

# SBI -3112 Smart Battery Isolator

## User Manual

### INTRODUCTION AND INTENDED APPLICATIONS

Automatic separation and connection of the Main (Starting) battery in parallel with auxiliary battery according to the voltage of level of the Main battery .The controller will constantly scan the main battery voltage level for connection and charging of the auxiliary battery to the main battery for charging . The manual over-ride function can be used for emergency starting when the main battery is low.

In single battery application, the isolator can be used as a battery protector to prevent over-discharging see example below .

### PRECAUTIONS

Never use the battery isolator in a location with possibility of gas or dust explosions.

Proper and correct connections and safety features must be followed according to local applicable regulations.

Use suitable sized cables and connectors and keep the cable connections as short as possible. Use reliable terminals and torque the bolts tightly.

### INSTALLATION

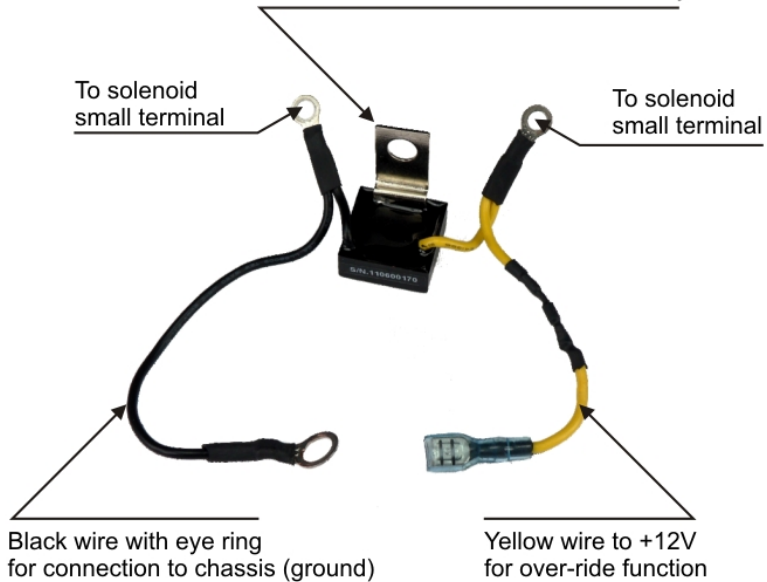
1. Install the solenoid valve in a vertical position near the main (starting) battery and away from heat source.
2. Mount the small black control box onto one of the large terminals of the solenoid .
3. Connect the new cable from the Positive terminal of main battery to the same mounting terminal of the solenoid as in 2.
4. Connect a new cable from the Positive terminal of auxiliary battery to the other large Terminal of the solenoid.
5. Make sure the bolts are properly tightened and correct size cable and ring connectors are used.  
It is advised to use 6mm for 70amp and 8mm ring lug connectors for 120 to 150amp.
6. Tighten up the two small connectors of the control box to the small terminals of Solenoid.
7. Connect the black wire with eye ring to the chassis (ground) of the car.
8. The yellow wire with Slip-In terminal is for manual over-ride function.  
When it is connected to a 12V positive , the solenoid will be activated making parallel connection between the main and the auxiliary battery.

### SPECIFICATIONS:

|  |                 |
|--|-----------------|
| Battery Voltage (Main and Auxiliary)     | 12V             |
| Isolator Switch ON (Connect) Voltage     | 13.4V           |
| Isolator Switch OFF(Disconnect)Voltage   | 12.6V           |
| Maximum Operating Voltage                | 16V             |
| Idle Current Consumption (Solenoid Off)  | 6mA             |
| Active Current Consumption (Solenoid ON) | 1A              |
| Delay Time For Switch OFF                | 15 Seconds      |
| Indication (Solenoid ON)                 | Green LED       |
| Maximum Solenoid Contact Current         | 150A            |
| Dimension (WXHXD Only For Control Box)   | 10 x 16 x 16 mm |
| Weight (Only Control Box)                | 32g             |

## THE CONTROLLER

To solenoid large terminal which shares with Positive connection of Main Battery.



## INSTALLATION DIAGRAM

+ Auxiliary Battery Positive connection to large terminal solenoid

