



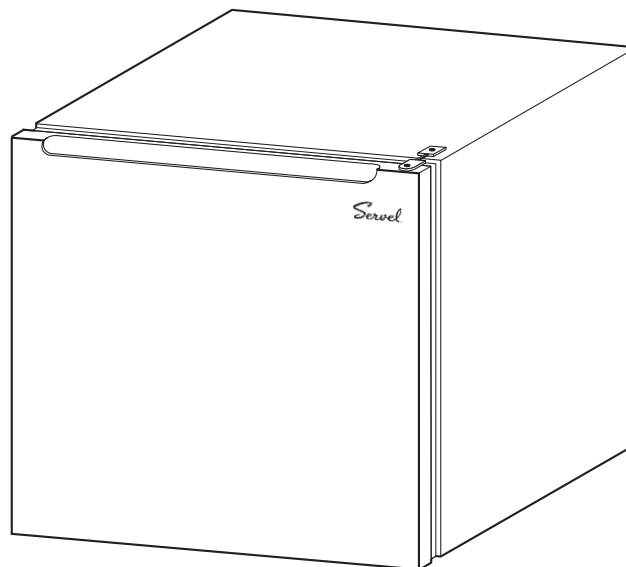
100000.000 INSTALLATION INSTRUCTIONS

When ordering spare parts**Always state:**

Model - Quantity - Part Number - Description

For electric details also:

Voltage - Wattage



Model	Voltage V	Door left/right	Market
100000.000	12VDC	R	USA, Canada

USA
Service Office
509 South Poplar St.
LaGrange, IN 46761
219-463-4858

CANADA
Dometic Distribution, Inc.
866 Langs Drive
Cambridge, Ontario
N3H 2N7
519-653-4390

For service center assistance call:
800-544-4881

Refrigerator
100000.000

Form No. 3109329.015 3/00
Replaces (3109329.007)
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LaGrange, IN 46761

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GENERAL INFORMATION

Servel's refrigeration systems are designed to run efficiently from AC Shore Power, Battery Power or Solar Electric Power

Our unit features a reciprocating compressor which is very efficient; while running it uses less than 60 watt hrs./hr.

The unit is charged with a CFC free R134A. This refrigerant is a Zero Ozone Depleter.

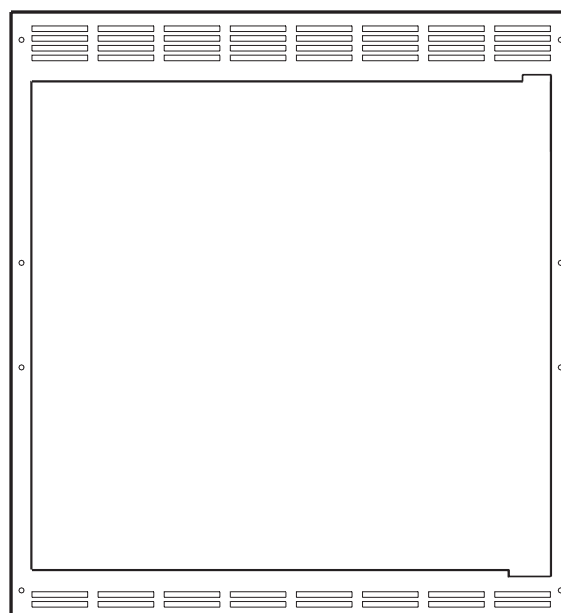
All of our refrigerators have built in battery protection. This feature is designed to help protect the battery from damage due to accidental Deep discharge.

We recommend adding a battery protection device for your entire 12VDC system, rated at the minimum starting voltage suggested by your truck manufacture.

VENTILATION

All refrigerators, regardless of the make, are heat transfer machines. They transfer the heat from the inside of the fridge to the outside of the fridge. If adequate ventilation is provided, the compressor will operate more efficiently and use less power.

FIG. 1 - 3109181.002 Trim Plate Grill



Important: Refrigerator must be installed with trim plate grill (part number 3109181.002). See FIG. 1.

INSTALLATION

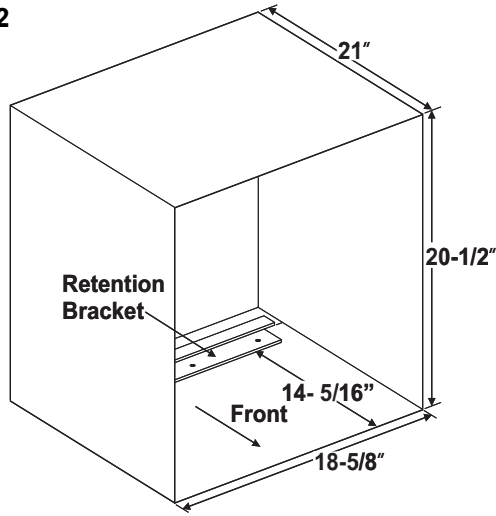
1. Cabinet Opening

Cabinet opening is 18-5/8"W x 20-1/2"H x 21"D. See FIG. 2.

2. Mounting Retention Bracket

Measure back 14-5/16" from the front edge of the enclosure and mark a line on the floor. Place the enclosed retention bracket so that the open end is toward front of opening and place the Front of it on the marked line. Screw the three 1/2" screws into the bracket attaching it to the cabinet. Check to make sure it is secure, using longer screws if necessary (not provided). See FIG. 2.

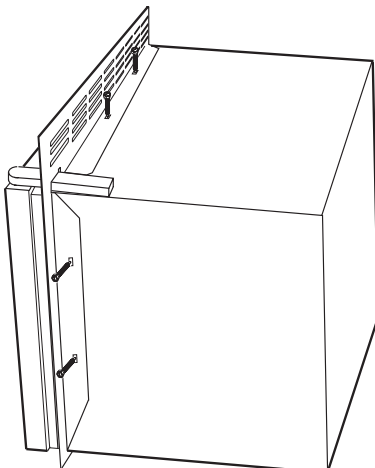
FIG. 2



3. Mount Trim Plate on Refrigerator

Open the refrigerator door. Rotate the trim plate 45° counter-clockwise from the upright position and place the trim plate grill over the door and return it to the upright position. Slip the bottom edge of the trim plate over the lower hinge pin and place the bottom of the trim plate on bottom of cabinet. Next place the top flange in place over the top of the cabinet. You may need to spread the flange with your fingers as you slide it over the edge of the cabinet. Again the fit is tight. Adjust the trim plate on the sides, top and bottom until it is flush with the front and in alignment with the mounting screw holes. Use 8 of the 16-3/8" screws provided to attach the frame to the refrigerator. See FIG. 3.

FIG. 3



4. 12VDC connections

To determine the size of the wire to be used, measure the maximum length of wire to connect one of the leads from the electronic unit (on the back of the refrigerator) to the battery. Using the chart below, size your wire accordingly. The table is based on a 3% voltage drop. See FIG. 4.

wire size AWG	max. lead length in feet**
14	8
12	12
10	25
8	40

**Length is the distance between the electronic unit and the battery.

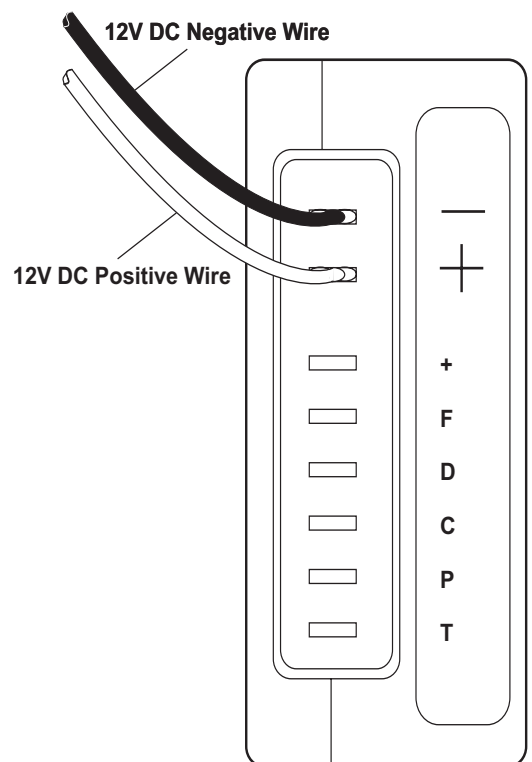
The circuit breaker must be a 20 amp capacity on the 12V DC side. Failure to size the wire or breaker correctly (too small) may cause a premature shut down of the refrigerator by the Battery Protection Device.

We recommend that the refrigerator have its own circuit, without any other appliances connected to the same wires. Using the **COMMON BUSS** for the refrigerator wiring can sometimes cause radio frequency noise and interference.

Servel recommends the use of a 15 Amp Fuse (12VDC) as near as possible to the DC Source (installer supplied).

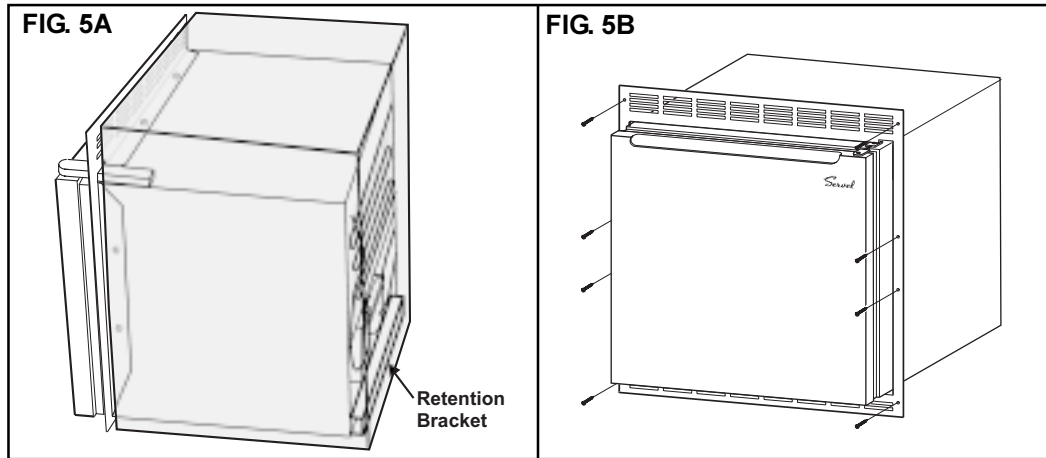
Connect the positive and negative wires to the corresponding compressor control terminal. The negative 12V DC wire connects to the top terminal with the large "—" sign. The positive 12V DC wire connects to the next terminal down with the large "+" sign.

FIG. 4



5. Mounting Refrigerator in the Enclosure

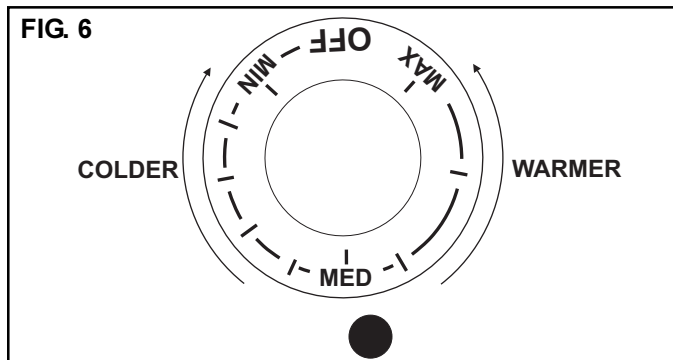
Slide the refrigerator into the opening. When positioned properly, the back of the refrigerator should be underneath the retention bracket and the trim plate grill should be flush with the front of the opening. Use the remaining 8 screws to secure refrigerator in the cabinet. See FIG. 5A & B.



OPERATION

1. THERMOSTAT

The thermostat is a full range thermostat that will maintain your unit at the temperature you desire. Turning the control all the way to the right (clockwise) will give you the coldest position, and turning to the left (counter clockwise) will give you a warmer temperature in the fridge. The thermostat is also an "OFF" switch. Rotating the knob all the way counter clockwise will shut the refrigerator off. A good start setting is "MED." Adjust either direction until desired temperature is reached. See FIG. 6.



2. OPERATIONAL SEQUENCE

When the thermostat is turned on (you should hear a click) the compressor should try to start. It is not uncommon to hear a small squeak when it tries to start. If it does not start on the first attempt it will continue to try every 40 seconds. If, for some reason, the compressor becomes overloaded it will go through this cycle and the fan will continue to run during the 40 seconds. When the thermostat is satisfied, the compressor and fan shut down.

MAINTENANCE & SERVICE

1. DEFROSTING

The frequency of defrost depends on the usage (door openings), and ambient (outside) temperatures. It is time to defrost when the refrigerator builds up 1/4 inch of ice on each side of the cold plates.

The best way to defrost the refrigerator is to remove all the food and place a towel inside the fridge, on the bottom of the cabinet. Turn the thermostat to the "OFF" position.

Important: Never use a knife to scrape ice from the cold plate. This will rupture the cold plate and let the refrigerant escape.

2. CLEANING

The best time to clean the fridge is after a defrost. Wipe the inside clean using a nonabrasive cleaner (watered down) for the hard to clean stains. We recommend baking soda as the first choice for a cleaner.

If you notice your refrigerator running longer than normal, clean the condenser (usually required every few years).

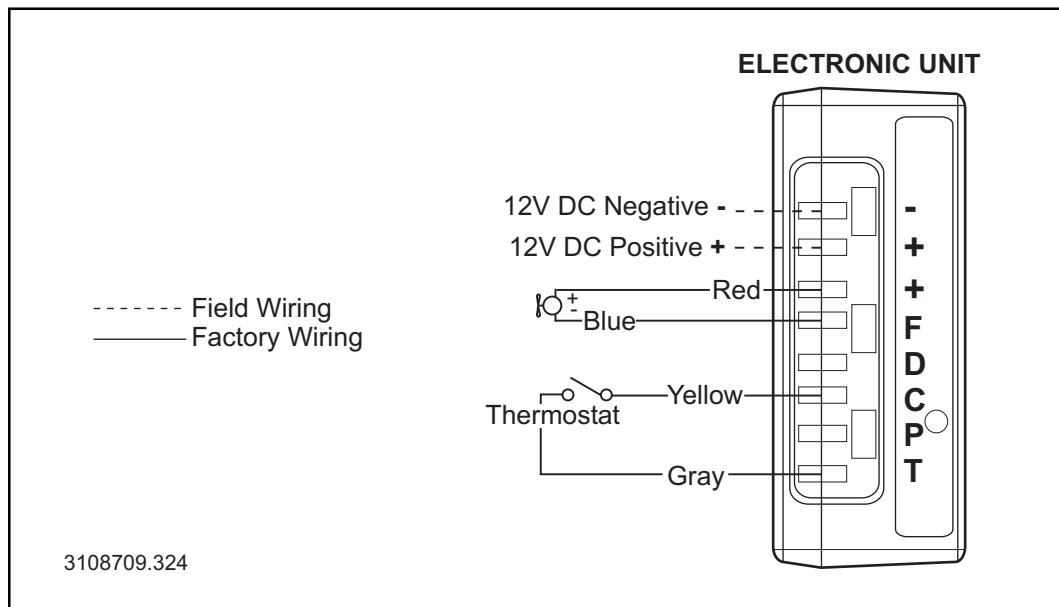
The condenser is located behind the refrigerator and can be cleaned by using a bottle brush and brushing vertically from top to bottom on the face of the condenser. An alternative method is to vacuum the condenser.

3. REFRIGERANT CHARGE & SEALED SYSTEM

Your Servel is charged with R134a. This is an environmentally safe refrigerant with a "0" Ozone Depletion Potential. It is used by most of the domestic refrigeration and appliance repair companies and manufacturers.

If you need to repair the closed sealed system, use a Certified Dometic Service Center. This is seldom necessary so be sure first, and before any arrangement is made contact Servel.

4. WIRING DIAGRAM



TROUBLESHOOTING GUIDE

		YES	NO
1	Turn power on and turn thermostat to "MAX" position.	Go To 2	
2	Is the compressor running? (put your hand on top to feel slight vibration to be sure)	Go To 14	Go To 3
3	DC Breaker is in the "ON" position & optional fuse is good?	Go To 5	Go To 4
4	Replace fuse or turn breaker "ON". Does fuse or breaker blow?	Go To 6	Go To 5
5	Check voltage at the refrigerator "+" & "-" terminals on the black module. Is it over 12 VDC?	Go To 7	Go To 6
6	Check batteries, wiring and connections to the refrigerator for fault, corrosion, proper wire sizing and correct the problem.	Go To 1	
7	Put a jumper wire between terminals "C" & "T". Is the compressor running now?	Go To 11	Go To 8
8	Disconnect power. Remove electronic module (Phillips screw beside terminal designation label will require removal). Disconnect the plug. Measure resistance (ohms) between each of the three compressor terminal pins. Is the measured resistance APPROXIMATELY the same?	Go To 9	Go To 10
9	Replace Electronic Module.	Go To 1	
10	Have compressor replaced by qualified appliance technician who has the ability to evacuate and recharge the system. This is seldom necessary so please be sure and contact Servel for further instruction beforehand.		
11	Check wiring to thermostat with ohm meter to ensure there is continuity. (No broken or damaged wires or connectors). Is the wiring okay?	Go To 13	Go To 12
12	Disconnect power. Repair or replace wiring as necessary.	Go To 1	
13	Replace thermostat.	Go To 1	
14	Have refrigerator in a well ventilated area (ie: on cabin floor). After an hour is it refrigerating?	Go To 15	Go to 16
15	Is fan operating?	Go To 16	Check Wiring
16	Have a qualified appliance technician determine if there is a refrigerant leak or a compressor with a mechanical problem.		