

CITY Series

BARRIERA AUTOMATICA
AUTOMATIC BARRIER
AUTOMATISCHE SCHRANKE
BARRIÈRE AUTOMATIQUE
BARRERA AUTOMÁTICA



>ITALIANO
>ENGLISH
>DEUTSCH
>FRANÇAIS
>ESPAÑOL

MANUALE D'USO E MANUTENZIONE
USE AND MAINTENANCE MANUAL
BEDIENUNGS - UND WARTUNGSANLEITUNG
MANUEL D'EMPLOI ET D'ENTRETIEN
MANUAL DE USO Y MANTENIMIENTO

GENERAL ADVICE

- 1_ If not foreseen in the electronic control unit instructions, check that a suitable differential switch and an overcurrent protection are present at the source of the electrical system (C6 single-pole circuit breaker with a minimum contact opening of 3 mm) that have the international standards conformity mark. The said device must be safeguarded against involuntary closure (e.g. installing a locked panel inside).
- 2_ Positioning of a pair of photocells: the range of the photocells must be at a height of 50 ÷ 60 cm from ground level and at a distance of no more than 15 cm from the movement level of the bar. Their correct functioning must be verified at the end of the installation in accordance with the EN 12445 standard.

N.B. Grounding of the system is compulsory!

The data indicated in the present instructions is purely indicative; TAU Srl reserve the right to modify them at any time.

The system must be produced in compliance with local laws and regulations.

INSTALLATION WARNINGS

- This instructions booklet is aimed at qualified personnel only that are aware of the constructional methods and the accident prevention protection devices for motorised gates, doors and main doors (abide by the present standards and laws).
- The end user must be issued with an instructions booklet by the installer in accordance with the 12635 standard.
- Before commencing with installation, the installer must determine the risk analysis of the final automation system and the placing in safety of the identified hazardous points (in accordance with the EN 12453 and EN 12445 standards).
- The wiring of the various electrical accessories (e.g. photocells, flashing lights, etc.) must be performed in accordance with the EN 60204-1 standard and their modification in accordance with the EN 12453 standard.
- Eventual fitting of a manual manoeuvre control button, must be performed by positioning the button in an area that is not at risk when operated; furthermore, it must be performed in such a manner that the risk of involuntary use of the button is reduced to a minimum.
- Keep the automation controls (buttons, remote controls, etc.) out of reach of children. The controls must be positioned at a height no less than 1.5 m from the ground and outside the operating range of the moving parts.
- Before performing any type of installation, adjustment, maintenance operation on the system, turn off the power supply by means of the thermal-magnetic circuit breaker positioned before the system.

THE COMPANY TAU HOLD NO RESPONSIBILITY WHAT SO EVER for possible damages caused by the non-compliance of the present safety standards and laws during installation.

OVERALL DIMENSIONS

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

POSITIONING OF THE BARRIER

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

- 1_ before installing the bar, make sure that the area above the bar is free of all obstacles (balconies, cables, trees, etc.)
- 2_ a good visibility at a sufficient distance to avoid collision (pay attention to bushes, etc.)
- 3_ suitable base to guarantee the secure positioning of the barrier
- 4_ absence of pipes and/or electrical cables that could be damaged when preparing the site
- 5_ minimization of the length of the electrical cables that are necessary to operate the barrier
- 6_ positioning in accordance with the present national standards.

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 (C fig. 3). The thickness of the slab must be at least 10 cm, remembering that it can be deeper if the ground conditions require it.

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 (or anchor bolts). The perfect stability of the anchorage is controlled and if necessary, the nuts are tightened further.

SECURING OF BAR AND BALANCING

Balancing is fundamental for the correct function of the barrier. All operations are performed with the power supply switched off and the barrier released (see chapter "manual release"):

fig. 4: close the end with the supplied cap (E); vertically introduce the bar (A) into the bar-holder (B) and secure it with the 2 bolts (C) and nuts (D);

This operation is only performed after the bar has been fitted in its final position with all possible accessories.

fig. 5: keeping at a safe distance, operate the manual release (A). The bar must lift to 45° on its own, otherwise act on the springs adjusting tie-rod (B). Lower the bar, release it and check that it has reached 45°.

MANUAL RELEASE

WARNING: THE RELEASE AND ANY OTHER MANUAL OPERATION ARE MADE WITH THE BAR ASSEMBLED. MANUALLY MOVING THE BARRIER WITHOUT THE BAR IS STRICTLY PROHIBITED.

- 1_ Introduce the supplied release key (1 fig. 6);
- 2_ turn the key through approx. 330° in a clockwise direction (if it is a bit tight at the beginning, apply more force, there is no danger of causing damage).

Turn the key as far as it will go before manually operating the bar.

Once the bar has been released it should automatically position itself in the balanced position (approx. 45°)

POWER SUPPLY CONNECTION AND EXTERNAL CONTROL AND SAFETY SYSTEMS

Each device, including the power supply, must be correctly installed in accordance with the present standards. Separate the power cables from the control cables, especially if the distances are long (over 50 m). TAU advise that the cable sections (excluding the aerial) should be: power supply 1.5 mm², other cables 0.5 mm² and in any case should abide by the IEC 364 standard and the local installation standards. After having removed the locking nut (2 fig. 7), remove the cabinet cover (1 fig. 7) to access the control unit. The connections can be accessed after having previously removed the fixing screw (3 fig. 7) and the cover of the control unit container (7 fig. 8).

N.B.: The internal wiring has already been made and tested. The power supply, external photocell, the battery (if present - 3 fig. 9) and possible remote control must be connected and the control unit programmed.

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.

LIMIT SWITCH ADJUSTMENT

The barrier is normally supplied with the limit switches already adjusted for the ideal movement of the bar.

In the event that the foundation plate is incorrectly positioned, the bar may not be perfectly horizontal or vertical thereby giving the barrier an unpleasant appearance.

The course of the bar can be modified to rectify this problem by moving the vibration-damping plugs of the mechanical stop back or forward (1 fig. 8), by means of the lock nuts (2 fig. 8) of the plugs.

Note: the memorisation procedure on the control unit must be repeated each time the position of the mechanical stops is modified (see K205M instructions).

Once the adjustment has been made, turn the power back on and perform the memorisation procedure on the control unit (see K205M instructions), and check the correct position of the bar from the second automatic manoeuvre (the first manoeuvre is for the control unit to acquire the new stops), if the position is incorrect repeat the procedure.

FINAL OPERATIONS

Having tested the efficiency of each individual device concerning the command and control of the barrier, ensure the integrity of the barrier before handing over to the end user.

Place notices indicating the presence of an automatic barrier in an easily legible location.

USE

The barrier has been exclusively designed to limit the flow of vehicles and/or persons in restricted entrances by means of a bar. In the event of blackout, functioning can be guaranteed by means of an optional 12V dry battery having an autonomy of approximately 10 manoeuvres.

Furthermore, it also comprises electrical equipment and therefore must be approached and used with caution and foresight. In particular we recommend:

- not to touch the equipment with wet hands and/or bare or wet feet;
- not to perform the automatic or semiautomatic function in the presence of known or suspected malfunctions;
- not to pull the cable to disconnect the equipment;
- not to let children, or those unable, use the cabinet keys or controls (including remote controls) even if only to play with;
- not to operate the barrier until it is completely in view;
- not to enter within the operating range while it is moving, wait for it to stop;
- not to rest against the bar or cabinet for any reason, even when the barrier is inactive and do not remain within the operating range of the barrier;
- not to let children or animal play within the operating range of the barrier;
- not to use the barrier for purposes (e.g. lifting of weights or persons) other than those foreseen. The manufacture holds no responsibility what so ever for damages caused by the said actions;
- to perform periodic maintenance by specialised personnel;
- if there is a fault, turn off the power supply. Use the manual manoeuvre only if safe. Do not attempt to resolve the problem yourself, contact a qualified technician of the manufacturer or authorised by the manufacturer. In any case, make sure that the spare parts are original so that the safety of the barrier is not compromised.

TYPE OF SYSTEM (fig. 10)

- 1_ Gearmotor
- 2_ Telescopic bar forked rest
- 3_ Flashing light with antenna
- 4_ Safety photocell
- 5_ Magnetic mass detector
- 6_ Bar (max. length 6 m)

Cable section:

- a 3 x 1.5 mm²
- b 2 x 0.5 mm²
- c 4 x 0.5 mm²
- d 3 x 0.5 mm²
- e 2 x 0.5 mm²
- f RG58
- g 4 x 0.5 mm²

MAINTENANCE

To be performed by specialised personnel only after having turned off the power supply.

After every 100,000 manoeuvres, check:

- the greasing of the spring;
- the balance of the bar (see chapter "SECURING OF BAR AND BALANCING");
- the efficiency of the force;
- the integrity of the battery;
- The efficiency of the protection and safety devices;
- the wear on the mechanical stops and the adjustment of the limit switches (see chapter "LIMIT SWITCH ADJUSTMENT").

The above mentioned maintenance is vital in order that the product functions correctly throughout time.

In general

It must be impossible for third parties to operate the barrier during maintenance; therefore turn off the mains power supply (and battery if present).

- Release the bar first in order to facilitate the operation.

Greasing

- 1_ open the cabinet door;
- 2_ grease the eyelets of the balancing spring (1 fig. 11);
- 3_ grease the contact points between the cam of the manual release and the release lever (2 fig. 11);
- 4_ keep away from possible moving gears or mechanical parts.

FREQUENCY: every 100,000 manoeuvres or 6 months, **failing which the guarantee lapses**.

Bar balancing

Check the balance of the bar, repeating the manoeuvres described in chapter "Securing of bar and balancing". This operation is fundamental for the correct functioning and duration of the barrier. If necessary, increase the preloading of the spring in order to compensate for its wear. See the subsequent paragraph "Extraordinary maintenance and repairs" in the event the spring needs to be changed.

FREQUENCY: every 100.000 manoeuvres or 6 months, **failing which the guarantee lapses**.

Control of the force limitation efficiency

Check the correspondence between the true operation and the operation established during installation.

FREQUENCY: every 100.000 manoeuvres or 6 months, **failing which the guarantee lapses**.

Control of the 12V dc battery

Check the charge level of the battery by means of a tester. If replacement is necessary, substitute the flat battery with an original and do not dispose of it in the environment.

FREQUENCY: every 100.000 manoeuvres or 6 months, **failing which the guarantee lapses**.

Control of the remaining protection and safety devices

Photocells: they can trigger both in opening as well as in closing; check the dip-switch programming. Clean the outer casing.

Check that the following specifications are respected:

- The flashing light is working and visible;
- The adhesive danger sign on the door is well attached and visible;
- The adhesive danger sign on the back of the barrier is well attached and visible. If these signs do not correspond to the stated conditions, restore their original effectiveness or, if this is impossible, replace them.

FREQUENCY: every 6 months, **failing which the guarantee lapses**.

EXTRAORDINARY MAINTENANCE AND REPAIRS

ATTENTION: ON COMPLETION OF THE FIRST 2000 MANOEUVRES, THE ROD BALANCING PROCEDURE MUST BE CARRIED OUT AGAIN.

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 authorised 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.

TROUBLESHOOTING

This paragraph deals with the most probable causes of common faults, in order to promptly re-establish the barrier.

In any case the indicated case study is incomplete (both from a cause point of view as well as a fault point of view).

a_ The barrier is blocked (open, closed or half-open):

- 1_ *no power supply;*
- 2_ *inefficient commands;*
- 3_ *blown power supply fuse;*
- 4_ *photocells (also enabled during opening) active because they are incorrectly aligned and/or covered (grass, etc);*

b_ the barrier continues to open and close;

- 1_ *check the false contacts of the remote control buttons and the key selector switches that remain on;*

c_ the barrier remains open;

- 1_ *the photocells are active because they are not aligned and/or dirty (mud, etc) and/or covered (grass, etc);*

d_ the barrier has difficulty in opening;

- 1_ *the bar balancing spring needs adjusting;*

e_ the barrier lifts/lowers more than the foreseen limits;

- 1_ *the mechanical limit switches need adjusting (see chapter "LIMIT SWITCH ADJUSTMENT").*

DECOMMISSION

When the barrier has reached the end of its useful life it should be removed and the reusable materials should be recycled. Pay attention to that which is stipulated by local and/or national laws and regulations. Care should be taken when recycling the following parts:

- cabinet painted with epoxy paint
- methacrylate flashing light dome
- polycarbonate control unit box
- electronic cards
- 12V dc dry battery (lead acid)
- lithium grease inside the reduction gear
- minor plastic and/or rubber connections and protections.

RESPECT THE ENVIRONMENT!

DISMANTLING WARNINGS: the barrier dismantling operations must respect the safety measures: therefore, disconnect the power supply before proceeding. Slacken (not completely) the springos adjusting tie-rod so that the bar can be comfortably and safely removed. Then unscrew the blocking screws on the base of the cabinet in order to process as desired.

TRANSPORT

The bar, which can be purchased on request, is packed separately from the barrier that is packaged in a cardboard box.

Care and attention must be taken throughout the handling phase.

INSTRUCTIONS AND WARNINGS FOR AUTOMATIC SYSTEM USERS

CONGRATULATIONS on choosing a Tau product for your automation system!

Tau S.r.l. produces components for automatic gates, doors, barriers and shutters. These include gear motors, control units, radio control devices, flashing lights, photocells and accessories.

Tau products are exclusively made with top quality materials and processes and, as a company, we constantly research and develop innovative solutions in order to make our equipment increasingly easier to use. We also pay great attention to all details (technology, appearance and ergonomics). The extensive Tau range makes it possible for your fitter to choose the product which best meets your requirements.

Tau, however, does not produce your automated system as this is the outcome of a process of analysis, evaluation, choice of materials and installation performed by your fitter.

Each automated system is unique, therefore, and only your fitter has the experience and professionalism required to create a system that is tailor-made to your requirements, featuring long-term safety and reliability, and, above all, professionally installed and compliant with current regulations.

An automated system is handy to have as well as being a valid security system. Just a few, simple operations are required to ensure it lasts for years.

Even if your automated system satisfies regulatory safety standards, this does not eliminate "residue risks", that is, the possibility of dangerous situations being generated, usually due to irresponsible and/or incorrect use. For this reason we would like to give you some suggestions on how to avoid these risks:

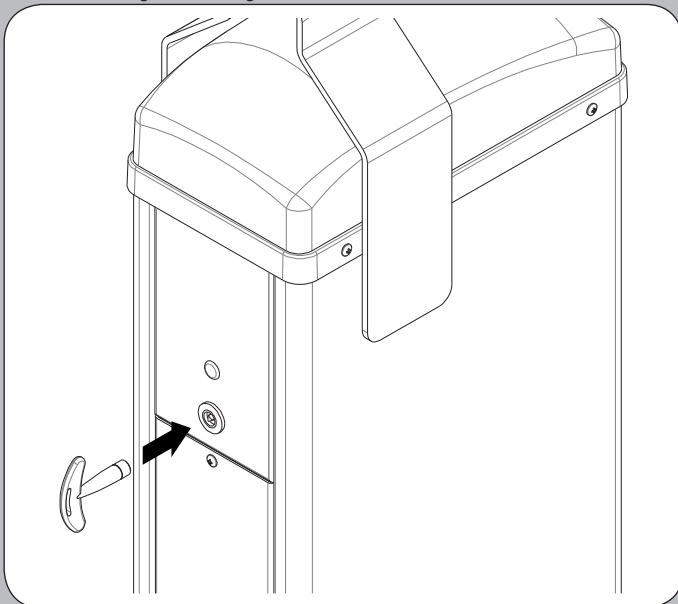
- **Before using the system for the first time:** ask your fitter to explain how residue risks can arise and read the instructions and warnings in the user handbook that your fitter will have given you. Keep this manual for future use and, if you should ever sell your automated system, hand it over to the new owner.
- **Your automated system carries out your commands to the letter:** irresponsible and/or incorrect use may cause it to become dangerous. Do not use the system if people, animals and/or objects enter its operating area.
- **IT IS NOT A TOY!** Make sure children do not play near the system and keep the remote control device out of their reach.
- **Faults:** If you notice any abnormal behaviour, disconnect the system from the power supply immediately and perform the manual release operation (see figure). Do not attempt to repair the door but call in your fitter: the system will operate manually as it did before installation.
- **Maintenance:** to ensure long life and totally safe operation, the system required routine maintenance, just like any other piece of machinery. Establish maintenance times together with your fitter. Tau recommends a frequency of 6 months for normal domestic installations but this may vary depending on the intensity of use (always every 3000 work cycles).

N.B.: All controls, maintenance work and/or repairs may only be carried out by qualified personnel.

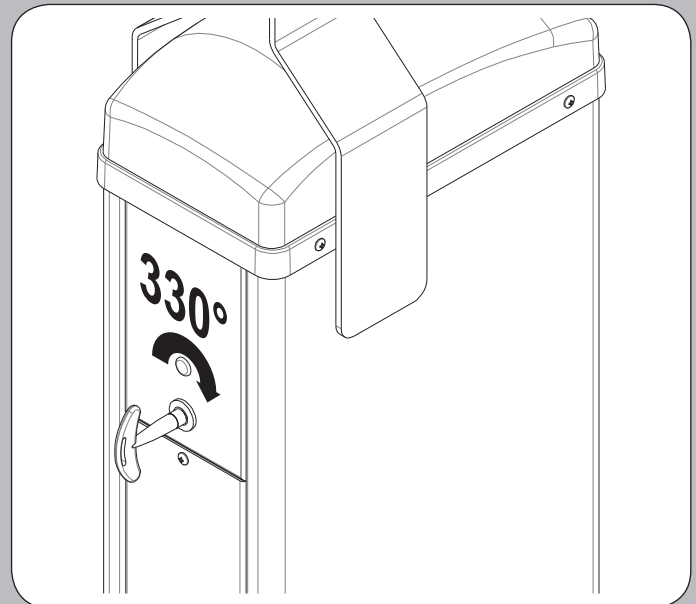
- Do not modify the plant or the relative programming and adjustment parameters: your fitter will see to that.

N.B. Final testing, routine maintenance and any repairs must be documented by the fitter (in the relative spaces) and such documents kept by the owner of the system (IF THE DOCUMENTS ARE NOT PRODUCED, THE WARRANTY WILL EXPIRE).

- **Disposal:** At the end of system life, make sure that it is demolished by qualified personnel and that the materials are recycled or disposed of according to local regulations.



In the event there is no line voltage, introduce the key as indicated in the figure.



Then turn the key through 330° in order to be able to manually control the bar.

The manual manoeuvre must only be performed with the automation inactive and AFTER having switched off the power from the mains.

N.B.: if your remote control unit (if supplied) starts working badly after a time, or does not work at all, the batteries may be flat (they can last from several months to 2/3 years depending on what type is used). This can be seen from the fact that the transmission confirmation LED gets dimmer or only turns on for brief moments. Before contacting your fitter, try exchanging the battery with one from a good transmitter: if this is the reason for the fault, simply replace the battery with another one of the same type.

If you wish to add a new automated system to your house, contact your fitter and we at Tau to have the advice of a specialist, the most developed products on the market, best operation and maximum automation compatibility.

Thank you for reading these suggestions and we trust you are fully satisfied with your new system: please contact your fitter for any further requirements.

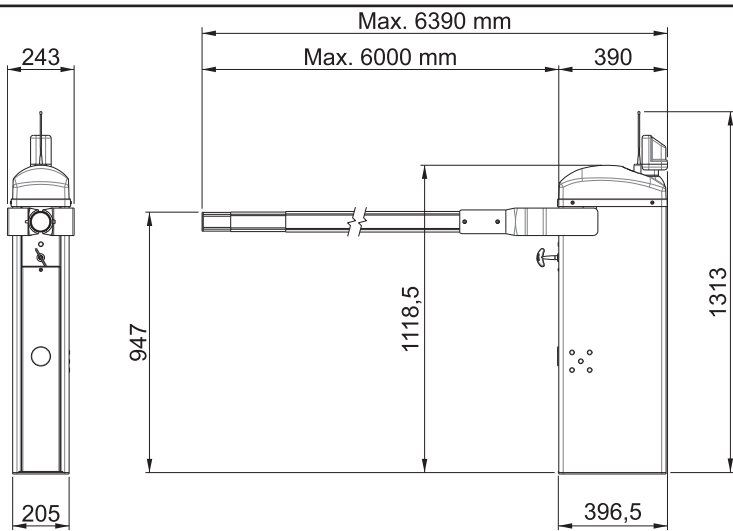


fig. 1

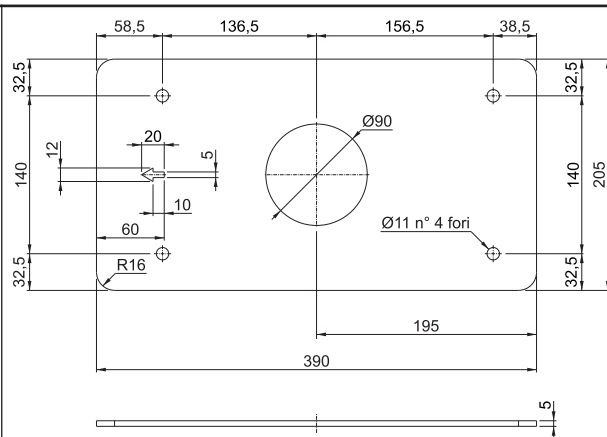


fig. 2

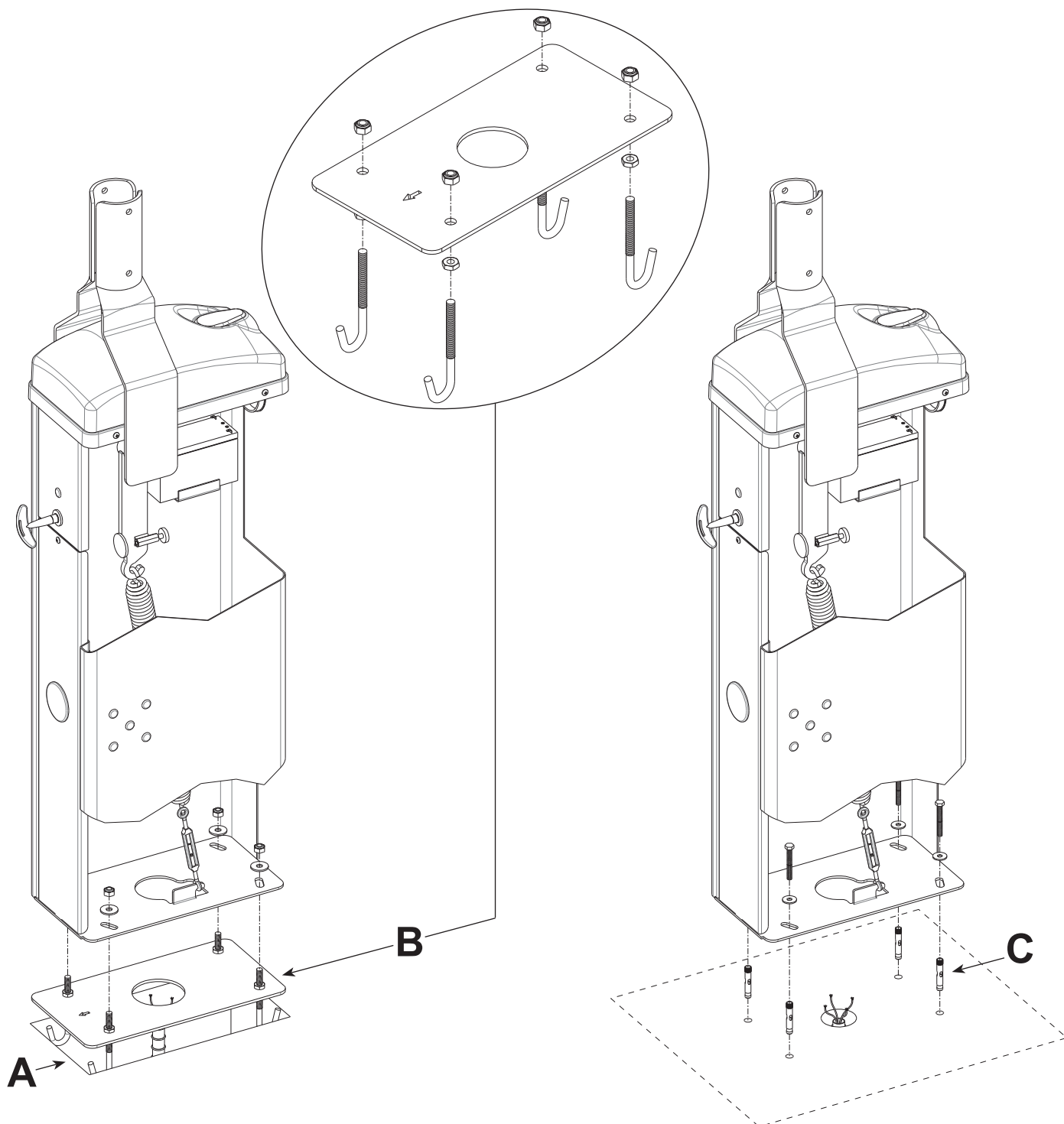


fig. 3

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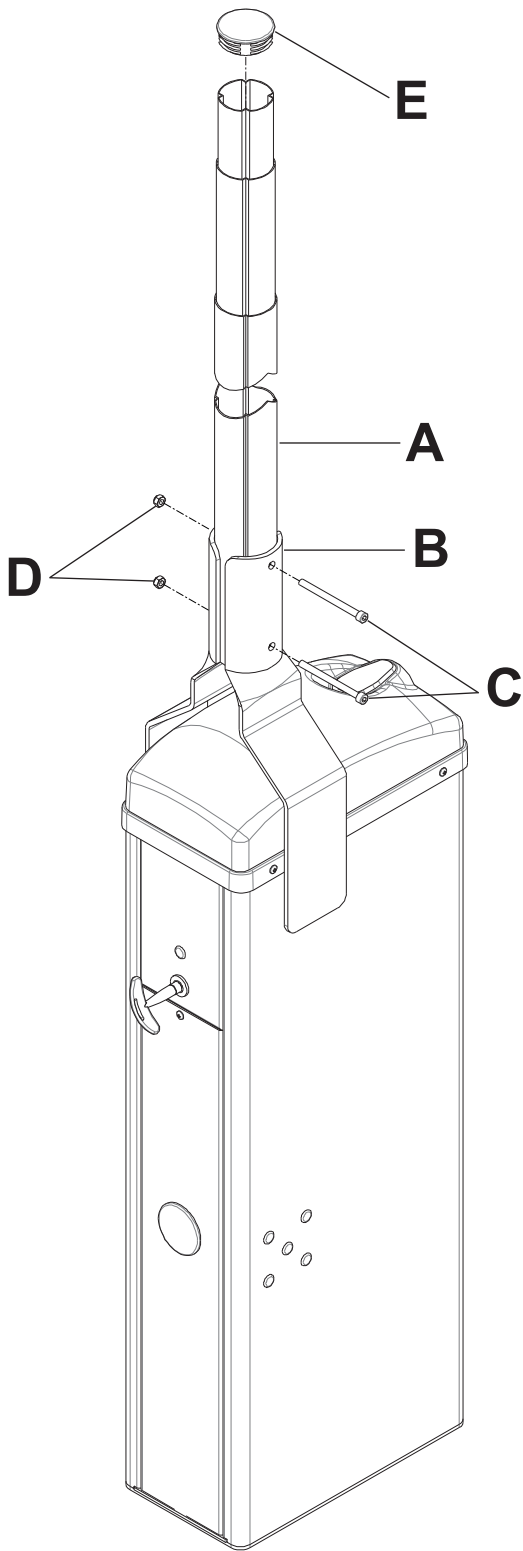


fig. 4

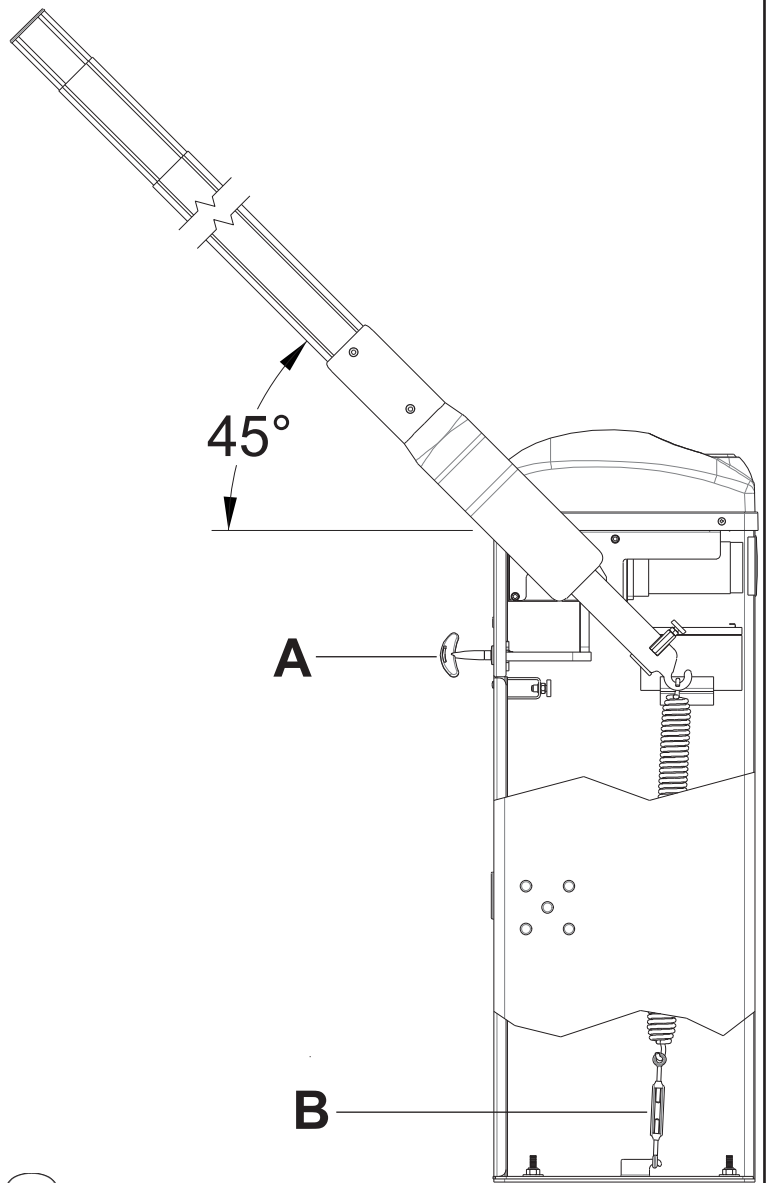


fig. 5

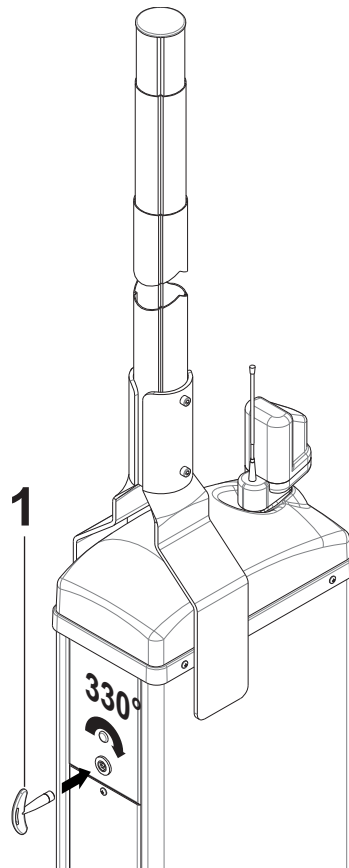
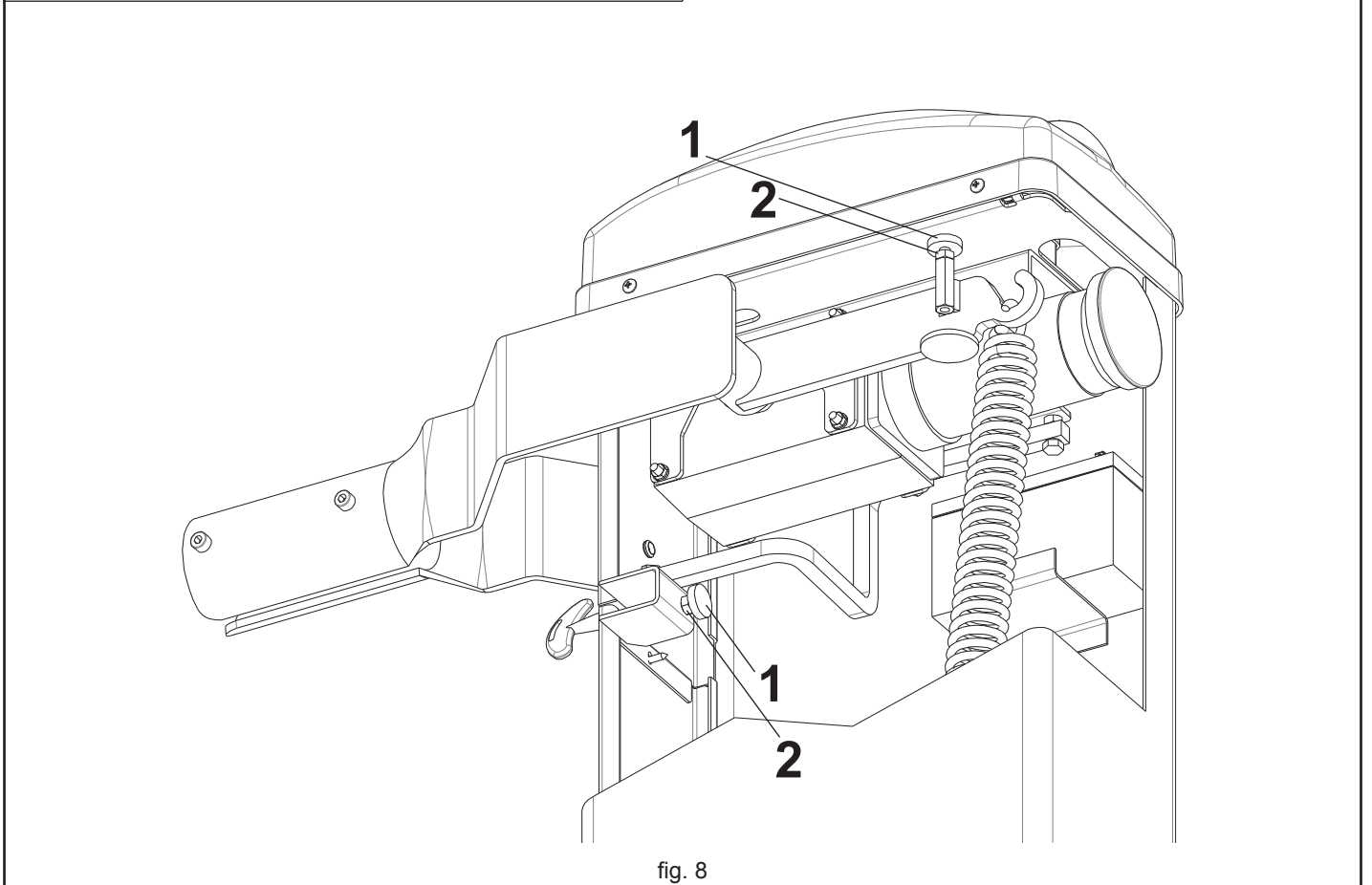
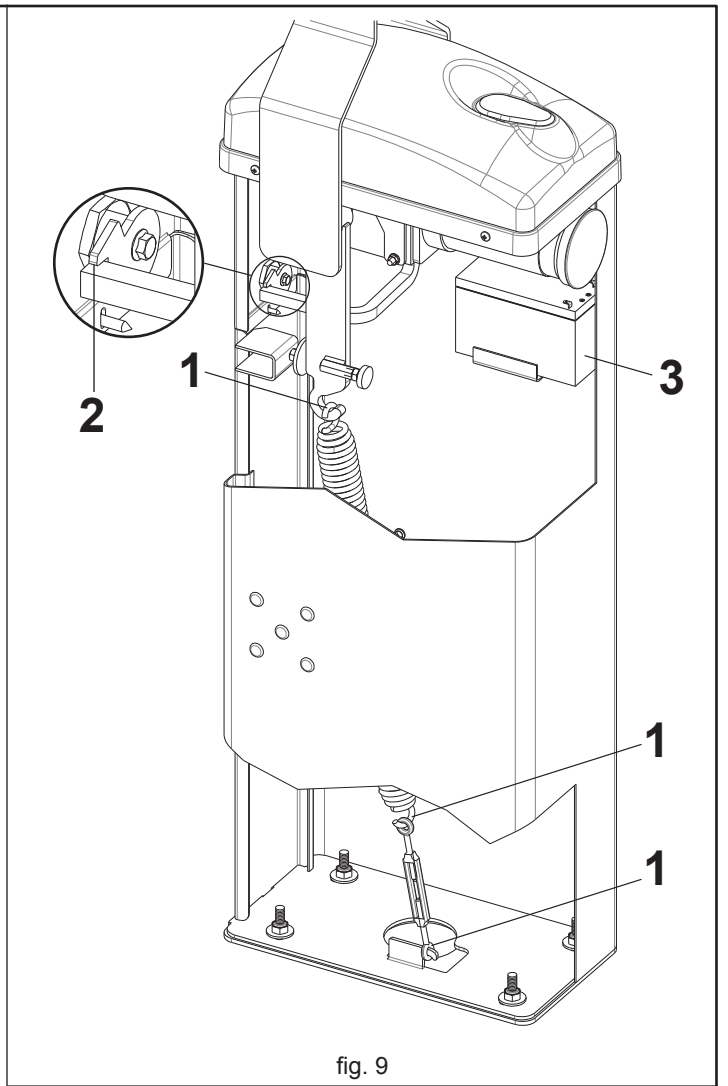
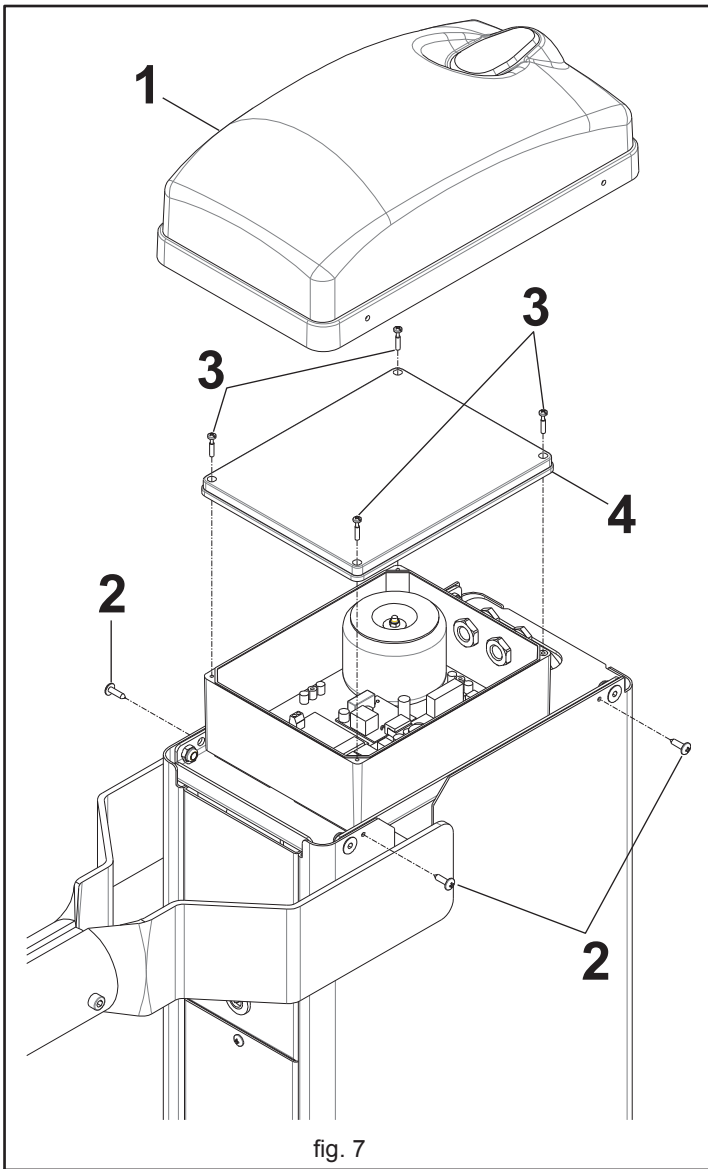


fig. 6

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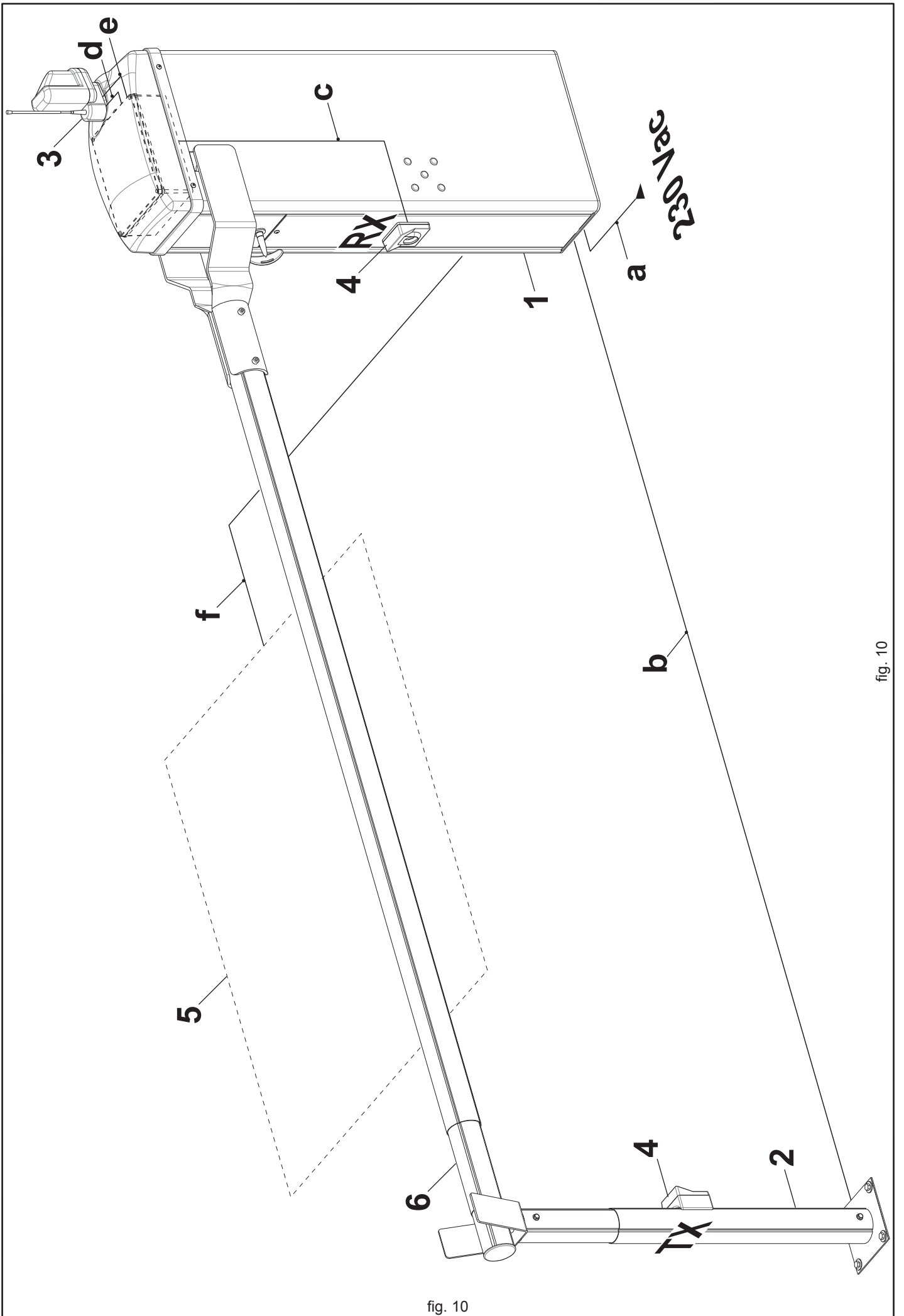


fig. 10

ESPLOSI DELLA SERIE CITY
EXPLODED DIAGRAMS OF THE CITY SERIES
EXPLOSIONSZEICHNUNGEN DER REIHE CITY
VUES ÉCLATÉES DE LA SÉRIE CITY
DESPIECES DE LA SERIE CITY

CITY/M - 12 V d.c.

| RIF. | DESCRIZIONE | ART. | Q.TÀ |
|-------------|--|---------------|-------------|
| 1 | Armadietto + porta B60T verniciato | S-800B300021 | 1 |
| 2 | Tenditore DX/SX M8 | M-V865000M8 | 2 |
| 3 | Molla | M-060CITY0FP | 1 |
| 4 | Braccio DX con gancio barriera | S-800B306050 | 1 |
| 5 | Dado E M8 basso zincato | M-V300DEM8B0 | 2 |
| 6 | Tappo antivibrante | M-090M800040 | 2 |
| 7 | Braccio SX barriera | S-800B306060 | 1 |
| 8 | Supporto centralina | S-800B300025 | 1 |
| 9 | Vite TSEI M8x12 zincata | M-V450008012 | 4 |
| 10 | Vite autofilettante TC+ 4,8x13 inox | M-V250TC4813I | 4 |
| 11 | Dado M8 autobloccante | M-V350AM8B00 | 4 |
| 12 | Vite TE 6x120 zincata | M-V100060120 | 4 |
| 13 | Dado M6 basso zincato | M-V300DEM6B0 | 4 |
| 14 | Motoriduttore completo B30T - B60T sblocco con perno | S-800B60T030 | 1 |
| 15 | Encoder fotodiodo mod. Dael | P-250ENC | 1 |
| 16 | Vite autofilettante TC+ 2,9x4,5 | M-V250TC2945 | 2 |
| 17 | Disco Encoder | P-250DE | 1 |
| 18 | Vite TSEI M4x25 | M-V450004025 | 1 |
| 19 | Coperchio per motore con encoder | P-250CME | 1 |
| 20 | Leva sagomata sblocco barriera | S-800B306040 | 1 |
| 21 | Vite TE M8x40 zincata | M-V100008040 | 1 |
| 22 | Dado M8 basso zincato | M-V300DEM8B0 | 2 |
| 23 | Vite autofilettante TC+ 3,9x9,5 nichelata | M-V250TC3995 | 3 |
| 24 | Vite TE M5x70 zincata fil. tot. | M-V1000056070 | 1 |
| 25 | Rosetta piana D6x18 zincata | M-V500006018 | 1 |
| 26 | Dado E M5 medio zincato | M-V300DEM5M0 | 1 |
| 27 | Scatola est. pareti lisce IP55 240x190 grigio 7014 | M-0300000275 | 1 |
| 28 | Insero Richco TCBS-10-01 | M-800000040 | 3 |
| 29 | Dado nylon per pressacavo PG 9 | M-0300000401 | 2 |
| 30 | Pressacavo nylon PG 9 | M-0300000400 | 2 |
| 31 | Trasformatore tor. 160-250VA 230/13,5V + faston | S-200TT27000 | 1 |
| 32 | Batteria (Optional) | P-200BATT | 1 |
| 33 | Centralina per barriera K205M | S-800K205M | 1 |
| 34 | Carter Barriera B60 New | S-800B30T020 | 1 |
| 35 | Tappo ABS nero Ø 90 | M-0900000090 | 1 |
| 36 | Chiave cod. NB104-00 nylon QE TR6,5 blu | S-800ROBLO97 | 1 |
| 37 | Box QE EURO ZAMA TR6,5 cod. NZA1041-000 | S-800ROBLO98 | 1 |
| 38 | Camma sblocco B30T - B60T | S-800ROBLO06 | 1 |
| 39 | Vite autofilettante TC+ 4,8x13 inox | M-V250TC4813I | 1 |
| 40 | Vite TCEI M8x90 zincata | M-V400008090 | 2 |
| 41 | Dado E autobloccante M8 basso | M-V350AM8B00 | 2 |
| 42 | Grano a punta M8x10 zincato deidrogenato | M-V999008010 | 2 |
| 43 | Tappo chiudiforo Ø 12 | M-0900000012 | 1 |
| 45 | Tappo inserto a lamelle Ø 70 | S-800ASTA070 | 1 |
| 45 | Morsettiera Mamut | M-0300000010 | 5 |
| 46 | Vite autofilettante TC+ 2,9x19 | M-V250TC2919 | 2 |
| 47 | Vite autofilettante TC+ 3,9x13 inox | M-V250TC3913I | 1 |
| 48 | Asta (Optional) | P-800ABT1/2 | 1 |
| 49 | Contropiastra (Optional) | P-800CPM1 | 1 |
| 50 | Lampeggiante (Optional) | P-900LAMP4 | 1 |
| 51 | Antenna (Optional) | P-250ANTD | 1 |
| 52 | Fotocellula di sicurezza (Optional) | P-900FOTI | 1 |

