

SimpCharge

By Simp Eco Engineering Ltd



Disclaimer

Please read this manual and understand it, questions are allowed. You the purchaser of this product are responsible for installing this system yourself. You NEED knowledge of battery systems, automotive wiring.

THIS IS NOT A PLUG AND PLAY SYSTEM, USER CONFIGURATION AND WIRING REQUIRED

The device is provided "as is". Simp Eco Engineering makes no warranties, expressed or implied, and hereby disclaims and negates all other warranties, including without limitation, implied warranties or conditions of merchantability, fitness for a particular purpose, or non-infringement of intellectual property or other violation of rights. Further, Simp Eco Engineering does not warrant or make any representations concerning the accuracy, likely results, or reliability of the use of the materials in this manual or otherwise relating to such materials.

Damages

In no event shall Simp Eco Engineering or its suppliers be liable for any damages (including, without limitation, damages for loss of data or profit, or due to business interruption,) arising out of the use or inability to use the devices supplied by Simp Eco Engineering, even if Simp Eco Engineering or a Simp Eco Engineering authorized representative has been notified orally or in writing of the possibility of such damage.

Functionality

The SimpCharge is meant to allow a user an easy way to interface to an offboard AC charger otherwise known as an EVSE. This functionality can be standalone without the use of any other SimpEco products like the SimpBMS.

Basic functions that can be achieved with the SimpCharge are below:

Functions without SimpBMS

1. Detect Plug (Type 1 or 2) based on the Proximity Signal – Dedicated 12V output when plug is inserted, EVSE does not need to be powered ON
2. Detect Active EVSE based on the Pilot Signal – Dedicated 12V output when Pilot Signal is ACTIVE
3. Switch on EVSE with simple 12V signal – Can come from any 12V source; A BMS signal (same as a charger activate signal) or a simple 12V switch

Functions With SimpBMS

1. Detect available AC current from EVSE – Pilot Signal gets conditioned to be read by the SimpBMS, allows the automatic limiting of Canbus based chargers.

SimpCharge Does NOT

- Limit AC Charge Current drawn by Charger
- Allow DC Fast Charging

The SimpCharge can be used for achieving the following:

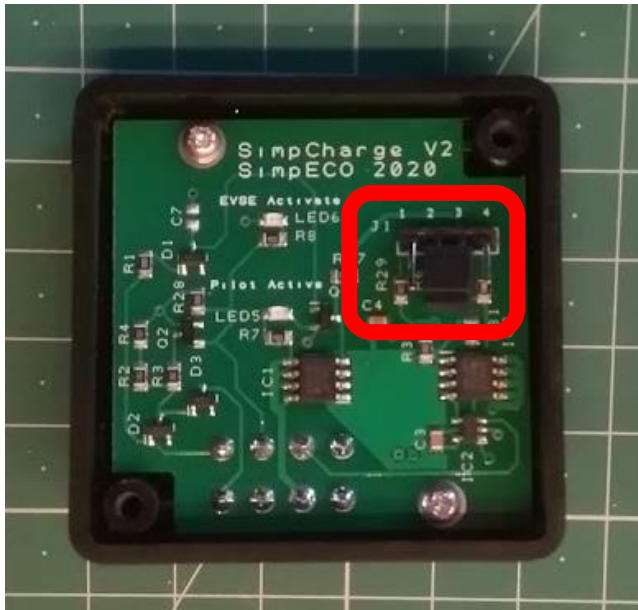
1. Disable vehicle from driving when plugged in
2. Allow charging using an Offboard AC Charge / EVSE

Installation instructions

The SimpCharge module is not designed to be mounted in a location where it can get wet.

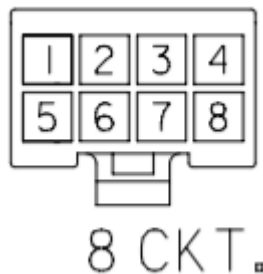
Please ensure the module is mounted in such a way water does not get inside the enclosure.

Pinouts



Proximity Selector Connector J1

Socket Type	Jumpers
Type 1	Jumper 3-4
Type 2	Jumper 2-3

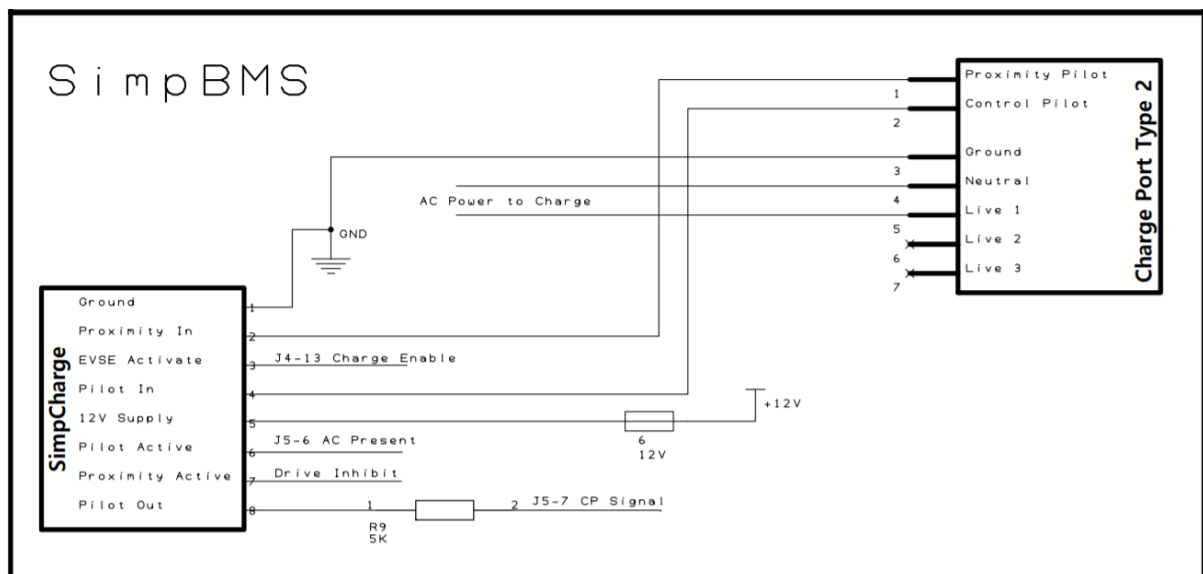
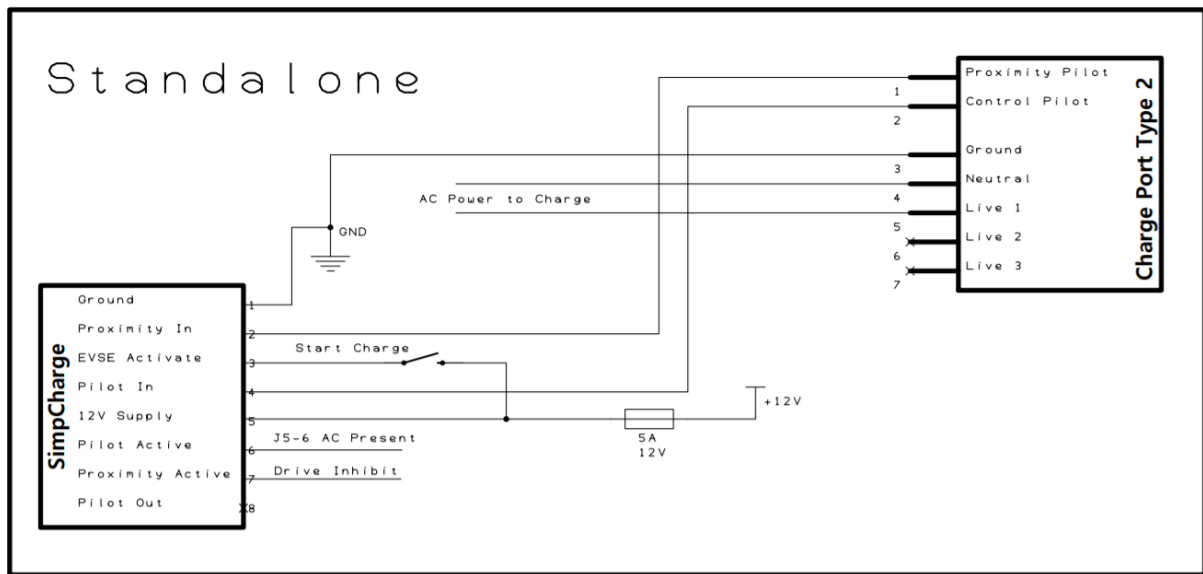


NEED TO CHECK

Main Connector J6 TE Val-u-lok 794954-8

Pin	Signal	Function
1	Ground	Chassis Ground, Shared with Charge Socket
2	Proximity Signal	From Charge Socket
3	EVSE Activate 12V in	Supply with 12V to switch on the EVSE to supply AC power
4	Pilot Signal In	From Charge Socket
5	12V	12V Fused Input (5Amp recommended) 1mA standby current
6	Pilot Signal Active 12V Out	12V Out when Pilot Signal Active
7	Proximity Signal 12V Out	12v Out when Plug inserted with Proximity Resistor in Plug
8	Pilot Signal Out	Condition Pilot Signal for SimpBMS requires 1KΩ Resistor inline

Wiring Examples



The **1K Ω** resistor between the SimpCharge Pilot out and SimpBMS is required, do not forget to add this inline.

Ensure that you confirm the SimpBMS is running the latest firmware that is compatible with the SimpCharge, if in doubt check that in BMS State Charge the line CP current gets show.