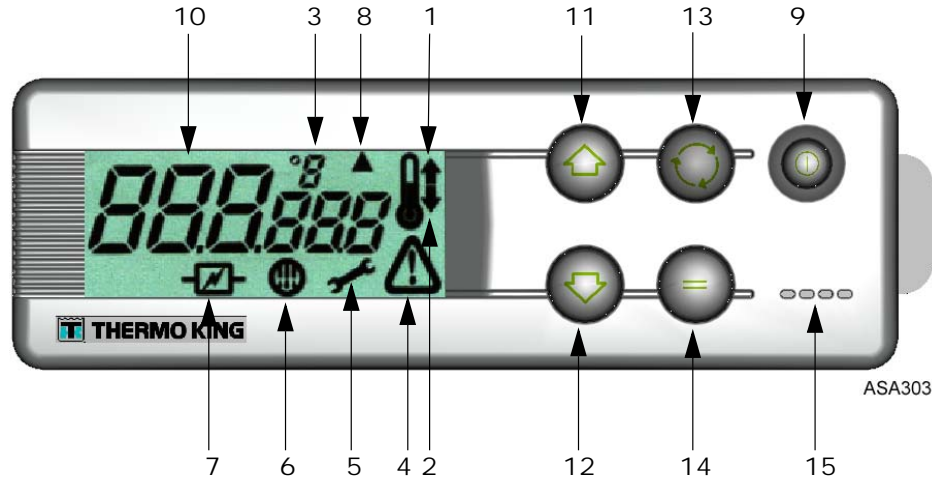


# Direct Drive Units In-Cab Controller



## LCD Display Descriptions

1. Heat Symbol (Thermometer with an arrow pointing upward)  
This symbol indicates the unit is in the heat mode.
2. Cool Symbol (Thermometer with an arrow pointing downward)  
This symbol indicates the unit is in the cool mode.
3. °C/°F Symbol  
This symbol indicates whether the on-screen temperature reading is in degrees Centigrade or degrees Fahrenheit.
4. Alarm Symbol  
This symbol indicates an alarm fault condition has been detected by the controller.
5. Maintenance Symbol  
This symbol indicates the need to carry out maintenance to the unit.
6. Defrost Symbol  
This symbol indicates the evaporator or condenser unit is in Defrost Mode.
7. Electrical Symbol  
This symbol indicates the unit is in Electric Standby.
8. Condenser Defrost Symbol  
This symbol indicates indicates the condenser unit is in defrost mode (turns on at the same time as defrost symbol 6).

## Keypad Descriptions

9. ON/OFF Key  
Is used to turn the unit ON and OFF. It is always lit except when the unit is disconnected (no power).
10. LCD Display  
Displays selected screens. It is always active and backlit except when the unit is disconnected (no power) or when the unit is connected but has been manually switched off from the In-cab Control Box. It normally displays the return air temperature (of both load compartments in bi-temperature units).
11. UP ARROW Key  
Is used to increase the setpoint temperature.
12. DOWN ARROW Key  
Is used to reduce the setpoint temperature.
13. SELECT Key (cycling arrows)  
Selects prompt screens and information screens.
14. ENTER Key (equals sign)  
Is used to enter a new command such as manual defrost, etc.
15. Buzzer  
It is energised when the vehicle battery and the electric power supply are connected simultaneously. It is also energised if the doors are opened while the refrigeration unit is running.



**Caution: This is a quick reference guide. Always refer to the operating manual for detailed instructions.**

## Simple To Start Vehicle Operation

1. Start the vehicle engine.
2. Press the ON-OFF key to prompt the unit controller.
3. Check the setpoint, and adjust if needed.

NOTE: Once the unit controller has been programmed, unit operation is fully automatic.

## Simple To Start Electrical Standby

1. Connect the power cable to the units receptacle.
2. Turn ON the external power source.
3. Turn ON the unit controller. The electric standby icon will appear on the display and remain steadily lit.
4. Check the setpoint, and adjust if needed.

## Simple To Set Entering Setpoints

Press the ON-OFF key to prompt the unit controller.

### SINGLE-TEMPERATURE UNITS

1. Press and release the SELECT key twice (three times in reverse cycle units), and the current Setpoint temperature and the letters SP will appear on screen.
2. Press the UP or DOWN arrow keys to select the desired Setpoint Temperature. Each time either of these buttons is pressed and released, the Setpoint Temperature will change 1 degree.
3. Press and release the ENTER key to set the setpoint or press and release the SELECT key to set the setpoint and return to the Standard Display.

### BI-TEMPERATURE UNITS

1. Main Load Compartment: Press and release the SELECT key twice, and the current Setpoint temperature in the main compartment and the letters SP will appear on screen.
2. Press the UP or DOWN arrow keys to select the desired Setpoint Temperature.
3. Press and release the ENTER key to set the setpoint or press and release the SELECT key to set the setpoint and to change to the Remote Compartment Setpoint Temperature Setting Screen.
4. Remote Load Compartment: The present Setpoint Temperature in the remote compartment and the letters SP2 will appear on screen.
5. Press the UP or DOWN arrow keys to select the desired Setpoint Temperature
6. Press and release the ENTER key to set the setpoint or press and release the SELECT key to set the setpoint and return to the Standard Display.

## Simple To Access Alarm Codes

### Alarm Code Descriptions

	<b>Manual Start</b>
<b>OL</b>	Electric Motor Overload. Unit protection system during electric standby operation. If the problem persists when the unit is restarted, contact your Service Dealer.
<b>bAt</b>	Low Battery Voltage. Unit and battery protection system.
	<b>Auto Start</b>
<b>HP</b>	High Pressure Alarm. Indicates that the refrigeration system will shut down in the event of excessively high pressure in the refrigerant circuit. If the problem persists when the unit is restarted, contact your Service Dealer.
<b>LP</b>	Low Pressure Alarm. Indicates that the refrigeration system will shut down in the event of excessively low pressure in the refrigerant circuit. If the problem persists when the unit is restarted, contact your Service Dealer.
<b>PSE</b>	High Pressure Sensor Failure. The high pressure sensor has become faulty or disconnected. Contact your Service Dealer.
<b>tEP, tP4</b>	Thermal protection alarm. If the problem persists when the unit is restarted, contact your Service Dealer.
<b>dr1, dr2</b>	Doors Open. This option must be activated.
<b>tCO</b>	Control Module Overheating. If the problem persists when the unit is restarted, contact your Service Dealer.
<b>SOF</b>	Software failure. Contact your Service Dealer.
<b>P1E</b>	Main or Single Cargo Box Return Air Temperature Reading Error (open circuit or short-circuit). Contact your Service Dealer.
<b>P2E</b>	Remote Cargo Box Return Air Temperature Reading Error (open circuit or short-circuit). Contact your Service Dealer.
<b>C</b>	Communications Failure. Contact your Service Dealer.

## Simple To Access Alarm Codes

### Alarm Code Levels

There are three alarm categories:

**Manual Start:** The alarm stops the unit, and only the ALARM symbol appears on screen. Once the alarm condition has been rectified, the ON/OFF key must be pressed to start the unit.

**Auto Start:** The alarm stops the unit, the ALARM symbol appears on screen and the unit starts up automatically once the alarm condition has been rectified.

Should a P1E - return air temperature read error alarm code - appear (in the main compartment in bi-temperature units), --- will also appear on screen together with the alarm symbol, instead of the single or main load compartment return air temperature reading.

In bi-temperature units, should a P2E - return air temperature read error in the remote compartment alarm code - appear, --- will also appear on screen together with the alarm symbol, instead of the remote compartment return air temperature reading.

Press and release the SELECT key to display the current alarm code on screen. If there is more than one active alarm codes on the unit can be viewed in sequence by pressing and releasing the SELECT key.

**Buzzer:** It is energised when the vehicle battery and the electrical supply are connected simultaneously (the unit continues running in standby mode). It is also energised if the doors open, if this option is selected.

### Clear Alarms

The alarm condition in the unit must first be corrected. After clearing the alarm condition, press and release the SELECT key to remove existing ALARM codes. The standard display will appear once the ALARM codes have been cleared.



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# Direct Drive Units In-Cab Controller Operating Guide



DIRECT SMART REEFER CONTROLLER

## Simple To Start Simple To Run

### In-Cab Controller Descriptions

- Entering Setpoints
- Access Alarm Codes
- Start - Vehicle Operation
- Start - Electric Standby