

For AC or DC refrigerators:

7. Check the thermostat: If the compressor is continually running, not running at all, or if the temperature is not being properly controlled, the thermostat may be malfunctioning. First check that the thermostat is properly adjusted. The thermostat acts as a switch that controls the compressor. The compressor should be on when the thermostat switch is closed (short circuited) and should be off when the thermostat switch is open.

If the compressor will not run, test the thermostat by shorting the two wires connected to it. The compressor should start when these wires are connected to each other. The compressor should stop when one of the leads is removed from the thermostat. If the compressor starts and stops as it should during these tests, but the temperature in the refrigerator is not properly controlled, the thermostat is probably faulty and needs replaced. The replacement thermostat is electronic and is available from Sun Frost. The leads for a 10,000 ohms thermister temperature sensor for this thermostat are located in the rear of the thermostat box.

Refrigerant Replacement (All Units Except RF12 & RFVB):

(All models use standard fittings.)

Refrigerator:

The compressor must be off when charging the unit. They take 3 ounces, (85 grams) of R-12 or R134a refrigerant. For a refrigerator section which is at 38°F in a 70°F room, at shut off, the compressor pressure should be 15 psig for R12 refrigerant and 9 psig for R134A. In a 90° environment, the pressures at shut off will be 17 psig for R12 and 10 psig for 134A..

Freezer:

With the freezer section at 10°F, the shut off pressure in a 70°F room should be 3 psig for R12 and 0 psig for R134A. In a 90°F environment, the shut off pressure will be 5 psig for R12 and 1.0 psig for 134A refrigerant.

Fine-tuning system charge to adjust freezer temperature:

→ (For RF12 and RFVB Vaccine Storage units only)

The temperature of the refrigerator section is controlled by the thermostat. The sensor for the thermostat is located on the back outside wall of the refrigerator. The temperature of the freezer is controlled by the quantity of refrigerant in the system. **After refrigerator is cold, just before shut off, the low side pressure will be about 7psi - fine tune by observing temperature.**

When the refrigerator reaches the desired temperature (we suggest 3°C or 38°F), the freezer temperature will typically fluctuate between 5 and 15°F, averaging 10°F. To raise the freezer temperature, add more refrigerant. Remove refrigerant to lower the freezer temperature by briefly depressing the access valve. In a 90°F room the freezer section will be about 5°F warmer.

AC Inside Light:

The AC refrigerators have a 12 volt light inside of the refrigerator section. The transformer for this light is located on the top of the refrigerator.

SUN FROST PO Box 1101, Arcata CA 95518 USA (707) 822-9095 Fax (707) 822-6213 E-mail: info@sunfrost.com
trblshot.doc 5/99