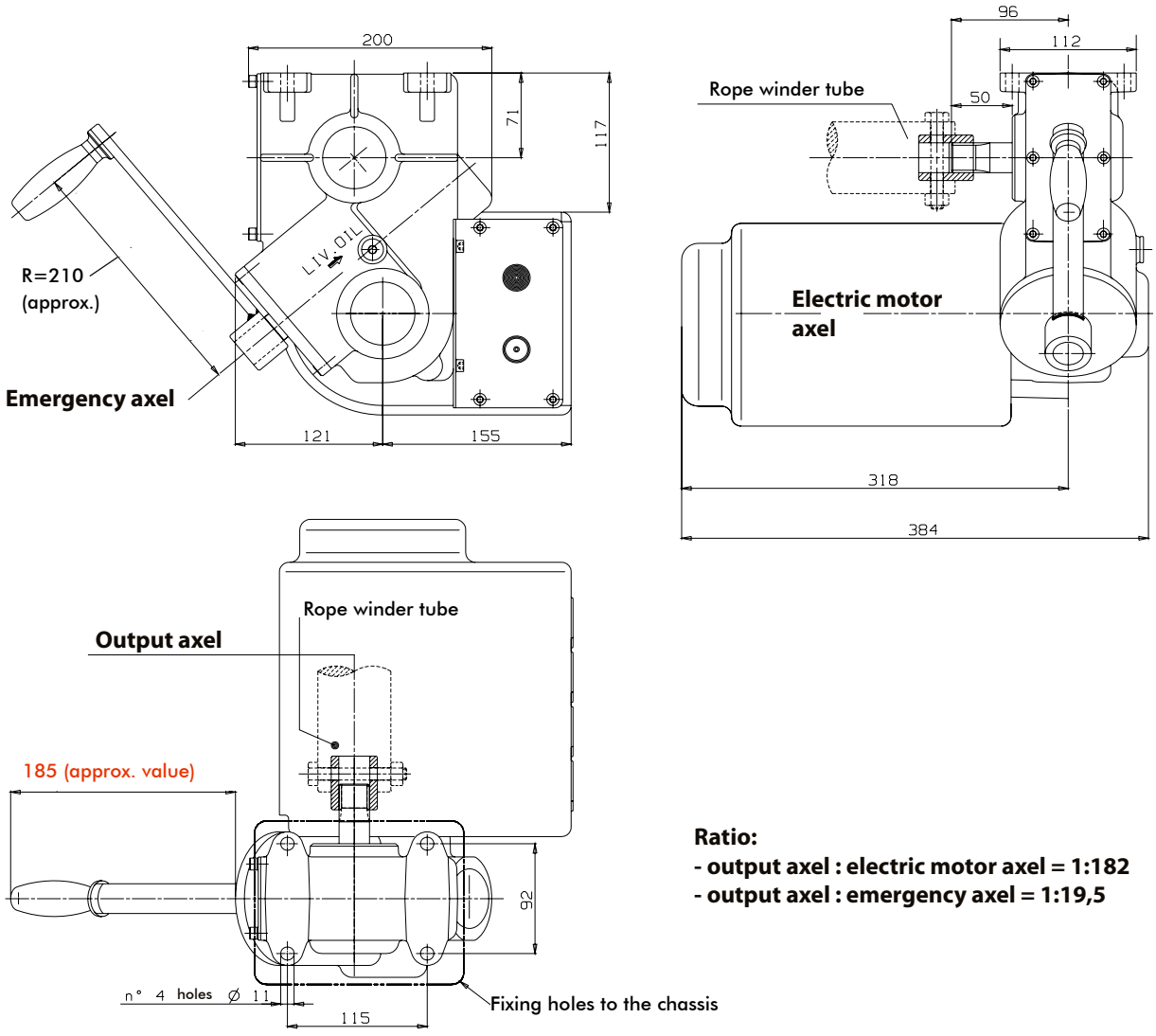
CONTENTS

1. Dimensions



Ratio:
- output axel : electric motor axel = 1:182
- output axel : emergency axel = 1:19,5

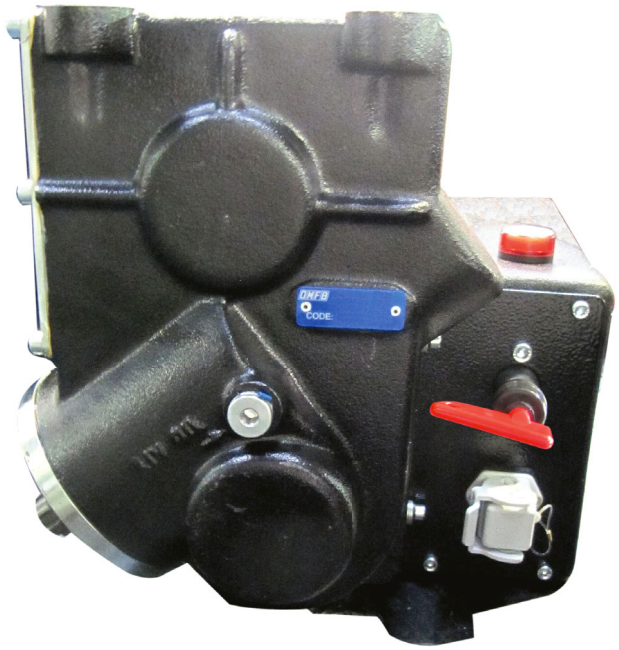
2. Description

The OMFB Gearmotor for Elevating Roofs was developed for use on industrial vehicles that use cable-operated elevating roof systems.

3. Models

The Gearmotor for Elevating Roofs may be supplied in the following models:

13705020144 *Gearmotor for "cable operated elevating roof systems" (3°) 12V HERCULES plug*
13705020153 *Gearmotor for "cable operated elevating roof systems" (3°) 24V HERCULES plug*



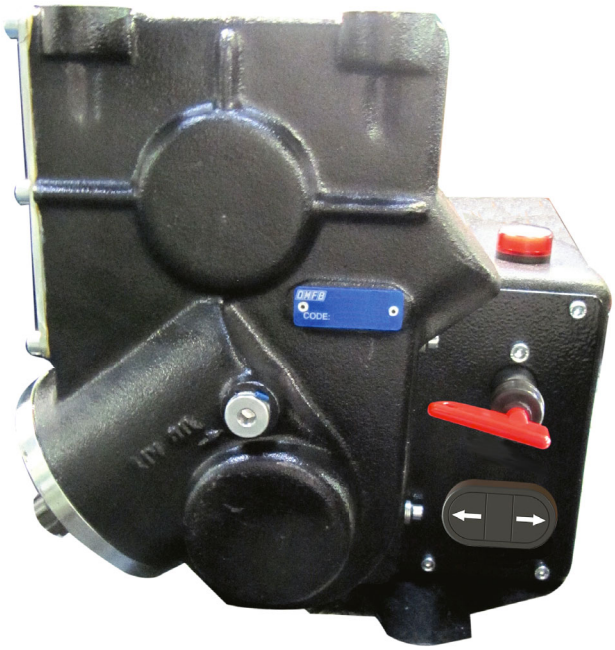
It is essential to order the activating device, which may be of two types:

14915510052
Push-button panel

10105050050
Radio remote control RADAR 2CH

3. Models

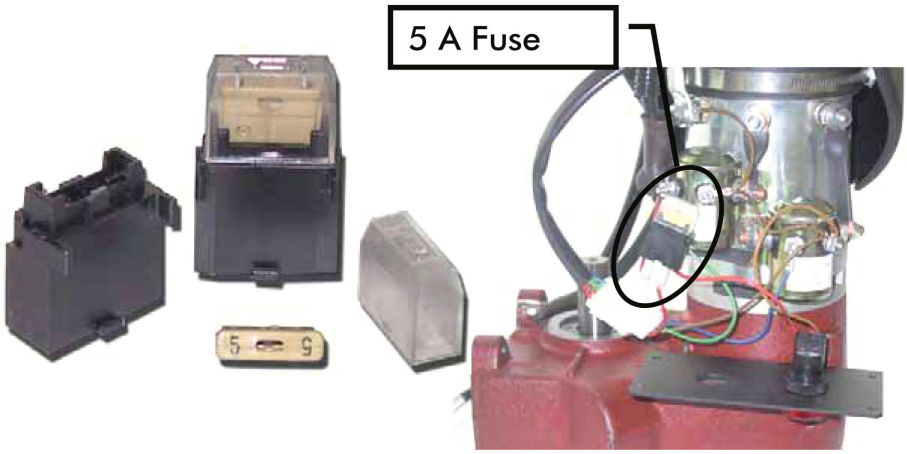
13705020162 *Gearmotor for "cable operated elevating roof systems" (3°) 12V HERCULES buttons*
13705020171 *Gearmotor for "cable operated elevating roof systems" (3°) 24V HERCULES buttons*



4. Components parts

Gearmotor Body
- *solid nodular cast-iron body*
- *worm screw reducer and bronze helical crown*

Power unit
- *ventilated 2000-W DC motor in two configurations, 12V and 24V;*
- *5-A automative fuse (inside the plastic tank guard) to protect the control devices and from any short-circuits that might occur in the rotation direction control system;*
- *plastic guard protecting the electric motor;*
- *waterproof (IP65) connection for the control device;*
- *95dB acoustic warning device to indicate operation;*
- *power on indicator pilot lamp, activated when the gearmotor is powered;*
- *1 meter of positive power supply cable, with protective sheath already connected to the motor;*
- *1 meter of earth cable, already connected to the motor;*



Qty. 1 Battery cut-off kit with holding bracket

The battery cut-off is a single-pole switch to insert on the power supply cable before the gear motor for elevating roofs, to make it possible to cut off power to the gearmotor when the latter is not being used and with the vehicle running. The holding bracket makes it easier to install the battery cut-off near the gear motor, and thus facilitates its activation in case of emergency.

Qty. 1 80A Fuse kit

Made up of:

• one 80A fuse

• one support socket

• 2 holding nuts and corresponding washers

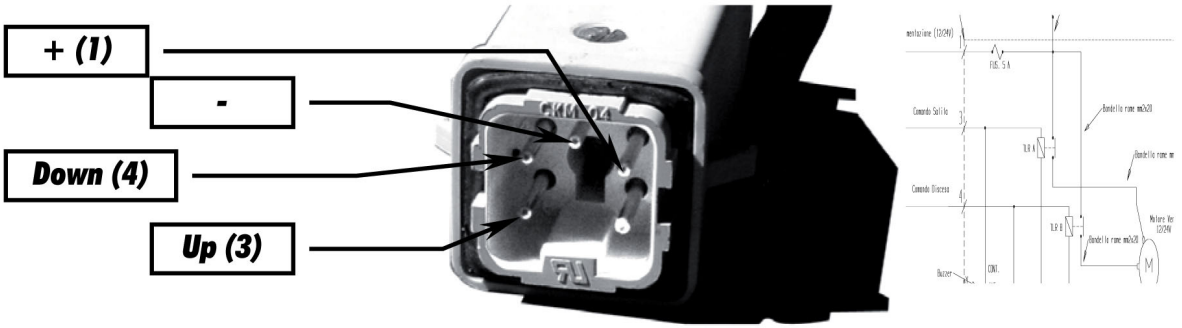
Installed near the battery by means of the special copper brackets supplied in the kit, its function is to fully protect the power supply system of the Gearmotor for Elevating Roofs from any accidental short-circuits.

Qty. 1 Emergency lever

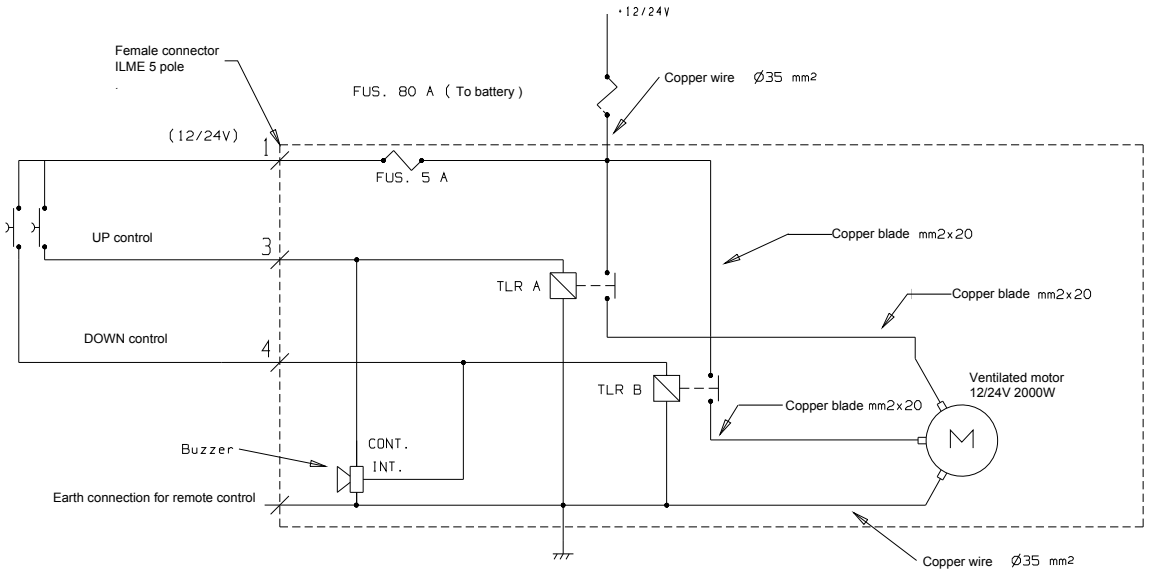
The emergency lever allows the reducer to be manually activated in the event of a malfunction by the electrical control system. To use it, insert the lever on the pin provided, shown in the figur and turn in the desired direction to carry out the operation.

Qty. 1 Connector

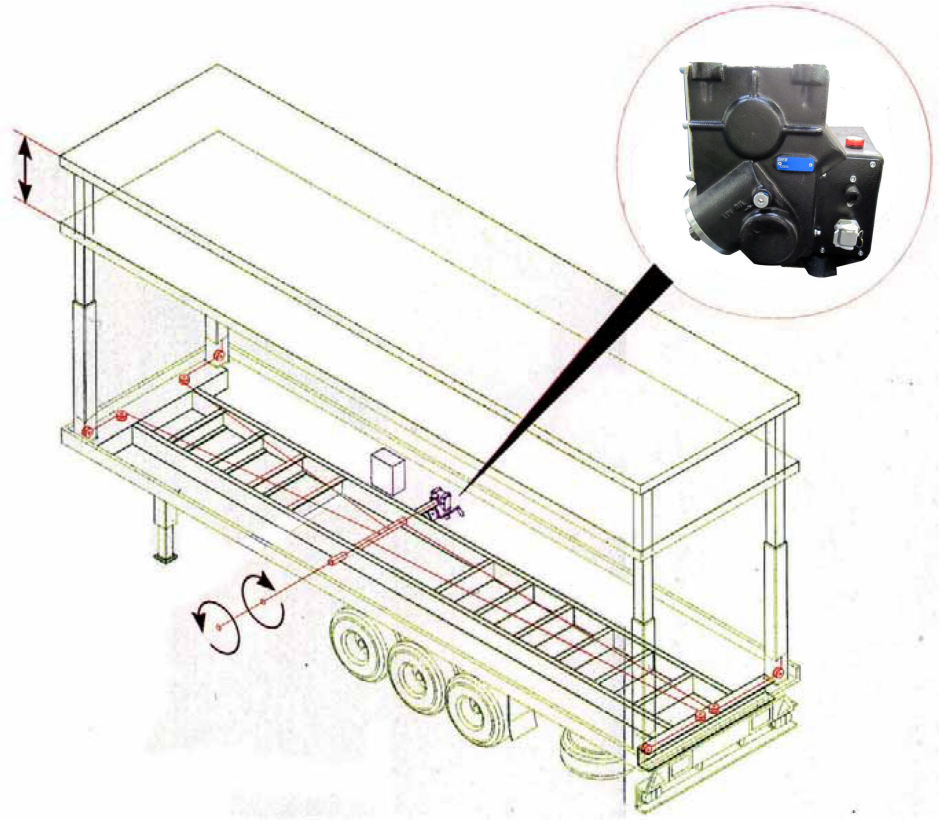
The connector to connect the activating device (push-button panel or radio remote control) is wired as shown in the figure below:



5. Electrical scheme



6. Installation



ATTENTION:
TO AVOID POSSIBLE SHORT-CIRCUITS, WE RECOMMEND STRICTLY FOLLOWING THE STEPS INDICATED BELOW.

1) *Install the gear motor on the vehicle frame, using the fastening holes provided directly on the cast-iron body..*

2) *Install the 80A fuse kit near the battery, if necessary using the same terminal present on the positive pole to fasten the copper bracket supplied with the kit.*

3) *Then fasten the battery cut-off, near the gearmotor, so that it can easily be activated in case of emergency and connect by tightening the nuts appropriately:*
• first the earth cable of the gearmotor (without black plastic sheath) to the vehicle earth
• then the positive cable (with black plastic protective sheath) to one of the two terminals of the battery cut-off;

4) *Along the vehicle frame, fasten the positive power cable (not supplied) from the battery to the Gearmotor, remembering not to connect it before completing its fastening;*

5) *Connect the power cable to the free terminal of the battery cut-off;*

6) *Shut off the battery cut-off, by turning the key and removing it from its slot, so that the Gearmotor is electrically disconnected from the rest of the power supply system;*

7) *Connect the second end of the power cable to the free terminal of the 80A fuse support near the battery;*

8) *Connect the control device to the connector provided, and turn on the battery cut-off by inserting the key into its slot and turning;*

9) *Make sure the system works properly.*

7. Maintenance

The gearmotor requires only the following maintenance operations:

1) *Check the lubrication status of the reducer: the Gearmotor is supplied pre-lubricated, but should be checked and topped up if necessary at least once a year*

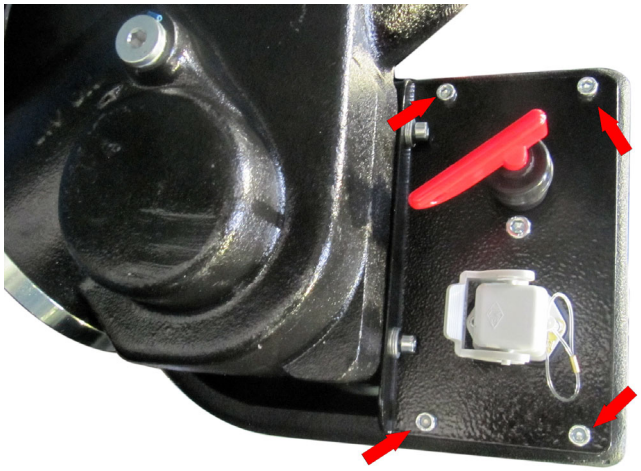
To check the lubrication status:

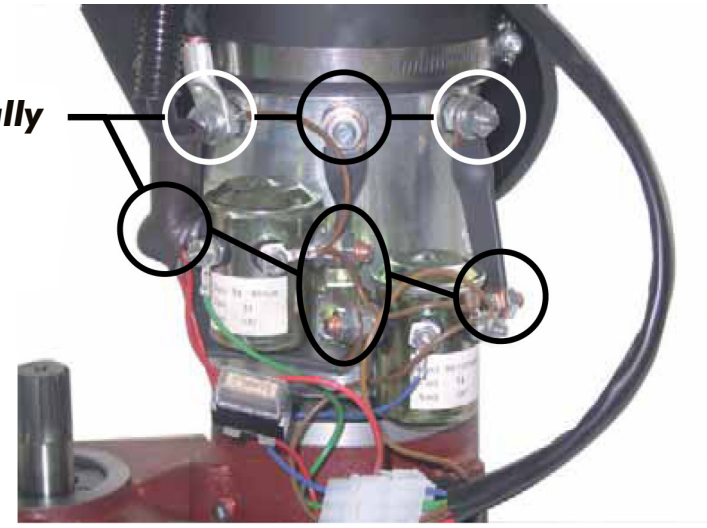
- *Open the level check hole cap*
- *Insert a rod one centimeter, keeping it tilted downward*
- *Remove the rod and check for the presence of oil*
- *If there is none, add a suitable amount of oil to top up the level*
- *Close the level check hole cap*
- ***CAUTION:*** *The gearmotor is supplied pre-lubricated with 1 Kg of SPARTAN EP320 OIL. Use this type of oil or a similar kind to top up.*

2) *Make sure the nuts in the electrical connections inside the plastic tank guard are properly tightened. Due to vibrations over the long term these nuts may become loose and cause the system to malfunction.*

To tighten the nuts, proceed as follows:

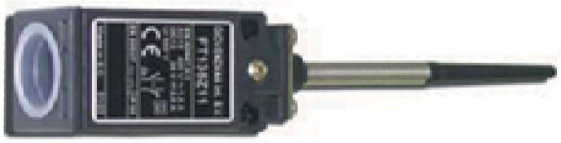
- *Remove the screws as shown*





8. Accessories

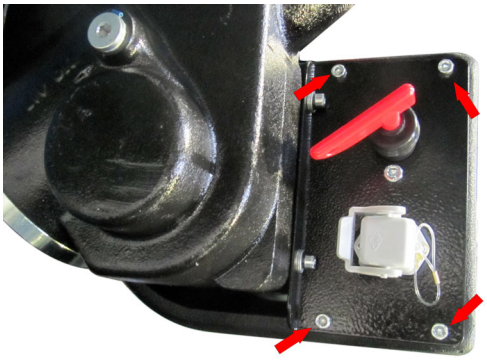
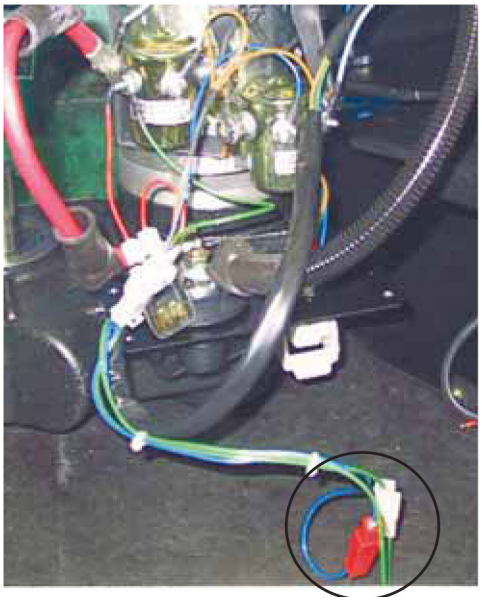
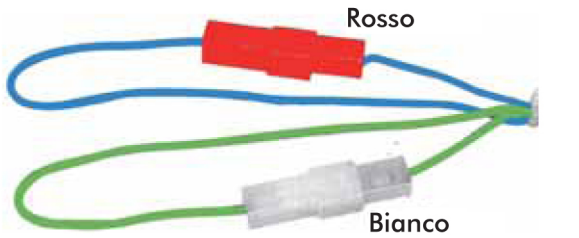
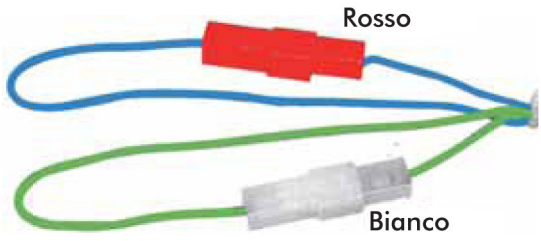
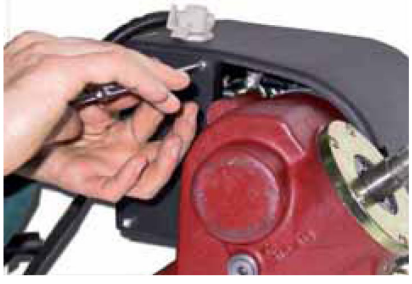
12201100795 *LIMIT SWITCH with flexible tip purchasing*



INSTRUCTIONS FOR WIRING THE LIMIT SWITCH

	*Remove the cap and....* *... the safety cover*		*Insert the 2 wires*
			*Block the 2 wires*
	*Insert the cable (min.: 2x1mm²) into the cable press*		*Screw and lock the cable press on the limit switch*
	*Slide the cable press downward to work better*		*Firmly tighten the cable press on the cable*
	*Release the screws of the normally closed contact*		*Fasten the safety cover*

ACCESSORIES WIRING

	*Undo the 4 fixing screws and remove the cover*
	*Look for the two connectors as shown in the picture*
	*Connect the white connector to the tip position of the end-of-stroke unit*
	*Connect the red connector to the lowering position of the end-of-stroke unit*
	*Mount the cover by using the 4 screws previously removed*

9. Product markings

The Gearmotor for Elevating Roofs, manufactured by **OMFB SpA Hydraulic Components,** *is in* **compliance with the essential requirements set forth by European Directive 95/54/CE** *dated 31 October 1995 (D.M. dated 20 February 1996), regarding the* **Electromagnetic Compatibility of electrical/electronic units installed on road vehicles.**

The tests prescribed by these Technical Standards were carried out at the laboratory **PRIMA RICERCA & SVILUPPO**[1].

Approval of the **Gearmotor for Elevating Roofs** *for the requirements of the Directive 95/54/CE is certified by the Notified Body* **NSAI**[2] *by releasing the approval number for product marking:*

eIRL 95/54 CE 020327

[1] **PRIMA RICERCA & SVILUPPO -** *Via Campagna, 58 - 22020 Gaggino Faloppio (CO)*
[2] **NSAI -** *National Standards Authority of Ireland*
Glasnevin, Dublin 9, Ireland (+353-1-80703910)

10. Warranty terms

*1. **OMFB SpA Hydraulic Components** provides a **warranty that covers all defects in workmanship and the raw material used.** All products are subjected to various checks during their production cycle to ensure their safety, efficiency and quality*

*2. The warranty covers only new products, and is valid for **12 months from the date on which the customer receives the material.** The receipt date must be certified by a **formal document**, indicating the model purchased and the customer's name*

*3. The warranty covers only those products that, during the warranty period specified in point 2, **do not allow operation according to the specifications listed in this manual** due to defects in workmanship or in the raw materials used at the time of the sale by **OMFB SpA Hydraulic Components***

*4. Defective products, as defined in point 3, shall be repaired or replaced only if returned to the headquarters of **OMFB SpA Hydraulic Components with shipping costs borne by the customer.** If the analyses carried out by **OMFB SpA Hydraulic Components** recognize the products as defective, as set forth in point 3, **the shipping costs sustained shall be credited to the customer***

*5. No defective products may be returned before **formally notifying our Sales Department**, who must give **prior authorization** for the shipment. If not, the returned goods will not be accepted*

*6. The warranty is valid for the **Gearmotor for Elevating Roofs** only if the installation and use there of complies with the instructions provided in the present manual*

*7. **OMFB SpA Hydraulic Components** shall not be liable for any direct, indirect, incidental or consequential damage caused by the products for which the warranty is requested. The damage coverage insured by **OMFB SpA Hydraulic Components** shall in no case exceed the value of the good for which the warranty is requested*

*8. The **warranty shall be automatically void** in the case of any intervention or repair of the products without the **formal consent** of **OMFB SpA Hydraulic Components***

*9. If the defective products are **replaced** with new parts, the waranty period is **extended for 12 months from the date on which the customer received** the replacement material. If the defective products are repaired, the warranty period is **extended for 6 months from the date on which the customer received** the repaired material, without in any way reducing the initial 1-year warranty period.*

***OMFB SpA Hydraulic Components** reserves the right to alter the characteristics described in the present manual without prior notice.*