BEST PRACTICES GROUNDING & POWER

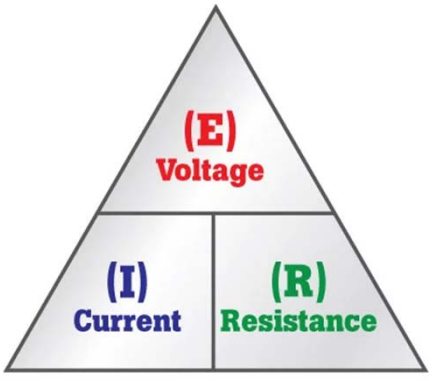
Grounding and power common best practice is to connect chassis ground green from PB (DCWD-PB power box) to cab chassis ground point and black power common to the truck frame chassis ground point. To make a reliable and positive power common connection on a truck and not rely on cab chassis ground connections, follow the instructions listed within this document.

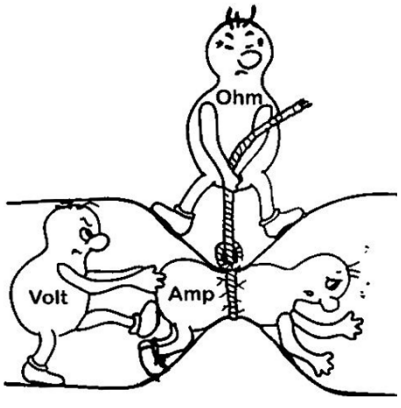
- Power common refers to battery negative.
- Ground refers to chassis ground points and needs to be considered separate when dealing with any sophisticated electronic components on mobile equipment.

Identify the PB (DCWD-PB power box) for the DCWD system, see page 5 figure 5-1. Identify power feed cord black wire and connect/splice to the newly routed 12-gauge wire. Green wire still needs to be connected to the cab chassis ground as a secondary safety for the electronics.

Resistance to ground check is done by attaching a reliable test lead to battery common or negative post directly to the battery terminal, attaching the other end of the test lead to one probe on a VOM (volt ohm meter), set to ohms of resistance and placing the other probe of VOM at the point to test and recording the ohm reading. Always good to measure the ohms through the test lead and subtract that number from the overall ohm reading.

Resistance to ground from battery negative terminal to power common buss in DCWD-PB should be less than 1 ohm meaning just a fraction of an ohm.

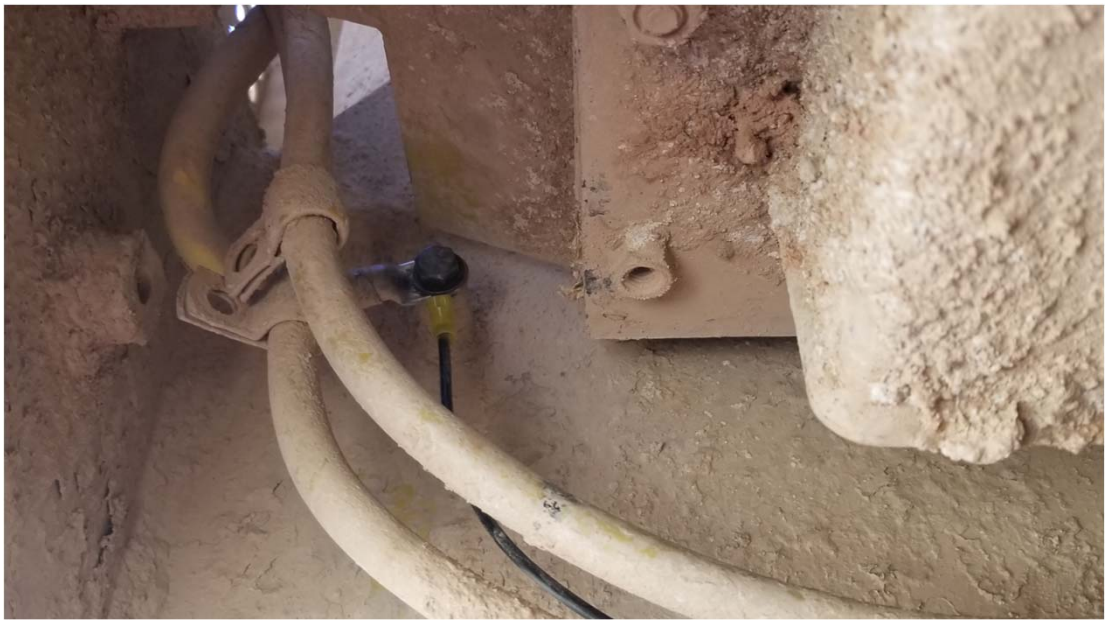




Power isolation switch on truck front bumper.

Follow power cord in back of switch to the point that this connects to truck chassis.

Truck chassis connection point, 3/8-16 bolt. Isolate power, disconnect and clean the connection points, add crimp ring terminal and minimum 12-gauge wire, route and secure wire into the cab rear cavity.



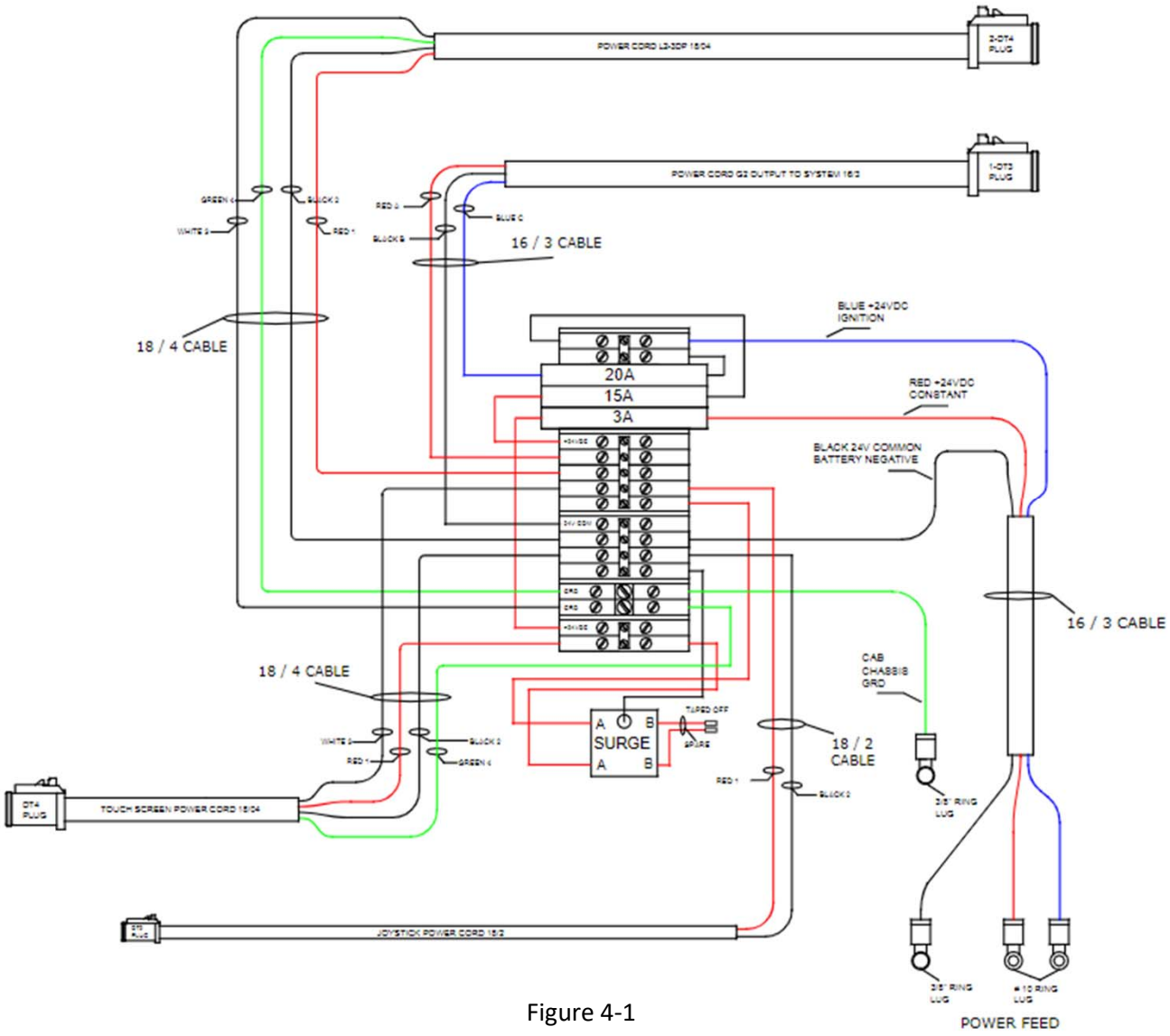


Figure 4-1

Connect the new 12-gauge (or larger) wire from the isolated side of the main disconnect switch to the black wire of the 16/3 power feed pigtail end.

Existing connections re-cap:
Connect the green wire coming from the DCWD-PB to a cab chassis ground point.

Connect the red wire of the 16/3 power feed pigtail end to constant +24VDC.

Connect the blue wire of the 16/3 power feed pigtail end to ignition +24VDC, power that only comes on when the truck's ignition switch is in the "ON" position.

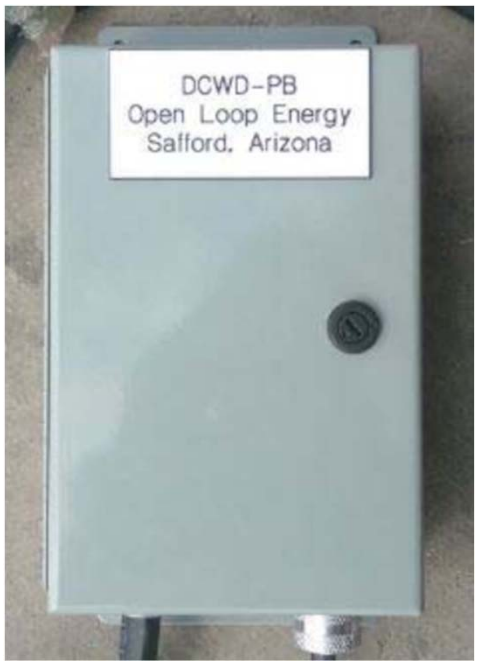


Figure 5-1

DCWD-PB

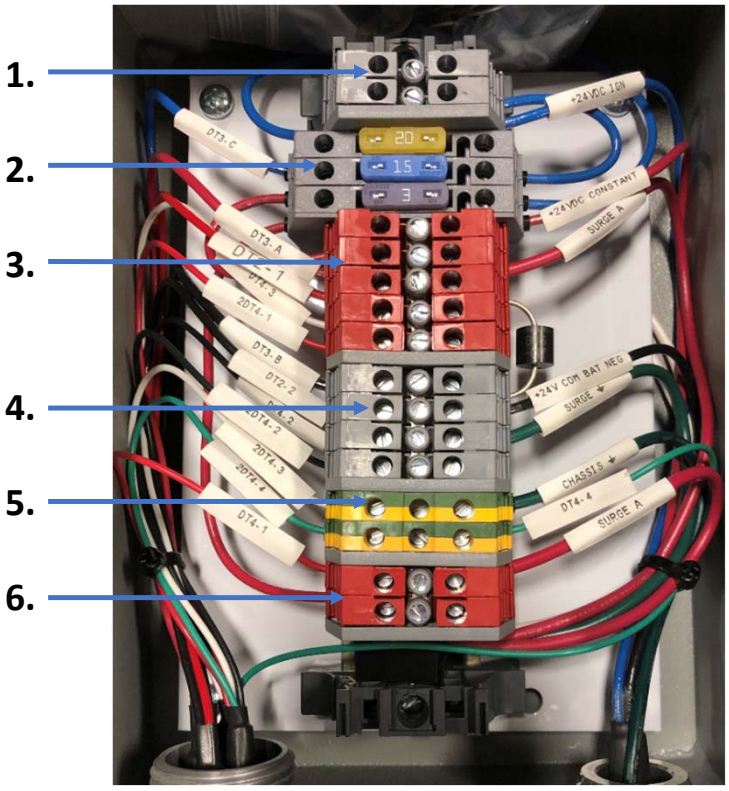


Figure 5-2

1. **INCOMING IGNITION POWER BUSS**
2. **FUSE BLOCK TERMINALS**
3. **+24VDC BUSS**
4. **24V POWER COMMON**
5. **CAB CHASSIS GROUND**
6. **INCOMING CONSTANT POWER BUSS**