

The NGBC1240 joins our new NGBC series of units as the most powerful of the range. Being 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) as our smaller NGBC units 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.

| 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:

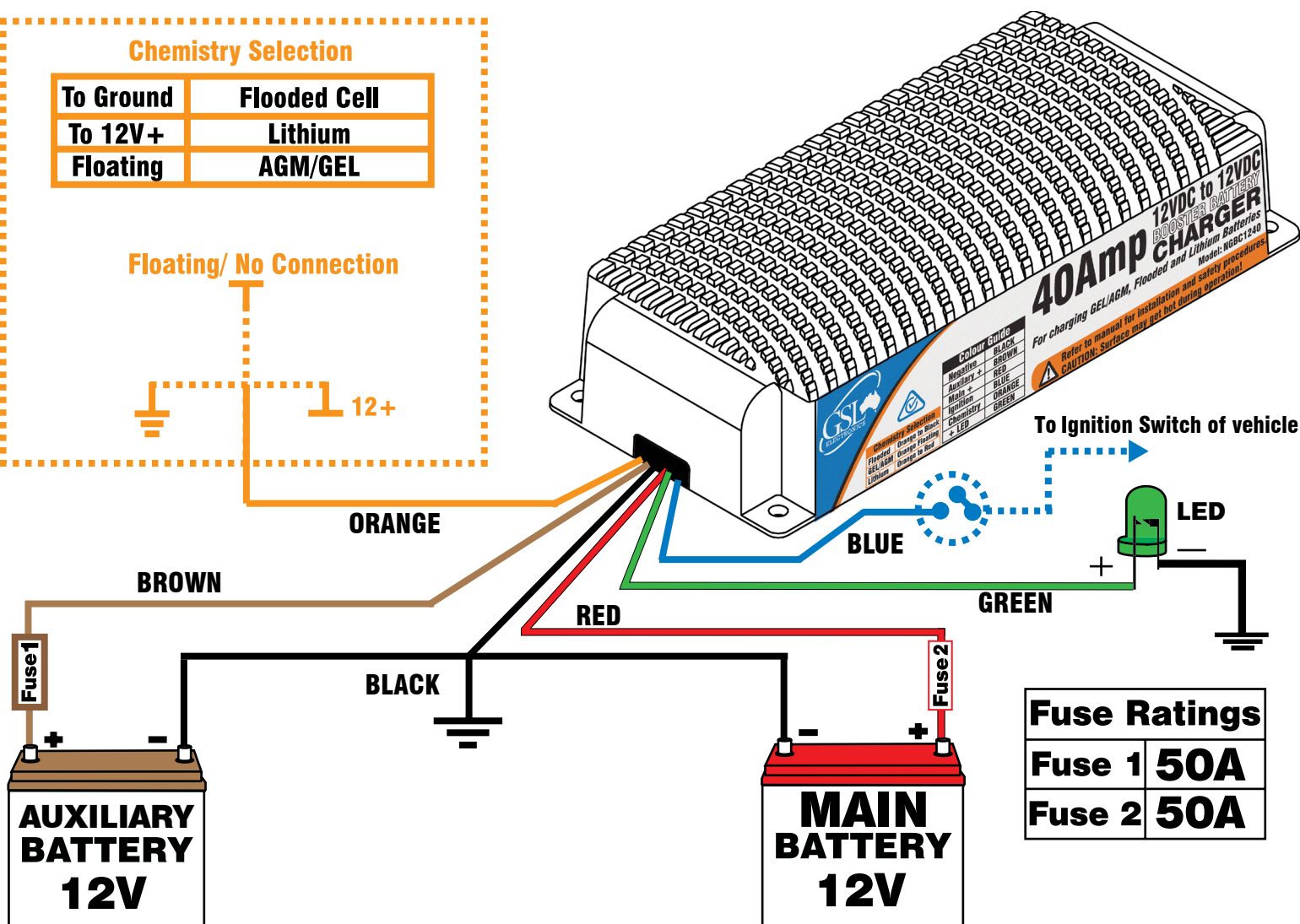
1. Disconnect the battery supply.
2. The following connection sequence is to be followed: Ground (BLACK), Input (RED), Output (BROWN), LED (GREEN), Chemistry/Output Selection (ORANGE), Control (BLUE).
3. The unit is protected from weather and dust but do not pressure wash or mount to areas that will 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

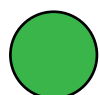
| | |
|-----------|--------------|
| To Ground | Flooded Cell |
| To 12V+ | Lithium |
| Floating | AGM/GEL |

Floating/ No Connection



| Fuse Ratings | |
|--------------|-----|
| Fuse 1 | 50A |
| Fuse 2 | 50A |

LED Indications :



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.

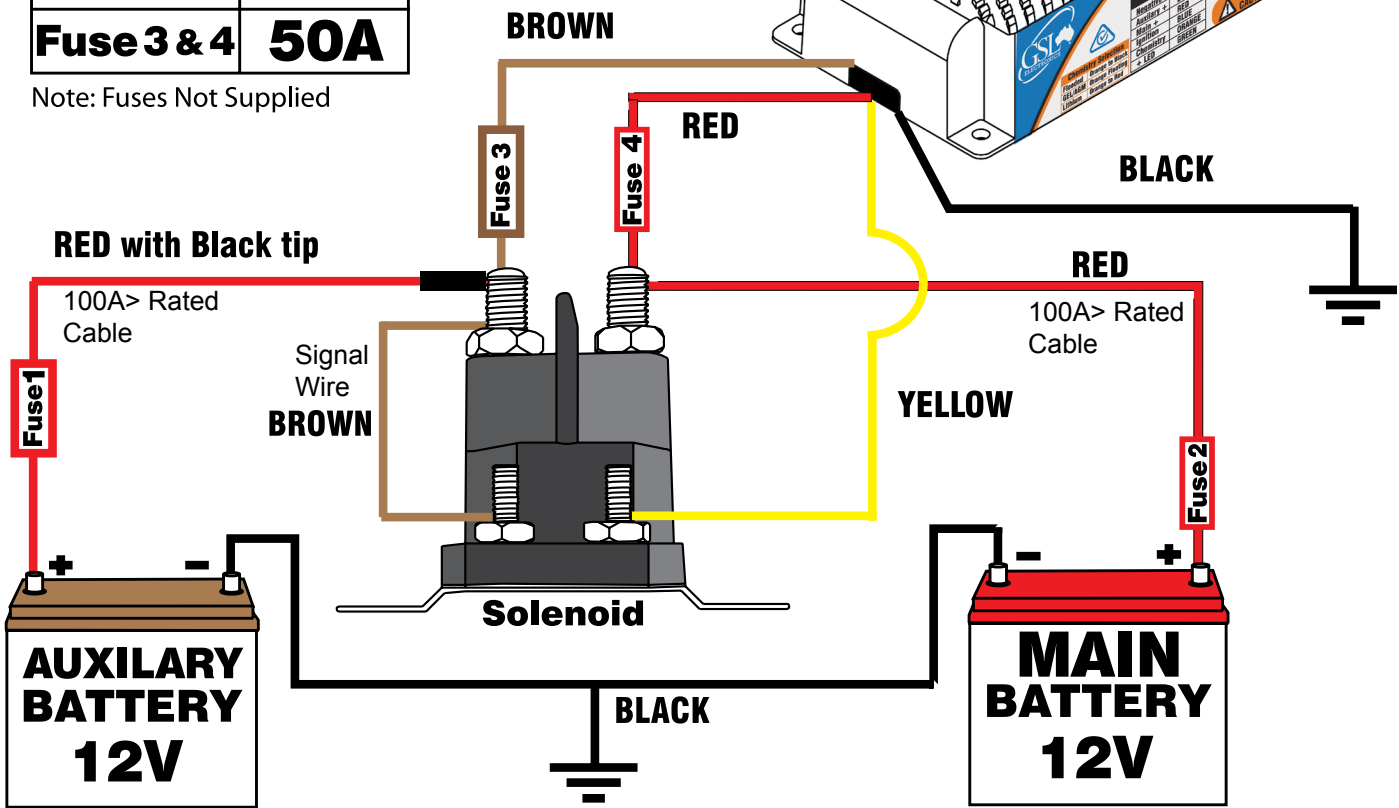
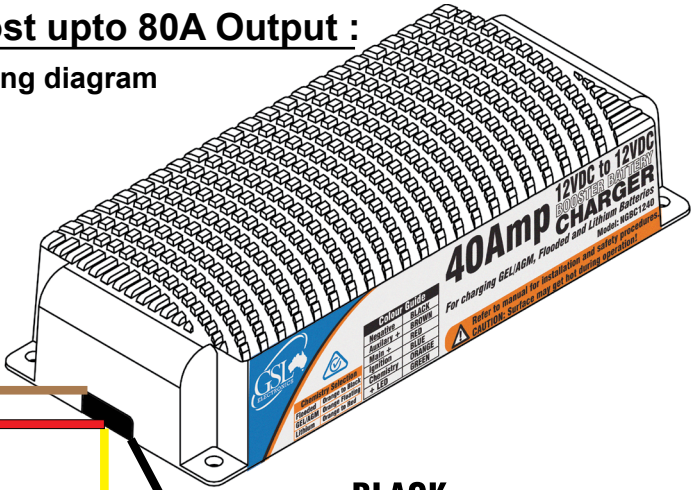
Wiring Diagram - For Optional Start Assist- Boost upto 80A Output :

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. **SAK-1** Kit Sold Separately) provide the features of the unique Start Assist and Boost Charge modes.

Start Assist:

With the solenoid connected it enables the NGBC1240 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.

Warranty Conditions: Our products come with guarantees that cannot be excluded under the Australian Consumer Law. The customer is entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. The customer is also entitled to have the products repaired or replaced if the products fail to be of acceptable quality and the failure does not amount to a major failure. GSL Electronics (GSL) warrants that its products will, under normal use and service, be free of defects in material and workmanship for a period of two (2) years from the date of the original purchase by the customer as marked on the customer's original invoice. Please refer to our website for full warranty and return information which can be found at <http://www.gsl.com.au/faq.html>