INSTRUCTION MANUAL

GEVC Boost Solar Charge Controller
Part # GEVC 12-36/48 6A
(6 Amps)

GANZ GSP 12V Semi-Flexible Solar Panel to
36 Volt or 48 Volt Battery System

GEVC 12-36/48 6A   GANZ GSP Solar Panel

GEVC has an advanced Dual Function of a DC-DC Booster and MPPT Solar Charge Controller

Applications

♦ Charge a higher voltage battery from a lower voltage solar panel (12 volt)

♦ Used for electric inboard motors, trolling motors and golf carts which require 36V or 48V nominal charging system

♦ Used to charge a 36V battery at 8 amps max or a 48V battery at 6 amps max from a 12V, 10-330 watt nominal solar panel.

Note: For use with solar panels only
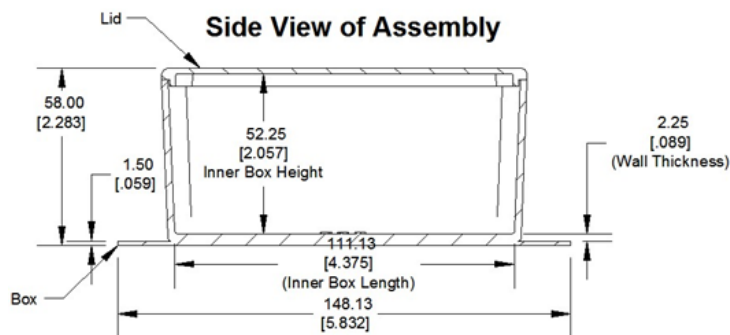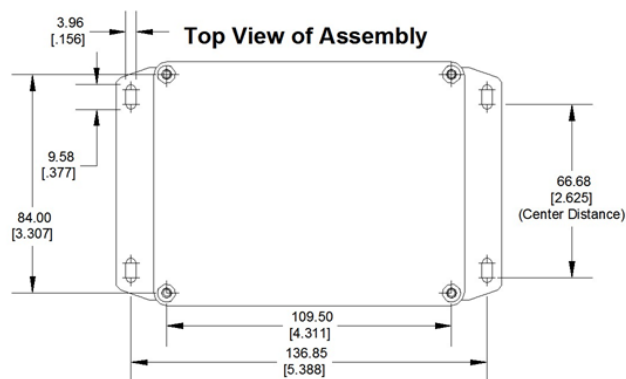
Electrical Specifications

Input Voltage	12V Nominal Solar Panel	
Max Input Voltage	30 VDC	
Max Input Current	20 ADC	
Nominal Battery	36V System Orange signal wire not connected	48V System Orange signal wire connected
Output Voltage	42 VDC	56 VDC
Output Current	8 ADC	6 ADC
Quiescent Current	< 0.1 ma	< 0.1 ma

Note: limited by input power characteristic

Mechanical Specifications

♦ Enclosure: NEMA 4 (Weatherproof)
♦ Dimensions: 6" X 6" X 3" nominal
♦ Weight: approx. 2.2 lbs
♦ Temperature Range: -40 to 50 deg C
   It is recommended, as with all electronics, that the unit not be placed in direct sunshine
♦ Fusing: Inline output fuse 10A (part# ABC-10)
♦ Power Wire: #16 AWG, 3ft
♦ Input Wire: Red (+) 4 pairs to Solar Panel (+), Black (-) 4 pairs to Solar Panel (-)
♦ Output Wire: White (+) to battery (+), Blue (-) to battery (-)
   Note: Must not reverse polarity
♦ Signal Wire: 2 X Orange #22 AWG
   Disconnect when unit is to charge a 36 Volt battery system
   Connect when unit is to charge a 48 Volt battery system
♦ Humidity: 0-90% non-condensing

Unit Dimensions

Installation

1. GEVC controller should be mounted to a vertical surface and allow space for air flow, do not recommend placed in direct sunshine
2. First connect ring terminal of GEVC controller blue wire (-) to battery (-)
3. Connect ring terminal of GEVC controller white wire (+) to battery (+)
4. Connect black wire (-) from GEVC controller to the black wire (-) of GANZ GSP solar panel
5. Connect red wire (+) from GEVC controller to the red wire (+) of GANZ GSP solar panel
6. GEVC 6A controller has 4 pairs of input wire, all red and black pairs end up in the same spot of controller. Whichever wire can be connected solar panel as long as it's one red and one black
7. Unused black and red wires from GEVC controller are left disconnected, solar panel can be added at later time to increase overall power
8. Do not connect exceed number of solar panels with GEVC controller in selection guide as below
9. Do not connect exceed two solar panels per input wire
10. Orange signal wire not connected when unit is to charge a 36 Volt battery system, Orange signal wires connected when unit is to charge 48 Volt battery system

GEVC Controller Selection Guide with GANZ GSP Solar Panel

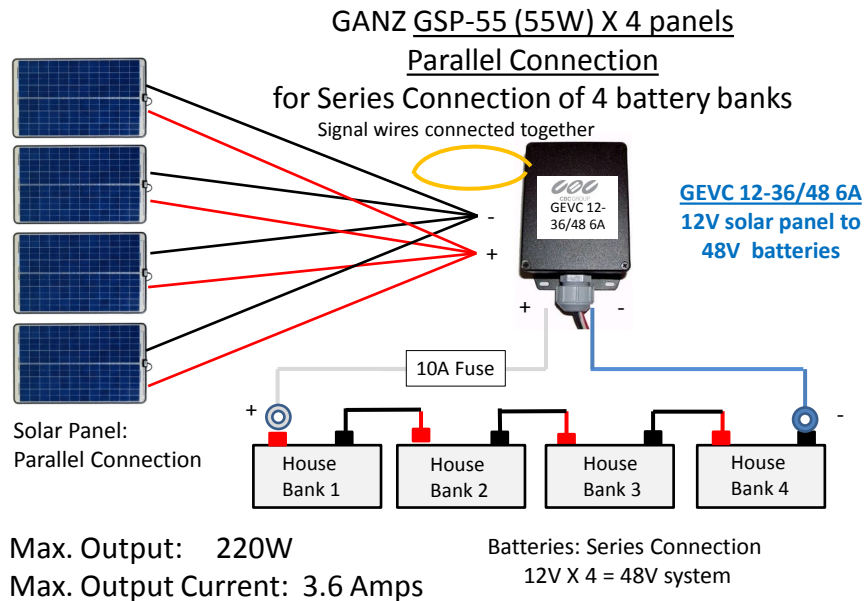### Short Circuit Current (Isc) - number of Solar Panel vs. Output Voltage

System Voltage	Quantity of **GANZ GSP-55** Panels in Parallel							
	1	**2**	**3**	**4**	**5**	**6**		
48V	0.9	1.8	2.7	3.6	4.5	5.3		
36V	1.2	2.4	3.6	4.7	5.9	7.1		
System Voltage	Quantity of **GANZ GSP-40** Panels in Parallel							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
48V	0.6	1.3	1.9	2.5	3.2	3.8	5.0	5.7
36V	0.8	1.7	2.5	3.4	4.2	5.0	6.6	7.6

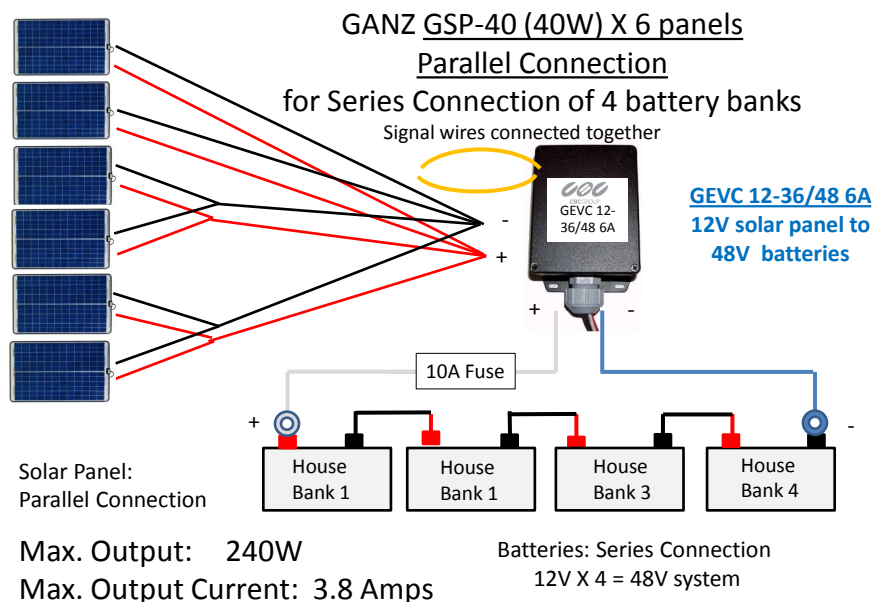|	
🟩	GEVC 12-36/48 **3A**
🟦	GEVC 12-36/48 **6A**

GEVC 12-36/48 6A can be connected with 6 GANZ GSP-55 (55W) solar panels or 8 GANZ GSP-40 (40W) solar panels connected in parallel.

Wiring Diagram

48V System for Electric Inboard drive system – (1)

GANZ GSP-55 (55W) X 4 panels
Parallel Connection
for Series Connection of 4 battery banks

Signal wires connected together

GEVC 12-36/48 6A
GEVC 12-36/48 6A
12V solar panel to
48V batteries

10A Fuse

Solar Panel:
Parallel Connection

House Bank 1 | House Bank 2 | House Bank 3 | House Bank 4

Max. Output: 220W
Max. Output Current: 3.6 Amps

Batteries: Series Connection
12V X 4 = 48V system

48V System for Electric Inboard drive system – (2)

GANZ GSP-40 (40W) X 6 panels
Parallel Connection
for Series Connection of 4 battery banks

Signal wires connected together

GEVC 12-36/48 6A
GEVC 12-36/48 6A
12V solar panel to
48V batteries

10A Fuse

Solar Panel:
Parallel Connection

House Bank 1 | House Bank 1 | House Bank 3 | House Bank 4

Max. Output: 240W
Max. Output Current: 3.8 Amps

Batteries: Series Connection
12V X 4 = 48V system

Warranty

The product is warranted to be free from defects in material and workmanship for a period of one (1) year from the date of purchase by a retail customer. The purchase date must be evidenced by a valid and original sales receipt. In lieu of sales receipt, factory will use code date on its label. Removal of the CBC America Corp. or serial number will void the warranty.

Failure to provide a safe and correct installation, safe operation, or care for the product will void the warranty. Personal safety, and compatibility with any other equipment is the ultimate responsibility of the end user. Any returned product that shows significant evidence of abuse may not be covered by this warranty. Installation must be preformed by a person with qualification to insure safe and effective operation and the installation thereof certifies that the installer has the technical qualifications to do so.

The warranties set forth herein are CBC America Corp. sole and exclusive warranties for or relating to the goods. Seller neither makes nor assumes any warranty or merchantability, any warranty fitness for any particular purpose, or any other warranty of any kind, express, implied or statutory. CBC America Corp. neither assumes nor authorizes any person or entity to assume for it any other liability or obligation in connection with the sale or use of the goods, and there are no oral agreements or warranties collateral to or affecting the sale of the goods.

WARRANTY CLAIM PROCEDURE

In the event of product failure, follow this warranty claim procedure.
1. Make sure the problem you are having is actually due to the suspected product and not some other part of the system. You may call technical support for advanced troubleshooting assistance.
2. If you determine that a CBC America Corp. product is actually defective, send such notification directly to CBC America Corp. as well as obtaining a Return Authorization number from the Distributor originally purchased from.
3. Together with the notification, you should enclosed evidence of the date of sale on which product have been purchased and included a Return Authorization number (RA#).
    CBC America Corp. will not accept any defective product back without and RA#.
4. The limited Warranties do not cover any transportation costs for return of product, or for reshipment of any repaired of replaced product, or cost associated with installation, removal or reinstallation of product.