



IL n. 390  
EDIZ. 02/07/2013

# MOOV-B400-24V



- I** ATTUATORE Elettromeccanico Irreversibile 24V per cancelli a battente. Istruzioni d'uso e installazione
- GB** 24V Irreversible Electromechanical Actuator for Leaf Gates. Operating and Installation Instructions
- F** Operateur Electromecanique Irreversible 24V pour Portails à Battant. Notices d'emploi et d'installation
- E** Operador Electromecanico Irreversible 24V para Cancelas Batientes. Instrucciones de uso e instalacion
- P** Actuadores Electromecânicos Irreversíveis 24V para Portões de Batente. Instruções e instalação

## IMPORTANT REMARKS

For any installation problems please contact V2 S.p.A.  
TEL. (+39) 01 72 81 24 11

**V2 S.p.A. has the right to modify the product without previous notice; it also declines any responsibility to damage or injury to people or things caused by improper use or wrong installation.**



**Please read this instruction manual very carefully before installing and programming your control unit.**

- This instruction manual is only for qualified technicians, who specialize in installations and automations.
- The contents of this instruction manual do not concern the end user.
- Every programming and/or every maintenance service should be done only by qualified technicians.

### **AUTOMATION MUST BE IMPLEMENTED IN COMPLIANCE WITH THE EUROPEAN REGULATIONS IN FORCE:**

**EN 60204-1** (Machinery safety electrical equipment of machines, part 1: general rules)

**EN 12445** (Safe use of automated locking devices, test methods)

**EN 12453** (Safe use of automated locking devices, requirements)

- The installer must provide for a device (es. magnetothermal switch) ensuring the omnipolar sectioning of the equipment from the power supply. The standards require a separation of the contacts of at least 3 mm in each pole (EN 60335-1).
- To connect flexible or rigid pipes, use pipefittings having the IP55 insulation level.
- Installation requires mechanical and electrical skills, therefore it shall be carried out by qualified personnel only, who can issue the Compliance Certificate concerning the whole installation (Machine Directive 98/37/EEC, Annex IIA).
- The automated vehicular gates shall comply with the following rules: EN 12453, EN 12445, EN 12978 as well as any local rule in force.
- Also the automation upstream electric system shall comply with the laws and rules in force and be carried out workmanlike.
- The door thrust force adjustment shall be measured by means of a proper tool and adjusted according to the max. limits, which EN 12453 allows.
- We recommend to make use of an emergency button, to be installed by the automation (connected to the control unit STOP input) so that the gate may be immediately stopped in case of danger.
- The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children being supervised do not play with the appliance
- The supply cord cannot be replaced. If the cord is damaged the appliance should be scrapped.

## EC DECLARATION OF INCORPORATION FOR PARTLY COMPLETED MACHINERY

(Directive 2006/42/EC, Annex II-B)

The manufacturer **V2 S.p.A.**, headquarters in  
**Corso Principi di Piemonte 65, 12035, Racconigi (CN), Italy**

Under its sole responsibility hereby declares that:

the partly completed machinery model(s):  
MOOV-B400-24V

Identification number and year of manufacturing: **typed on nameplate**

Description: **electromechanical actuator for gates**

- is intended to be installed on **gates**, to create a machine according to the provisions of the Directive 2006/42/EC. The machinery must not be put into service until the final machinery into which it has to be incorporated has been declared in conformity with the provisions of the Directive 2006/42/EC (annex II-A).
- is compliant with the applicable essential safety requirements of the following Directives:  
Machinery Directive 2006/42/EC (annex I, chapter 1)  
Low Voltage Directive 2006/95/EC.  
Electromagnetic Compatibility Directive 2004/108/EC.

The relevant technical documentation is available at the national authorities' request after justifiable request to:

**V2 S.p.A., Corso Principi di Piemonte 65,  
12035, Racconigi (CN), Italy**

The person empowered to draw up the declaration and to provide the technical documentation:

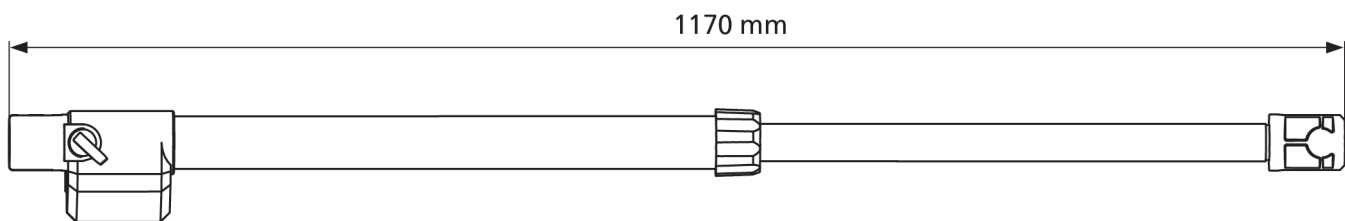
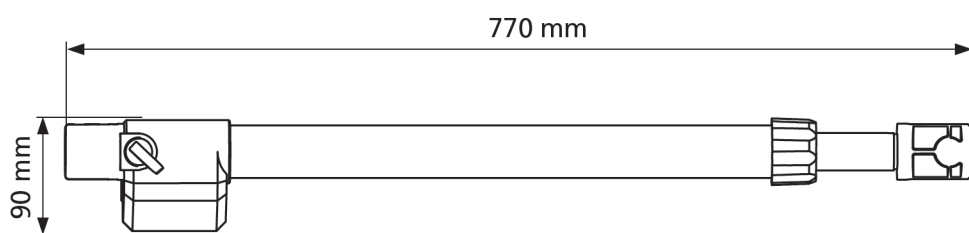
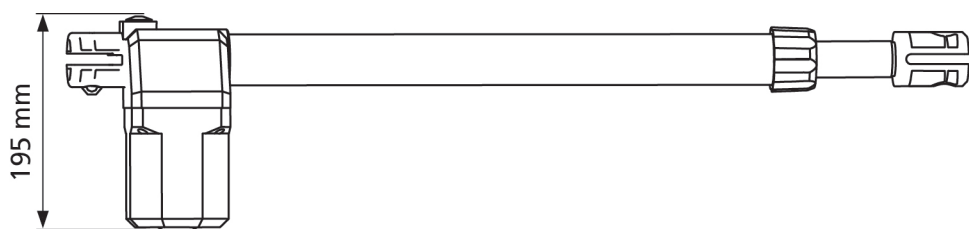
**Cosimo De Falco**

Legal representative of V2 S.p.A.  
Racconigi, 11th January 2010

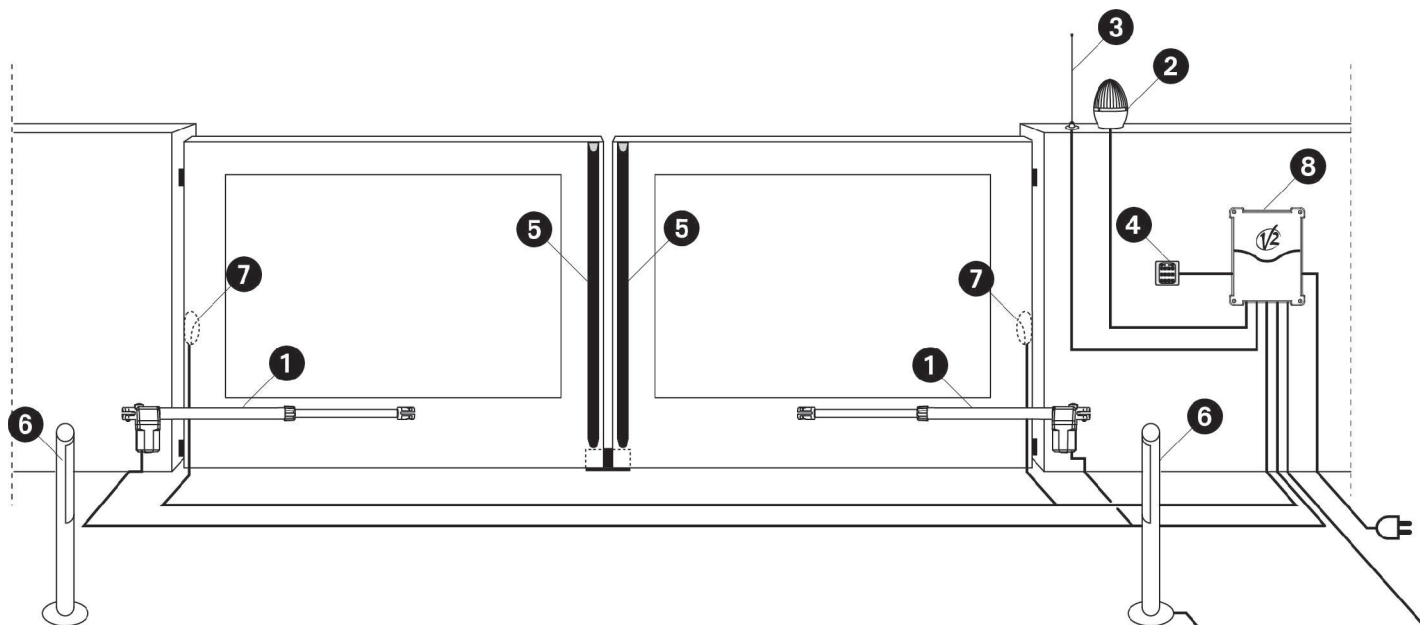
# TECHNICAL DATA

ENGLISH

Max. leaf length	m	4
Max. leaf weight	Kg	250
Power supply	Vdc	24
Max. absorption	A	0,5 - 5,5
Absorbed power	W	70
Capacitor	$\mu$ F	-
Max travel	mm	400
Opening time	sec.	22
Operating speed	m/s	0,018
Maximum thrust	N	1500
Working temperature	$^{\circ}$ C	-25 + 60
Working cycle	%	90
Protection	IP	43
Motor weight	Kg	5,5



# INSTALLATION LAYOUT



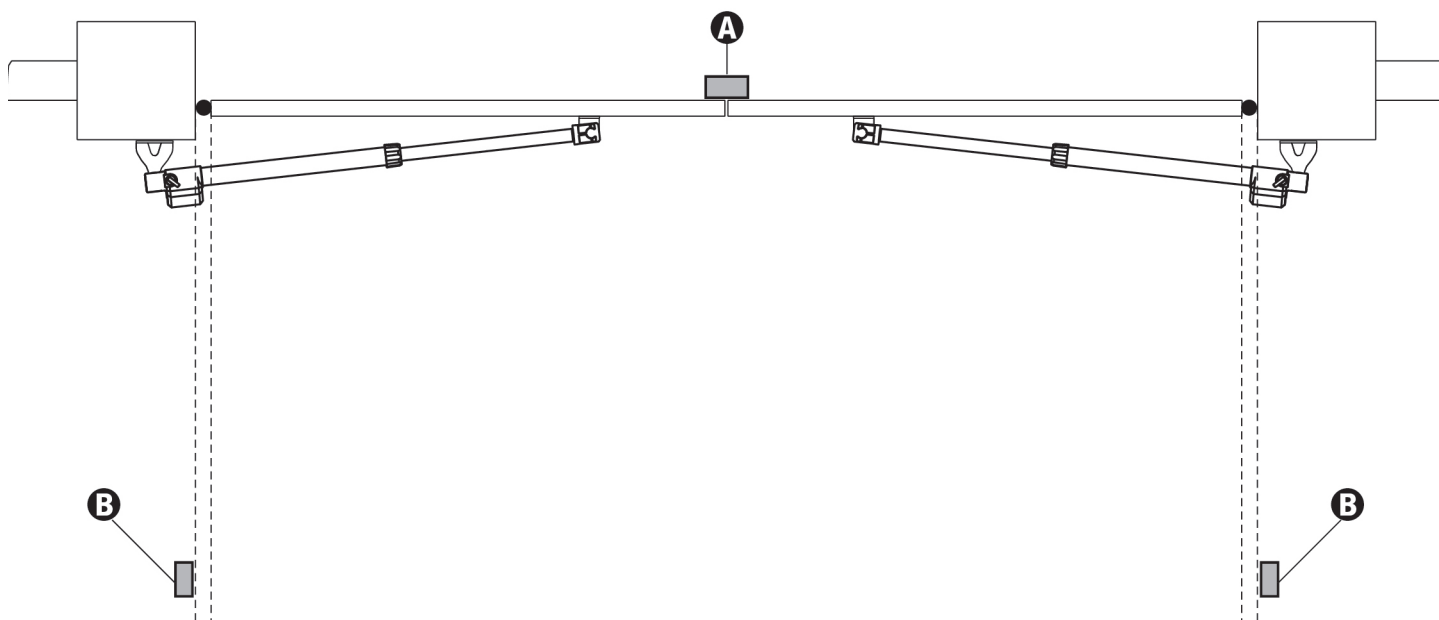
1 Actuator	cable 2 x 1,5 mm <sup>2</sup> (24V)
2 Blinker	cable 2 x 1,5 mm <sup>2</sup>
3 Aerial	cable RG-58
4 Key or digital selector	cable 2 x 1 mm <sup>2</sup>
5 Safety ribbon (EN 12978)	-

6 Internal photocells	cable 4 x 1 mm <sup>2</sup> (RX) cable 2 x 1 mm <sup>2</sup> (TX)
7 External photocells	cable 4 x 1 mm <sup>2</sup> (RX) cable 2 x 1 mm <sup>2</sup> (TX)
8 Control unit	cable 3 x 1,5 mm <sup>2</sup>

## PREPARATORY STEPS

Before proceeding with the installation, please make sure that your gate opens and closes freely, and that:

- Hinges and pins are in optimum condition and properly greased.
- No obstacles are within the moving area.
- There is no friction with the ground or between the leaves.
- Your gate shall be equipped with central **A** and side **B** stops, which are fundamental for the good system operation.

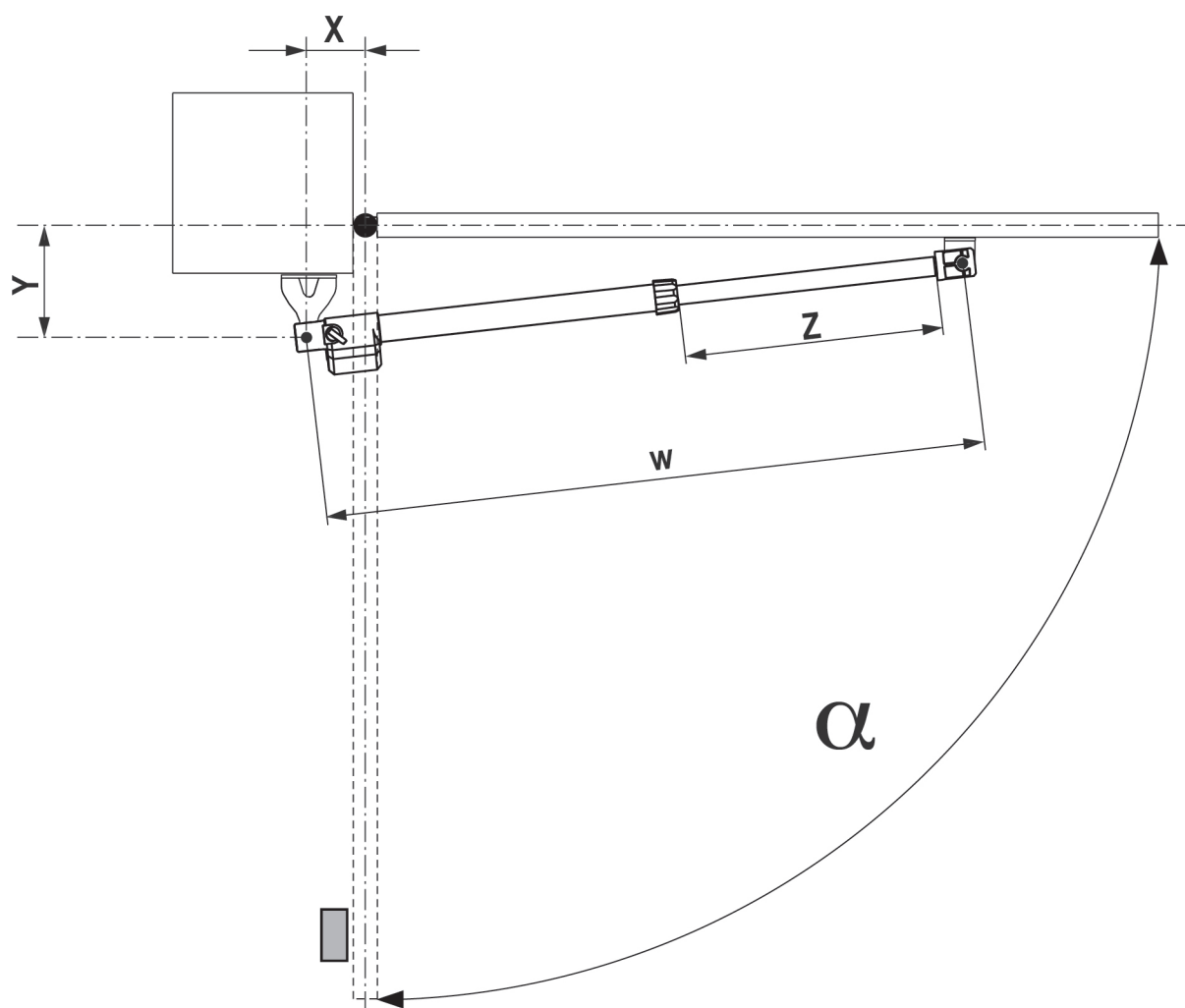


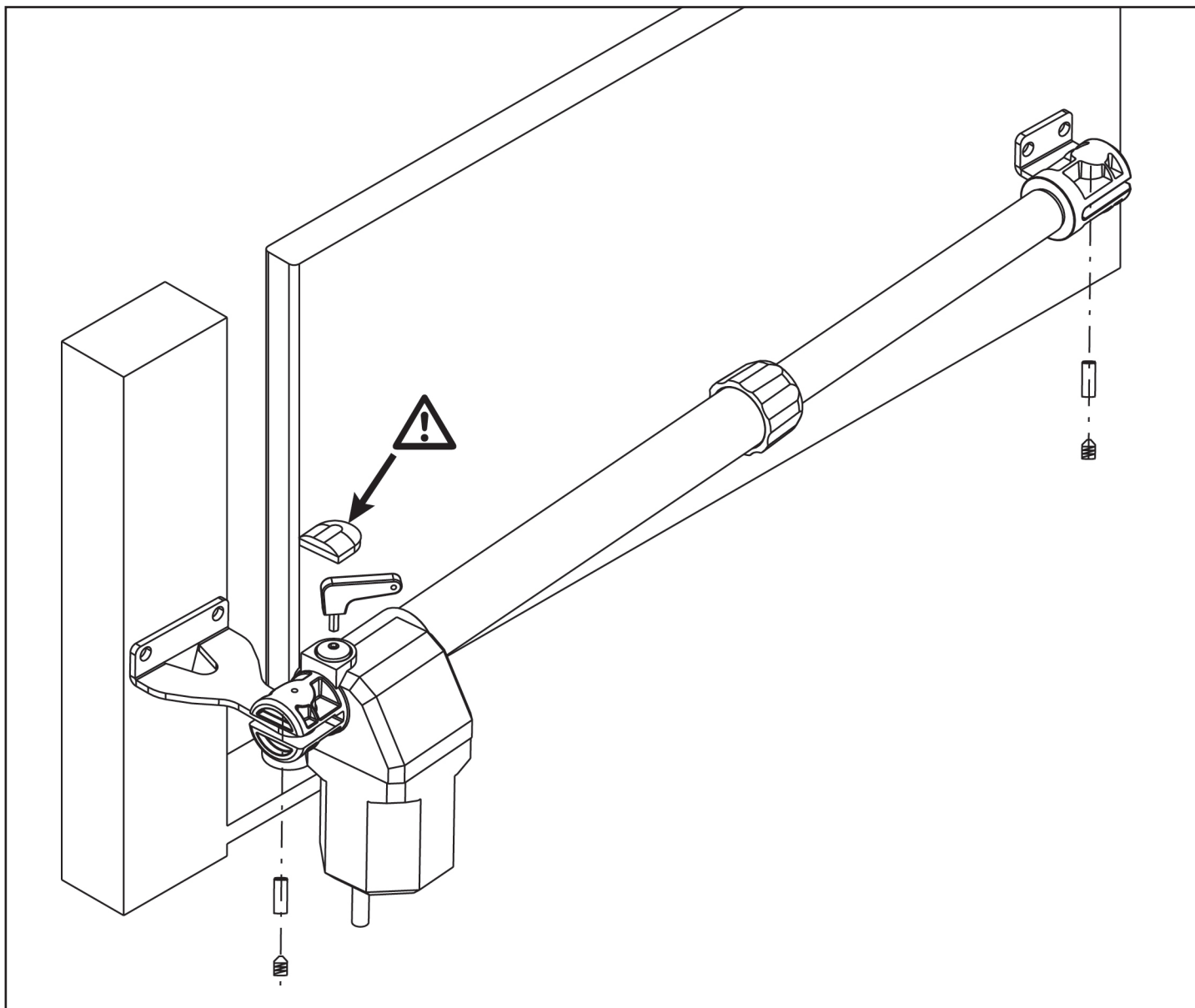
# INSTALLATION MEASURES

To carry out a proper installation of the operator parts as well as to ensure the best automation performance, the measurement levels shown in the following table shall be complied with. Change the gate structure to adapt it to one of the cases in the table, if necessary.

**⚠ WARNING: In the case of leaf longer than 2 metres, an electric lock must be fitted to ensure an efficient closing.**

$\alpha$	W [mm]	X [mm]	Y [mm]	Z [mm]
95°	1122	145	145	478
120°	1122	170	110	478





## ACTUATOR FIXING

Choose measures referring to the table you can find in the previous page, mark them on the pillars and continue as follows:

- Fix brackets on the pillars and on the gate making use of wedges. If structure and materials make it possible, you can weld the brackets directly.
- Close the swing.
- Unlock the actuators.
- Position the actuators on the brackets.
- Insert the 2 pins in the special housing.
- Insert and screw the 2 grub screws with a 6mm allen spanner.
- Open and close the swings repeatedly manually to verify the absence of frictions between gate and ground.

**⚠ WARNING: in order to avoid damage to the actuator, please adhere to the following conditions:**

- The brackets must be installed at the same height.
- The maximum stroke of arm A (in case of gate completely closed) should not exceed 470 mm.
- The minimum stroke of arm B must be more than 70 mm (in case of gate completely open).

## EMERGENCY RELEASE

In case of a blackout, the gate can be operated directly from the motor. Insert the key supplied in the lock, perform 1/2 of a turn. To restore the automation, simply rotate the key in closed position and insert the provided plastic cover onto the lock.

# ELECTRICAL CONNECTIONS

Ref.	COLOUR	Right MOTOR	Left MOTOR
①	BLUE	CLOSING	OPENING
②	BROWN	OPENING	CLOSING

