



DA/DAC 7000 Series Generators

Battery Saver Installation Instructions

The following instructions are intended to assist the user with the installation of the low voltage disconnect (LVD) module on the DA/DAC 7000 Series Generators. Please read all assembly instructions before installing the kit.

REQUIRED TOOLS

- 10mm socket
- 3/8", 5/16", 9/16", 3/32", 5/32" socket
- 13/64", 1/2" drill bit
- Phillips screwdriver
- Ruler/Straight-edge
- Wire cutters, strippers, crimpers

PARTS

Verify that all parts are accounted for. See Figure 1 and Table 1.

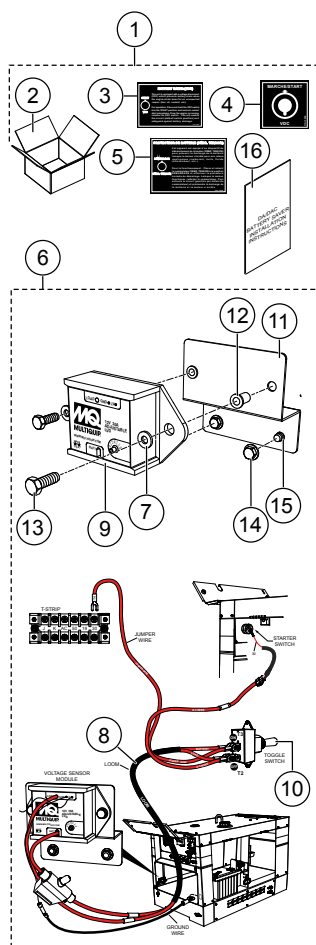


Figure 1. Battery Saver Kit

Table 1. Battery Saver Kit

| Item No. | Part No. | Description | QTY. | Remarks |
|----------|----------|---|------|---------------------|
| 1 | 13501 | Kit, Battery Saver, DA/DAC | 1 | Includes items 2-16 |
| 2 | 777334 | Box, 51-ECT Dbl Wall w/MQ Logo, 12 X 12 X 6 | 1 | |
| 3 | 15000 | Decal, Voltage Disconnect (VDC) | 1 | |
| 4 | 15899 | Decal, Start, VDC | 1 | |
| 5 | 14061 | Decal, Voltage Disconnect, French | 1 | |
| 6 | 14272 | Battery Saver, Assembly | 1 | Includes items 7-15 |
| 7 | 2203 | Washer, Flat, SAE, #10 | 2 | |
| 8 | 14058 | Wiring Harness, LVD, DA/DC | 1 | |
| 9 | 14056 | Low Voltage Disconnect, 30 Amp | 1 | |
| 10 | 14055 | Switch, Toggle, SPST Momentary On-Off | 1 | |
| 11 | 14270 | Bracket, Mounting LVD | 1 | |
| 12 | 29797 | Nut, Blind 10-32 x 0.20-0.130 | 2 | |
| 13 | 32527 | Screw, HHC 10-32 x 3/4" SS | 2 | |
| 14 | 42352 | Nut, Hex, Serrated-Flange, M6-1.0 | 2 | |
| 15 | 42542 | Screw, HFS, ZP, M6-1.0 X 16 | 2 | |
| 16 | 14268 | Instructions, Battery Saver Installation | 2 | |

WORK SAFELY!

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

PREPARATION

1. Make sure generator is turned off and engine is cool.
2. Place the generator in an area free of dirt and debris. Make sure it is on secure level ground. If trailer mounted, place chock blocks underneath each wheel to prevent the generator from rolling.
3. Open the right side cabinet panel to gain access to the engine fuel supply and battery location.

BATTERY CABLE DISCONNECTION

1. Disconnect the negative cable (**BLACK**) from the negative terminal on the battery. See Figure 2.

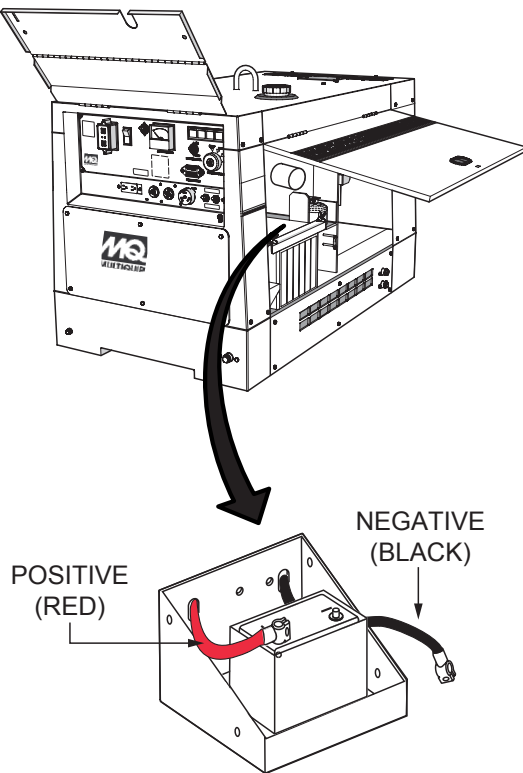


Figure 2. Battery Cable Disconnection

FRONT PANEL REMOVAL AND DECAL PLACEMENT

1. Using a 10mm socket, remove the front panel screws (6) as shown in Figure 3.
2. Locate the two voltage disconnect (VDC) instruction decals in the kit. One will be in English (P/N 15000), and one will be in French (P/N 14061).
3. Apply the two VDC instruction decals (Figure 3) to the lower right corner of the front panel.

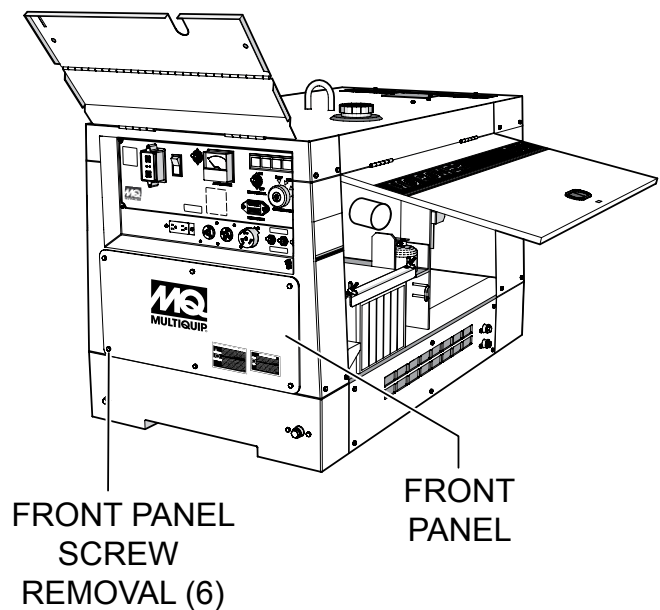


Figure 3. Front Panel Removal and Decal Placement

4. Set the front panel aside in a safe location.

LVD MOUNTING BRACKET INSTALLATION

5. Locate the two screws on the left side generator wall (Figure 4) closest to the generator front panel.
6. Using a 5/16" or 3/8" wrench (Figure 4), remove the two screws.

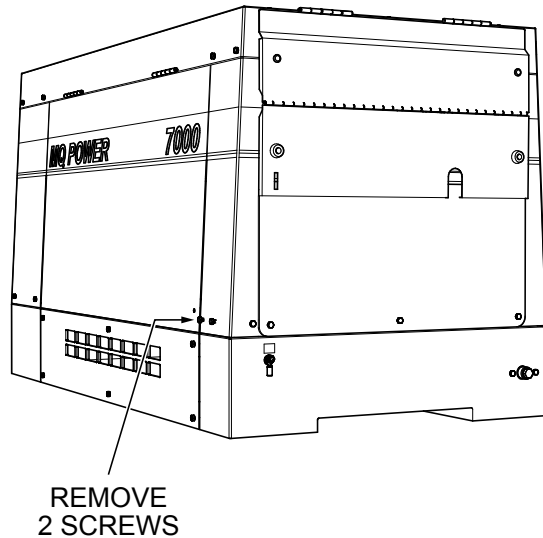


Figure 4. LVD Mounting Bracket Location

LVD MODULE INSTALLATION

1. Locate the low voltage disconnect (LVD) mounting bracket (P/N 14270), two M6-1.0 X 16 screws (P/N 42542), and two M6-1.0 serrated hex nuts (P/N 42352) in the kit.
2. On the inside of the generator, align the LVD mounting bracket (P/N 14270) with the two open screw holes (Figure 5) from Step 2.
3. Using a 10mm open-ended wrench, secure the LVD mounting bracket (P/N 14270) to the generator frame (Figure 5) using two M6-1.0 X 16 screws (P/N 42542) and M6-1.0 serrated hex nuts (P/N 42352).
4. Locate the LVD module (P/N 14056), two 10-32 x 3/4" screws (P/N 32527), and two #10 flat washers (P/N 2203) in the kit.
5. Insert the two blind nuts (P/N 29797) into the two open holes (Figure 5) on the LVD mounting bracket (P/N 14270).

6. Using a 3/32" or 5/32" open-ended wrench, secure the LVD module (P/N 14056) to the LVD mounting bracket (P/N 14269/14270) using two 10-32 x 3/4" screws (P/N 32527), and #10 flat washers (P/N 2203) as shown in Figure 5.

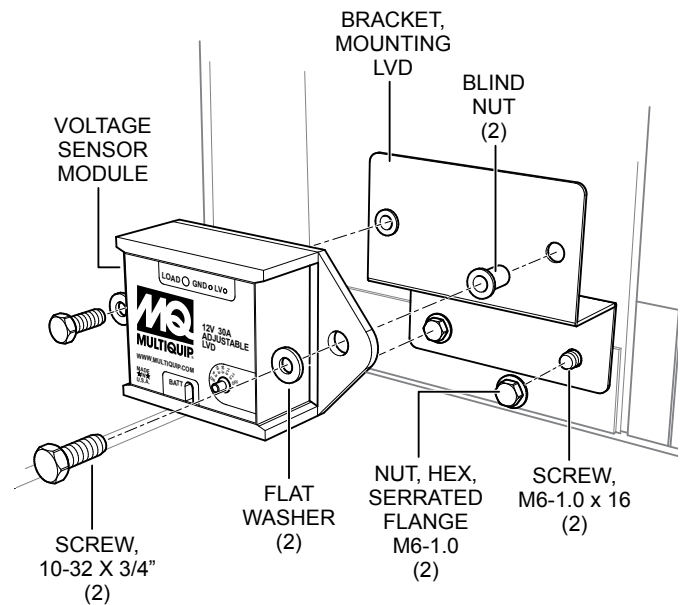


Figure 5. LVD Module and Bracket Installation

7. Adjust the LVD module (P/N 14056) switch to the 11.5 position as shown in Figure 6.

CAUTION

Failure to set the LVD module to the 11.5 position may lead to unwanted battery drain.

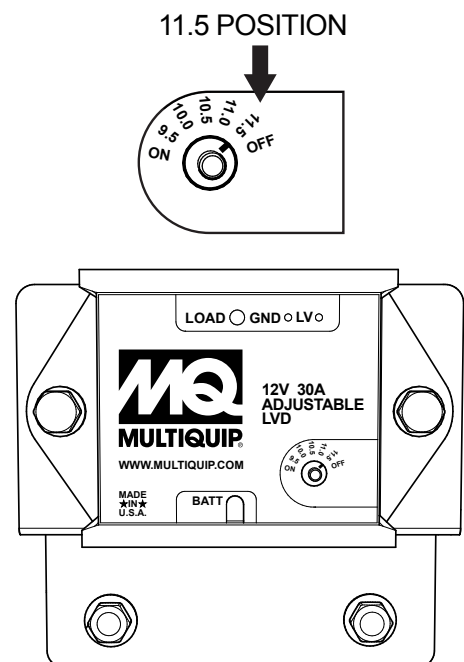


Figure 6. 11.5 LVD Module Voltage Selection

CONTROL PANEL REMOVAL AND MODIFICATION

1. Using a phillips head screwdriver, disconnect (Figure 7) the existing T-strip, terminal 30 red wire.

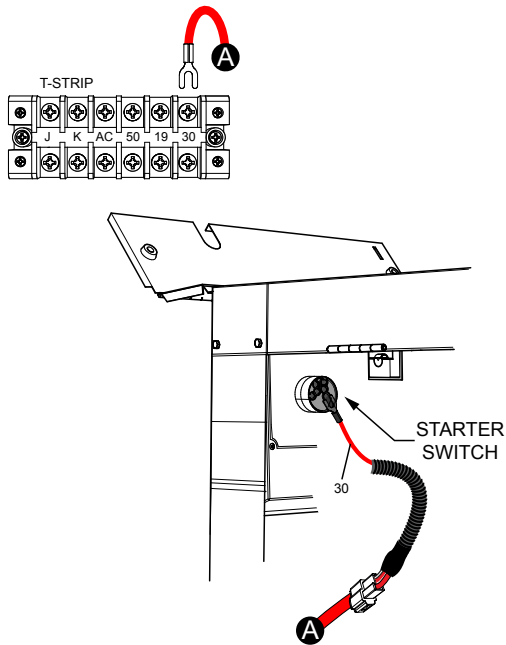


Figure 7. T-Strip, Terminal 30 Wire Removal

2. On the back of the starter switch, locate the red 30 wire (Figure 8) and follow the wire to the starter switch connector.
3. Disconnect the connector. The top half the connector leading to the starter switch will not be modified.
4. Using a pair of wire cutters and strippers, cut the red wire (Figure 8) approximately one inch from the bottom of the bottom half connector.

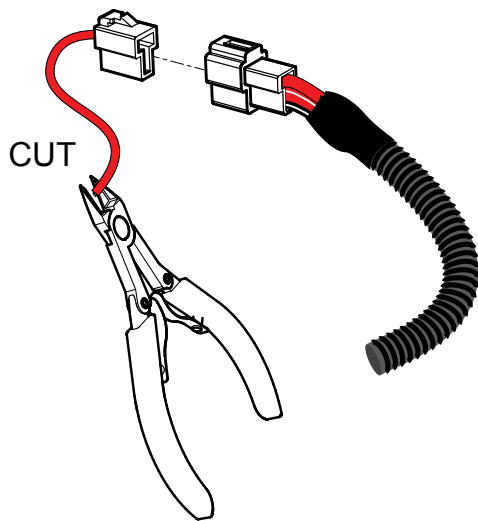


Figure 8. Cutting Starter Switch Wire

NOTICE

The other end of the red wire being cut is originally connected to T-strip, terminal 30.

5. Locate the toggle switch T2, OFF Z-4 labeled wire (Figure 9) and connect the butt connector end to the red wire cut in Step 4.
6. Reconnect the top and bottom half (Figure 9) of the starter switch connector.

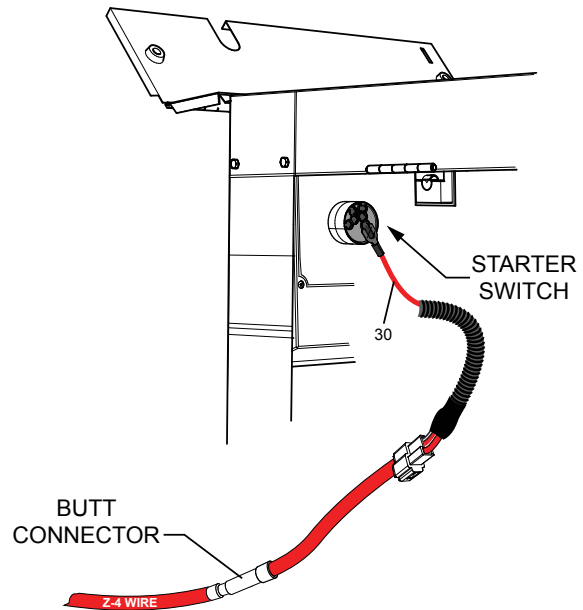


Figure 9. Starter Switch Butt Connector

7. Using a phillips head screwdriver, remove the control panel mounting screws (4) as shown in Figure 10.

CAUTION

Be careful not pull the control panel out to far or to hard for risk of damaging other wires and connections.

8. Using a straight-edge ruler, make a mark 6" to the left and 1.5" above (Figure 10) the control panel lower right corner.
9. Locate the VDC start decal (P/N 15899) in the kit.

10. Apply the VCD start decal (Figure 10) over the marked location. The decal will encircle the toggle switch to be installed on the control panel.

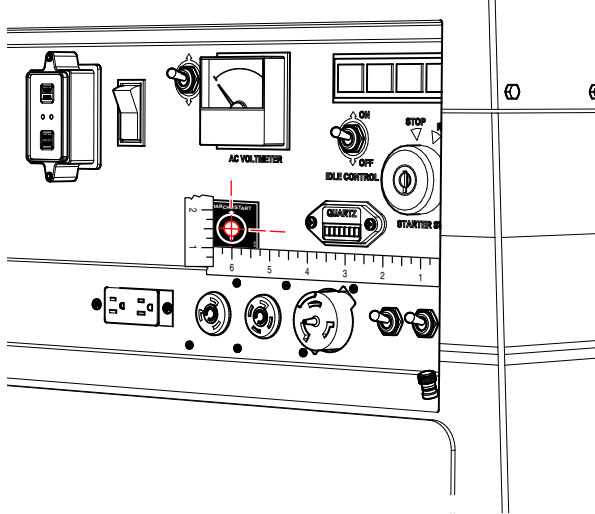


Figure 10. VDC Start Decal Placement

11. Use a 1/2" drill bit (Figure 11) to drill out the marked location.

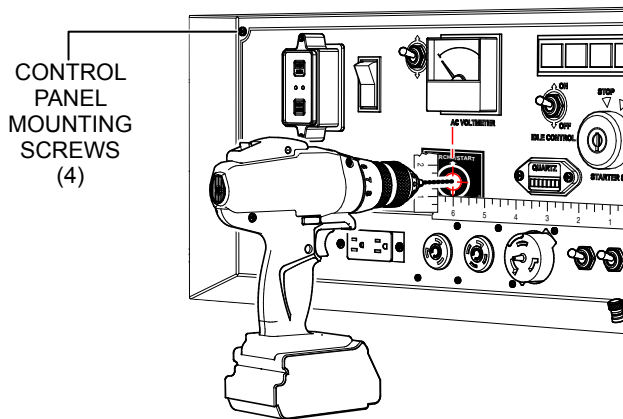


Figure 11. Positioning Switch Mounting Hole

TOGGLE SWITCH WIRING MODIFICATIONS AND INSTALLATIONS

1. Using a phillips head screwdriver, disconnect (Figure 12) the existing T-strip, terminal 30 wire.
2. Locate the LVD module wiring harness and toggle switch in the kit.
3. Route the LVD module LOAD red wire (Figure 12) up to the toggle switch, T2, OFF terminal.
4. Locate the Z4 labeled wire (Figure 12) coming off the toggle switch, T2, OFF terminal. This wire will already be attached to the toggle switch.
5. Route the Z4 wire to the starter switch, terminal 30 wire (Figure 12) and connect both wires via the butt connectors.
6. Route the LVD module BATT red wire (Figure 12) up to the toggle switch, T3, ON terminal.
7. Locate the T4 labeled jumper wire in the kit.
8. Route the T4 jumper wire (Figure 12) from the toggle switch, T3, ON terminal to the T-strip, terminal 30.
9. Check that all connections to the toggle switch and T-strip are secure.
10. Locate the provided grounding wire in the kit.
11. Connect the terminal ring end of the grounding wire to the battery negative post as shown in (Figure 12).
12. Route the provided grounding wire through the zip ties securing the existing wiring harness and connect the grounding wire butt connector end to the low voltage disconnect module grounding wire as shown in Figure 12.

TOGGLE SWITCH INSTALLATION

1. Using a 9/16" open-ended wrench, install and secure the toggle switch to the front control panel using the toggle switch mounting ring.
2. Make sure the toggle switch notch is installed in the downward direction.

POST-INSTALLATION TESTING

1. Using a phillips head screwdriver, reinstall the front control panel.
2. Using a 10mm socket, reinstall the front panel.
3. Reconnect the electrical connector that was disconnected in **Control Panel Removal and Modification** section.
4. Reconnect the negative cable (**BLACK**) to the negative terminal on the battery.
5. Start and run the engine for a minimum of ten minutes to test the low voltage battery disconnect module.

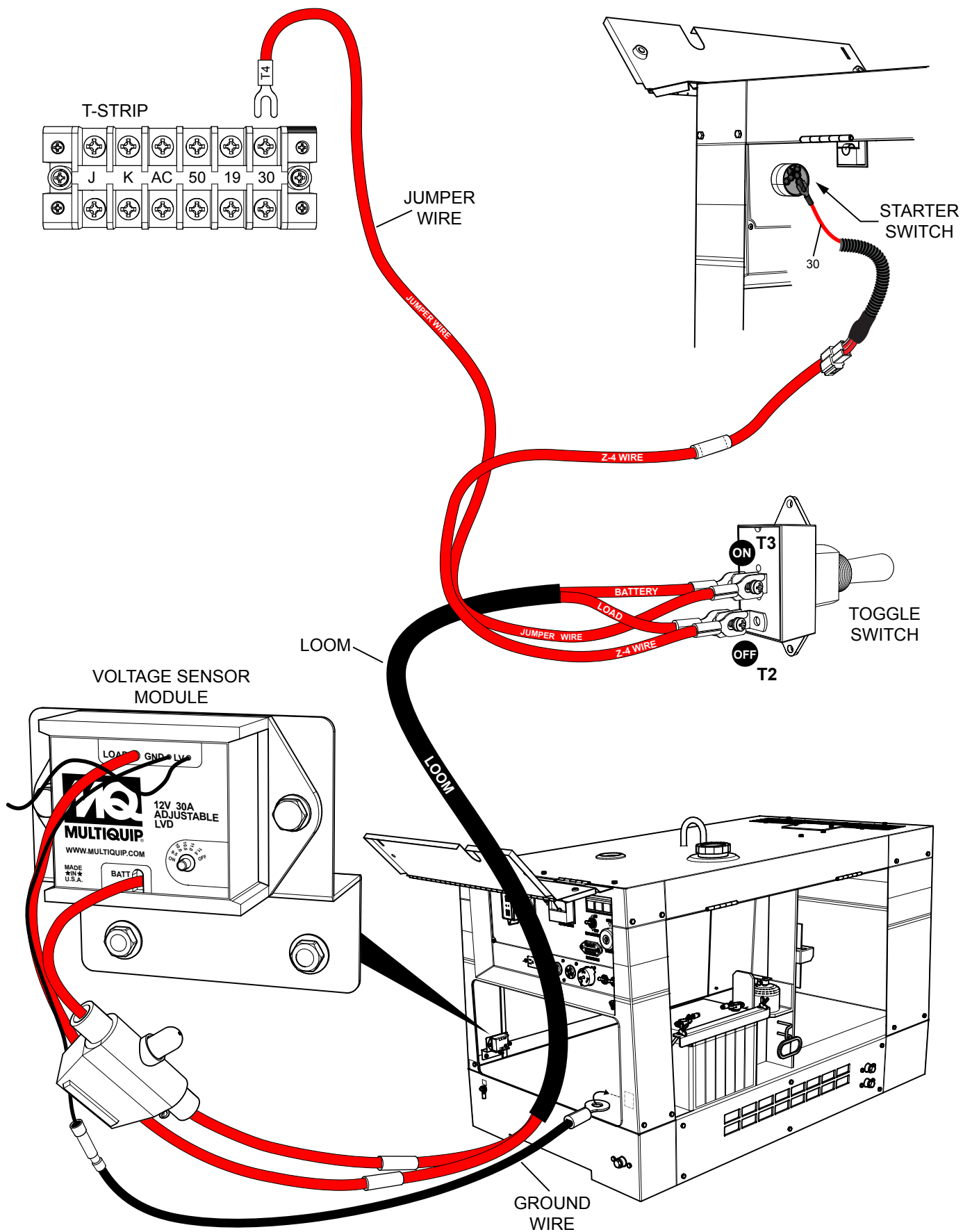


Figure 12. Voltage Sensor Module Wiring

[illegible]



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Battery Saver Instructions

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

UNITED STATES

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