

SERVICE (cont.)

COMPRESSOR (EMBRACO) (ULTRA-2)

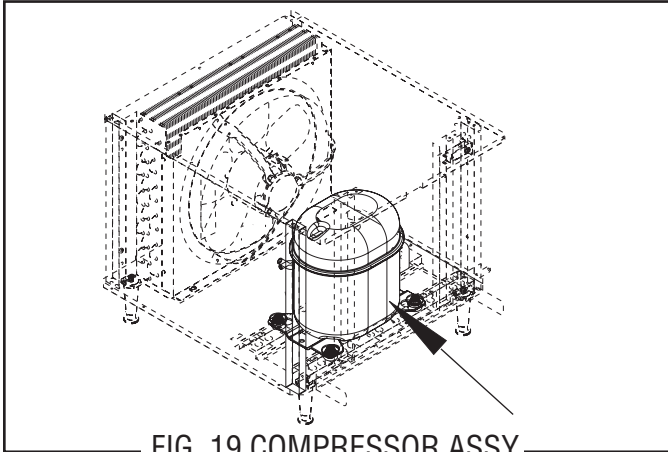


FIG. 19 COMPRESSOR ASSY

Location:

The compressor assy is located inside the front of the dispenser chassis.

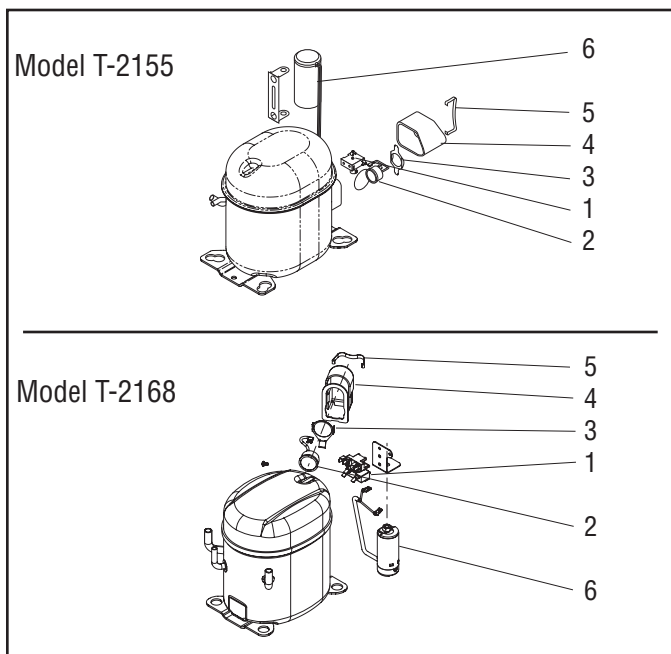


FIG. 20 COMPRESSOR ELECTRICAL COMPONENTS

1. Compressor Start Relay
2. Thermal Overload Protector
3. Overload Protector Retainer
4. Compressor Terminal Cover
5. Terminal Cover Retainer
6. Compressor Run Capacitor

Test Procedures:

WARNING: The compressor start capacitor must be properly discharged before proceeding. This is most commonly done on low voltage capacitors by shorting across the terminals with a screwdriver.

Compressor Start Relay: Refer to FIG. 20

1. Disconnect the dispenser from the power source.
2. Remove compressor terminal cover retainer (5) and compressor terminal cover (4).
3. Connect a voltmeter across the white wire and the white/orange wire. Connect the dispenser to the power source. Verify the dispenser is in "ICE" or "CHILL" mode.

The indication must be:

- (a) 120 volts ac for two wire 120 volt models or
 - (b) 230 volts ac for two wire 230 volt models.
5. Disconnect the dispenser from the power source.

If voltage is present as described, proceed to the following test procedures.

If voltage is not present as described, refer to the *Relay* and check the relay.

6. Disconnect the two black wires from the compressor start relay.
7. Remove relay from the compressor.
8. Check for continuity across the upper left terminal and the right pin socket on the rear of the relay.

If continuity is present as described, the compressor start relay is operating properly.

If continuity is not present as described, replace relay.

Compressor:

1. With the compressor start relay (1) removed, disconnect the black wire from the compressor.
2. Check for continuity across the terminal on the compressor and the left pin on the compressor.

If continuity is present as described, the electrical part of the compressor is operating properly.

If continuity is not present as described, replace the compressor.

Thermal Overload Protector:

1. Check for continuity across the terminals on the thermal overload protector (2).

If continuity is present as described, the thermal overload protector is operating properly.

If continuity is not present as described, replace the thermal overload protector.

SERVICE (cont.)

COMPRESSOR (EMBRACO) (ULTRA-2) (cont.)

Removal and Replacement:

Compressor Start Relay: Refer to FIG. 20

1. Disconnect the wires from the compressor start relay.
3. Pull relay (1) off of the compressor pins and discard.
4. Push new relay onto the compressor pins.
5. Refer to Fig. 21 and reconnect the wires.
6. Reinstall terminal cover (4) and cover retainer (5).

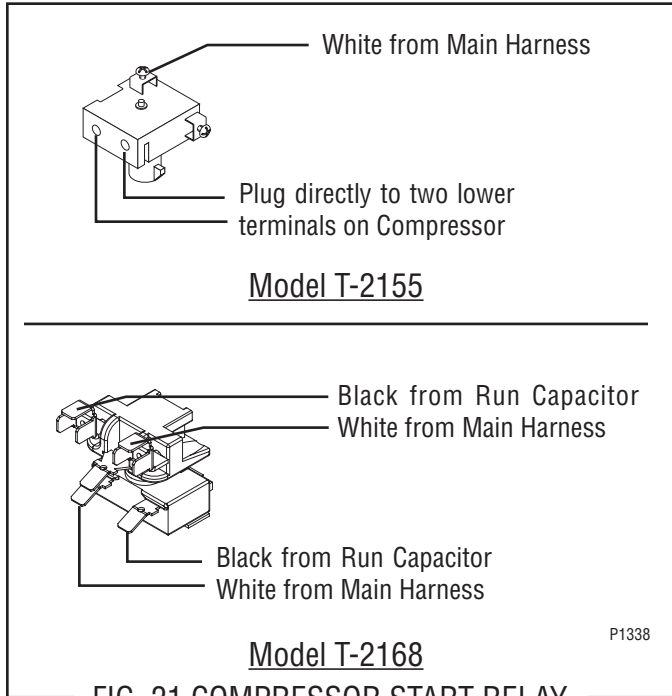


FIG. 21 COMPRESSOR START RELAY TERMINALS

Compressor Thermal Overload Protector: Refer to FIG. 20

1. Remove terminal cover retainer (5) and terminal cover (4).
2. Disconnect the WHI/ORN wire of the harness from the thermal overload protector.
3. Disconnect the BLK wire from the Compressor's upper terminal.
4. Remove overload protector retainer (3) and thermal overload protector (2) as an assembly.
5. Remove retainer (3) from overload protector (2) and discard overload protector.

6. Install retainer (3) on new overload protector (2).
7. Install retainer (3) and overload protector (2) on the compressor terminal bracket.
8. Refer to Fig. 22 and reconnect the thermal overload protector wires.
9. Reinstall terminal cover (4) and cover retainer (5).

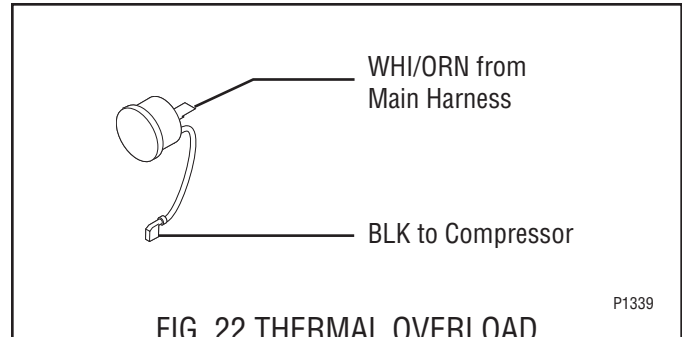


FIG. 22 THERMAL OVERLOAD PROTECTOR TERMINALS

Compressor Run Capacitor: Refer to FIG. 20

1. Disconnect the run capacitor leads.
2. Remove the nut securing the run capacitor to the capacitor mounting bracket.
3. Remove run capacitor and discard.
4. Place new run capacitor on capacitor mounting bracket and secure nut.
5. Refer to Fig. 23 and reconnect the wires.

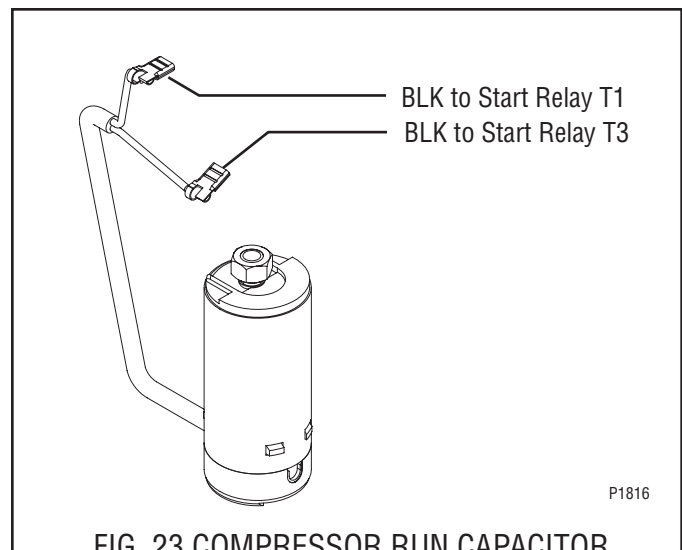


FIG. 23 COMPRESSOR RUN CAPACITOR TERMINALS

SERVICE (cont.)

COMPRESSOR (EMBRACO) (ULTRA-2) (cont.)

Removal and Replacement:

Compressor Assy:

NOTE: Before removal of any refrigeration component the refrigerant in the system must be reclaimed by a licensed refrigeration repair person.

NOTE: When replacing the compressor it is recommended that the dryer also be replaced.

1. Disconnect the tubes from the condenser and the accumulator.
2. Disconnect the compressor wiring harness from the dispenser main wiring harness.
3. Remove the four .25-20 keps nuts and washers securing the compressor to the chassis. Set nuts and washers aside for reassembly.
4. Disconnect and remove the transformer.
5. From the right side of the dispenser lift the compressor assembly over the four studs in the chassis and remove compressor.
6. Install new compressor over the four studs in the dispenser chassis with the fill valve to the left side of the dispenser.
7. Secure compressor to the dispenser chassis using four .25-20 keps nuts and washers.
8. Reconnect tubes from the condenser and the accumulator to the compressor.
9. Reinstall transformer.
10. Evacuate the system.
11. Recharge 120V system with 10 oz. of Type 404A refrigerant. Design Pressures: High 430 - Low 80
Recharge 230V system with 9.5 oz. of Type 404A refrigerant. Design Pressures: High 215 - Low 40

NOTE: The charging of the system must be done by a licensed refrigeration repair person.

NOTE: Refer to Wiring Diagrams when reconnecting wires to Compressor, Thermal Overload Protector, Start Relay, and Run Capacitor.