



DUAL SENSITIVE ISOLATOR 12V-140A/24V-100A



**P/NO. R12140A/R24100A;
R12140B/R24100B**

R12140A/R24100A; R12140B/R24100B

140A, VOLTAGE INDUCTION

For 12V/24V DUAL BATTERY SYSTEM

*Thank you for purchasing the Aopec battery isolator.
Read these instructions carefully and thoroughly before operating
this unit.*

INTRODUCTION AND INTENDED APPLICATIONS

Automatic separation and connection of the main (starting) battery in parallel with auxiliary battery according to the voltage or level of the main battery. This isolator will constantly scan the main battery voltage level for connection and charging of the auxiliary battery to the main battery for charging.

Intended Applications:

Caravan, 4WD, marine, vehicle with second battery, solar/wind charging multiple battery banks and battery over discharge or over charge.

WARNING

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

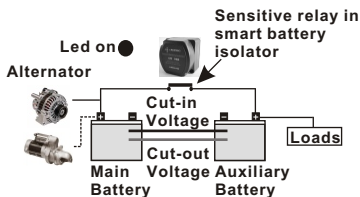
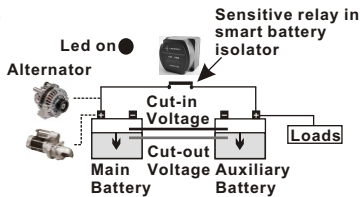
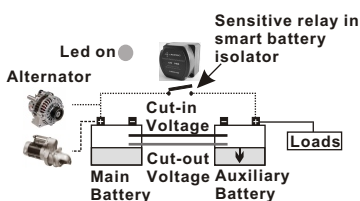
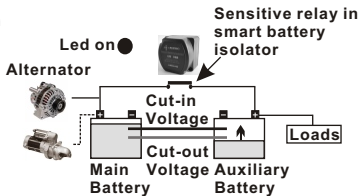
Proper and correct connections and safety features must be followed according to local applicable regulations.

Use suitable sized cables and connectors. Use reliable terminals and torque the bolts tightly.

FEATURES

- Designed for dual battery systems
- Suitable for most 12 or 24V charging systems
- Surge protect
- Easy to install
- Automatically sensing voltage level of main battery

How does it work?(A)

1

2

3

4


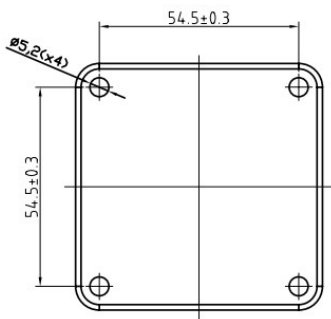
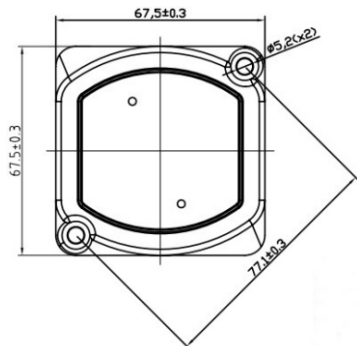
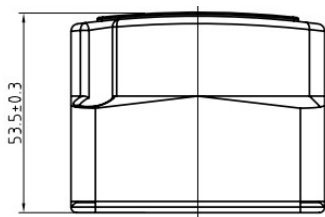
How does it work?(B)

1. When the engine is started and the voltage of start battery is higher than cut-in volts, the smart battery isolator(SBI) keeps engaging, two batteries(start and house) are charged simultaneously. Unit Indicator(LED) is on.
2. When the engine is stopped, the batteries no longer have a charge from the alternator, and the loads connected with the batteries begin to deplete them. Unit Indicator(LED) is on.
3. When the voltage drops below cut-out volts for 5 seconds, the SBI senses it and disengages, separating both batteries. This can save power of your start battery from being drained by over loads on house battery. UNIT Indicator(LED) is off.
4. When the vehicle is restarted, the start battery has enough power to crank the engine, and the engine is powering the alternator, when the start battery has reached the cut-in volts, the SBI engaged again. Unit Indicator(LED) is on.

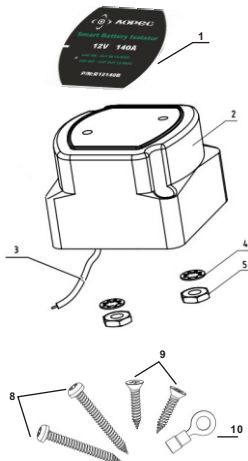
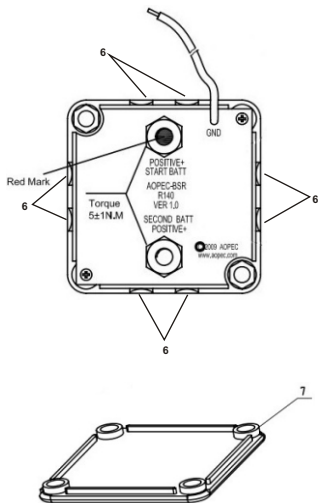
SPECIFICATIONS

P/N	Rating Voltage	Continuous Current	Intermittent Current	Cut-in Voltage	Cut-out Voltage
R12140A	12V	140A	170A	13.7V	12.8V
R24100A	24V	100A	140A	27.4V	25.6V
R12140B	12V	140A	170A	13.3V	12.8V
R24100B	24V	100A	140A	26.6V	25.6V
Delay Timer	5 Seconds				
Function	Fully Automatic Module				
Operation Temperature Range	-30~105°C				
Storage Temperature Range	-40~125°C				
Dimension (L*W*H)	67.5*67.5*53.5mm(2.66*2.66*2.11inch)				
Weight	200g(7.05oz)				

DIMENSIONS

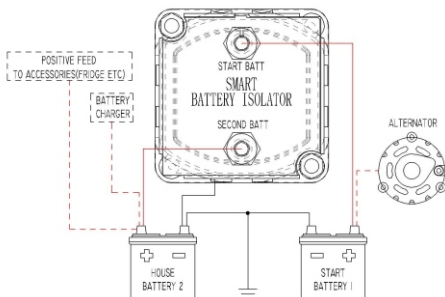


INSTALLATION



ITEM	QTY	DESCRIPTION
1	1	AOPEC brand name label
2	1	House, GE material
3	1	Wire cable,0.5mm ² ,black,be connected with ground
4	2	Internal teeth serrated lockwashers
5	2	Hexagonal nut, Brass H62
6	8	Cable outlet hole which can be broken
7	1	Base
8	2	Cross screws,4cm length
9	2	Cross screws,2cm length
10	1	Ring-terminal

INSTALLATION



Be sure to connect the battery isolator as the diagram.

	Total cable length(m)	Amps	Voltage drop(%)	MM ²	AWG
1	3	50	2.3	4	11
1	3	100	3.0	6	10
2	6	50	3.0	6	10
2	6	100	3.5	10	7
3	9	50	2.7	10	7
3	9	100	3.4	16	5
4	12	50	3.6	10	7
4	12	100	2.6	25	3
5	15	50	2.8	10	5
5	15	100	3.3	25	3
6	18	50	3.4	16	5
6	18	100	3.9	25	3
7	21	50	3.9	16	5
7	21	100	4.6	25	3
8	24	50	2.6	25	3
8	24	100			

Be sure to select the correct size cable refer to the voltage drop chart.

**Add: 2nd Floor, No.1508,Huanqing Rd.
Kunshan, Jiangsu, China215300
Tel:+86-512-55259176
Fax:+86-512-55259476
E-mail:sales@aopec.cn
Http://www.aopec.cn**