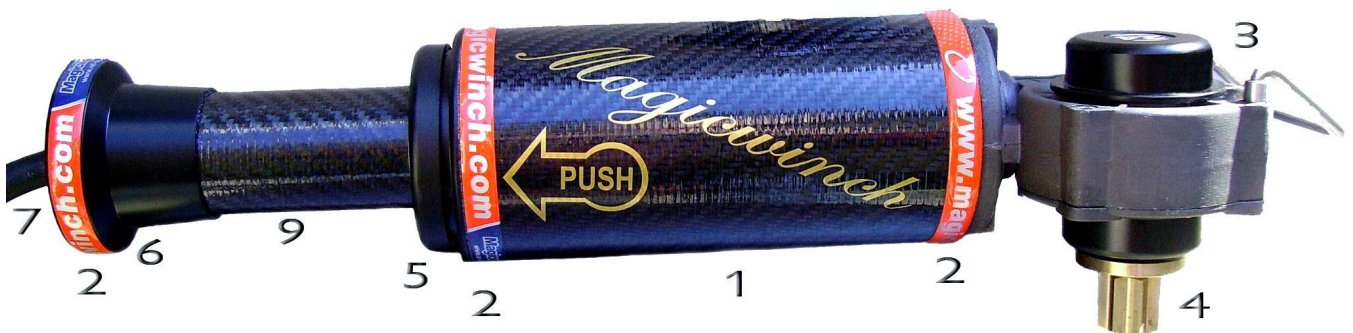


# Magicwinch – Carbon Fiber

*Magicwinch* is the simplest, most modern and effective system for applying the force of an electric motor to any on-board winch.

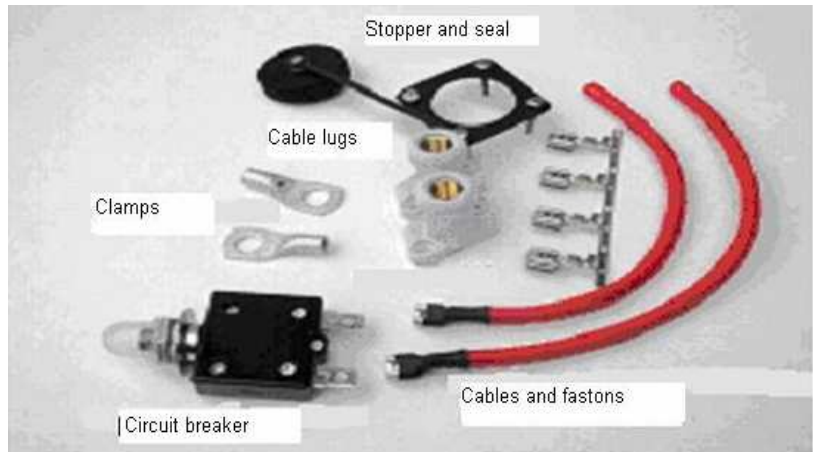
This instrument utilises the latest technology in electric motors, capable of developing incredible force while using a decidedly modest amount of electrical energy.

It is composed of a rigid structure in carbon fiber, with accessories in anodised aluminium and composite materials. The use of these materials guarantees a product which is exceptionally light, robust, practically indestructible, and completely water-proof as well as impervious to fresh or salt water, hydrocarbons such as petrol or gasohol, solvents, thinners, etc.



*Magicwinch* includes:

- 1- A machine body completely in carbon fiber with traverse handle.
- 2 - Support rings and motor head protection in composite materials.
- 3 - Motor head in anodised aluminium with stainless steel gears and protection in composite materials.
- 4 - Transmission block in bronze with stainless steel fastenings,
- 5 - Command ring to start motor and reverse gears.
- 6 - Rear lock and cable support
- 7 - Special cable link (3.6 metres) in neoprene rubber 2 X 4 mm/q. with special male attachment and two pins for attaching to the supplied plug, with silver-plated contact points.
- 8 - Special panel plug with rubber gaskets and female, silver-plated contact points, with 4 metres of pre-assembled cable 2 X 10 mm/q and fuse protection box (40A).
- 9 – Carbon handle



## OPERATION

*Magicwinch* should be positioned directly above the winch, inserting the transmission block (4) into the appropriate housing of a normal winch lever.

The device should be held in one hand (no matter if left or right one) using the traverse handle (9) and supported perpendicular to the winch axis. This position is particularly important to obtain the perfect operation of the device, without vibrations and offering the easiest slide. Incorrect positioning

will cause irregular rotation, with vibrations and jumping. A perfectly perpendicular position is not excessively critical, and significant variations are acceptable. After the first moment of use, it is easy to find the right position. The motor is turned on by pushing the command ring (5) at the points indicated on the adjacent adhesive (push) towards the motor head. Light pressure will start the rotation of the transmission block in one direction or another, at the different speeds of the winch.



## INSTALLATION AND HOOK-UP

*Magicwinch* needs no direct installation. It is necessary to arrange an electric plug (8) for its power supply. The necessary plug, which comes together with the product, is supplied already connected to a 4-metre cable with two 10mm<sup>2</sup> conductors.

Using the supplied cable is extremely important. Should its substitution be necessary, its section must not be smaller than 10 square millimetres. This principally to minimise electric loss which might be greater with 12-volt circuits, and above all to obtain from *Magicwinch* its full capacity. For the same reason, we strongly recommend making all attachments with great care, ensuring that the contact points are perfectly clean and the contact screws properly tightened. The cable features two conductors, brown for the positive battery connection attached to point number 1, and blue for the negative pole, attached to point number 2. Inversions of polarity will not cause any damage, but will not permit this device to operate. The supplied connectors are of a special type, for the necessary current, with mechanical locknut for the union between the male and female plugs. Their contact points are silver-plated to reduce the risk of oxidation. Inside the craft the cables are to be connected directly to the on-board batteries or to their switches, making sure to fuse protection box supplied with the product. The fuse can be inserted onto either the positive or negative cable. Alternatively, the positive, brown cable can also be connected directly to the clamp marked +B on the boat's alternator, or to the positive clamp of the ignition motor. All these connections should of course be made with the batteries temporarily disconnected. The negative, blue wire can be connected to the engine mass, or in any case to any negative connection of the general system. The best connection should use the shortest length of cable possible, and the cable should be cut to measurement.

## TECHNICAL FEATURES

*Magicwinch* has been built to operate with continuous current with a power supply of 12 volts (a 24-volt version is also available). In normal conditions its absorption rate oscillates around 30A, but at its maximum performance can also absorb currents over 35A. The two directions of rotation permit the use of various speeds within normal winch capabilities.

*Magicwinch* can supply the transmission block a couple of about 100 newtons/metre. This means that, when applied to a 40 metre winch, it can obtain from the winch itself a traction force of over 250 kilos. Its use is particularly recommended for all those manoeuvres where, notwithstanding the use of a winch, an extra prolonged effort is required. The most classic examples are of course the winding and unwinding of sails, lifting rubber dinghies or performing rescue operations at sea; particularly useful for lifting a man to the masthead; useful to guarantee the performance of more difficult manoeuvres on board.

### **REL nautica**

Via Buonarroti 2

34170 Gorizia

Tel. 0481 537975

Fax 0481 538180

E-mail: [info@rel-italy.com](mailto:info@rel-italy.com)

<b>Power</b>	12 V o ( 24 V )
<b>Nom. Current</b>	30 A o ( 16 A )
<b>PowerMax.</b>	500 Watt
<b>Speed</b>	80 giri / minuto
<b>Max Cpl</b>	100 N/m
<b>Weight</b>	Kg 3,60
<b>Size</b>	ø 85 L 450 mm