



RAZOR

**LET RAZOR DO
THE HARD WORK.**

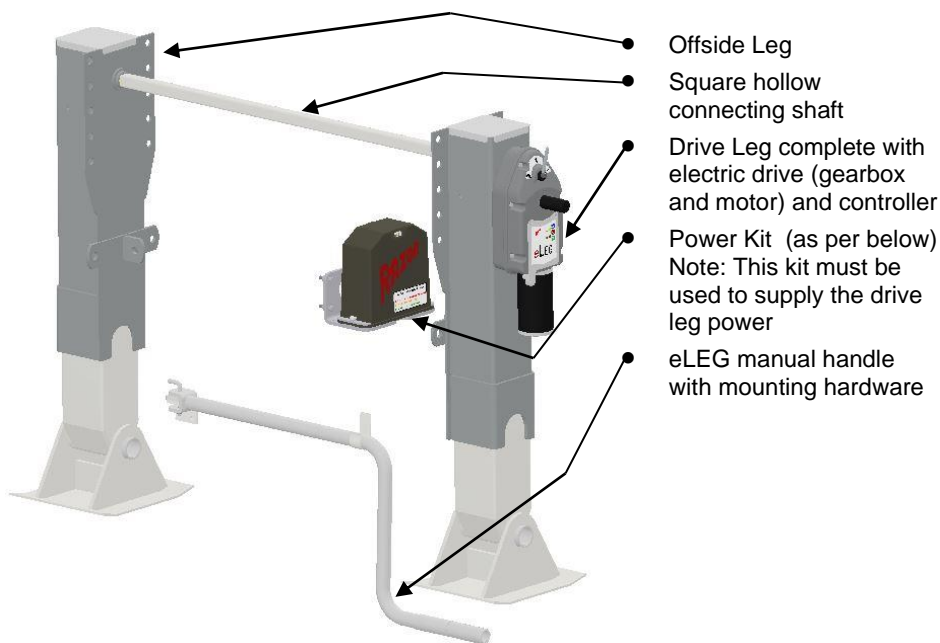
eLEG Owners Manual



Supply Voltage	9 to 30 Volt DC
Lift Capacity	25 Tonnes (60,000lb)
Leg Speed	34cm/min (13.5"/min) on high gear
eLEG Kit Weight	135~145Kg (dependant of foot Configuration)
Environmental	Fully weather & waterproof
Temperature	-30 °C to 60°C (-22 °F to 140 °F) (reduced performance at extremes)

eLEG Installation Instructions

PARTS LIST FOR eLEG



POWER KIT, consisting of:

- Battery (12volt)
- Battery Bracket
- Battery Strap
- Charger (12 volt @ 2 amps)
- Battery Cover
- Battery Harness with 30 amp fuse (not shown)
- Charge Harness(not shown)
- 2 x M8 Clamp bolts, Spring washers and plates
- 4 x M8 Bolt, Spring, Flat Washers & Nuts
- Rubber Pad(not shown)


POWER KIT - ALTERNATIVE

- Extension Harness

CAUTION: DO NOT WELD TO TRAILER WITHOUT DISCONNECTION NEGATIVE.

- Read the entire instructions through prior to starting the installation to ensure you have all the tools and equipment necessary to carry out the work.
- Unpack the **eLEG** parts and power kit and check components.

eLEG Installation Instructions

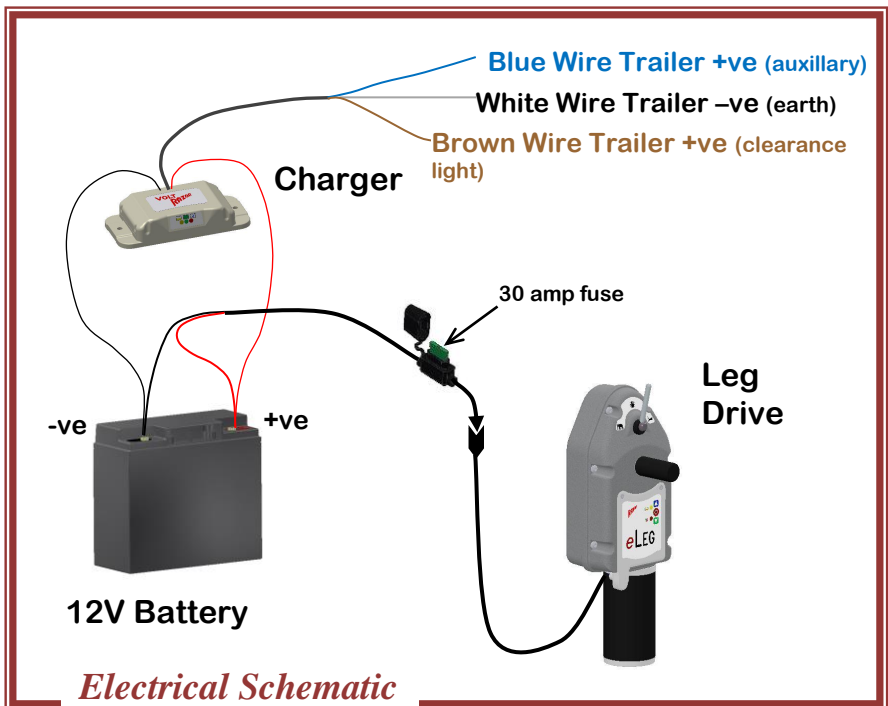
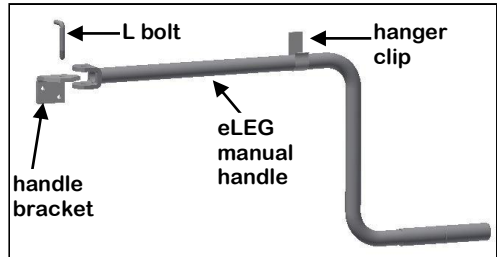
1. Mount the landing legs as per normal landing leg fitment, ensuring to cut the square hollow shaft to the correct length and fitted between the legs so that the offside leg is driven from the drive leg. The correct length must ensure that no lateral pressure is applied to the drive shafts of the geared and slave leg in the fully installed position(no bolts required)
2. Locate a solid point on the trailer chassis to mount the power kit, taking due note of the size required for the battery (approximately 24cm wide, 21cm high and 13cm deep (9 1/2" x 8 1/4 " x 5"). It must also be mounted in close proximity to the drive leg as it will need to be connected to via the harness supplied. The battery should be mounted in the orientation shown.
3. Using the supplied Template supplied to mark hole locations is the trailer chassis. (21cm x 6.5cm hole centres, 8.25" x 2.5")
Drill 4 off 9mm (3/8") diameter holes.

4. Bolt the battery bracket to the trailer chassis with the bolts supplied, ensuring to fit the spring washers.
5. The charge harness now needs to be connected to a power source on the trailer. (9 to 30 Volts DC). There are three wires available to be connected to keep the **eLEG** battery charged. The negative or common is **white** and must be connected to the trailer negative, there is a blue and brown wire available that can be connected to a power source on the trailer. Typically the **brown** can be connected to the running or clearance lights the **blue** wire could be connected to either an auxiliary or even the stop lights on the trailer. You only need one but two is an advantage. Refer to the wiring schematic shown. Ensure the electrical connections to the trailer harness are robust and sealed.

Note: Make sure a proper earth is established between battery negative and the trailer electrical circuit. (Experience has shown that electrical problems caused by bad earth or low trailer voltage is responsible for most problems associated with the installation of the **eLEG**. This affects the ability to keep the battery charged. A test of the charge circuit is to connect the **blue** (or **brown**) charge wire to the battery positive; a solid **yellow LED** light indicates charger is operating as it should)

6. Then connect the drive unit to the battery harness via the harness supplied. Secure and protect the wiring as appropriate to minimise damage

7. Finally, locate a solid point on the trailer chassis to mount the eLEG manual handle with hardware. Drill two off 9mm (3/8") diameter holes using the bracket as a template and bolt the handle bracket to the trailer chassis.

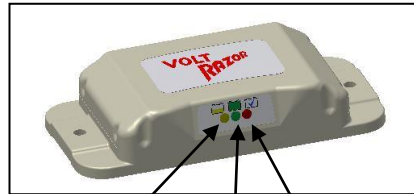
Then lock manual handle with L bolt and clip into the hanger clip.



eLEG Operating Instructions

Installed correctly your eLEG will give you years of trouble free service. The electric drive and its associated battery are sealed maintenance free items.

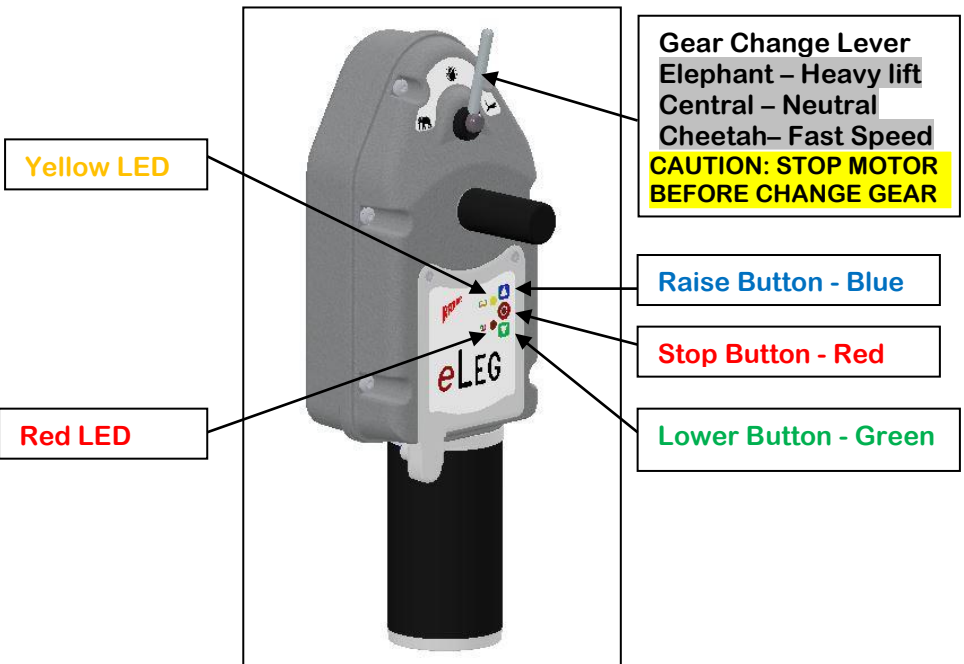
Your **eLEG** comes with a battery charger. It is located inside the battery cover. It will charge your battery to the correct voltage if connected to the trailer electrics as described above. This is vital for the longevity of the battery and to ensure the **eLEG** landing legs function correctly



Yellow LED

Green LED

Red LED






CHARGER

The battery charger has three LED lights. For indication of the condition of the battery and of power supply from the trailer their functions is as per the table below:

Red LED	This indicates that supply is connected
Yellow LED	This indicates that the battery is charging.
Green LED	This indicates that the battery is fully charged

CONTROLLER

To operate the legs you must first initiate (or wake up) the controller. This is required to prevent the inadvertent or accidental operation of the legs which could lead to hazardous and even dangerous situations.

You should also select the gear position you require. The high speed gear, *which is indicated by a *, is generally used to get the legs to the ground fast and also return them to their home position (fully up) once they have cleared the ground. The high load gear, *which is indicated by a *, is generally used to lift a loaded trailer once the legs are on the ground. The neutral position, *indicated by a *, is only used if there is a problem and it allows you to still manually wind the leg. (refer below)

To initiate the controller press and hold the **Stop button** for 2 seconds. The **Red LED** and **Yellow LED** will flash twice to acknowledge the controller has been activated. It is noted that if the gear selection is in neutral you cannot initiated the unit and you will get four **Red LED** flashes to indicate this condition. First change the gear selection away from the neutral position

You may now operate in the legs in either direction by pressing the **down (green) button** or the **up (blue) button**.

The legs will continue to travel in the direction selected until the preset load condition is met. If the legs are travelling down in high speed this will be when the legs first hit the ground, if they are going up it will be when the legs reach the end of their travel and are fully home. (Note: The Maximum run time is 2 minutes)


The gear selection lever is simple operated by rotating it by hand either to the left or right. If the legs are operating and the gear selector is changed it will stop the motor and the **Red LED** will illuminate while in the neutral position. The drive can be restarted once either high load or high speed is selected.

The Controller has two LED lights for indication of the operation and the battery condition their functions is as per the table below:

Red LED	One Flash	<p>A button activation is acknowledged by one flash. Note: this is only once the controller is initiated as elsewhere described.</p> <p>One flash also indicates that the pre-set maximum increase in load has been exceeded and the motor has been stopped.</p> <p>It will flash once again if the button is pressed for the same direction indicating this is an inhibited operation.</p>
	Two Flashes	<p>Indicates that the pre-set maximum load has been reached and the motor has been stopped</p> <p>It will flash twice again if the button is pressed for the same direction indicating this is an inhibited operation.</p>
	Three Flashes	<p>This indicates a locked mechanical condition such as gear failure or motor failure (Check motor and gearbox)</p>
	Four Flashes	<p>An over temperature condition has been reached. Allow time to cool down before operating again.</p>
	Continuous	<p>Indicates that the gear lever is in the neutral position and you cannot operate the eLEG in that condition. You must change the lever to a gear setting before you can operate the eLEG.</p> <p>Note: this will only occur once the controller is initiated.</p>
Yellow LED	Five Flashes	<p>This indicates that the battery is low and requires to be charged.</p> <p>Note: this will only flash once the controller is initiated.</p>
Red LED & Yellow LED	Two Flashes	<p>Both LED's will flash twice upon controller initiation. Refer operation instructions</p>

Manual Operation.

In the event that there is a problem and the drive will not operate. You can still operate the legs manually.

To do this first remove the plastic protective sleeve from the drive shaft that protrudes out from the gearbox (shown below). Put the gear selector in the neutral  position. This will disengage the motor from the legs. Attach the eLEG manual handle supplied to the shaft(locked with 10mm L bolt) and wind as per a normal manual set of landing legs.(Refer page 4 for detailed parts breakdown).

eLEG Service

The eLEG power drive gearbox is designed to be maintenance free. There is no serviceable parts. The gearbox is a sealed pre-lubricated unit, as is the battery, the charger and controller.

Should any of the components have an issue, the drive system has been designed to be modular so that each component can be readily replaced in minutes. These components are the battery and its associated charger, the electric motor and the electronic controller. Please refer to the illustration below for change out of each component.

CAUTION: DO NOT ATTEMPT TO REMOVE BEFORE FIRST DISCONNECTING BATTERY POWER

