E1003 20AMP BATTERY CHARGER 12V – 24V

12V – 24V BATTERY CHARGER 20AMP
Charge a 24V Battery from a 12V Battery System
HIGH SPECIFICATION
MANUFACTURED IN THE UK



FRONT VIEW



REAR VIEW

- **PART NO: E1003**
- **TYPE: SWITCH MODE STEP UP BATTERY CHARGER**
- **CHARGING CURRENT: 20 AMP**
- **INPUT VOLTAGE: 11 – 15V DC**
- **OUTPUT VOLTAGE: 28V DC**
- **OVERLOAD PROTECTION: EXTERNAL FUSE**
- **POLARITY PROTECTED: EXTERNAL FUSE**
- **HIGH TEMP PROTECTED: YES**
- **SHORT CIRCUIT PROTECTION: EXTERNAL FUSE**
- **EFFICIENCY: > 85%**
- **DIMENSIONS: 215mm X 100mm X 75mm**
- **FIXING CENTRES: 70mm X 200mm (4 HOLE FIXING)**
- **HOLE SIZE: 5.5mm**
- **WEIGHT: 1150g**
- **CONSTRUCTION: ANODISED COOLING PROFILE (TWIN)**

MODELS ALSO AVAILABLE: 10AMP / 30AMP / 40AMP / 50AMP / 60AMP / 70AMP / 80AMP

OEM AND TRADE ENQUIRIES WELCOME

WHY NOT VISIT OUR WEBSITES TO VIEW THE OTHER PRODUCTS WE MANUFACTURE:

http://www.battery-management-voltage-converter.com
This site covers our:

- **Battery Management Systems**
- **Split Charge Controllers**
- **DC-DC Battery Chargers**
- **DC-DC Voltage Converters**
- **Trailer Voltage Converters**
- **Battery Status Indicators**
- **Voltage Sensitive Switches.**

http://www.eurogroup-gb.com
This site covers our Range of:

- **Water Level Monitors**
- **Water Level Probes**
- **Temperature Monitors**
- **Temperature Probes**
- **Air Conditioning Fan Control Units**
- **Vehicle Flashers and Interrupters**
- **Light Control Units**
- **Oil Level Monitors**
- **Oil Level Probes**
- **Hydraulic Control Units**
- **Audible Warning Devices**
- **Reversing Alarms**
- **Timers**
- **Vehicle Safety and Security Units**
- **Digital Speed Switches**
- **Solenoid Controllers**
- **Relays, Connectors, Lamps, Switches**
- **Earth Straps**
- **Looms and Wiring Harnesses**
- **Transformer and Coil Winding**
- **Mechanical Assembly**
- **Special Purpose Electrical / Electronic Assembly**
- **Encapsulation and Formal Coating**
- **Vacuum Formed Parts**
- **Printed Circuit Board Assembly**

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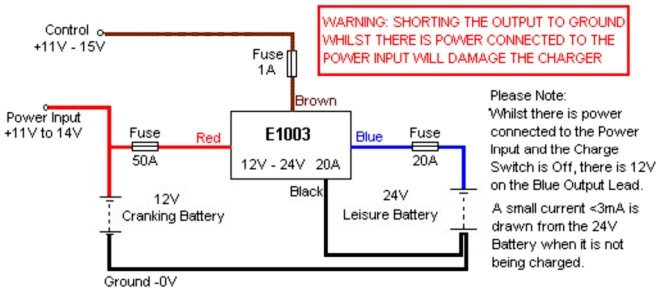
BEFORE INSTALLATION YOU NEED TO PURCHASE:
1 X 50A AUTOMOTIVE BLADE FUSE
1 X 20A AUTOMOTIVE BLADE FUSE
1 X 1A AUTOMOTIVE BLADE FUSE (COLOUR: BLACK)
3 X INLINE FUSE HOLDER (TO TAKE BLADE FUSES)

RECOMMENDED MINIMUM CABLES SIZES:
INPUT (RED): 10mm² CONDUCTOR CROSS SECTION (80/0.4mm)
OUTPUT (BLUE): 10mm² CONDUCTOR CROSS SECTION (80/0.4mm)
GROUND (BLACK): 10mm² CONDUCTOR CROSS SECTION (80/0.4mm)

The Charger starts when the voltage reaches >10V.
This Battery Charger allows you to charge a 24V Battery from a 12V Battery System.

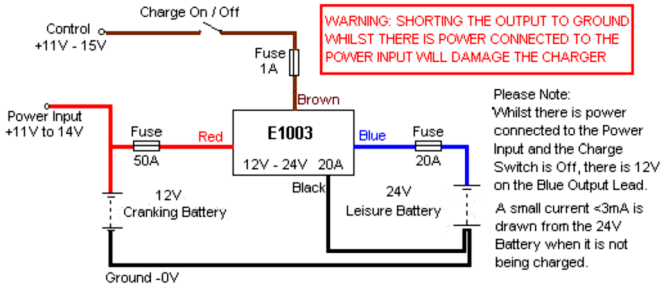
The Battery Charger can be wired in 3 ways:

Wired as a fully automatic Charger
The Brown Control Wire connection is wired directly to the +ve Connection of the 12V Cranking (Donor) Battery to run the Charger all the time.
The Unit automatically controls the maximum charge into the 24V Leisure (Recipient) Battery preventing it from becoming over-charged / damaged



Wired to only operate when the engine is running
The Brown Control Wire connection is wired to any +ve connection which becomes live when the Ignition is switched on. The Unit automatically controls the maximum charge into the 24V Leisure (Recipient) Battery preventing it from becoming over-charged / damaged.

Wired as a manually operated Charger
The Brown Control Wire connection is wired via a Switch to the +ve Connection of the 12V Cranking (Donor) Battery to switch the Charger on and off manually.
In this case the Operator can control when the Battery Charger is switched on or off.
If left on, the Unit will automatically control the maximum charge into the 24V Leisure (Recipient) Battery preventing it from becoming over-charged / damaged.



INSTALLATION INSTRUCTIONS:

1. **CONNECT THE BLUE LEAD CONNECTION TO THE +VE CONNECTION OF THE 24V LEISURE / AUXILIARY BATTERY (FITTING 1 X INLINE FUSE HOLDER WITH 20A BLADE FUSE BETWEEN THE 24V BATTERY AND THE BATTERY CHARGER AS SHOWN ON WIRING DIAGRAM SUPPLIED WITH UNIT)**

2. **CONNECT A BLACK LEAD FROM THE –VE CONNECTION OF THE 12V CRANKING / DONOR BATTERY TO THE –VE CONNECTION OF THE 24V LEISURE / AUXILIARY BATTERY (COMMON NEGATIVE)**

3. **CONNECT A BLACK LEAD FROM THE BLACK CONNECTION ON THE BATTERY CHARGER TO THE -VE CONNECTION OF THE 24V LEISURE / AUXILIARY BATTERY**

4. **CONNECT THE RED LEAD CONNECTION TO THE +VE CONNECTION OF THE 12V CRANKING BATTERY (FITTING 1 X INLINE FUSE HOLDER WITH 50A BLADE FUSE BETWEEN THE 12V BATTERY AND THE BATTERY CHARGER AS SHOWN ON WIRING DIAGRAM SUPPLIED WITH UNIT)**

5. **THE BROWN CONTROL LEAD CONNECTION GIVES YOU THE OPTION TO SWITCH THE BATTERY CHARGER ON AND OFF USING A STANDARD LOW CURRENT SWITCH.**

6. **ALTERNATIVELY YOU CAN CONNECT THE BROWN LEAD CONNECTION DIRECTLY TO THE POSITIVE INPUT, IE: THE +VE CONNECTION ON THE 12V BATTERY (FITTING 1 X INLINE FUSE HOLDER WITH 1A BLADE FUSE BETWEEN THE 12V BATTERY AND THE BATTERY CHARGER AS SHOWN ON WIRING DIAGRAM SUPPLIED WITH UNIT) WHICH WILL ENABLE YOU TO RUN THE BATTERY CHARGER ALL THE TIME.**

7. **ALTERNATIVELY YOU CAN CONNECT THE BROWN LEAD CONNECTION DIRECTLY TO ANY +VE CONNECTION WHICH BECOMES LIVE WHEN THE IGNITION IS SWITCHED ON (FITTING 1 X INLINE FUSE HOLDER WITH 1A BLADE FUSE BETWEEN THE +VE 12V CONNECTION AND THE BATTERY CHARGER AS SHOWN ON WIRING DIAGRAM SUPPLIED WITH UNIT) WHICH WILL ENABLE YOU TO RUN THE BATTERY CHARGER ONLY WHEN THE ENGINE IS RUNNING**

IF IN DOUBT, PLEASE CONSULT AN AUTOMOTIVE ELECTRICIAN OR TELEPHONE US ON 01939 235073