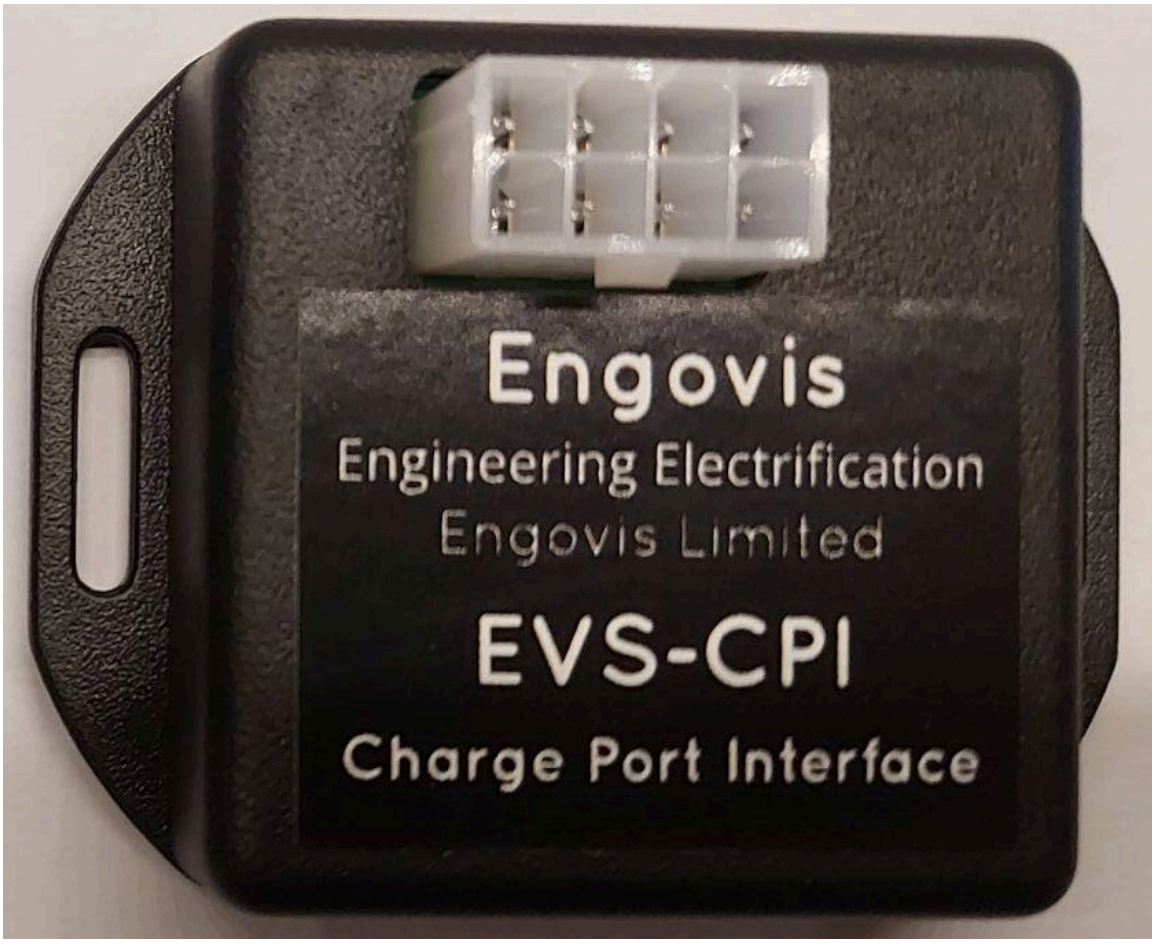
EVS-CPI Manual

Charge Port Interface

WIRING UPDATE 25/04/2023



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

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Functionality

The EVS-CPI (formerly known as Simp Charge) 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 EVS products like the EVS-BMS.

Basic functions that can be achieved with the EVS-CPI 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 EVS-BMS, allows the automatic limiting of Canbus based chargers.

EVS-CPI 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

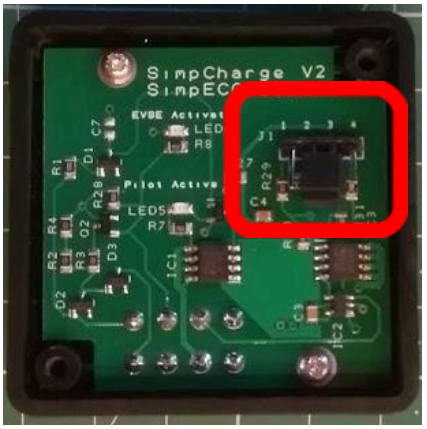
The EVS-CPI module is not designed to be mounted in a location where it can get wet.

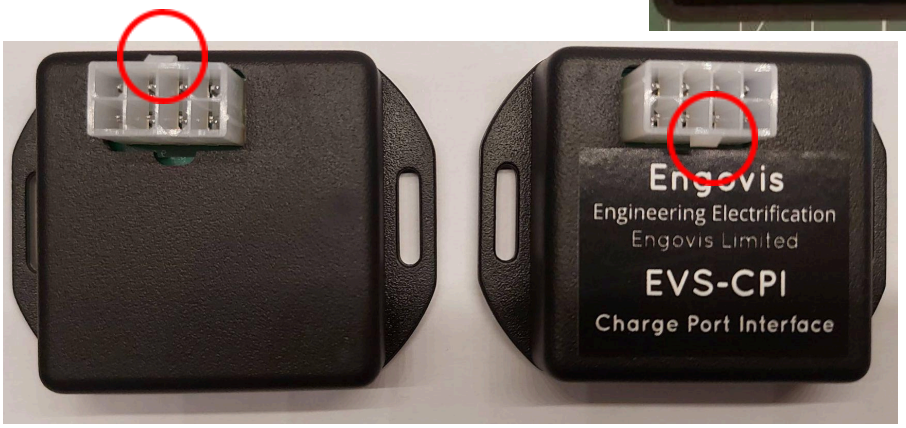
Please ensure the module is mounted in such a way water does not get inside the enclosure.

Pinouts

Proximity Selector Connector J1

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



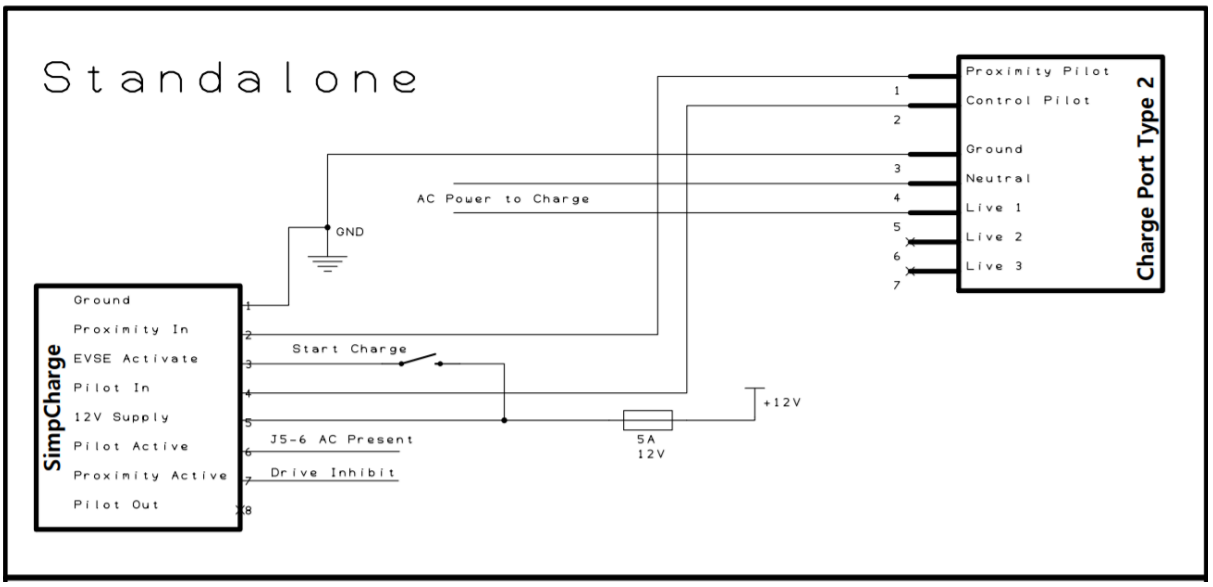


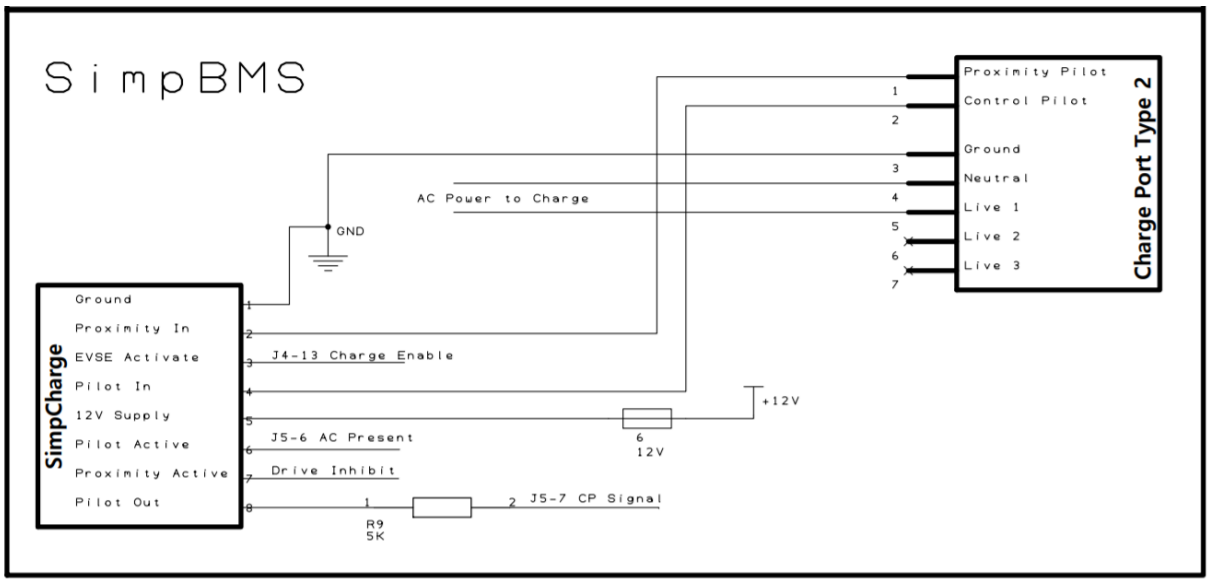
V2 has the connector lock, circled in red on the top. V3 has the connector lock on the bottom.

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

Pin V2	Pin V3	Signal	Function
1	8	Ground	Chassis Ground, Shared with Charge Socket
2	7	Proximity Signal	From Charge Socket
3	6	EVSE Activate 12V in	Supply with 12V to switch on the EVSE to supply AC power
4	5	Pilot Signal In	From Charge Socket
5	4	12V	12V Fused Input (5Amp recommended) 1mA standby current
6	3	Pilot Signal Active 12V Out	12V Out when Pilot Signal Active
7	2	Proximity Signal 12V Out	12v Out when Plug inserted with Proximity Resistor in Plug
8	1	Pilot Signal Out	Condition Pilot Signal for SimpBMS requires 1KΩ Resistor inline

Wiring Examples





The **1K Ω** resistor between the EVS-CPI 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 EVS-CPI, if in doubt check that in BMS State Charge the line CP current gets show.

Wiring to other EVS Products

Please refer to this document for wiring the EVS-CPI to EVS-VCU or EVS-BMS.

EVS Products - Charging Control