

GHOST 100

Underground electro-mechanical operator for swing gates
Operating instructions and warnings

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EN

Product Conformity

DEA System guarantees the conformity of the product to European Directives 2006/42/CE regarding "machinery safety", 2014/30/EU "electromagnetic compatibility" and 2014/35/EU "low voltage electrical equipment". See **Declaration of Incorporation**.

1 WARNINGS SUMMARY

Read these warnings carefully; failure to respect the following warnings may cause risk situations.

⚠ WARNING USING THIS PRODUCT UNDER UNUSUAL CONDITIONS NOT FORESEEN BY THE MANUFACTURER CAN CREATE SITUATIONS OF DANGER, AND FOR THIS REASON ALL THE CONDITIONS PRESCRIBED IN THESE INSTRUCTIONS MUST BE RESPECTED.

⚠ WARNING DEA SYSTEM REMINDS ALL USERS THAT THE SELECTION, POSITIONING AND INSTALLATION OF ALL MATERIALS AND DEVICES WHICH MAKE UP THE COMPLETE AUTOMATION SYSTEM, MUST COMPLY WITH THE EUROPEAN DIRECTIVES 2006/42/CE (MACHINERY DIRECTIVE), 2014/30/EU (ELECTROMAGNETIC COMPATIBILITY), 2014/35/EU (LOW VOLTAGE ELECTRICAL EQUIPMENT). IN ORDER TO ENSURE A SUITABLE LEVEL OF SAFETY, BESIDES COMPLYING WITH LOCAL REGULATIONS, IT IS ADVISABLE TO COMPLY ALSO WITH THE ABOVE MENTIONED DIRECTIVES IN ALL EXTRA EUROPEAN COUNTRIES.

⚠ WARNING UNDER NO CIRCUMSTANCES MUST THE PRODUCT BE USED IN EXPLOSIVE ATMOSPHERES OR SURROUNDINGS THAT MAY PROVE CORROSIVE AND DAMAGE PARTS OF THE PRODUCT.

⚠ WARNING TO ENSURE AN APPROPRIATE LEVEL OF ELECTRICAL SAFETY ALWAYS KEEP THE 230V POWER SUPPLY CABLES APART (MINIMUM 4MM IN THE OPEN OR 1 MM THROUGH INSULATION) FROM LOW VOLTAGE CABLES (MOTORS POWER SUPPLY, CONTROLS, ELECTRIC LOCKS, AERIAL AND AUXILIARY CIRCUITS POWER SUPPLY), AND FASTEN THE LATTER WITH APPROPRIATE CLAMPS NEAR THE TERMINAL BOARDS.

⚠ WARNING ALL INSTALLATION, MAINTENANCE, CLEANING OR REPAIR OPERATIONS ON ANY PART OF THE SYSTEM MUST BE PERFORMED EXCLUSIVELY BY QUALIFIED PERSONNEL WITH THE POWER SUPPLY DISCONNECTED WORKING IN STRICT COMPLIANCE WITH THE ELECTRICAL STANDARDS AND REGULATIONS IN FORCE IN THE NATION OF INSTALLATION.

⚠ WARNING USING SPARE PARTS NOT INDICATED BY DEA SYSTEM AND/OR INCORRECT RE-ASSEMBLY CAN CREATE RISK TO PEOPLE, ANIMALS AND PROPERTY AND ALSO DAMAGE THE PRODUCT. FOR THIS REASON, ALWAYS USE ONLY THE PARTS INDICATED BY DEA SYSTEM AND SCRUPULOUSLY FOLLOW ALL ASSEMBLY INSTRUCTIONS.

⚠ WARNING INCORRECT ASSESSMENT OF THE IMPACT FORCES CAN CAUSE SERIOUS DAMAGE TO PEOPLE, ANIMALS OR THINGS. DEA SYSTEM REMINDS THE INSTALLER MUST VERIFY THAT THE IMPACT FORCES, MEASURED AS INDICATED BY THE STANDARD EN 12445, ARE ACTUALLY BELOW THE LIMITS SET BY THE STANDARD EN12453.

⚠ WARNING ANY EXTERNAL SECURITY DEVICES USED FOR COMPLIANCE WITH THE LIMITS OF IMPACT FORCES MUST BE CONFORM TO STANDARD EN12978.

⚠ WARNING IN COMPLIANCE WITH EU DIRECTIVE 2012/19/EU ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE), THIS ELECTRICAL PRODUCT SHOULD NOT BE TREATED AS MUNICIPAL MIXED WASTE. PLEASE DISPOSE OF THE PRODUCT AND BRING IT TO THE COLLECTION FOR AN APPROPRIATE LOCAL MUNICIPAL RECYCLING.

4.3 How to unlock the operator

WARNING Disconnect the power supply from the control panel before releasing the operator. In case you cannot turn the power off, you will necessarily have to re-lock the motor in the position in which it was unlocked.

Use the manual release key to unlock the gate (Pic. 6), the operator is unlocked and the gate can move freely. To lock the gate, bring the gate on the lever assembly which will lock the spring device and brings GHOST 100 in working condition.

4.4 How to fix and adjust the mechanical stops

All GHOST 100 models are supplied with mechanical stops that permit the stroke adjustment while closing and opening when fixed stops are fixed.

For the assembly and adjustment, proceed as it follows:

- Unlock the operator;
- Position the door approximately to 45° so as to facilitate the assembly;
- Mount the mechanical stops as shown in Pic. 7;
- Adjust the screws (A) and manually move the leaf verifying the correct positioning of the stroke;
- After completing the adjustment, tighten the locking nut (B)

WARNING Mechanical stops must be used with doors up to 200kg for models without encoder and up to 300kg for models with encoder.

EN

5 ELECTRICAL CONNECTIONS

WARNING To ensure an appropriate level of electrical safety always keep the 230V power supply cables apart (minimum 4mm in the open or 1 mm through insulation) from low voltage cables (motors power supply, controls, electric locks, aerial and auxiliary circuits power supply), and fasten the latter with appropriate clamps near the terminal boards.

WARNING During the connection phase, fasten the electric cables with appropriate clamps near the terminal boards and, when possible, unsheathe the cables to avoid they are too long.

WARNING Maintain the ground conductor at a major length respect the active conductors so that, if the cable exit from its fixing housing, the active conductors tighten up as first.

Program the control board to complete all adjustments. It is now possible to supply a complete installation in compliance with all standards required for gate automation. See the instructions provided with the control panel to be connected.

Finally, verify that all adjustments operations have been correctly performed and that safety devices and unlocking device properly work.

6 START-UP

The start-up phase is very important to ensure maximum security and compliance to regulations, including all the requirements of EN 12445 standard which establishes the test methods for testing the automation for gates.

DEA System reminds that all installation, maintenance, cleaning or repair operations on any part of the system must be performed exclusively by qualified personnel who must be responsible of all texts require by the eventual risk;

6.1 Installation test

The testing operation is essential in order to verify the correct installation of the system. **DEA** System wants to summarize the proper testing of all the automation in 4 easy steps:

- Make sure that you comply strictly as described in paragraph 2 "WARNINGS SUMMARY";
- Test the opening and closing making sure that the movement of the leaf match as expected.
We suggest in this regard to perform various tests to assess the smoothness of the gate and defects in assembly or adjustment;
- Ensure that all safety devices connected work properly;
- Perform the measurement of impact forces in accordance with the standard 12445 to find the setting that ensures compliance with the limits set by the standard EN12453.

WARNING Using spare parts not indicated by **DEA** System and/or incorrect re-assembly can create a risk to people, animals and property and also damage the product. For this reason, always use only the parts indicated by **DEA** System and scrupulously follow all assembly instructions.

6.2 Unlocking and Manual operation

In the event of malfunctions or simple power failure, release the motor (Pic. 6) and perform the operation manually.

The knowledge of the unlocking device is very important because, in times of emergency, lack of speed in operating this device can cause danger.

WARNING The efficacy and safety of manual operation of the automation is guaranteed by **DEA** System only if the installation has been installed correctly and with original accessories.

7 MAINTENANCE

Good preventive maintenance and regular inspection ensure long working life. In the table below you will find a list of inspections/maintenance operations to be programmed and executed periodically.

Consult the TROUBLE-SHOOTING" table whenever anomalies are observed in order to find the solution to the problem and contact **DEA** System directly whenever the solution required is not provided.

INTERVENTION TYPE	PERIODICITY
cleaning of external surfaces	6 months
checking of screw tightening	6 months
checking of release mechanism operation	6 months
check that water flows out properly from the foundation box	6 months
greasing of articulated joint	1 year

TROUBLE-SHOOTING	
Description	Possible solutions
When the opening command is given, the gate wing fails to move and the operator's electric motor fails to start.	The operator is not receiving correct power supply. Check all connections, fuses, and the power supply cable conditions and replace or repair it if necessary. If the gate does not close check if the photocells work properly.
When the opening command is given, the motor starts but the gate leaf fails to move.	Make sure the unlocking system is closed. Make sure that the electronic device for power adjustment is in good condition.
The operator jerks or is noisy during movement, it stops midway or else it does not start.	If the leaf of the gate does not move freely, release the operator and readjust the rotation points. The power of the gearmotor may be insufficient for the characteristics of the gate's leaf; check the choice of model whenever required. Make sure that the electronic device for power adjustment is in good condition.

8 PRODUCT DISPOSAL

GHOST 100 consists of materials of various types, some of which can be recycled (electrical cables, plastic, aluminum, etc ..) while others must be disposed of (electronic boards and components).

Proceed as follows:

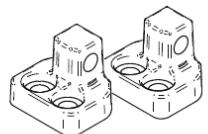
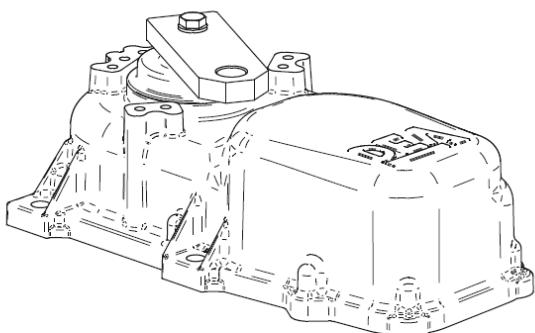
1. Disconnect the power supply;
2. Disconnect and disassemble all the accessories connected. Follow the instructions in reverse to that described in the section "Installation";
3. Remove the electronic components;
4. Sorting and disposing of the materials exactly as per the regulations in the country of sale.



WARNING In line with EU Directive 2012/19/EU for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to your local municipal collection point for recycling.

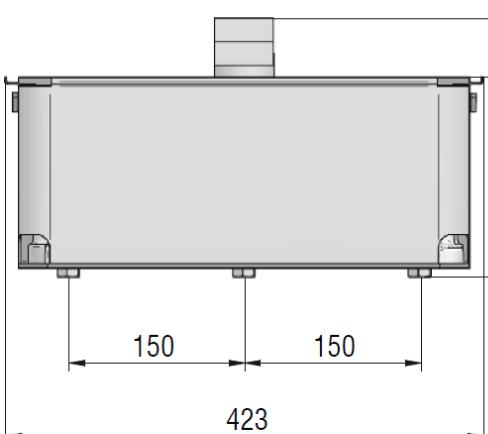
GHOST 100

1

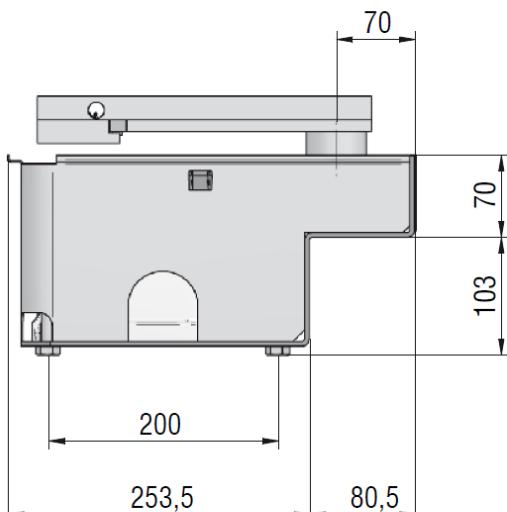


- 2 washers
- 2 bolts
- 1 bolt
- 4 washers
- 4 nuts
- 4 O-rings

2

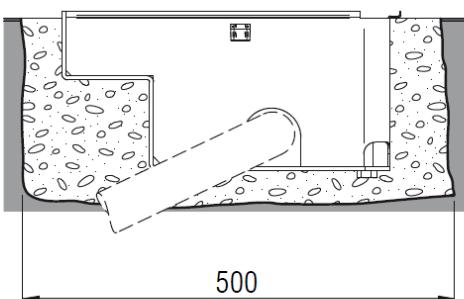


150
150
423
173
50.5

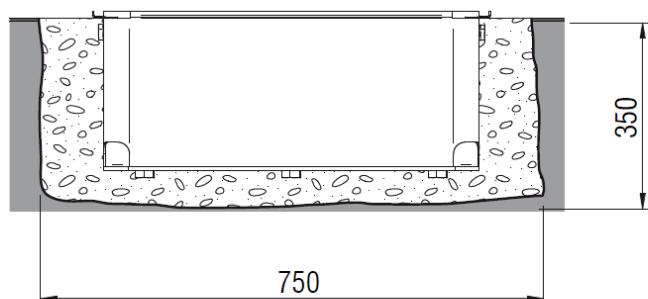


200
253.5
80.5
103
70

3



500



750

350

5

In fase di posizionamento del motoriduttore sulla cassa, la calotta marchiata DEA va rivolta sempre verso la direzione di apertura.

When positioning the operator on the foundation box, the cap marked DEA should always facing the opening direction.

Lors du positionnement du moteur sur la boîte de fondation, le couvercle marqué DEA doit toujours faire la direction d'ouverture.

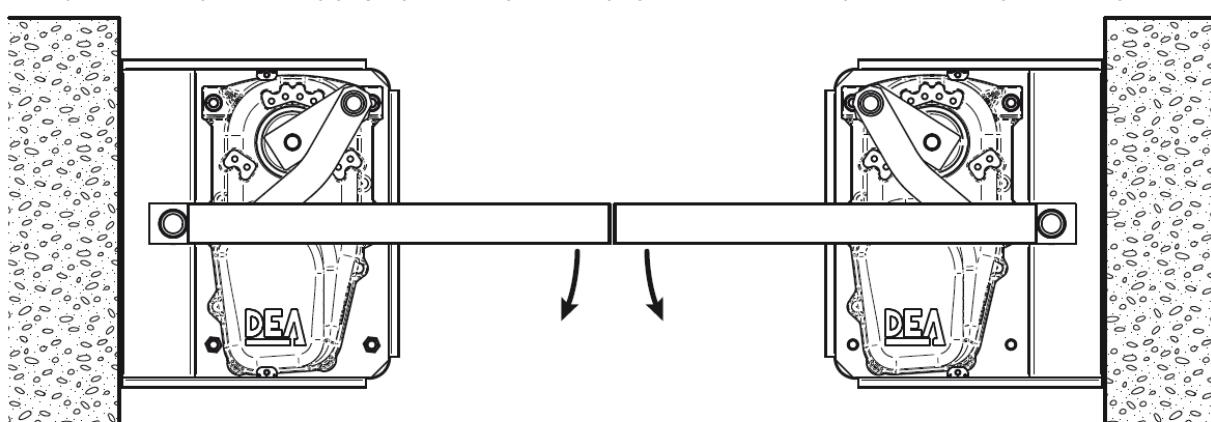
Bei Platzierung des Antriebes muss der Aufdruck DEA auf dem Getriebegehäuse von DEA immer in Öffnungsrichtung ausgerichtet werden.

Al colocar el motor en la caja de cimentación, la tapa del motor marcada DEA debe siempre estar orientada en la dirección de apertura.

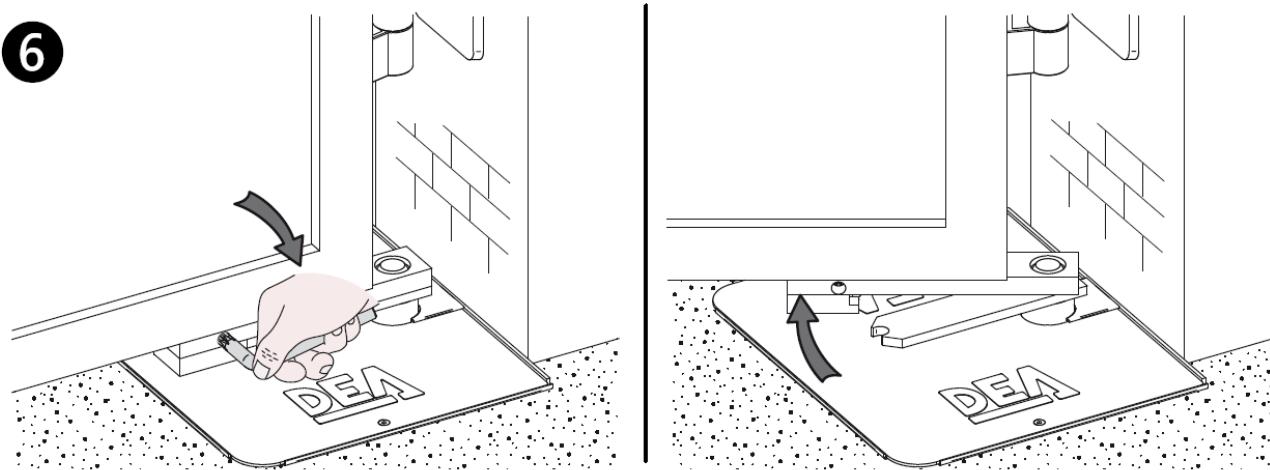
Quando montar o motor na caixa de fundação, a tampa da bobinagem do motor com a etiqueta DEA deve ficar sempre voltada para a direção da abertura.

Podczas wkładania motoredruktra do skrzyni, nakładka osłony z oznaczeniem DEA zawsze powinna być ustawiona w kierunku otwarcia.

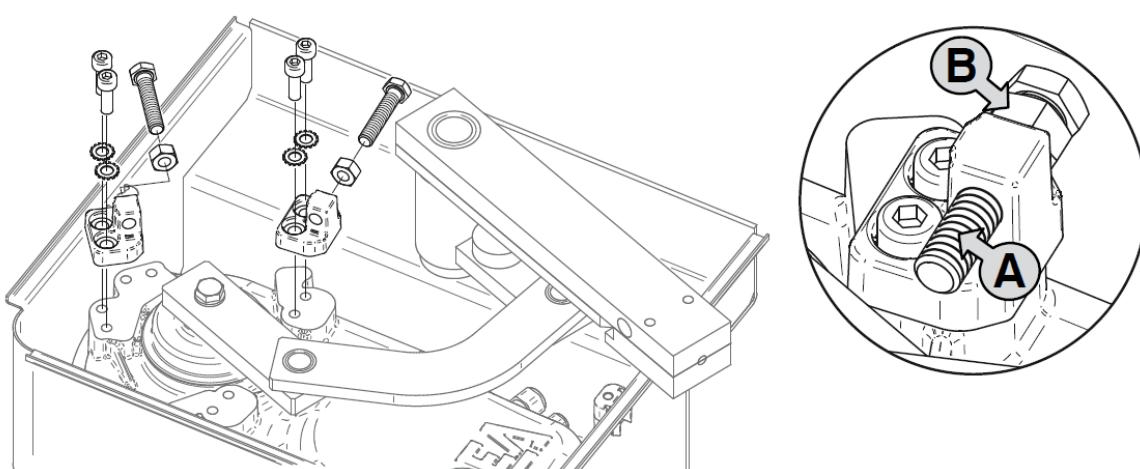
В фазе позиционирования мотор-редуктора в ящик, крышка с маркировкой DEA всегда поворачивается по направлению открытия.



6



7



ATTENZIONE I fermi meccanici devono essere utilizzati con ante fino a 200Kg per modelli senza encoder e fino a 300Kg per modelli con encoder.

WARNING Mechanical stops must be used with doors up to 200kg for models without encoder and up to 300kg for models with encoder.

ATTENTION Les fins de course mécaniques doivent être utilisées avec vantaux jusqu'à 200Kg pour modèles sans encodeur et jusqu'à 300Kg pour modèles avec encodeur.

ACHTUNG Diese mechanische Anschläge dürfen für Torflügeln bis 200 kg bei Antriebe ohne Encoder und bis 300 kg bei Antriebe mit Encoder eingesetzt werden.

ATENCIÓN los topes mecánicos se deben utilizar con puertas de hasta 200 kg para los modelos sin encoder y hasta 300 kg para los modelos con encoder.

AVISO Deve ser utilizados fins de curso mecânicos para portas até 200Kg para modelos sem encoder e até 300 Kg para modelos com encoder

UWAGA Ograniczniki mechaniczne są przeznaczone do montażu skrzydeł do 200kg – dla modeli bez encodera, oraz dla skrzydeł do 300kg - dla modeli z encodera.

ПРЕДУПРЕЖДЕНИЕ механические ограничители должны быть использованы с дверей до 200кг для моделей без датчика и до 300 кг для моделей с датчиком.

Esplosivo di assemblaggio, Assembly diagram, Schéma de montage, Explosionszeichnung für den Zusammenbau
Esquema de montaje, Esquema de montagem, Części zamienne, Сборочный чертеж

