

The BTDC40 is able to utilize up to 80A charging to the auxiliary battery using our new boost mode (*Kit Sold Separately*) and 40A when wired with a standard configuration. This is all still achieved in the same extremely compact package (373cm³) while still boasting all the features of a booster battery charger in a weather, dust and vibration resistant package.

Features Include:

- 3-Stage 12V Booster Battery Charger
- Output Current : 80A Max with optional kit. 40A Max standard wiring.
- Selectable output voltages for Lithium, Sealed Lead Acid or Vented Lead Acid
- Over Current and Temperature protections for extra product reliability.
- High Efficiency : Typical >96%
- Precise under voltage protection : No need for external isolator.
- Remote LED indication for battery charge status.
- Very low standby current: <3mA
- Optional Start Assist and Boost Charge features.



TECHNICAL SPECS - BTDBM	
Input voltage	5v to 17v
Current draw	35mA running - 0.4mA standby
Accuracy	50mV
Dimensions	L X W X H 59mm x 44mm x 21mm
Connections	1.5M 4-Core Cable

Optional Boost/Start Assist Kit - BTDC40KIT
This feature provides you with up to 80A charging under certain conditions.

www.baintech.com.au

**DESIGN YOUR OFF-GRID SYSTEM
ADD THE BAINTECH POWERTOP + SOLAR BLANKET**

By combining your new **40A DC-DC** charger with the **135ah AGM Baintech PowerTop** and **Baintech Solar Blanket**, you have an ultimate off-grid system. Solar will keep you topped up at camp via the PowerTop's solar charging input, and your DC-DC will keep the PowerTop running the essentials such as your fridge while you're on the move.

Find the wiring guide here: www.baintech.com.au/dcdcwiring



BTPTOP135V3
PowerTop v3



BTBLANKET120
120w Solar Blanket



Next Generation DC to DC Booster Battery Charger

12VDC to 12VDC 40A

Operating Instructions

Please read these instructions before use

Operational Parameters

Maximum Charge Current (with Boost Kit)	80 Amps
Maximum Charge Current (Standard Wiring)	40 Amps
Input Operating Voltage Range	11VDC to 16VDC
Maximum Charge Voltage for Flooded Cell	14.5V
Maximum Charge Voltage for Lithium	14.8V
Maximum Charge Voltage for AGM/GEL	14.3V
Float Voltage	13.5V
Lithium Maintenance Charge	13.9V
Stand by Current	0.003A
Minimum Input Startup Voltage	12V
Maximum Operating Temperature	70°C
Dimensions	162mm x 71.5mm x 32.2mm

Important Notes:

- Before installation the user shall determine the suitability of the product to ensure correct application.
- Check with your battery manufacturer for the suitability of the charger for your installation.
- Where Lithium battery banks are involved ensure your BMS system is compatible with our charger.
- A large spark can sometimes be generated during connection, due to the current required to charge the capacitors in the charger.
- Do not short output when enabled and operational as this may cause damage to the unit.
- Yellow wire must only be used with optional solenoid otherwise it should be left unconnected and isolated.

Installation:

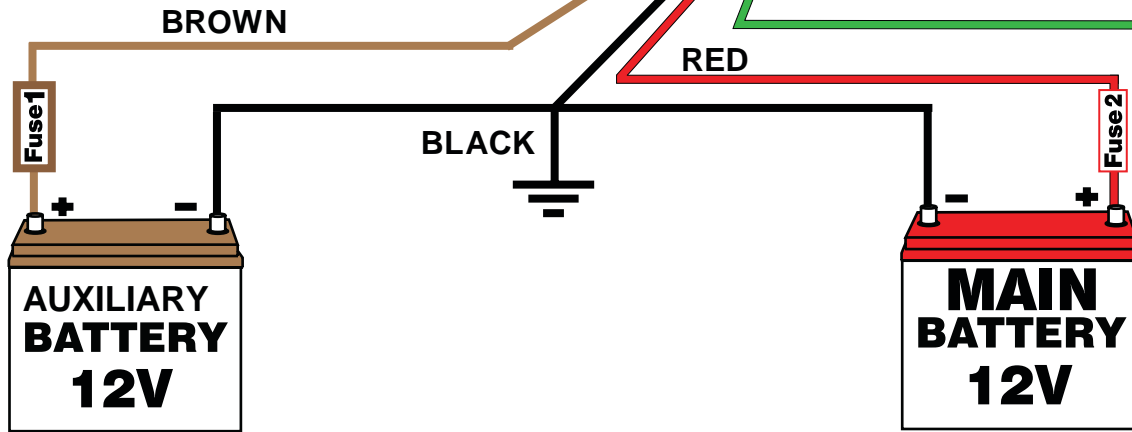
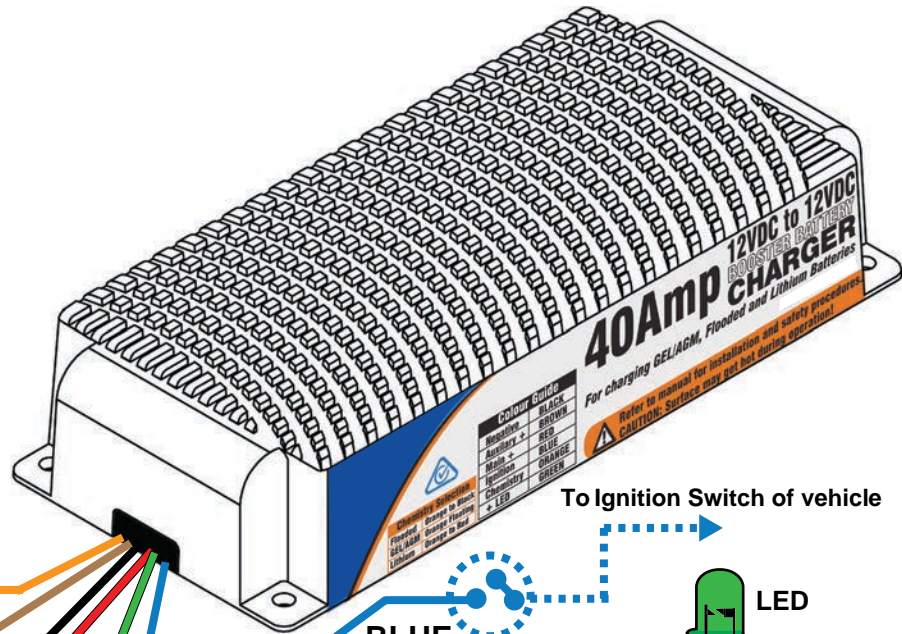
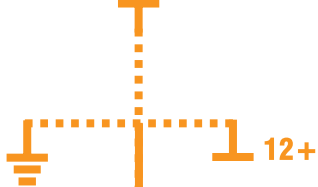
1. Disconnect the battery supply.
2. The following connection sequence is to be followed: Ground (BLACK), Input (RED), Output (BROWN), LED (GREEN), Chemistry/Output Selection (ORANGE), Control (BLUE).
3. The unit is protected from weather and dust but do not pressure wash or mount to areas that will be submerged. Avoid locations such as fuel lines or where external heat is produced e.g. exhaust system or where the batteries are located.
4. Chose a position with good ventilation where air can pass freely around the unit.
5. Ensure the unit is protected from sources of contamination e.g. oil, grease and dust.
6. Ensure that the unit is installed away from any flammable fumes, liquids or materials.
7. If optional solenoid is used we recommend mounting it close to the charger as per wiring diagram.

Wiring Diagram : Standard installation - No Start Assist. Max 40A Output

Chemistry Selection





To Ground	Flooded Cell
To 12V+	Lithium
Floating	AGM/GEL

Floating/ No Connection



Fuse Ratings	
Fuse 1	50A
Fuse 2	50A

LED Indications :

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ON / Solid - Normal Operation
 During normal operation the Remote LED will remain solid ON as a indication of normal charging.
- 
Slow Flashing - Auxiliary Below 12VDC
 A slow flashing LED is a visual indication that the Auxiliary Battery is below 12V.
- 
OFF - No Output / Check
 If the LED is completely blank it is indicative of No Output from the unit.
 This can be from several conditions:
 - That the ignition has been turned off and the BLUE ignition wire is at 0V.
 - Fuse2 may be blown - Check Fuse2 and replace if required.
 - Over Temperature - No action required. NGBC will restart when temperature drops within normal operating range.
- 
Fast Flashing - Following a failed cranking - Start Assist Activated - Check Main
 If occurs outside of cranking during normal operating - Return unit for recalibration.

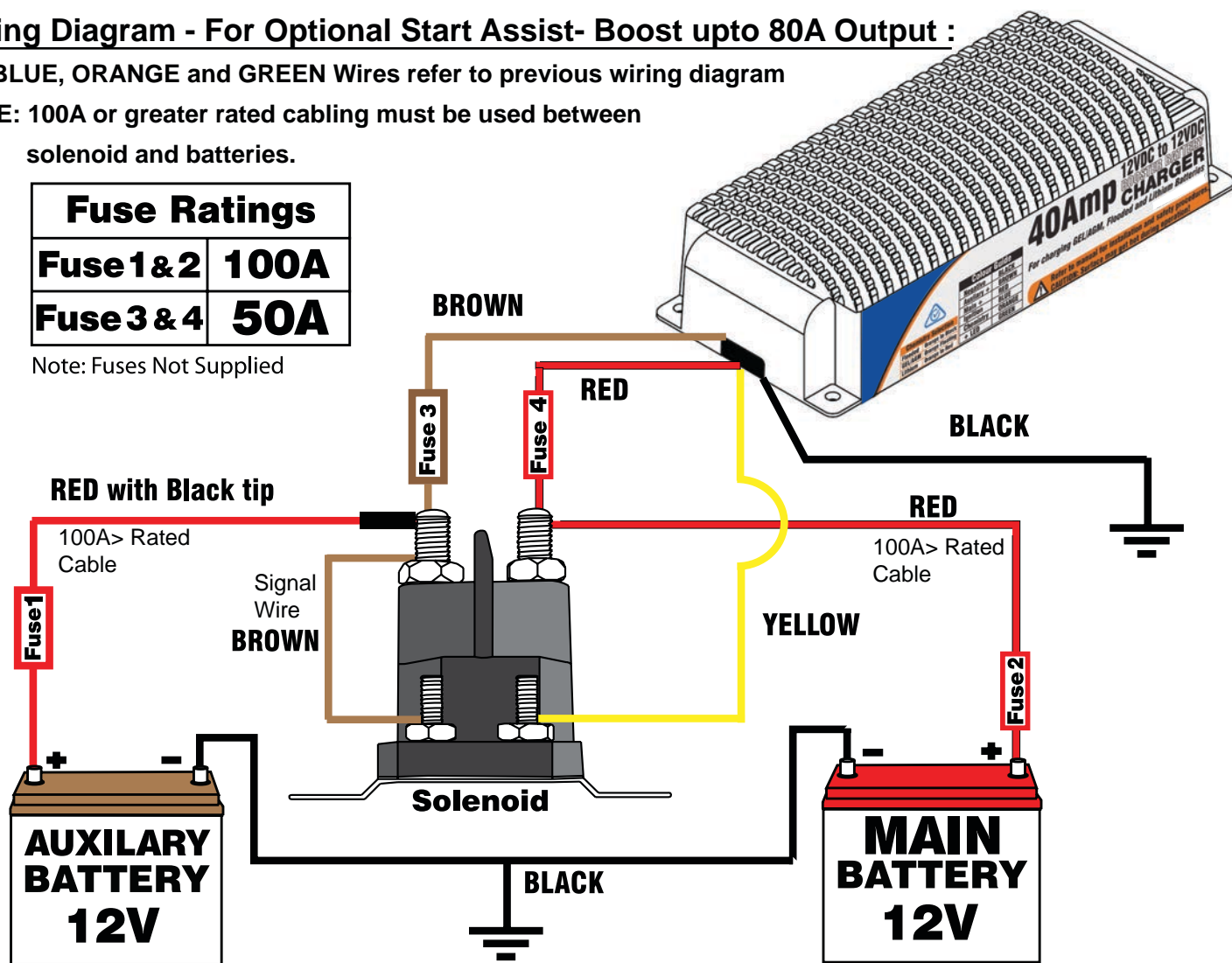
Wiring Diagram - For Optional Start Assist- Boost upto 80A Output :

For BLUE, ORANGE and GREEN Wires refer to previous wiring diagram

NOTE: 100A or greater rated cabling must be used between solenoid and batteries.

Fuse Ratings	
Fuse 1&2	100A
Fuse 3 & 4	50A

Note: Fuses Not Supplied



Optional Start Assist and Boost Charge:

The optional Solenoid Kit (Part No. **BTDC40KIT** Kit Sold Separately) provide the features of the unique Start Assist and Boost Charge modes.

Start Assist:

With the solenoid connected it enables the BTDC40 to automatically provide assistance from the Auxiliary Battery on starting of the vehicle. Provided the Auxiliary Battery is charged.

Following a failed cranking attempt due to low main battery charge- Release the key so it returns to "ON" position, do not bring it to the "OFF" or "ACC" position. Now within a couple of seconds try cranking again. The vehicle will then start and the LED indicator will flash rapidly for about 60 seconds. Following the Start Assist activation and fast LED flashing we recommend having your main battery and wiring tested.

Boost Charge:

With the addition of the solenoid boost charge will allow up to 80A initial charge for fast flat auxiliary battery charging conditions. This initial Boost Charge Mode reverts automatically to normal charging once the auxiliary recovers from deep discharge.

All products manufactured or supplied by BAINTECH to a person defined as a "Consumer" come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. For full warranty terms visit - <https://www.baintech.com.au/contact-us/warranty-2>