



ELECTROSTART® BATTERYLESS POWERSTART

1600A 12V

MODEL NO: E/START1600.V2

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instruction manual



Wear eye protection



Wear protective gloves



Keep away from rain



Use in well ventilated areas



Keep sources of ignition away from vehicle battery: risk of explosion

1. SAFETY

Modern vehicles contain extensive electronic systems.

You are required to check with the vehicle manufacturer, for any specific instructions regarding the use of this type of equipment on each vehicle. No liability will be accepted for damage/injury, where this product is not used in accordance with all instructions.

- ✓ Ensure that the vehicle is in a well ventilated area.
 - ✓ Apply the handbrake and select neutral or 'park' before attempting to start.
 - ✓ Ensure that the ignition switch and all ancillary electrical equipment is switched off.
 - ✓ Keep clear of any pulleys, belts etc. that will move once the engine starts.
 - ✓ Take care to ensure correct connection polarity; red clamp to positive, black clamp to negative.
 - ✓ Energise the E/START1600.V2 only at ambient temperatures between -30°C and 40°C.
 - ✓ When not in use, switch off and store in a cool, dry place out of the reach of children.
 - ✗ **DO NOT** allow this power pack to become wet.
 - ✗ **DO NOT** dismantle this E/START1600.V2, there are no user serviceable parts inside.
 - ✗ **DO NOT** use in explosive atmospheres (e.g. the presence of flammable liquids, gases or dust).
 - ✗ **DO NOT** use the E/START1600.V2 if it appears damaged in any way.
 - ✗ **DO NOT** leave in direct sunlight or expose to heat.
 - ✗ **DO NOT** use abrasive or solvent cleaners on this product.
 - ✗ **DO NOT** allow children to play with this product
- 1.1. **CHARGING SAFETY INSTRUCTIONS**
- ✓ Familiarise yourself with the application and limitations of the charger as well as the potential hazards. Also refer to the vehicle manufacturer's hand book.
 - ✓ Ensure the charger is in good condition before use. If in any doubt do not use the unit, contact your Sealey stockist.
 - ✓ Ensure that the starter/charger is placed on a stable surface which will adequately support its weight.
 - ✓ Keep tools and other items away from the engine and ensure you can see the battery and working parts of engine clearly.
 - ✓ Ensure the output of the charger is the same voltage as the battery.
 - ✓ Ensure that, during charging, the charger is placed in a location where there is sufficient ventilation to prevent the build up of explosive gases from the vehicle's lead acid battery.
 - ✓ If battery has caps to access the battery fluid, remove the caps and check the fluid level. Replace caps before connecting the power clamps.
 - ✓ If necessary top-up the battery with distilled water by referring to the battery manufacturer's instructions. If the charger receives a sharp knock the unit must be checked by a qualified service agent before using.
 - ✓ If the battery terminals are corroded or dirty, clean them before attaching the power clamps.
 - ✓ Keep children and unauthorised persons away from the working area.
 - ✗ **DO NOT** try to charge a non-rechargeable battery.
 - ✗ **DO NOT** try to charge battery if battery fluid is frozen.
 - ✗ **DO NOT** allow power clamps to make contact with any metallic part of the vehicle.
 - ✗ **DO NOT** cross connect power leads from charger to battery. Ensure positive (+/RED) is to positive and negative (-/BLACK) is to negative.
 - ✗ **DO NOT** pull the cables or clamps from the battery terminals.
 - ✗ **DO NOT** use the charger in wet locations and **DO NOT** operate within the vicinity of flammable liquids or gases.
 - ✗ **DO NOT** use the charger for a task for which it is not designed.
 - ☐ **WARNING! DO NOT** simultaneously charge batteries of different capacities or discharge levels.
 - ☐ **WARNING!** If a fuse blows, ensure it is replaced with an identical fuse type and rating. Use only Sealey genuine parts.

2. INTRODUCTION

Vehicle jump starting made easy with innovative patented technology. Unlike traditional boosters, it has no internal batteries, as it uses ultracapacitors to maximise the discharged battery's voltage. Simply connect to the vehicle's battery, even if discharged, and the unit will draw enough power to energise itself in a matter of minutes. Power can then be pushed safely back through the starting system to jump start the vehicle. If the vehicle's battery is faulty or holding less than 5 volts, the ElectroStart® range can be pre-charged via another vehicle's battery or the 12V accessory lead* (excludes Model No. E/START1224). The digital display indicates battery voltage, capacitor charge and faults. Safely store the unit without the need for battery maintenance, and no delay waiting for a battery to charge, the device is ready for use within minutes. Can also be used as a 0.8A battery maintainer using a USB charging cable or a 2A battery charger with the addition of Model No. E/START2A Charging Adaptor. Compact and lightweight for easier handling and storage, yet still delivers the same result as heavy, bulky, lead acid battery equivalents. Ideal for both professional mechanics and DIY users.

3. SPECIFICATION

Model No:.....	E/START1600.V2
Output:	12V
Output start Peak(EN):.....	1600A(800A)
Maximum Starting Capacity:.....	Petrol: 6ltr, Diesel: 4ltr
Weight:	2.3kg
Accessory.....	E/START2A Digital ElectroStart® Smart Charger Adaptor 15V 2A

4. CONTROL PANEL

fig:		
1		Vehicle battery voltage
2		Capacitor charging percentage
3		As long as ignition sign appears, it's ready for start
4		GLOW mode is activated
5		Charger mode, displaying charging current
6		Charger mode, displaying charging voltage
7		Red backlight Error: Battery is too low to recharge the booster
8		Red backlight Error: Reverse polarity
9		Red backlight Error: Internal failure, do not use



fig.10

5. OPERATION

5.1. DUTY CYCLE

After 5 starts let the unit rest for 15 minutes.

5.2. PREPARATION

Turn off headlights, air conditioning, heated screens, audio etc.

5.3. BUZZER

5.3.1. Intermittent buzzing indicates the E/START is ready to start vehicles.

5.3.2. Continuous buzzing means there is an error.

5.4. STANDARD MODE

In most situations a weak battery on the vehicle can fully recharge the E/START.

Connect clamps to the battery terminals, E/START will turn on automatically and the display will show the voltage of the vehicle's battery, see fig.1.

5.4.1. Press ON/OFF and the E/START starts to recharge itself. The display shows the E/START's percentage, see fig.2.

5.4.2. After the ignition sign appears, see fig.3, turn on the engine.
When the engine fires, remove the E/START as soon as possible.

5.5. BYPASS MODE

5.5.1. In some situations the E/START may fail to start the car because the vehicle's battery is too weak. Press ON/OFF for a few seconds to activate BYPASS MODE.

5.5.2. After the ignition sign, fig.3 appears, turn on the engine as soon as possible.

5.6. PRE-CHARGE MODE

5.6.1. If the battery is too weak to charge the E/START, fig.7 will appear.

5.6.2. Connect the E/START to a good battery until the unit is fully charged, then remove.

5.6.3. Connect the E/START to the weak battery, the display shows the voltage in that battery.

5.6.4. Press the ON/OFF switch to activate. Fig.3 is now displayed.

5.6.5. Turn the engine on.

5.6.6. Remove the unit as soon as the engine fires.

5.7. ALTERNATIVE CHARGING METHODS

In addition to using a 12V battery, as in 5.6.2., three additional charging methods may be used:

- 1) The E/START2A Digital ElectroStart® Smart Charger Adaptor 15V 2A.(not supplied, available as an accessory).
- 2) A 5V USB lead (not supplied).
- 3) A 12V pin jack lead from a vehicle accessory socket (supplied).

The USB and pin jack sockets are located under a rubber flap in the base of the E/START unit.

5.8. OVERRIDE MODE

5.8.1. If the pre-charge mode fails, use the override mode.

5.8.2. Charge the E/START as in 5.6.2./5.7.

5.8.3. Connect E/START to the vehicle with the battery lead disconnected from the battery, POSITIVE E/START lead connected to VEHICLE BATTERY POSITIVE lead, see fig.11.

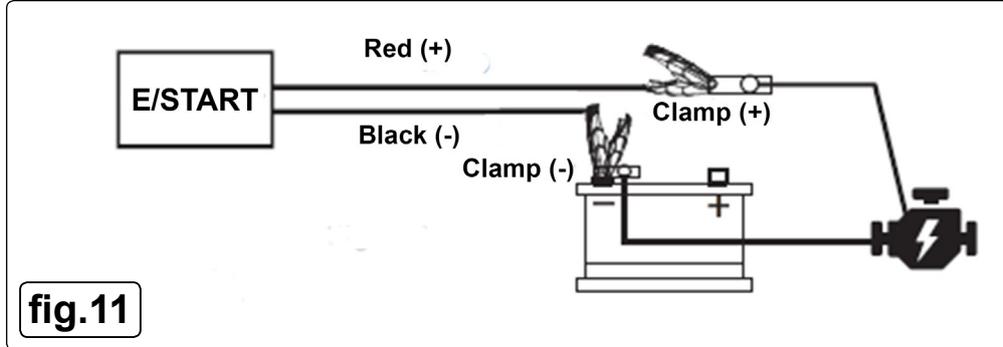


fig.11

5.8.4. Press the ON/OFF for a few seconds to activate OVERRIDE MODE.

5.8.5. Turn on the engine.

5.8.6. Put the POSITIVE E/START LEAD and VEHICLE BATTERY POSITIVE onto the BATTERY POSITIVE TERMINAL. Remove the E/START's POSITIVE lead after it is fastened to the battery terminal, see fig.12.

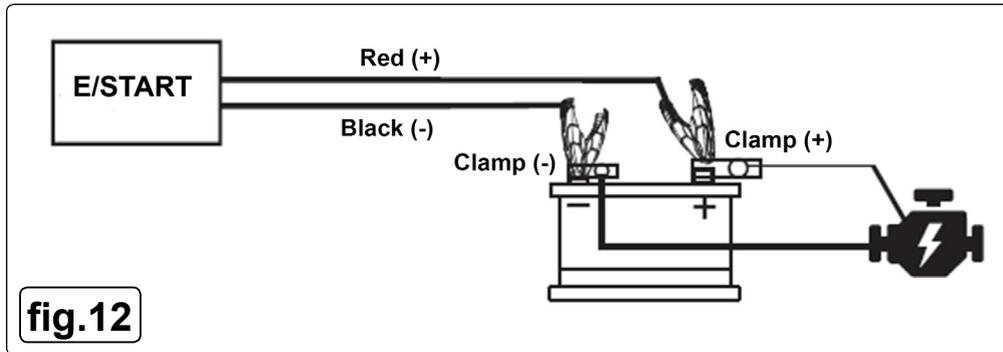


fig.12

❑ **WARNING: DO NOT** leave the engine running without the E/START or battery being connected securely.

❑ **WARNING:** Make sure that the terminals are not cross connected: **there is no cross connection protection in the override mode.**

5.9. GLOW MODE (Only use if the glow plug symbol appears on the vehicle instrument panel).

5.9.1. In cold weather the glow plugs in most diesel vehicles will be first energised to heat up the engine before it is started, as indicated by a symbol on the instrument panel.

5.9.2. If this is the case, after the E/START is fully recharged and connected to the vehicle, press GLOW button and turn on the ignition.

5.9.3. When the glow light on dashboard goes out, start the vehicle.

NOTE: GLOW is deactivated in OVERRIDE mode (5.8 above).

5.10. BATTERY CHARGE MODE

5.10.1. Connecting a 5V USB supply to the micro USB socket will provide a 12V 0.8A output.

5.10.1.1. Connect the E/START as in fig.13 and press the charger button (fig.10) to commence charging or maintaining battery voltage.

5.10.1.2. Whilst in the charger mode, the display will alternate between charging current (fig.5) and charging voltage (fig.6).

5.10.1.3. Disconnect from the battery and power supply when charging is complete, unless being used as battery maintainer.

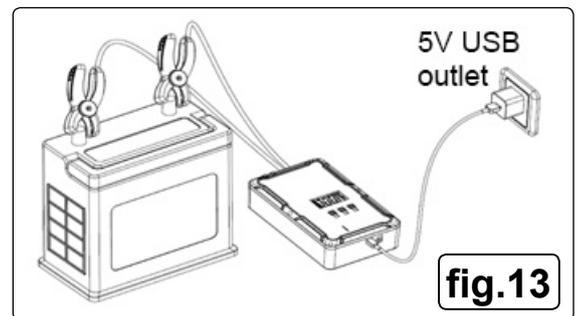


fig.13

5.10.2. Connecting the optional 15V charger (E/Start2A) will provide a 12V 2A output.

5.10.2.1. Connect the E/START as in fig.14 and press the charger button (fig.10) to commence charging.

5.10.2.2. Whilst in the charger mode, the display will alternate between charging current (fig.5) and charging voltage (fig.6).

5.10.2.3. Disconnect from the battery and power supply when charging is complete.

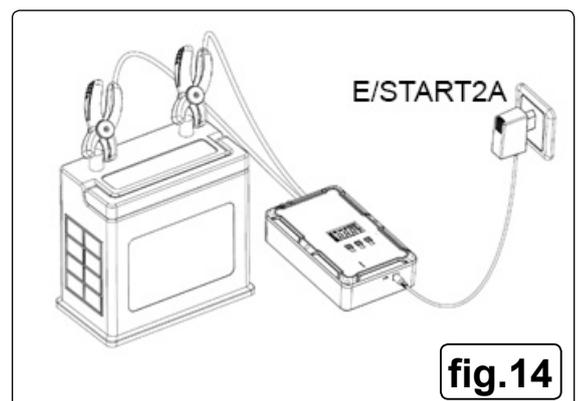


fig.14



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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