PREVOST

Instruction Sheet IS-20929

UV LIGHTS INSTALLATION IN AC COMPARTMENT

First Release

09-30-2020

H SERIES FROM E-2662 ; X SERIES FROM F-5760

MATERIAL

Kit **#IS20929** includes the following parts:

Part No.	Description	Qty
7771178	UVC LIGHT KIT	1
N91098	UV RESISTANT CABLE TIE 8" LG, BLUE	20
IS-20929	INSTRUCTION SHEET	1
FI-20929	INSTRUCTION SHEET	1

Available replacement parts:

Part No.	Description
TBD	UVC Tube 25W
830155	Ballast T8 32W
TBD	Wiring Harness UV1-A
TBD	Wiring Harness UV1-B
TBD	Wiring Harness UV2-A
TBD	Wiring Harness UV2-B
TBD	UVC tube central support
TBD	Main wiring Harness
563332	Relay 24V

NOTE

Material can be obtained through regular channels.

CAUTION

HIGH INTENSITY ULTRAVIOLET LIGHT.

WHEN THIS KIT INSTALLATION IS COMPLETED, AVOID EYE & SKIN EXPOSURE. TURN OFF UV-C LIGHTING BEFORE ACCESSING THE COMPARTMENT.

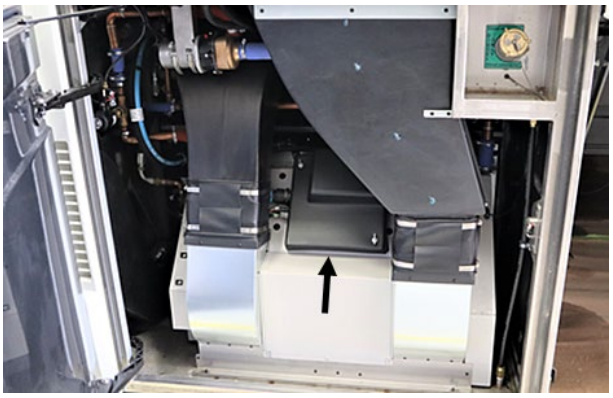
PROCEDURE

DANGER

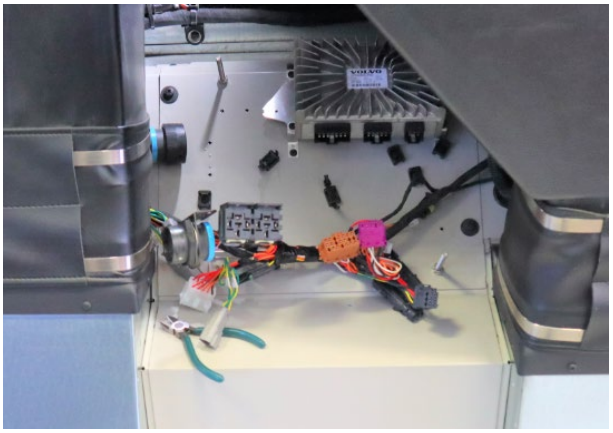
Park vehicle safely, apply parking brake, stop engine. Prior to working on the vehicle, set the ignition switch to the OFF position and trip the main circuit breakers equipped with a trip button. On Commuter type vehicles, set the battery master switch (master cut-out) to the OFF position.

Lock out & Tag out (LOTO) must be performed during set-up, maintenance or repair activities. Refer to your local procedure for detailed information regarding the control of hazardous energy.

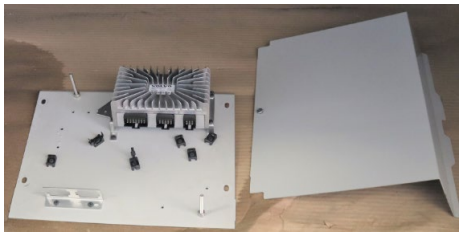
1. Open the main AC compartment door and remove the plastic cover protecting the I/O-EB module (located between the two main ducts).

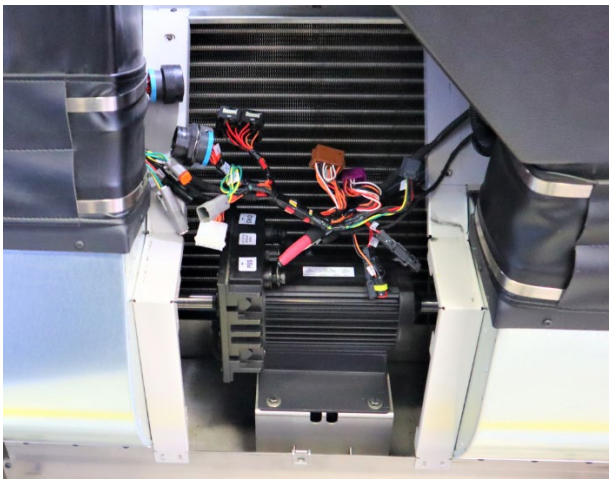


2. Disconnect the I/O-EB module. Also disconnect all harness connections and cable ties that prevent the removal of the upper cover (on which is mounted the I/O-EB module).



3. Remove the top and bottom cover to access the AC motor and evaporator coil.

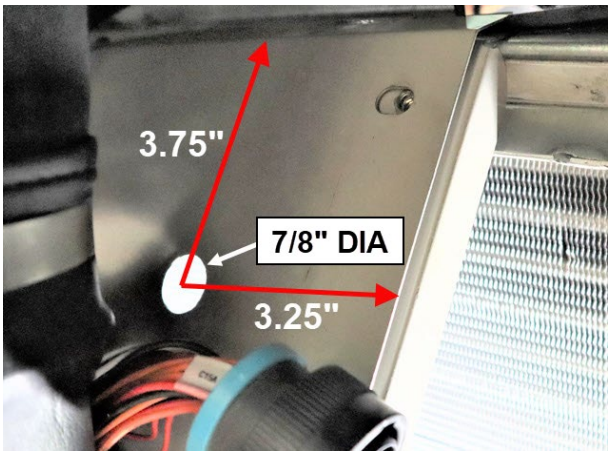


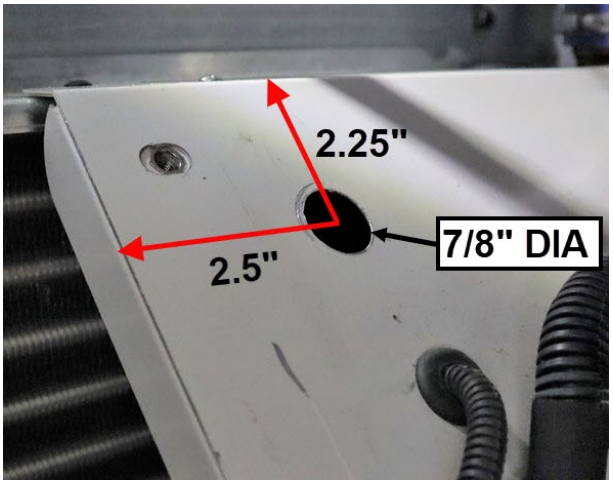


4. Two **7/8in** holes must be drilled behind the evaporator housing ducts (one on each side) to allow passage for the tubes power cables.

– The left side hole must be drilled **3.75in** from the top of the housing and **3.25in** from the cover opening.

– The right side hole must be drilled **2.25in** from the top of the housing and **2.5in** from the cover opening.





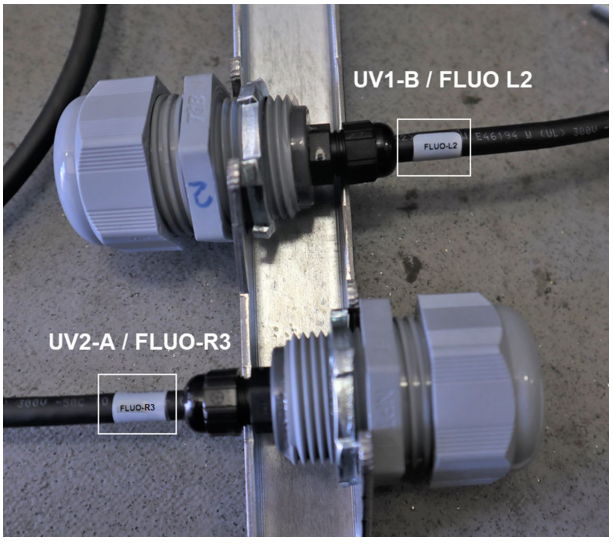
NOTE

For this procedure, a knockout punch was used to perforate both holes in the housing.

If knockout punches are unavailable, the holes can be drilled using a large step drill or a corresponding diameter hole saw.

5. Secure the **UV1-B** harness gray tube connector to the *top* support opening (gray connector is labeled FLUO-L2).

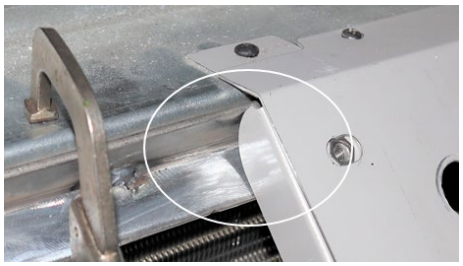
6. Secure the **UV2-A** harness gray tube connector to the *lower* support opening (gray connector is labeled FLUO-R3).



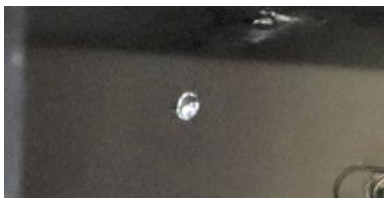
7. Position the support at the top of the housing and maintain in place using locking C-clamp.

– Keep the support centered in the opening as much as possible.

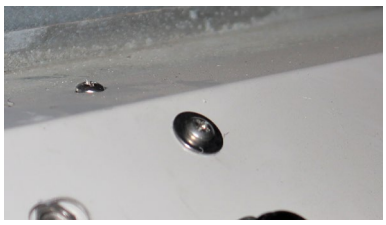
– The support tabs must sit flat against the top 45deg part of the housing.

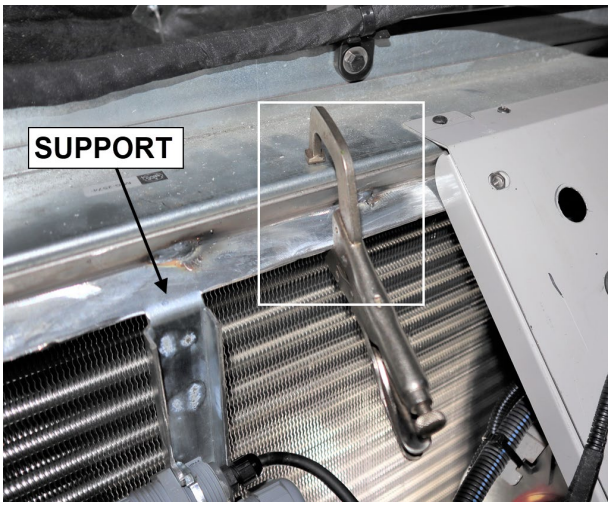


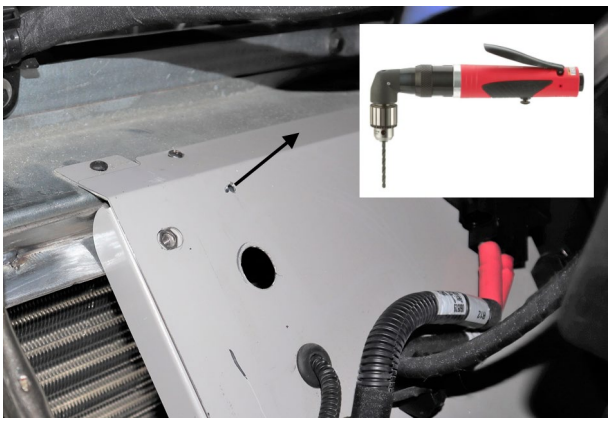
8. From the inside (using an angled drill), drill the two mounting holes in the housing (use the holes in the support tabs as a guide). Use a short **1/4 or 7/32 in (6mm)** drill bit.

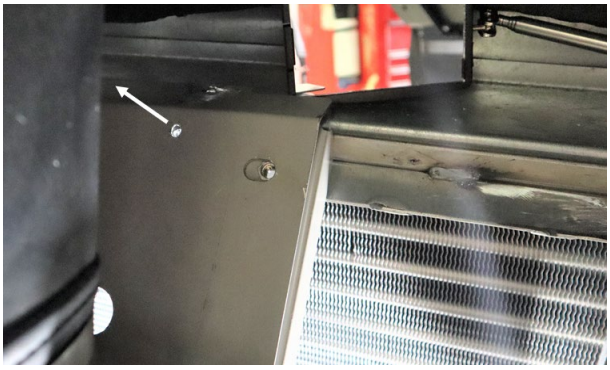


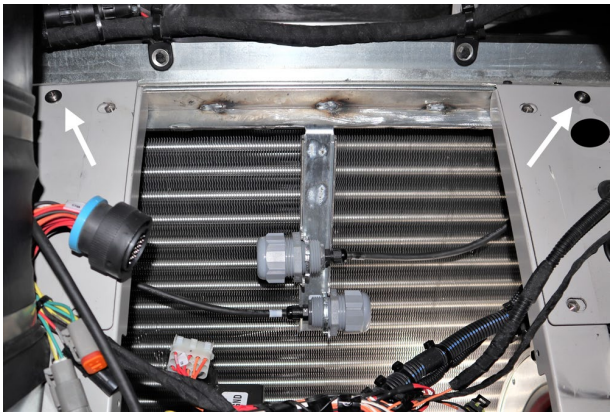
9. Secure the support using the supplied screws, washers & nuts.



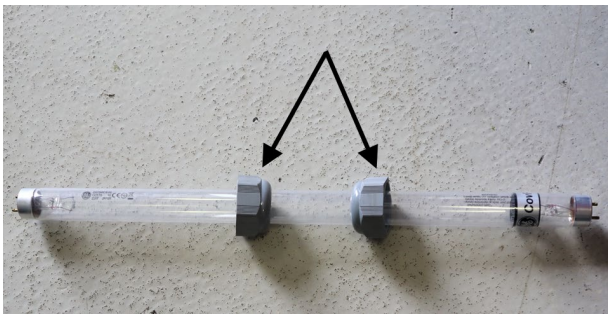








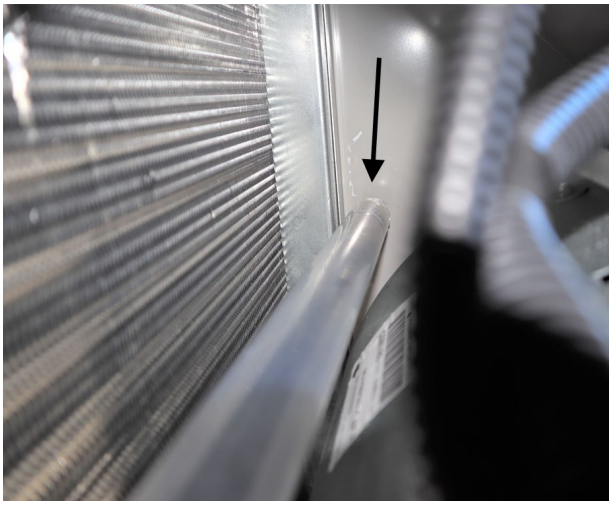
10. Remove the (plastic gray) tube hold-down nuts from all harnesses (UV1-A, UV1-B, UV2-A & UV2-B). Slide the hold-down nuts over the two tubes.



11. Insert a UV tube in the bottom **UV2-A/FLUO-R3** connector (and tighten the hold down nut).

– Have the other end of the tube contact the inside wall panel of the housing.

– Keep the tube leveled as much as possible (horizontal & vertical).

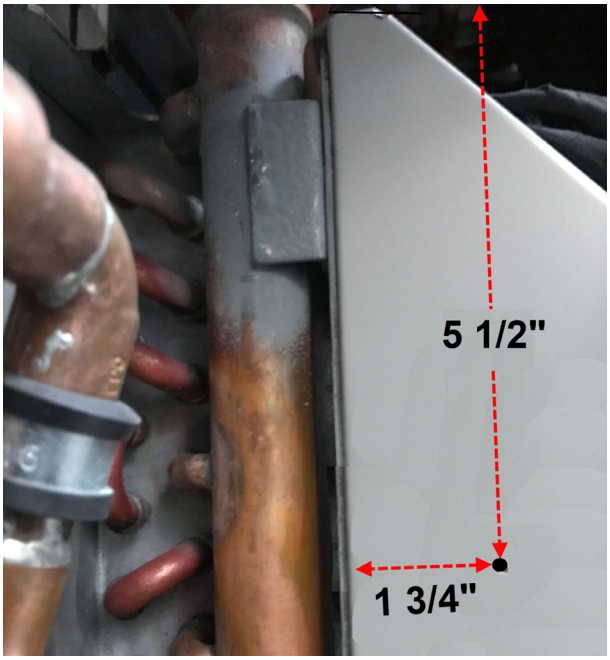


12. Using a sharpie, insert your hand and mark the tube position (perimeter of the tube).

13. Repeat operation 11 & 12 for the other side (top) **UV1-B/FLUO-L2** connector.

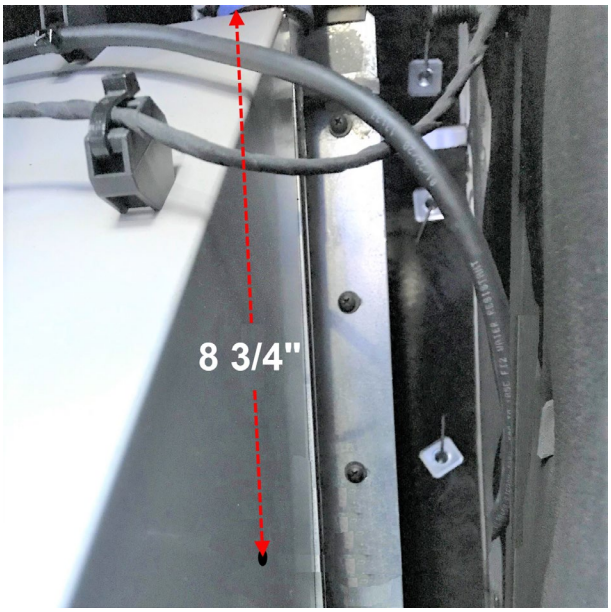
14. From the inside, drill a small pilot hole in the middle of the marks (both sides).

15. Before drilling the final (larger) holes, validate from the outside of the housing that the pilot holes are drilled at the correct positions.



- Both pilot holes should be located approximately **1.75in from the edge** of the housing (horizontal position).

- Top tube pilot hole should be located approximately **5.5 in from the top** of the housing and the lower pilot hole **8.75 in from the top** (vertical positions).

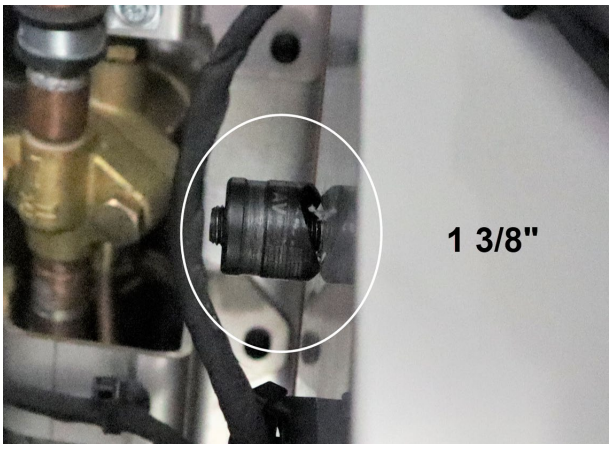


NOTE

The pilot hole positions given above are approximate, some variations are acceptable.

If the holes position are way off, re-adjust accordingly and drill new holes in correct positions.

16. Once the pilot holes correct positions are confirmed, enlarge the holes (both sides) to **1.375in** using a knockout punch or other suitable tool.

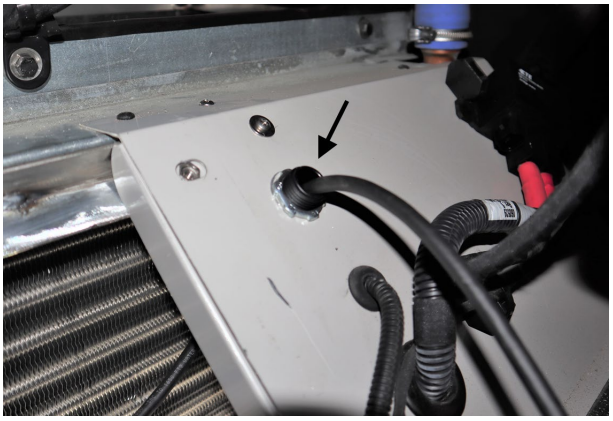


NOTE

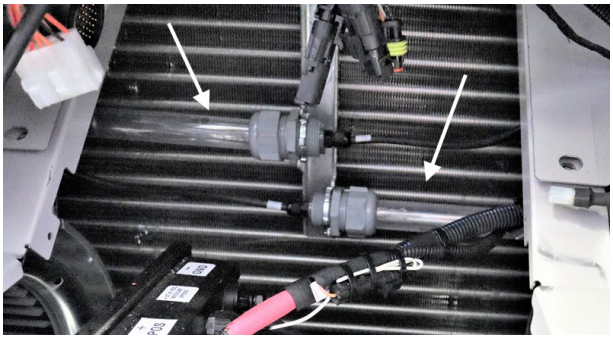
For this procedure, a knockout punch was used to enlarge the holes in the housing.

If knockout punches are unavailable, the holes can be drilled using a large step drill or a corresponding diameter hole saw.

17. Pass the **UV1-B & UV2-A** harness through the top openings and secure their black fittings with the conduit locknuts.

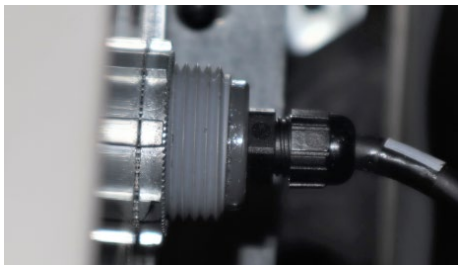


18. Insert a fluo tube in each center connector (FLUO L2 & FLUO R3).

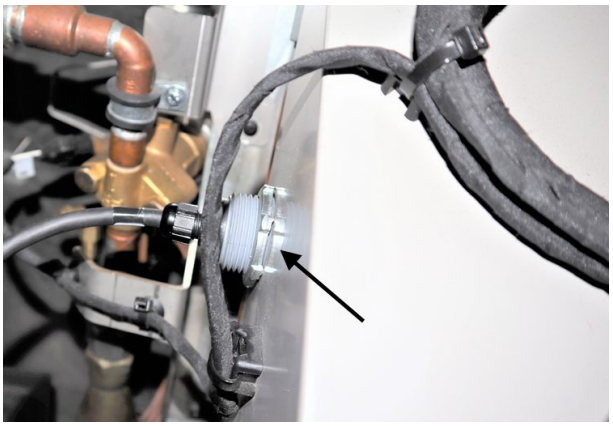


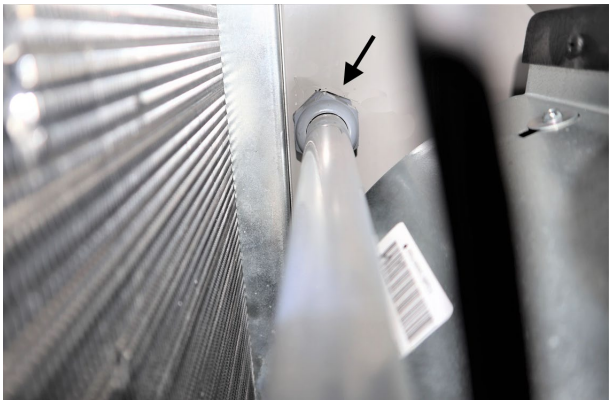
19. Insert the gray **FLUO L1** (top/left) & **FLUO R4** (bottom/right) connectors through the side holes of the housing to connect the fluo tubes.

20. Secure the gray **FLUO L1** (top/left) & **FLUO R4** (bottom/right) connectors to the sides of the housing using the conduit locknuts.

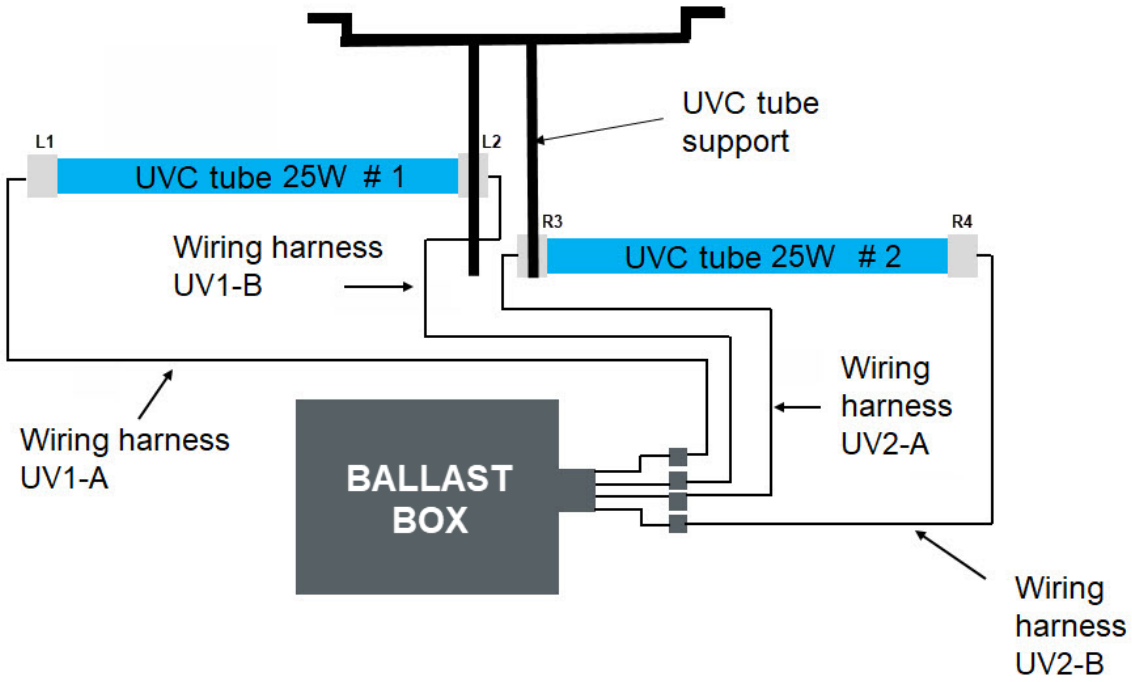


21. Hand tighten the four inner tube nuts to finalize the tubes installation in the evaporator housing.

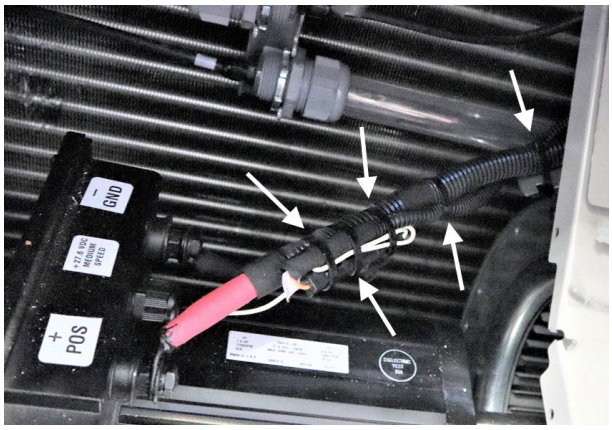




UVC tube arrangement

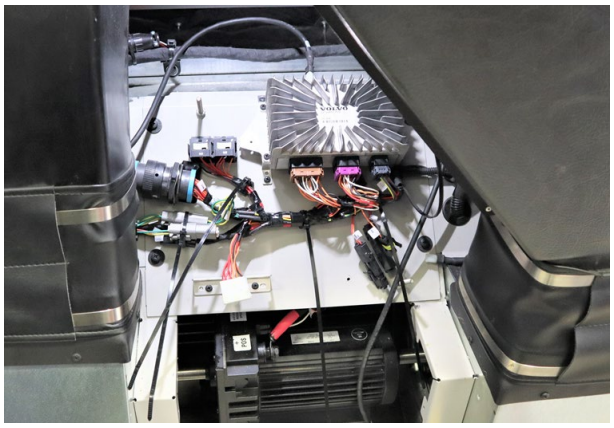


22. Replace all the cable ties attached to the fan motor power cable (+ POS) by the supplied **N91098** UV resistant cable ties.

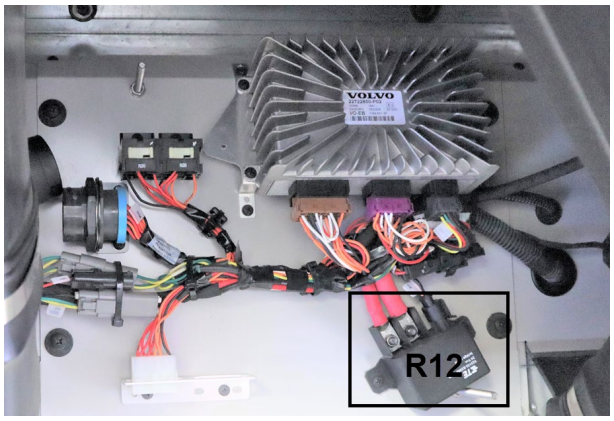


23. Reinstall the housing top cover with the I/O-EB module (hand tight the screws).

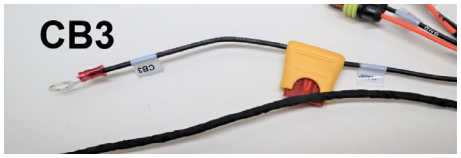
24. Reconnect the module, relays and surrounding harnesses. Also secure the harnesses with new **N91098** UV resistant cable ties.

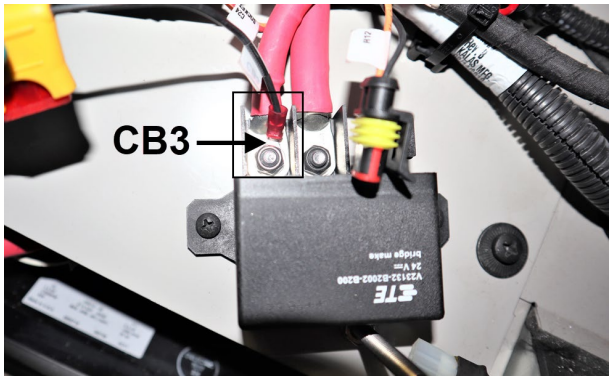


25. Locate the **R12 relay** at the lower right corner of the cover (just below the I/O-EB module).

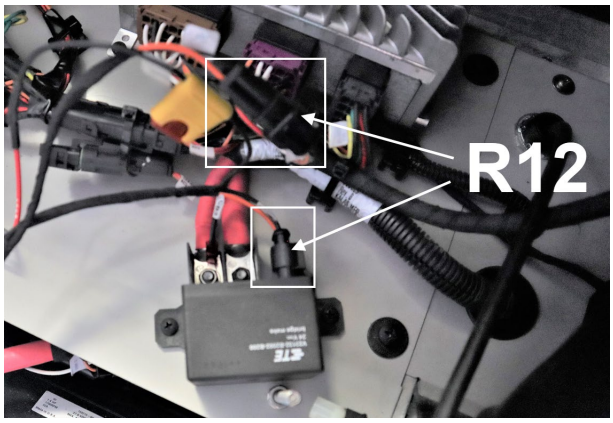


– Connect the **CB3 fused wire (10 amps)** of the ballast box to the **CB3 connection of the R12 relay** (left wire).

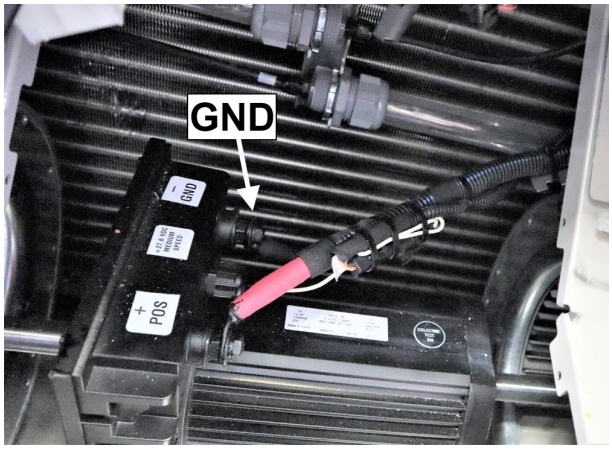




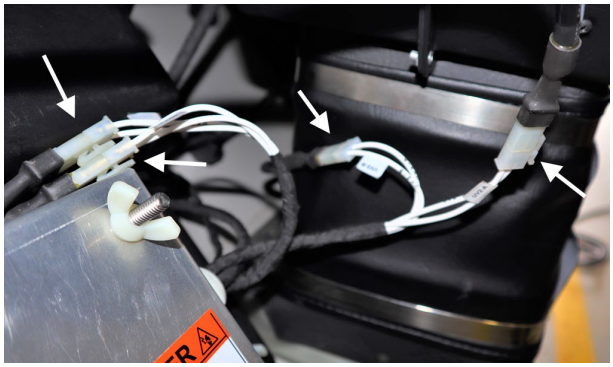
– Disconnect the **R12 relay AMP type connector** (sealed) and connect the **two R12 connectors** of the ballast box. One end goes to the relay the other end to the disconnected harness.



– Connect the ballast box ground connection to the ground stud of the fan motor (GND).



26. Connect the four tubes connectors to the UV tubes ballast box. Connectors are numbered and must fit with the numbers on the box connectors.

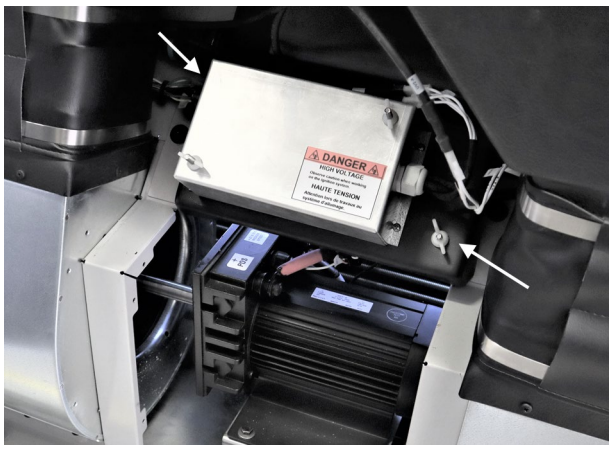


27. Fit the fully connected ballast box to the black plastic cover that goes over the I/O-EB module.

– Secure the plastic cover (and ballast box) over the module.

– Secure the harnesses coming out of the ballast box as required using UV resistant cable ties.

– Do not reinstall the lower cover of the housing or tighten the upper cover screws yet.



28. Set the main switch & circuit breakers to the ON position and activate the AC system.

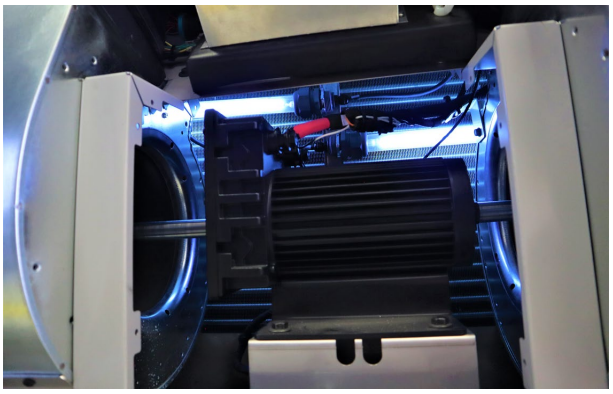
CAUTION

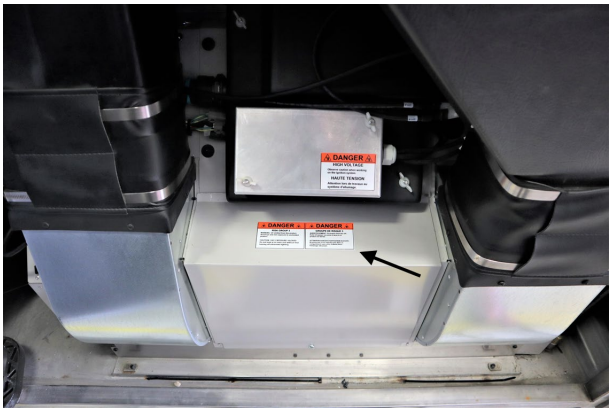
DO NOT LOOK DIRECTLY AT THE UV LIGHT

- Make sure that both UV tubes are working properly.
- Also make sure that both tubes are off when the vehicle AC is not running.

29. After the correct operation is confirmed, the lower cover can be put back in place and the upper cover screws tightened.

30. Install the supplied warning sticker to the lower cover to finish the installation.





PARTS / WASTE DISPOSAL

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)