

# Next Generation DC to DC Booster Battery Charger / Doubler

12VDC to 24VDC 20A  
Operating Instructions

Please read these instructions before use



The VDBC1224-20-NG-2 joins our new NG series of units that uses the next generation topology reducing the size and increasing the output power compared to its previous VI and BC series of units.

In an extremely compact package (373cm<sup>3</sup>) the VDBC1224-20-NG-2 combines the features of a doubler and a battery charger in a weather, dust and vibration resistant package.

Features include:

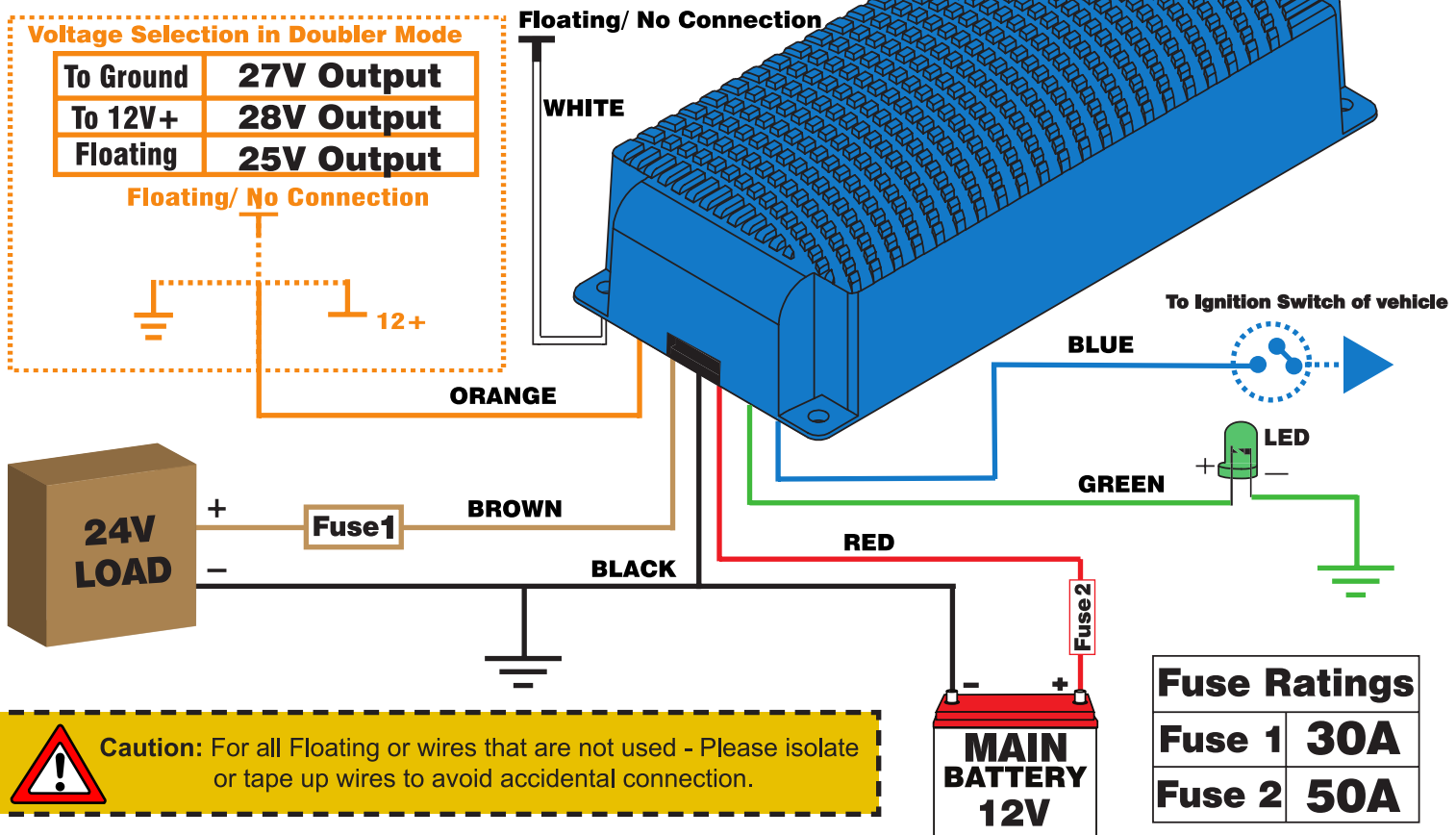
- Dual Option - 3-Stage 24V Battery Charger or Fixed Output
- Peak Output : 20A
- Selectable output voltages for Type A (28.8V/27V), Type B (29.2/27V) Type C (29.6V / 27.6V) or Fixed Output (28V/25V/27V)
- Over Current and Temperature protections for extra product reliability.
- High Efficiency : Typical >95%
- Precise under voltage protection : No need for external isolator.
- Latched overload protection for preventing dangerously charging faulty batteries
- Remote LED indication for battery charge status.
- Very low standby current: <3mA



VDBC1224-20-NG-2

**Note:** Before installation the user shall determine the suitability of the product to ensure correct application.

1. Disconnect the battery supply.
2. The following connection sequence is to be followed: Ground (BLACK), Output (BROWN), Input (RED), LED (GREEN), Chemistry/Output Selection (Orange), ON/OFF (Blue) and Mode Select (WHITE). The BLACK and BROWN wires are to be connected as directly as possible to the 12V input battery.
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. Type A charge is likely to be suitable for GEL and AGM, Type B generally for most Pb and Li batteries and Type C generally for Calcium and Crystal Batteries but always ensure that you follow the battery manufacturer charging instructions.



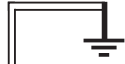
### Charge Type Selection

To Ground	<b>Type A</b>
To 12V+	<b>Type C</b>
Floating	<b>Type B</b>

Floating/ No Connection



WHITE Connected to Ground



ORANGE

BROWN

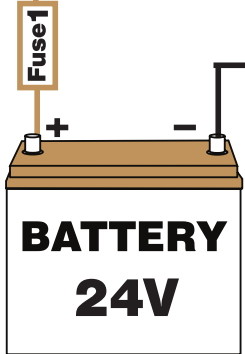
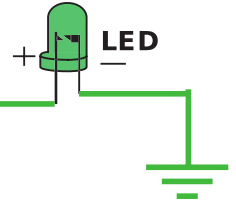
BLACK

RED

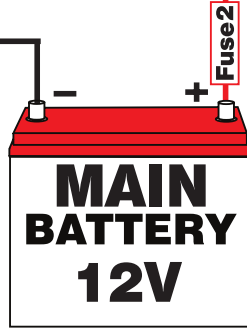
GREEN

BLUE

To Ignition Switch of vehicle



**Caution:** For all Floating or wires that are not used - Please isolate or tape up wires to avoid accidental connection.

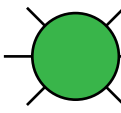


Fuse Ratings	
Fuse 1	<b>30A</b>
Fuse 2	<b>50A</b>

### LED Status



**ON / Solid - Normal Operation**  
 Doubler mode: Unit is operational and ON.  
 Charger mode: Unit is in FLOAT mode



**Flashing - Normal Operation**  
 Chager mode : Unit is in BULK mode.



**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.

*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>