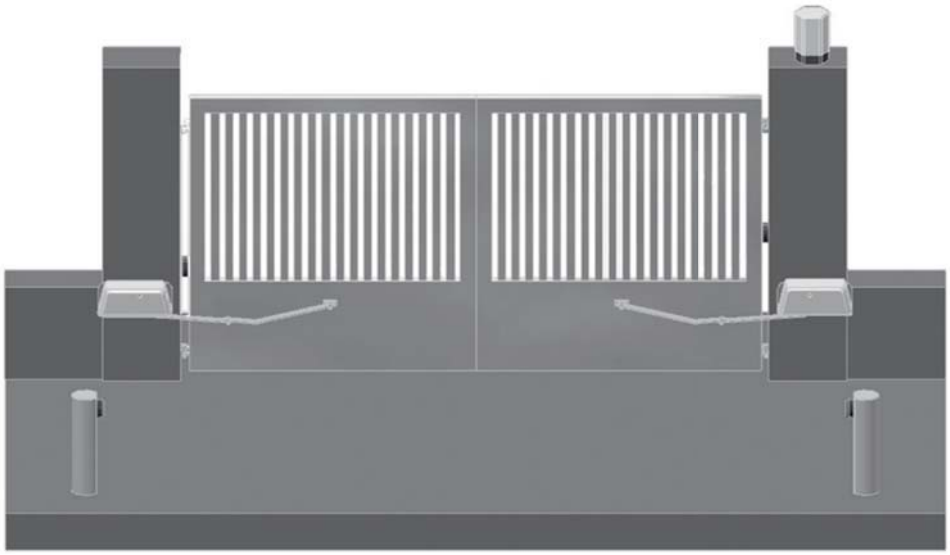
ENGLISH

use and maintenance manual

SPIDER

ARTICULATED ARM SWING GATE OPENER



quiklo® opening solutions

V04/2016

CONTENTS

TECHNICAL FEATURES	QK-S400B
Power supply	24Vdc
Current absorbed (motor) (A)	3,5
Power absorbed (W)	85
Output speed (r.p.m.)	1,76
Capacitor (µF)	-
Protection rate (IP)	44
Maximum output torque (Nm)	400
Opening time (sec)	13
Maximum opening angle (°)	110
Operating temperature (°C Min/Max)	-30/+70
Thermal protection (°C)	-
Work Cycle (%)	100
Weight of the motor (kg)	9,5
Maximum leaf length (m)	3,5

	Installation limits per leaf *Limiti di'impiego per anta* Contraintes d'utilisation			
	2m	2,5m	3m	3,5m
QK-S400B	800kg	600kg	500kg	400kg

The values shown within the table above can be considerably reduced in windy areas.

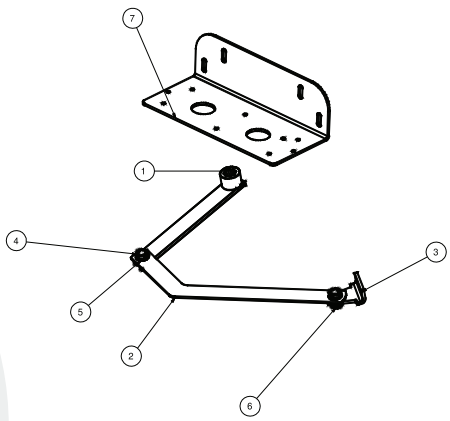
PRE-INSTALLATION CONTROL

Before installing the automation, you must check that the gate leaf/leaves:

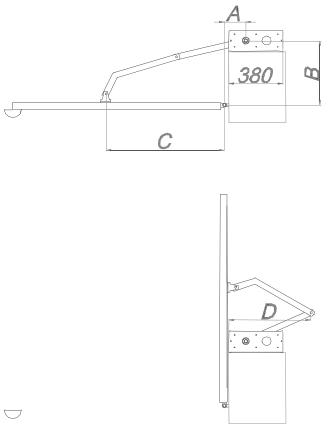
- can turn without sticking in the ground;
- does not swing during its movement;
- is kept in axis by the special hinges;
- has the stoppers when opening and closing.

Quiko Italy Sas is liable only for products it manufactures and commercializes. Once installed, the gate becomes a machine and it is therefore subjected to the rules of the "Machinery Directive". It is responsibility of the installer to verify its security. WARNING: Quiko Italy Sas is not liable for any damages to people, animals or things due to unauthorised modifications, alterations or betterments on its products by third parties.

MATERIALS FOR INSTALLATION (For each operator)



Ref. #	Q,TY	DESCRIPTION
1	1	STRAIGHT ARM
2	2	BENT ARM
3	1	FRONT BRACKET
4	2	BOLT M14X30
5	2	WASHER ST 14 ISO 7091
6	2	LOCKING NUT M14
7	1	MOTOR BRACKET
8	4	Concrete Anchor Bolts (not supplied)



A (mm)	B (mm)	C (mm)	D (mm)
160	220	794	445
160	370	750	480
160	480	670	540
160	Max 530	640	580

Fig. 1

INSTALLATION

1- Provide to fix, temporary, the motor bracket to the pillar until the complete assembly has been carried out successfully;

2- Brackets must be installed so that the operator, once hinged on them, moves in a horizontal plane;

3- Arrange the installation according to the values of the Fig. 1 and referred table;

4- If different angles have to be referred to then use the following procedure:

4a- temporary fix with two anchor bolts the motor bracket to the pillar centre in such manner that its edges do not outstand the pillar;

4b- position the motor assembly on the bracket and bolt to it;

4c- install the straight arm, the bent arm and bolt with them;

4d- install the front bracket and bolt to the bent arm;

4e- unlock the rotation of the motor acting on the manual release lock;

4f- move the articulated arm (the angle between the arms must not overcome 178° see Fig. 1) until the front bracket touch the leaf of the gate in closed position;

4g- tack the position on the leaf;

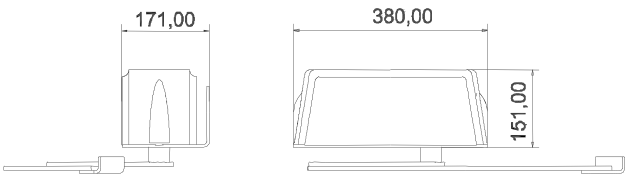
4h- turn the articulated assembly and the leaf to the maximum open position;

4i- check if the front flange touches the leaf in the previous tacked position;

4l- If the position is different it is needed to shift the anchor point of the motor bracket and repeat the procedure.

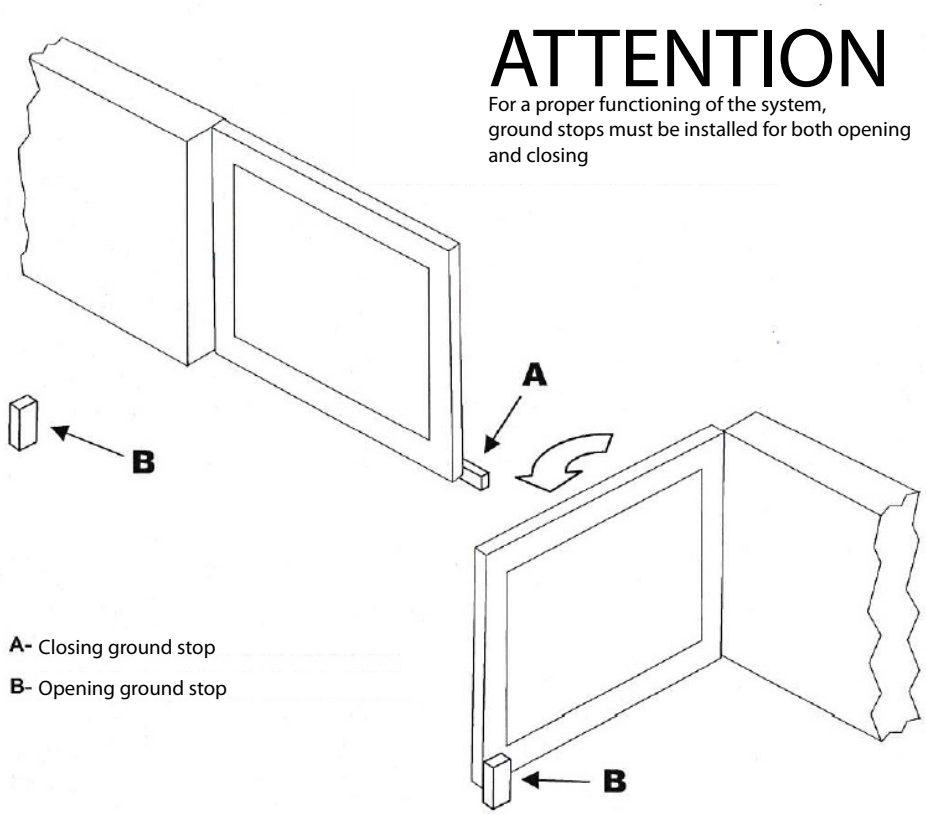
If necessary, it is possible to install the motor internally and let the gate open externally (push to open).

MEASURES OF THE OPERATOR



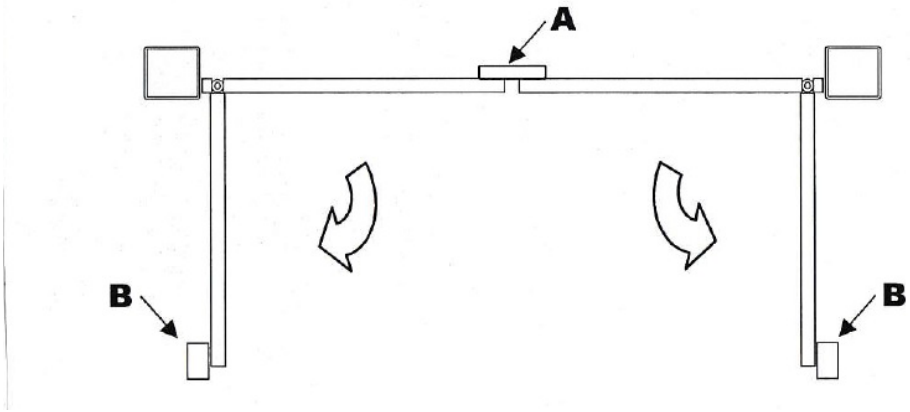
ATTENTION

For a proper functioning of the system, ground stops must be installed for both opening and closing



A- Closing ground stop

B- Opening ground stop



USE OF MANUAL UNLOCKING

1- Remove the cap from the cover;

2- Insert the special key(supplied) into the square insert and turn:

2a - 180° counter clockwise for the operator installed on the right side;

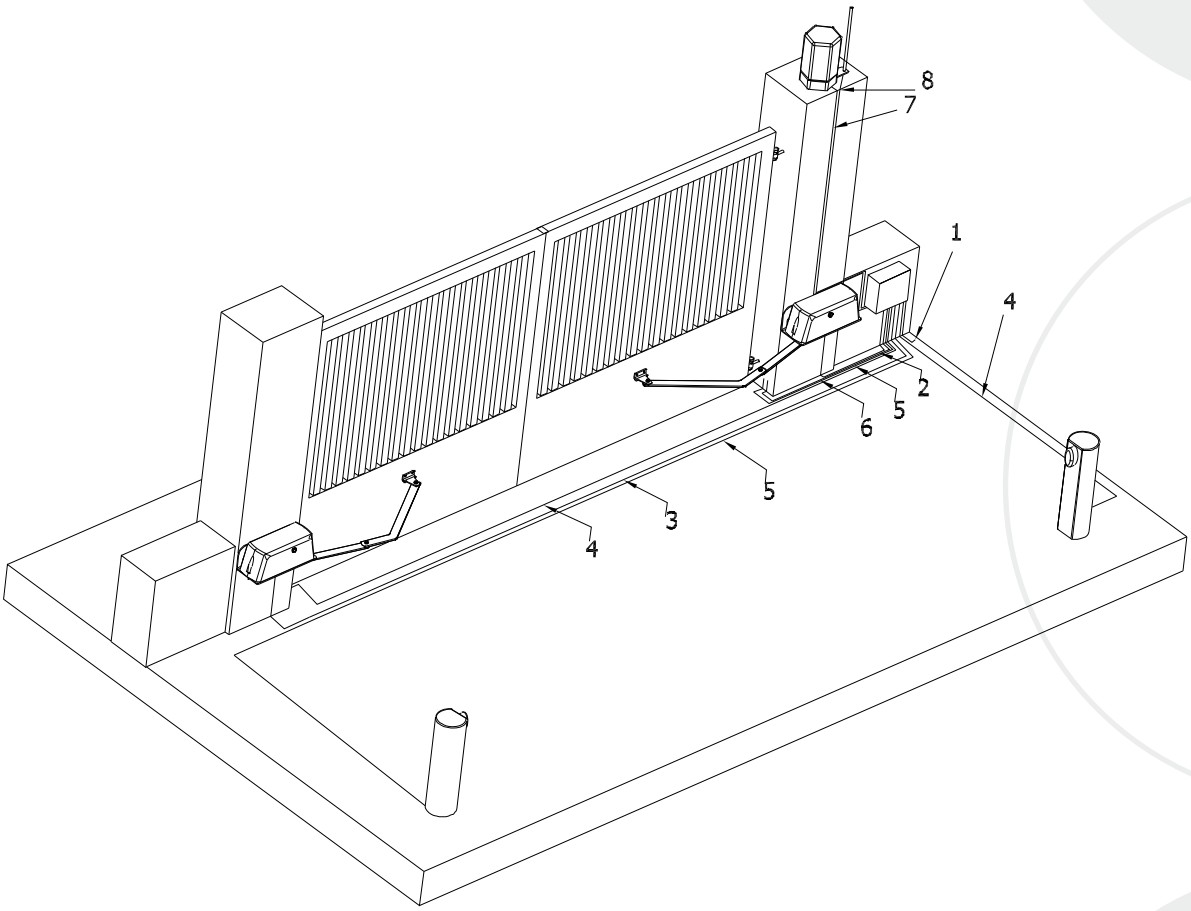
2b - 180° clockwise for the operator installed on the left side.

ELECTRICAL CONNECTIONS

1 – Connect cables with at least 1.5 mm2 section to the control board, checking the motor's rotation direction and remembering that: the yellow-green wire = ground / blue wire = common / black wire = phase / brown wire = phase

2 – Connect the provided capacitor in parallel with the motor's phases.

TYPICAL SYSTEM INSTALLATION



MAIN COMPONENTS
Articulated arm operators (2x)
Pair of photocells on the pillars (1x)
Pair of photocells on little columns (1x)
Gate stoppers in the ground (3x)
Key selector (1x)
Flashing lamp with aerial (1x)
Control board and receiver (1x)

ELECTRICAL CABLES CROSS SECTION

Ref.	Description	Cables section mm^2
1	Main Power supply	3 x 1,5
2 -3	Motor power supply	4 x 1,5 (QK-S400) 2x1,5 (QK-S400B)
4	Transmitting Photocells	2 x 0,5
5	Receiving photocells	4 x 0,5
6	Key selector	3 x 1,5
7	Flashing light	2 x 0,5
8	Aerial	RG58

GENERAL ADVICE

Install a gate's safety system that complies with current regulations. Choose short routes for cables and keep power cables separate from control ones. Install the control card in a waterproof box. Please refer to current regulations when setting the gear motor's maximum torque. We advice you to install an outdoor switch, in compliance with European standards on the issue of safety, to turn the electricity off when servicing the gate. Check that each single installed device is efficient and effective. Affix easily readable signs warning about the presence of a motorised gate.

USE

It is absolutely forbidden to use the device for any other purposes.
In case of power failure, act on the manual unlocking device and move manually the gate. Remember that this is an automatic device powered by electricity, consequently use with care. In particular, remember:
- not to touch the device with wet hands and/or wet or bare feet;
- cut off the power before opening the control box and/or actuator;
- not to pull the lead to pull the plug out;
- to put the gate in movement only when it is completely visible;
- to keep out of the gate's range of action if it is moving. Wait until it has stopped;
- not to let children or animals play near the gate;
- not to let children use the remote control or other operating devices;
- in case of failure, to turn off the switch power and operate the gate manually only if it is possible and safe. Refrain from touching the gate and call an authorised technician.

MAINTENANCE

Operators need very little maintenance; however their function depends also on the gate conditions, hence here are operations to be done to keep the gate efficient at all times. Warning: only a skilled technician shall be able to control the automatic gate while it is being serviced. For this reason please cut off power, avoiding also electric shocks hazard. If on the contrary power is required for some checks, only authorized technician shall do that

Routine maintenance

Each of the following operations must be done when needed and in all cases at least every 6 months:

1) Mechanical maintenance

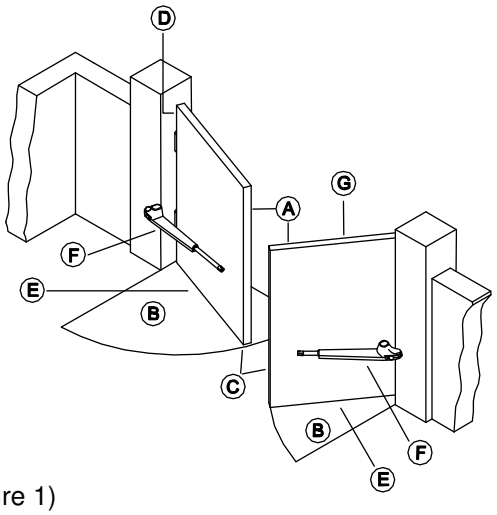
Lubricate the hinges on which the gate swings;
check the good conditions of brackets and motor's hinges;
check the right functioning of the unlocking mechanism

2) Electrical maintenance

Check the proper working of the safety devices;
check the ground connection integrity,
Test, by pushing the proper pushbutton, the efficiency of the differential circuit breaker (0,30 mA sensibility)
Try the differential switcher once a month by pushing the special test button on the switcher.

IN ACCORDANCE WITH REGULATION 98/37/CE ON MACHINERY AND WITH REGULATION

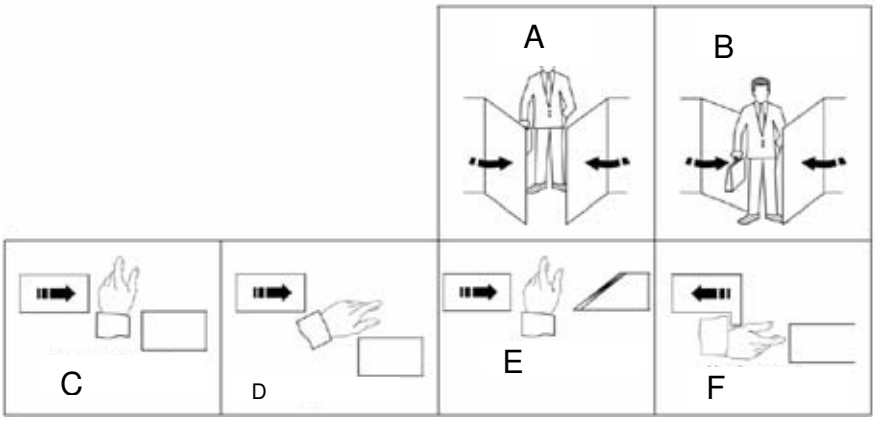
EN 12453 – EN 12445



Risk Areas on Hinged Gates (figure 1)

LEGEND OF MECHANICAL RISKS CAUSED BY MOVEMENT

In accordance with the Regulation on Machinery, the following definitions are applicable:
"Danger Zones:" any area inside and/or near a machine where the presence of a person is a risk to his/her health and safety.
"Exposed Person:" any person located entirely or partially in a danger zone.



A. Impact **B.** Crushing **C.** Insulation
D. Conveyance **E.** Cutting **F.** Slicing

MINIMUM LEVEL OF PROTECTION FOR THE MAIN EDGE

Type of Activation Controls	Mode of Use		
	Informed Users (private area)	Informed Users (public area)	Uninformed Users
Man-operated Command	□ Button command	□ Turnkey button command	The man-operated command is not allowed
Pulse command with visible doors	□ Power limitation □ Detectors	□ Power limitation □ Detectors	□ Power and photo cell limitation □ Detectors
Pulse command with non-visible doors	□ Power limitation □ Detectors	□ Power and photo cell limitation □ Detectors	□ Power and photo cell limitation □ Detectors
Automatic control (e.g. timed closing control)	□ Power and photo-cell limitation □ Detectors	□ Power and photo-cell limitation □ Detectors	□ Power and photo-cell limitation □ Detectors

DECLARATION OF CONFORMITY

(OF THE MANUFACTURER)

Manufacturer: QUIKO ITALY SAS
Via Seccalegno, 19
36040 Sossano (VI)
Italia

hereby declares, under his liability, that products:
QK-S400, QK-S400B

are in compliance with the essential safety requirements of the regulations:

- ✓ Electro-magnetic Compatibility Directive 2004/108/EC
- ✓ Low Voltage Directive 2006/95/EC
- ✓ Machinery Directive 2006/42/EC

and their amendments and modifications, and with the regulations set forth by the National Legislative Body of the country in which the machinery is destined for use.

Sossano, 19/10/2011

Managing Director
Luca Borinato

DECLARATION OF CONFORMITY

(OF THE INSTALLER)

The undersigned:

Address:

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in charge of the set-up, declares that the product:

Gate type:

Location:

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are in compliance with the essential safety requirements of the regulations:

✓ Electro-magnetic Compatibility Directive 2004/108/EC
✓ Low Voltage Directive 2006/95/EC
✓ Machinery Directive 2006/42/EC

and also declares that the related and/or specific national technical regulations have been followed:

- ✓ EN 12453/EN 12445 on Industrial, Commercial and Residential Gates and Doors – Safe Use of Motorized Doors – Requirements and Classification – Test Methods;
- ✓ EN 12604/ EN 12605 on Industrial, Commercial and Residential Gates and Doors – Mechanical Aspects – Requirements and Classification – Test Methods;
- ✓ CEI 64/8 Electrical Systems Using Nominal Tension Not Higher Than 1000V a.c. and 1500 V d.c.;
- ✓ EN 13241-1 (Industrial, commercial and garage doors and gates), conformity evaluation (6.3).

Notes:

Place and date: ……

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