Hex Key Set

Electrical Plug Tester

½ Wrench

11-in-1 Tool

3/8 Drive Rachet

7/16 Socket

½ Socket

3/8 Socket

9/16 Socket

10MM Socket

Multi-Meter

Pex Tool

Multi-Meter

Multi-Meter

Removing the Air Conditioner Knobs

1. Locate the Hex Key Set screw located opposite the switch indicator tab.
2. Using the Hex Key Set, locate the 2mm hex key.
3. This will be the smallest Hex Key.
4. Insert Hex Key and turn counterclockwise to loosen.
5. Remove the knob.
6. Repeat steps 1-5 to remove other knobs.

Removing the AC Unit Cover

1. Use your 11-in-1 tool.
2. Locate the T15 bit.
3. Remove the 2 T15 screws.

Removing the AC Unit Cover

1. Locate your 10MM socket and 3/8 rachet.
2. Remove the 7 total 10MM bolts.
3. The cover should drop straight down.

Testing Electrical Outlets

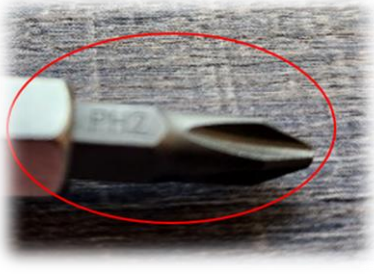
1. Locate your Electrical Plug Tester.
2. Insert the Electrical Plug Tester into the outlet.
3. Compare the illuminated lights to the chart on the tester.

Removing Electrical Outlet Trim Covers

1. Using only your hand.
2. Grab the top corner of the outlet trim cover.
3. Pull the cover toward you and gently pull the cover off the outlet.

Removing the Electrical Outlet

1. Use your 11-in-1 tool.
2. Locate the PH2 bit.
3. With the PH2 bit and the 11-in-1 tool, loosen the 2 Phillips head screws.
4. Pull the outlet toward you.



Removing Hair Vac Controller

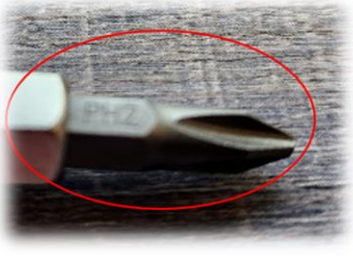
1. Use your 11-in-1 tool.
2. Locate the Flat Head 1/4 bit.
3. Remove the 2 Flat Head screws.
4. Pull the controller toward you.

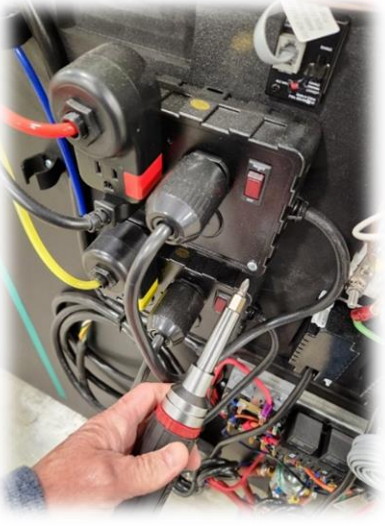
Unplugging the Hair Vac Controller

1. Pull the Controller out of the wall until you see the white phone jack.
2. Press the tab on the white phone cord end.
3. Pull the phone cord from the phone jack.

Removing the Breaker Boxes

1. Use your 11-in-1 tool.
2. Locate the PH2 bit.
3. Unplug all cords from the breaker boxes.
4. With the PH2 bit and the 11-in-1 tool, remove the 2 Phillips head screws.
5. Unplug the breaker boxes from the Inverter Output box.

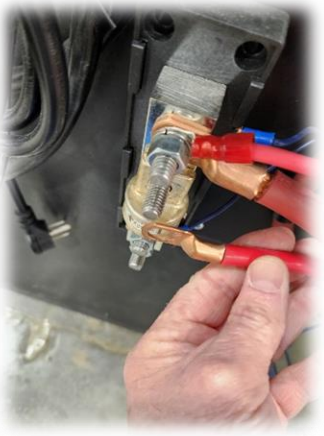




Inspecting Connections 12V DC Panel – Disconnect Main Power

1. Before inspecting the 12V DC Panel, disconnect the main power source.
2. Using the 3/8 Drive Rachet and 9/16 socket.
3. Remove the second nut on the 300-amp fuse.
4. Remove the red cable from the 300-amp fuse.



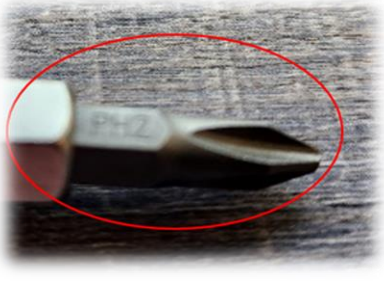
Inspecting Connections 12V DC Panel – Backside – Main Power

1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Using the 3/8 Drive Rachet and 7/16 socket.
3. Check the top 2 red cable connections and make sure they are tight.



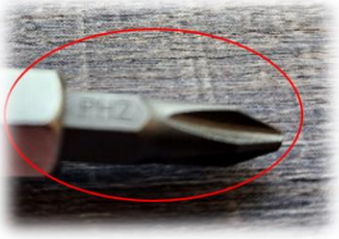
Inspecting Connections 12V DC Panel – Backside - Switches

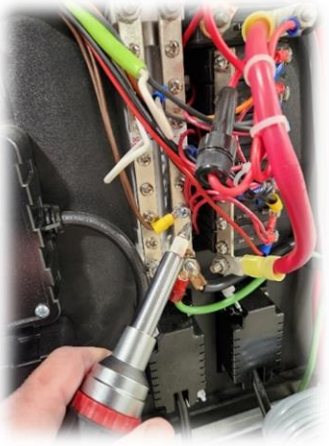
1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Use your 11-in-1 tool.
3. Locate the PH2 bit.
4. Check all Phillips Head connections on the right side of the panel.

Inspecting Connections 12V DC Panel – Backside – Ground Bar

1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Use your 11-in-1 tool.
3. Locate the PH2 bit.
4. Check all Phillips Head connections on the ground bar on the left side of the panel.



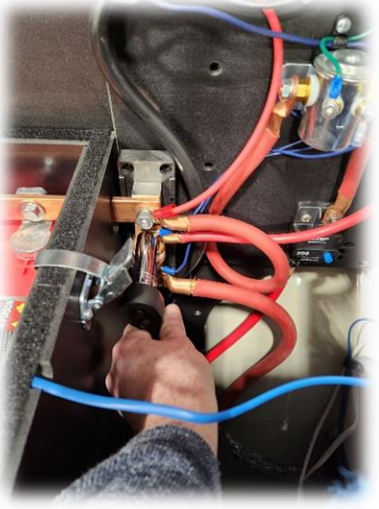


Inspecting Connections 12V DC Panel – Backside – Main Ground

1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Using the 3/8 Drive Rachet and 7/16 socket.
3. Check the bottom cable connections on the ground bar and make sure they are tight.

Inspecting Connections 12V DC Panel – Reconnecting Main Power

1. Place red cable on the second fuse stud.
2. Place the blue wire on top of the red wire.
3. Place the lock washer and nut on the second stud location of the 300-amp fuse.
4. Using the 3/8 Drive Rachet and 9/16 socket and tighten.

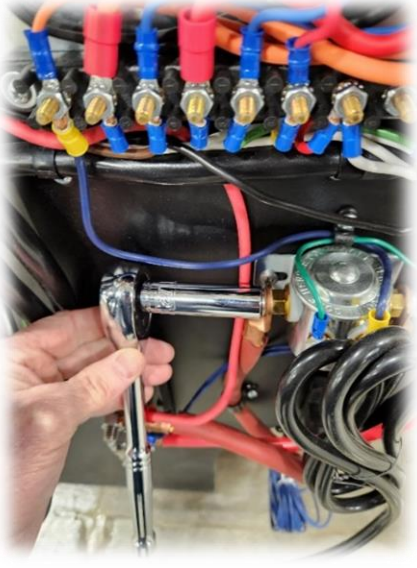


Inspecting Connections AC Power Board

1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Using the 3/8 Drive Rachet and 3/8 socket.
3. Check all connections on the AC Power Board and make sure they are tight.

Inspecting Connections Solenoid Left and Right-Side Connections

1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Using the 3/8 Drive Rachet and 1/2 socket.
3. Check both sides of the solenoid and make sure they are both tight.



Inspecting Connections 300 AMP Fuse

1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Using the 3/8 Drive Rachet and 9/16 socket.
3. Check all 4 connections on the 300 AMP Fuse and make sure they are tight.

Inspecting Connections 200 AMP Breaker

1. Remove the clear Lexan cover using the 11-in-1 tool with the PH2 bit.
2. Using the 3/8 Drive Rachet and 7/16 socket.
3. Check both sides of the 200 AMP Breaker and make sure they are both tight.

Inspecting Battery Cable Connections on the Inverter

1. Remove the Red and Black battery terminal covers using the 11-in-1 tool with the PH1 bit.
2. Each cap has 2 screws.

Inspecting Battery Cable Connections on the Inverter

1. Using the 3/8 Drive Rachet and 1/2 socket.
2. Check both the positive and negative inverter connections and make sure they are tight.
3. Place red and black covers over each connection.

Inspecting Battery Connections

1. Using the 3/8 Drive Rachet and 1/2 socket with a 1/2 wrench.
2. Place the socket on the nut side of the connection.
3. Place the wrench on the bolt side of the connection.
4. Make sure all 8 connections are tight.




Inspecting Boost Pump

1. Using the 11-in-1 tool with the smallest nut driver, see below.
2. Tighten all hose clamps.



Inspecting Boost Pump

1. Using the 11-in-1 tool with the T15 bit.
2. Check all for connections and tighten if needed.




Inspecting Heat Exchanger

1. Using the 11-in-1 tool with the smallest nut driver, see below.
2. Tighten all 4 hose clamps.

Inspecting ALL Water Hose Connections

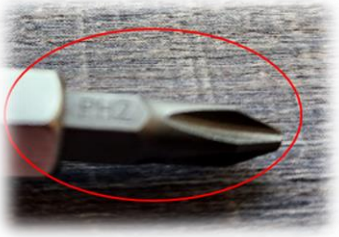
1. Using the Pex tool.
2. Check all of the white fittings.
3. Do not over-tighten the fittings
4. Pex tool is for white fittings only.
5. Clock-wise will tighten.
6. Counter-clock-wise will loosen.
7. The Pex tool has two different sizes. Find the size you need for each fitting.

Inspecting Van Body Ground

1. Using the 3/8 Drive Rachet and 1/2 socket with a 1/2 wrench.
2. Place the socket on the nut side of the connection.
3. Place the wrench on the bolt side of the connection.
4. Tighten as needed.

Inspecting/Replacing Shoreline and Dedicated Plug

1. Using the 11-in-1 tool with the PH2 bit.
2. Remove all 3 Phillips head screws.

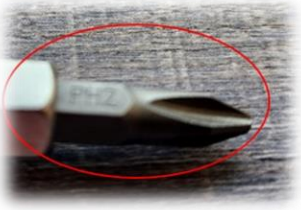


Inspecting/Replacing Shoreline and Dedicated Plug Cont.

1. Once the 3 screws are removed, pull the black plug out of the body of the van.
2. Slide the protection cover up the cord.

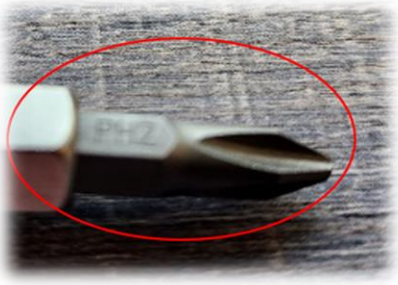
Inspecting/Replacing Shoreline and Dedicated Plug Cont.

1. If you are inspecting the wiring of the plug.
2. Pull on each wire to ensure they are connected to the plug.
3. If any of the wires have pulled out, loosen the Phillips screw for the wire that's pulled out.
4. Insert wire into the color-coded location and tighten the screw with the 11-in-1 tool with the PH2 bit.



Inspecting/Replacing Shoreline and Dedicated Plug Cont.

1. If you are replacing your Shoreline or Dedicated plug.
2. Loosen all 3 Phillips screws with the 11-in-1 tool with the PH2 bit.
3. Pull wires out of the plug.
4. Insert wires in color-coded locations and tighten them with the 11-in-1 tool with the PH2 bit.



Inspecting/Replacing Shoreline and Dedicated Plug Cont.

1. Pull the plug cover back down over the plug.
2. Insert the plug back into the hole in the van.
3. Insert the 3 Phillips screws and tighten with the 11-in-1 tool with the PH2 bit.

Checking voltage

1. Your van will come with one of these two meters.
2. Checking voltage with the meter pictured on the left. Turn the center knob to the 11 o'clock position with the red arrow.
3. Checking voltage with the meter pictured on the right. Turn the center knob to the 2 o'clock position with the red arrow.

Checking voltage on Solenoid and 300-amp Fuse

4. Using your Multi-Meter.
5. Press the On/Off button to turn Multi-Meter on.
6. Turn the large knob to the 2 o'clock position.
7. With the black lead, touch the copper bar.
8. Insert the red lead into the ports labeled S1, S2, F1, and F2.
9. Meter reading should be over 11 volts for each of the ports.

Voltage Faults

1. S1 or S2 to Ground: below 10V means the van starter battery or conversion battery is low charge, inverter may not work. The battery needs to be charged or replaced.
2. S1 to S2: Over 0.5V the solenoid is failing and needs to be replaced.
3. F1 to F2: Over 0.5V, the fuse is blown and needs to be replaced.

Victron Charger

1. Check the wiring connections on the Victron charger for tightness.
2. Using the 11-in-1 tool with the ¼ flat head, make sure all 4 connections are tight.