Dutchaire Fridge Installation Manual

Changing from a Gas/Electric RV fridge to a New Dutchaire Fridge

This Manual will give you an overall idea of what consists to install a residential style fridge into a RV. Each RV manufacturer is different so there will be some differences in your fridge cabinet.

Cabinet opening Requirements:

2419- 33”W x 73”H Depth of fridge- 28” (25” without Doors)**

2417- 33”W x 71”H Depth of fridge- 26.5” (23.5” without Doors)**

2310- 23.5”W x 61”H Depth of fridge- 25.5” (22.5” without Doors)**

**The cabinet opening height can be around 2” lower in height if the perimeter between the fridge sides and top are sealed off to the cabinet with insulation and the back vents are left open so the compressors can breathe thru the outside vents.

Most RV fridge cabinet opening heights are not that big but we will show you in this manual on what can be done to achieve that height. And most of these pics are from doing a Norcold, on Dometics the steps are the same, just different fridge.

Please read through these notes before starting:

- Throughout this manual, there will times when you see (RA), (YA), or (BA). These are referring to red arrow, yellow arrow, and blue arrow. We use these to point to a certain spot or part in the pictures.
- With this 12V dual compressor cooling unit, unless you already have 10ga wire already there you will need to run a new 10ga wire from the house batteries to the back of the fridge. Adding a 30-amp fuse/breaker by the batteries for the new fridge wire.
- The Refrigerator should be placed in the upright position at all times. If it has to be set in a different position while doing the installation it needs to be setting upright for least 8 hours before starting the fridge.

Cover up your floor with blankets and removing any door handles or smoke alarms that might hinder the exit of your refrigerator from your cabinet. Turn off the water pump (if you have an ice maker in your fridge) and the refrigerator control panel.

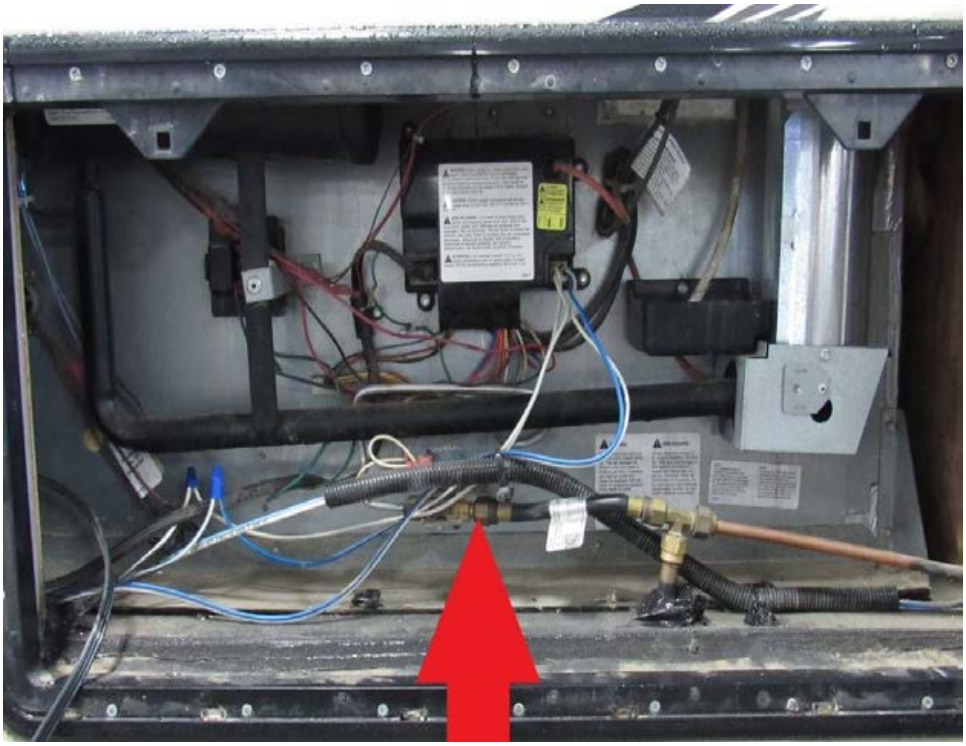
WARNING:

Make sure to turn off LP gas at the tank before starting the install.

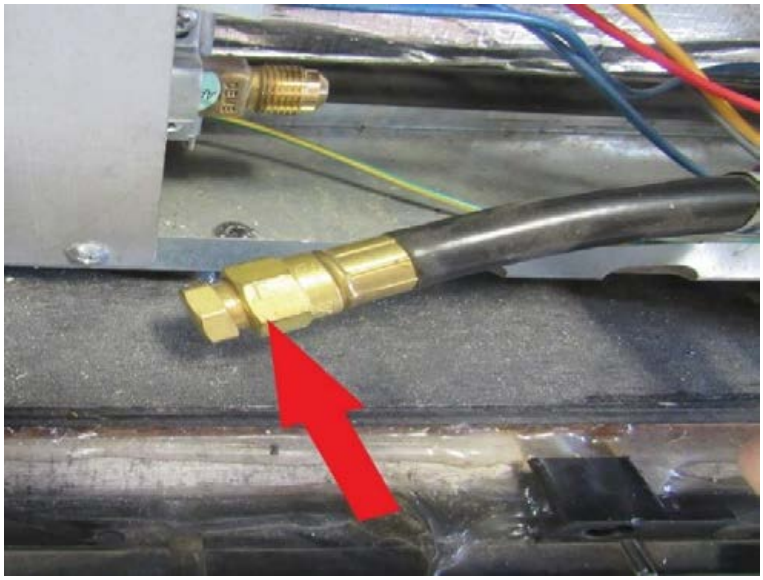
Locate the side vent to your refrigerator.Take the main 12V wires (RA) loose from your board. The wire colors will vary from coach to coach. Note: If your wire ends are not insulated, wrap the end in electrical tape so you don't blow the fuse.

Unplug your 120v plug (RA) from your RV. Location will vary from coach to coach, if you have an icemaker unplug its cord from wall socket, making sure water pump is turned off unscrew water supply line from solenoid (RA).

Using 2 wrenches remove the LP line (RA) off of the LP solenoid valve. Make sure LP gas is turned off.



A gas plug will be needed to cap off the gas line. **Not Included**



There are many different styles out there but most have at least 2 mounting screws through the back plate holding the fridge to your RV floor. Screw size and bit needed will vary from coach to coach. Remove these screws or bolts

Then loosen the fridge mounting screws at the top and the bottom of the fridge. Your fridge screw locations might vary.

Remove the fridge doors to make it easier to handle the fridge when removing it from the cabinet and to get it out of the coach.

Measure your cabinet to see what needs to be done to get the required opening for the model fridge you are installing. (RA)

Most cases the fridge base cabinet needs to be removed to achieve the opening requirements. If you have a fuse panel box or furnace below the fridge, then the top of the fridge cabinet might have to be modified as well.

If by doing the cabinet modifications and you can still not get the required clearance for ventilation but you have enough room to get the fridge in the cabinet then the vent openings on the back wall need to stay open for proper ventilation for the compressors. The perimeter between the fridge box and cabinet would have to be sealed off with regular batten insulation. We still prefer having the ventilation of the compressor to the inside of the coach instead of to the outside because the heat of the outside temperature will then be applying to the back of the fridge box. But this is not always possible.

Remove all vent baffling from the fridge cabinet

If you are venting the fridge thru the outside vents then you will have to add insulation on both sides of the fridge before sliding the fridge into the cabinet.

If you are venting the fridge to the inside of the coach (which is what we recommend) Remove all insulation.

Removing the fridge base if needed:

It is easiest to remove the base by cutting it into 2 sections using a skilsaw or jigsaw. Make sure there are no wires or plumbing right below the base.

If there are any visable screws holding the base down have them removed, then place a plybar at the cut to break the base loose.

Make sure you do not damage the gas line while removing the base. The gas line is usually running thru the plywood base.

After the base plywood is out remove any other wood that was there to support the base.

Now it is time to remove the cabinet face frame style, the style should have screws on the inside that need to be removed on each side. (RA)

Loosen all the wiring from the back wall, and secure it to the side panel to get it out of the way so the fridge can set into the cabinet as needed. Before fastening the wiring to the side panel, make sure the screws will not be going thru the panel where they will be exposed on the other side. Tuck everything in to where the fridge will not be hitting it anything.

Now check the cabinet opening height to see if you have the required opening. If not, the top style can be removed and cut down and reinstalled. Or the style can be taken out and left out.

Closing up the vents:

Measure the vent opening to cut a piece of foam insulation to insert in vent opening

Using a ½" thick foam works best. Cut the foam so that it fits into the opening snug.

Put a bead of caulk around the opening before putting the foam into it. This will make the vent waterproof.

Then install the foam and put another bead around the foam to get everything air tight

Then apply a piece of paneling or ¼ Luan on the inside of the foam to stabilize it.

A fridge support needs to be added to the ceiling of the fridge cabinet. Measure the height of your fridge box and then mark that measurement on the back wall. Then a wood block needs to be installed from the ceiling down to a ¼" above the mark for the fridge height. This needs to have a depth of at least 5".

This will prevent fridge from tipping forward during travel.

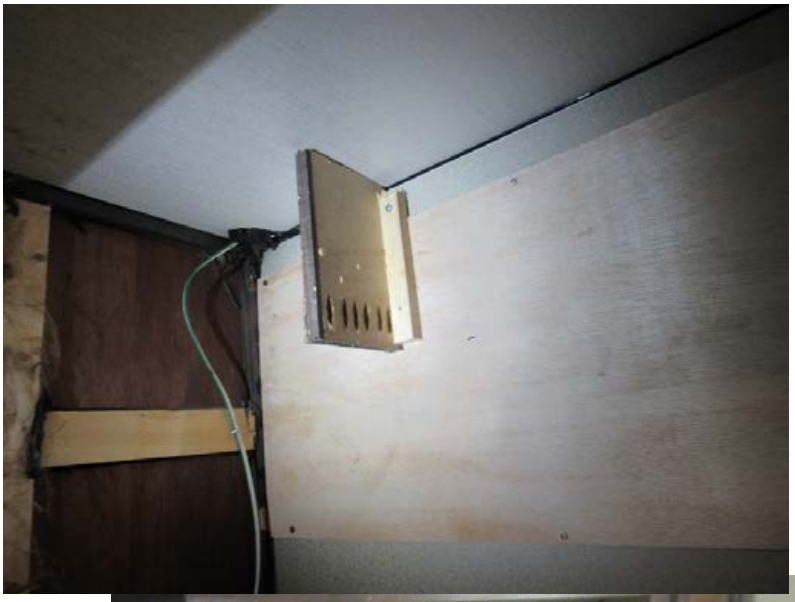
If your cabinet is wider then 33”, you might want to consider adding something on the cabinet to close up the gap between the fridge and the cabinet face frame. This is optional.

During a factory installation we will install a 1 ½” rubber wipe on both sides of the fridge to close the gap.

Fastening the L-shaped rubber wipe with a staple gun or small screws can be used as well.

Now is the time to add a 10-gauge 12V power wire if you haven't yet, if you are installing a 12V Refrigerator. If the top of the fridge has a gap that will be to large or visible from the front, black spray paint can be used to paint the top of the cavity on the inside, this will make it so you cannot see back there.

You are now ready to install the fridge.



Installing the Refrigerator:

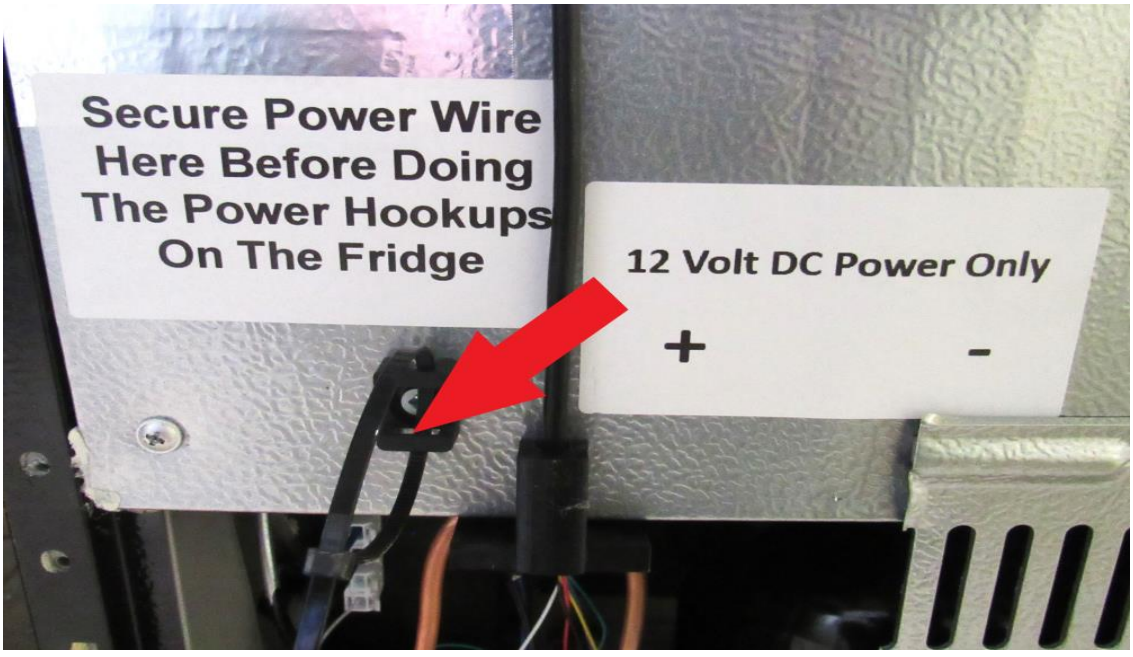
Most fridges will go into the entrance door by removing the fridge doors. If the doorway is not big enough, removing a window is going to be the better option.

Place a blanket on the floor inside the entrance door so you can set the fridge upright on the blanket and then you move the fridge by sliding it around on the blanket.

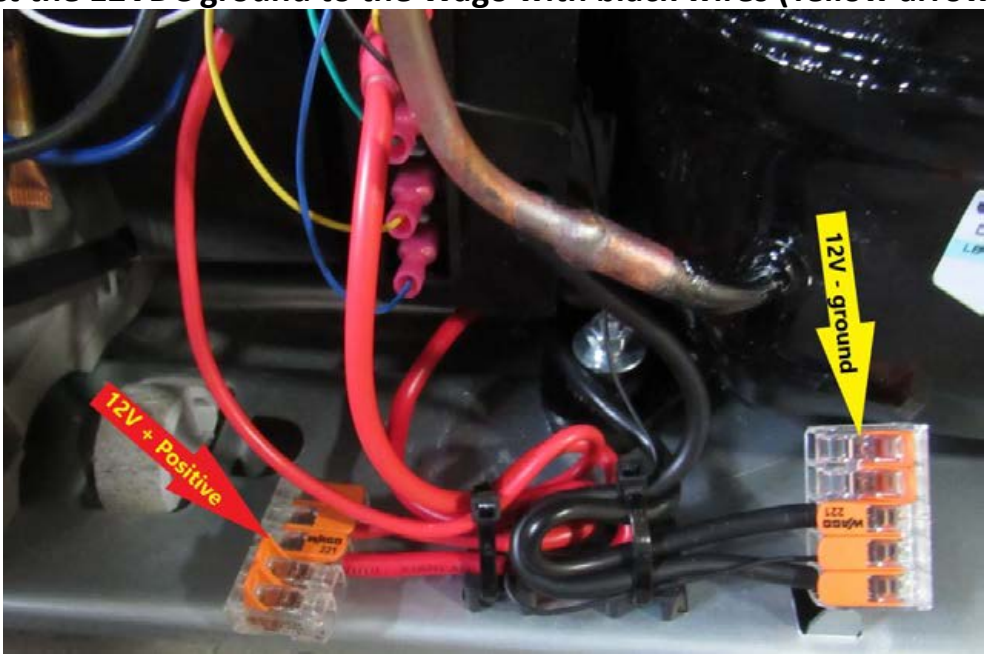
Set the fridge up close to the fridge cabinet and make your power connections.

120V fridge- **just needs to be plugged into the receptacle. The receptacle should be able to be powered with an inverter so the fridge can keep power while traveling.**

12V Fridge- **Feed your 12V power wire thru the secure loop and then to the power supply connections. Make sure you have 12V Positive and Negative to the correct connections.**

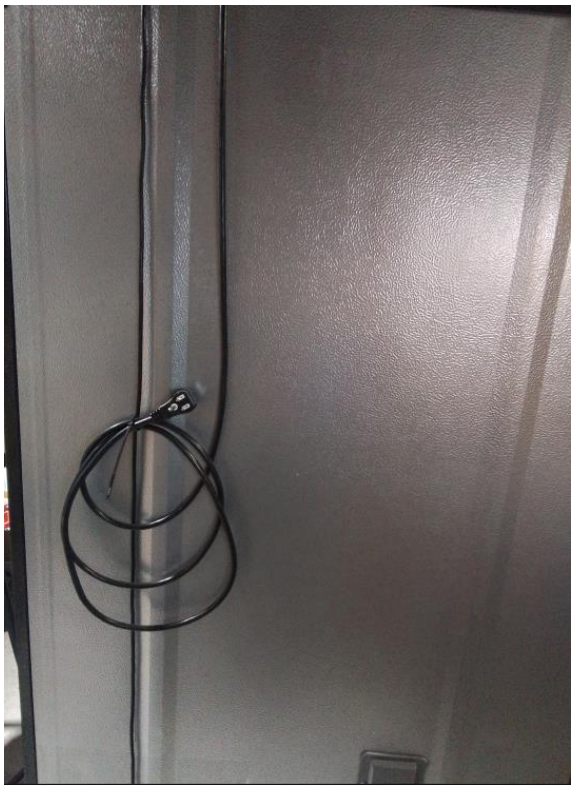


Connect incoming 12VDC Positive wire to the Wago with red wires (red arrow) & connect the 12VDC ground to the Wago with black wires (Yellow arrow)



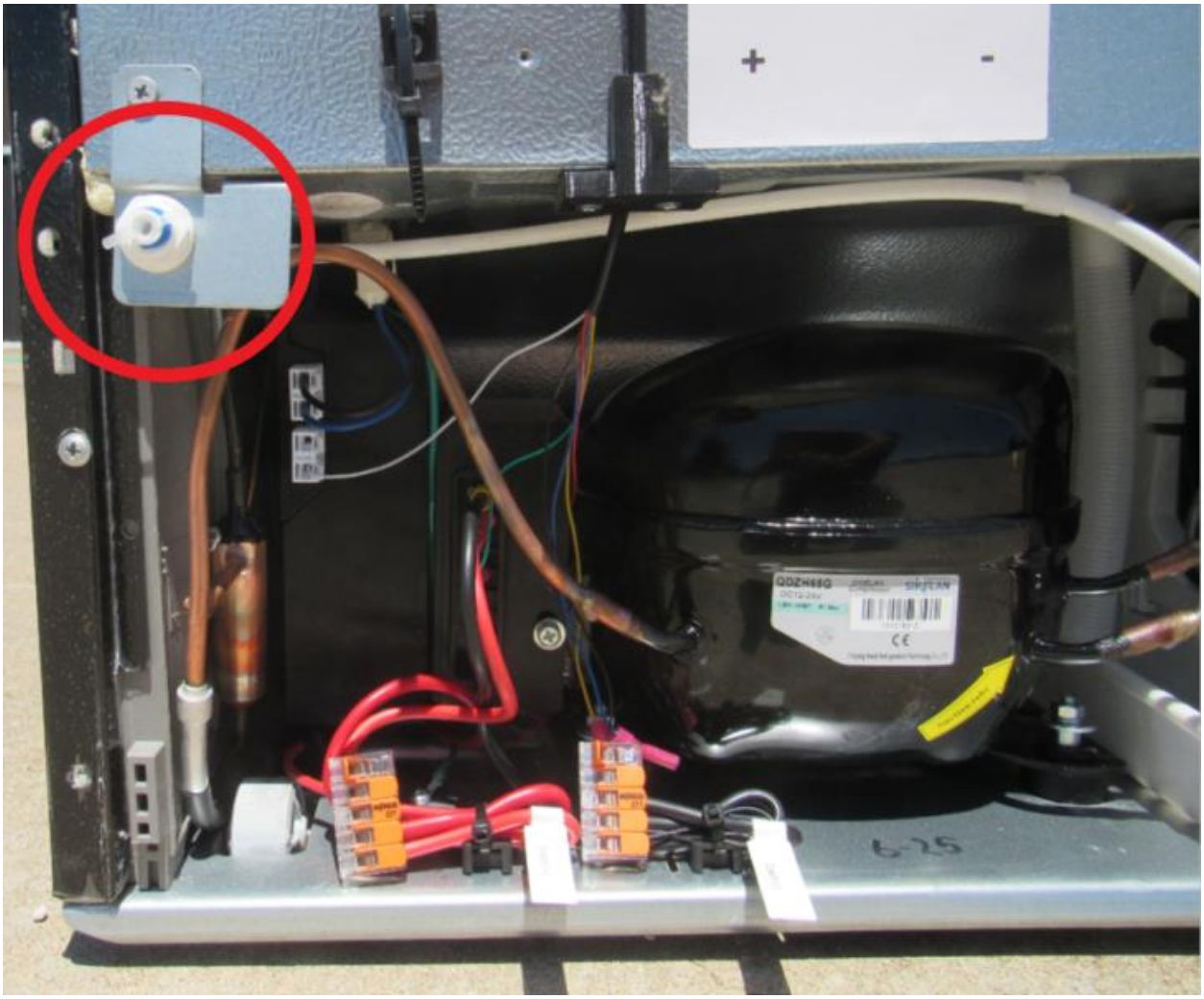
Turn on the fridge and wait until you can hear or feel that the compressor is running before you push it back into the cabinet.

If your refrigerator does have an ice maker, it is powered by 120V and will only cycle if there is 120V power available. The 120V power plug on the back of the fridge needs to be plugged into a receptacle before sliding the fridge into the cabinet.



If your fridge has the icemaker option; connect your ¼" water line to the back of the fridge.

*****The icemaker does need to be winterized if it will be setting in freezing temperatures at any time****



The front feet of the fridge will have 2 small holes thru it. There are 2 small black mounting brackets included with the fridge that slide over the mounting foot, then fasten each foot mount using the 4- 2" screws that are included to secure the fridge to the floor of the coach. Make sure the screws follow the angle of the holes in the mount. Remember your top wood block will prevent the fridge from tipping forward so your fridge is now secure. Not all floors are level, so the front foot might have to be adjusted in height to your needs before fastening. Do not over tighten the screws. Make sure you know what you are screwing into beneath the fridge, so you do not hit wires or plumbing. Or that the screw is not too long to go thru the floor if it's installed in a slide out.

The same can be done now thru the 6”X6” access hole in the back, there is a black mounting bracket on the compressor plate in the back. Use one of the 2” screws that are included. Make sure screw do not stick down thru floor if the fridge is in a slideout!! A longer screw can be used if the fridge is mounted in the main part of the coach for a better hold.

If you are leaving the vents open because of cabinet height requirements, (disregard this if you closed up the side vents/roof vents) insulation needs to be tucked in under the fridge from the inside of the coach. The top of the fridge then needs to be sealed off with insulation thru the outside top vent. If you do not have the top side vent and have the roof vent, the top insulation will have to be glued to the roof of the cabinet before installing the fridge.