



Replacement of Engine Drive GPU Interface Board

It's all about connections

Step 1 : OFF Battery Disconnect Switch



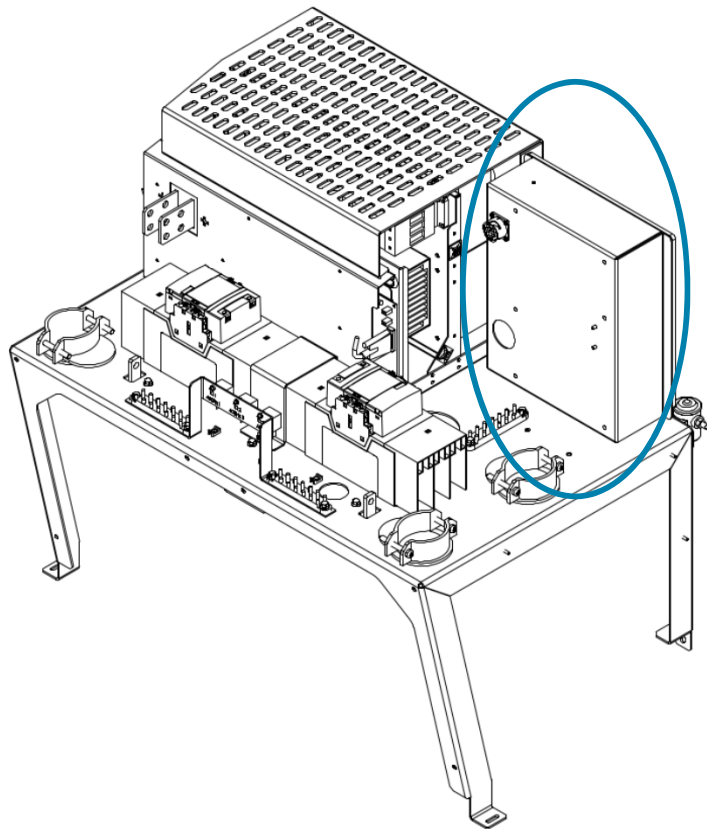
Battery Disconnect Switch

Turn battery disconnect switch handle anti-clockwise to **OFF** position

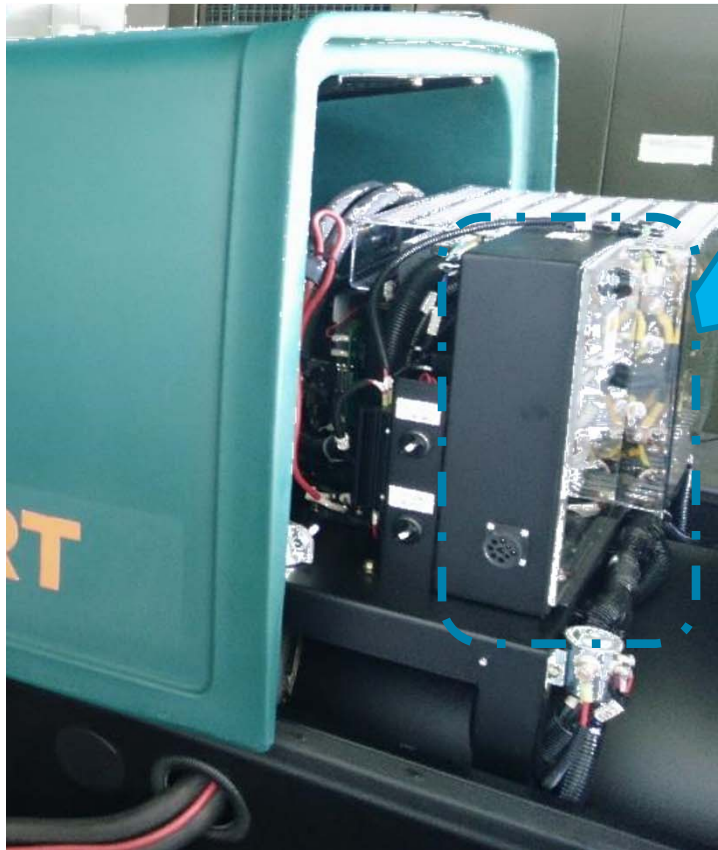


Control Module Box Assembly

Unlock the right hand spring loaded plunger from the canopy. Press to unlock the canopy catch and slide out the canopy gently until the control module box is accessible.



Control Module Box Assembly



Interface Board & Control Board Location

Control Module Box Assembly



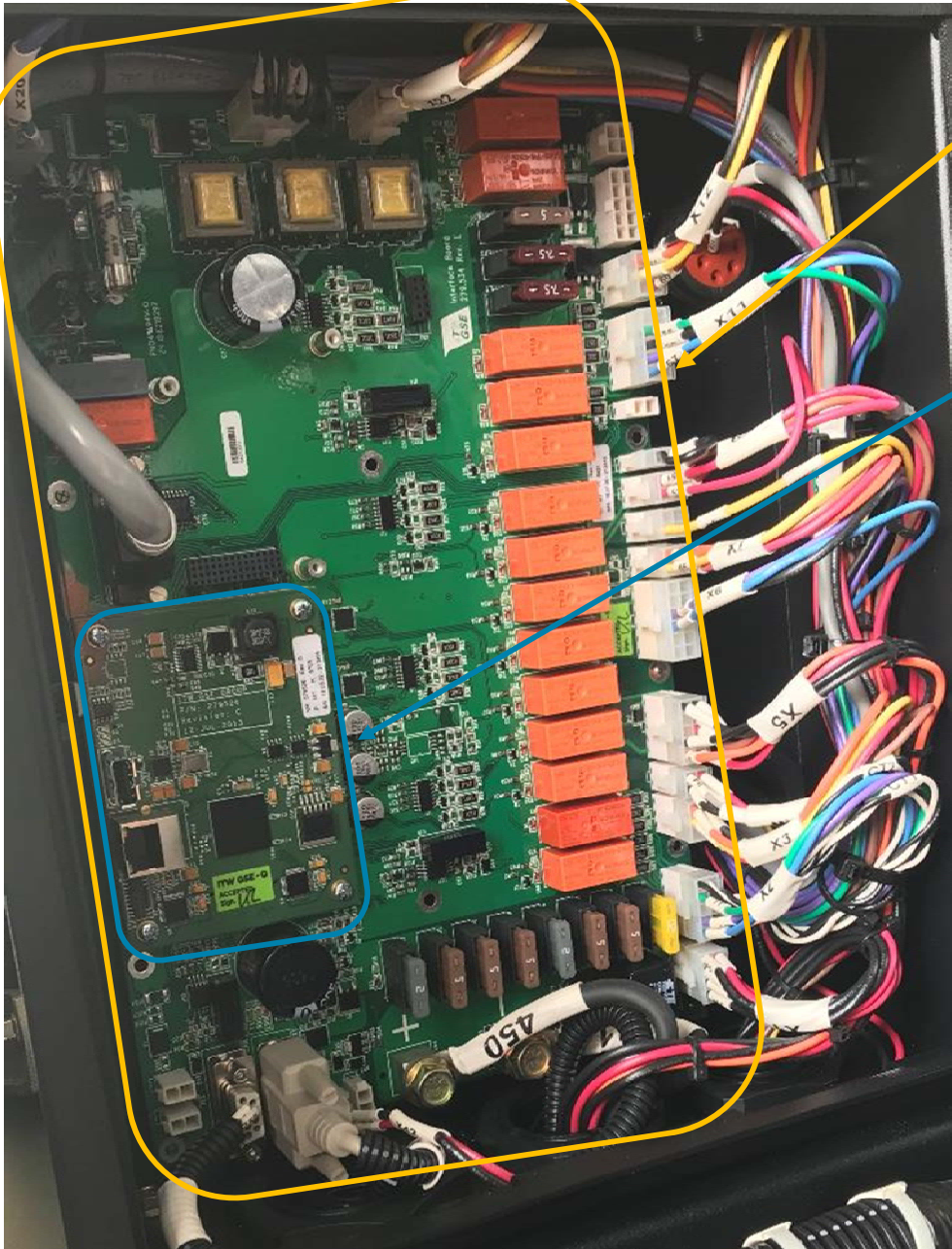
Both **Control Board** and **Interface Board** are mounted inside the **Control Module Box**

Interface Board - 4400 & Control Board

Interface Board

Control Board

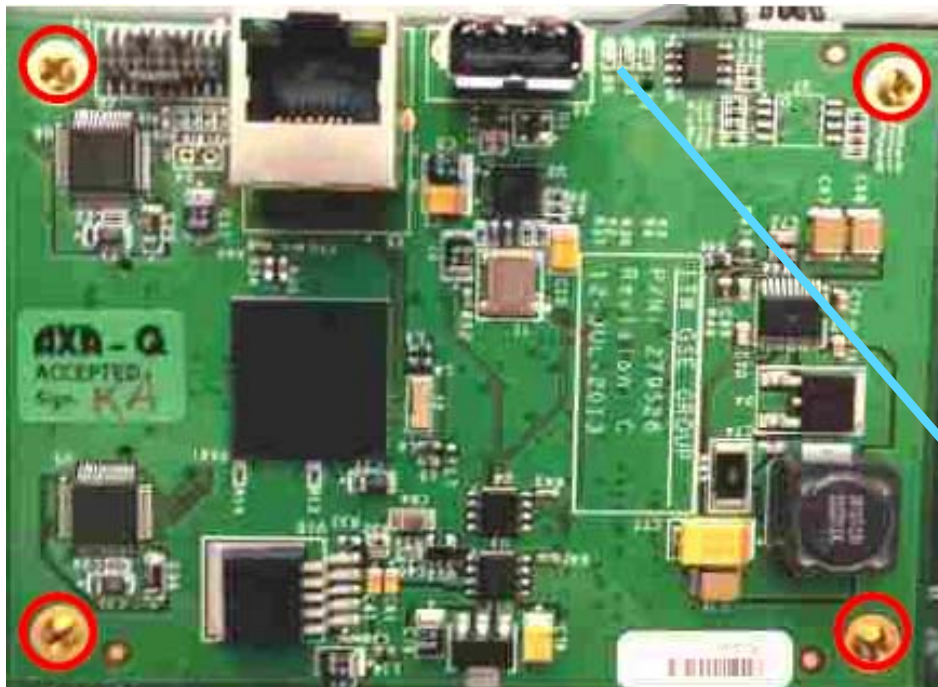
Before the **Interface Board** can be replaced,
Control Board marked with  has to be removed.



Step 2 : Remove Control Board



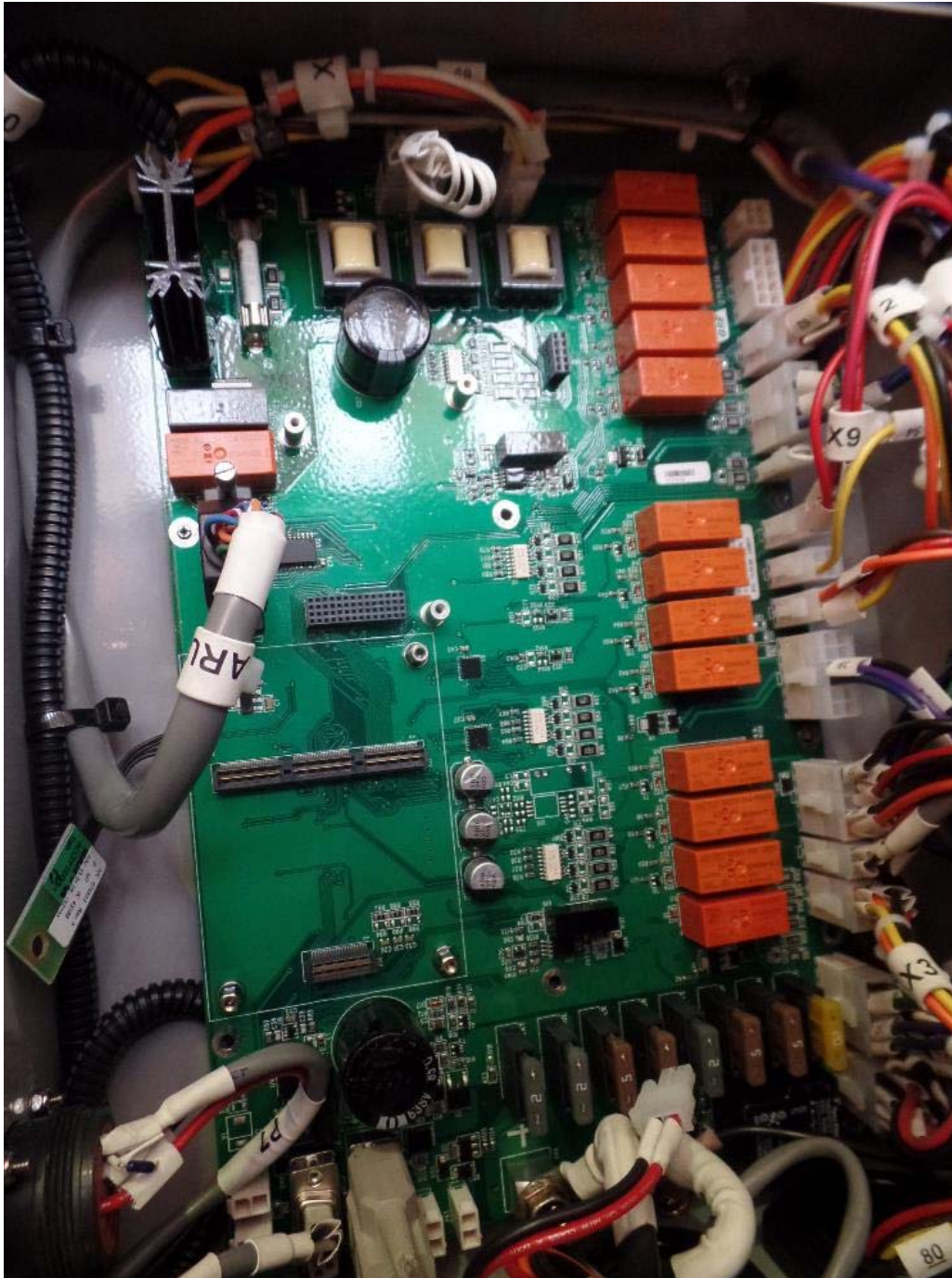
Before removing the Control Board and to avoid any static discharge to the Control Board please take ESD (Electro Static Discharge) precautions.



To remove the Control Board, **Switch OFF** the unit by means of battery disconnect switch and the **BLUE** LED not illuminated. Remove the Control Board from its 4 screws marked with a **○**. Place the PCB on an insulated surface, with the back side face up. Retain the screws Control Board for reinstallation.

BLUE LED

Interface Board - 4400



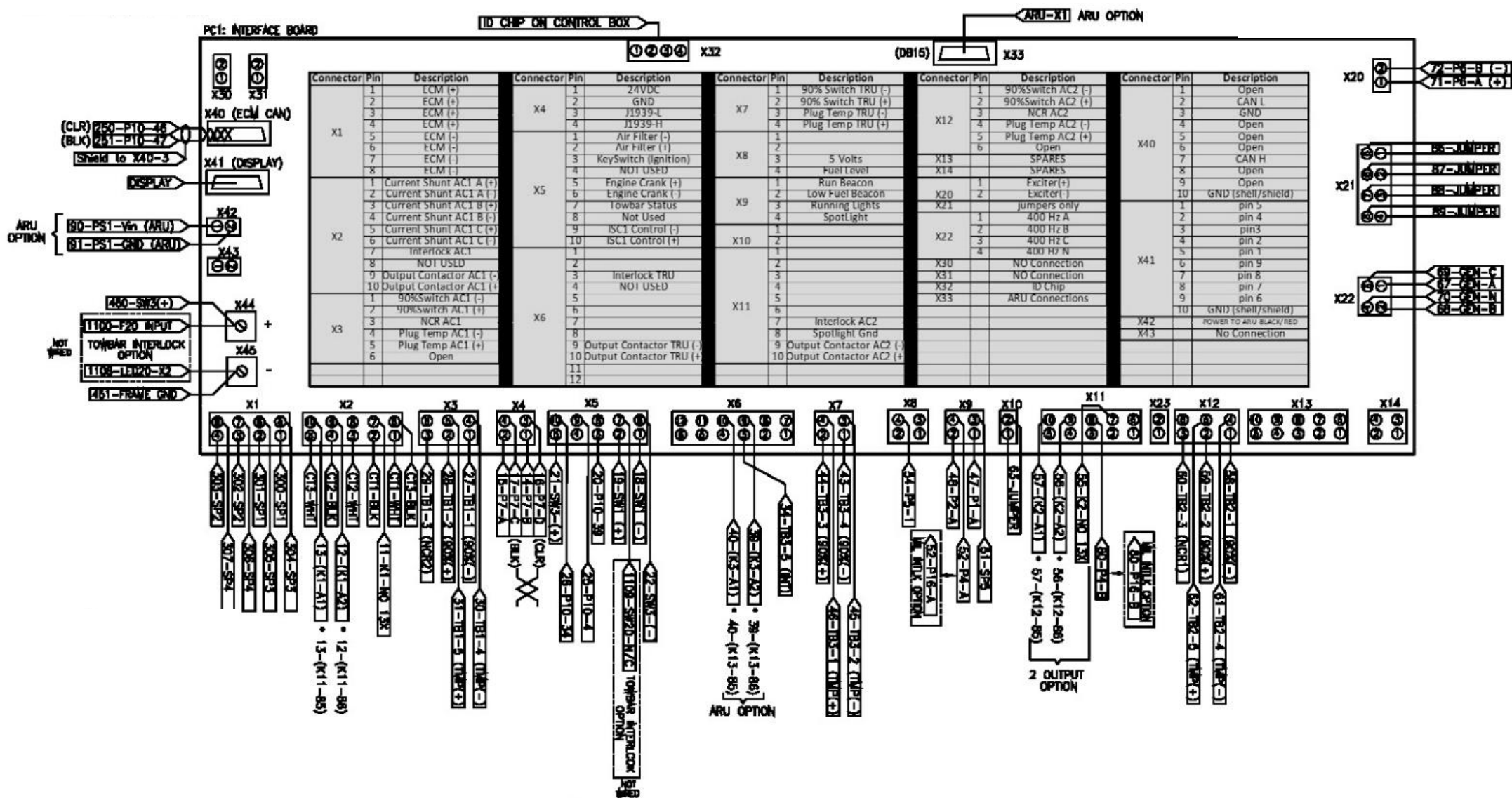
Interface Board with control board removed.

Interface board for different GPU series will be differ.

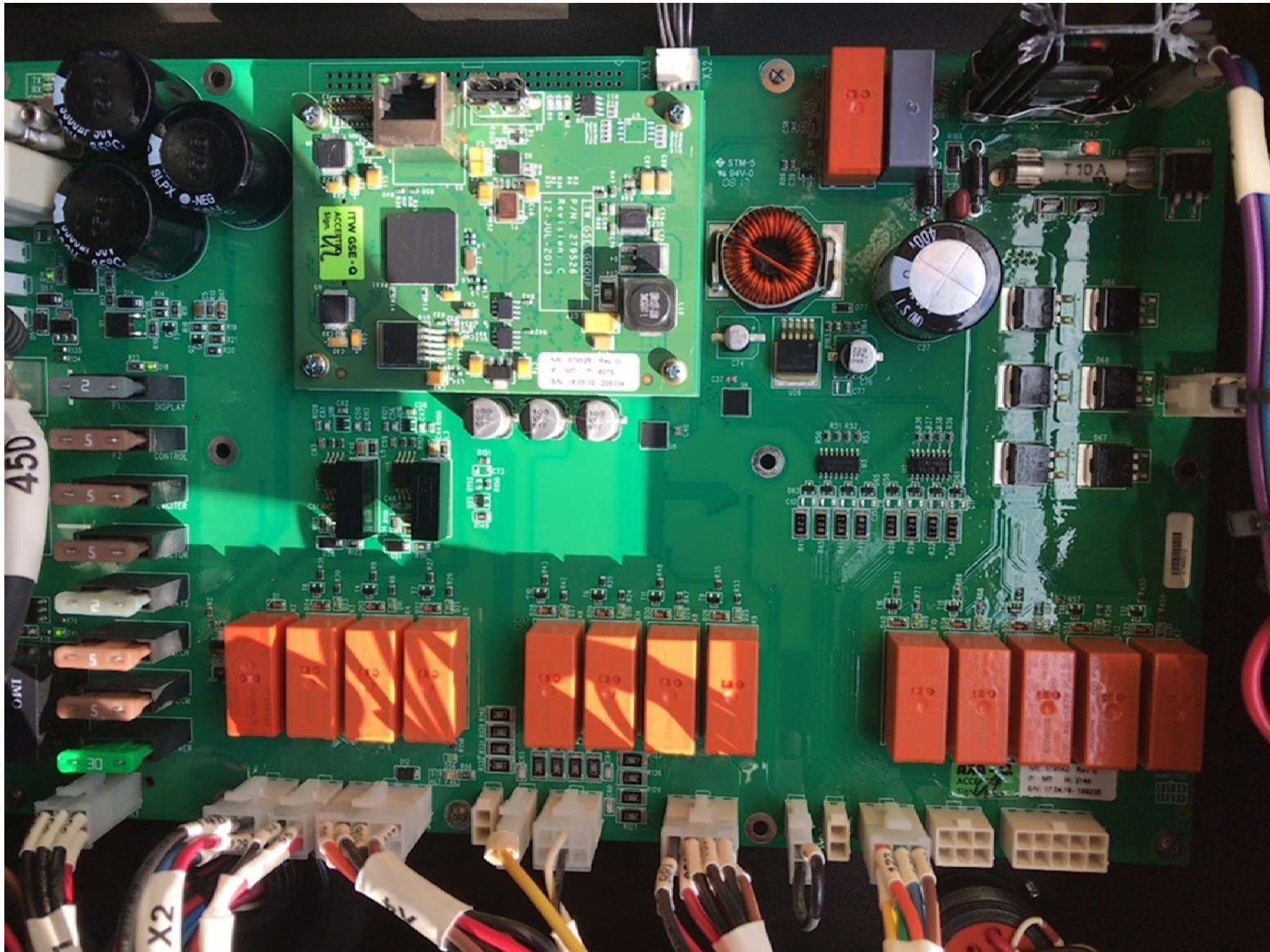
Same series might not be the same on the PCB components due to design changes and improvement without prior noticed.

Certain connectors on the Interface Board might be differ from each other even belong to same GPU series due to the options installed

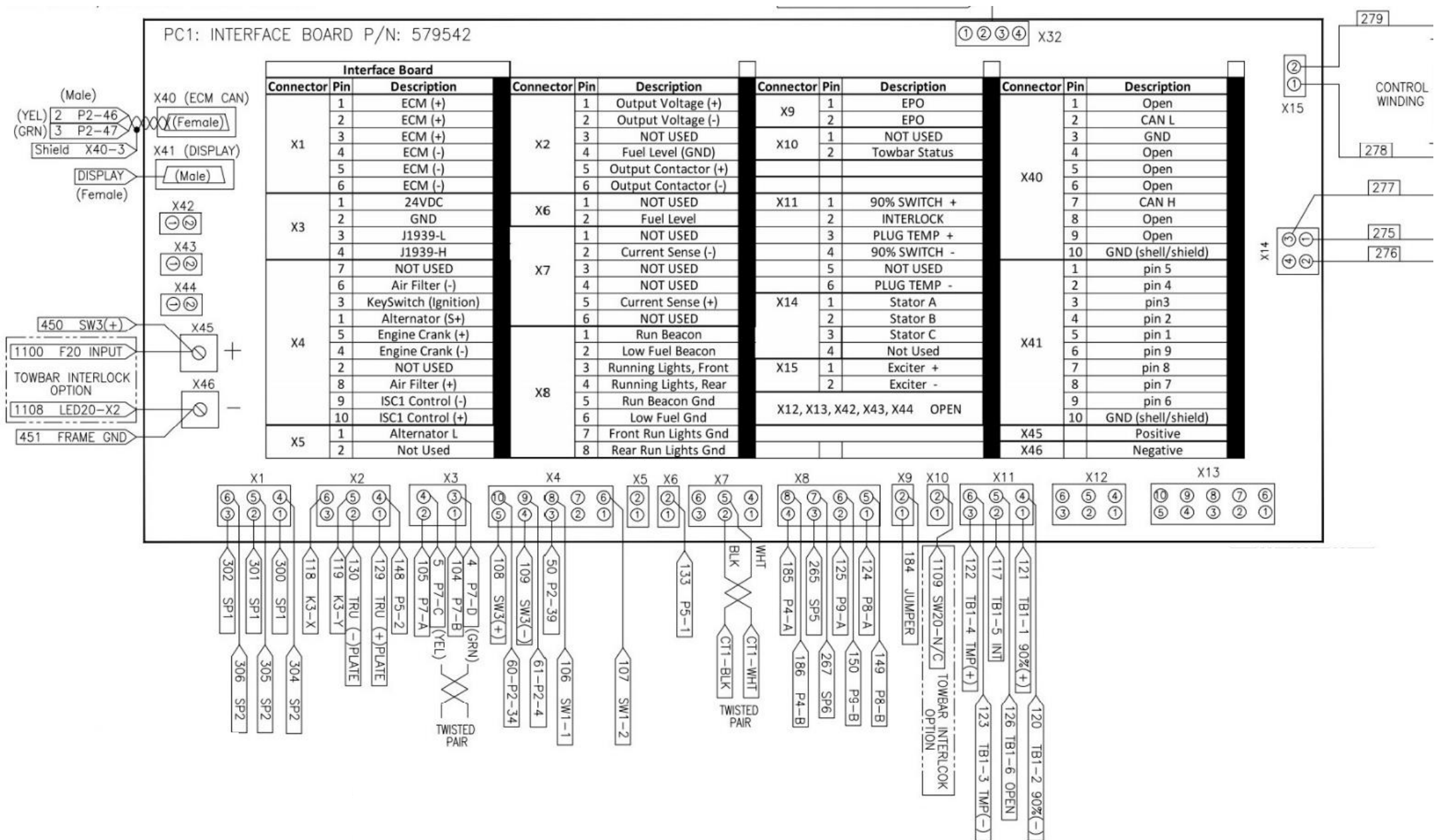
Always refer to the Circuit diagram for that particular serial number



Interface Board - 6400 and Control Board



Interface Board - 6400



Interface Board Removal - 4400

Interface Board with control board removed.

Certain connectors on the Interface Board might be different from each other even belong to same GPU series due to the options installed



Remove cables from battery standout on the PCB mark “+” and “-”, then all the connectors and *NOT FORGET* the EEPROM small connector that was mounted onto the box.

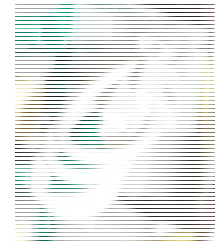
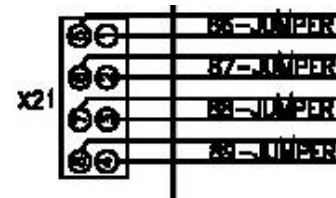
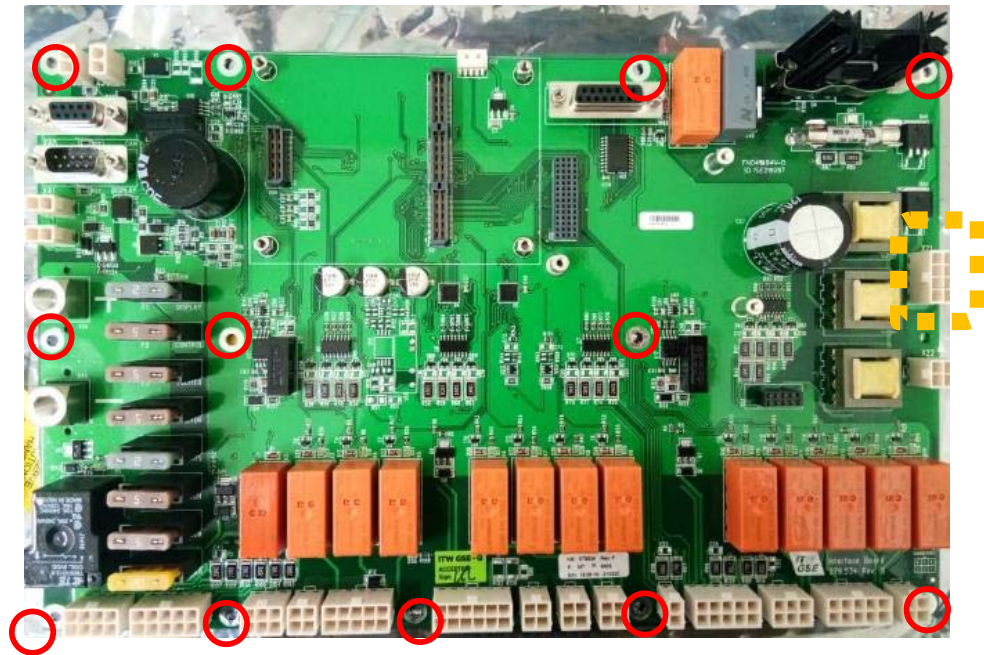
EEPROM (ID Chip) < Mounted >
4400 – X4
6400 – X3



Interface Board Removal - 4400

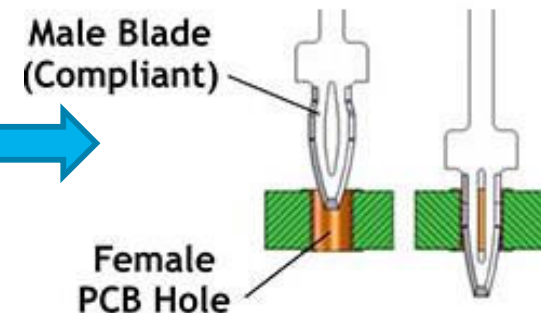


Before removing the Interface Board and to avoid any static discharge to it, please take ESD (Electro Static Discharge) precautions.



Jumper connector have to be removed from existing and plug onto the new PCB

Unlike the Control board that was secure by screws, the Interface Board is hold in place with “Press-Fit” design similar to this



With the ESD strap, gently pull out the board at all points mark (not all holes has the pin) ○ .

Interface Board Installation - 4400



Before installing the Interface Board and to avoid any static discharge to it, please take ESD (Electro Static Discharge) precautions.



With the ESD strap, align and gently press the Interface board onto the pins and thru the PCB at all points (not all holes has the pin) until the press-fit penetrated.

Plug and secure all the connectors.

Secure the respective cables onto both the “+” and “-” standout.

Check and confirm that all the fuses and connectors include “Jumper” connector is transfer from the old board.

Align the PCB connector and gently press the control board onto the interface board. Tighten the four small screws.

Once both the Control and Interface boards are installed with termination.
Turn ON the battery disconnect switch



The Blue LED on the Control board should be steady and no Error message on the display. Start the engine and do all functional checks.

