cause: The loop contact type or its connection may not be correct.
- Solution: For open/close use, set the contacts to the NO position. Use the OPEN / 12V connection for opening and the CLOSE / 12V connection for closing.

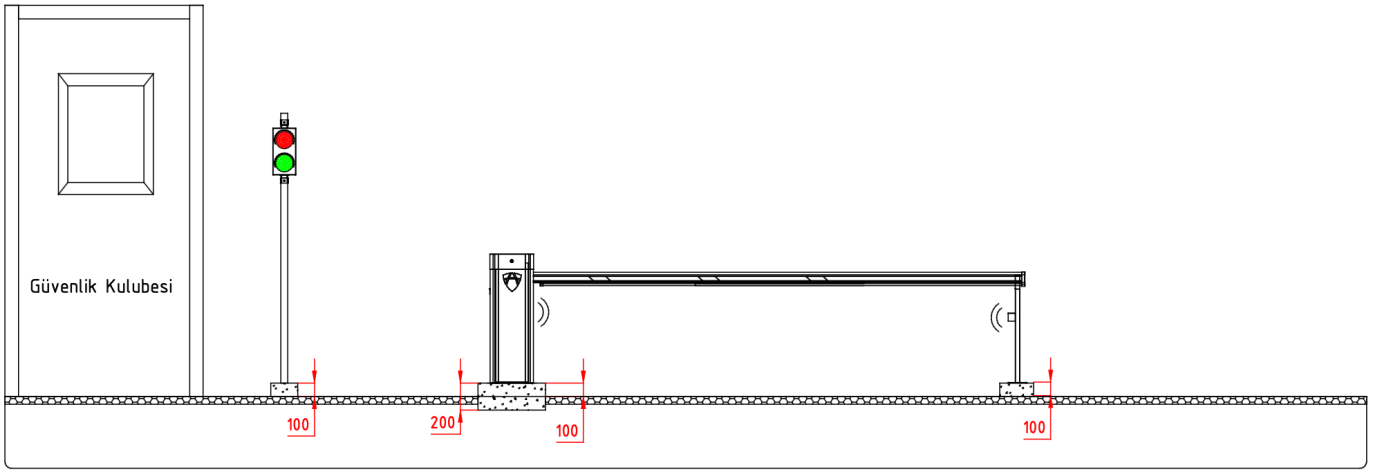
The Loop Does Not Work as Both a Safety Device and an Open/Close Device

- Possible cause: An attempt may be being made to use two functions together on the same loop detector.
- Solution: The loop detector must be used either for safety or for opening/closing; the two functions cannot be used at the same time.

ÜST GÖRÜNÜM



ÖN GÖRÜNÜM



ArmaKontrol

NOTLAR :

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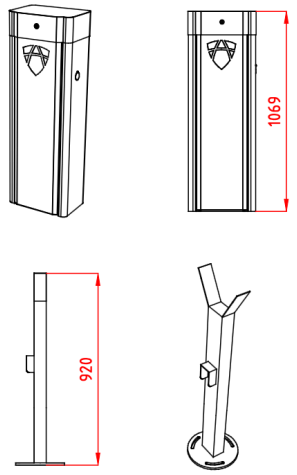
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TÜM UYUŞMAZLIKLAR MÜHENDİSİN DİKKATİNE SUNULACAK VE ÖNCEDEN ÇÖZÜLECEKTİR.

MİLİMETRE OLARAK TÜM BOYUTLAR AYRICA BELİRTİLMİŞTİR.

ÜRÜN İSMİ: 246 DC BARİYER

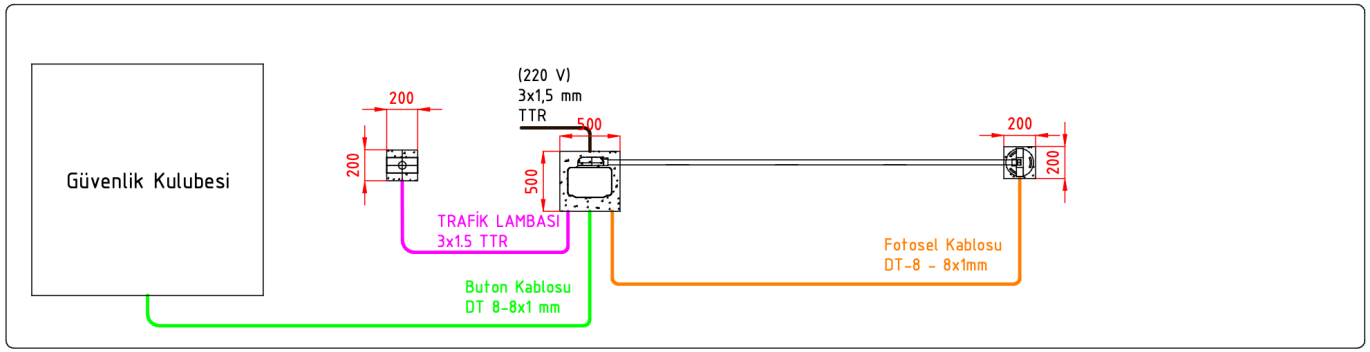
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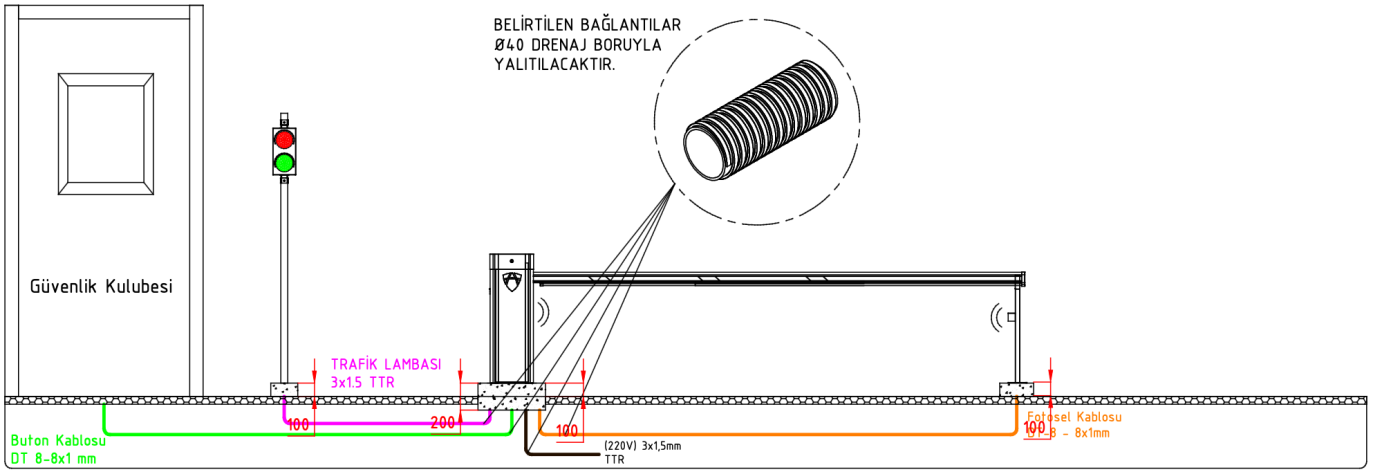
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	U.GEZERSU

TÜM ÖLÇÜLER MM'DİR

ÜST GÖRÜNÜM



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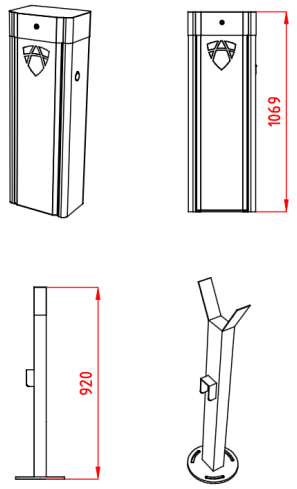
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