

TECHNICAL SERVICE BULLETIN



DEPARTMENT OF COMPLIANCE
 VEHICLE SAFETY AND RECALL MANAGEMENT
 BUILDING 11
 423 N MAIN ST
 MIDDLEBURY, INDIANA 46540-9218

THIS IS A REPLACEMENT TECHNICAL SERVICE BULLETIN AND SUPERSEDES THE ORIGINAL TECHNICAL SERVICE BULLETIN NUMBER 225-1025.

YOU MUST HAVE THIS TECHNICAL SERVICE BULLETIN 225-V21025 COMPLETED.

Technical Service Bulletin: 225-V21025

- o Integrity
- o Safety
- o Quality
- o Customer Service

<<VIN>>
 <<OWNER NAME/DEALERNAME>>
 <<ADDRESS>>
 <<CITY>>, <<ST>> <<ZIP-XXX>>

September 23, 2019

This Notice applies to your vehicle VIN listed above.

Dear Forest River Customer:

Forest River is alerting you to an issue involving certain 2019 Galleria models GAB24FLM4X4, GAB24QM4X4 and GAB24TM4X4, 2019 - 2020 - Galleria – GAB24AM, GAB24AM4X4, GAB24FLM, GAB24QM and GAB24TM, 2019 CrossFit models CFB22CF, CFB22CFEB and CFB22DFEB, 2020 Beyond models BYB22CFEB, BYB22DF and BYB22DFEB Class B Motorhome recreational vehicles. Please see the information below which describes the issue and provides you with details on the steps you should take to have your vehicle repaired.

WHAT IS THE ISSUE?

The thermistor installed in the vehicle is not in an optimal location. The thermistor will need relocated, and software upgrade to the FireFly electronic control system is also required.

OWNERS: WHAT SHOULD YOU DO?

Please make an appointment with your Forest River Dealership to have this Service Bulletin completed.

DEALERS: WHAT SHOULD YOU DO?

Please review the included remedy instructions. To obtain the remedy kit contact FireFly at (574) 825-4600

Beyond & CrossFit Remedy Kit: F100148955

Galleria Remedy Kit: F100148956

MAY FOREST RIVER ASSIST YOU FURTHER?

CONTACT	PHONE
COACHMEN CUSTOMER SERVICE	(574) 825-8590
FIREFLY CUSTOMER SERVICE (PARTS)	(574) 825-4600

DEALER REPAIR CODES: Dealer Central

TECHNICAL SERVICE BULLETIN NUMBER	DESCRIPTION	REPAIR CODE	ALLOWED HOUR(S)
225-1025V2	CONDUCT REMEDY PER INCLUDED INSTRUCTIONS	10-V21025	2.50 HRS

DEALER REPAIR CODES: Dealer Connect

TECHNICAL SERVICE BULLETIN NUMBER	DESCRIPTION	REPAIR CODE	ALLOWABLE HOUR(S)
225-1025V2	CONDUCT REMEDY PER INCLUDED INSTRUCTIONS	SB-386-03--003288	2.50 HRS.

TECHNICAL SERVICE BULLETIN

WHAT IF YOU HAVE PREVIOUSLY PAID FOR REPAIRS TO YOUR VEHICLE FOR THIS PARTICULAR CONDITION?

If you have already paid for a repair that is within the scope of this service bulletin, you may be eligible for a refund of previously paid repairs. Refunds will only be provided within the scope of this Technical Service Bulletin.

Please contact the Warranty Department at the phone number above to arrange for reimbursement.

If you have already had this condition remedied at no cost under warranty, please disregard this notice.

PLEASE NOTE: FEDERAL LAW REQUIRES THAT ANY VEHICLE LESSOR RECEIVING THIS SERVICE BULLETIN NOTICE MUST FORWARD A COPY OF THIS NOTICE TO THE LESSEE WITHIN TEN DAYS.

Sincerely,

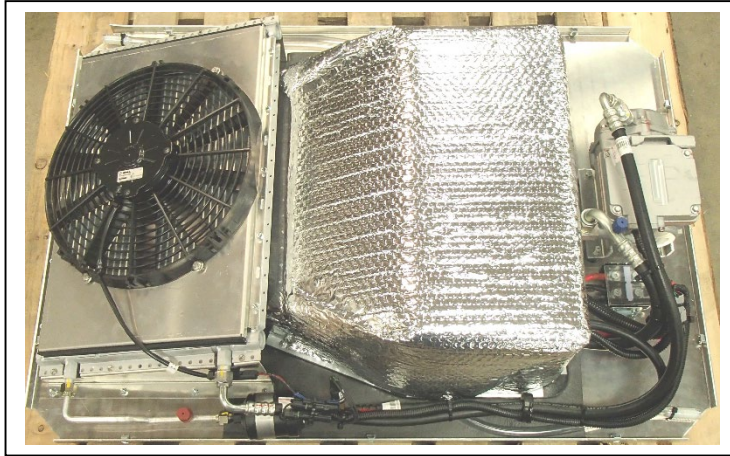


Forest River, Inc.

Engineer

Office of Corporate Compliance

PRODUCT: Inst Instr, RV RT Comp Replcmnt Pnl, Freeze-up T-stat, Press Sw
RELEASE DATE: 08/13/19
REVISION DATE: 09/25/19
PART NUMBER: 09 000 562 REV C



Parts List

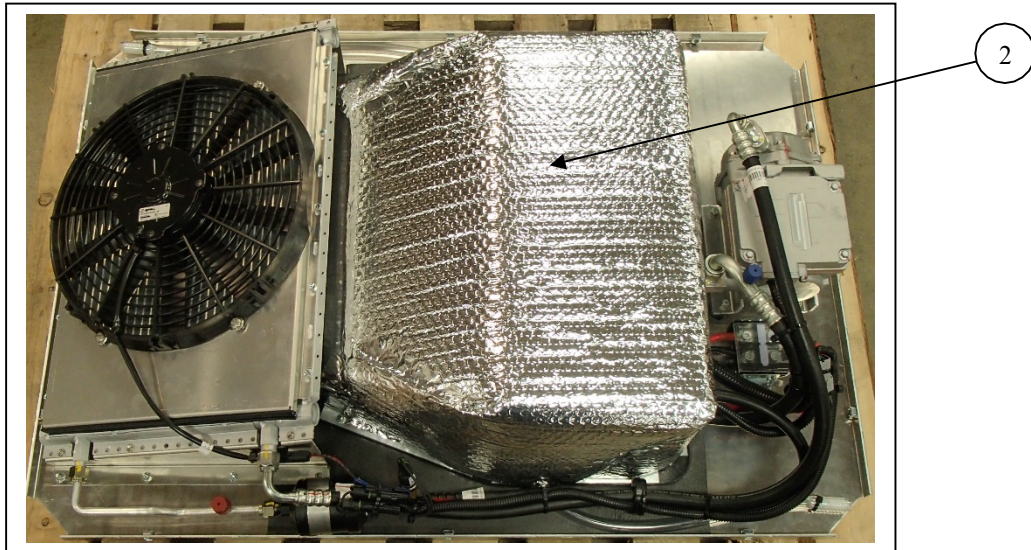
52 001 180 Install Instr, RV RT Freeze-up T-stat, Pressure Switch

- (1) 01 000 351-Thermostat, Non-Adj (31-39)
- (1) 15 000 162 - Switch, PS 350 w/WP Conn
- (2) 02 000 052 - Wiretie, 14 x 3/16
- (2) 02 000 107 - Screw, 10x1/2 PH Phil Blk
- (2) 08 000 112 - Tape, Foil 2" x 150' roll
- (1) Replacement Electrical Panel

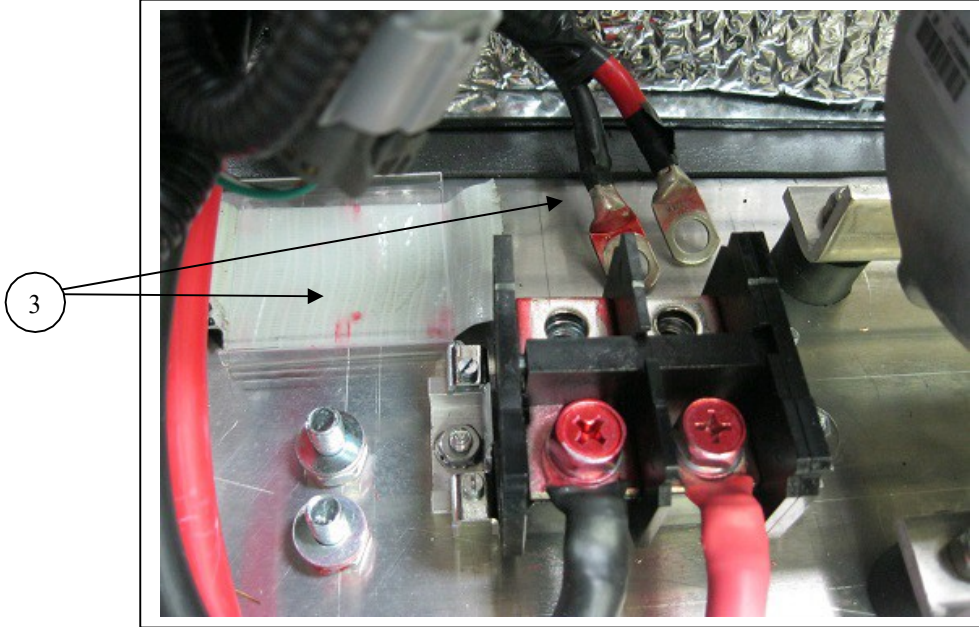


1. Remove 10 bolts from unit. **DO NOT DISCARD** hardware.

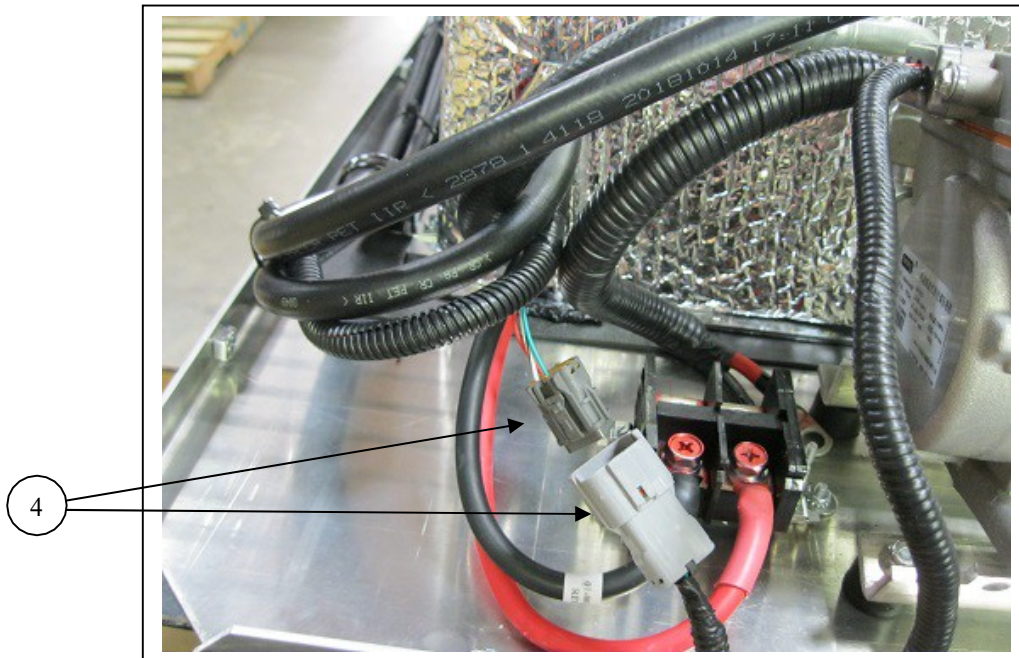
Three on each side / Two on both ends



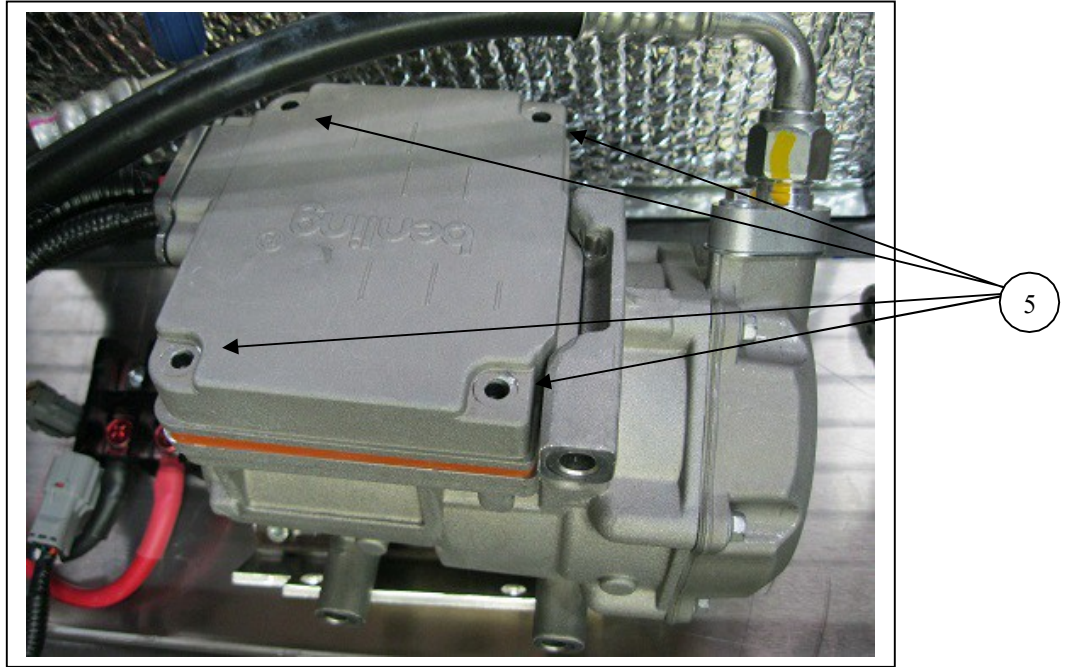
2. Remove cover and set aside.



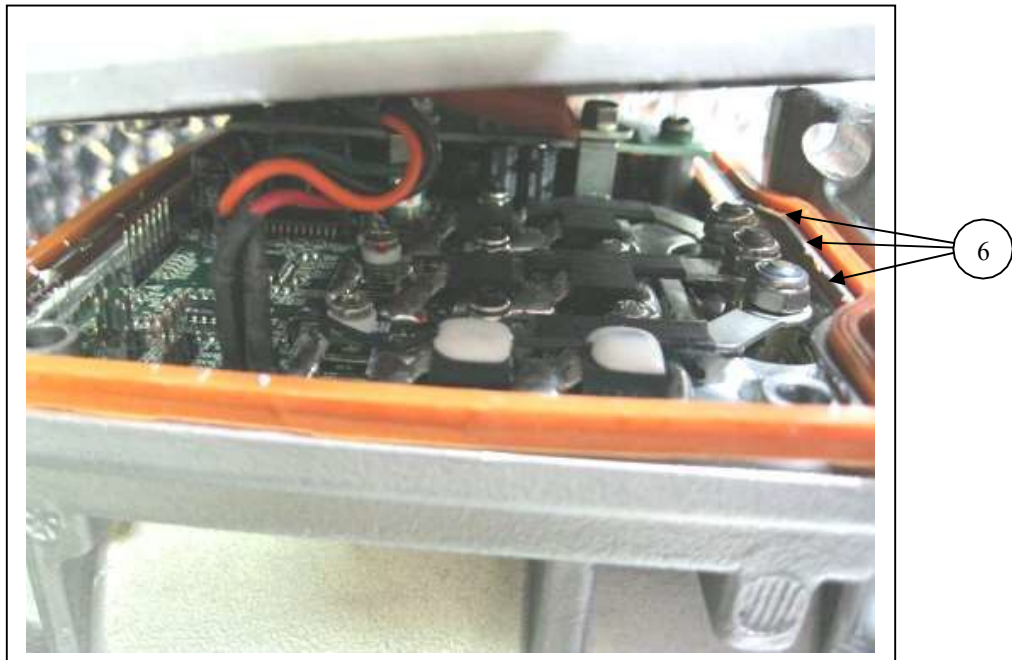
3. Remove taped cover on the junction box, Save cover to reattach later. Use a Philips screwdriver Remove bolts and black ground/Red power wire from junction box. **DO NOT DISCARD.**



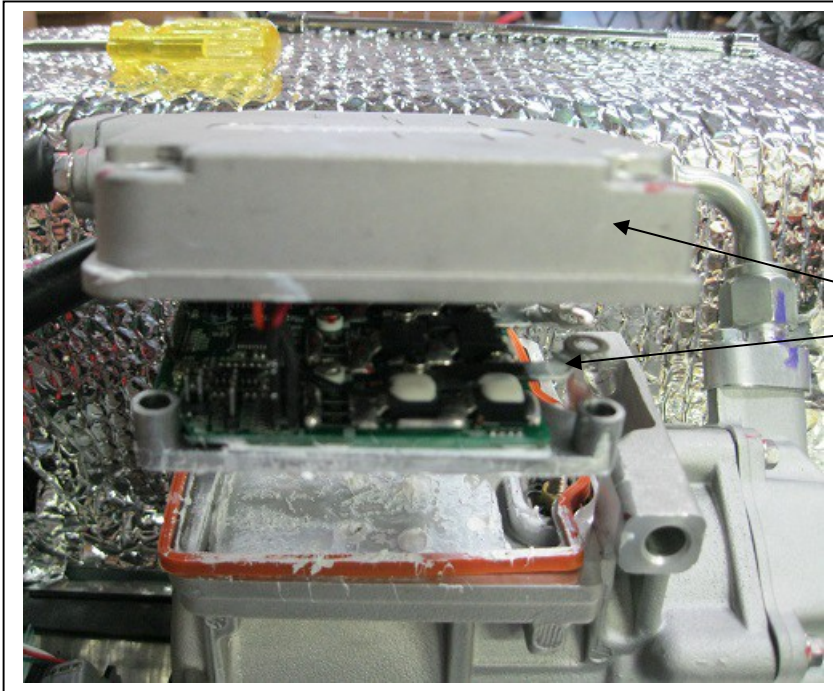
4. Remove existing tie wraps from hose and harness . Unplug the compressor controller wire from unit harness.



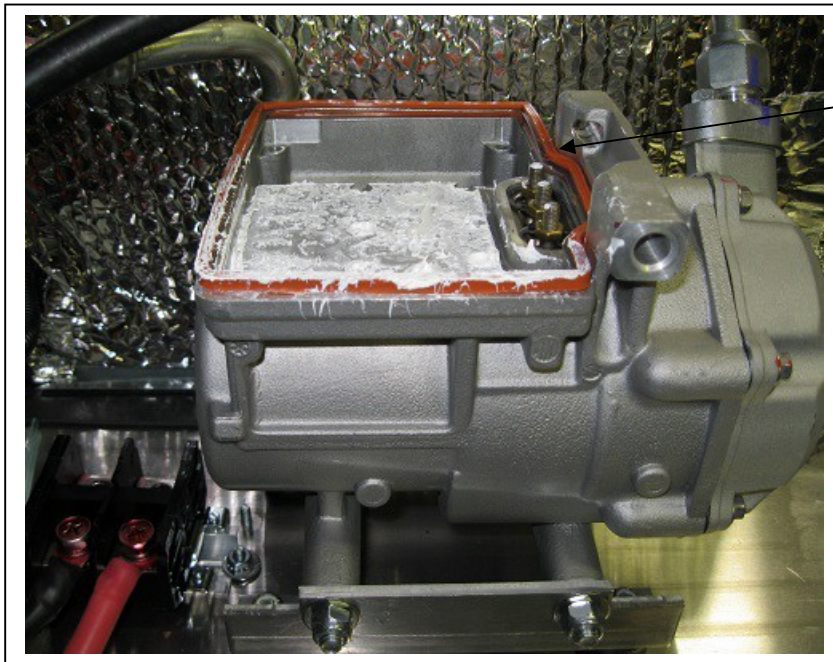
5. Using 8mm hand socket remove four bolts from top of compressor.



6. Carefully lift top up. Using the hand 8mm socket or wrench remove three nuts from electrical panel. **DO NOT DISCARD.**

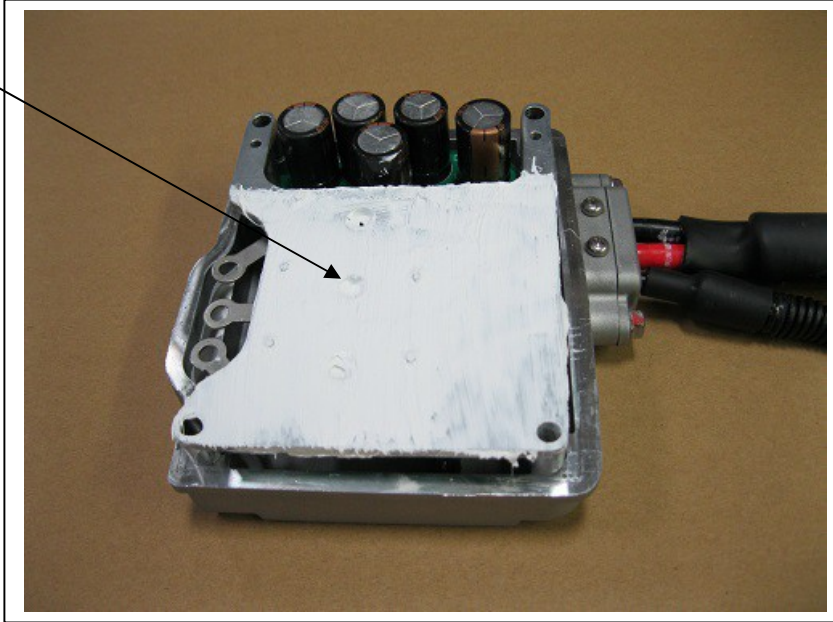


7. Using a small tool (Awl) carefully remove the electrical panel assembly.



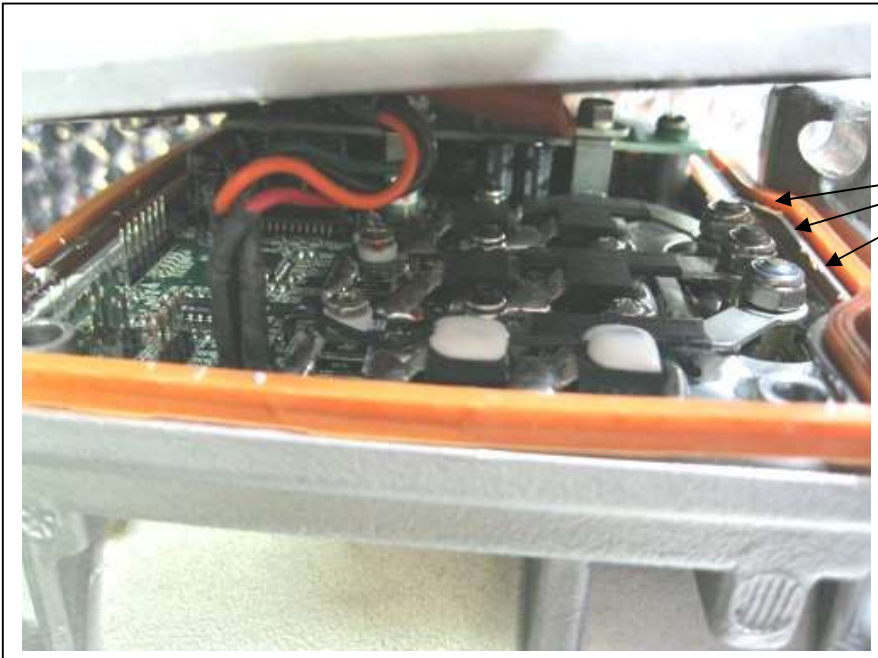
8. Leave orange gasket in place.

9

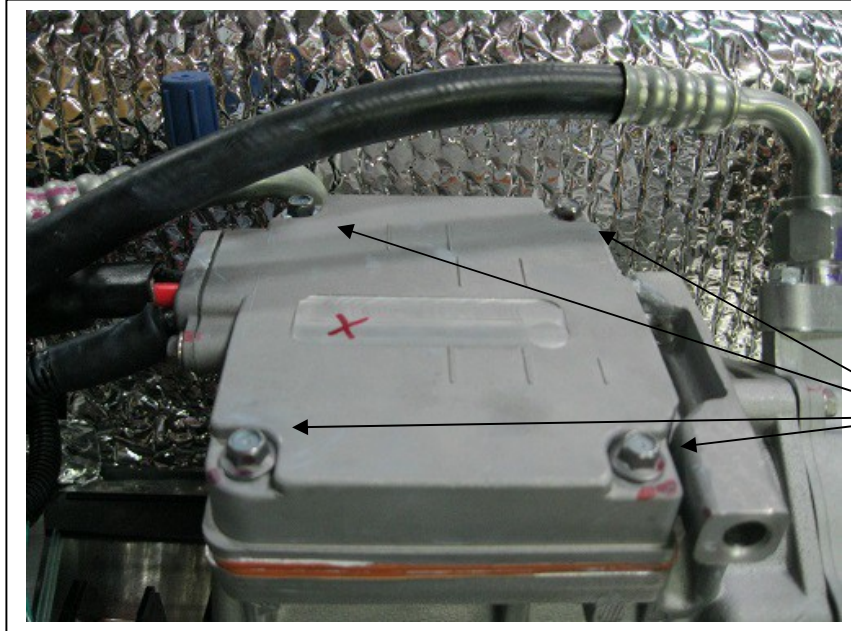


9. Apply dielectric grease to base of replacement electrical assembly.

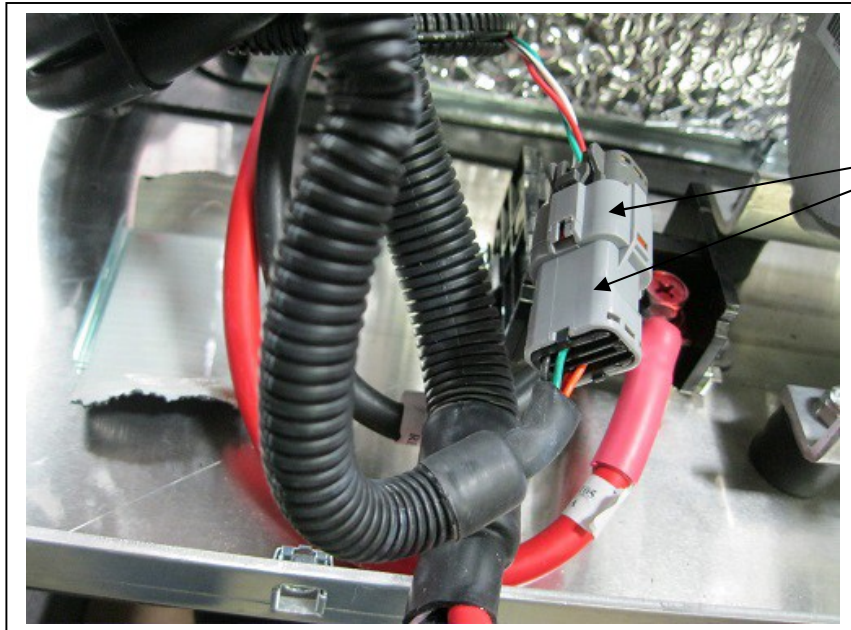
10



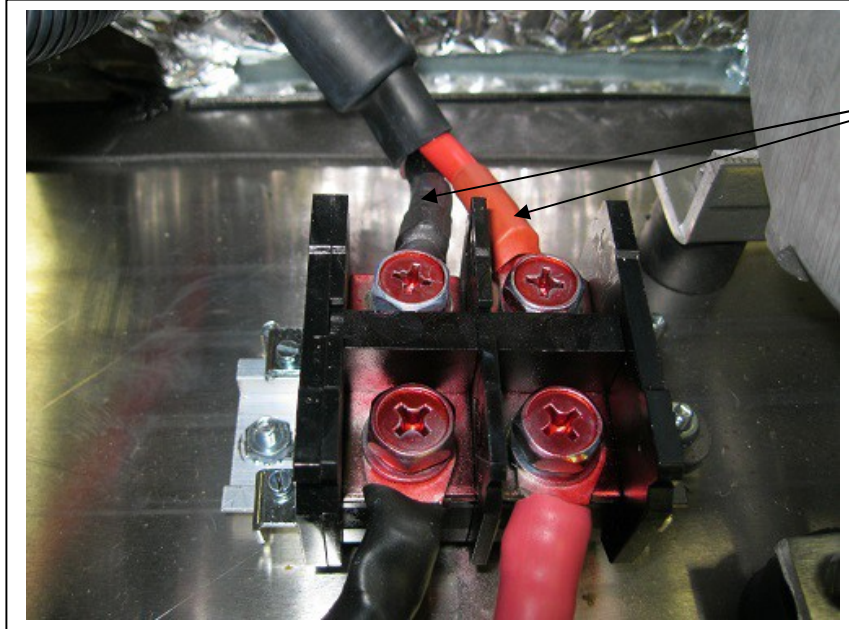
10. Carefully insert replacement assembly. Secure with 8mm nuts removed in previous step. Using hand 8mm socket / wrench tighten and torque 3 nuts to 26 in/lbs. **Caution: Over torquing these three nuts could cause damage to compressor causing refrigerant loss.**



11. Using hand 8mm socket / wrench reattached using the four bolts removed in previous step. Tight in diagonal sequence and torque to 44 in/lbs.

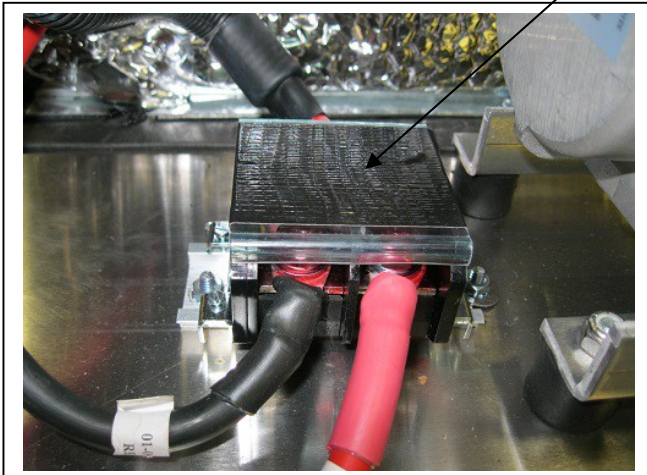


12. Plug the compressor controller wire back into the unit harness.

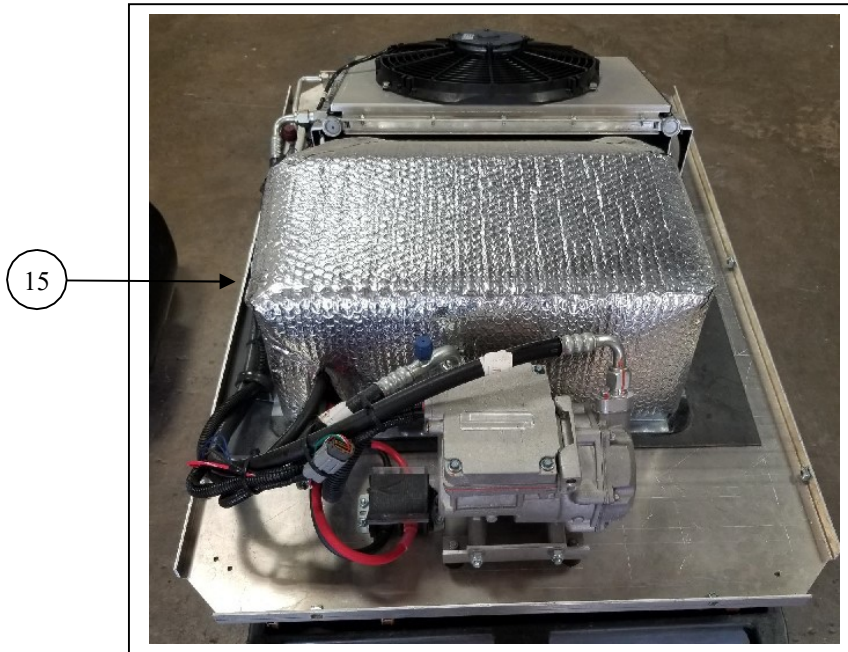


13. Return power and ground wires as shown. Hand tighten with screwdriver.

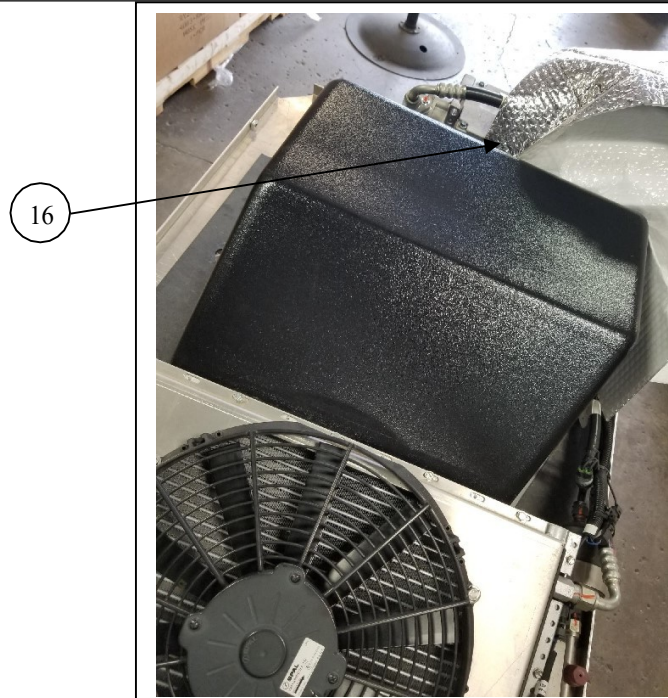
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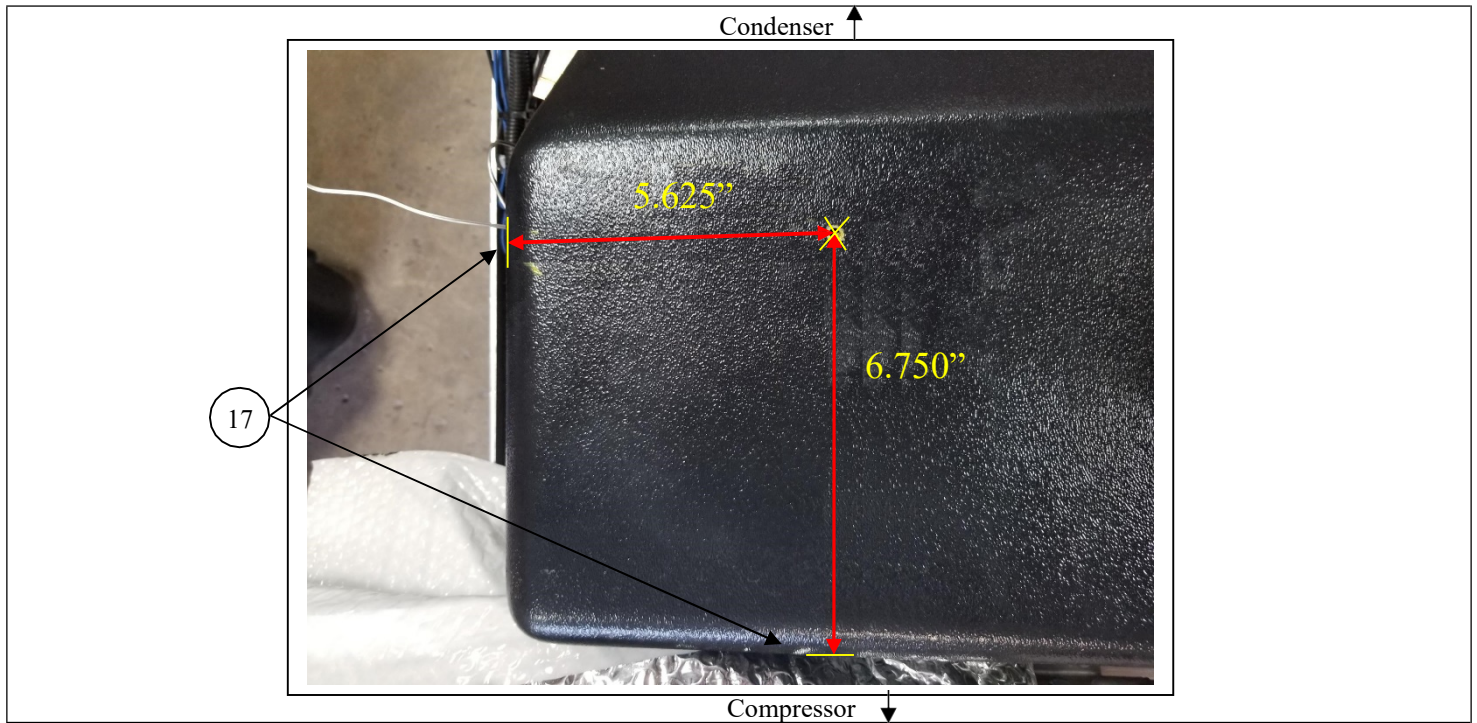
14. Replace junction box cover, and neatly bundle and replace wire ties to hose and harness area.



15. Do not replace cover.



16. Pull insulation to the side as shown. Try not to damage. It will be re-installed.



17. Measure 6 3/4" from the back of the plastic housing and 5 5/8" from the side of the plastic housing and mark the spot to drill the hole.



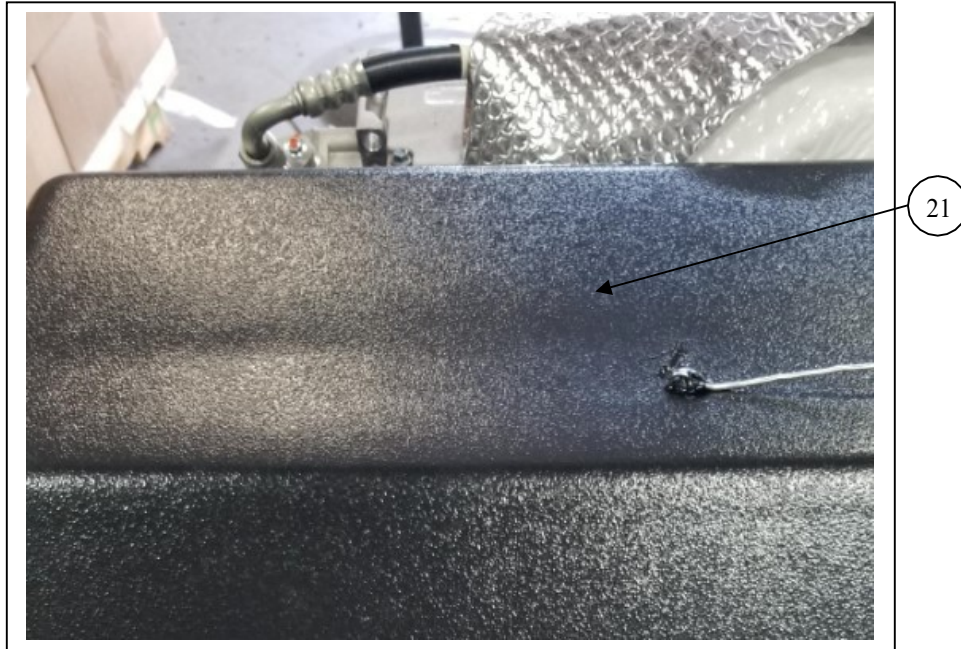
18. **WARNING!!:** Only .250" of the very tip of a 3/16 drill bit should enter the housing making the hole. Failure to use drill bit stop and drilling into the coil will cause damage to the coil!



19. Apply dime sized drop of silicone to the hole location.



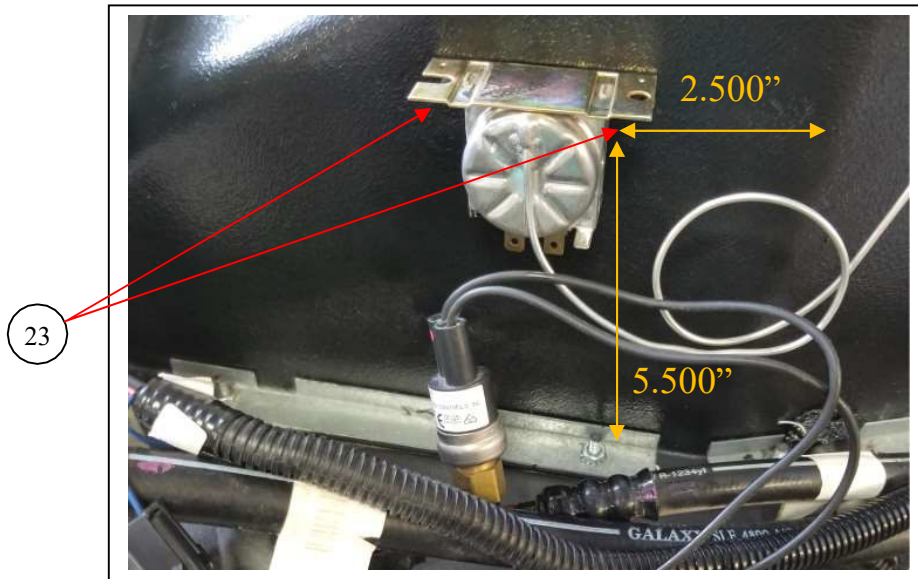
20. Measure probe to 3.00" and bend to as shown. Do not kink tube!



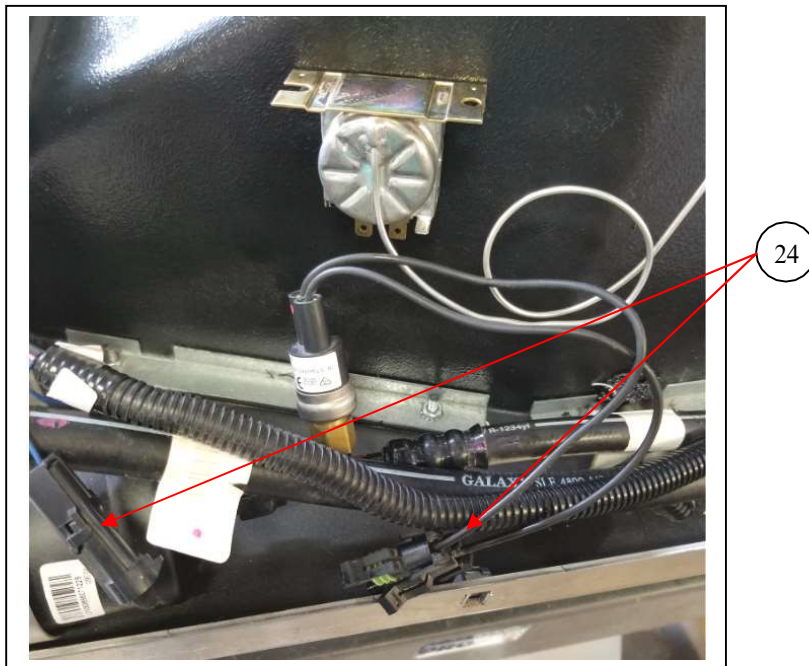
21. Insert 3.00" of probe into the coil as shown.



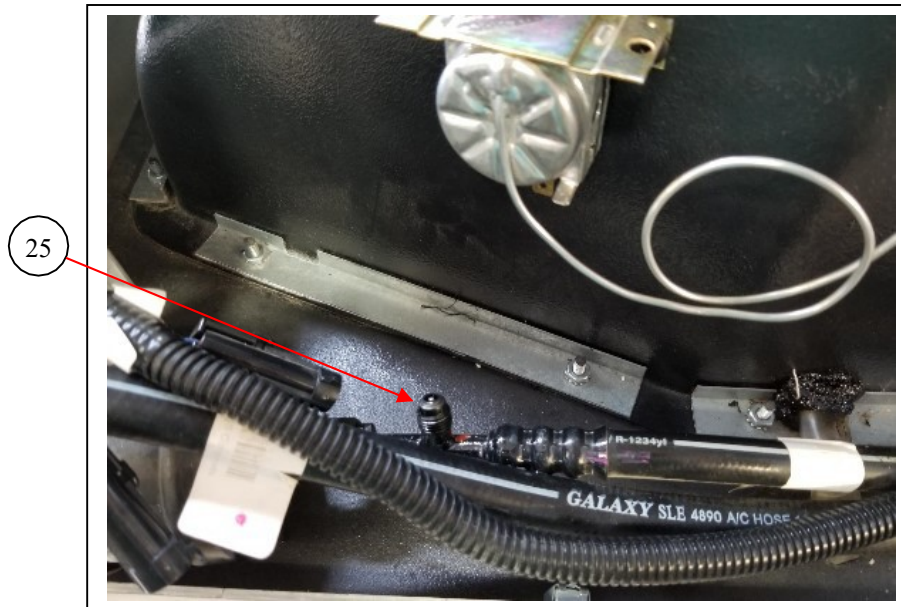
22. Place 6.00" 08 000 112 foil tape over probe and silicone hole.



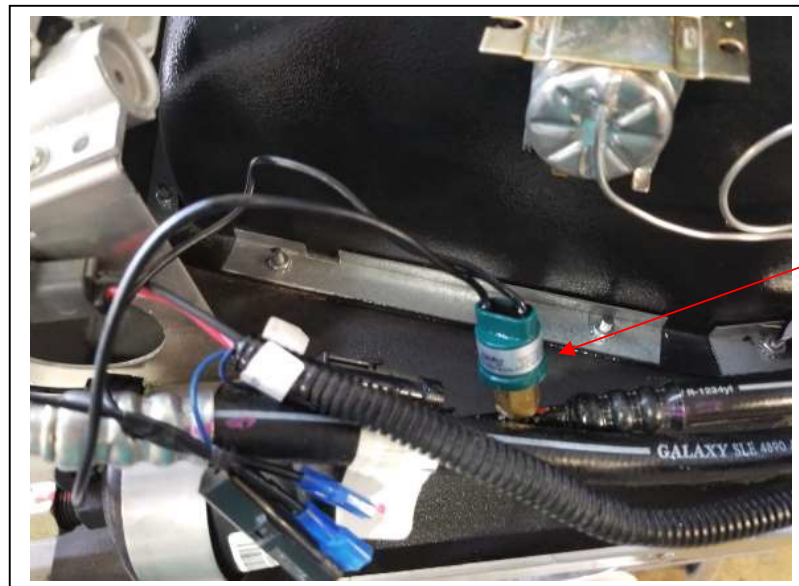
23. Measure up 5 ½” from flat of bracket and over 2 ½” from radius on housing and attach 01 000 351 freeze-up thermostat to plastic housing with two 02 000 107 screws.



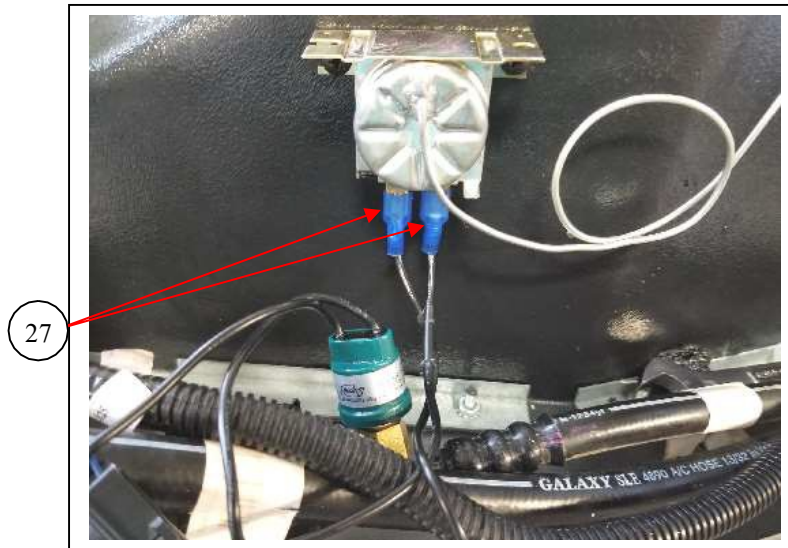
24. Unplug high side pressure switch as shown.



25. With a 9/16 wrench remove pressure switch. Warning some refrigerant may come out of valve connection. Remove pressure switch QUICKLY so that you do not lose all the refrigerant charge



26. Install 15 000 162 Pressure switch assembly to fitting. Tightening, torque pressure switch to 15 ft.lbs. Warning some refrigerant may come out of valve connection. Tighten QUICKLY so that you do not lose all the refrigerant charge.



27. Plug the leads from harness onto spades on the freeze-up thermostat.



28. Plug thermostat wiring into wire harness, secure wiring and connectors to hoses with 02 000 052 wire ties.



29. Re-attach insulation with remaining 08 000 112 foil tape.



30. Re-install cover onto unit.

31. Turn unit on and confirm that it operates and blows cold air.

PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2

TSB instructions

These instructions are in addition to the required remedy from ProAir

Tools needed:

- Clamp style ammeter
- Wire stripper
- Bell cap crimping tool
- Wire/cable pulling tool
- Electrical tape

Parts required:

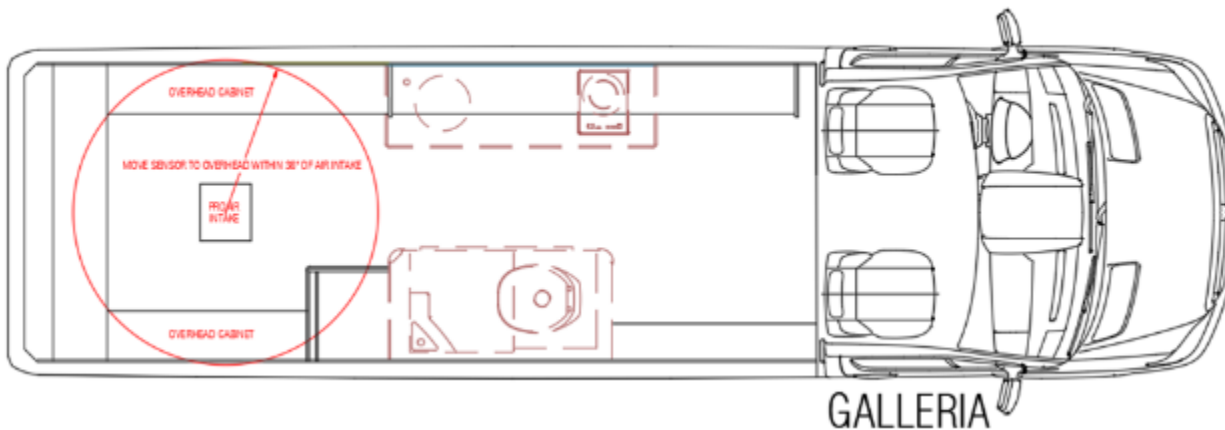
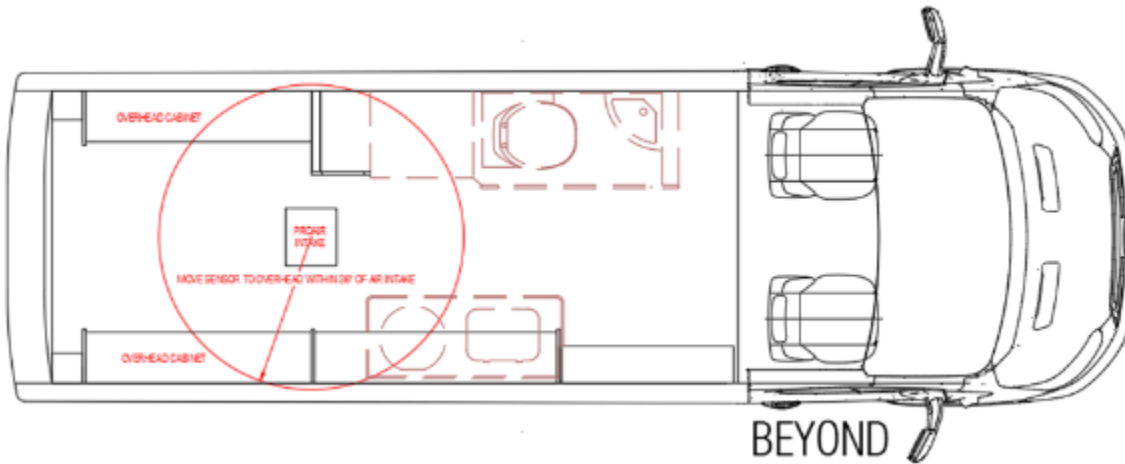
- Temperature Sensor – black
- 20ft 16ga wire – red
- 20ft 16ga wire – white
- 4 x Bell caps
- Felt overlay material – 41 ¼ x 18 ½

Objectives:

- Ensure the temperature sensor is located in the bottom of an overhead cabinet within 3 feet of the ProAir intake.
- Ensure charging systems operation and ventilation.
- Verify Firefly programming and wiring.
- Install label on ProAir shroud.

PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2

Temperature Sensor Procedure:



- Remove ProAir intake filter and cover. Inspect wiring for loose connections. Determine if the temperature sensor is located in the intake or somewhere else.
- If the temperature sensor IS located in the ProAir intake, follow the procedure below.
If not, Skip.
 - Disconnect and remove temperature probe
 - Be sure to tape any holes left in the shroud by the sensor
 - Trace the wire in the intake to determine if it enters the opening from the Road side or Curb side.
 - Remove top panels (fastened with screws) from the bottom of the overhead cabinet adjacent to the temperature sensor wire point of entry.
 - Remove the temperature sensor wire from the ProAir air conditioner cut out and route into the bottom of the overhead cabinet.

PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2

- On Galleria, either remove felt overlay backing material or cut the felt overhead backing material and overlay after.



- On Beyond/Crossfit, lower the overhead cabinet by removing top and side cabinet crews.



- Connect and install the temperature sensor in the bottom of the overhead.

PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2

- If the temperature sensor is NOT in the ProAir intake, follow the procedure below.
 - Galleria
 - Remove Galleria switch board to gain access to Firefly G8 board and temperature sensor wire.



- Using a wire/cable pulling tool, fish the 16ga red and 16ga white wire along the top of the overhead cabinets from the Firefly G8 board to the new overhead cabinet temperature sensor location.
- It may be possible to route these wires through overhead cabinet bottom shelves by drilling through cross members on some floorplans.
- On the Galleria 24A Floorplan, it may be necessary to pull the refrigerator to accomplish wire routing.
- Connect 16ga red wire to 12V+ temperature sensor lead
- Connect 16ga white wire to 12V- temperature sensor lead.
- Mount the sensor on the bottom of the overhead cabinet.
- Connect the 16ga red wire to Pin 1 on J3 of Firefly G8 board. See “G8 Form”
- Connect the 16ga white wire to Pin 7 on J3 of Firefly G8 board. See “G8 Form”
- Power on Firefly system and verify temperature is reading properly. If it is not, reverse red and white wires.
- Reinstall Galleria switch board
- Overlay felt material in overhead if needed. Felt material length may need to be cut down to size for some floorplans.

PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2

- Beyond
 - Remove Firefly touch screen from its mounting plate to access temperature sensor and G8 board wiring.



- Remove top panels (fastened with screws) from the bottom of the adjacent overhead cabinet.
- Unscrew top and sides of kitchen overhead cabinet. This should allow the cabinet to tip out and provide access to wiring behind.



- Either by hand or using a wire/cable pulling tool, fish the 16ga red and 16ga white wires from the bottom shelf of the overhead, along the top of the overhead cabinets, to the Firefly touch screen opening.
- Connect 16ga red wire to 12V+ temperature sensor lead
- Connect 16ga white wire to 12V- temperature sensor lead.
- Mount the sensor on the bottom of the overhead cabinet.
- Connect the 16ga red wire to Pin 1 on J3 of Firefly G8 board. See “G8 Form”
- Connect the 16ga white wire to Pin 7 on J3 of Firefly G8 board. See “G8 Form”
- Power on Firefly system and verify temperature is reading properly. If it is not, reverse red and white wires.
- Reinstall Firefly touch screen

PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2

Charging verification and venting procedure

- The following test should be performed on both shore power and generator power:
 - Start the ProAir air conditioner on Auto with the set point at least 5 degrees lower than the displayed room temperature.
 - Using a clamp meter, verify charging amperage meets or exceeds ProAir amp draw
 - Measure ProAir amp draw on 2 gauge cable from “Load” post of the BG160.
 - Standard coaches with generators have 2 chargers. Xantrex XC-2080 and WFCO WF-9855. The combined charging amps of both chargers should meet or exceed ProAir amp draw.
 - Li3 Coaches (no generator) have 1 charger. Xantrex SW-3012
 - Add venting to the top of the charger compartment, across from any existing venting.
 - Drill (at least 5) 2” holes, install vent to cover vent holes.
 - Some components may need to be relocated for vent installation



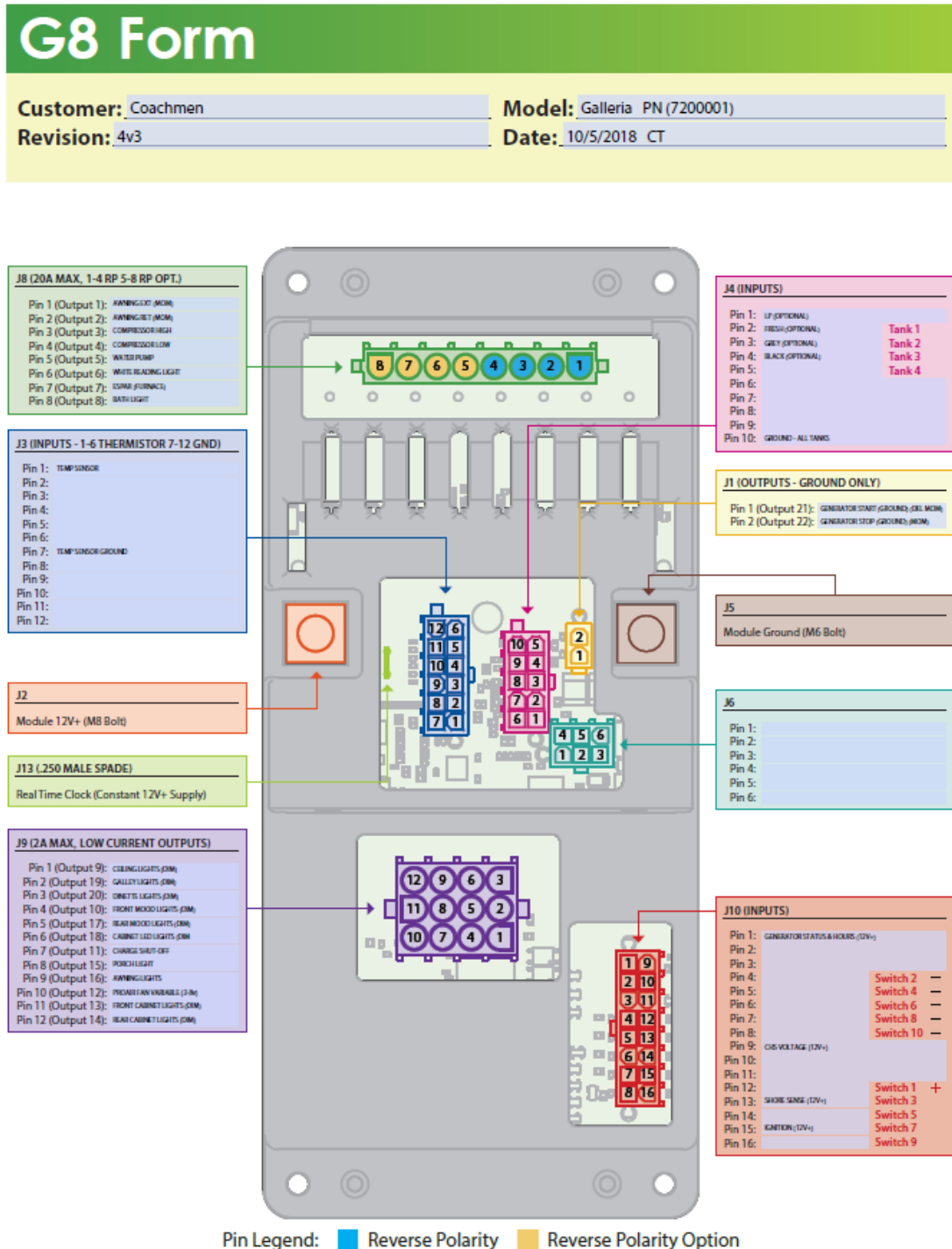
PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2



PRO-AIR / FIREFLY REMEDY INSTRUCTIONS – RELEASE 2

Firefly programming and wiring procedure

- Firefly multiplex system should be updated to either v4.20 or v4.23. Version can be determined at the bottom of the settings tab on the touch screen.
- At the G8 Board, inspect/ensure positive connections at J8 pin 3 & pin 4 and J9 pin 7 & pin 10.
- J9 pin 10 uses a resistor harness. There are two legs that branch out of the connector. Ensure the longer of the two legs is securely grounded to a ground bar and NOT Solar panel negative.
- Verify cooling occurs in manual mode at ~30% and ~ 100%. If the A/C cools at 100% but not 30%, Compressor High and Compressor low are reversed (J8 pin3 & pin 4).



ADD PRO-AIR DECAL TO A/C SHROUD INSTRUCTIONS

Included in the remedy kit for each vehicle is a decal that requires placement on the Air Conditioner Shroud inside the vehicle. Please follow the installation instructions.

STEP 1: USING FIGURE 2 AS A REFERENCE, LOCATE THE LOCATION FOR THE STICKER;

STEP 2: CLEAN THE AIR CONDITIONER SHROUD LOCATION WITH ISOTROPIC ALCOHOL;

STEP 3: REMOVE THE LABELS' BACKING CAREFULLY;

STEP 4: APPLY THE STICKER (FIGURE 1) AS SHOWN IN FIGURE 2 ONTO THE AIR CONDITIONER SHROUD;

STEP 5: END OF APPLICATION.

FIGURE 1: (NOT TO SCALE)

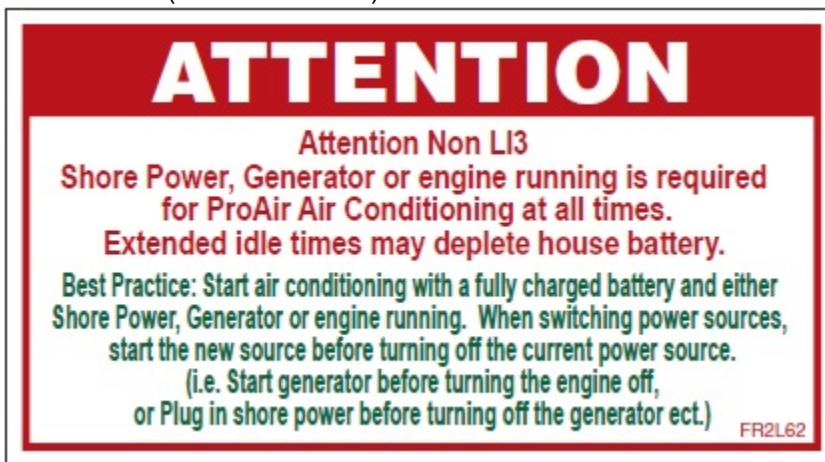


FIGURE 2:

