

# 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

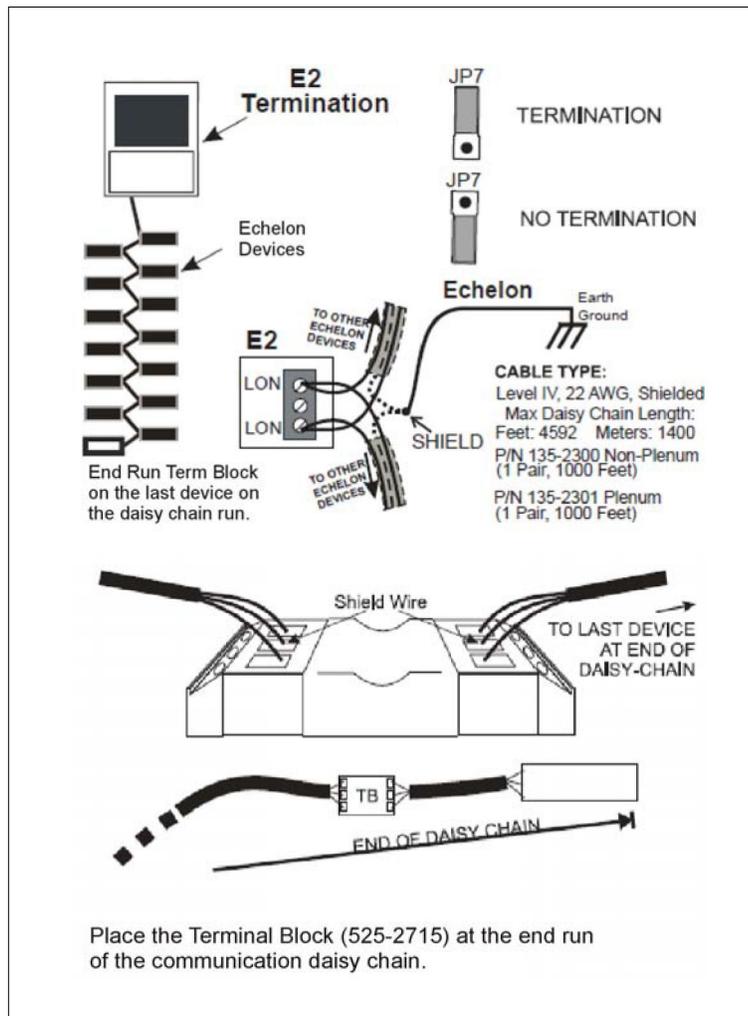


Figure 1 - network wiring diagram

## Controller board Echelon network cable connections

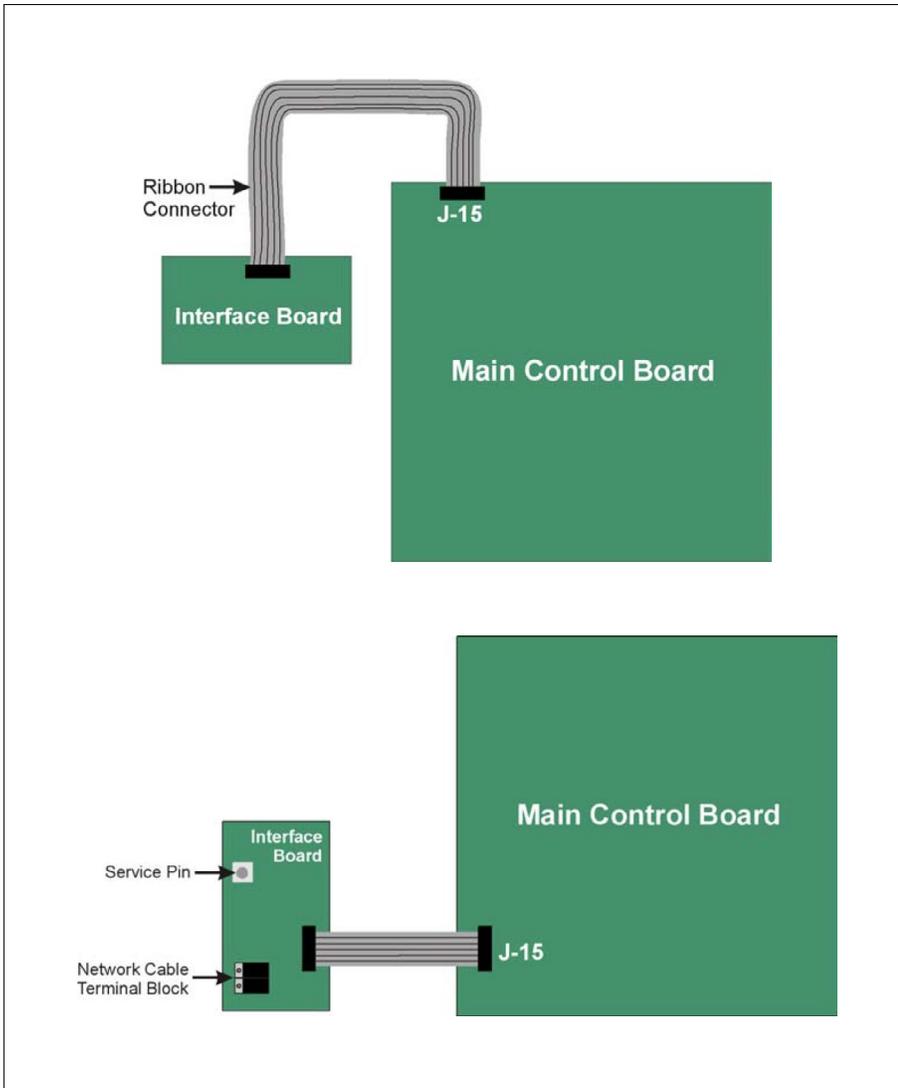


Figure 2 - Echelon network cable connections

## 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.

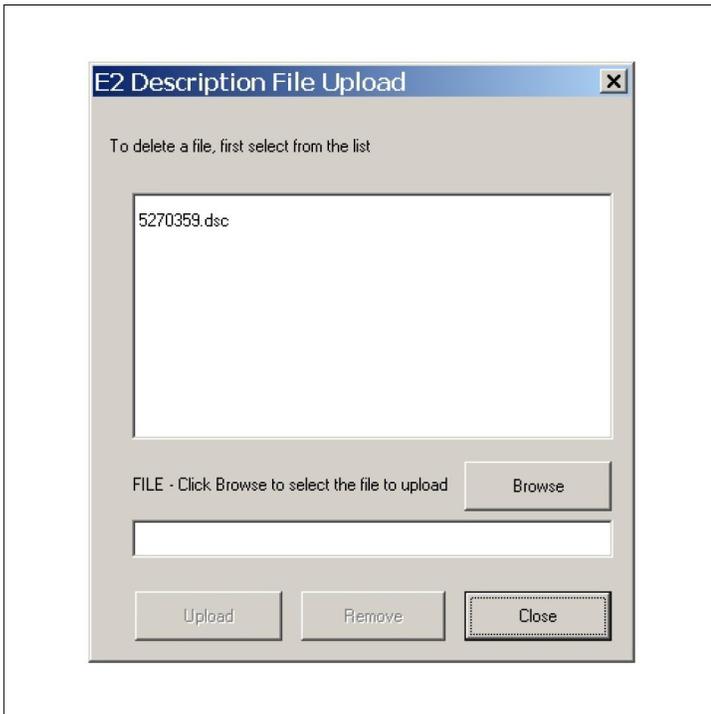


Figure 3 - description file upload

## Step 2: Activate the license of the device.

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

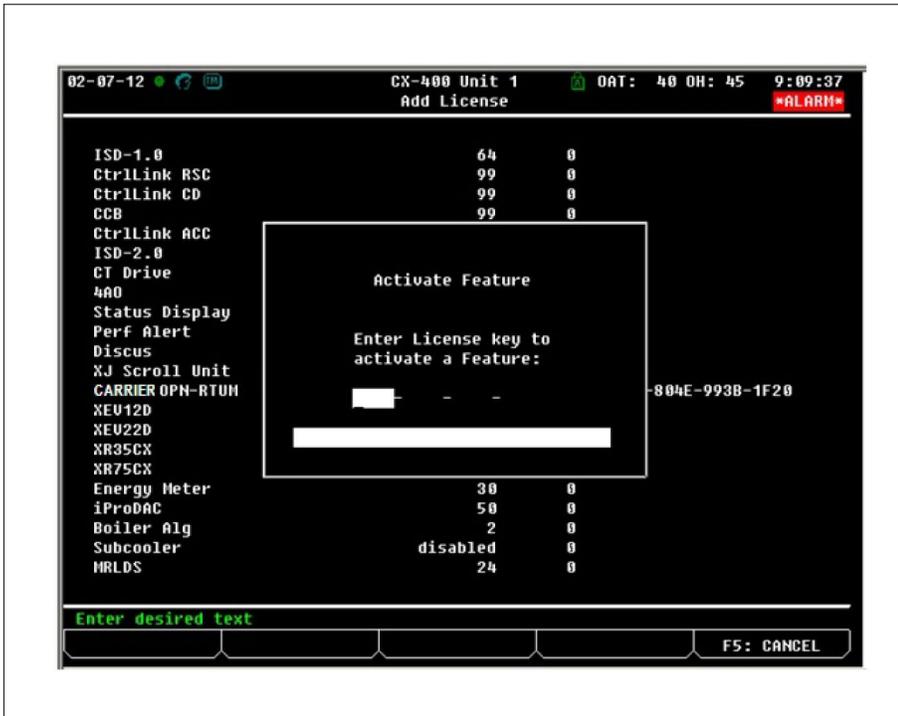


Figure 4-add license screen

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

1. Press , **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

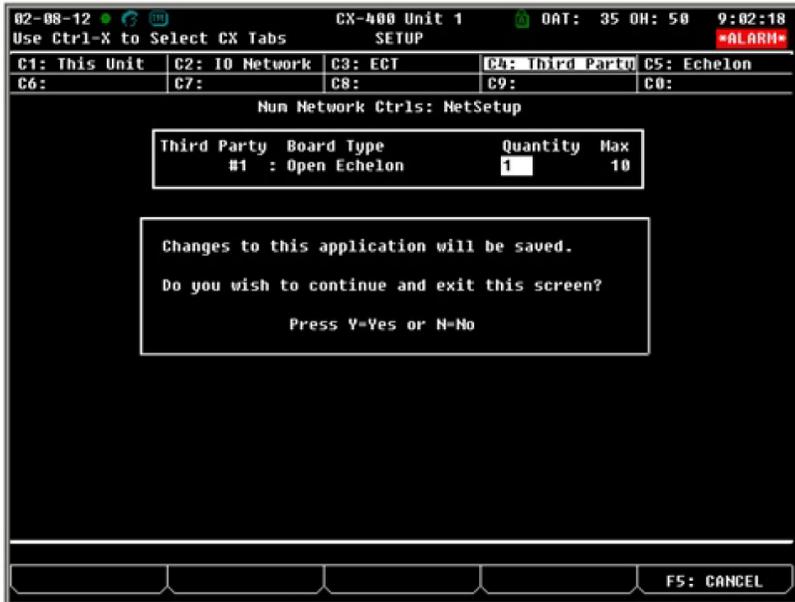


Figure 5 - specify the number of devices to add



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.

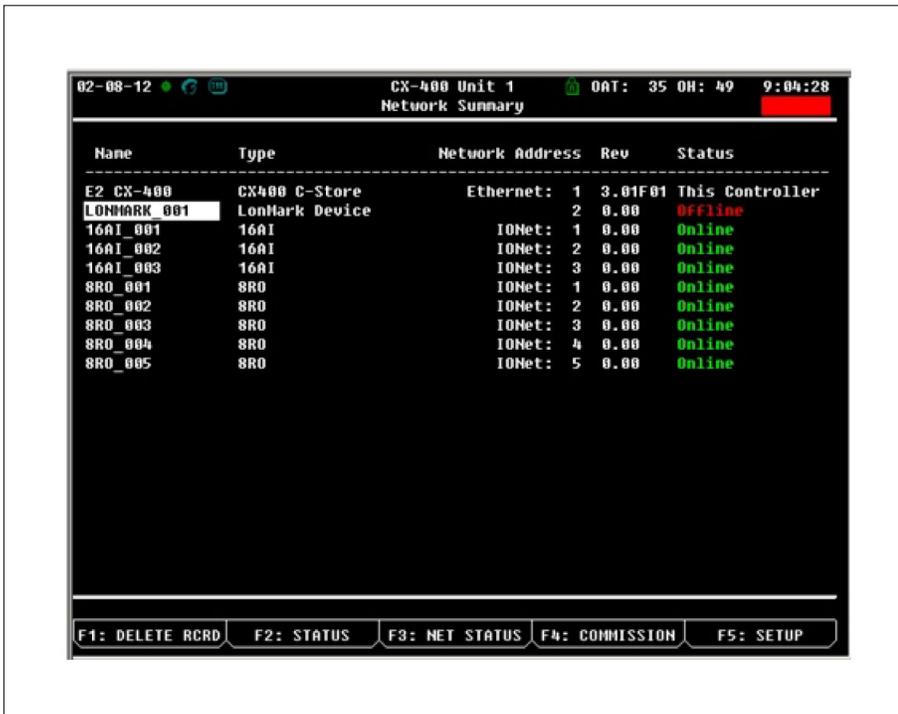


Figure 7 - commission the device



Figure 8 - select method for Identifying the controller



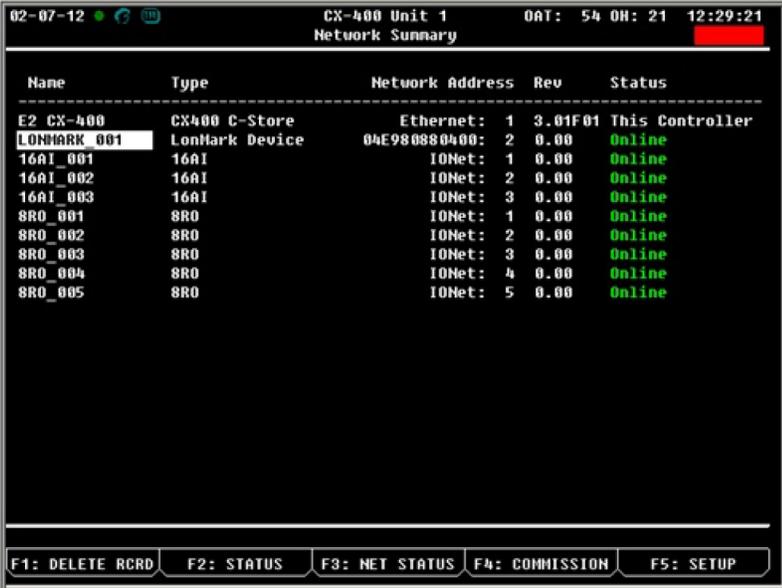
Figure 9 - Identifying the controller using the neuron ID

## Step 5: Name the controller device.

1. Press , **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  (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*



Name	Type	Network Address	Rev	Status
E2 CX-400	CX400 C-Store	Ethernet: 1	3.01F01	This Controller
LONMARK_001	LonMark Device	04E980880400: 2	0.00	Online
16AI_001	16AI	IONet: 1	0.00	Online
16AI_002	16AI	IONet: 2	0.00	Online
16AI_003	16AI	IONet: 3	0.00	Online
8RO_001	8RO	IONet: 1	0.00	Online
8RO_002	8RO	IONet: 2	0.00	Online
8RO_003	8RO	IONet: 3	0.00	Online
8RO_004	8RO	IONet: 4	0.00	Online
8RO_005	8RO	IONet: 5	0.00	Online

F1: DELETE RCRD   F2: STATUS   F3: NET STATUS   F4: COMMISSION   F5: SETUP

Figure 10 - network summary screen

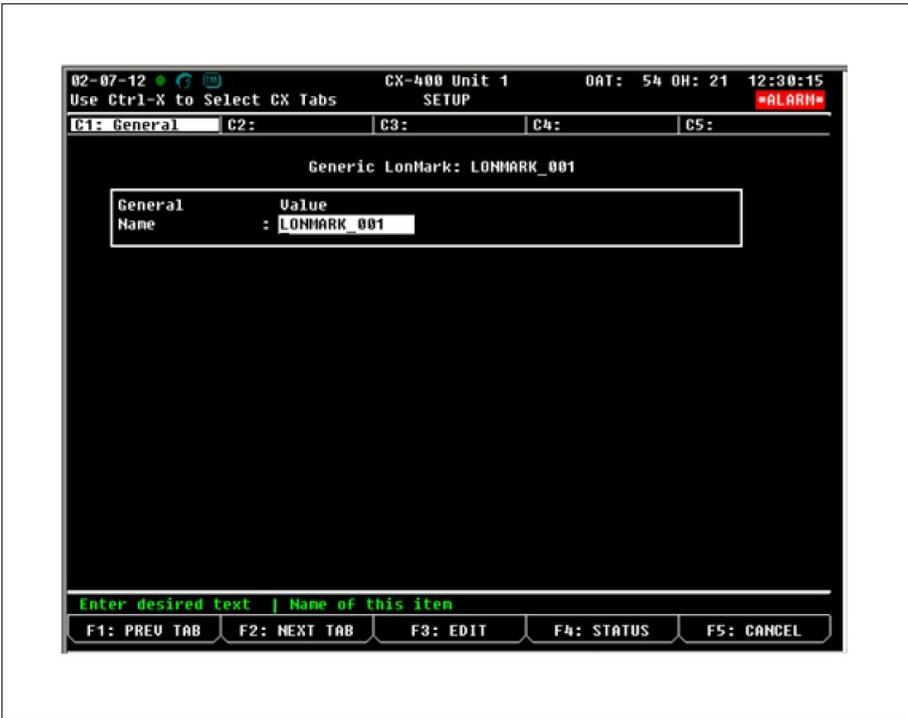


Figure 11 - Changing the device name

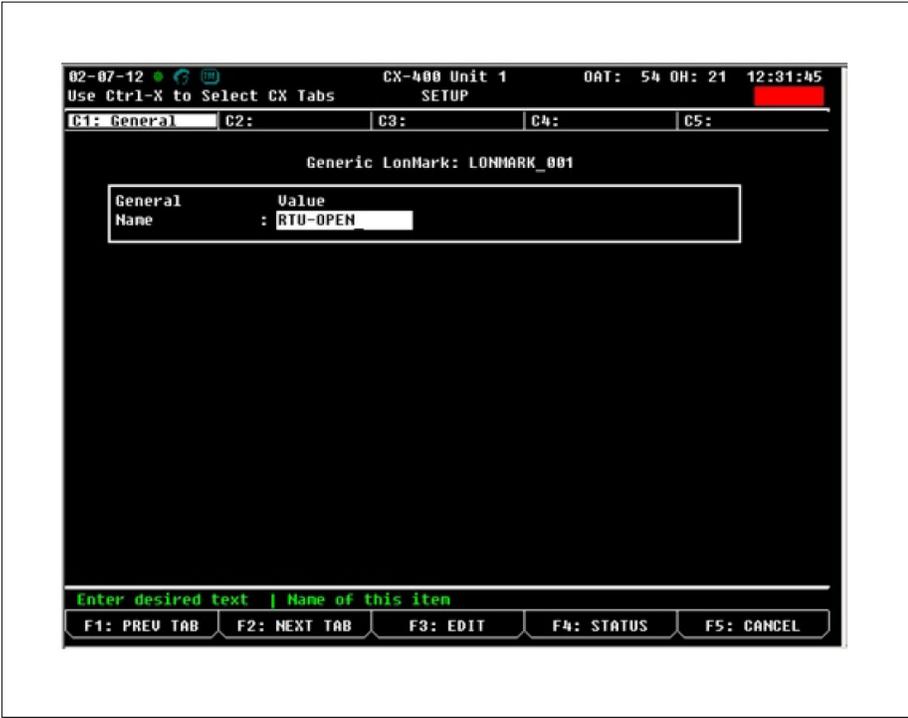


Figure 12 - Changing the device name

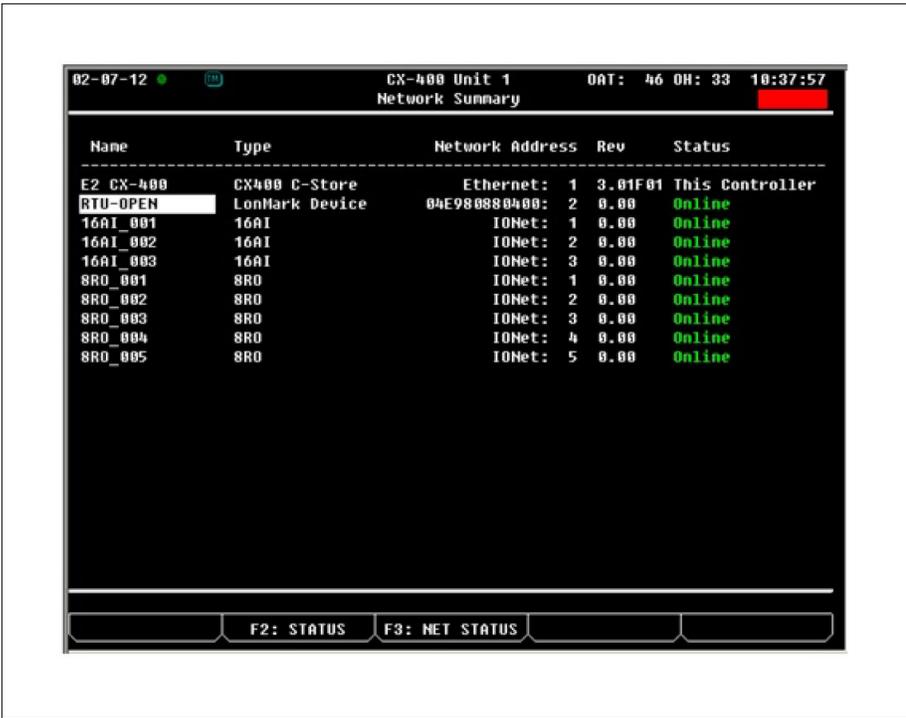


Figure 13 - network summary screen

**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*

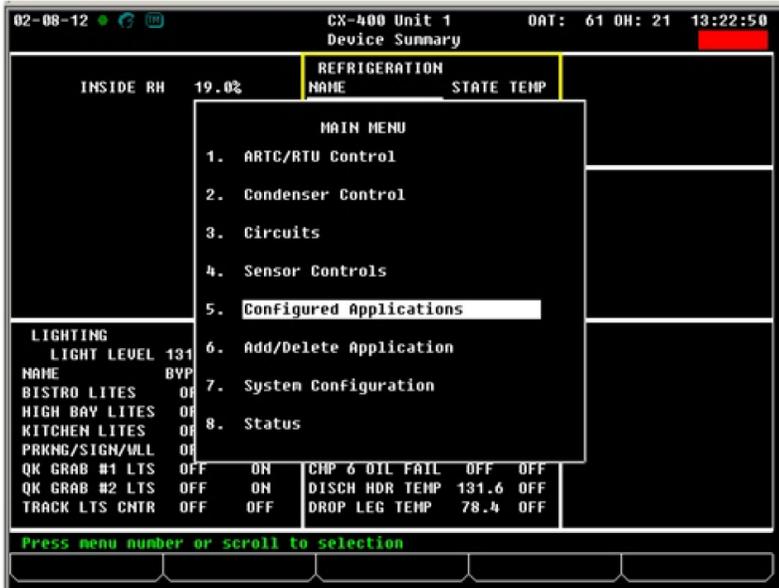


Figure 14 - main menu

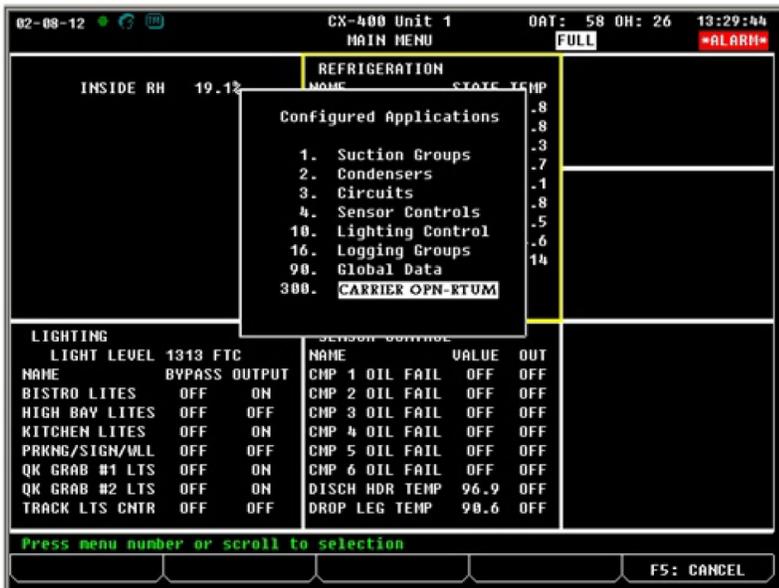


Figure 15 - configured applications

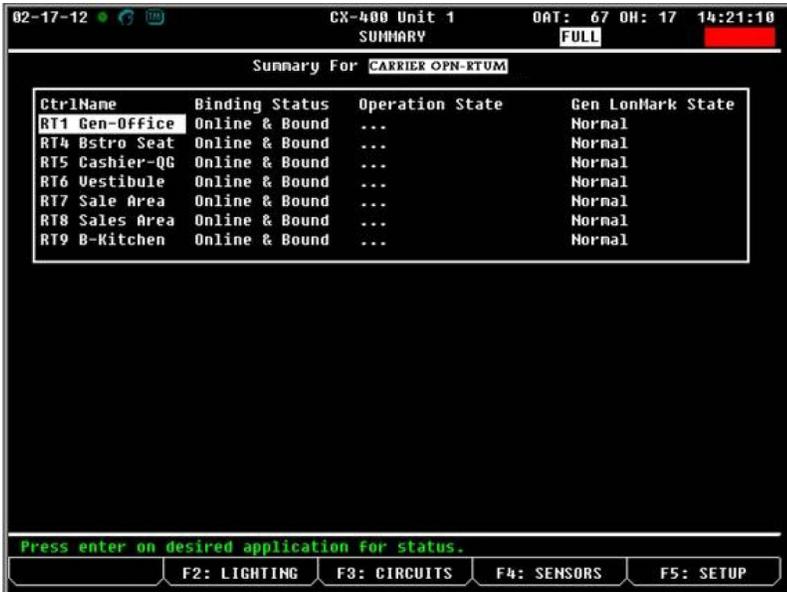


Figure 16 - summary screen

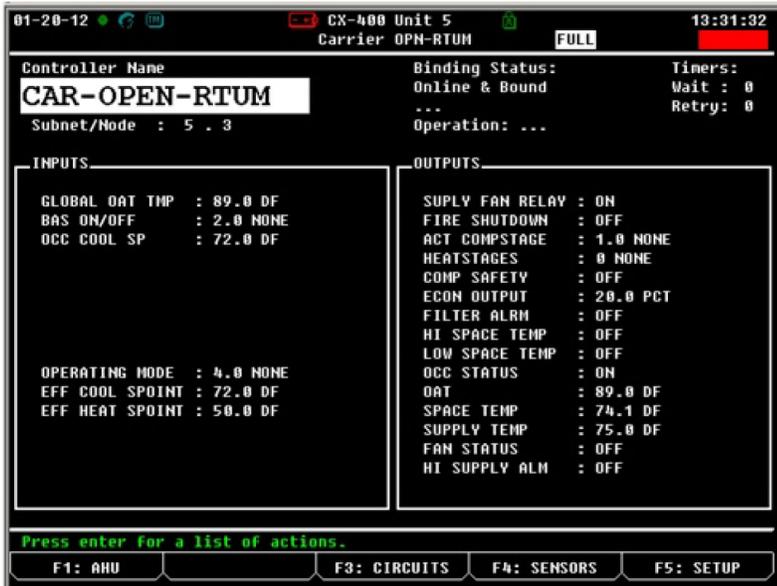


Figure 17 - service status screen



Figure 18 - general tab

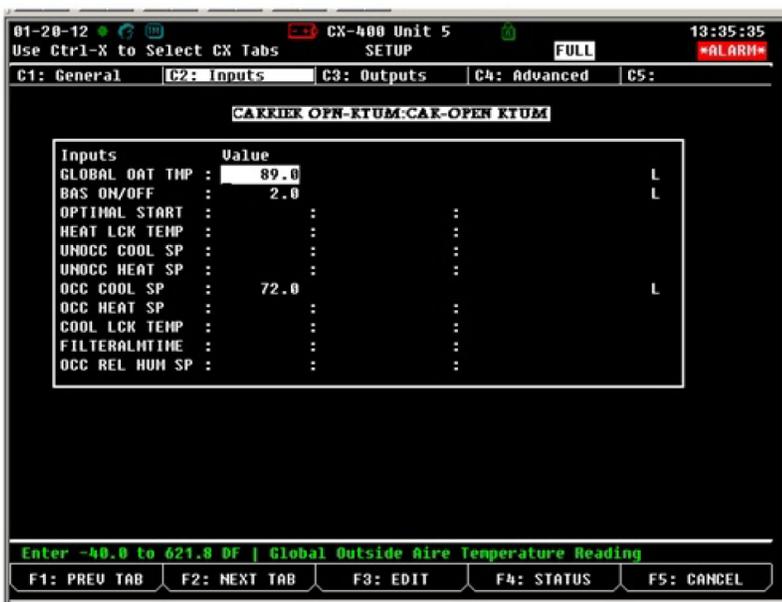


Figure 19 - inputs tab

01-20-12 CX-400 Unit 5 13:36:10  
 Use Ctrl-X to Select CX Tabs SETUP FULL  
 C1: General C2: Inputs C3: Outputs C4: Advanced C5:

**CARRIER OPN-RTUM:CAR-OPEN RTUM**

Outputs	Area Ctrl	Application	Input
ACT COMPSTAGE :	:	:	L
HEATSTAGES :	:	:	L
ECON OUTPUT :	:	:	L
OAT :	:	:	
SPACE TEMP :	:	:	
SUPPLY TEMP :	:	:	
FAN STATUS :	:	:	L
OCC STATUS :	:	:	L
COMP SAFETY :	:	:	L
FILTER ALRM :	:	:	L
HI SPACE TEMP :	:	:	
LOW SPACE TEMP :	:	:	L
HI SUPPLY ALM :	:	:	
FIRE SHUTDOWN :	:	:	L
SUPLY FAN RELAY :	:	:	L
OPERATING MODE :	:	:	L
EFF COOL SPOINT :	:	:	L

Enter Controller | COMPSTAGES

F1: PREV TAB F2: NEXT TAB F3: EDIT F4: LOOK UP F5: CANCEL

Figure 20 - outputs tab



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