



Highland
RIDGE RV

STARCRAFT

Wiring Refrigerator to properly operate on 12 Volt

Bulletin Type:	TSB 21-013 Supersedes & replaces TSB 21-002	Publication Date:	June 2021
Bulletin #(s):	TSB 21-013	Make(s):	Entegra Coach MHB Jayco MHB
Job Code(s):	9803569	Model(s):	Ethos / Swift
Flat Rate(s):	.75 Hour	Model Year(s):	2021

Incident:	Refer does not operate or sufficiently cool while on 12V
Affected Units:	2021 Entegra 20T Ethos MHB- M1RT8051-8183 2021 Jayco 20T Swift MHB- M1RT4051-4147
Parts List:	Parts Kit #: N/A
	Parts Kit Contents: (Purchase Locally) - 1 - 6' Wire, 12 GA White - 1 - 3 wire Wago Connector, Splice 3 wire 12-24 GA - 1 - 2 wire Wago Connector, Splice 2 Wire 12-24 GA
Misc. Tools & Supplies:	- Screw Gun with Square Head Bit - Wire Strippers - Wire Ties
Parts Return Information:	N/A

INSPECTION INSTRUCTIONS FOR WIRING REFRIGERATOR 12 VOLT

1. Refrigerator does not operate on 12V.

Cause: Refrigerator has no 12V power source.

Correction: Install a dedicated 12V power source to the refrigerator.

2. Refrigerator operates on 12V but does not cool properly.

Cause: Remedy provided in 21-002 spliced into the LP/CO detector circuit to provide 12V power to the refrigerator. This circuit did not provide sufficient amperage to allow refrigerator to operate properly.

Correction: Remove the spliced connection into the LP/CO detector circuit and provide a dedicated 12V Power source to the refrigerator.

VISUAL INSTRUCTIONS FOR WIRING REFRIGERATOR FROM FURNACE

1. Remove the (2) screws from the bracket(s) that secure the refrigerator to the floor shown in Fig B. Set the screws aside for re-use.
2. Pull the refrigerator from the cabinet shown in Fig C .

NOTE: When moving the refrigerator out, hold on the sides of the refrigerator. Avoid adding pressure or stress to trims and molding on the refrigerator.

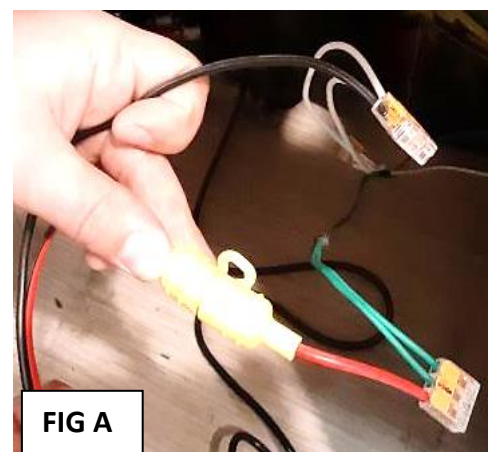
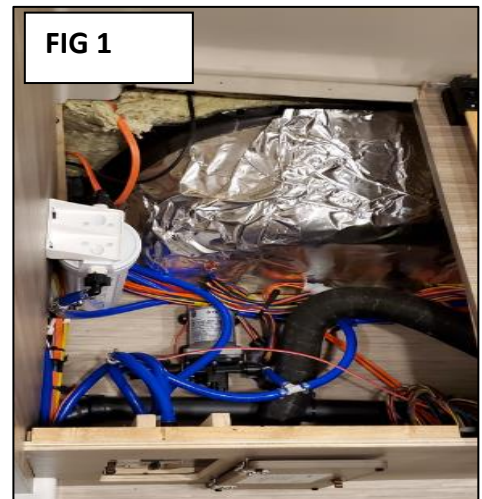


CAUTION: Take care not to damage the linoleum.

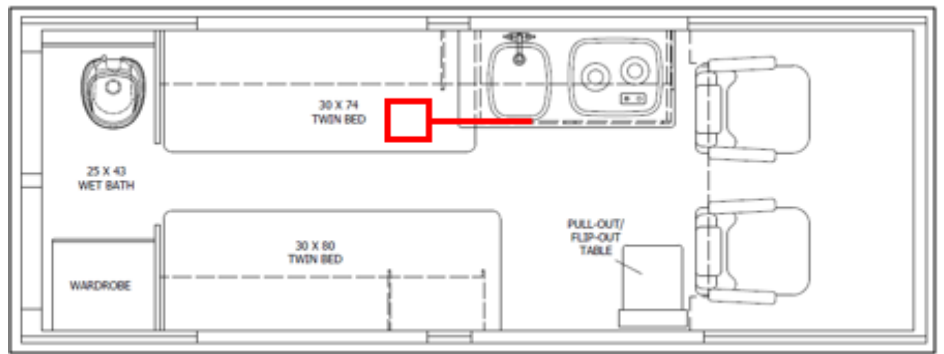
3. Disconnect the battery at the battery disconnect switch and unplug the refrigerator.
4. Remove the bed cushion and bed board from driver side (2 fasteners). Stowe for safekeeping until reinstalled. See Fig. 1

Decision Point: If the refrigerator wiring has a splice into the LP/CO detector circuit (TSB 21-002 remedy) shown in Fig A - you will need to remove this power source and provide a dedicated line to the refrigerator. If the refrigerator does not operate on 12V, you can skip this step and go to Step 7.

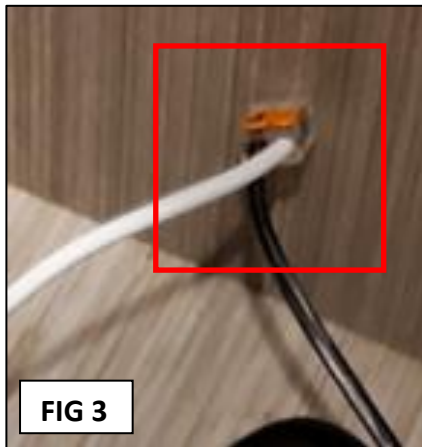
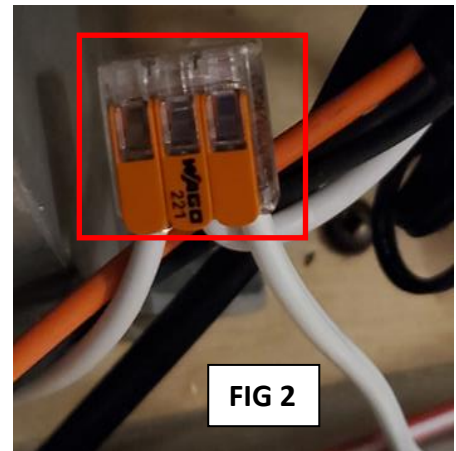
5. Locate the Green and White wires shown in Fig A, inside the furnace compartment shown in Fig 1. (Bed cushion/bed board removed).
6. Remove Green wire the WAGO connector used to splice into the LP/CO detector circuit. Remove the opposite end from refer.



7. Check diagram to the right and start at the red box (Furnace Area). Add and route a 12GA White Wire from furnace location (behind vent location) to the refer location (under sink).



8. At the furnace location, find the 12 GA White wire providing 12V power source to the furnace. You will splice into this wire to provide power to the refrigerator.
9. Cut and strip the furnace White wire and insert both ends into a three cavity WAGO Connector (Fig 2).
10. Insert the new 12 GA White Wire routed in step 7, into the same three cavity WAGO connector (Fig 2)



11. At the refer location, locate the ground wire connection (14 GA White to Black) Fig. 3.
12. Remove the installed 14 GA White wire and insert into a two conductor WAGO connector (capping off wiring not used).
13. Insert the 12 GA wire routed in step 7 into the two cavity WAGO connector shown in Fig 4).

14. Test Refer to verify cooling on 12V.
15. Re-install refer, furnace vent, bed boards and cushions.



16. **NOTE:** When moving the refrigerator in, hold on to the sides of the refrigerator. Avoid adding pressure or stress to trims and moldings on the refrigerator.

17. **CAUTION:** Take care not to damage the linoleum.

18. Push the refrigerator back into the cabinet. Re-install the screws into the floor brackets.

NOTE: If you have trouble getting the refrigerator back into position, you may need to proceed with the following additional steps. If the refrigerator went back into place easily and you have secured it to the floor, the repair is complete.



19. Remove the ABS pipe cover shown in Fig 5 on the side of the cabinet (between the cabinet and the seat base). You will need to remove (4) square head screws. This will expose the pipe and give you access behind the refrigerator.

20. Have one person push the refrigerator back into place while a second person gently shifts the pipe allowing the refrigerator to be pushed back into place.

21. When back in place, re-install the screws to secure the refrigerator back into place.

22. Re-install the pipe cover.

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