



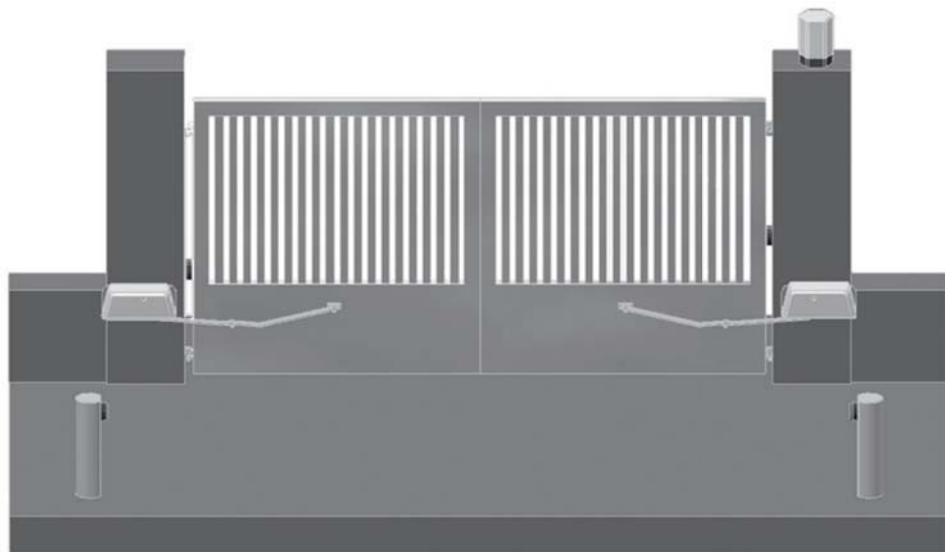
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use and maintenance manual

SPIDER

ARTICULATED ARM SWING GATE OPENER



qui  **lö**®
opening solutions

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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 <i>Limiti di'impiego per anta</i> Contraintes d'utilisation				
2m	2,5m	3m	3,5m	

QK-S400B	800kg	600kg	500kg	400kg
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The values shown within the table above can be considerably reduced in windy areas.

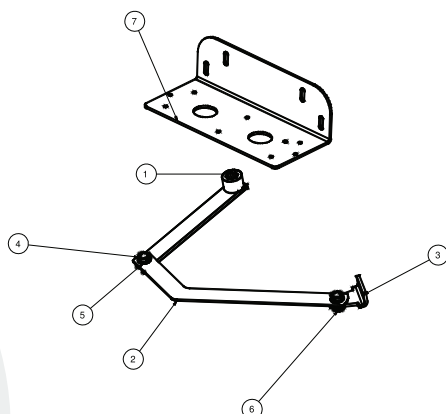
PRE-INSTALLATION CONTROL

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

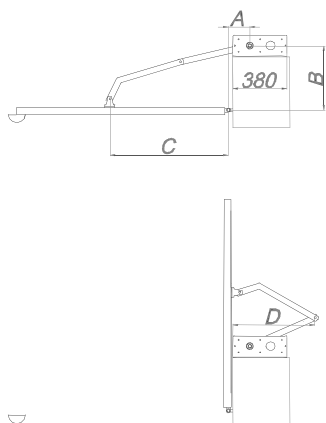
- can turn without sticking in the ground;
- does not swing during its movement;
- is kept in axis by the special hinges;
- has the stoppers when opening and closing.

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

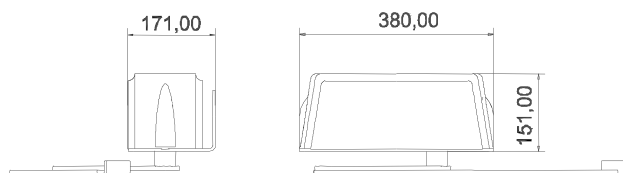
Fig. 1

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.

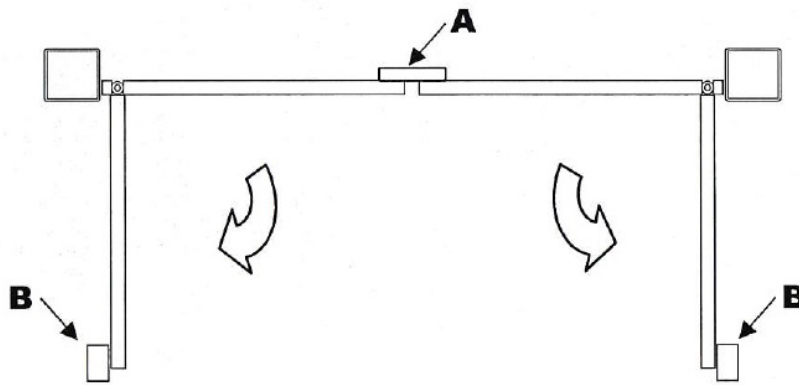
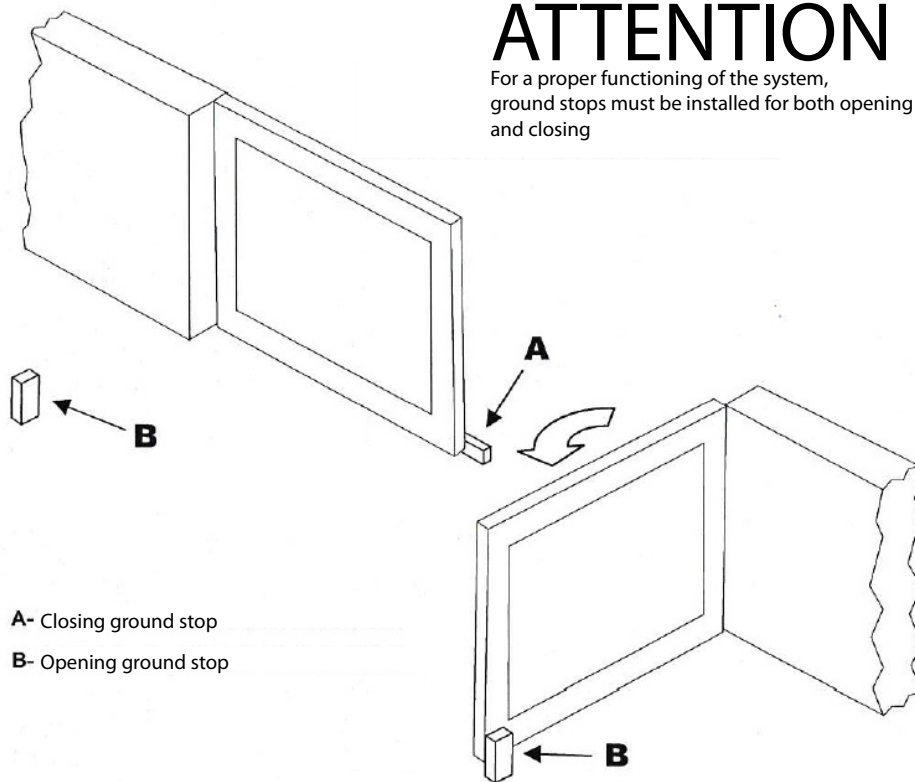
If necessary, it is possible to install the motor internally and let the gate open externally (push to open).

MEASURES OF THE OPERATOR



ATTENTION

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



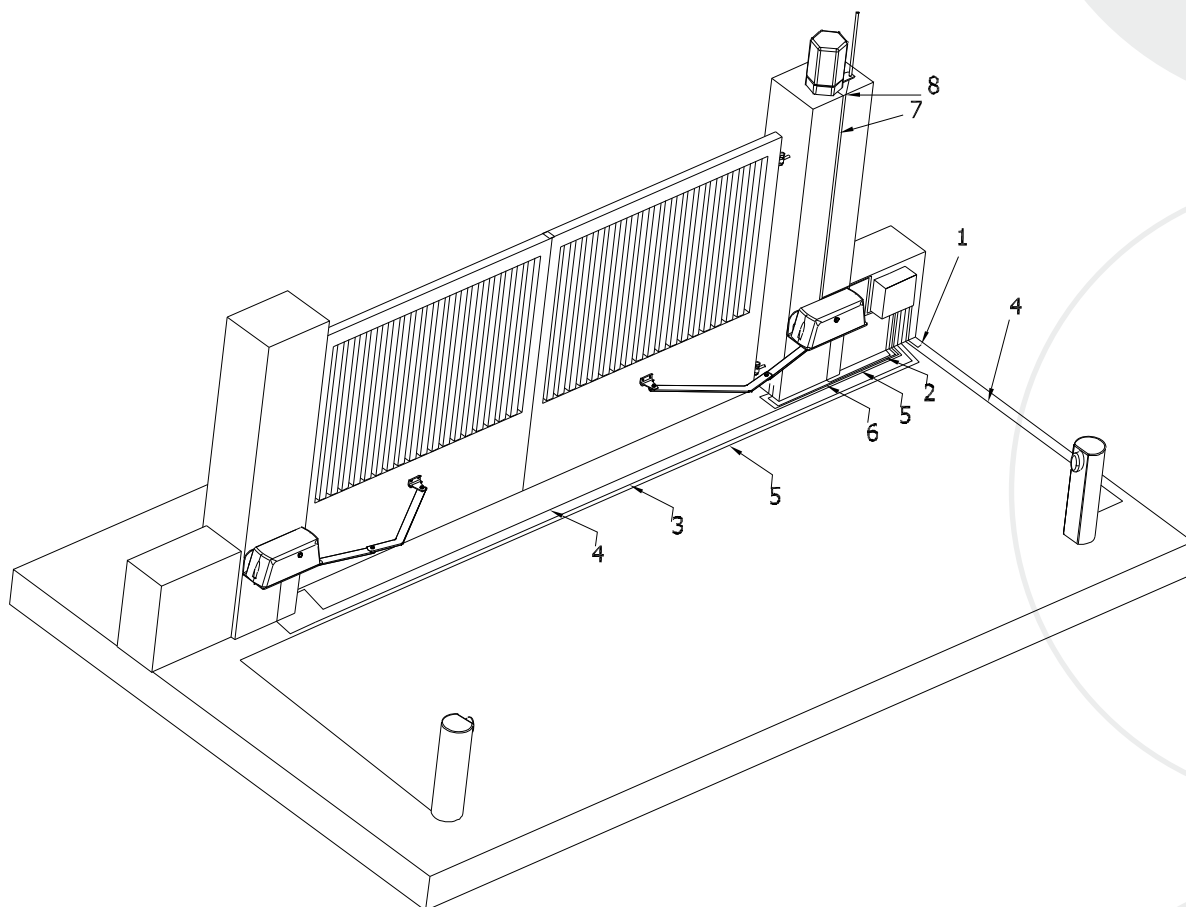
USE OF MANUAL UNLOCKING

- 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 advise 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

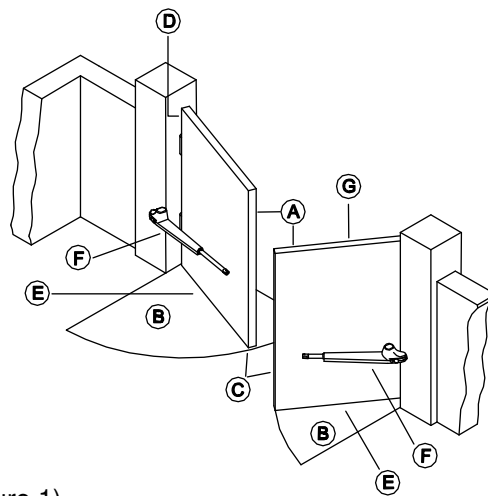
Check the proper working of the safety devices;
check the ground connection integrity,

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



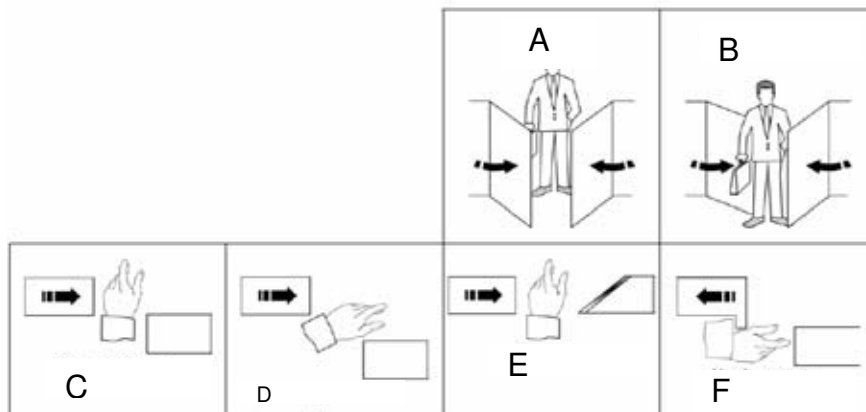
Risk Areas on Hinged Gates (figure 1)

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	<input type="checkbox"/> Button command	<input type="checkbox"/> Turnkey button command	The man-operated command is not allowed
Pulse command with visible doors	<input type="checkbox"/> Power limitation <input type="checkbox"/> Detectors	<input type="checkbox"/> Power limitation <input type="checkbox"/> Detectors	<input type="checkbox"/> Power and photo cell limitation <input type="checkbox"/> Detectors
Pulse command with non-visible doors	<input type="checkbox"/> Power limitation <input type="checkbox"/> Detectors	<input type="checkbox"/> Power and photo cell limitation <input type="checkbox"/> Detectors	<input type="checkbox"/> Power and photo cell limitation <input type="checkbox"/> Detectors
Automatic control (e.g. timed closing control)	<input type="checkbox"/> Power and photo-cell limitation <input type="checkbox"/> Detectors	<input type="checkbox"/> Power and photo-cell limitation <input type="checkbox"/> Detectors	<input type="checkbox"/> Power and photo-cell limitation <input type="checkbox"/> Detectors

EU Declaration of Conformity

and Declaration of Incorporation of "quasi-machines" (pursuant to the Machinery Directive 2006/42/CE, Att.II, B)



Company name:	QUIKO ITALY SRL
Postal address:	Via Seccalegno, 19
Postcode and City:	36040, Sossano (VI) - Italy
Telephone number:	+39 0444 785513
E-Mail address:	info@quikoitaly.com

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus model/Product:	SPIDER: QK-S400B ;
Type:	AUTOMATIONS FOR SWING GATES (24V)
Batch:	See the label on the motor

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

- **Directive 2006/42/CE (MD Directive)**
 - It is declared that the relevant technical documentation has been drawn-up in compliance with attachment VII B.
 - It is also declared that the following essential health and safety requirements have been respected: 1.1.1 - 1.1.2 - 1.1.3 - 1.1.5 - 1.2.1 - 1.2.6 - 1.3.1 - 1.3.2 - 1.3.3 - 1.3.4 - 1.3.7 - 1.3.9 - 1.5.1 - 1.5.2 - 1.5.4 - 1.5.5 - 1.5.6 - 1.5.7 - 1.5.8 - 1.5.10 - 1.5.11 - 1.5.13 - 1.6.1 - 1.6.2 - 1.6.4 - 1.7.2 - 1.7.3 - 1.7.4 - 1.7.4.1 - 1.7.4.2 - 1.7.4.3.
 - The undersigned declares that the afore-mentioned "partly-completed machinery" cannot be commissioned until the final machine, into which it has been incorporated, has been declared compliant with the Machinery Directive 2006/42/CE.
 - On duly justified request, the manufacturer commits to transmitting the information regarding the "partly-completed machinery" to the national authorities without prejudice to their intellectual property rights.
- **Directive 2014/53/EU (RED Directive)**
- **Directive 2011/65/EU (RoHS)**

The following harmonised standards and technical specifications have been applied:

Title:	Date of standard/specification
EN 61000-6-2	2005 + AC:2005
EN 61000-6-3	2007 + A1:2011+AC:2012,
EN 301 489-1 V2.2.3	2019
EN 301 489-3 V2.1.1	2017
EN 60335-2-103	2015
EN 12453	2017
EN 62479	2010
EN 300 220-2 V3.1.1	2017
EN IEC 63000	2018

Additional information

Signed for and on behalf of:		
Revision:	Place and date of issue:	Name, function, signature
01.00	Sossano, 28/09/2021	(Borinato Luca, Legal Officer)

EU Declaration of Conformity

Company name:

Postal address:

Postcode and City:

Telephone number:

E-Mail address:

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus model/Product:

Type:

Installation location

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

- Directive 2006/42/CE (MD Directive)
- Directive 2014/53/EU (RED Directive)
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EN 301 489-3 V2.1.1	2017
EN ISO 12100	2010
EN 12453	2017
EN 12604	2017 +A1: 2020
EN 62479	2010
EN 300 220-2 V3.1.1	2017
EN IEC 63000	2018

Additional information

Signed for and on behalf of:

Revision:

01.00

Place and date of issue:

GG/MM/AAAA

Name, function, signature

(Administrator)



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*The Manufacturer can technically improve
the quality of its products without
any prior notice.*