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experience fewer turnbacks and rejected claims, resulting in faster reimbursement for warranty work for approved claims.



**TechFact – WebClaim™ Filing Enhancement (SeaCare™ Global Container Solutions)**

As part of Carrier Transicold Division’s continued commitment to customer satisfaction, the TransCentral™ Web Claim™ filing system has been enhanced to notify users that a specific unit is covered under the Carrier Transicold SeaCare™ Global Container Solutions program.

The SeaCare program, which was launched in 2008, is a worldwide program for comprehensive reefer service and support. Customers have the option to purchase an operational warranty renewal on a unit or on a particular component within the unit (i.e. compressor, evaporator motor, engine, etc.).

When a WebClaim user enters the unit’s serial number or the container/genset ID number into the “View Warranty Coverage” feature, the resulting screen will display the “Extended Coverage” box and will also indicate that “This unit has SeaCare Coverage.” With the implementation of this feature, our expectations are that users will

You can access a detailed listing of the units included in the SeaCare program by going to the Warranty / SeaCare / Warranty Renewal section within the Carrier Transicold TransCentral reference library.

Prior to servicing customers’ units, you should check the list to see if it is included within the SeaCare renewal program.

Units that are covered under warranty are done so in accordance with Carrier Transicold’s published Warranty Policy and Procedures Manual and Labor Allowance Schedule except as noted below.

- Select Line™ parts and repaired electronics must be used on equipment that is older than 7 years.

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## TechFact – Emergency Manual Bypass Procedure for PrimeLINE Units

In the event of a controller failure and a controller is not immediately available for replacement, the following instructions can be used to get the PrimeLINE unit operational using a magnet part number (44-00417-00).

### Warning

Remove all power from the unit INCLUDING removing the power plug from the socket prior to starting. Follow your company's standard Lock out/Tag out procedure for working with electrical components.

Once these instructions have been carried out, the container unit will operate in cooling mode with limited temperature control.

The unit has to be checked each time a different source of power is provided to ensure that the compressor and evaporator motors are running in the correct direction.

#### A. Set up:

1. Remove the controller.
2. Remove F3A or F3B from the controller. Check to make sure that the fuse is not blown. Connect QC1 to one leg of the fuse.
3. Using a spade connector, create a single wire connection using a 6 inch (15 cm) length of minimum 18 AWG wire (24 VAC power source).
4. Connect the spade of the power source wire to the other leg of the fuse. Heat shrink the fuse assembly.
5. Cut ECF2 wire 4 inches (10 cm) back from the EC connector plug.
6. Cut ECG1 wire 4 inches (10 cm) back from the EC connector plug.
7. Cut ECJ1 wire 4 inches (10 cm) back from the EC connector plug.
8. Splice ECF2, ECG1, ECJ1 and the 24 VAC power source (from the fuse).
9. Cut ECF1 wire 4 inches back from the EC connector plug, and then disconnect KA7 and KD1 from KA and KD plugs on the front of the controller.
10. Splice the ECF1, KD1 and the KA7 using electrical splice and heat shrink.
11. Cut ECH2 wire 4 inches back from the EC connector plug, and then disconnect KA6 from KA plug on the front of the controller.

12. Splice the ECH2 and KA6 wires using electrical splice and heat shrink.
13. Cut ECJ2 wire 4 inches back from the EC connector plug, and then disconnect KA5 from KA plug on the front of the controller.
14. Splice the ECJ2 and KA5 wires using electrical splice and heat shrink.
15. Connect refrigerant pressure gauges to the suction and discharge valves of the compressor.
16. Start the unit and observe the pressure gauges. The discharge pressure should immediately start to rise and the suction pressure to fall; if not, the compressor is running backwards. STOP THE UNIT IMMEDIATELY and complete the following sub-steps:
  - i. Cut the splice completed in step 10 (ECF1, KA7, KD1).
  - ii. Disconnect KD2 from the KD connector plug.
  - iii. Splice the ECF1, KD2 and the KA7 using electrical splice and heat shrink.
  - iv. Reconnect KD1 to the KD connector plug.
  - v. Restart the unit and confirm that the compressor discharge pressure is rising.

#### B. Select mode of operation (frozen or perishable mode):

##### Frozen Mode

1. If the temperature does not pull down, it will be necessary to increase the capacity of the unit by opening the Economizer Solenoid Valve as follows:
  - a. Cut ECH3 wire 4 inches back from the EC connector plug.
  - b. Connect ECH3 to one of the 24 VAC power wires coming from the fuse.
  - c. Cut ECY3 wire, coming from the ESV, 4 inches (10 cm) back from the EC connector plug and connect to ground plate.
2. If the cargo temperature continues to rise or the container unit goes into vacuum, manually open the Electronic Expansion Valve (EEV) using a magnet as detailed on the following page in Opening/Closing of the EEV section.

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## Perishable Mode

1. If the cargo temperature rises, manually open the Electronic Expansion Valve as detailed below in Opening/Closing of the EEV.
2. If the cargo temperature falls, slowly close the Suction Service Valve to reduce the flow of refrigerant and the capacity of the container unit. This may provide very limited temperature control.

### C. Opening/Closing Electronic Expansion Valve (EEV)

- It is recommended that the EEV be set at the highest ambient temperature during the day.
- The container unit should be continuously monitored, and the Suction Service Valve should be adjusted accordingly to maintain temperature control.
- The Suction Service Valve should not be fully closed, as the compressor will run in deep vacuum potentially damaging the compressor

For adjustment of the EEV by using a magnet, follow the procedure below:

1. Ensure that power is OFF to the container unit. (Follow your company's standard Lock out/Tag out procedure for working with electrical components).
2. Connect manifold gauges to monitor pressure.
3. Disconnect EEV coil and remove cap and coil (Figure 1).



Figure 1

5. Place magnet (p/n 44-00417-00) next to coil stem (figure 2) and rotate it around the stem to open or close valve (one turn [360°] approximately 0.5 bars (7 psig)).
6. Power the container unit ON and monitor the cooling requirement.
  - a. If additional adjustment is required, repeat steps 1 through 5.

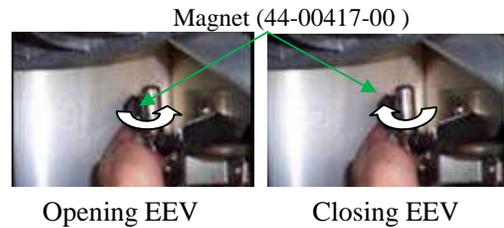


Figure 2

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## TechFACT- Upper VPS Operation and Repair

The controller sends a 5 VDC signal to the Vent Positioning Sensor (VPS) to determine the vent position, which is recorded within the controller's datacoder. A position change is recorded if a manual change of 5 cmh or greater is sensed and remains in this position for 4 minutes. During the change adjustment, the user is allowed 5 minutes to make necessary adjustments to the vent setting. After the five minute adjustment time, the controller monitors the panel for stability (non-movement). If vent position changes are detected during the required stability period, an "alarm 50" for the VPS will occur.

To check the sensor, it is recommended that you first power OFF the unit. Ensure that the thumb screw on the front of the panel is tight. Turn the unit ON and wait 5 minutes. If the alarm reappears, the sensor must be replaced.

The sensor can be replaced by either ordering a complete panel assembly, 79-01902-00 (White), 79-01902-01 (Orange) or by replacing the individual sensor, 76-66615-00, as follows:

1. Remove the access panel from the unit and remove the fresh air disc from the front of the panel (Figure 1).
2. Place the panel face down on a clean sturdy bench. Cut the existing wires flush to the panel.
3. In the center of the panel is the injection-molding site. Make a mark 2 inches (50 mm) from the center toward the side that the wires exit the panel, and 6.625 (168 mm) from the top edge (Figure 1).

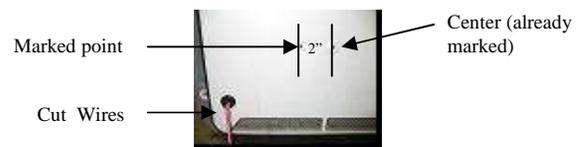


Figure 1

4. Using a 2 ½ inches (65 mm) hole saw, drill in the center of the panel and the mark that was made in step 3 (Figure 1).

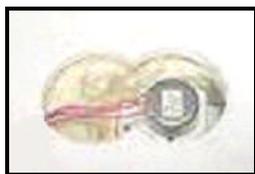


Figure 2

5. Remove the foam insulation around the sensor as shown in Figure 2.

6. From the front of the panel, drill out the rivets and remove the sensor.

7. Clean any excess foam and caulk from the area where the new sensor will be attached.

8. Using the rivets provided, insert the rivets from the front of the panel and secure the new sensor (Figure 3) to the housing.



Figure 3

NOTE: Make sure that the wires are facing in the direction of the additional hole that was drilled in step 4.

9. Seal the edges of the sensor and bracket assembly with caulk.

10. Fill the remaining void with a spray foam, or exterior grade insulating caulk (purchase local).

11. In the area where the wires will exit the panel, be sure to leave a recess space for the seal plug.

12. Position the cover plate on the access panel so that the seal plug fits into the space provided. Drill 4, 1/8 inch (4 mm) holes to mount the cover plate to the back of the access panel. Secure the cover plate in place using the rivets provided.

13. Seal the edge of the cover plate to the access panel with caulk.

14. Upon installation, a calibration of the new vent position sensor is required as follows:

- a. Rotate the vent to 0 CMH/CFM position.
- b. Code select 45 will automatically display. Press the “Enter” key and hold until the display reads “CAL”
- c. Press the ALT MODE key and hold until the display reads 0 CMH/CFM
- d. If the ALT key is not held down long enough, the display reads “FAIL,” indicating that the calibration procedure was performed

incorrectly and should be repeated.

15. Test out the replaced sensor by checking display readings for 0 and 240 CMH.

CMH marked on label	Min CMH	Max CMH
0	0	0
240	225	250

### TechFAQ – Genset Startup

In the Operations and Service manual, why does it state that the circuit breaker for the generator must be in the OFF position when starting the genset?

Answer: Both the genset breaker and the refrigerated unit should be in the OFF position to eliminate the potential of cold start transient spikes being supplied to the unit when the engine is started until the power source stabilizes. We recommend the below steps be followed when utilizing a genset.

1. Ensure the power breaker of genset is in the OFF position and reefer switch is also OFF.
2. Hook up the 460 Volt cable from the reefer unit to the genset plug at the front of the chassis.
3. Start the genset and run it for a at least two minutes.
4. Turn the genset power breaker ON.
5. Turn the reefer unit switch ON.

By using this start up procedure, nuisance over voltage alarms generated by reefer units that may be sensitive to electrical spikes or transients will be reduced.

### TechFact – Software Release Update

Scroll (ML2i/5353, ML3/ 5353)  
 Recip Unit (ML2i/ 5153, ML3/5153)  
 Reciprocating Unit (ML2) – 1207  
 Controlled Atmosphere – 3114  
 DataLINE – 1.9.1 (2.0 targeted for August)  
 DataBANK – 0513

### TechFact – 2011 Training

The status of or information on schools can be found at: <http://www.container.carrier.com>



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**Editor / Contributor:** Perry Hoover

**Contributors:** Gary Barkowski, Mark Donahoe, Nadir Guenane, Mark Rogers

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