EASY TO RUN

X4™ 7300/7500

Trailer & Rail Refrigeration Units

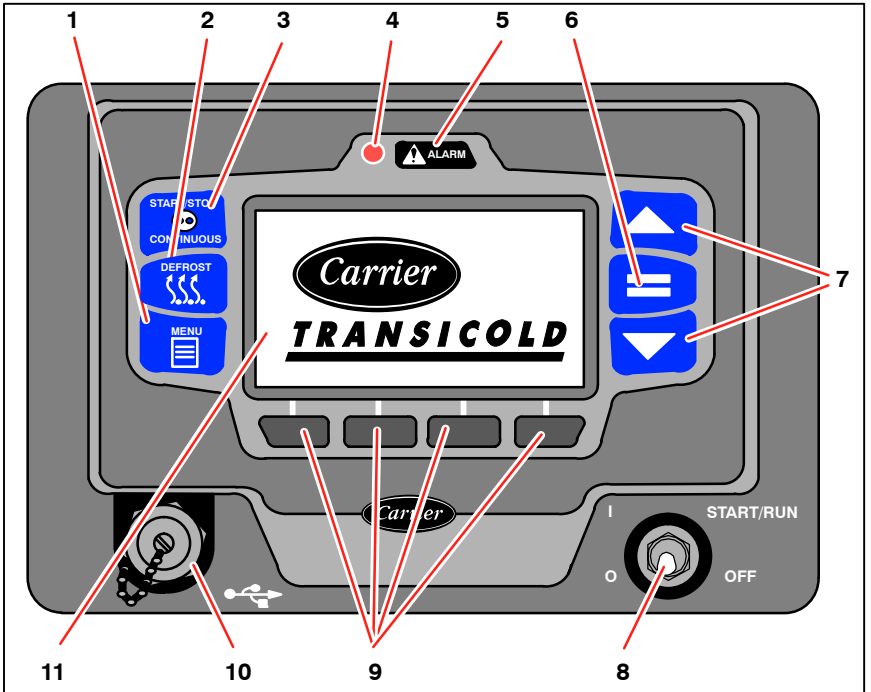
- Display
- Display Screens
- Starting Unit
- IntelliSet™
- Pretrip
- Changing Setpoint
- Start-Stop or Continuous Operation
- Data Recorder/Trip Start
- Manual Defrost
- Language Selection
- Unit Data
- Alarm List - View Alarms
- View Hour Meters
- Stopping Unit

Carrier TRANSICOLD United Technologies

©Carrier Corporation, 2015 ● Printed in U. S. A. May 2015

EASY TO USE

DISPLAY

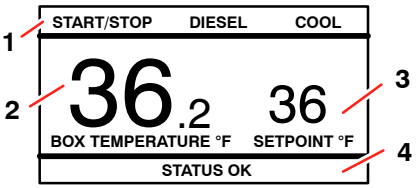


1. MENU Key
2. DEFROST Key
3. START/STOP - CONTINUOUS Key
4. Alarm LED
5. ALARM Key
6. "=" (Select) Key
7. Arrow Keys
8. START/RUN-OFF Switch
9. Soft Keys
10. USB Interface Port
11. LCD Display

EASY TO USE

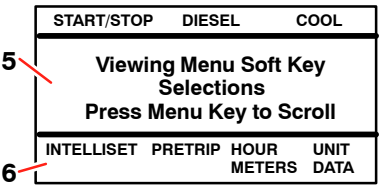
Display Screens

LCD DISPLAY SCREENS



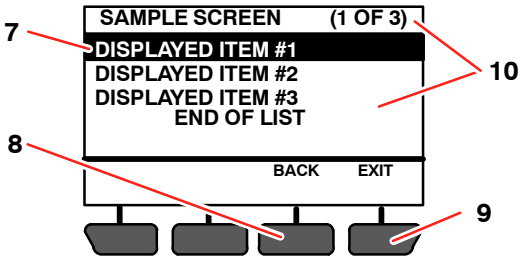
1. Status Bar
2. Box Temperature
3. Setpoint
4. MessageCenter

DEFAULT SCREEN



5. Operator Message Panel
6. Soft Key Descriptions (Order of presentation may not be as shown.)

TYPICAL MENU SCREEN



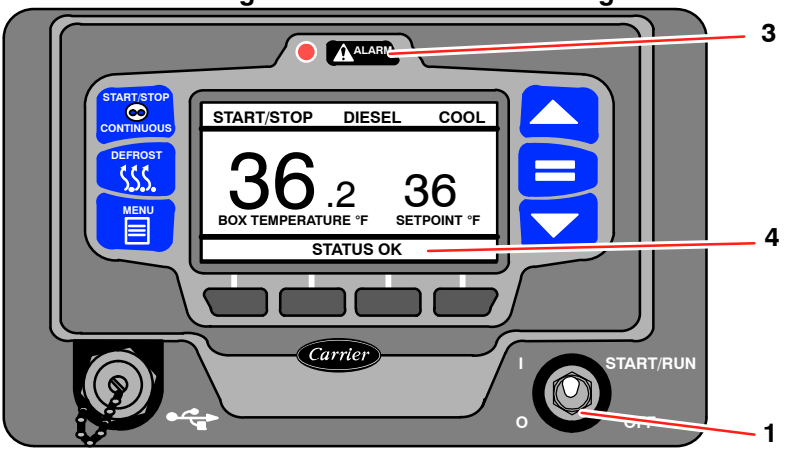
7. Highlight -White letters on a black background.
8. BACK Key - Used to return to the previous screen.
9. EXIT Key - Used to return to the default screen.
10. The position of the highlighted item and total number of items in the list is displayed in the status bar. Up to 5 items may be displayed at a time. Press the ▼ key to view the additional items, or ▲ key to scroll back up the list. "END OF LIST" will be displayed after the last item in the list.

EASY TO START

STARTING UNIT

WARNING

Under no circumstances should ether or any other starting aids be used to start the engine.



1. Place the START/RUN-OFF switch in the START/RUN position.
2. The system will display the Carrier Transicold logo, display the default screen, present language selection and the hour meter readings (if configured to do so) along with a test flash of the alarm light. The system will then perform a start sequence, energize the buzzer, and then start the unit automatically.
3. If there is an alarm present, the alarm message will be displayed in the MessageCenter and the alarm LED will flash for 5 seconds. If one or more shutdown alarms are present, the alarm(s) must be cleared before the unit will start.
4. Observe the MessageCenter. If the word "ACTIVE" or "MODIFIED" is displayed at the right, the unit is equipped with Intelli-Set. Proceed to page 4. If "ACTIVE" or "MODIFIED" is not displayed, proceed to page 6.
5. If the LCD Display does not illuminate, check:
   - Battery voltage. A booster battery may be needed.
   - Check for blown fuse(s).
   - Verify the harness connector at the back of the display module and all other module connectors are securely attached.

INTELLISET

Products carried or stored in a refrigerated compartment require a multitude of refrigerant unit settings that must be checked and, if required, reset each time a new product is loaded. The APX Control System offers the settings necessary to meet these requirements. IntelliSet is a feature that allows pre-selection and naming of the necessary settings for up to 40 different products. The operator may then call up the settings by simply selecting the assigned IntelliSet name.

For example: a load of apples may require continuous operation at 35°F (1.7°C) with a defrost every 3 hours while a load of cheese may require the same operation with setpoints ranging from 35°F to 42°F (1.7°C to 5.6°C) and a load of ice cream requires start-stop operation at -22°F (-30°C) with defrost at 12 hour intervals. The settings required for each product may be entered into the system and locked so that they cannot be changed, and they can be given an appropriate name. In the case of cheese, the range of setpoints may be locked, leaving the operator the ability to change the setpoint within the locked range.

When a load of apples is going to be picked up, the operator simply selects “APPLES” from the IntelliSet menu; for cheese, “CHEESE” is selected and the setpoint reset as required; for ice cream, “ICE CREAM” is selected. With each selection, the system automatically re-programs the settings to provide the best temperature control, fuel economy, and performance for that particular product.

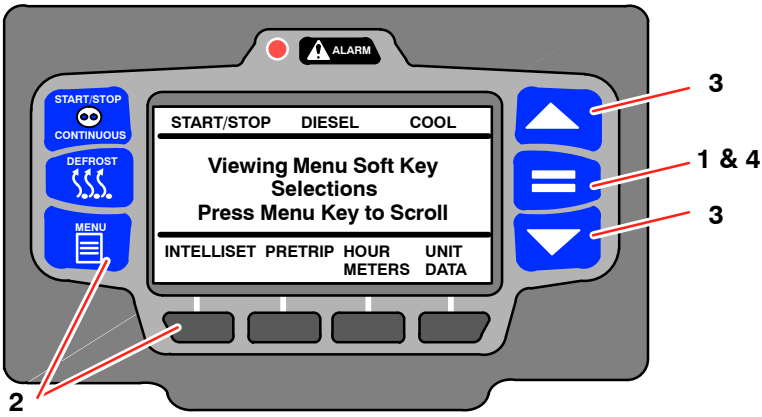
> **NOTE:** The above settings are examples of possible settings. Units leave the factory with default IntelliSets. However, most customers develop their own set.

An IntelliSet may be pre-programmed as “IntelliSleep” which allows Sleep Mode to be entered by simply changing to that IntelliSet. Range Protect may be applied to any single IntelliSet. Range Protect offers increased fuel savings over normal Start-Stop Operation for commodities that can use less restrictive temperature control.

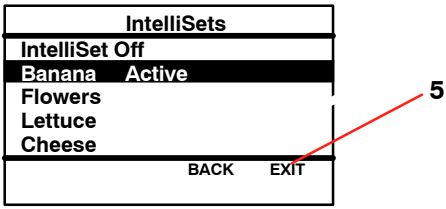
EASY TO SET INTELLISET

CHANGING INTELLISET SELECTION

1. With the system powered up (START/RUN-OFF switch in the START/RUN position) and the default screen displayed, press the "=" key. If the screen shown just above step 3 below is displayed, proceed to step 3. Otherwise, proceed to step 2.



2. Press the MENU key until INTELLISET is displayed. Then, press the INTELLISET soft key to display the IntelliSet screen.

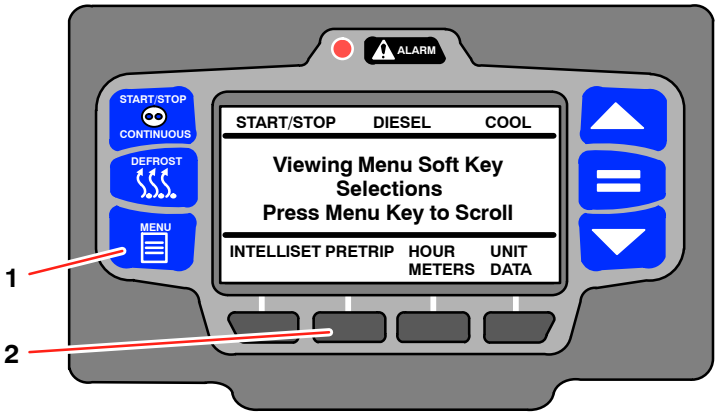


3. The IntelliSet screen will display with a 15 second timeout. The current IntelliSet will have the word "ACTIVE" or "MODIFIED" to the right. Press the ▲ or ▼ key to scroll through the list of available IntelliSets.
4. With the desired IntelliSet highlighted, press the "=" key. The highlighted IntelliSet will become active and an "INTELLISET CHANGED" message will display.
5. Press the EXIT soft key to return to the default display.

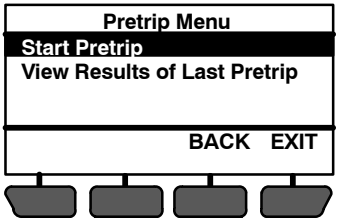
   NOTE: if setpoint change is allowed, refer to Page 8 for setpoint change instruction.

PRETRIP

Pretrip is a set of tests run by the system to check unit operation. It is recommended that a Pretrip is run prior to loading the refrigerated compartment. It will indicate a failure if one is detected.



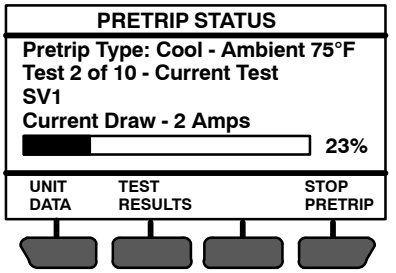
1. With the system powered up (START/RUN-OFF switch in the START/RUN position) press the MENU key until PRETRIP is displayed.
2. Press the PRETRIP soft key to display the Pretrip screen.



3. The Pretrip screen will display with a 15 second timeout. Press the ▲ or ▼ key to scroll through the available selections. With the desired selection highlighted, press the "=" key.
4. If "Start Pretrip" is selected, Pretrip will begin and the Pretrip Status screen will be displayed. Immediately following Pretrip OR if "View Results of Last Pretrip" is selected the Pretrip Summary Screen will be displayed.

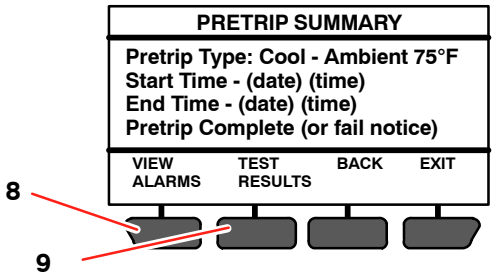
NOTE: At any time during Pretrip, the UNIT DATA soft key may be pressed to allow the user to view the unit data screen (refer to page 14). To return to Pretrip, press the BACK soft key.

PRETRIP - CONTINUED



NOTE: During Pretrip the ALARM light will illuminate to indicate there is no temperature control.

5. During Pretrip Test 1, verify that both lights on the light bar are illuminated. During Pretrip Test 2, verify that the buzzer is energized and the AutoFresh air port opens and closes (if equipped).
6. The remainder of the Pretrip tests will run automatically and take 7 to 15 minutes. The percent of Pretrip that has been completed is displayed in the status bar under the test description information.
7. "PRETRIP PASS", "PRETRIP FAIL IN TEST ##" or "PRETRIP FAILED AND COMPLETE" will be displayed at the end of the testing. To end Pretrip at any time, press the STOP PRETRIP soft key.

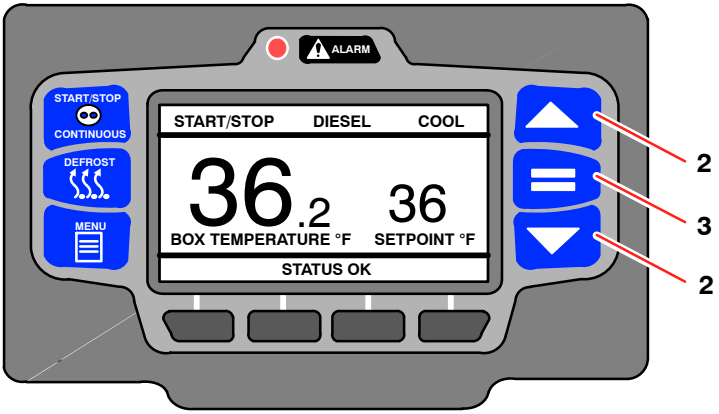


8. Press the VIEW ALARMS soft key to move to the Alarm Screen (refer to page 16) and review any alarms activated during the test.
9. Press the TEST RESULTS soft key to view details of the test results. Press the ▲ or ▼ key to scroll through the results.

PRETRIP TEST RESULTS	(1 OF 16)
Test 1: Display	Passed
Test 2: Electrical Current	Passed
Test 3: Sensors	Failed
Test 4: Speed	Passed

EASY TO SET

CHANGING SETPOINT



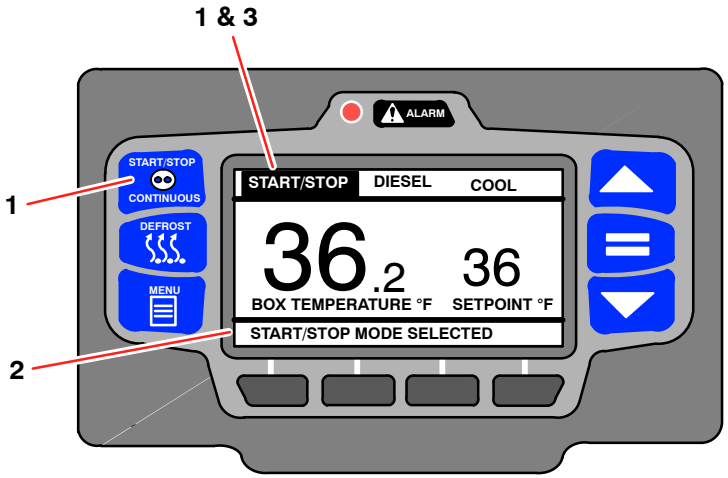
1. With the system powered up (START/RUN-OFF switch in the START/RUN position) and the default screen displayed (press the Back button if required):
2. Press the ▲ or ▼ key to bring the displayed setpoint to the desired value.

   TIP: The setpoint will change one degree with each press and release of an arrow key or the setpoint will scroll if the key is pressed and held.
3. Press the "=" key to save the new setpoint. The MessageCenter will display "SETPOINT CHANGED" for 10 seconds.
4. If the "=" key is not pressed the setpoint screen will flash, the MessageCenter will display "SETPOINT NOT CHANGED" and then return to original setpoint.

NOTE: The setpoint range is from -22°F to +90°F (-30°C to +32°C). This range may not be fully accessible, depending on the settings for this system. If the message "MAX SETPOINT HAS BEEN REACHED" **or** "MIN SETPOINT HAS BEEN REACHED" is displayed, the setpoint range has been locked and can not be changed outside the range.

EASY TO RUN

START-STOP OR CONTINUOUS OPERATION

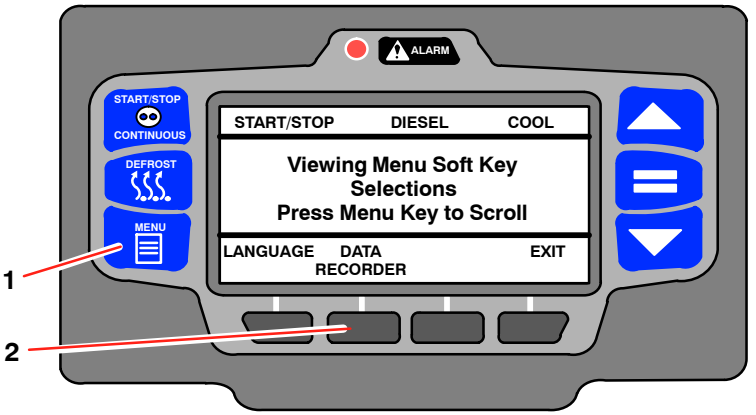


1. With the system powered up (START/RUN-OFF switch in the START/RUN position) press the START-STOP/CONTINUOUS key until the desired operation (Start/Stop or Continuous) highlighted.
2. The message ("START/STOP MODE SELECTED" or "CONTINUOUS RUN MODE SELECTED") will be displayed in the MessageCenter for 10 seconds.
3. The operation indication in the status bar will no longer be highlighted. The unit is now in the displayed operation.

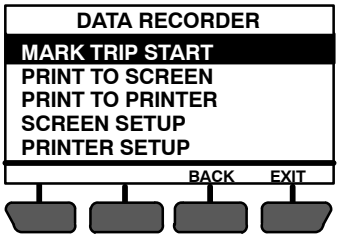
NOTE: If the message "CONTINUOUS LOCKED" or "START/STOP LOCKED" is displayed, the system is currently locked into the displayed operation and cannot be changed using the "START/STOP - CONTINUOUS" key.

EASY TO MONITOR

DATA RECORDER/TRIP START



1. With the system powered up (START/RUN-OFF switch in the START/RUN position), press the MENU key until DATA RECORDER is displayed.
2. Press the DATA RECORDER soft key to display the sub menus.



NOTE: Choices may vary based on software revision and model type.

3. The Data Recorder screen will display with a 15 second timeout. Press the ▲ or ▼ key to scroll through the available sub menus. With the desired sub-menu highlighted, press the "=" key to enter the menu.

DATA RECORDER/TRIP START - CONTINUED

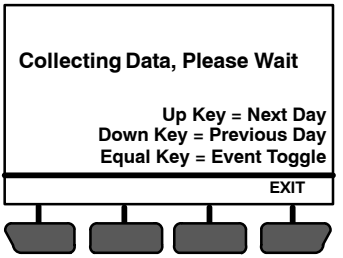
MARK TRIP START

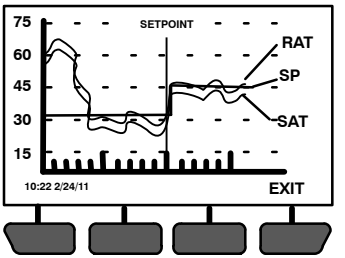
Trip Start places the present time and date as a stamp in the data recorder memory to allow easy review of the data from the last trip, and to allow downloading data from a specific trip. A trip begins at a Trip Start and ends at the next Trip Start.

To enter a Trip Start: with MARK TRIP START highlighted, press the "=" key. If trip start is acknowledged by the data recorder, "TRIP START ENTERED" will be displayed for 15 seconds and then the display will return to the Data Recorder screen. In the unlikely situation that the data recorder is not functioning properly "CANNOT ENTER TRIP START" will flash and then the display will revert back to the Data Recorder menu.

PRINT TO SCREEN

PRINT TO SCREEN displays a graphical representation of the recorded data. To display the data: with PRINT TO SCREEN highlighted, press the "=" key.





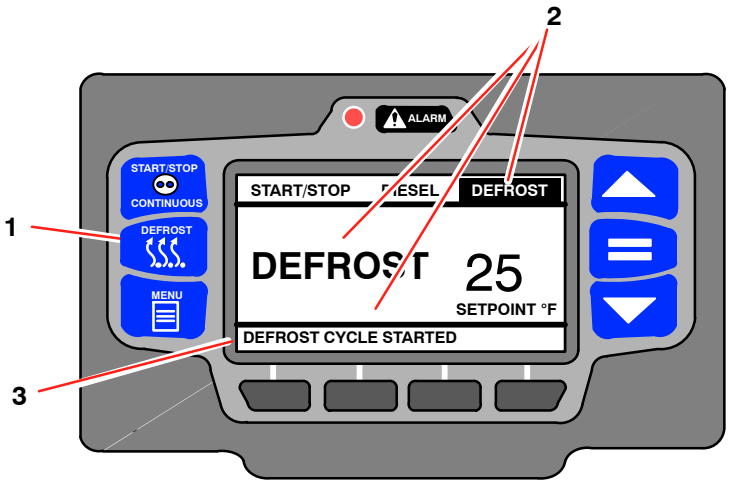
Once the graphical display is presented, press the ▲, ▼ or "=" keys to move through the recorded data.

When viewing events, the following acronyms will be used:

c = Door Close	o = Door Open
d = Defrost start	p = Power up
e = Defrost end	r = Real time clock change
f = Power down	t = Trip Start

EASY TO DEFROST

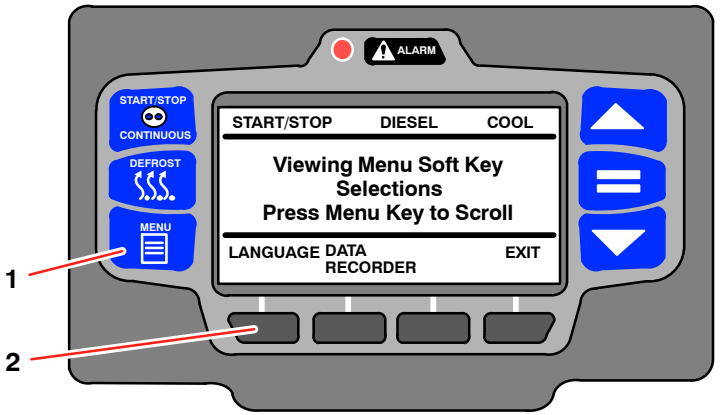
MANUAL DEFROST



1. With the system powered up (START/RUN-OFF switch in the START/RUN position) press the MANUAL DEFROST key.
2. If the conditions for defrost are met, the status bar and the Box Temperature display will change to the word "DEFROST". The MessageCenter will display "DEFROST CYCLE STARTED" for 10 seconds. At the completion of any defrost cycle, the MessageCenter will return to the default display.
3. If the conditions for defrost are not met, the MessageCenter will display "CANNOT START DEFROST CYCLE" for 5 seconds. This message will be activated when:
   - The box temperature is too warm. Defrost may be entered when the defrost termination temperature sensor (DTT) is below 40°F (4°C) or the supply air temperature sensor (SAT) is below 45°F (7.2°C) **OR**
   - The engine has not run 15 seconds after starting **OR**
   - The unit is in PC Mode **OR**
   - The unit is in Pretrip **OR**
   - There is an active shutdown Alarm.

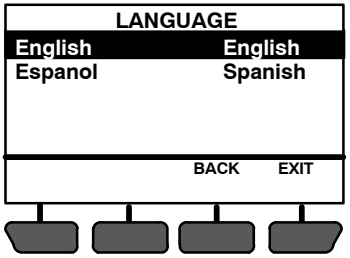
EASY TO CHANGE

LANGUAGE SELECTION



NOTE: Language Selection may not be available on early software revisions.

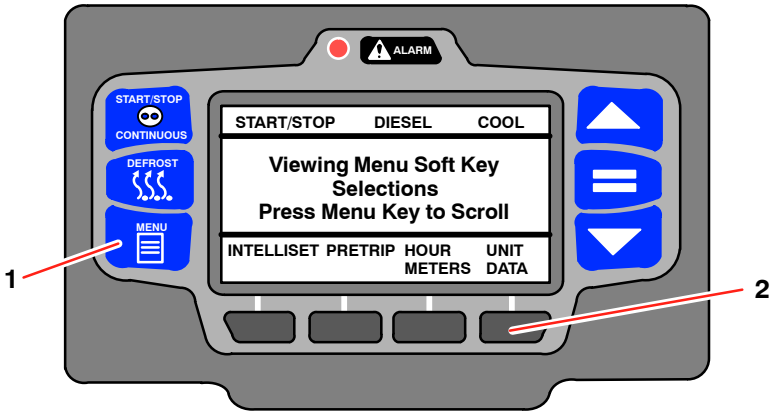
1. With the system powered up (START/RUN-OFF switch in the START/RUN position) press the MENU key until LANGUAGE is displayed.
2. Press the LANGUAGE soft key to display the language screen.



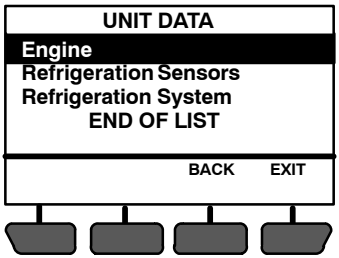
3. The language screen will display with a 10 second timeout. Press the ▲ or ▼ key to scroll through the available selections.
4. With the desired language highlighted, press the "=" key. The highlighted language will become active and "LANGUAGE CHANGED" will be displayed.

EASY TO READ

UNIT DATA

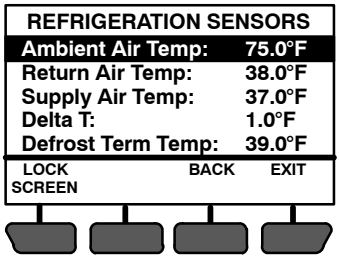


1. With the system powered up (START/RUN-OFF switch in the START/RUN position) press the MENU key until UNIT DATA is displayed.
2. Press the UNIT DATA soft key to display the unit data screen.



3. The Unit Data screen will display with a 15 second timeout. Press the ▲ or ▼ key to scroll through the available unit data sub menus. With the desired sub-menu highlighted, press the "=" key to view the data.
4. The selected sub-menu data will be displayed. For example, the Refrigeration Sensor display may include:

UNIT DATA - CONTINUED



5. Press the ▲ or ▼ key to scroll through the sub-menu data list.
6. To lock the present LCD display press the LOCK SCREEN soft key. The screen will highlight (white lettering on a black background) to indicate it is locked and the soft key will change to UNLOCK SCREEN.
7. Press the UNLOCK SCREEN soft key to unlock the screen or press the ▲ or ▼ key to unlock the screen and scroll through the sub-menu data selections. Press the BACK soft key to return to the sub-menu selection screen or the EXIT soft key to return to the default screen.

UNIT DATA LIST

ENGINE
Fuel level
Battery: OK
Amp Draw
Engine Coolant Temperature

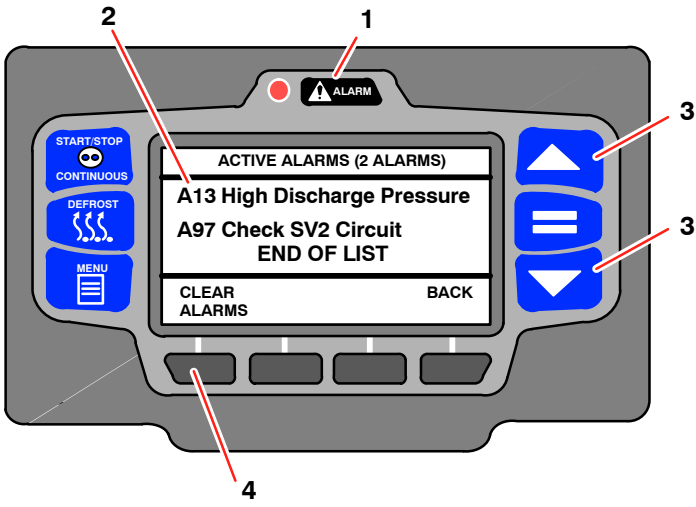
REFRIGERATION SENSORS
Ambient Air Temp
Return Air Temp
Supply Air Temp
Delta T
Defrost Term Temp

REMOTE SENSORS
(Optional)
Remote Sensor 1
Remote Sensor 2

REFRIGERATION SYSTEM
Compressor Suction Pressure

EASY TO CHECK

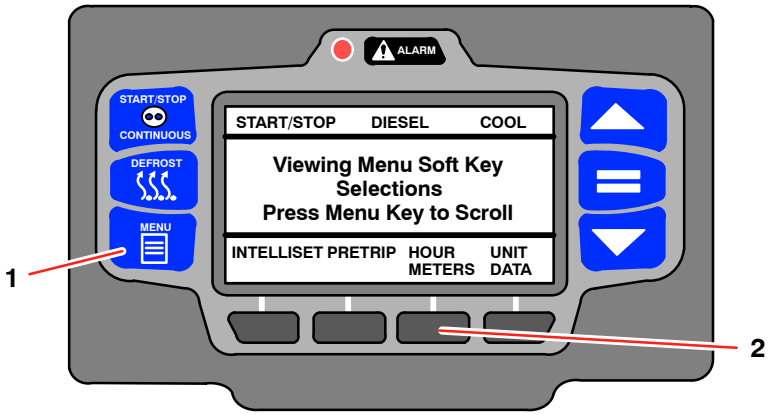
ALARM LIST - VIEW ALARMS



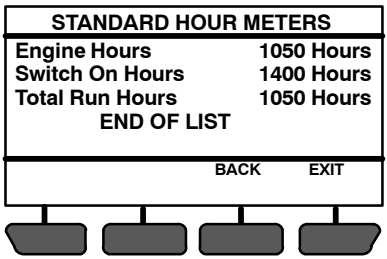
1. With the system powered up (START/RUN-OFF switch in the START/RUN position) press the ALARM key.
2. If there are active alarms, the alarm number will be displayed preceded by the letter “A” (active alarm). The system may also be Configured to display an alarm description, following the alarm number. The last alarm that occurred will be the first alarm displayed and so on.
3. Press the ▲ or ▼ key to scroll through the list of alarms.
4. To clear the alarms, press the CLEAR ALARMS soft key. The LCD Display will provide an “ACTIVE ALARMS CLEARED” message and then return to the default display after 10 seconds.
5. If there are no active alarms, the LCD Display will provide a “NO ACTIVE ALARMS” message and then return to the default display after 5 seconds.

EASY TO CHECK

VIEW HOUR METERS



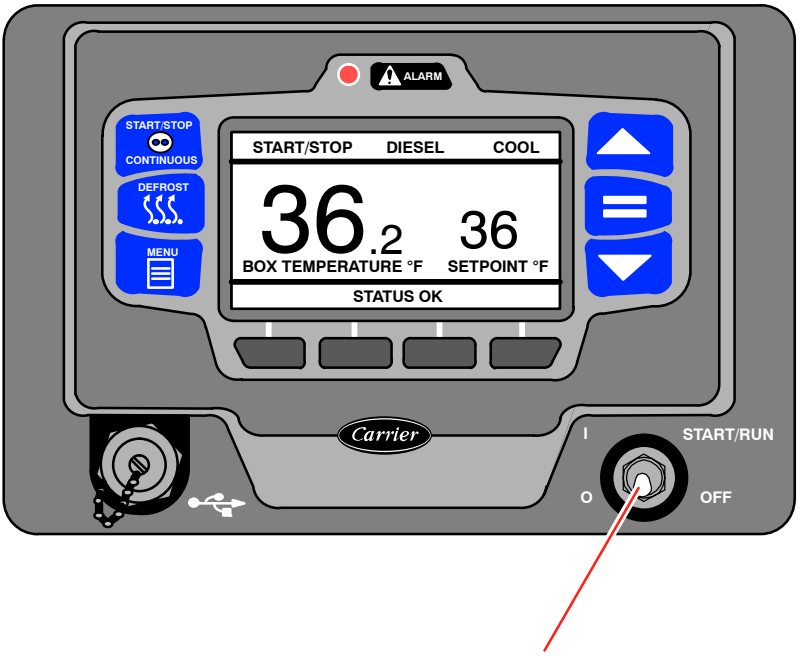
1. With the system powered up (START/RUN-OFF switch in the START/RUN position) press the MENU key until HOUR METERS is displayed.
2. Press the HOUR METERS soft key to display the hour meter screen.



3. The hour meter screen will display with a 15 second timeout. Press the EXIT soft key to return to the default screen.

EASY TO STOP

STOPPING UNIT



To stop the unit, place the START/RUN-OFF switch in the OFF position. The unit will shut down immediately while the system completes a shut down sequence and then the LCD display will go blank.

TIPS

Carrier Transicold wants you to get optimum performance from your trailer refrigeration unit. The way to get that performance is to review the following checklist before each trip. Do this and you'll be well on your way to ensuring maximum refrigeration efficiency with a minimum of trouble.

- Examine interior and exterior of the refrigerated compartment for door, door seal and wall damage.
- Floor and floor drains should be clear of debris and drain kazoos installed.
- Evaporator drains should be clear of debris and drain kazoos installed.
- Use pallets and follow proper loading instructions, such as the United States Department of Agriculture Handbook 669, for maximum air circulation.
- Run Pretrip.
- Precool refrigerated compartment and cargo. Initiate a manual defrost before loading.

In an emergency, call Carrier Transicold Action Line 1-800-448-1661.

United Technologies

Building & Industrial Systems

Carrier Transicold Division,
Carrier Corporation
P.O. Box 4805
Syracuse, N.Y. 13221 U.S A

www.carrier.transicold.com

North America
Carrier Transicold
700 Olympic Drive
Athens, GA 30601 USA
Tel: 1–706–357–7223
Fax: 1–706–355–5435

Central America and Mexico
Ejercito Nacional 253–A Piso 5
Colonia Anahuac
11320 Mexico, D.F.
Tel: 55315010
Fax: 55315010 ext. 1005

Carrier TRANSICOLD United Technologies

A member of the United Technologies Corporation family.
Stock symbol UTX

Form 62–11643 Rev A