

NEWMAR CORPORATION WARRANTY DEPARTMENT

TECHNICAL SERVICE BULLETIN																	
DATE ISSUED		MODEL YEAR(S) AFFECTED		MODEL(S) AFFECTED		TSB #											
7/28/08		2008		MADP, EXDP, KGDB		351											
BRAND						TYPE											
All	<input type="checkbox"/>	American Star	<input type="checkbox"/>	Mountain Aire	<input type="checkbox"/>	All	<input type="checkbox"/>										
Cypress	<input type="checkbox"/>	Dutch Star	<input type="checkbox"/>	Kountry Aire	<input type="checkbox"/>	T T	<input type="checkbox"/>										
Northern Star	<input type="checkbox"/>	Kountry Star	<input type="checkbox"/>	Essex	<input checked="" type="checkbox"/>	F W	<input type="checkbox"/>										
Scottsdale	<input type="checkbox"/>	King Aire	<input checked="" type="checkbox"/>	London Aire	<input type="checkbox"/>	C A	<input type="checkbox"/>										
All Star ME	<input type="checkbox"/>	Ventana	<input type="checkbox"/>	Bay Star	<input type="checkbox"/>	D P	<input checked="" type="checkbox"/>										
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DESCRIPTION OF PROBLEM																	
Procedure for replacement of cooling unit on Norcold 2117 refrigerators.																	
RECOMMENDED SOLUTION																	
<p>Norcold has released the attached service bulletin to provide a clear step by step procedure for replacement of the cooling unit on a series 2117 refrigerator should replacement be required.</p> <p>Read the attached procedure in its entirety prior to beginning any repairs. Any questions regarding this TSB should be directed to Norcold.</p>																	



Norcold Service Kit

Model 2117 Cooling Unit Replacement

Kit Part Number 630746

Purpose

Use this procedure to replace the cooling unit on the model 2117 Norcold refrigerator.

NOTE: Carefully open the cooling system service pack so that you can use the same packaging to return the existing cooling system.

Service Kit and Procedure

Before installing this kit:

- Please read through this entire set of instructions to familiarize yourself with the overall procedure.
- Locate the kit components. This kit contains the following items:
 - Installation instructions, P/N 630918A
 - Foamed System Assembly
 - 1 Plastic Bag for return shipping of cooling unit
 - #10-32 x .75 Allen head screws (16)
 - Mastic sealant tubes (3)

Tools

The following tools are needed to complete this procedure:

- 1/4" nut driver
- 5/16" nut driver
- 3/16" Hex wrench -long or "T" handle style
- 7/16" open end wrench
- 9/16" open end wrench
- 5/8" open-end wrench
- #2 Phillips screwdriver

Procedure

Replacing the cooling unit involves the following four operations: shutting down the unit, disassembling, replacing and sealing the new unit, and reassembling the refrigerator

NOTE: It is not possible to anticipate all of the RV manufacturers' enclosure design or refrigerator installation practices. Always double check for additional screws and brackets before attempting to remove the refrigerator from the enclosure, as certain RV manufacturers may install additional brackets or screws to secure the top and the sides of the refrigerator to the enclosure

Shutting Down

Refer to Figures 1 and 2 for the following procedure.

1. Disconnect all AC and DC power sources.
2. Remove upper and lower right side freezer shelves.
3. Remove the freezer fan shroud.
4. Disconnect the freezer defrost heater from circuit.
5. Disconnect the freezer thermostatic switch from circuit.
6. Disconnect the freezer fin thermistor.

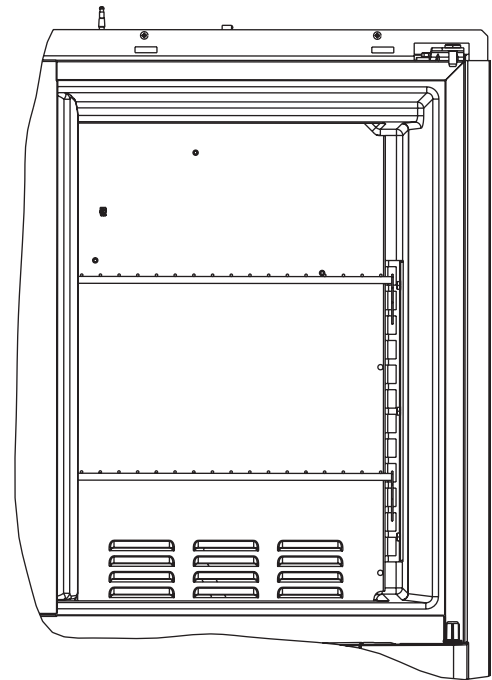


Figure 1. Freezer fan shroud.

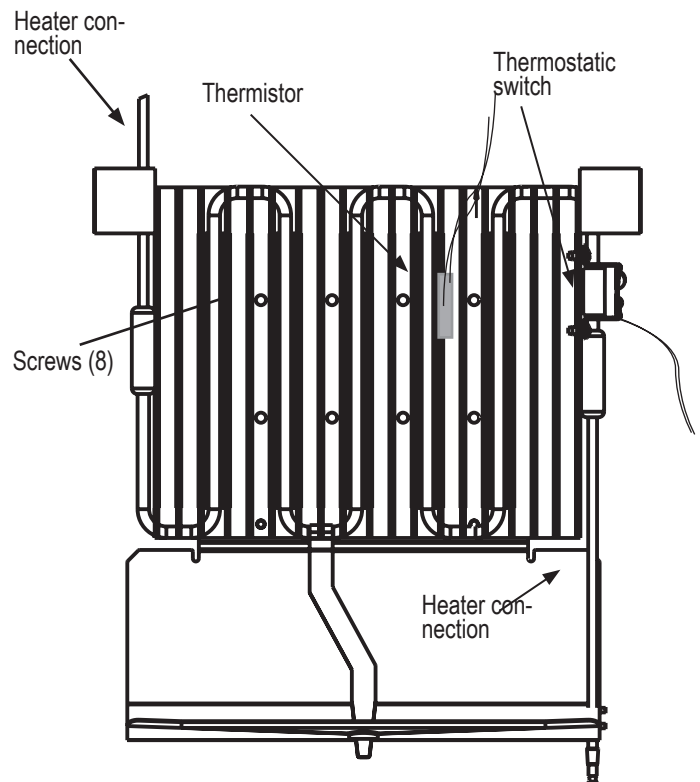


Figure 2. Freezer fin assembly.

Removing the Cooling Unit

1. Disconnect the water dispenser (if applicable)
 - a. Remove the paddle assembly.
 - b. Remove the water dispenser cover.
 - c. Disconnect the spigot.
 - d. Disconnect the wiring and remove the bracket containing the LED board, spigot, and switch as an assembly.
2. Remove all fresh food compartment shelves.
3. Remove fresh food compartment fan shroud.
4. Remove air temperature thermistor from shroud.
5. Remove the fresh food compartment air circulation fan assembly.
6. Unplug fan assembly from circuit.
7. Remove 8 hex head screws from fresh food compartment fin assembly.
8. Disconnect the defrost heater from circuit. Connector is on left side of fin assembly.
9. Remove fin assembly.



Caution: Protect the front of the refrigerator! Cover the floor with a moving blanket/pad or similar soft material to protect the floor as well as the refrigerator doors panels and optical display when the refrigerator is laid down on the floor.



Warning! Do not handle the refrigerator without the assistance of an able person. Attempting to handle the refrigerator without additional help may cause personal injury and/or extensive property damage.

10. With the assistance of two able persons, lay the refrigerator on the floor, doors side down.
11. Disconnect and remove the water valve assembly.



Caution: Always use two wrenches to loosen or tighten fittings to prevent damaging components, piping, or fittings. Damaged components, piping, or fittings create the potential for gas leaks.

12. Disconnect and remove the gas valve assembly (with bracket).
13. Disconnect and remove the spark/sense electrode assembly.
14. Remove the power board cover then disconnect the AC heaters leads and the high temperature limit switch leads.
15. Disconnect and remove fans.
16. Disconnect thermistor from condenser fin.

For steps 17 through 20 refer to Figure 3.

17. Remove hold down bracket.
18. Cut the tape along the edges of the cooling unit wrapper.
19. Remove condenser bracket screws (4).
20. Remove absorber bracket screws (2).
21. Lift absorber coil enough to move wiring and ice maker water line (if present) to the left side of the cabinet.

22. With the help of an able person lift the cooling unit out of the cabinet.
23. Remove all thermal sealant from the cabinet steps and freezer plates.
24. Remove all thermal sealant from the evaporator coils and plug.

Applying Thermal Mastic Sealant



Caution: Use only NORCOLD approved Thermal Mastic sealant (part number 61450740). Do not use silicon, latex or petroleum base sealant. Silicone, latex and petroleum sealants may damage the cabinet and/or cooling system foam plug, greatly reducing cooling efficiency.

Sealing the cooling unit to the cabinet requires all three tubes of Thermal Mastic sealant supplied with the replacement cooling unit. For proper dispersal the tube tip needs to be cut to dispense a bead no wider than 3/4 inch wide.



Caution: Apply the sealant as outlined in the following steps. Failure to apply the sealant as outlined will result in poor cooling performance.

1. Apply a 3/4 inch wide x 1/2 inch thick bead of Thermal Mastic sealant to the surface of the evaporator tubes shown in Figure 4.
2. Apply 3/4 inch wide x 1/2 inch thick bead of Thermal Mastic sealant on the four sides of the cabinet opening. See Figure 5.

Installing Cooling Unit into Cabinet

1. Make sure the ice maker water line, wiring, and fan wiring are out of the way on the opposite side of the flue tube.
2. Carefully lift the cooling system and align the foam plug over the cabinet opening.
3. Lower the cooling unit evenly into the cabinet opening.
4. Seat the cooling unit firmly into the cabinet by applying even pressure on each corner of the foam plug.
5. Route the ice maker water tube (IM models), and wiring between the cabinet and absorber coils.
6. Install condenser brackets screws. Tighten each screw 15 to 20 inch-pound.
7. Install the absorber coil brackets screws. Tighten each screw 15 to 20 inch-pound.
8. Install and tighten the hold down bracket.
9. Tape the foam plug wrapper edges to the cabinet using two inch wide adhesive backed HVAC aluminum tape or poly mask sealing tape.

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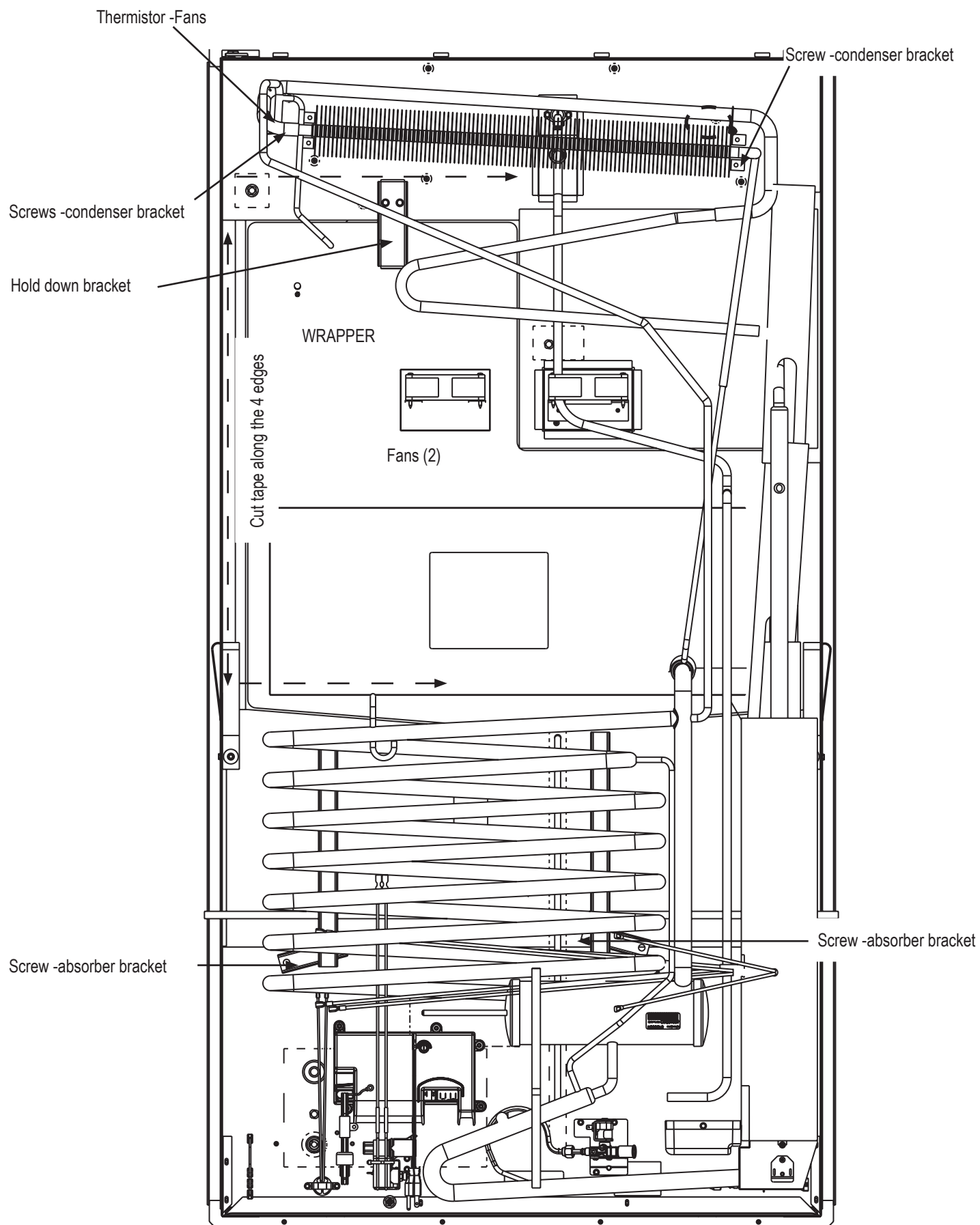


Figure 3. 2117 Refrigerator Back View

Installing the cooling Unit into Cabinet, Con't.

10. Make sure the heat deflector cap is firmly on the flue tube.
11. Attach the thermistor to the thermistor fin.
12. Install and connect the fans.
13. Connect the AC heater wires to the power board.
14. Connect the high temperature limit switch to the power board.
15. Install the power board cover.
16. Install the spark/sense electrode assembly.
17. Install the gas valve and burner assembly.
18. Install the burner box cover.
19. Install the drip cup.
20. Install the ice maker water valve (IM models), then reconnect wiring and tubing.



Warning! Do not attempt to upright the refrigerator without the assistance of an able person. Up righting without additional help may cause personal injury and/or extensive property damage.

21. Upright the refrigerator.
22. Install the freezers fin assembly, then connect the thermistor, defrost heater and thermostatic switch.
23. Install the freezer fan shroud.
24. Install freezer shelves.
25. Connect the fresh food compartment fin defrost heater.
26. Attach the fresh food compartment fin to the fin assembly.
27. Install the fresh food compartment fin assembly.
28. Install the fresh food compartment fin air temperature thermistor.
29. Install the fresh food compartment fan assembly.
30. Install the refrigerator into the enclosure.
31. Connect the RV propane supply line to the gas valve.

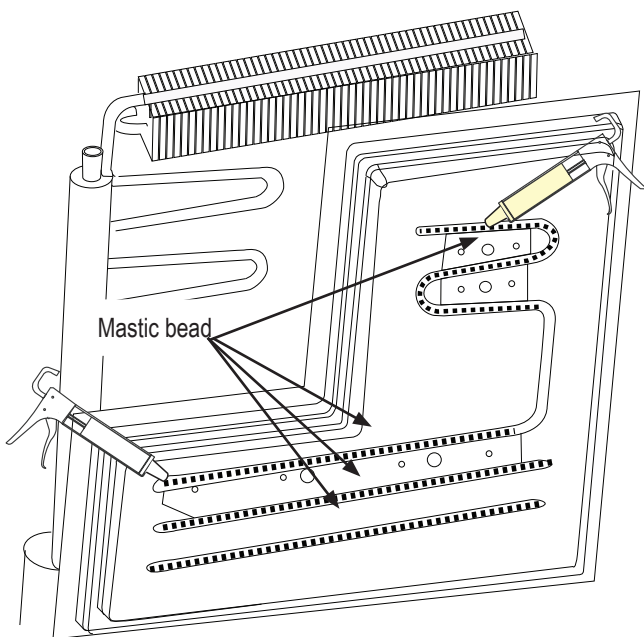


Figure 4. Applying mastic on evaporator tube surface

Checking for gas leaks after installation

After installing the refrigerator in the enclosure and connecting RV propane supply line to the gas valve.

1. Connect 12 volt DC to the power board.
2. Plug the AC power cords to the RV outlets.
3. Open the LP gas container gas valve
4. Leak check the gas valve connection. No leaks allowed.
5. Power on refrigerator, then select LP manual mode operation.
6. Leak check all of the refrigerator gas connections. No leaks allowed.
7. Place refrigerator in service.



Caution: Always use two wrenches to loosen or tighten fittings to prevent damaging components, piping, or fittings. Damaged components, piping, or fittings create the potential for gas leaks.

Returning the Existing Cooling Unit

1. Put the existing cooling system into the plastic bag that was provided in the new cooling unit system pack.
2. Put the existing cooling system into the same packaging that contained the replacement cooling system.
3. Return the existing cooling system to the point of purchase or parts warehouse.

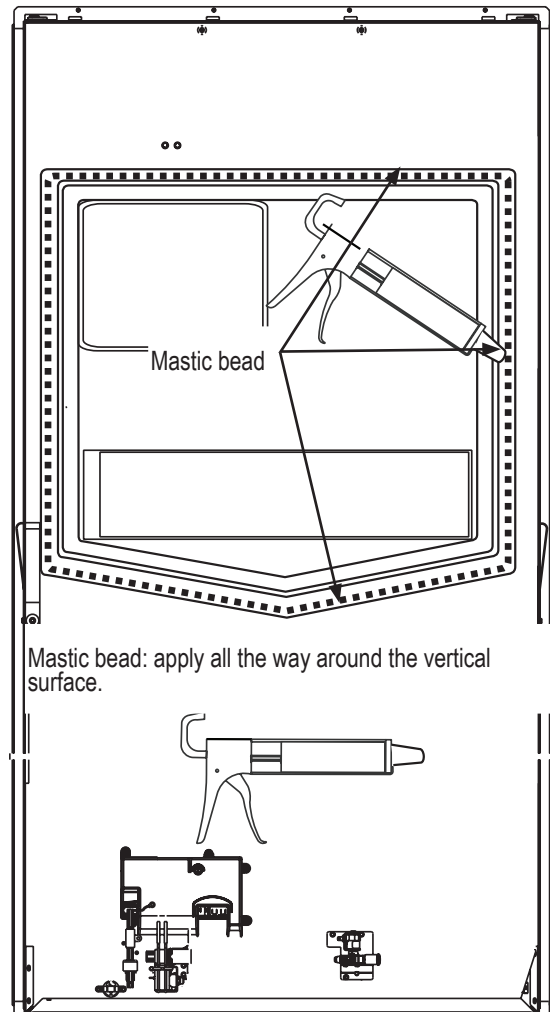


Figure 5. Applying mastic on cabinet opening.