INSTRUCTIONS TO PERFORM RECALL CAMPAIGN 165

Models Affected 2022 EKKO

Tools and Parts Required

- **Hose Cutter**
- **Drill**
- **3 ½" inch hole saw**
- **#2 Phillips screw tip**
- **Flat Head Screwdriver**
- **Heat Gun**
- **Wire Cutters**
- **Wire Crimpers**
- **Sealant Applicator**
- **Utility Knife**
- **Torque Wrench with fittings to torque 3/4" nut (torque settings are given in both ft/lb and in/lb)**
- **Silicone**
- **Magnet Tray**
- **6mm Nut Driver**
- **5/16" Nut Driver**
- **Work Mat**
- **Shop Towels**
- **White and Black Markers**
- **Alcohol Wipes**
- **Electrical Tape**
- **Wet/Dry Vacuum**

NOTE: Only use the parts supplied in recall kit RC7650-22-765 to complete this repair.

It is important to follow these instructions in the order they are given. These instructions contain 23 pages, work through all steps to ensure a complete remedy is performed. Familiarize yourself with the model you are working on before proceeding.

Ensure all power has been disabled before proceeding

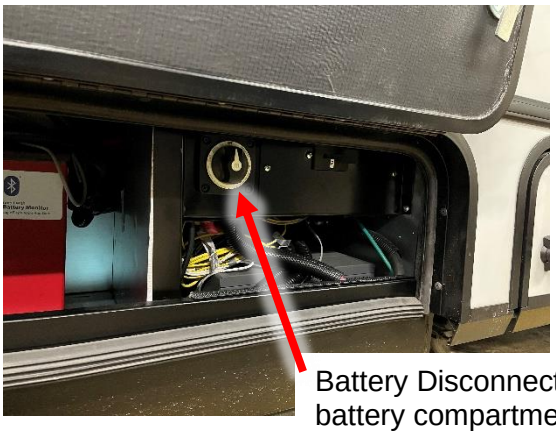
Failing to power the system down before performing work can result in serious injury.

Contents of Recall Kit

IF EQUIPPED WITH GENERATOR

If equipped with a generator, extra steps need to be taken. Failure to do so may result in damage to wires.

1. Verify the location of the battery disconnect. If it is in the battery compartment, no extra steps need to be taken. Move on to page 4.



Battery Disconnect in battery compartment

2. If the battery disconnect is in a separate compartment, follow the 110 Volt generator wire from the generator to the Automatic Transfer Switch in the Dinette Cabinet.

3. If excess wire is in the battery compartment, move on to Step 7.

4. If no excess wire exists, remove any silicone on the 110 Volt wire going from the battery compartment towards the inside of the coach.

Clear silicone here

5. After removing the silicone, pull on the wire to remove any excess wire between the compartment and the floor.

6. Continue with Step 7.

CRITICAL SAFETY STEP

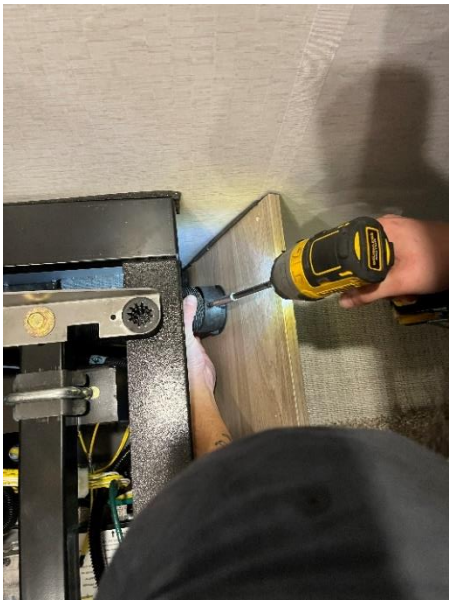
Failing to power the system down before performing work can result in serious injury.

7. Insert a work mat to protect the flooring through the duration of these instructions.

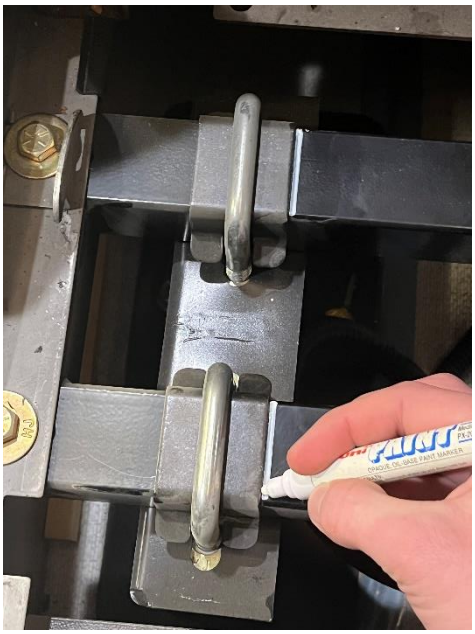
8. Remove the rear passenger seats by grabbing in the front of the seat, carefully pull up ensuring you do not damage the retaining clips. The seat will pop out of the retainer clip and then lift out.

9. Remove the front cabinet panel by removing the 5 Philips screws in the face of the panel. Set aside for reinstallation of the panel.

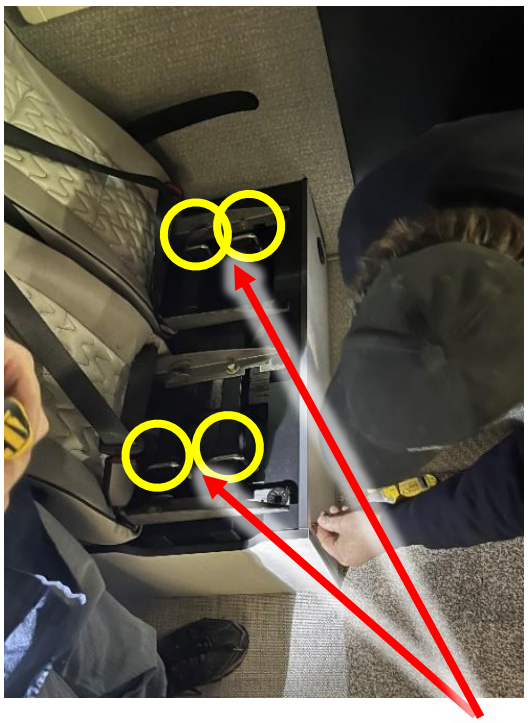
10. If the heating duct is in the front panel, another screw connecting the duct and vent (back side of panel) will need removed. Set the screw aside for reinstalling the panel.



11. Using a white paint marker, make alignment marks on the seat frame for reinstallation of the seats.



12. Using a ¾" wrench, remove the 8 nuts and washers holding the 4 u-bolts on.



Seat mounting hardware locations

13. Set the seat hardware aside for reinstallation.

14. The seat backs and cross members should now lift off the dinette cabinet.

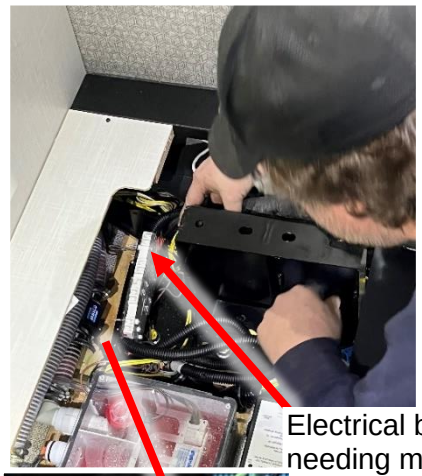
15. For this step there are two 5 Amp fuses. Remove the 5 Amp fuse from the circuit with the JA1 and DA1 wires leading to the fuse.

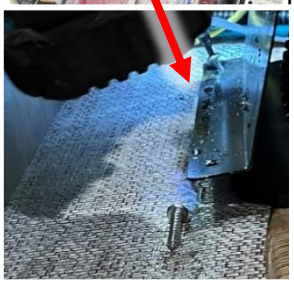
16. After removing the fuse, use electrical tape to seal off the fuse receptacle. The replacement pump will be fused separately, and this fuse is no longer necessary with the new configuration. **Do not reinstall the fuse.**

17. Move any necessary heating ducts out of the way. One heating duct will point to the old pump.

18. The heating duct can be moved around and taken tight to the wall so that it is no longer in the way.

19. Unscrew the electrical bracket from the floor.
    a) On the back side of the bracket, there are two Phillips head screws. Remove these and the bracket will be free.





20. After becoming free, it is recommended to bring the electrical bracket up so that it is not in the way when setting the drain pan.
    a) Take caution when moving the bracket not to damage or overstretch any wires.

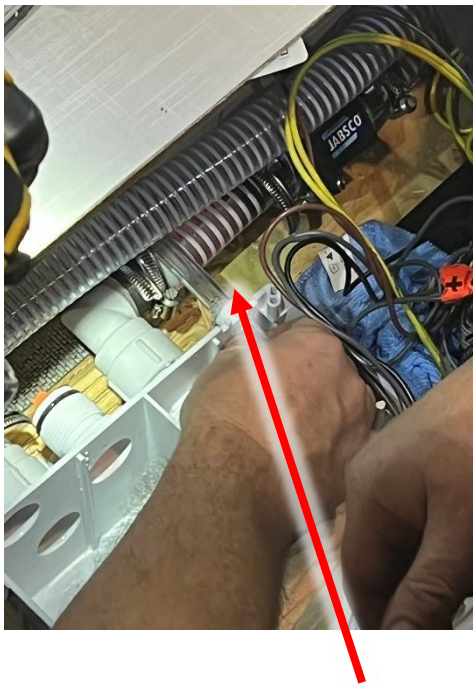
21. Using rags or a similar product, plug the wire holes in the floor to keep any water from dripping through the holes.

22. In the storage cabinet directly behind the seat, remove the access panel at the bottom rear of the compartment. Use a Phillips screwdriver to remove the two Phillips head screws and the panel will come free. Set aside the screws for reinstallation

****Take extra caution to avoid spilling any water during the following steps. If any spills it is critical that it gets cleaned up before continuing. ****

23. Remove any water from the water pump. It is recommended to use a wet/dry vacuum to do this.

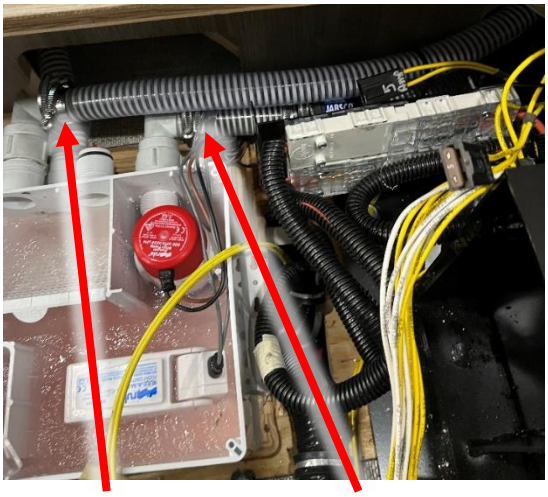
24. Remove the pump overflow tube.



25. In the lavatory, unscrew the shower strainer using a flat head screwdriver.

26. After removing the strainer, plug the shower drain hose by putting a rag or paper towel in the drain to keep water from dumping onto the floor during the removal process.

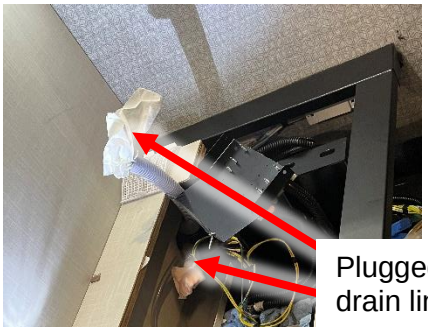
27. Cut the lavatory sink drain line as close to the elbow as possible while making sure to cut off any part of the hose that may be damaged or have sealant on it.



Lavatory Sink Drain Line

Wastewater Drain Line

28. Plug the hose by putting a rag or paper towel in the drain line to keep water from spilling onto the floor during the removal process. Do this on both sides of the cut.

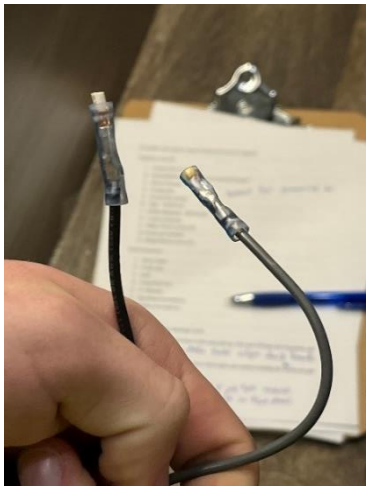


Plugged drain lines

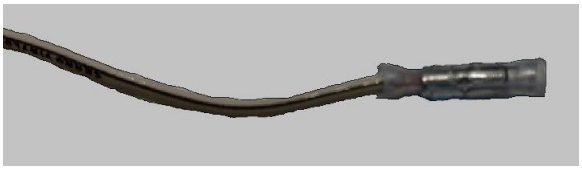
29. On the wastewater drain line, cut the hose on the pump side of the check valve.

30. Plug the hose by putting a rag or paper towel in the drain line to keep water from spilling onto the floor during the removal process.

31. Cut the power wires leading to the pump
    a) One wire will be black, and one wire will be grey.
    b) Trace them back from the pump and cut just after the nearest butt-splice on the yellow and white electrical wires.



32. Crimp a butt-connector onto each wire and tape over the end of the wire and butt-connector. These wires do not have power anymore and will not be necessary with the new configuration.



33. Remove the two screws securing the pump to the floor.

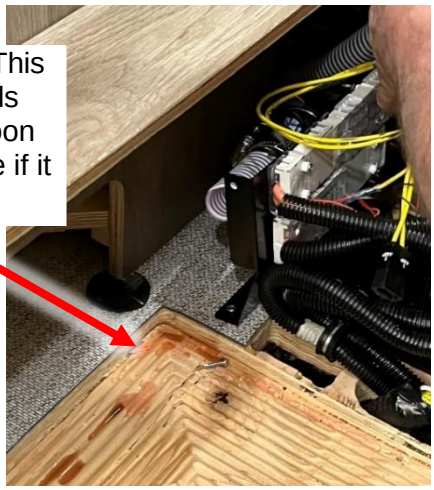
Remove this screw. The other screw will be on the opposite side of the pump

34. Remove the pump being careful not to spill any remaining water in the system.

35. Move the lavatory sink drain line so that it is out of the way and no water can seep out through the end of the line.

36. Dry any water that may have spilled during the pump removal.

Example: This water needs dried as soon as possible if it spilled.



37. On the wastewater drain line, undo the hose clamps on the outlet side of the check valve leading to the wastewater tank.

38. Using a twisting and pulling motion, remove the check valve from the line so that the check valve fitting pulls out of the wastewater drain line.

    c) The check valve should look like this after being removed.

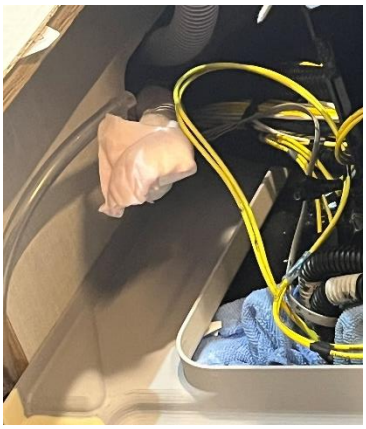
39. Remove the loosened hose clamps.

40. Plug the hose by putting a rag or paper towel in the drain to keep water from dumping onto the floor during the removal process.

41. Clean around the shower pan drain hole to remove all contaminants and sealant that might be on the top or bottom side of the shower pan.

42. Using Drain Pan A, mark the location of the drain hole

a) When positioning the drain pan, the pan should get as close to the sidewall as possible and as tight to the cabinet panel as possible. Wires may need to be lifted/manipulated to achieve this.



b) When positioning the pan, check for proper fitting in the floor cutout. The carpet may need to be trimmed with a utility knife.

c) Use a marker to mark the perimeter of the drain hole

43. Mark the center of the circle.

44. Using the previously marked location, drill the drain hole using the 3 ½ inch hole saw
    a) Make sure not to cut through the steel for the compartment beneath the floor
    b) The pilot drill bit should not extend past the teeth of the hole saw any more than 25mm

    c) Stop drilling immediately after getting through the floor.

45. If there is foam under the floor where the hole was drilled, use a utility knife to cut and remove the foam following the perimeter created by the hole saw.

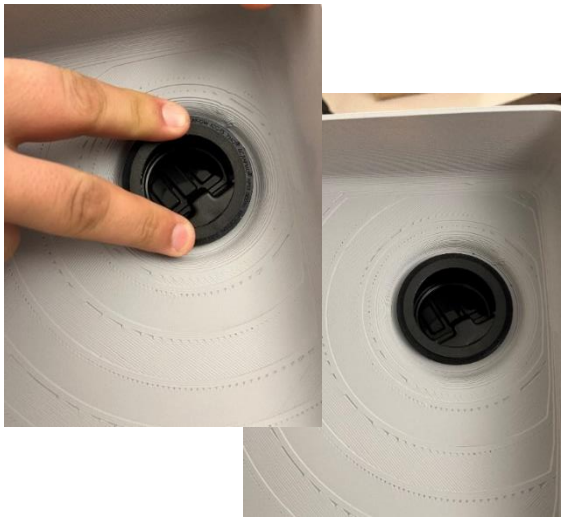
46. Clean the area to remove any debris that may exist.

47. Using alcohol/alcohol wipes, clean the bottom of Drain Pan A on the last two inches of the leg of the pan. Let sit for 60 seconds to dry.

48. Peel the backing off the bumpers and attach the bumpers to the leg of drain pan A in the cleaned area.

49. Apply silicone under the top lip of the pan drain gasket, as shown.

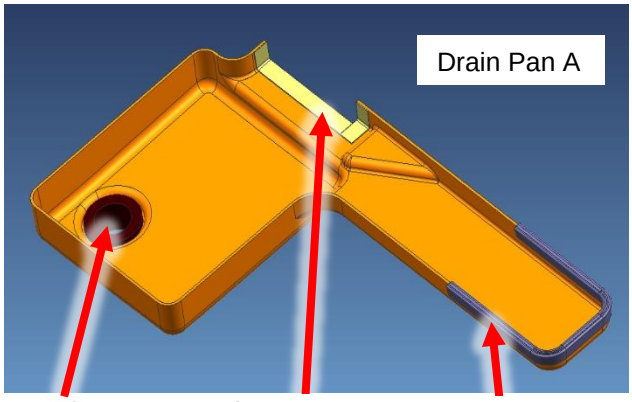
50. Insert the drain into Drain Pan A.



51. Clean Drain Pan A around the mating edge with alcohol/alcohol wipes. Let sit for 60 seconds to dry.

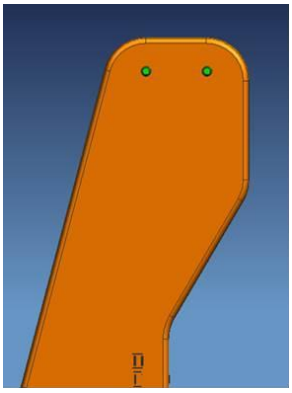
52. Add the VHB tape to the mating edge of Drain Pan A. Trim the tape to length.

53. Add a piece of the edge protector to Drain PAN A to protect the wires from getting damaged as shown.



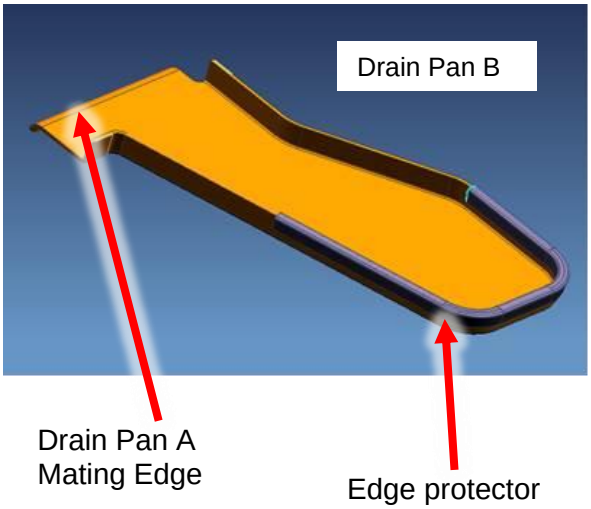
54. Using alcohol/alcohol wipes, clean the bottom of Drain Pan B on the last two inches of the pan. Let sit for 60 seconds to dry.

55. Peel the backing off the bumpers and attach the bumpers to Drain Pan B in the cleaned area.



56. Add the 240mm long edge protector to Drain PAN B to protect the wires from getting damaged as shown.

57. Clean Drain Pan B around the mating edge with alcohol/alcohol wipes. Let sit for 60 seconds to dry.



58. Apply a ½ inch bead of silicone around the hole on the floor to seal around the drain hole.

59. Fill the overflow tube hole with silicone as that will no longer be needed.

60. Position the drain pan so that it sits as it did when marking the hole location.

61. Remove the backing on the tape on Drain Pan A.

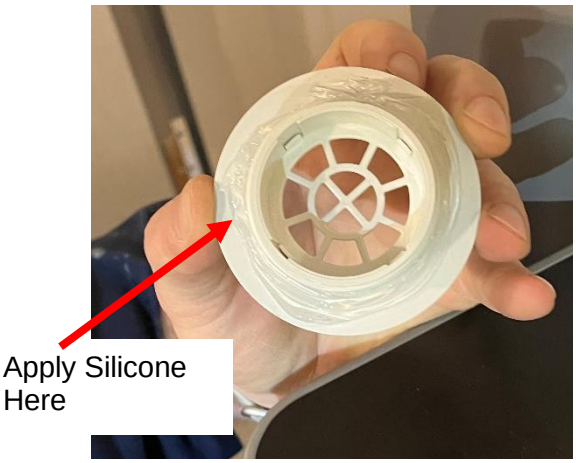
62. Apply a ½ inch bead of silicone to the back of Drain Pan A.

63. Place Drain Pan B into the correct location so that the pan nests together with Drain Pan A.

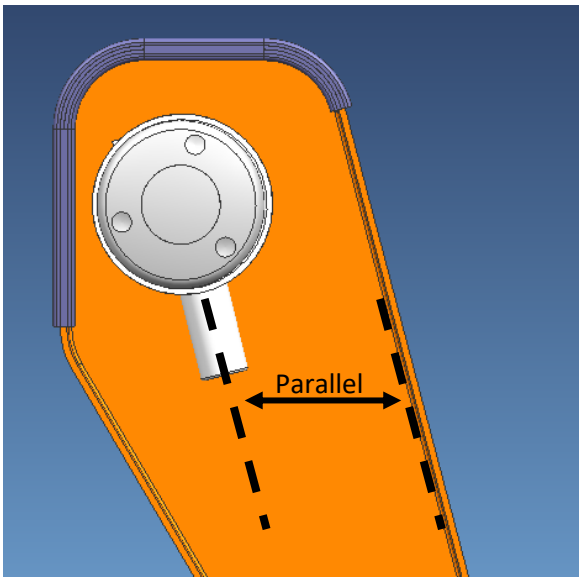
64. When properly positioned, push down on Drain Pan B in the area sitting over the tape so that the two drain pans bond together with the tape.

65. Tool Silicone around the edge where the two drain pans meet.

66. Apply silicone to the back of the shower strainer.



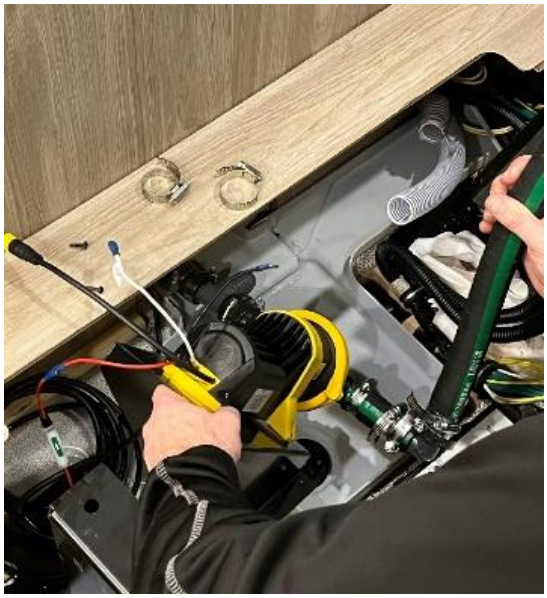
67. Screw the shower strainer into the shower drain and tighten.
    a) Orient the shower drain so that the drain points in the direction of the pan



Drain is shown over Drain Pan B without the shower pan in place.

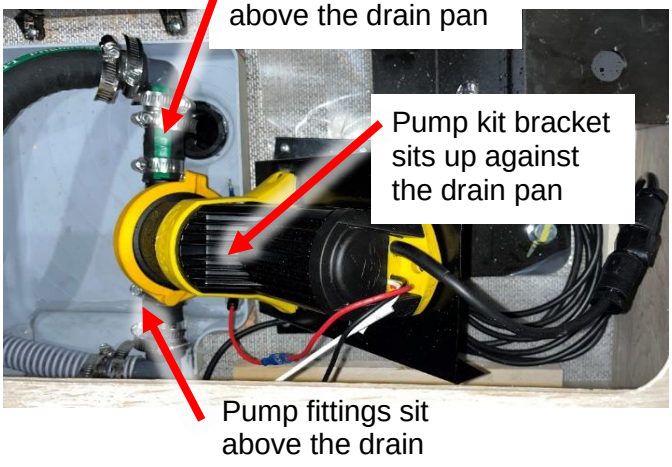
68. Run the sensor cable rearward until it is no longer above the drain pan and then lay it along the passenger side of the drain pan leading back to the dinette cabinet. Ensure the sensor wire does not sit underneath of the drain in any fashion.

69. Guide the pump assembly into position over the drain pan until the shower drain line is fully seated onto the shower drain via the quick connect fitting.



a) Push the shower drain line until it connects to the shower strainer.

70. After being connected to the shower drain, the pump kit should be in the correct location. Orient the pump kit so that all the connections of the preassembled pump kit are above the drain pan and that the bracket for the pump can sit flat on the floor. Attach the bracket to the floor where it best sits using the provided screws.

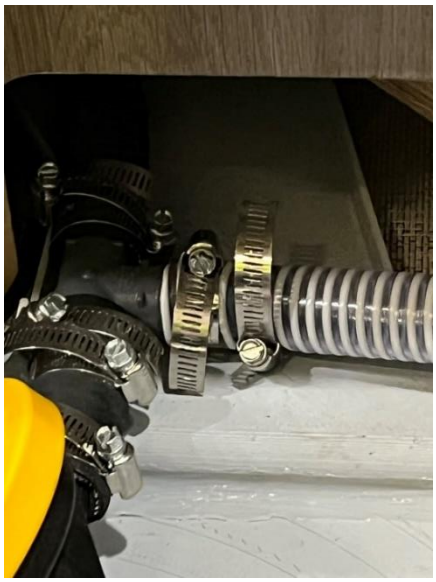


71. Slide two hose clamps onto the lavatory faucet drain line so they have opposite facing screws.

72. Remove rags / towels from lavatory faucet drain line, applied in step 22.

73. Using a heat gun, heat the end of the lavatory faucet drain line. Once heated, slide the drain line over the barb fitting on the preassembled pump kit T-fitting.
    a) Use proper safety practices when using the heat gun.
    b) Be cautious not to burn/distort the hose.

74. Put the hose clamps over the barb fittings and tighten the clamps.
    a) Before tightening, the clamps should be turned 90 degrees from each other.
    b) The two hose clamps should be torqued to 20 +/- 2 in-lbs.



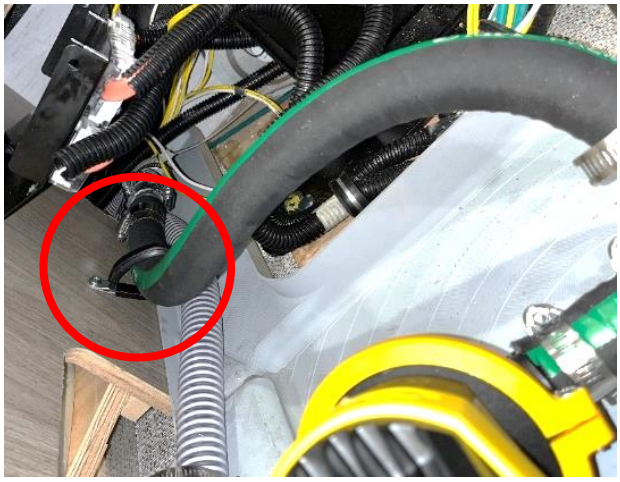
75. Slide two hose clamps onto the wastewater drain line.

76. Remove rags / towels from wastewater drain line, applied in step 24.

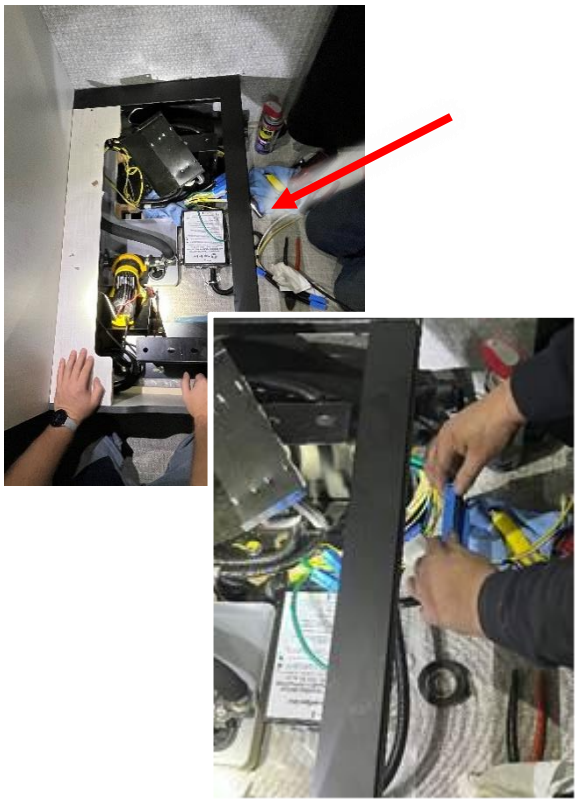
77. Using a heat gun, heat the end of the wastewater drain line. Once heated, slide the drain line over the barb fitting on the preassembled pump kit coupler fitting.
    a) Use proper safety practices when using the heat gun.
    b) Be cautious not to burn/distort the hose.

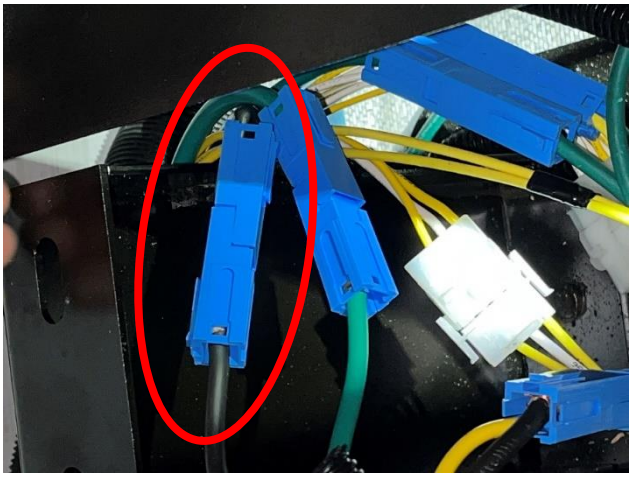
78. Put the hose clamps over the barb fittings and tighten the clamps.
    a) Before tightening, the clamps should be turned 90 degrees from each other.
    b) The two hose clamps should be torqued to 20 +/- 2 in-lbs.

79. Attach the wastewater drain line to the rear wall of the cabinet with the clamp so that the coupler on the wastewater drain line is secured over the drain pan.



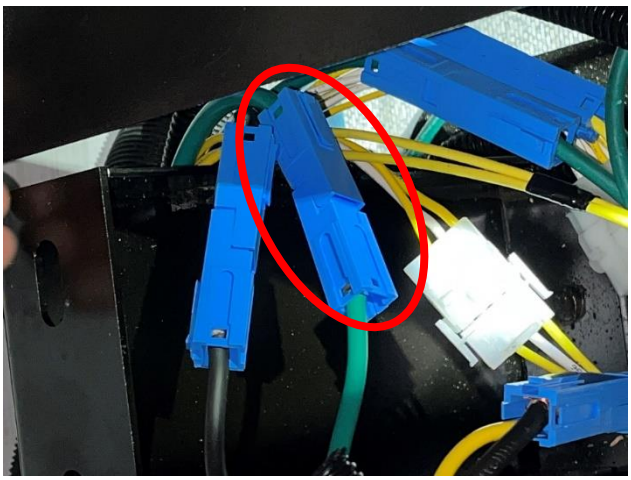
80. Unplug the black to black 6-guage wire.





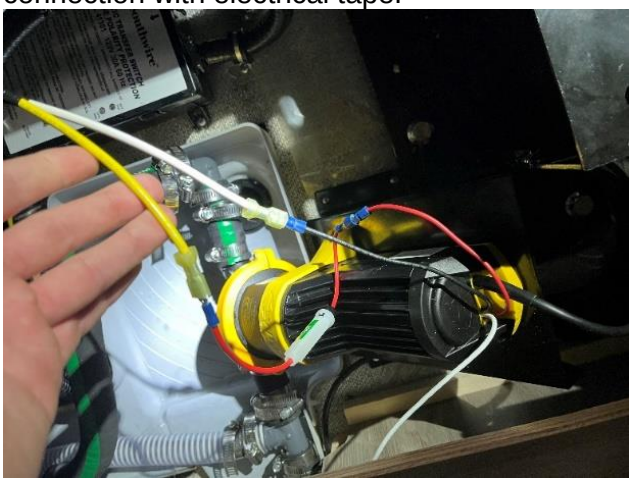
81. Plug the black wire terminals of the kitted wire harness into the now disconnected plugs.

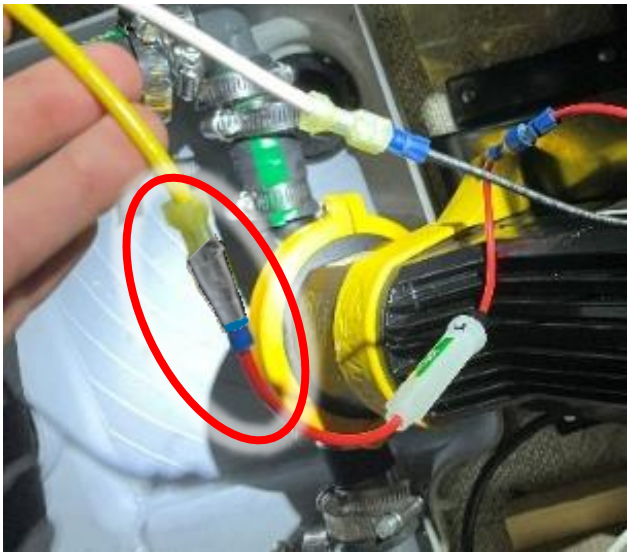
82. Unplug the green to green 6-guage wire.
    a) This will be the larger diameter wire of the two green to green connections.



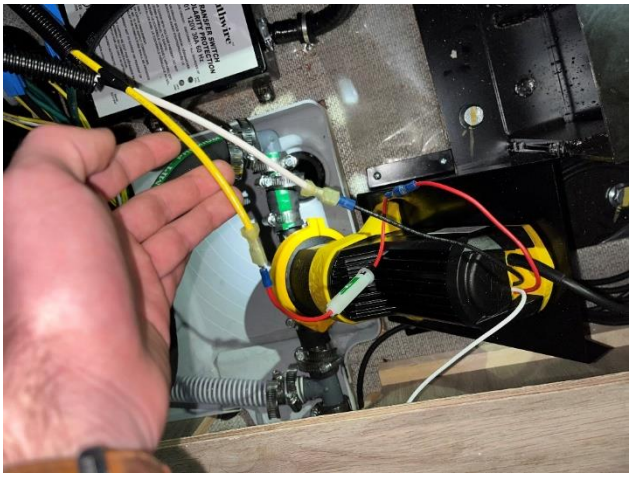
83. Plug the green wire terminals of the kitted wire harness into the now disconnected plugs.

84. Connect the red wire on the pump to the yellow kitted wire harness wire. Wrap this connection with electrical tape.



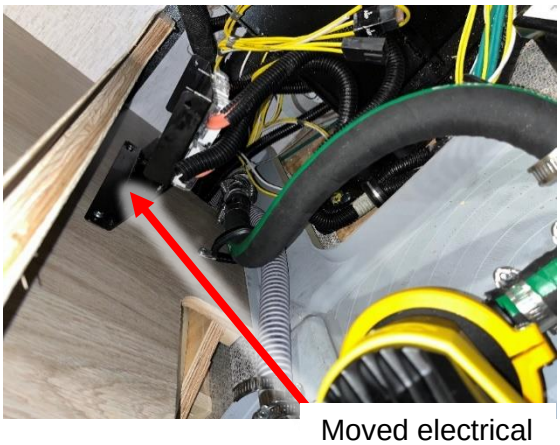


85. Connect the black wire with the spade connector on the pump to the white kitted harness wire.

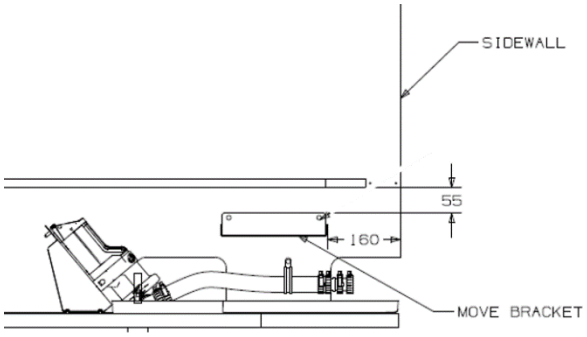


86. Plug the 7-pin sensor cable from the shower strainer into the corresponding connection on the pump. Coil all excess wire and secure.

87. Reattach the electrical bracket so that it is secured to the wall and is suspended above the drainage pan using the provided screws.
    a) Locate the panel so that the top of the flange is approximately 55mm below the top panel of the cabinet and should be positioned approximately 160mm off the sidewall.



Moved electrical bracket



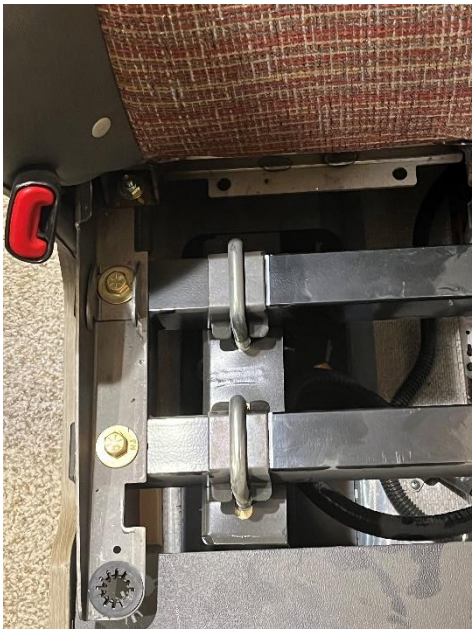
88. Turn the power back on.
89. Run water through the system for 5 minutes to verify no leaks exist.
    a) Run water through both the shower and lavatory faucet drains to ensure both are in working and non-leaking condition.

90. Pour 12 ounces of water in the drain pan to verify the drain plug opens correctly allowing water to drain from the pan.
    This will drain onto your shop floor

91. Move the previously adjusted heating duct so that it points at the water pump to keep water from freezing in the fittings.

92. Resecure the access panel in the storage cabinet using the previously removed Phillips screws.

93. Set the seat backs and cross members back on the dinette cabinet and align the seat so that the previously made alignment marks are realigned.

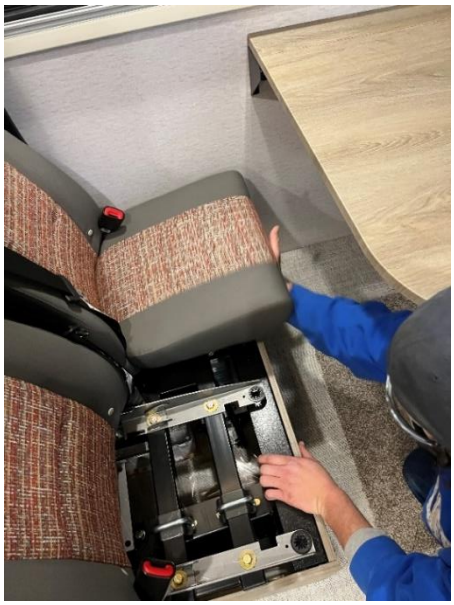


94. Using a ¾ inch socket, install the previously removed seat hardware. Using a torque wrench, torque the nuts to 57 +/-3.5 NM (42 +/- 3 Ft-lbs).

95. If present, reattach the heating duct to the front cabinet panel.

96. Reattach the front cabinet panel using the 5 screws that were previously removed with the panel

97. Slide the seat cushion into the correct alignment and push down on the front edge until it pops into place.



If you have any questions regarding this recall remedy, please contact Winnebago Technical Assistance at 1-866-653-4329.