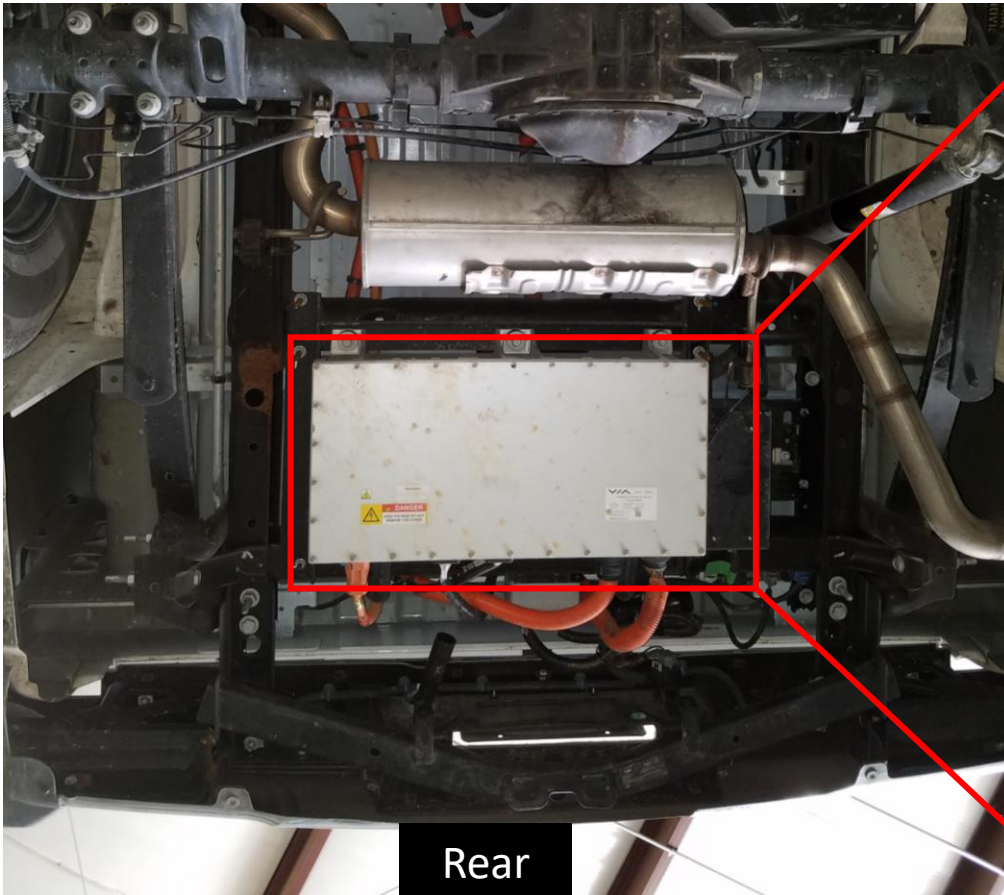


Inspecting the charge harness

The Bi-Directional Charger (BDC) is located at the rear of the vehicle behind the bumper.

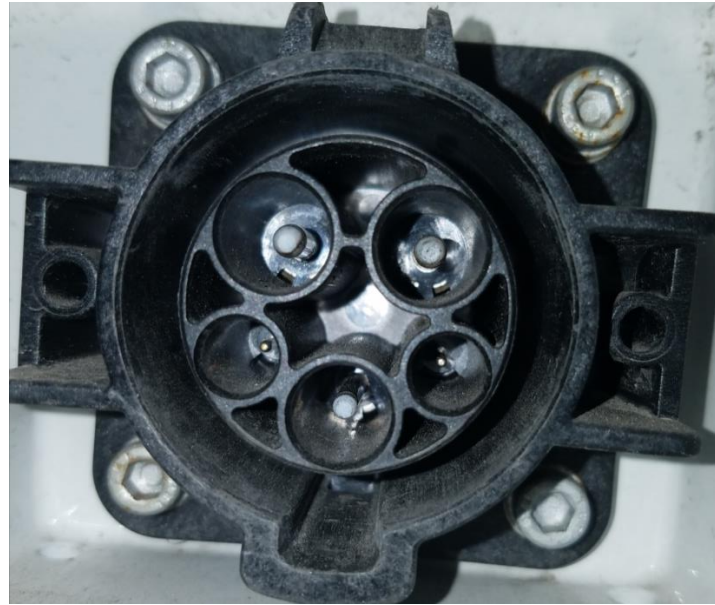
Before removing the charge cable ensure the vehicle is off, not exporting and the charge handle is not plugged in. To remove the charge cable simply twist the outer black portion of the connector counterclockwise to release.





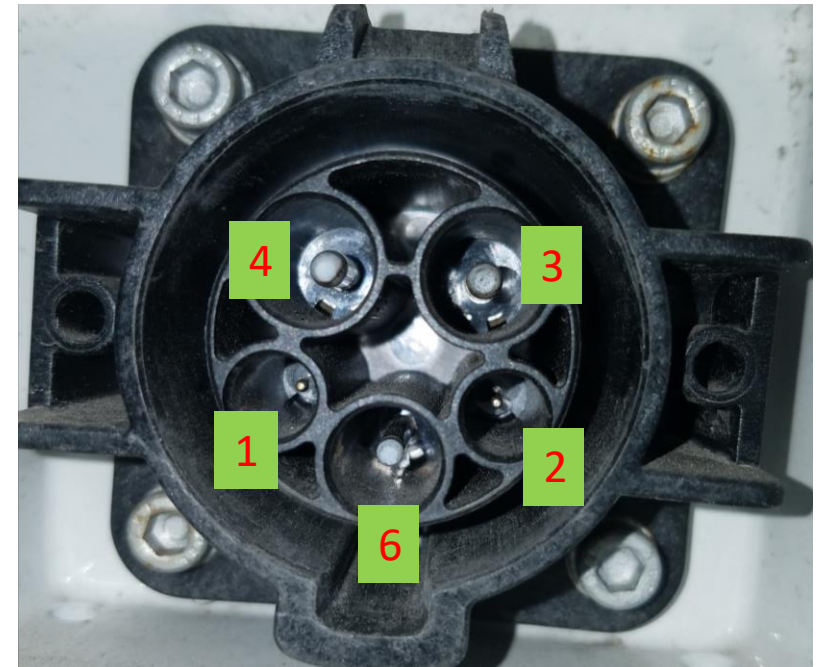
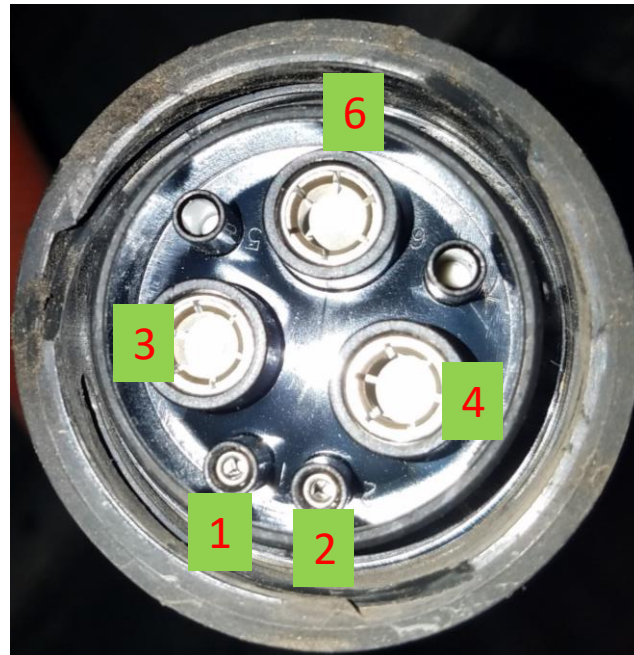
Test continuity between the indicated pins below to ensure the resistor is intact.

2.6 k ohms



Check the pins on the charge port to ensure that they are not bent, pushed in or damaged.

Check continuity through the charge cable to verify that all five circuits are intact.



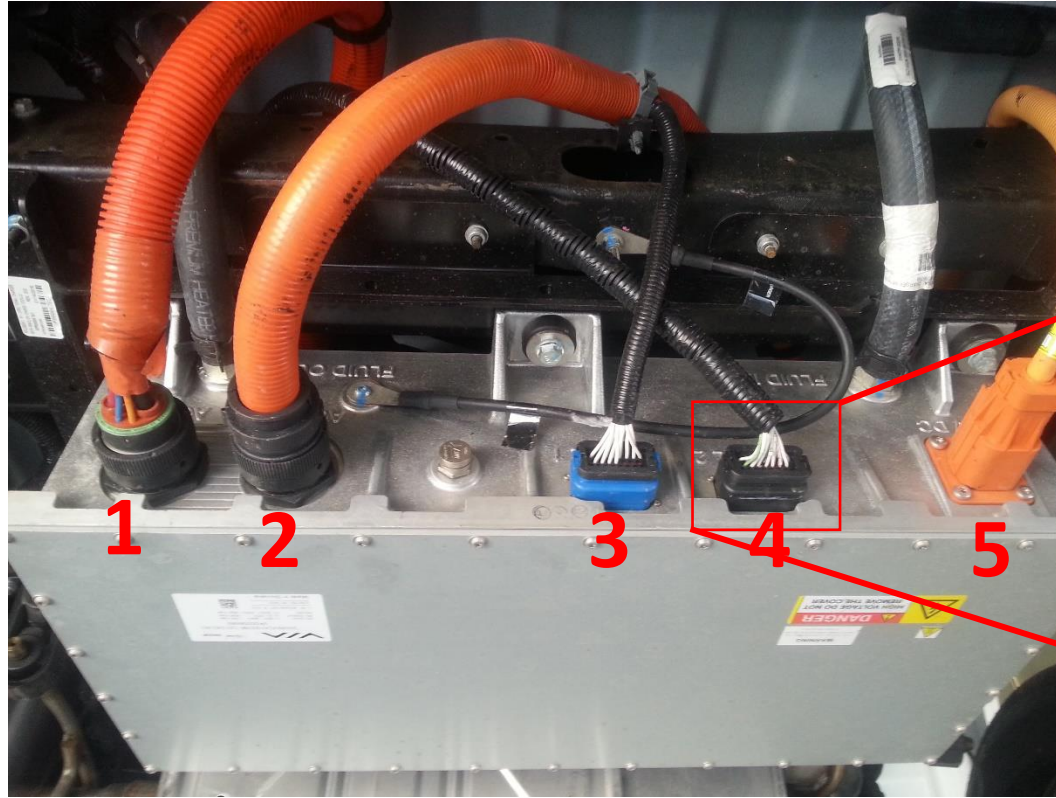
There are 5 connectors on the bi-directional Charger (BDC). Connectors 1 and 2 are twist lock connectors, connector 1 is the high voltage charge cable, connector 2 is the high voltage export cable.

Connectors 3 and 4 have a latch on the top that will need to be pulled up to release.

Connector 3 is the low voltage for the export, connector 4 is the low voltage for charging.

Connector 5 The bi-directional high voltage lead.

Remove connector 4 and inspect pins for damage corrosion and signs of water intrusion, clean with electric connector cleaner if necessary.

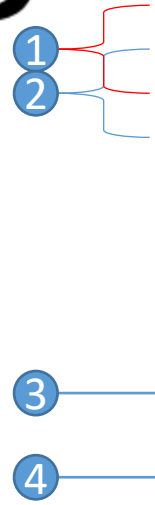




Connector Rear View

1. 120 ohms
2. 120 ohms
3. Constant 12v
4. Constant Ground

P18



Connector	P 18				
Function	Bi-Directional Charger Communication				
Manufacturer	TE Connectivity				
Part Number	770680-1				
Pin	Signal	Circuit	Size	Color	Destination
4	CAN1H	6433	0.50mm ²	WHT	SP.6433.05
8	CAN1H	6433	0.50mm ²	WHT	P31: 3
5	CAN1L	6432	0.50mm ²	GRN	SP.6432.05
9	CAN1L	6432	0.50mm ²	GRN	P31: 4
14	EXP_DIODE	915	0.50mm ²	PNK/WHT	SP.0915.01
13	WARN_ALARM	959	0.50mm ²	GRN/RED	P22: G4
11	EVSE_WAKE	916a	0.50mm ²	PNK/WHT	SP.0916.01
6	BDC_HVL_IN	9635	0.50mm ²	ORG	P30: K
7	ESS_HVL_IN	9637	0.50mm ²	ORG	P31: 8
3	CHARGER_VBAT	928	1.00mm ²	RED	P116: F
12	CHARGER_ENABLE	926	0.50mm ²	PNK/WHT	P117: C
10	GND	250	1.00mm ²	BLK	TM6
15	EVSE_WAKE	916b	0.50mm ²	PNK/WHT	P23: F3
1	LED1_EN	9917	0.50mm ²	GRY/RED	P97: A
2	LED2_EN	9918	0.50mm ²	GRY/GRN	P97: B

Test the following charge fuse, relays, and diodes.

Charge Fuse Locations

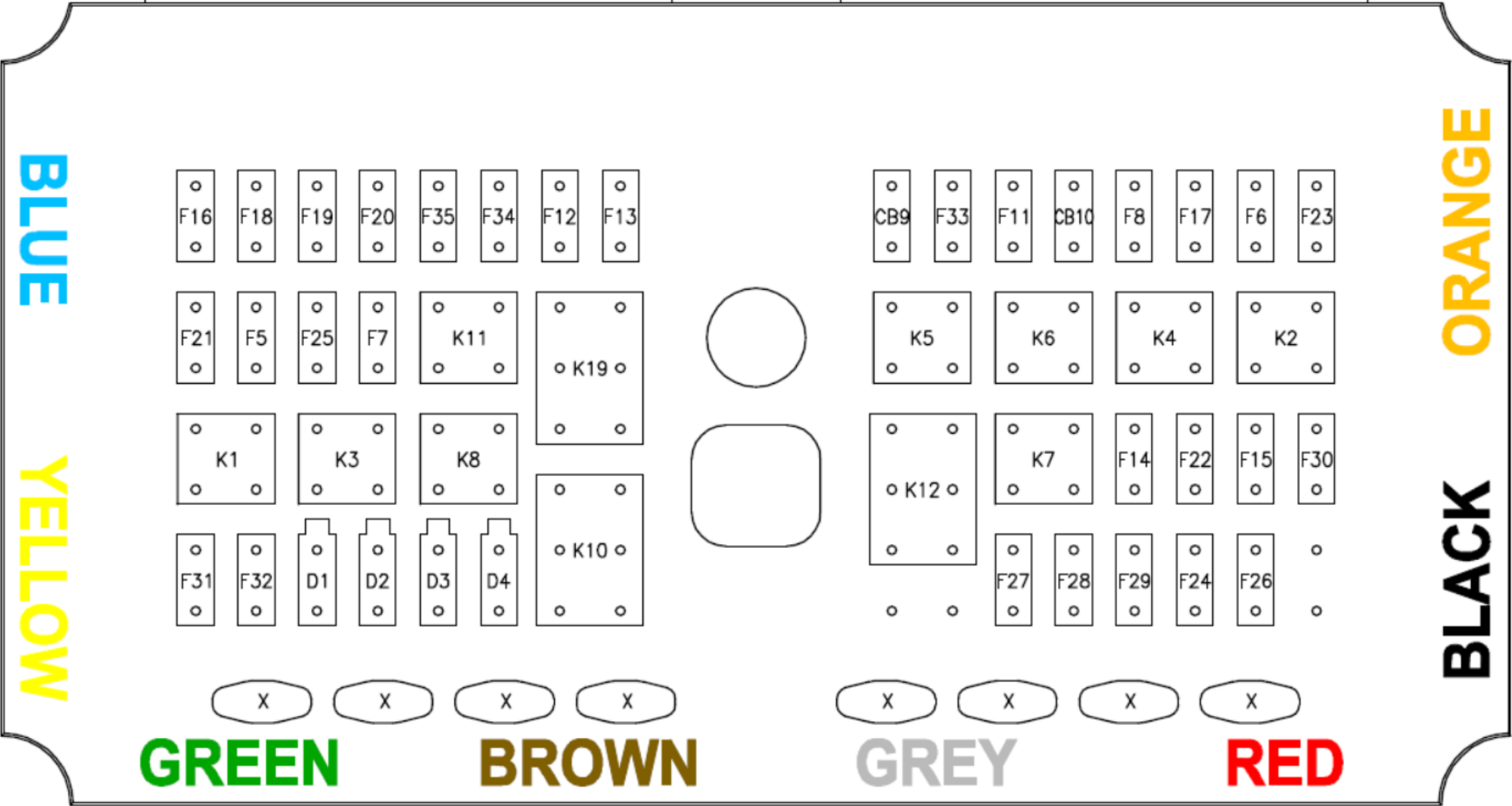
- F7
- F16
- F19
- F33

Charge Relay Locations

- K12
- K3

Charge Diode

- D3



Checking High Voltage Fuses.

Before beginning ensure that the vehicle ignition is off, the charger is not plugged in, and the export power is off.

1. Remove the negative battery terminal from the 12v battery.
2. Remove the high voltage battery fuse cover.
3. Check continuity across the 4 fuses, all should have continuity, if not replace the fuse.
4. When replacing the lid ensure that the gasket is in place and properly sealed. Torque lid to 4 NM with 222 light duty lock tight on the bolt threads.

