



# REVIVAL PRO

## EV Charger Discharger 12V-32A

Customer Care No. - 9667 123 456  
E-mail: customer.care@genusinnovation.com

### WARRANTY CARD

MODEL NO.	SERIAL NO.
DATE OF PURCHASE	DEALER NAME
CUSTOMER NAME	
CONTACT	
ADDRESS	

Genus Innovation Ltd. Warrants to the original purchaser provided the product is still possession of and used by the original purchaser from the date of purchase.

- The warranty stands on all parts (except LED, Switches, External Body and Battery) for a period of 12 Months.
- The warranty will not apply to defects arising in company's opinion by reasons of accident, abuse, misuse, neglect, improper installation (if not undertaken by the company or its representative), fire, flood or other act of GOD any other natural calamities. Any other unauthorized repairs done or carried out will have to be borne by the purchaser. The problem of fuse & MOV will not be included in the warranty of the product. The services given for the same will be a paid service.
- The company in no way will be held liable for any loss or injury or damage caused to any form of life for any reason whatsoever.
- The warranty will not apply if any original seal are found broken or tampered.

**LIMITED WARRANTY STATEMENT**

- Genus Innovation Ltd., represents and warrants that the Charger is free from defects in material and workmanship.
- The warranty of the PRODUCT extends for a period of 12 months commencing from the date of installation or 14 months from the date of manufacturing whichever is less.
- During the warranty period Genus Innovation Ltd. or its authorized service network will repair or replace the PRODUCT or any relevant part (Except LCD/LED's, Switches and External Body) thereof in the event found to be defective. The repaired PRODUCT or the product / part provided as a replacement for a defective PRODUCT/ part shall be free from defects. The END USER/Consumer/Purchaser of the PRODUCT of his/her assignee ("CONSUMER") shall not be charged (whether for parts, labour or otherwise) for the repair or replacement of the defective product during the warranty period. All parts/boards or equipments shall become the property of Genus Innovation Ltd.
- The warranty in respect of a repaired or replaced PRODUCT/part shall extend for the remaining warranty period of the repaired PRODUCT replacement thereof to the CONSUMER.

The CONSUMER shall have no coverage or benefits under this warranty in the event that any of the following conditions are applicable:

- The PRODUCT has been subject to abnormal use or conditions, improper storage, exposure to excessive moisture or dampness, exposure to excessive temperature (beyond specification), unauthorized modification, unauthorized repair (including but not limited to the use of unauthorized spare parts), abuse accident, acts of God, spills of food or liquids, improper installation and breakage or damage.
- The CONSUMER has not notified the defect of the PRODUCT to Genus Innovation Ltd, during the applicable warranty period.
- The PRODUCT serial number code or the accessory date code has been removed, defaced or altered.
- The PRODUCT has not been with or connected to an accessory:
  - Not supplied by Genus Innovation Ltd or its affiliates.
  - Not fit for use with the PRODUCT
  - Used otherwise than in the manner intended.
- All plastic surfaces and all other externally exposed parts that are scratched, or damages due to abnormal customer use.

In order to derive benefit of this warranty in respect of any defects in the PRODUCT, the CONSUMER shall ship the PRODUCT or part thereof at its cost to the authorized service center of Genus Innovation Ltd. The Genus Innovation Ltd. shall bear the cost of shipping the PRODUCT or part thereof back to the CONSUMER after the completion of the service under this limited warranty.

NO OTHER EXPRESS WARRANTY IS APPLICABLE TO THE PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. GENUS INNOVATION LTD. SHALL NOT BE LIABLE FOR THE LOSS OF USE OF THE PRODUCT INCONVENIENCE LOSS OR ANY OTHER CONSEQUENTIAL DAMAGE ARISING OUT OF THE USE OF OR INABILITY OF USE OF THIS PRODUCT OR FOR THE BREACH OF ANY EXPRESS OR IMPLIED WARRANTY INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY OR MERCHANTABILITY OR FITNESS APPLICABLE TO THIS PRODUCT.

It's hereby expressly clarified that all warranties (express of implied) in respect of the PRODUCT are provided by the Genus Innovation Ltd. All disputes are subject to jurisdiction of JAIPUR only.

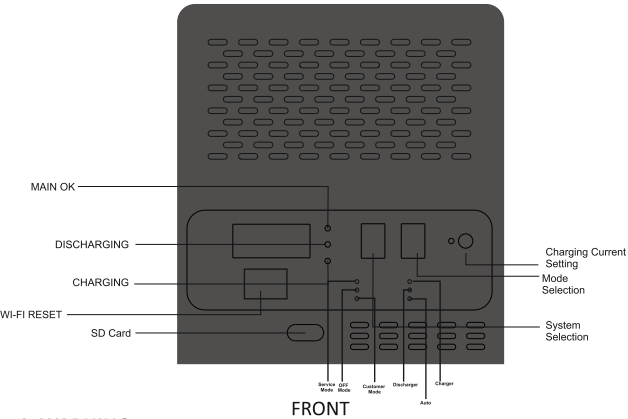
**REVIVAL PRO**

This manual contains important safety and operation instruction for standard Genus Revival Pro. Please read this information entirely before using your Genus Revival Pro EV Charger Discharger for technical support, please contact the manufacturer of your battery, as their versions of this Revival Pro may require special instruction.

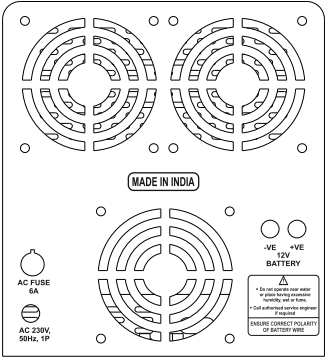
### KNOWING YOUR REVIVAL PRO



FRONT STICKER



FRONT



BACK

- 1. WARNING**  
Use Revival Pro only to Charge & Discharge lead acid battery other usage may cause injury and damage. Lead acid batteries may generate explosive hydrogen gas during normal operation and can produce sparks, flames, and smoke so keep explosive materials away from batteries and provide adequate ventilation during charging. Study all battery manufactures specific precaution (e.g. maximum EV charging & discharging rates and if cell caps should be removed while charging & Discharging).
- 2. DANGER**  
Risk of electric shock connect Revival Pro power cord to an outlet that has been properly installed and grounded in

- accordance with all local codes and ordinances. A grounded outlet is required to reduce risk of electric shock. Do not use ground adapters or modify plug. Do not touch uninsulated portions of output connector or uninsulated battery terminals disconnect the AC supply before making or breaking the connection to battery. Do not open or disassemble charger.
- Do not operate this Revival Pro if the AC supply cord is damage of if the charger has received a sharp blow been dropped, or is damaged in any way-refer all repair work to the manufacturer ,or qualified person. This Revival Pro is not intended for use by person. (including children) with reduced physical, sensory or mental capabilities ,or lack of experience and knowledge on electrical systems and battery charging & discharging, unless they have been given supervision or instruction concerning use of the charger by a person responsible for their safety. Children should be supervised to ensure that they do not play expose Revival Pro to water spray when Charging & Discharging the battery.
- ### 3.INSTALLATION AND SAFETY INSTRUCTIONS
- Genus Revival Pro EV Charger Discharger has been designed to provide safety and reliability it is necessary to observe the following precaution in order to avoid damage to person and to the battery Revival Pro.
- Read the installation instruction contained, in this manual carefully for further information put the manual in a proper place.
- Ensure all ventilation ports are not obstructed, to avoid the overheating . Do not put the Revival Pro near heat sources. make sure that free space around the Revival Pro is sufficient to provide adequate ventilation and an easy access to cable sockets.
  - Protect the Revival Pro from ingress of water. Do not pour liquids inside the case.
  - Verify that the available supply voltage corresponds to the voltage that is stated on the Revival Pro name plate in case of doubt, consult a retailer or local electric supply authority .
  - To avoid damaging the power cord, do not put anything on it or place it where it will be walked on. If the cord becomes damaged or frayed, replace it immediately.
  - If you are using an extension cord or power strip, make sure that the total of the amperes required by all the equipment on the extension is less than the extension rating.
  - disconnect the mains supply before connecting or disconnecting the link to the battery.
  - Warning : explosive gas-avoid flames and sparks, the battery must be positioned in a correctly cooled place.
  - Avoid recharging of non-rechargeable battery.
  - Verify that the nominal voltage of the battery to be recharged corresponds to the voltage states on the Revival Pro name plate .
  - Do not try service the battery charger your self, opening the cover may expose you to shocks or other hazards.
  - If the Revival Pro do not work correctly or if it has been damaged unplug it immediately from the supply socket and from the battery socket and contact a retailer / service center.

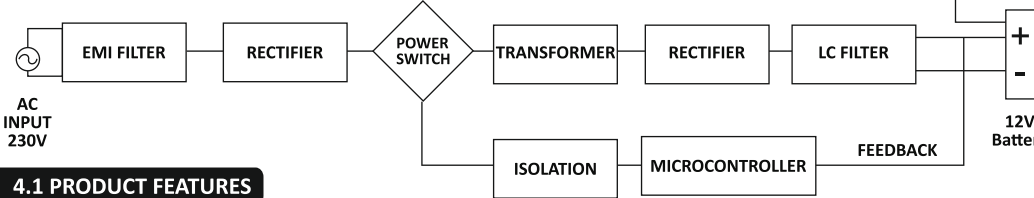
**4. OPERATING PRINCIPLE**

This SMPS charger gives a good performance for the minimum cost and physical dimension using switches more faster and powerful (modern technology )

The main advantage of this solution are.

- High efficiency
- Quick Revival Pro
- Low power consumption
- DOD based charging

### BASIC BLOCK DAIGRAM



### 4.1 PRODUCT FEATURES

- Mobile App (Android and IOS)
- WIFI (Enable)
- DUAL DISPLAY
- INBUILT BATTERY REVIVAL MODE
- DEEP DISCHARGE BATTERY WAKE-UP
- PORTABLE (easy access handle)
- OVER CHARGE & OVER VOLTAGE PROTECTION
- SMART CHARGING & DISCHARGING (As per battery Capacity)

**5.1 BATTERY CHARGING PROFILE**

**Bulk :** In this stage ,the charger will charge the battery with a constant Current rating until the battery voltage reaches 15+/- 0.2v.Once this voltage is reached the charger will go the next stage

**Absorption :** In this stage the battery will be charged with a constant Voltage as current start to decrease and maintain voltage at 16.5+/-0.5V

**Equalization :** In this stage charger will charge the battery with CV mode operation and start to decrease current subject to a maximum voltage of 16.5+/-0.5V

Note: Charging current depends on current setting knob position and condition of battery

**5.2 DISCHARGING PROFILE**

In this stage Revival Pro discharged the lead acid battery @10.5+/-0.2V

### Installing your Revival Pro

#### 6.1 DC Connection :

First connect the Revival Pro output cable to lead acid battery terminal for charging the battery. The reverse polarity protection will ensure that battery or Revival Pro will not be damaged.

**A. Before Revival Pro connection shown in below figure**



**B. After Revival Pro connection with battery shown in below Figure**



**6.2 AC input & Grounding :** Connect 6 A Wall Socket with AC power supply and proper grounding to be done. Make sure that the pin on the plug of the extension cord are the same number size, and shape as that of the plug in the Revival Pro. do not operate the battery charger with a damaged cord or plug.

This Revival Pro must be grounded to reduce the risk of electric shock. it is equipment with an electric cord having an equipment - grounding conductor and a ground -type plug. AC Plug connect with 6 A Socket only

The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance. This battery Revival Pro is equipped with a grounding plug as illustrated in the above Figure. If a proper grounded outlet is not available contact qualified electrician to make the ground connection properly.

**A. Appearance after Revival Pro connection shown in below Figure**



Connect charger AC power cord to the wall socket. The mains ON LED will indicate that the mains cable is connected to the wall socket.

Please refer the LED LCD indication below to understand the **Revival Pro** EV charger discharger working

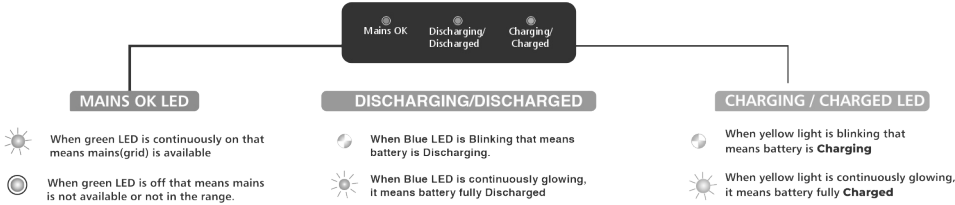
Indication

1. Revival Pro have two type display indications :

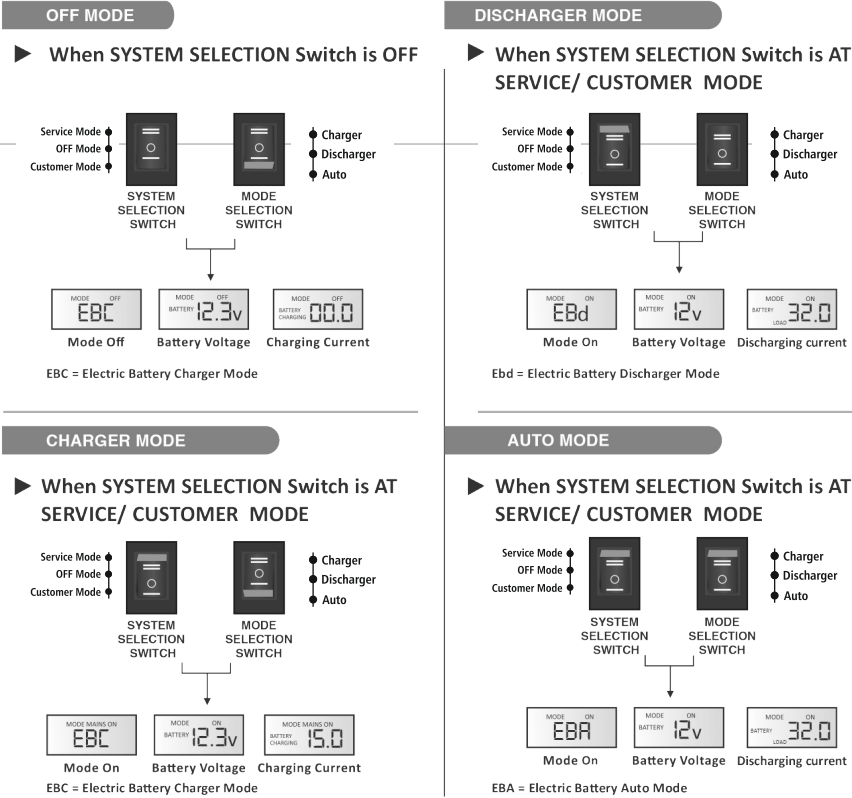
A. LCD Display

B. LED Display

LED INDICATIONS



LCD INDICATIONS



Protections Troubleshooting

LCD DISPLAY	PROTECTION	REMEDY / RECTIFICATION
<div>BATTERY OVER</div> <div>V</div>	Battery Over Voltage	1.Disconnect charger from battery and remove grid Supply then re-install charger If again same problem found then check your battery is OK or not 2.Call authorized service engineer.
<div>CHARGING OVER</div>	Battery Over Charging	1.Disconnect charger from battery and remove grid Supply then re-install charger, If again same problem found then call authorized service engineer.
<div>OVER</div> <div>T</div>	Over Temperature	1.Check fan is running or not. 2.Place this charger in proper ventilated area and do not place it in high ambient. 3.Wait for some time, charging automatic start, If problem not resolved then call authorized service engineer.
<div>SHORT CIRCUIT</div>	Short Circuit	1.Make sure battery wire is not shorted. 2.Reset from System Selection ON/Off switch or Reset from battery, If again same problem found then call authorized service engineer.
<div>BATTERY</div> <div>NO</div> <div>FUSE TRIP</div>	DC Fuse Trip/ No Battery	1.Check dc fuse. if found faulty then replace. 2.Check battery connection done properly or battery connected to the system.

Charging Timer (Minutes)

MODE CHARGING

ON

T

→

MODE

ON

000

Discharging Timer (Minutes)

MODE LOAD

ON

T

→

MODE

ON

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Specifications

Functional Specifications		
Project Code	GGE312	
Project's Description	Revival Pro EV Charger Discharger	
Sr. No	Parameters	Specification
AC Input		
1	AC Input High Voltage Cut	280 V ± 10V
2	AC Input High Voltage Recovery	270 V ± 10V
3	AC Input Nominal working Range	130Vac - 280Vac ± 10Vac
4	AC Input Low Voltage Cut	130 V ± 10V
5	AC Input Low Voltage Recovery	140 V ± 10V
6	AC Input frequency Range	47 - 53 Hz
7	AC Input Current	4.5A ± 1A RMS
Charger Mode		
8	Output load	12V Lead Acid Battery
9	Battery Boost Voltage	16.75V Max. (*Depends on battery condition)
10	Battery Charging Current	4A to 20A
11	Battery Charging Start	Deep Discharge
Dis-Charger Mode		
12	Battery Low Cut	10.5 ± 0.2V
13	Battery Discharging Current @ 11.5V	33 ± 2A
Operation		
14	System Selection Switch	Service/ OFF/ Customer Mode Selection Switch
15	Current selection	4A to 20A

16	Mode selection	Charger /Discharger/Auto mode with switch
17	Display Type	LCD and LED (Dual Display)
18	AC Input Available	Manis OK Led (Green LED ON)
19	Battery Charging	Charging/Charged Led ( Yellow LED Blinking)
20	Battery Charged	Charging/Charged Led (Yellow LED Constantly ON)
21	Battery Dis-Charging	Dis-Charging/Dis-Charged Led ( Blue LED Blinking)
22	Battery Dis-Charged	Dis-Charging/Dis-Charged Led ( Blue LED Constantly ON)
23	LCD Display Parameters	Mains ON, System Selection, Battery Volt, Batt. Charging Current, Load Current Battery Charged, Batt. Charging Timer, Batt. Load Current, Battery Low Cut, Batt. Load Timer ,(EBC/Ebd/EBA) type Protections(Battery Low Voltage, over voltage, Over Charging, over temp, short circuit, DC Fuse trip.
24	LED indication	Manis OK Led (Green LED Glow ) Mains Off /low /High ( Green LED Off) Charging/Charged Led ( Yellow LED Glow / Blinking ) Dis-Charging/Dis-Charged Led ( Blue LED Glow / Blinking )
Protection and Alarm		
25	Protection Short Circuit	Display and Alarm
26	Protection Over Voltage	Display and Alarm at 18 V ± 1V
27	Protection Over Charging	Display and Alarm at 23A ± 1A
28	Protection Over Temperature	Display at > 75°C
29	Battery side Current Protection	DC Fuse 30A
30	Protection Reverse Battery	No Hazard
31	Input side Current Protection	AC Fuse 6A
32	Input side Surge Protection	MOV
33	Alarm Indication	Buzzer
Mechanical		
34	Enclosure	IP 20
35	Dimensions L X W X H	280 X 180 X 200 mm
36	Net Weight	5.5 Kg
Enviromental		
37	Oprating Temperature	0°C - 45°C
38	Storage Temperature	-10°C to +60°C
Communication		
39	Wi-Fi	For Data LOGGING WITH PERFORMANCE ANALYZER



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