

use and maintenance manual

# ICARUS

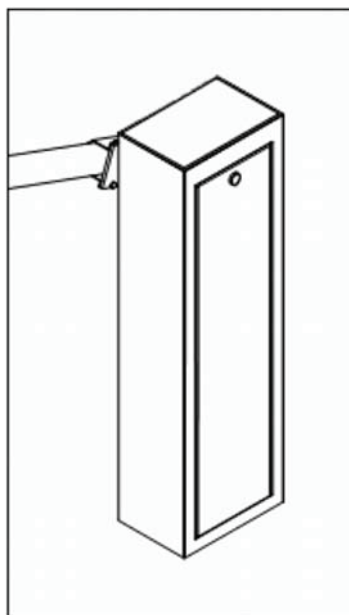
AUTOMATIC BARRIER


QK-I30B

QK-I40B

QK-I50B

QK-I60B



**qui**  **lö**®  
opening solutions

# CONTENTS

<b>GENERAL PRECAUTIONS FOR INSTALLERS</b>	3
<b>TECHNICAL FEATURES</b>	4
<b>PRE-INSTALLATION CONTROL</b>	4
<b>MEASURES TO BE RESPECTED</b>	5
<b>SITE PREPARATION ANCHORING OF THE BARRIER</b>	6
<b>SECURING OF ROD AND BALANCING</b>	6
<b>MANUAL UNLOCKING</b>	6
<b>LIMIT SWITCHES ADJUSTMENT</b>	7
<b>ACCESS TO THE CONTROL UNIT COMPARTMENT</b>	7
<b>ADJUSTEMENT OF DIRECTION</b>	8
<b>IMPORTANT SAFETY INSTRUCTIONS</b>	8
<b>USE</b>	9
<b>EXTRAORDINARY MAINTENANCE AND REPAIRS</b>	9
<b>TYPICAL SYSTEM</b>	11
<b>MANUFACTURER'S DECLARATION OF CONFORMITY</b>	12
<b>INSTALLER'S DECLARATION OF CONFORMITY</b>	13
<b>DISPOSAL INSTRUCTIONS</b>	14
<b>INSTALLATION / MAINTENANCE LOG BOOK</b>	15

## GENERAL PRECAUTIONS FOR INSTALLERS



**WARNING: IMPORTANT SAFETY INSTRUCTIONS.**  
**Follow all instructions since incorrect installation can lead to severe injury to people, animals or things. Warnings and instructions provide important information regarding safety, installation, use and maintenance.**

### 1- BEFORE INSTALLING THE AUTOMATION

Before installing the automation, you must check that:



- Safe handling of drive and other parts weighing more than 20 kg by the use of proper handling means, such as hooks and ropes
- that entrapment between the driven part and the surrounding fixed parts due to the opening movement of the boom is avoided. A minimum distance of 50cm between both ends of the driven part of the appliance and surrounding structures or obstacles must be respected.
- the actuating member of a biased-off switch is to be located within direct sight of the driven part but away from moving parts. Unless it is key operated, it is to be installed at a minimum height of 1,5 m and not accessible to the public
- the temperature range marked on the drive is suitable for the location;
- All the protective devices comply to EN 12978, latest edition;
- Electro-sensitive protective equipment shall be accessible for inspection purposes after installation;
- you have all the tools, materials and safety devices you will need for moving and installing the appliance in total safety in compliance with applicable regulations;
- the installation and movement of the appliance is done respecting the needed safe distances in order to protect fingers, hands, feet and body;
- a switch is incorporated in the fixed wiring in accordance with the wiring rules in order to allow disconnection of the appliance from the power supply after installation;
- the earth system has been installed correctly: earth all the metal parts belonging to the entry system (doors, gates, etc.) and all parts of the system featuring an earth terminal.
- the power cable is properly stripped to allow the earth wire to be connected to the relevant terminal, while leaving the live wires as short as possible. The earth wire must be the last to be pulled out in the event the cable's fastening device comes loose.

### 2- AFTER INSTALLING THE AUTOMATION

After installing the automation, you must check that:

- that the mechanism is properly adjusted and that the protection system and any manual release function correctly and that all requirements of EN 12604 and EN 12453 are still met;
- the label concerning the manual release, adjacent to its actuating member is permanently fixed;
- fixed wirings which may come in contact with sharp edges or high temperature parts are properly protected by insulating sleeving having an appropriate temperature rating;
- the boom is in good mechanical condition, properly and correctly balanced adopting all information given in the installation manual;
- before to put it in operation, forces developed by the barrier shall be measured according to the standard EN 12453, Annex C (Force measuring method) and fulfill admissible values of force. The points where the forces have to be measured are specified in Annex C.10. The measurements shall be performed on a complete barrier, fully equipped with all safety devices incorporated and adjusted as specified in this user manual.

**WARNING:** Do not use spare parts or accessories not indicated by Quiko Italy Srl. Their use and/or incorrect re-assembly leads to loss of conformity and injury to people, animals and property.

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

TECHNICAL FEATURES	QK-I30B	QK-I40B QK-I50B QK-I60B
Power	24Vdc	
Power absorbed (W)	80	
Current absorbed (motor) (A)	2,5	
Protection level (IP)	55	
Motor shaft speed (rpm)	3000	1500
Output shaft speed (rpm)	7,3	1,7
Reduction ratio	1/191	1/820
Opening time (s)	2	4
Working temp. (°C Min/Max)	-30/+70	
Work cycle (%)	100	
Weight (kg)	45	49
Insulation class	F	
Thermal cut-out (°C)	-	-
Maximum rod length (m)	3	6,25

#### IMPORTANT NOTICE:

*- The installer must refer to the QK-CE24V control board user manual to get the full explanation about operating modes, compatible accessories and wirings. Quiko automatic barriers must be controlled by the above mentioned Quiko control board in order to guarantee correct and safe working operations.*

- ICARUS automatic barriers can be supplied by a 24V backup battery unit in order to keep them operative during main power supply failures such as blackouts.

To ensure a safe operation of the drive the installer must use our QK-BPACK1 backup battery unit OR equivalent commercial rechargeable batteries with the following specifications:

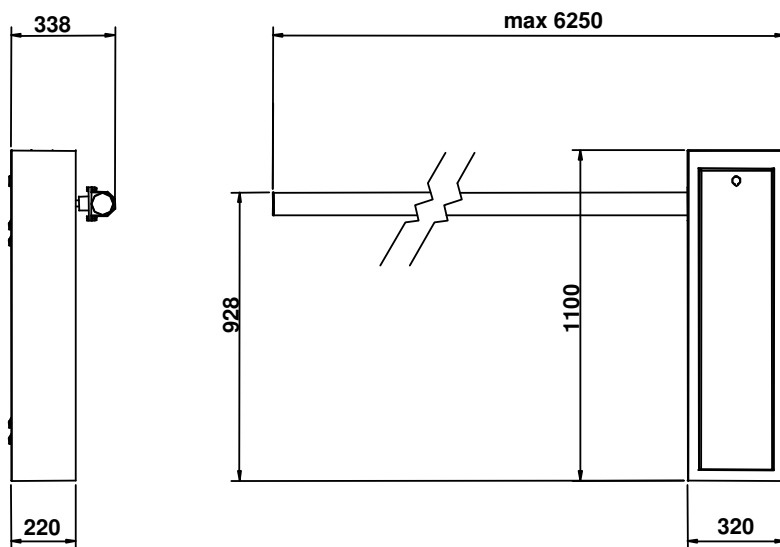
Type: Lead Acid Battery  
 Voltage: 24V (2 x 12V batteries must be connected in series)  
 Capacity: 1.3Ah each

#### PRE-INSTALLATION CONTROL

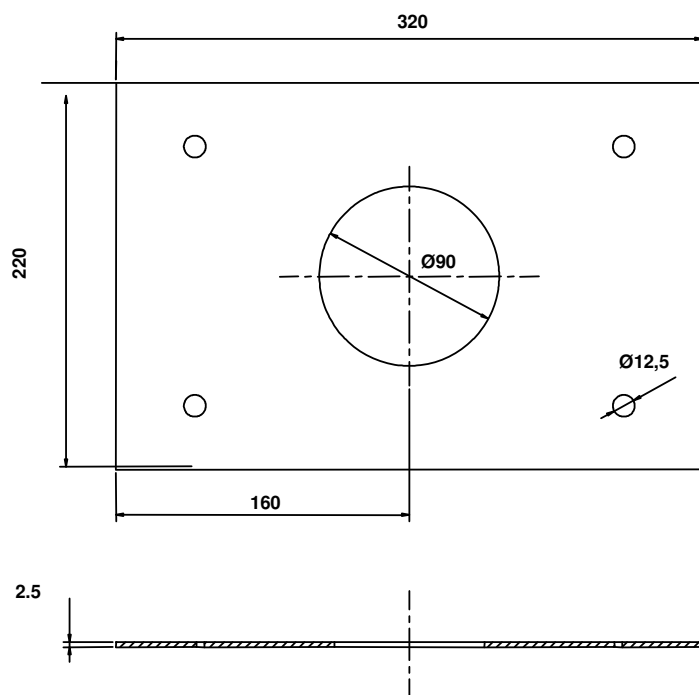
The following principles must be followed in addition to the functionality:

- before installing the bar, make sure that the area above the bars free of all obstacles (balconies, cables, trees, etc.)
- a good visibility at a sufficient distance to avoid collision (pay attention to bushes, etc.)
- suitable base to guarantee the secure positioning of the barrier
- absence of pipes and/or electrical cables that could be damaged when preparing the site
- minimization of the length of the electrical cables that are necessary to operates the barrier
- positioning in accordance with the present national standards.

**MEASURES TO BE RESPECTED**

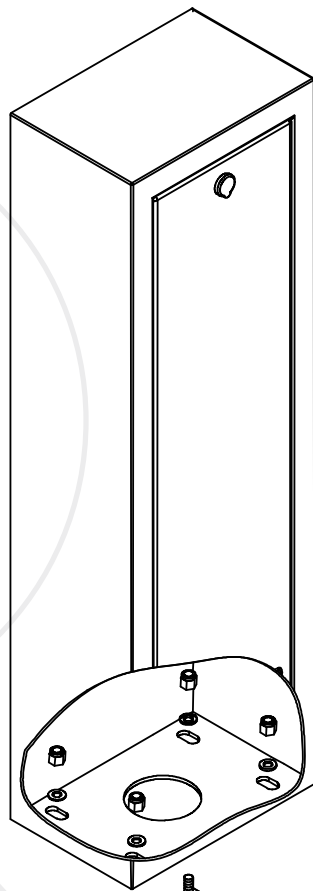


The main dimensions of the barrier are indicated in Fig. 1; Fig. 2 illustrates the dimensions of the foundation base plate.



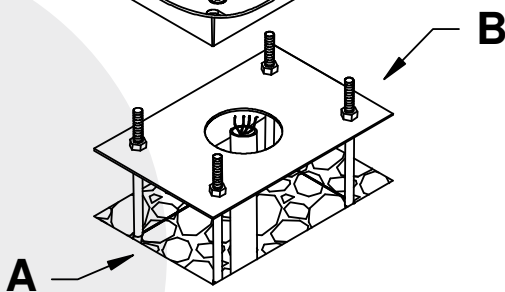
**fig. 2**

## SITE PREPARATION



Construct a rectangular concrete slab (A fig. 3) of suitable size which includes cable outlet holes. If possible use the foundation base plate (B fig. 3), with the 4 supplied tie bars to submerge into the slab; or secure the barrier cabinet directly to the finished slab with 4 anchor bolts M10x120. The thickness of the slab must be at least 10 cm, remembering that it can be deeper if the ground conditions require it.

fig. 3



## ANCHORING OF THE BARRIER

The barrier is now placed in position, without the bar, and fixed to the base by securely tightening the nuts to the tie bars. The perfect stability of the anchorage is controlled and if necessary, the nuts are tightened further.

## SECURING OF ROD AND BALANCING

Balancing is fundamental for the correct function of the barrier. This operation is only performed after the rod has been fitted into its final position with all accessories.

All operations are performed with the power supply switched off and the barrier released (see chapter "manual unlocking"); close the end with the supplied cap insert the bar into the bar holder and secure it with the 6 bolts and nuts; keeping at a safe distance, operate the manual release.

The rod must lift to 45° on its own, otherwise turn the spring preloading nut. Lower the bar, release it and check that it has reached 45°.

Note: if needed load is greater than what permitted when balancing, move the eyelet into the hole on the right or left to increase or decrease the load capacity.

## MANUAL UNLOCKING

To unlock the barrier, open the front door and lift the appropriate release lever as illustrated within the figure below. **ATTENTION: Do not release if the rod is not introduced!**



### **WARNING:**

- *perform locking and lock release operations with power cut off.*
- *activation of the manual release may cause uncontrolled movement of the barrier due to mechanical failures or an out-of-balance condition*

## LIMIT SWITCHES ADJUSTMENT

The barrier is supplied with limit switches already adjusted in order to allow ideal movement of the rod. In this case of incorrect levelling of the plate to be cemented, the rod may not result perfectly horizontal or vertical with consequent bad installation aesthetics. To adjust the limit switches manually, loosen the 2 relative screws and turn the cam till to desired position.



## ACCESS TO THE CONTROL UNIT COMPARTMENT

To access the control unit, open the cover on top of the barrier by loosening the screws on sides.



### **WARNING**

- *changings in movement speed can lead to dangerous situations;*
- *All adjustments shall be done by professional personnel;*
- *It is essential tha after any adjustment, compliance with regulatory limits for activation force should be detected with a force impact-measuring equipment. The sensivity of the obstacle detection may be adjusted gradually.*
- *Any modification to the force ajustement must be documented in the barrier log book.*

## ADJUSTMENT OF DIRECTION

All Quiko barriers are supplied (factory) as right versions. To modify the direction of movement of the rod, changing it to the left version, proceed as follows:

- loosen the spring screw fasteners and remove the screws
- remove the screw fasteners and remove the lever as illustrated within the figure below
- remove the limit switches cams
- fix everything again in the opposite position
- adjust the retainers and limit switches again







**WARNING: IMPORTANT SAFETY INSTRUCTIONS**  
***It is important for the safety of persons to follow these instructions. Save these instructions and keep them together the technical documentation for future reference.***



**WARNING: The drive shall be disconnected from its power source during cleaning, maintenance and when replacing parts**

Install a barrier'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 barrier. Check that each single installed device is efficient and effective. Affix easily readable signs warning about the presence of a automatic barrier.

#### **USE**

It is absolutely forbidden to use the device for any other purposes (e.g. lifting of persons or things) other than those foreseen. The manufacturer holds no responsibility what so ever for damages caused by said actions. The installed electronic unit (which must have built-in electric friction), allows to select the following functions:

- automatic: one control impulse will open or close the barrier;
- semi-automatic: one control impulse will open or close the barrier.

In case of a blackout, manual operation is possible by activating the unlocking device.  
Having an automatic and electric power device requires special attention in a few situations:

- do not allow children to play with the appliance or its controls, including remotes
- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction;
- not to touch the device with wet hands and/or wet or bare feet;
- to turn off electricity before opening the control box and/or actuator;
- to put the automatic barrier in movement only when it is completely visible;
- to keep out of the barrier's range of action if it is moving. Wait until it has stopped;
- not to let children or animals play near the barrier;
- not to let children use the remote control or other operating devices;
- not to let children play with fixed controls;
- to carry out routine maintenance;
- in case of failure, to turn off electricity and operate the barrier manually only if it is possible and safe. Refrain from touching the barrier and call an authorised technician.
- when operating a biased-off switch, make sure that other persons are kept away
- frequently examine the installation for imbalance and signs of wear or damage to cables, springs and mounting. Do not use if repair or adjustment is necessary
- not to pull the cable to disconnect the equipment;
- not to perform the automatic and semi-automatic function in the presence of known or suspected malfunctions;
- not to rest against the bar or the cabinet for any reason, even when the barrier is inactive;

## **IMPORTANT**

1. An efficient grounding in compliance with the present standards for the safety of the equipment is extremely important. The manufacturer cannot be held responsible for possible damages due to the non-compliance of the said standard.
2. For safety reasons a thermal-magnetic circuit breaker should ideally be positioned prior to the barrier to control the power supply in the event it must be turned off.

The barrier has been exclusively designed to limit the flow of vehicles and/or persons in restricted entrances by means of a bar.

Furthermore, it also comprises electrical equipment and therefore must be approached and used with caution and foresight.

Do not attempt to resolve the problem yourself, contact a qualified technician of the manufacturer or authorized by the manufacturer. In any case, make sure that the spare parts are original so that the safety of the barrier is not compromised.

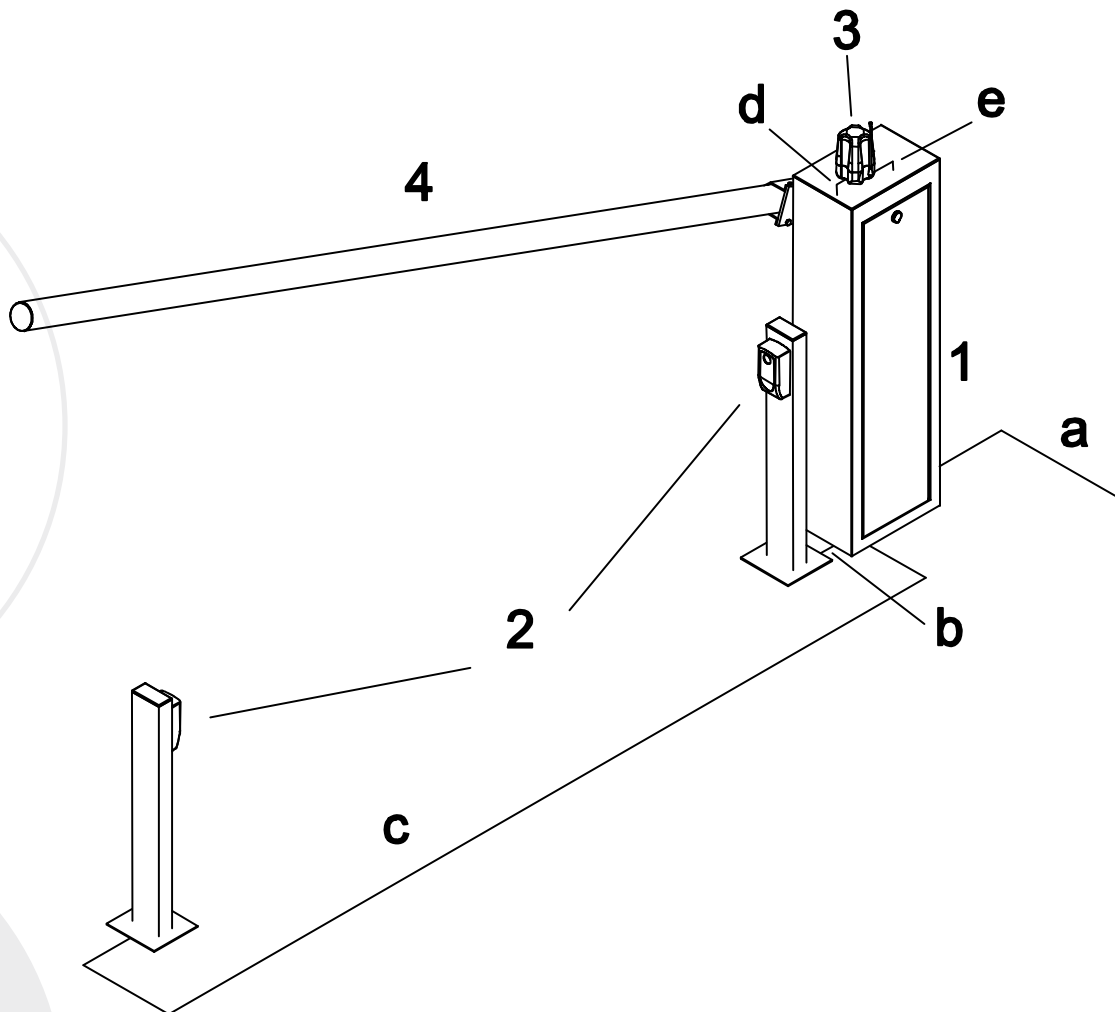
Perform periodic checks by professional installer at intervals which may not exceed 6 months;

## **EXTRAORDINARY MAINTENANCE AND REPAIRS**

If a complicated repair or replacement of electromechanical parts is necessary, the unit in question (control unit, gearmotor unit) should be removed in order for the repair to be carried out by the manufacturer or by authorized technicians. Otherwise, the safety and reliability of the barrier may be reduced (such as the guarantee for example).

NOTE: if the barrier is used in a saline environment or an environment that is highly contaminated by corrosive chemical reactants, the frequency of the maintenance controls must be increased due to the increased environmental deterioration; In this case the external metal cabinet should also be inspected.

**TYPICAL SYSTEM**



- 1 - Gearmotor
- 2 - Photocells
- 3 - Flashing light
- 4 - Rod (max. length 6,25 m)

**Cable section:**

- a 3 x 1,5 mm<sup>2</sup>
- b 4 x 0,5 mm<sup>2</sup>
- c 2 x 0,5 mm<sup>2</sup>
- d 2 x 0,5 mm<sup>2</sup>
- e RG58

# EU Declaration of Conformity



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

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

<b>Apparatus model/Product:</b>	<b>ICARUS QK-I30B; QK-I40B; QK-I5060B</b>
<b>Type:</b>	AUTOMATIC BARRIER
<b>Batch:</b>	See the label on the automatic barrier


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)
- Directive 2011/65/EU (RoHS)

The following harmonised standards and technical specifications have been applied:

<b>Title:</b>	<b>Date of standard/specification</b>
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 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

<b>Signed for and on behalf of:</b>		
<b>Revision:</b>	<b>Place and date of issue:</b>	<b>Name, function, signature</b>
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)
- 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 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**

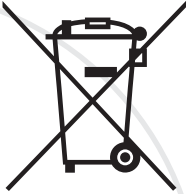
---

**Name, function, signature**

**(Administrator)**

---

## Pursuant to legislation for the implementation of Directive 2012/19/ EU on “Waste electrical and electronic equipment (WEEE)”



It is forbidden to dispose of electrical items and electronic equipment as municipal waste, as evidenced also by the symbol shown on the product and/or its packaging.

These forms of waste are subject to separate collections organised by municipal authorities, or may be returned to the retailer when buying a new appliance of the same type. Improper disposal or misuse of such equipment or its component parts can damage the environment and human health due to the presence of hazardous substances. Illegal disposal of this waste is forbidden of the legislation currently in force.



# INSTALLATION LOG BOOK

Barrier's Batch Code and Date (as appears on the label on the barrier)	
User manual version (see first page)	
Barrier Location Reference	
Name and contact details of the installation organization	
Date of completion of the installation	
Identification of any power operated drive unit	
Identification of any safety devices	
Result of the final verification and operational test	
Maintenance and repairs carried out, including recommendations	
Significan changes or upgrading carried out	
Additional work done	



**QUIKO ITALY SRL**

Via Seccalegno, 19  
36040 Sossano (VI) - Italy  
Tel. +39 0444 785513  
Fax +39 0444 782371  
**info@quikoitaly.com**  
**www.quikoitaly.com**



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