



Vehicle Access Control
Pedestrian Access Control
Safety & Security Equipment

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Sentinel PR Articulated Arm Swing Gate Operator (v02/23)

Installation Instructions



Please read these instructions fully before installing

Technical data	PR.45E24
Power supply	230 Vac 50/60 Hz
Motor feed	24 Vdc
Power drawn	215 W
Current drawn	9 A
Torque	320 Nm
Operating time	9 s
Jogging	80%*
Door leaf max. weight	400 kg
Door leaf max.	3 m
Capacitor	--
Noise level	<70 dB (A)
Lubrication	Agip GR MU EP/2
IP class	IP44
Operating temp.	-20°C/+50°C
Weight	13 kg

Overall dimensions

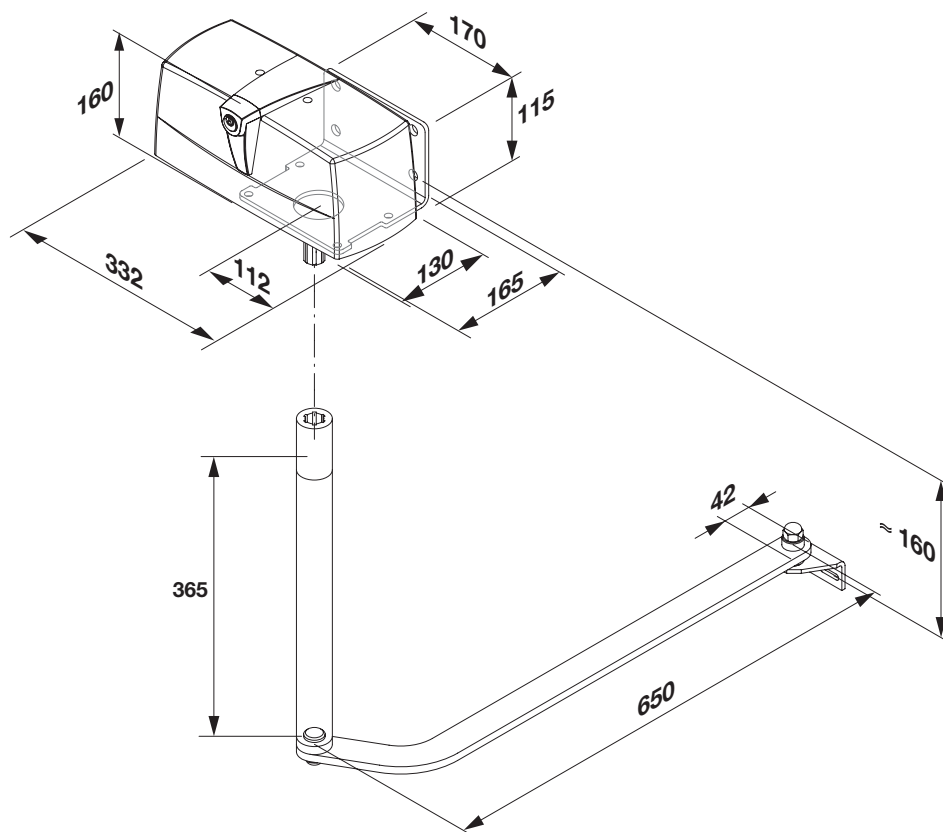


Fig.1

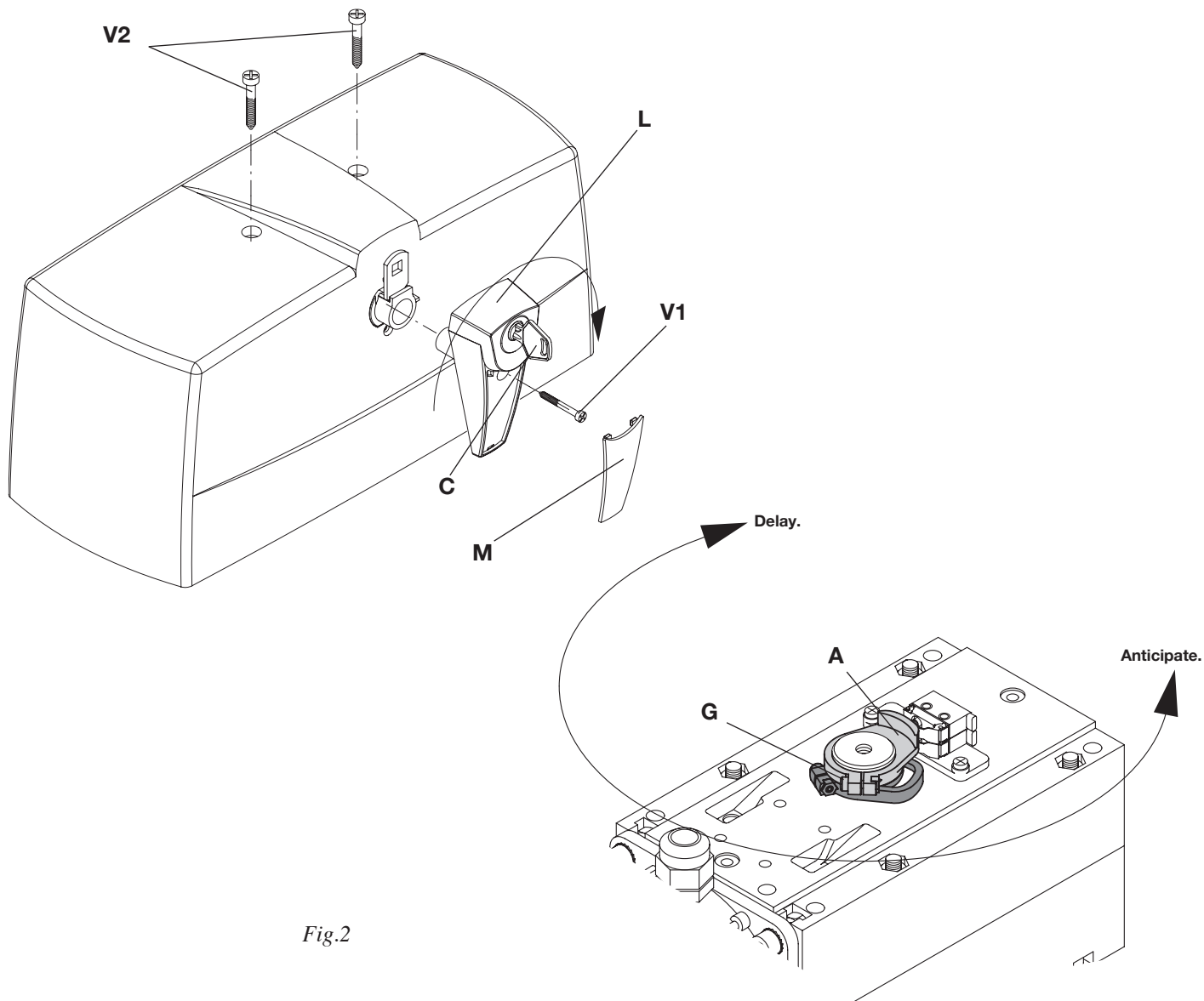


Fig.2

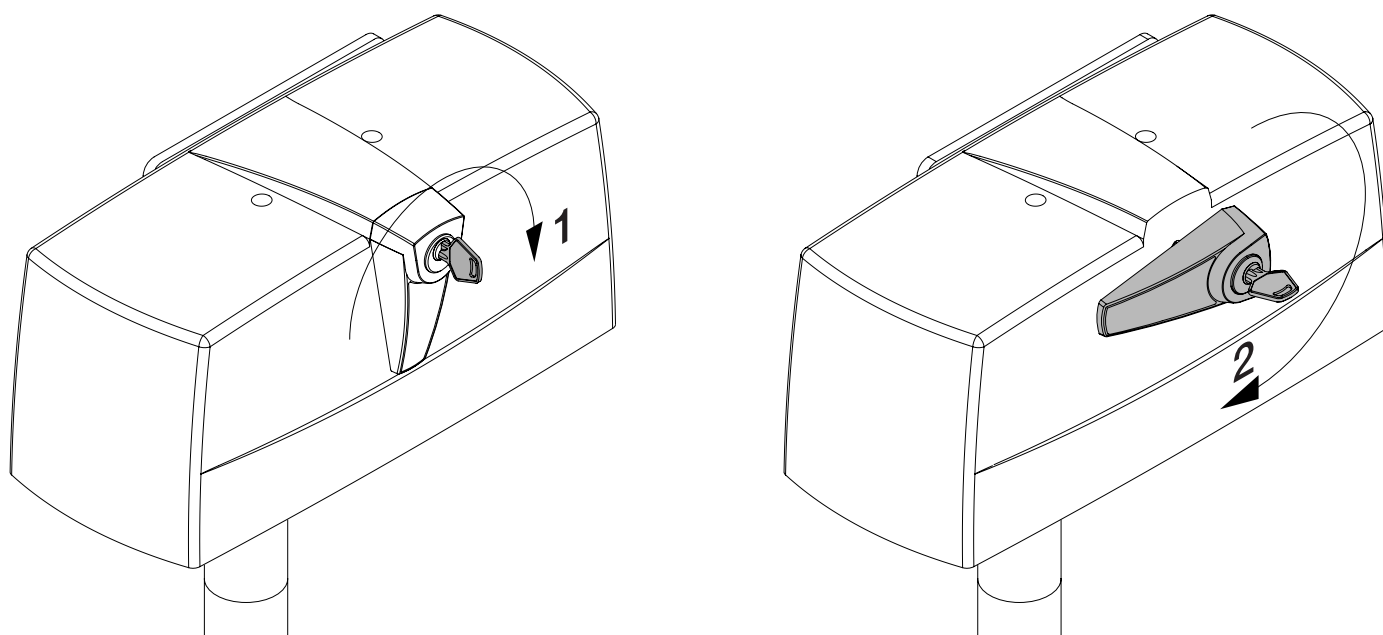


Fig.3

Wire release art. DU.MS45.

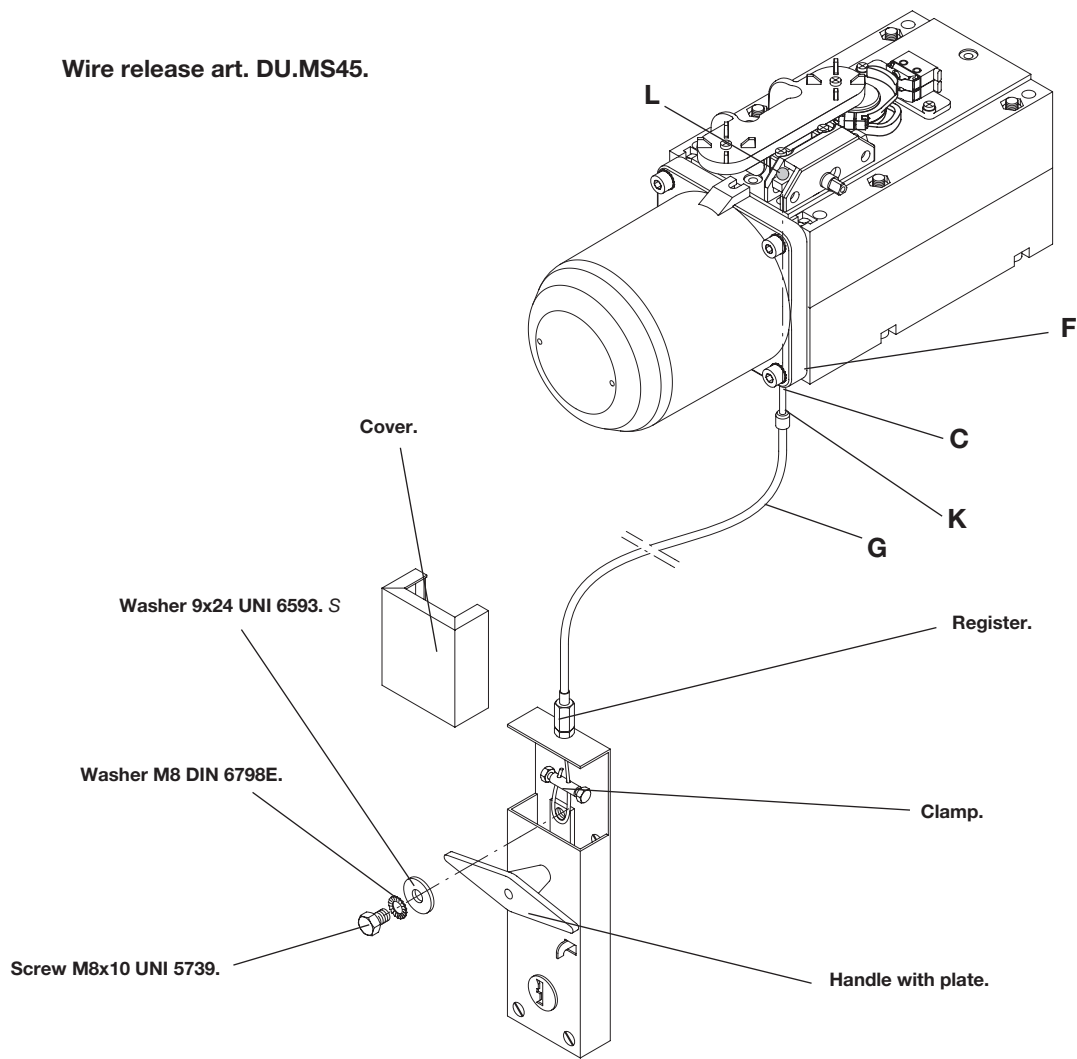
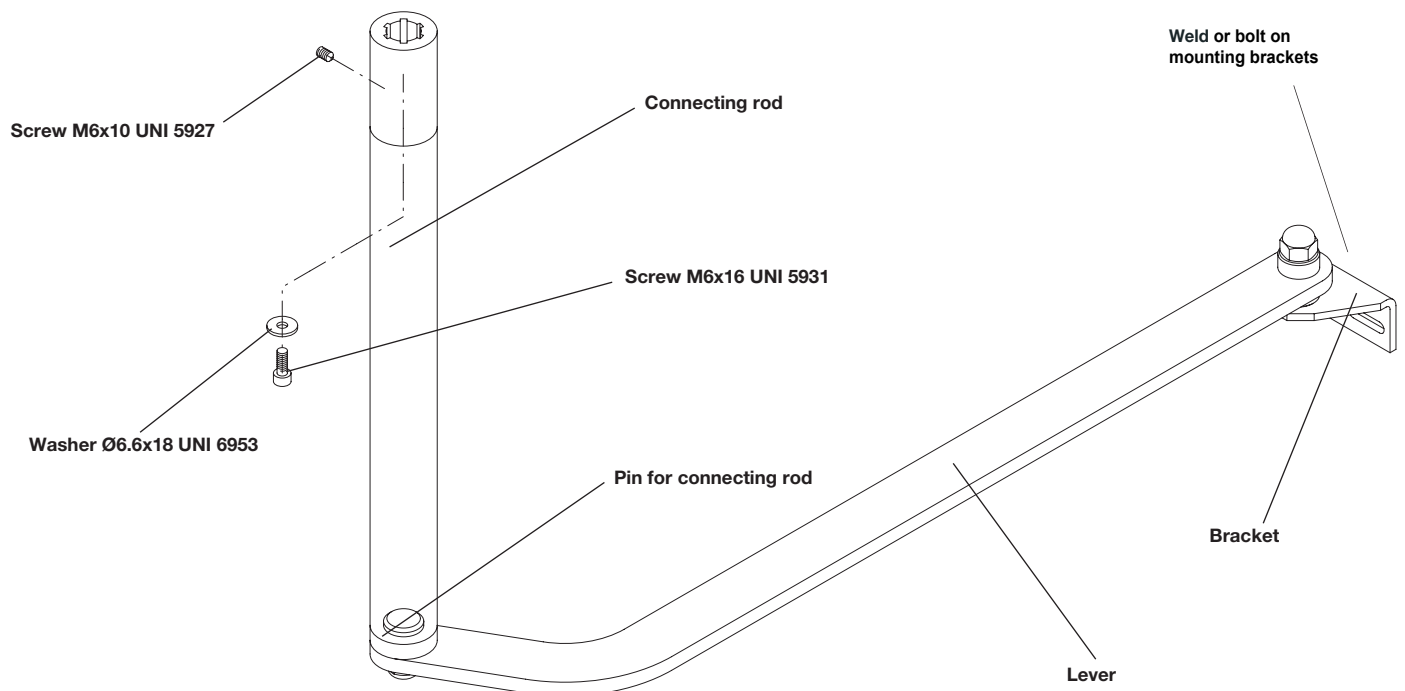
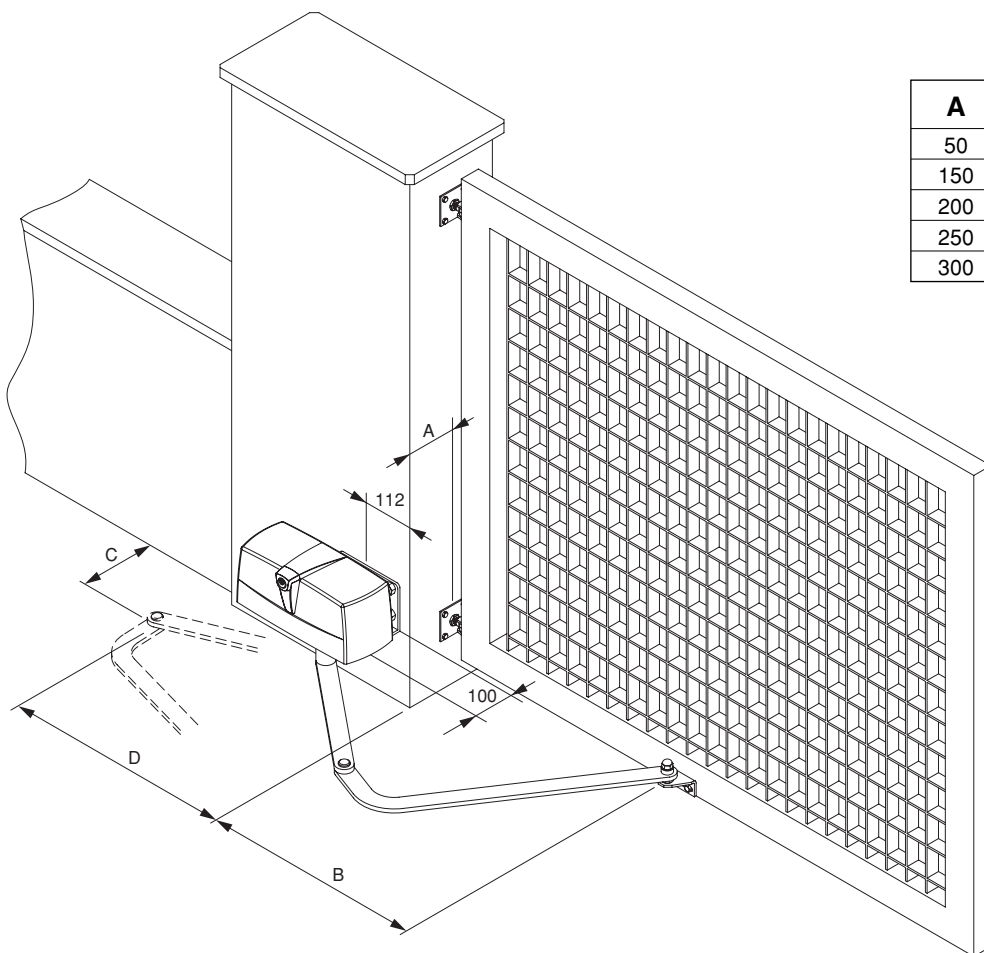


Fig.4



Art. **DU.E2**



A	B	C	D
50	883	277	429
150	851	181	466
200	828	117	475
250	800	32	469
300	846	28	468

Fig.5

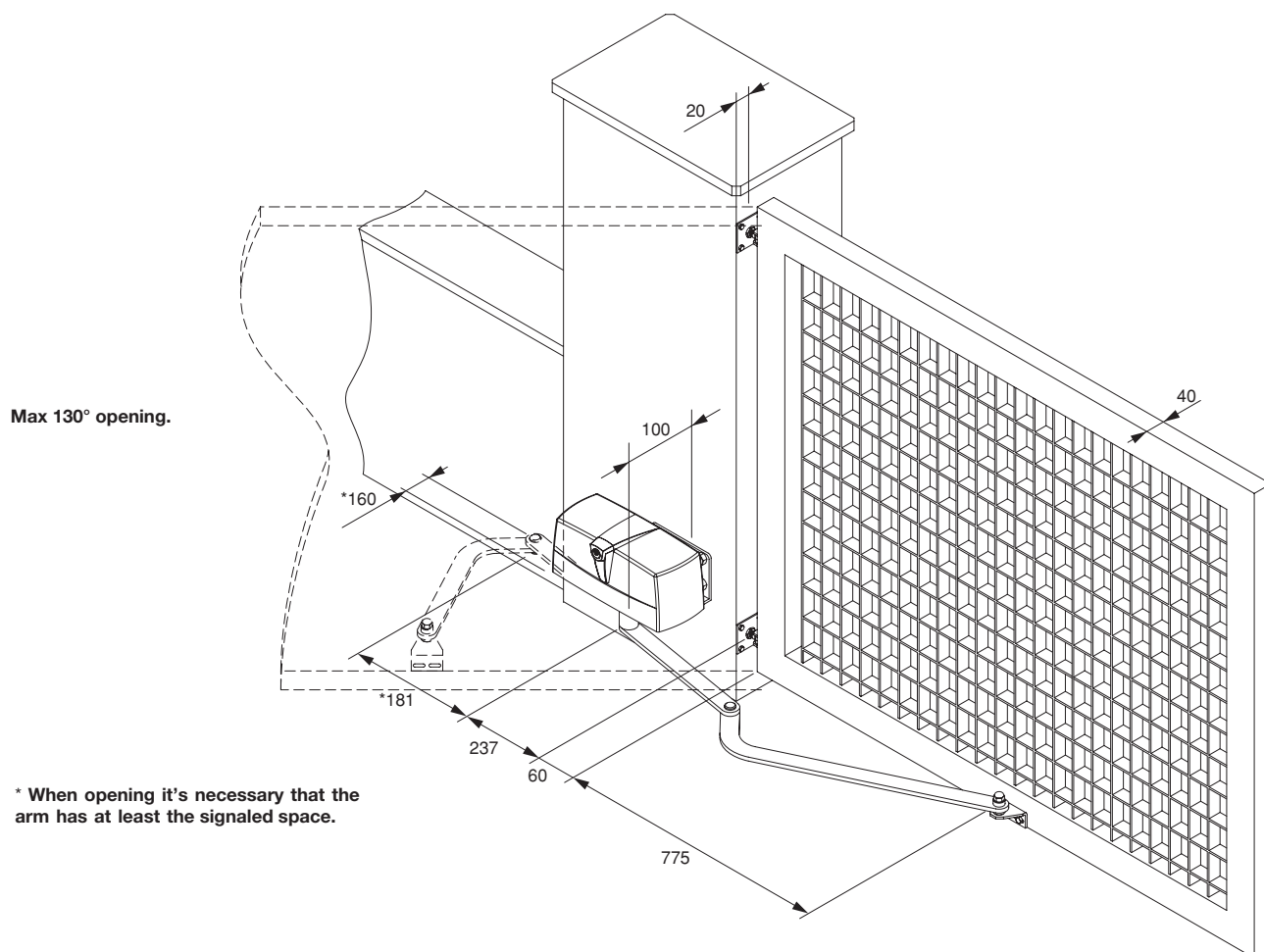
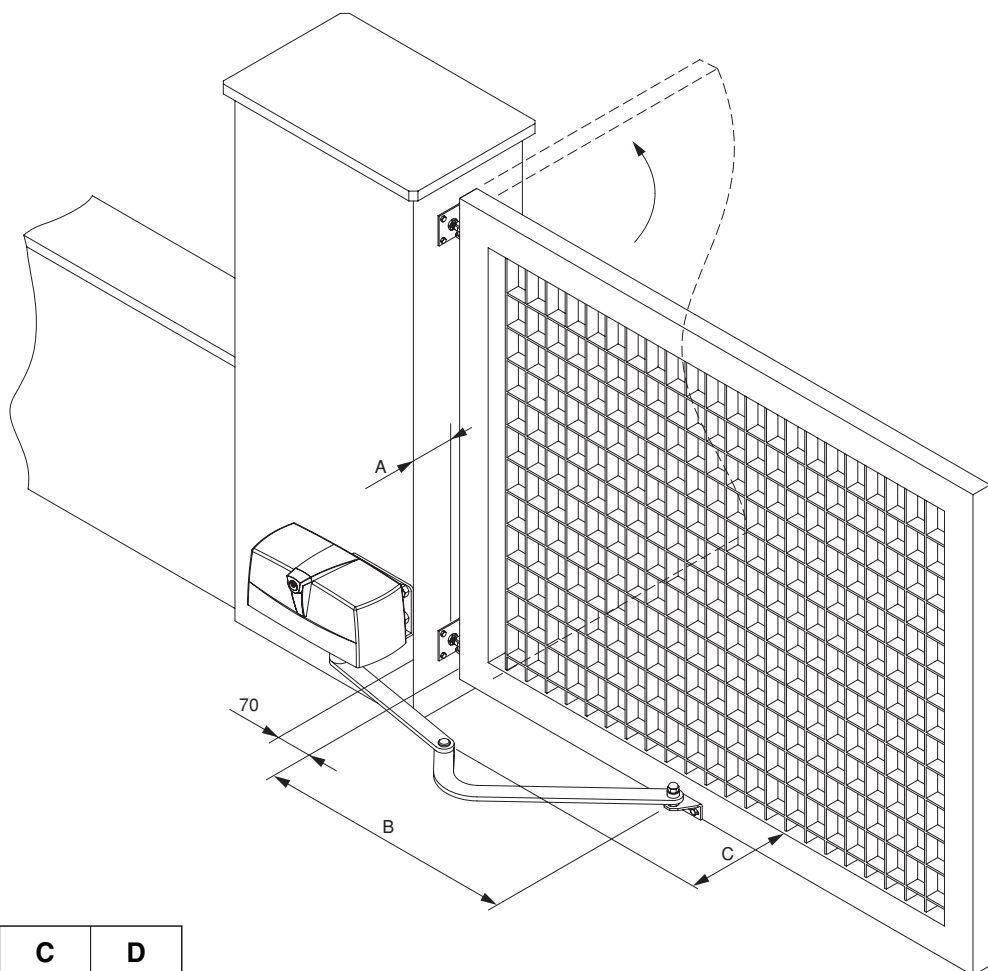


Fig.6



A	B	C	D
50	688	390	154
100	651	453	137
150	606	503	135
200	550	553	138

Fig.7

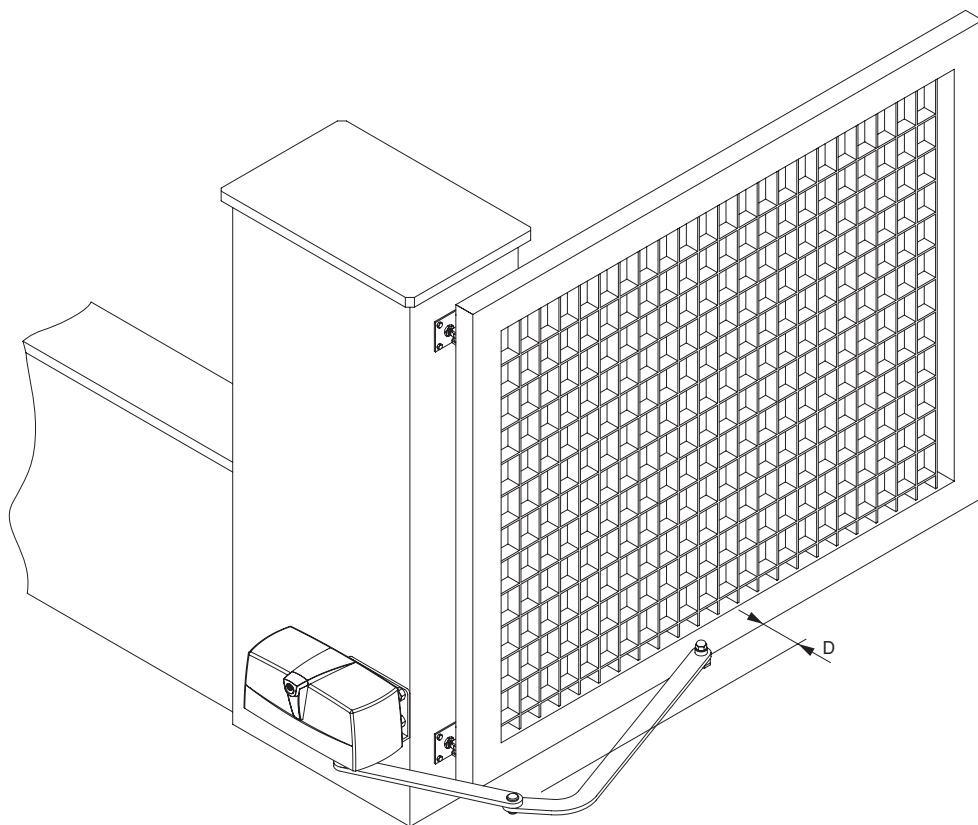
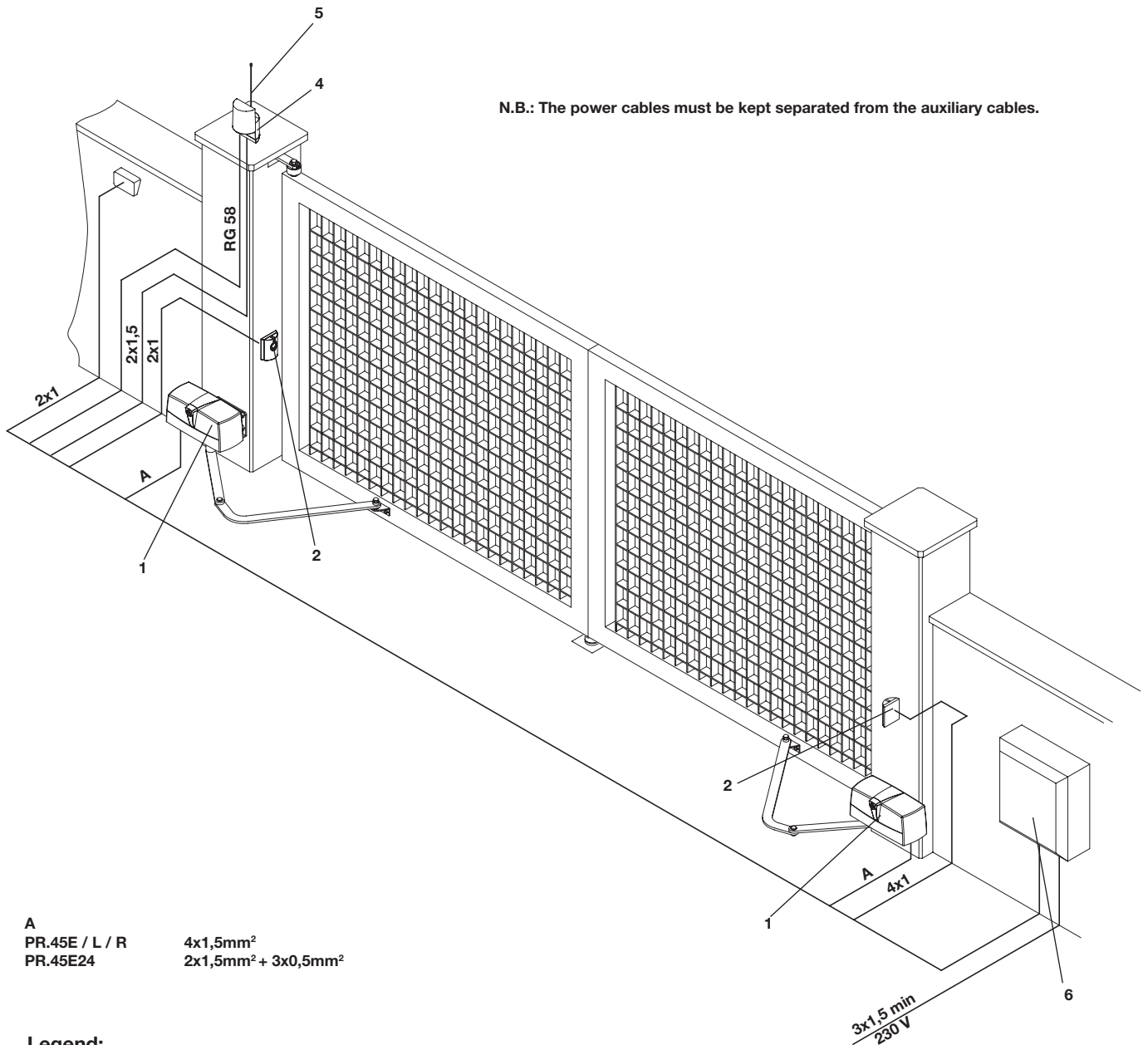


Fig.8

N.B.: The power cables must be kept separated from the auxiliary cables.



A
PR.45E / L / R 4x1,5mm²
PR.45E24 2x1,5mm² + 3x0,5mm²

Legend:

- 1 Motoreducer PREMIER
- 2 Photo-electric cells FTC/FTM
- 3 Key selector CH (external) or digital keyboard
- 4 Flash-light LAMP
- 5 Antenna AW

Warning

- Before installation, carefully read the instructions hereunder.
- It is strictly forbidden to use the item PREMIER for applications other than the intended uses described in these instructions.
- Instruct the user on how to use the system.

Introduction

Thank you for choosing our PREMIER ratiomotor. All items in the wide Benincà production range are the result of twenty-years' experience in the automatism sector and of continuous research for new materials and advanced technologies. We are, therefore, in the position to offer highly reliable products that due to their power, effectiveness and useful life, fully satisfy the final user's requirements.

All our products are manufactured to the existing standard and are covered by warranty. Possible injury to people or accidents caused by defects in construction are covered by a civil liability policy drawn up with one of the major insurance companies.

General notes

For a good operation of the automatic system the door to be automated must feature the following characteristics:

- Rugged and stiff door leaves.
- Efficient hinges.
- The door leaves should be moved by hand without any friction for the entire stroke.
- The doors should be complete with a catch in the closing phase.

In the negative, replace the faulty parts. Reliability and safety of the automatic system depend on the gate structure.

General features

This automatism has been designed to automatize doors, the dimensions of which do not allow to use traditional actuators.

It is equipped with an articulated arm and with a limit switch, (PREMIER). The operations are smooth and noiseless. It is easy to be assembled and, thanks to its pleasant design, it meets the most demanding needs. The emergency block is simple and safe thanks to the lever with personalised key.

Connections

PR.45E/PR.45EL / PR.45ER:

Brown	Motor phase and capacitor
Grey or Light blue	Common
Black	Motor phase and capacitor
Yellow/Green	Earth - compulsory pursuant to regulations in force

The limit switch contacts are connected in series to the two motor phases. If, after an opening control, the motor starts the closing movement, it is sufficient to reverse the brown wire with the black one in the control unit.

PR.45E24:

Red	Motor +
Black	Motor -

Carry out the limit switch connections to the control unit.

If, after an opening control, the motor starts the closing movement, it is sufficient to reverse the red wire with the black one in the control unit.

As regards the torque adjustments and the operating modes, please read instructions given in the control unit manual.

To adjust the limit switches (Fig. 3)

The PR.45E unit is equipped with built-in limit switches for both opening and closing phases. Proceed as follows:

- Release the actuator (see paragraph "Release by hand")
- Remove the cover M from the release lever L.
- Loosen the screw V1 and remove the release lever L.
- Loosen the screws V2 and remove the cover.

- Close the gate until it touches the stopper.
- Loosen the fitting screw of the cam and adjust the cam until triggering of the micro-switch.
- The same operation should be carried out with the other cam, with completely open gate.
- Reset the automatic operation and check the correct positioning of the cams by opening and closing the gate for a few times.
- Tighten the fixing screws of the cams.

Note:

The PR.45E /R/L (230Vac) models feature a thrust of some seconds on the stoppers without damaging the gear motor. If required, it is therefore possible to select the timed operation, thus excluding the limit switches. In the PR.45E24 model, cams should be adjusted and limit switches should be connected to the control unit.

Release by hand

As regards the manual operation, should a power failure occur two solutions are available for the PREMIER unit :

Release from inside (Fig. 3)

- Insert the customised key C, and turn it clockwise.
- Turn the release lever L for at least 90° clockwise.
- At this point, the reduction gear is released and the gate can be moved by hand.
- To reset the normal operation, move the lever L to the original position and turn key C anti-clockwise. When the unit is powered again, the normal operating mode will be reset with the first movement of the gate.

Internal-external release with cord (Item DU.MS45) (Fig. 4 - optional)

- Insert the steel cable C on lever L.
- Introduce the sheath G with the cable gland K until it reaches the hole F.
- Fit the steel cable C in the handle, according to Fig. 4.
- Turn the handle to release.
- By turning the handle again, the first operation will reset the normal operating mode.

Applications

Application suitable to max 90° opening inward (fig. 5).

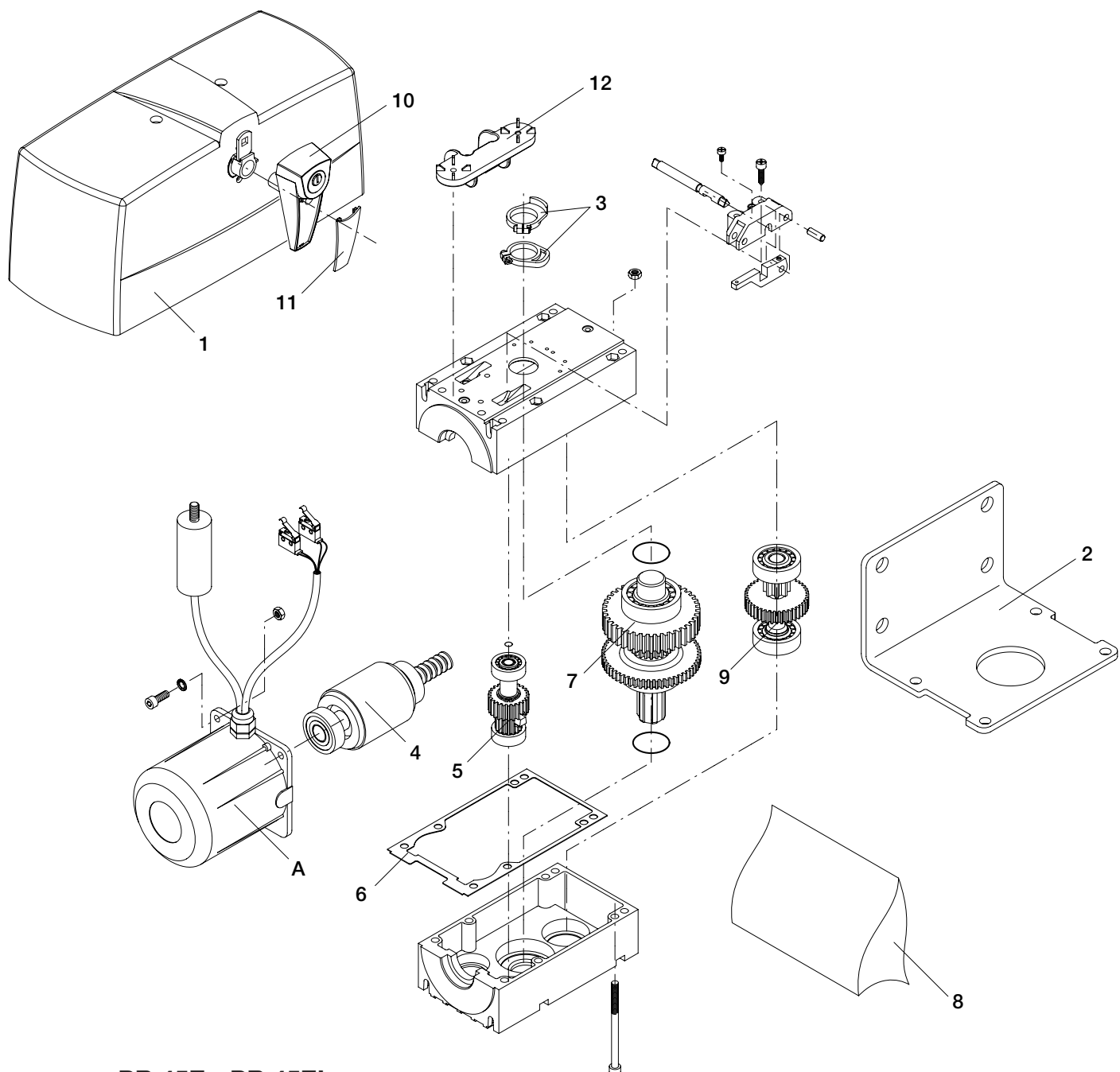
Application suitable to max 130° opening (fig. 6).

P.N. When opening it's necessary that the arm has at least the signaled space.

Application suitable to opening to the outside (figg. 7 - 8).

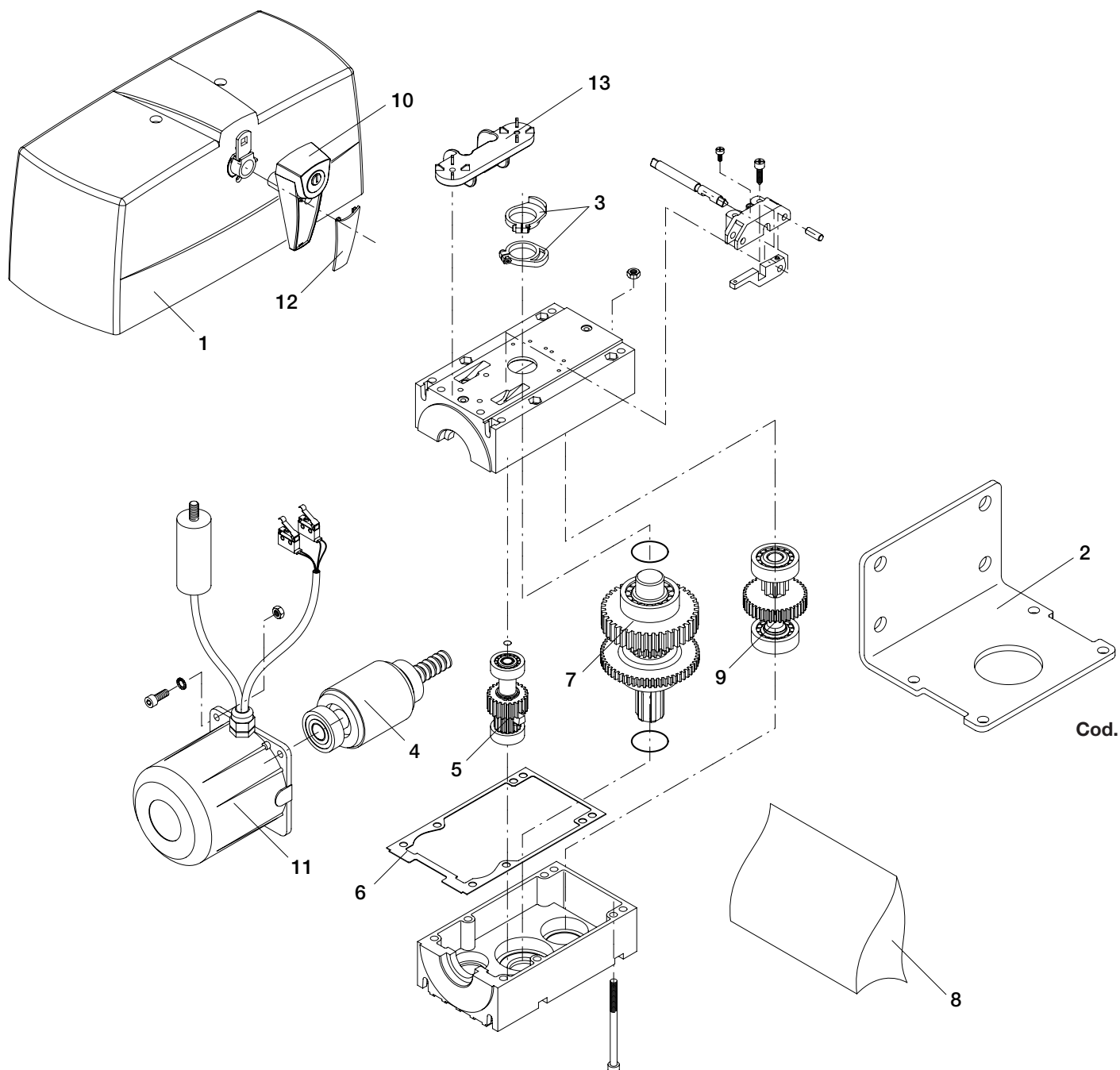
CAUTION

The civil liability policy, which covers possible injuries to people or accidents caused by defects in construction, requires the system to be to existing standard and to use original Benincà accessories.



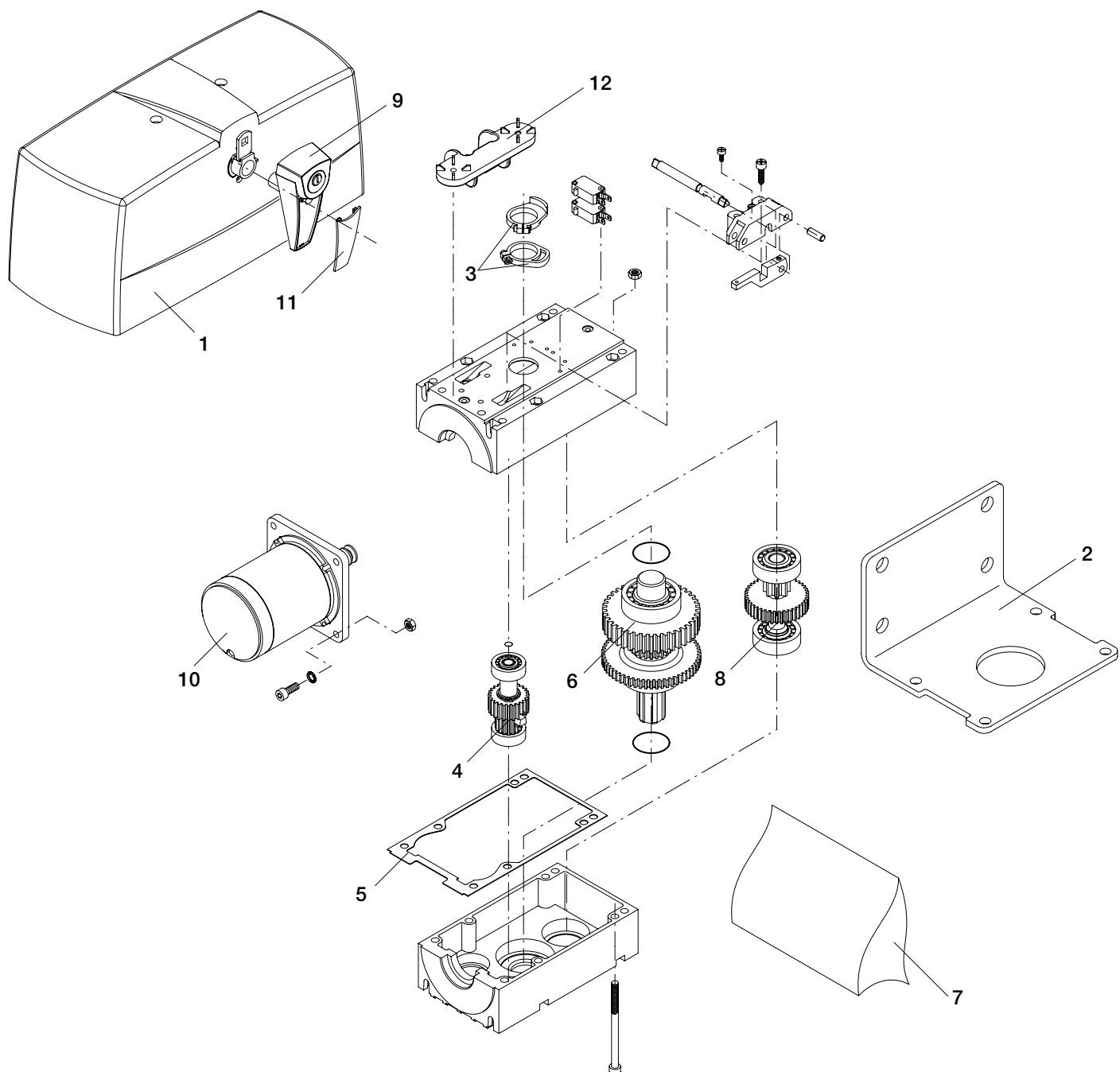
PR.45E - PR.45EL

Pos.	Description	Code
1	Cover	9686355
2	Plate	9686129
3	Limit stop cam	9686158
4	Shaft	9686168
5	Gear	9686170
6	Gasket	9686169
7	Output shaft	9686132
8	Blister	9686354
9	Gear	9686011
10	Release lever	9686356
11	Plate	9686357
12	Bracket	9686358
A	Motor cup	9686131
A	Motor cup	9686133



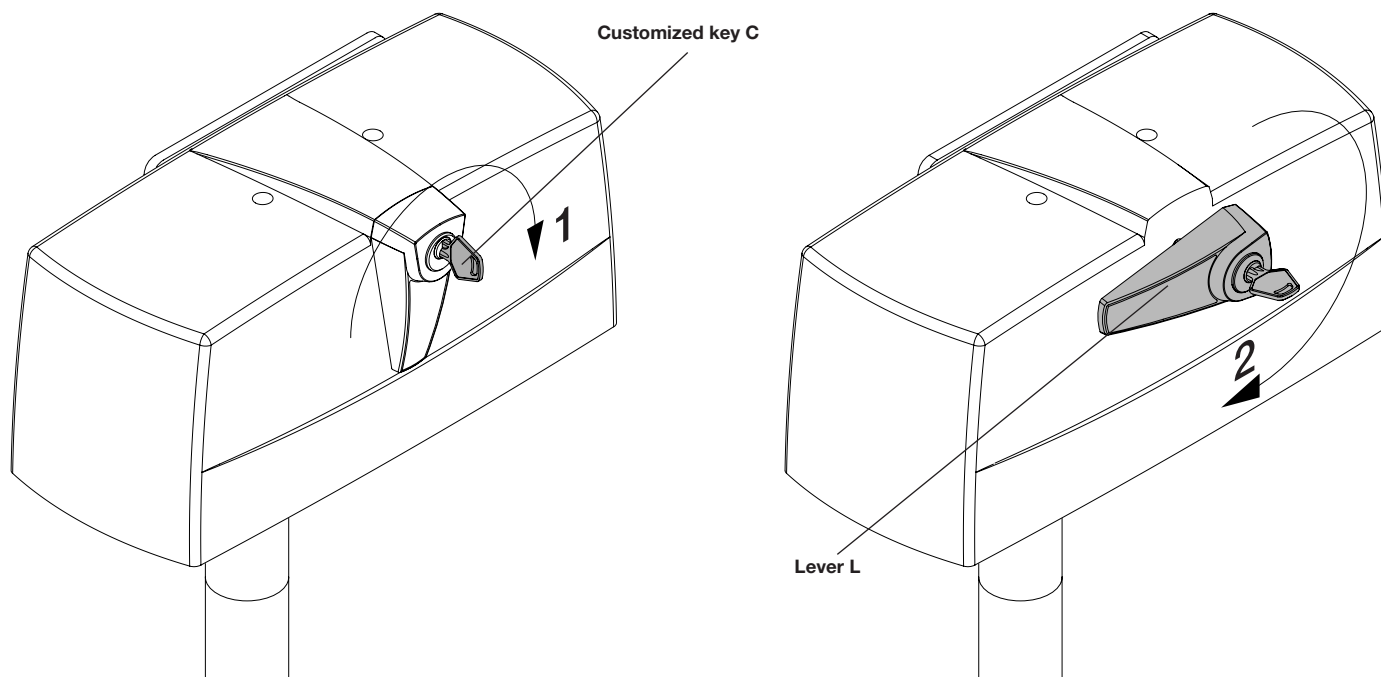
PR.45ER

Pos.	Description	Code
1	Cover	9686355
2	Plate	9686129
3	Limit stop cam	9686158
4	Shaft	9686134
5	Gear	9686959
6	Gasket	9686169
7	Output shaft	9686132
8	Blister	9686354
9	Gear	9686011
10	Release lever	9686356
11	Motor cup	9686131
12	Plate	9686357
13	Bracket	9686358



PR.45E24

Pos.	Description	Code
1	Cover	9686355
2	Plate	9686129
3	Limit stop cam	9686158
4	Gear	9686170
5	Gasket	9686169
6	Output shaft	9686132
7	Blister	9686354
8	Gear	9686011
9	Release lever	9686356
10	Motor	9686167
11	Plate	9686357
12	Bracket	9686358



Safety rules

- Do not stand in the movement area of the door.
- Do not let children play with controls and near the door.
- Should operating faults occur, do not attempt to repair the fault but call a qualified technician.

Manual and emergency operation

To manually open or close the door in case of power failure or faults, two solutions are possible:

• Built-in release

- Insert the customised key C, and turn it clockwise.
- Turn the release lever L for at least 90° clockwise.
- At this point, the reduction gear is released and the gate can be moved by hand.
- To reset the normal operation, move the lever L to the original position and turn key C anti-clockwise. When the unit is powered again, the normal operating mode will be reset with the first movement of the gate.

• Rope external release: optional

It is available for fitting to external wall or with accessory to be mounted flush.

Maintenance

- Every month check the good operation of the emergency manual release.
- It is mandatory not to carry out extraordinary maintenance or repairs as accidents may be caused. These operations must be carried out by qualified personnel only.
- The operator is maintenance free but it is necessary to check periodically if the safety devices and the other components of the automation system work properly. Wear and tear of some components could cause dangers.

Waste disposal

If the product must be dismantled, it must be disposed according to regulations in force regarding the differentiated waste disposal and the recycling of components (metals, plastics, electric cables, etc..). For this operation it is advisable to call your installer or a specialised company.

Warning

All Benincá products are covered by insurance policy for any possible damages to objects and persons caused by construction faults under condition that the entire system be marked CE and only Benincá parts be used.

EC Declaration of Conformity

Manufacturer: **Automatismi Benincà SpA.**

Address: Via Capitello, 45 - 36066 Sandrigo (VI) - Italia

Herewith declares that: the operator for hinged gates model

PR.45E24 .

is complying with provisions set forth by the following other EC Directive:

- DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 December 2004, on the harmonisation of the laws of Member States relating to electromagnetic compatibility and which cancels Directive 89/336/EEC, according to the following harmonised regulations: EN 61000-6-2:2005, EN 61000-6-3:2007.

Herewith declares that: the operator for hinged gates model

PR.45E - PR.45EL - PR.45ER.

is complying with provisions set forth by the following other EC Directive:

- DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 December 2004, on the harmonisation of the laws of Member States relating to electromagnetic compatibility and which cancels Directive 89/336/EEC, according to the following harmonised regulations: EN 61000-6-2:2005, EN 61000-6-3:2007.
- DIRECTIVE 2006/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 December 2006, on the harmonisation of the laws of Member States relating to electrical equipment designed for use with certain voltage limits, according to the following harmonised regulations: EN 60335-1:2002 + A1:2004 + A11:2004 + A12:2006 + A2:2006 + A13:2008; EN 60335-1-103:2003.

Benincà Luigi, Legal responsible.

Sandrigo, 10/03/2011.

