E2 setup with Carrier Corporation's RTU open controller for 527-0359

This document will guide you through setting up and commissioning the Carrier Corporation's RTU Open Controller in the E2 controller (CARRIER OPN-RTUM Open Echelon device in the E2).

Note that Open Echelon description files require E2 firmware version 3.01FO1 or higher.

E2 and Echelon devices communications network wiring diagram

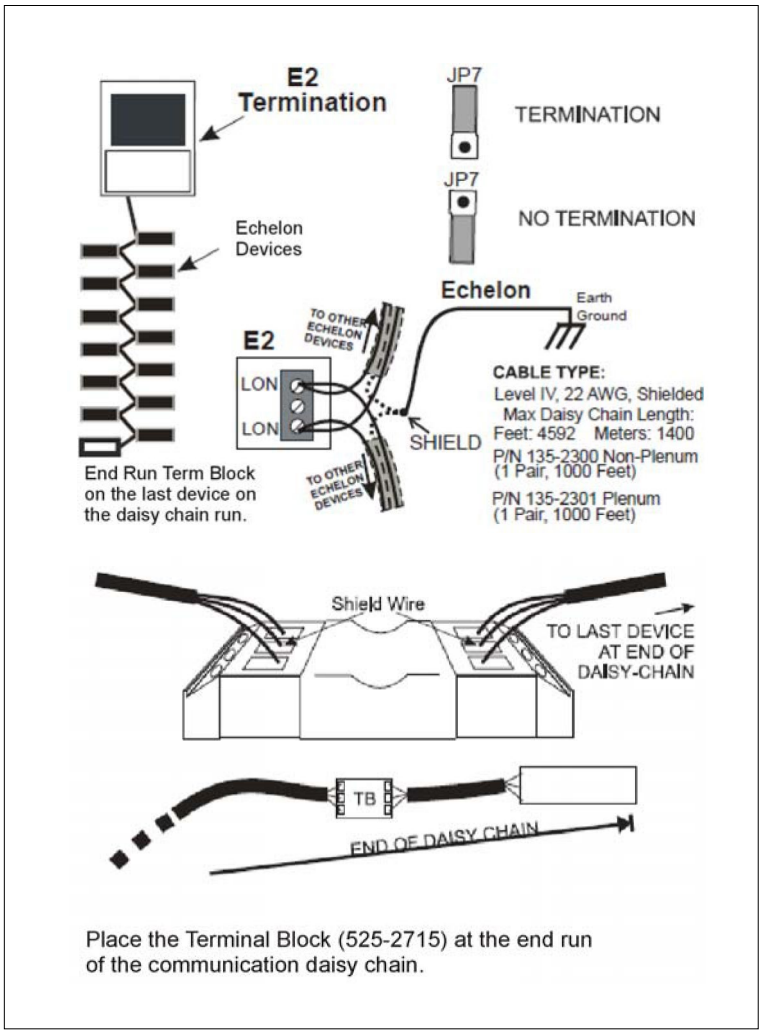

Figure 1 - network wiring diagram

COPELAND

Controller board Echelon network cable connections

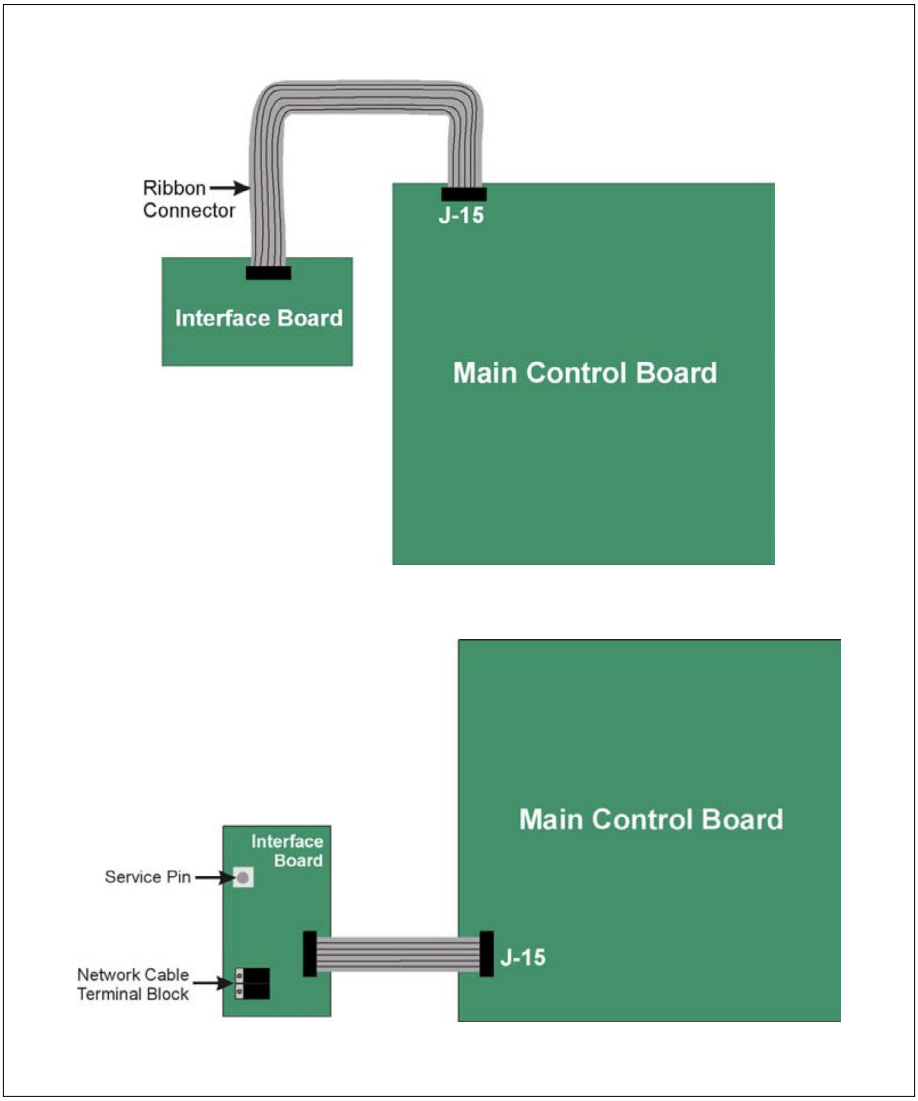

Figure 2 - Echelon network cable connections

Carrier Corporation's RTU open controller board (SW3) dip switch settings

Set SW3 dip switches as shown								
Baud rate	DS-1	DS-2	DS-3	DS-4	DS-5	DS-6	DS-7	DS-8
38.4K baud	On	Off	Off	On	Off	On	On	Off

Third party hardware configuration notation

The RTU Open's operation depends upon its occupancy state (**Occupied/Unoccupied**). The RTU Open operates continuously in the **Occupied Mode** by default until the occupancy schedule has been configured.

NOTE: The controller's **OCCUPANCY SOURCE** point setting must be initiated through the third party hardware and software setup procedures in order for any Building Automation System (BAS) to control Occupancy Schedule.

The **OCCUPANCY SOURCE** point setting must be configured as follows:

- **3 = BAS ON/OFF**

Step 1: Upload the description file to the E2 controller.

1. From UltraSite, connect to your E2 controller.
2. Right-click the E2 icon and select **Description File Upload**.
3. Browse to the location of the description file and click **Upload**.
4. After uploading, you will need to reboot the E2 controller.

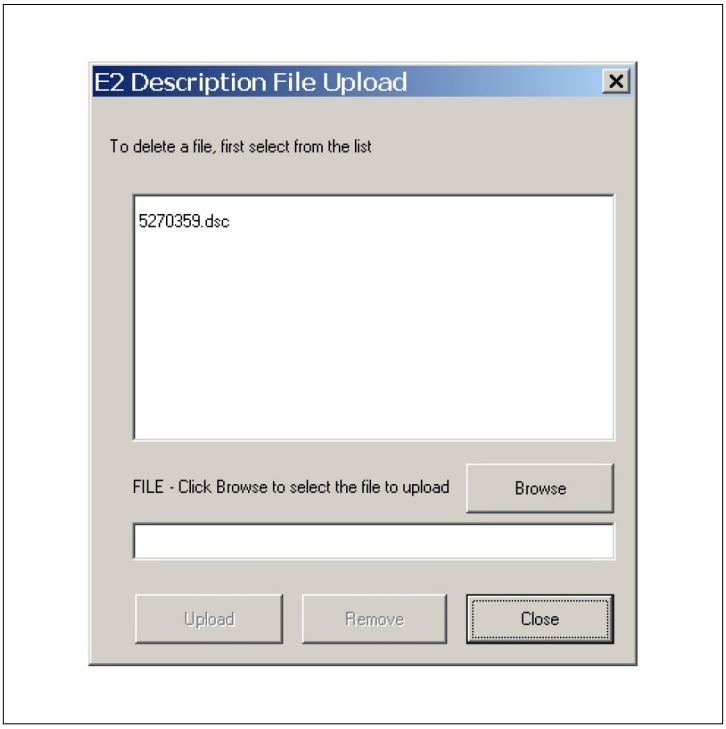

Figure 3 - description file upload

Step 2: Activate the license of the device.

1. From the E2 front panel (or via the Terminal Mode), press Menu, **7** (System Configuration), and **9** (Licensing).
2. Press **F1** (ADD FEATURE) and enter your license key.

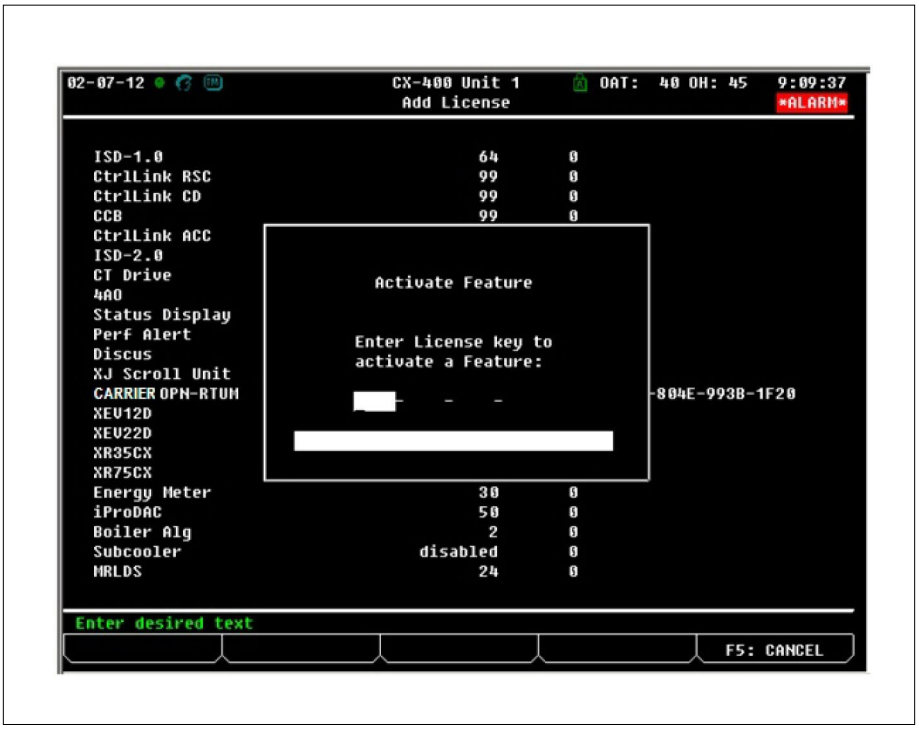

Figure 4 -add license screen

Step 3: Once the license is activated, add the device to the E2 controller.

1. Press Menu, **7** (System Configuration), **7** (Network Setup), **2** (Connected I/O Boards & Controllers).
2. Press **F2** (NEXT TAB) to go to the C4: Third Party tab. You should see the device in the list. Enter the number of devices to add and press the button to save your changes

Figure 5 - specify the number of devices to add

Figure 6 - device setup screen

Step 4: Commission the Echelon device.

1. Press Menu, **7** (System Configuration), **7** (Network Setup), **1** (Network Summary).
2. Use the **UP** and **DOWN** arrow keys to highlight the device name and then press F4 (Commission).
3. Select the method to use for identifying the device. Select from the list:
   - **1** = **Service Pin** --> The physical button on the controller must be pressed. This is the preferred method for device accuracy.
   - **2** = **Entering Neuron ID(s) directly** --> Echelon device address should consist of 12 characters. The device is identified via remote communication using the Neuron ID. Use this selection if the Neuron ID of the device is available.
   - **3** = **Specifying a range of nodes** --> The network is scanned for neuron addresses.

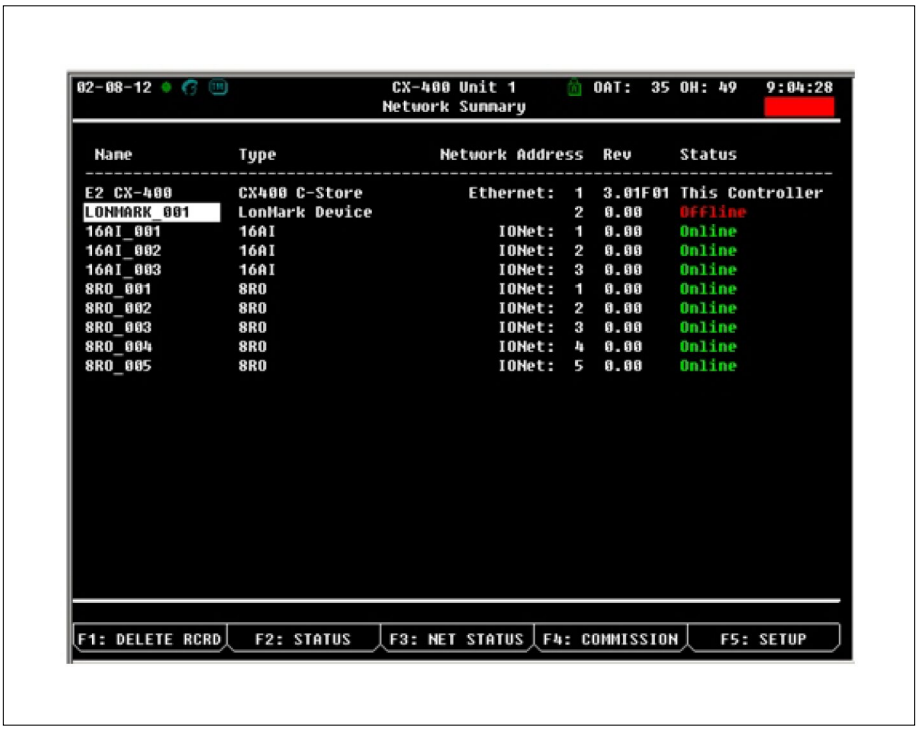

Figure 7 - commission the device

Figure 8 - select method for Identifying the controller

Figure 9 - identifying the controller using the neuron ID

Step 5: Name the controller device.

1. Press Menu, **7** (System Configuration), **7** (Network Setup), **1** (Network Summary).

2. Use the **UP** and **DOWN** arrow keys to highlight the generic LonMark Device name and then Press F5 (SETUP).

3. Enter the desired device name in the **Name** field highlighted and then press the ↵ to return to the Network Summary screen.

NOTE: By default, any Third Party (Open Echelon) devices that are initiated in E2 will always have a generic naming sequence as shown:

Example: LONMARK_001, LONMARK_002, LONMARK_003

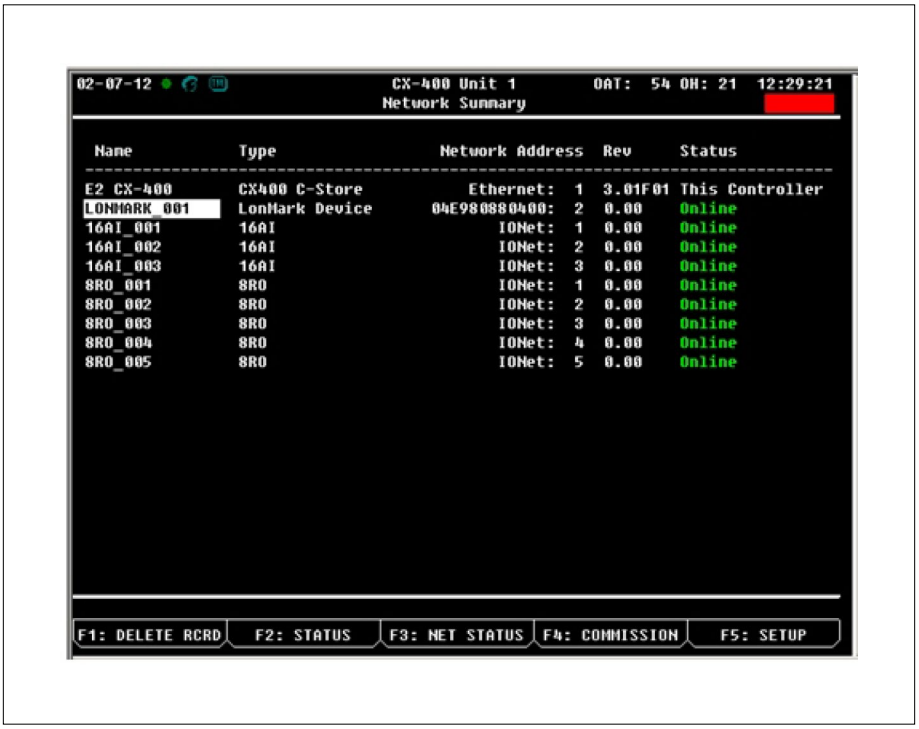

Figure 10 - network summary screen

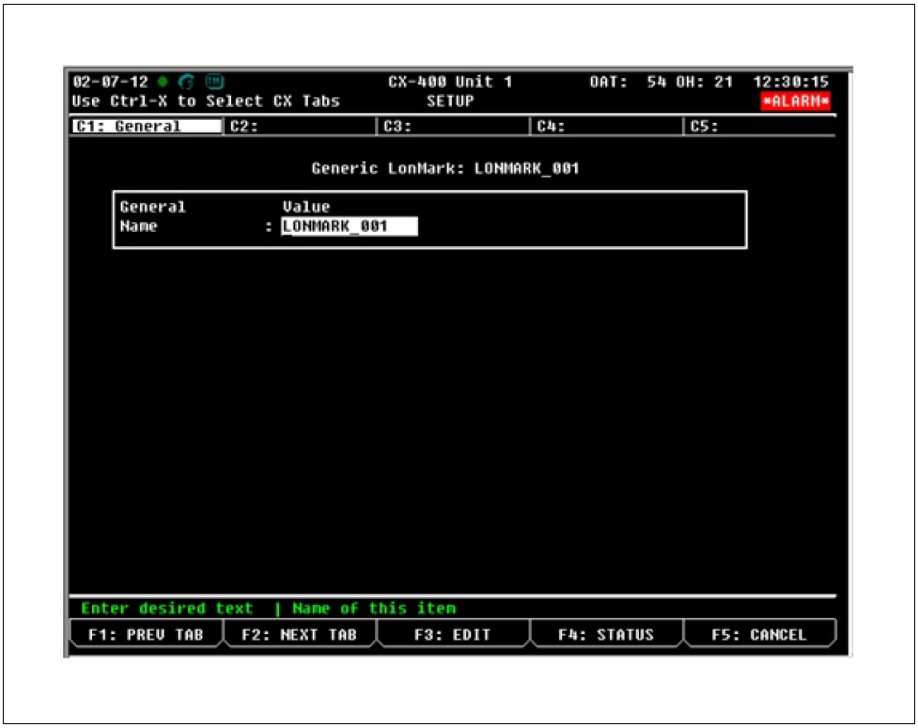

Figure 11 - Changing the device name

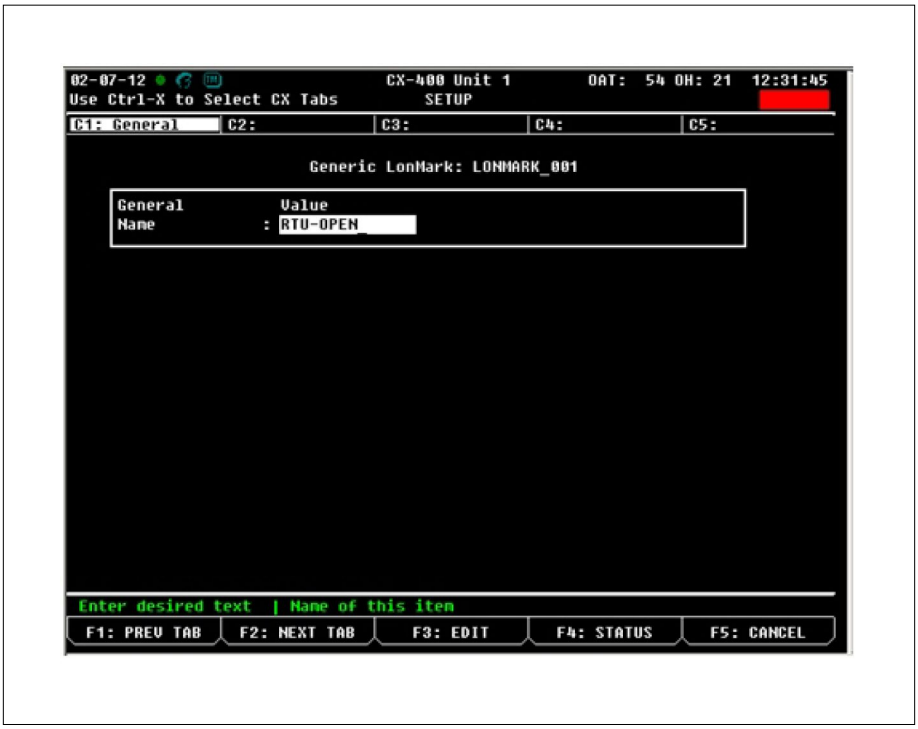

Figure 12 - Changing the device name

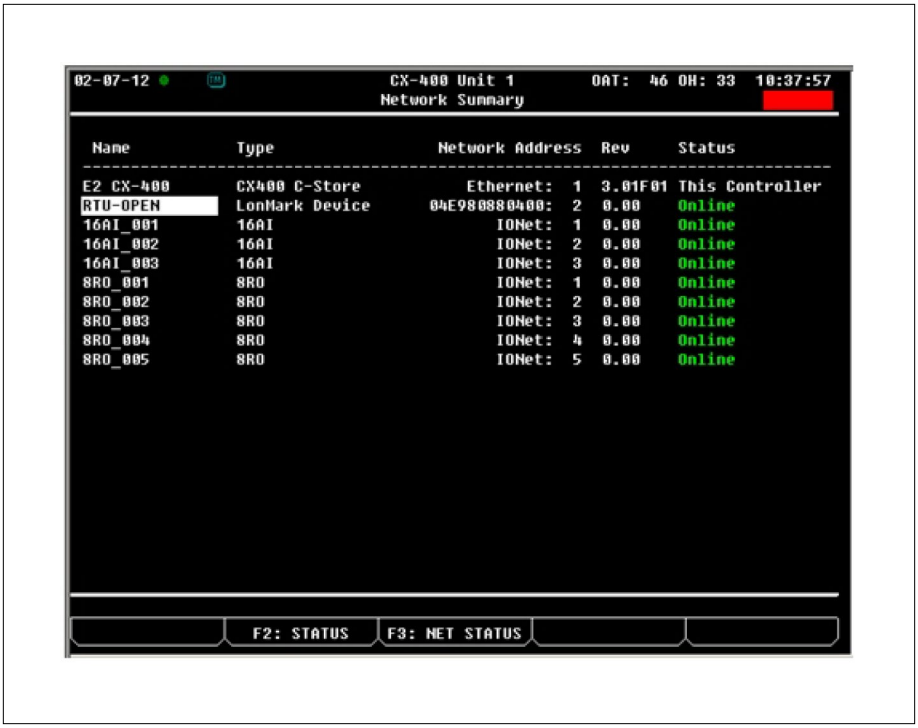

Figure 13 - network summary screen

Step 6: View the device status screen.

1. Press Menu and then **5** (Configured Applications). A list of all configured applications in E2 displays on the screen.

2. Use the **UP** and **DOWN** arrow keys to highlight the device name on the Configured Applications screen and then press Enter. The device Status Screen displays.

NOTE: By default, if there are one or more devices of the same type configured in E2, a list of all common devices will display (Summary Screen) in reference to the numeric or alphanumeric character sequence of the devices labeled.

Example: AHU-1, AHU-2, AHU-3, RTU-1, RTU-2, RTU-3

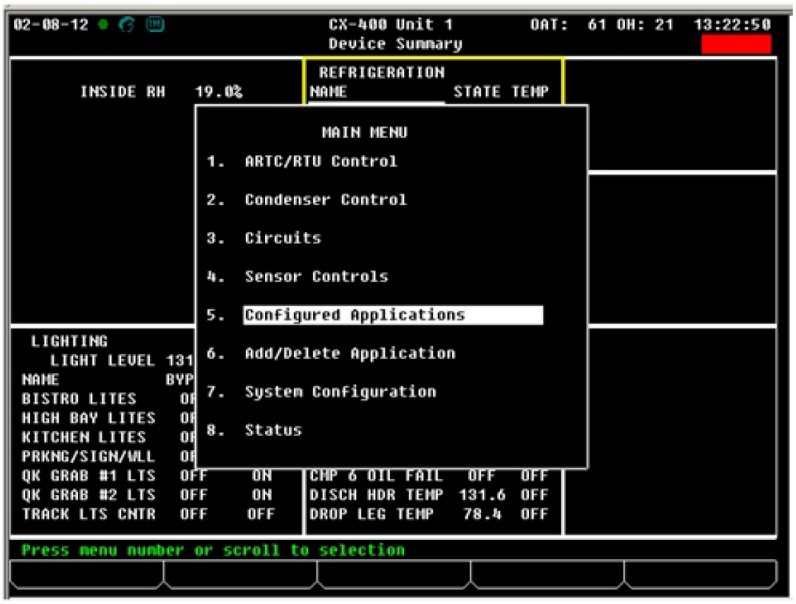

Figure 14 - main menu

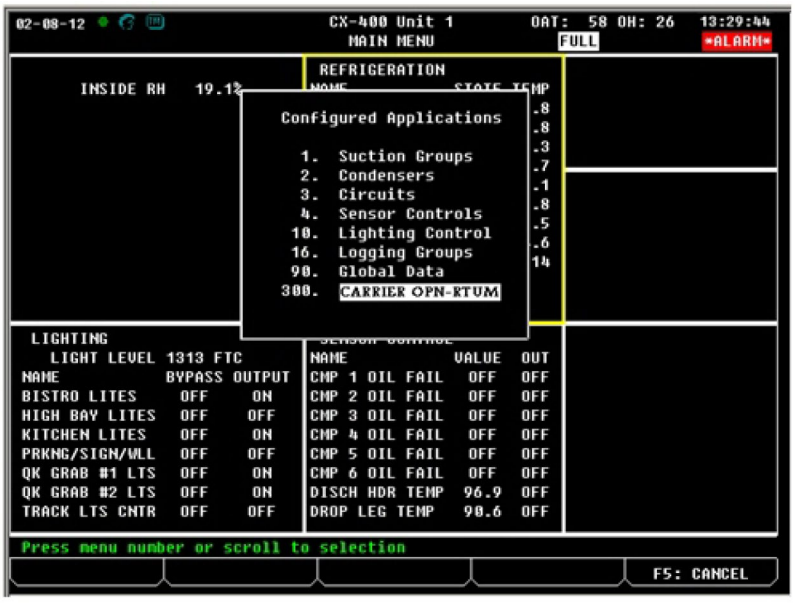

Figure 15 - configured applications

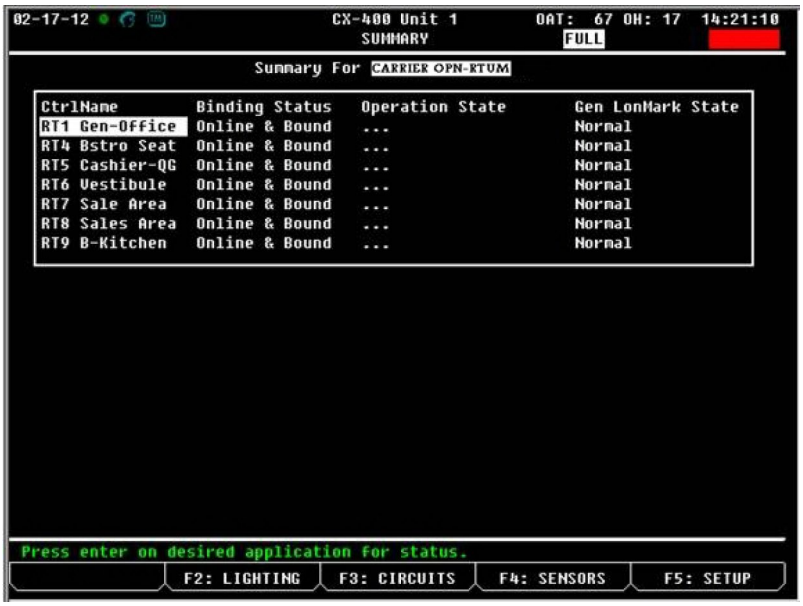

Figure 16 - summary screen

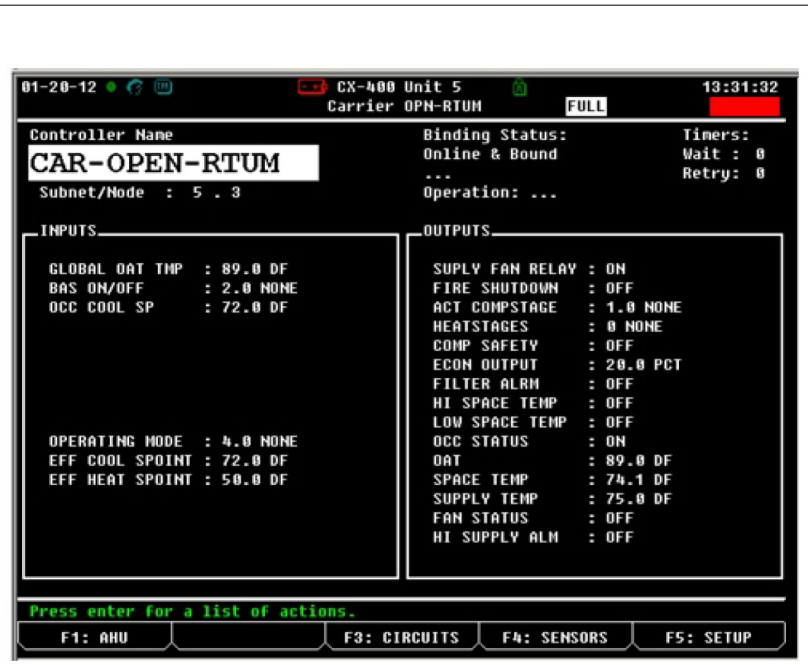

Figure 17 - sevice status screen

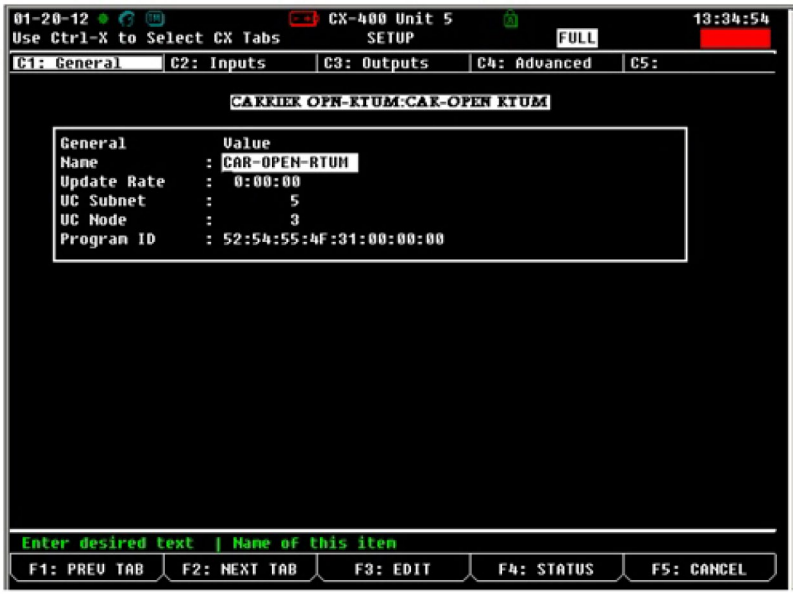

Figure 18 - general tab

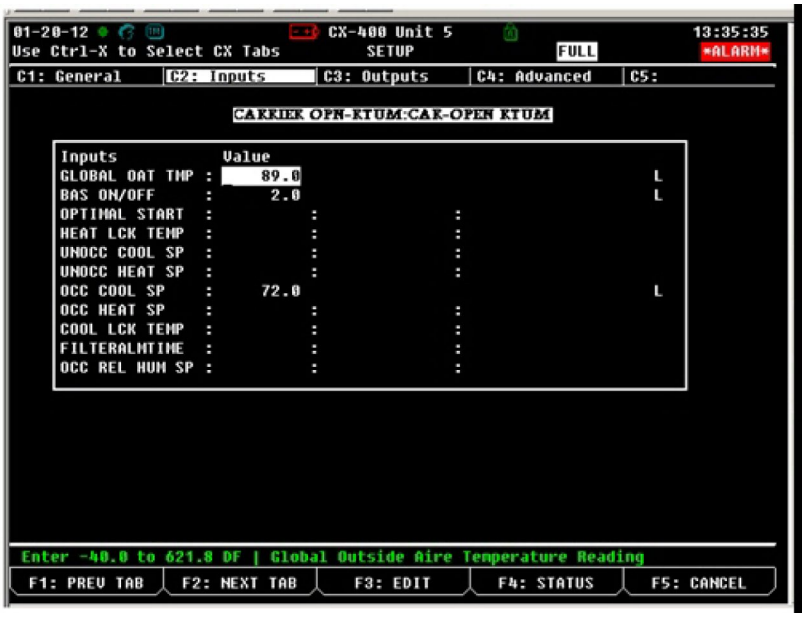

Figure 19 - inputs tab

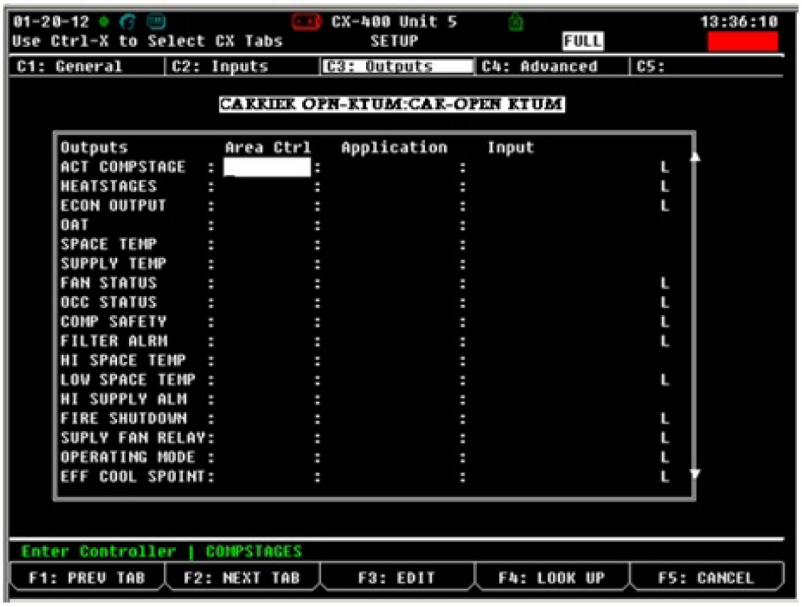

Figure 20 - outputs tab

About Copeland

Copeland is a global leader in sustainable heating, cooling, refrigeration and industrial solutions. We help commercial, industrial, refrigeration and residential customers reduce their carbon emissions and improve energy efficiency. We address issues like climate change, growing populations, electricity demands and complex global supply chains with innovations that advance the energy transition, accelerate the adoption of climate friendly low GWP (Global Warming Potential) and natural refrigerants, and safeguard the world's most critical goods through an efficient and sustainable cold chain. We have over 18,000 employees, with feet on the ground in 50 countries - a global presence that makes it possible to serve customers wherever they are in the world and meet challenges with scale and speed. Our industry-leading brands and diversified portfolio deliver innovation and technology proven in over 200 million installations worldwide. Together, we create sustainable solutions that improve lives and protect the planet today and for future generations. For more information, visit copeland.com.

To learn more, visit copeland.com

026-4921 Rev 0 03 (05/2012) E2 setup with Carrier Corporation's RTU open controller for 527-0359

COPELAND