

quick start guide

Carel EVD Evolution MODBUS Device E2 Setup for 527-0355

This document will guide you through setting up and commissioning the Carel EVD Evolution MODBUS device in the E2 controller.

Note that Open MODBUS Description files require E2 firmware version 3.01FO1 or higher.

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.

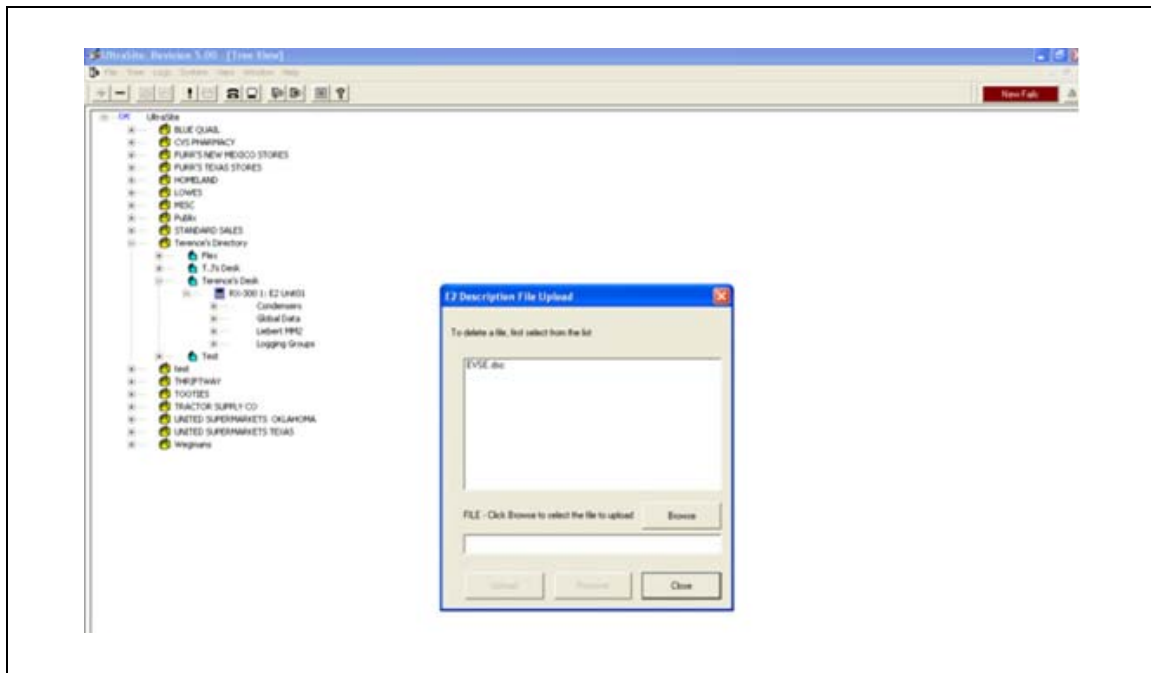


Figure 1 - Description File Upload

STEP 2: Activate the license of the device.




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




Figure 2 - Add License Screen

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

7. Press , **7** (System Configuration), **7** (Network Setup), **2** (Connected I/O Boards & Controllers).
8. 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.

STEP 4: Assign a MODBUS port.

9. Press , **7** (System Configuration), **4** (Remote Communications), **3** (TCIP/IP Setup).

10. Select the COM port the device is connected to, press **F4** (LOOK UP), and select the appropriate MODBUS selection.

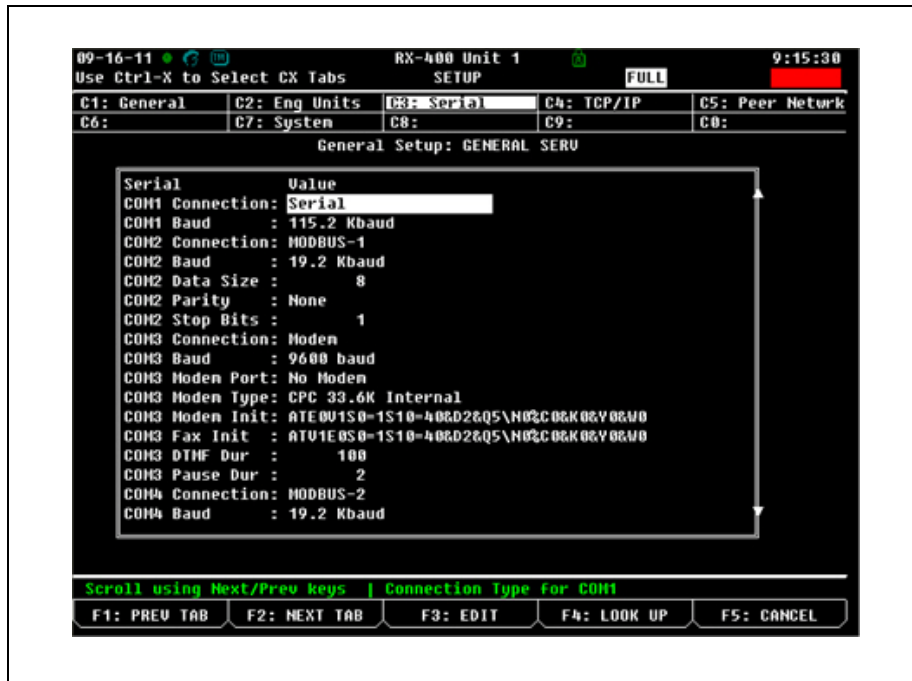


Figure 3 - COM Port Selection

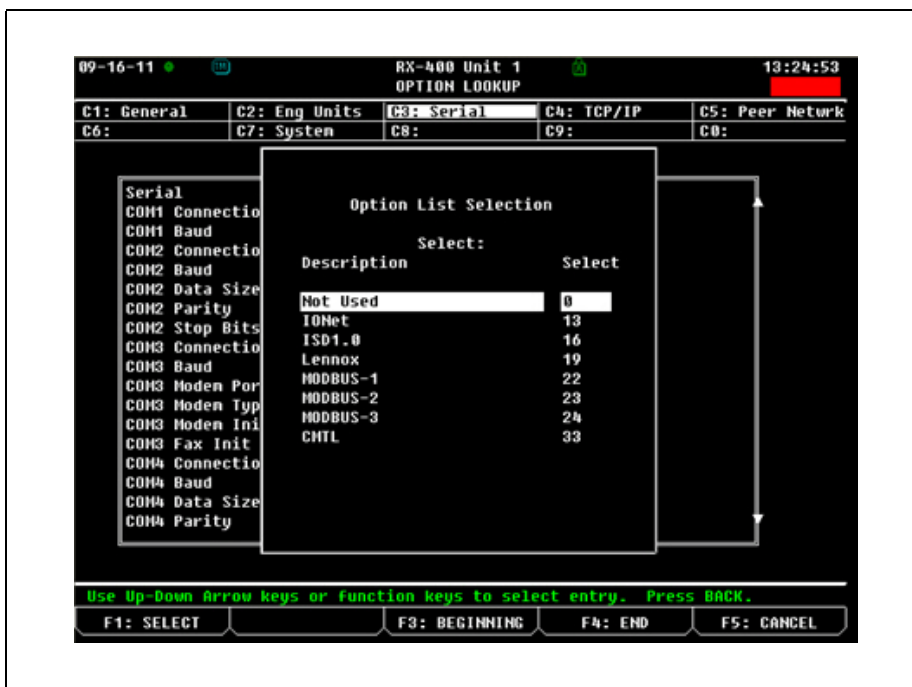


Figure 4 - MODBUS Selection

11. Set up the baud rate for the chosen port. Press **F4** to look up the appropriate speed.

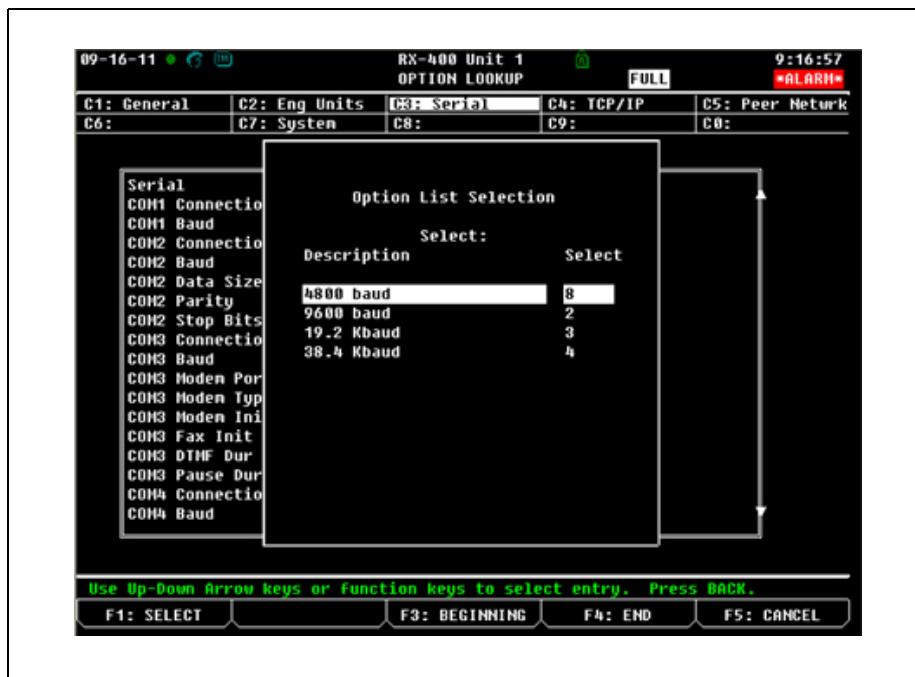


Figure 5 - Baud Rate Selection

STEP 5: Set up the baud rate on the Carel EVD Evolution device.

12. The baud rate can be configured using the User Interface (*a separate device and is required for this device to communicate with the E2*) for Carel EVD Evolution. Refer to *Modifying the Manufacturer Parameters* section for password and instructions on configuring the baud rate and network address using the User Interface device.

- The *Configuration* tab allows you to change the network address of the device to match the E2 network address setting.
- The *Advanced > Network Settings* tab allows you to change the baud rate to match the E2 baud rate setting.

Modifying the Manufacturer Parameters

The Manufacturer level is used to configure all the driver parameters, service parameters, and the parameters relating to managing alarms, probes, and valve configuration.

After fitting the display on top of the expansion valve:

To modify a manufacturer parameter using the User Interface device:

1. Press the **Esc** key several times to enter the standard display.
2. Press the **Prg** key to show the PASSWORD request screen.

3. Press the **Enter** key and enter the password for the Manufacturer level: **66**, starting with the right-most digit and pressing **Enter** after each digit.

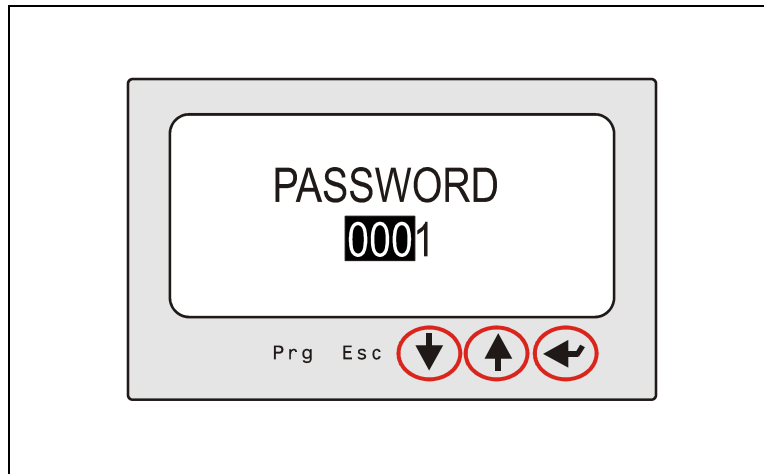


Figure 6 - Enter Manufacturer Level Password

4. If the password entered is correct, the list of parameter categories is displayed (Figure 7):

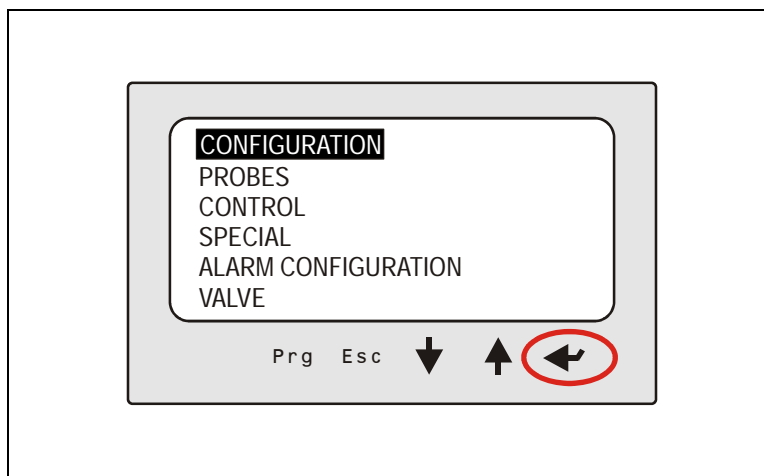


Figure 7 - Parameter Categories

5. Press the **UP** or **DOWN** key to select and press **Enter** to access the first parameter.
6. Press the **UP** or **DOWN** key to select the parameter to be set and press **Enter** to go to the parameter value.
7. Press the **UP** or **DOWN** key to change the parameter value.
8. Press **Enter** to save the new value.
9. Repeat Steps 6, 7, and 8 to modify the other parameters.
10. Press **Esc** to exit the screen.

11. Go to the list of parameter categories (*Figure 7*).
12. Select **Configuration** and press **Enter** to access the first parameter, **Network address** (*Figure 8*).

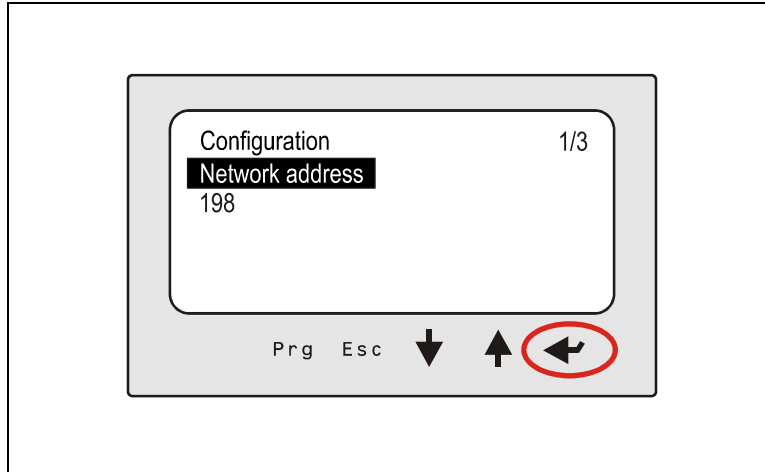


Figure 8 - Configuration > Network Address

13. Press **Enter** to move to the parameter value.
14. Press the **UP** or **DOWN** key to configure the value (*Figure 9*).

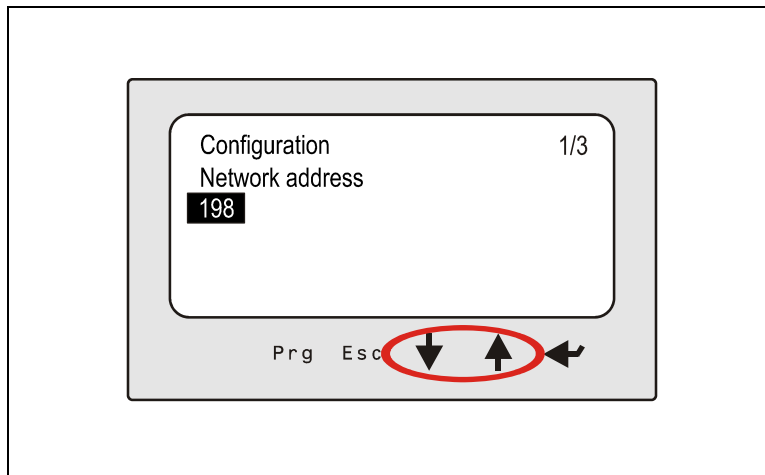


Figure 9 - Network Address Value

15. Press **Enter** to confirm and save the new value (*Figure 10*).

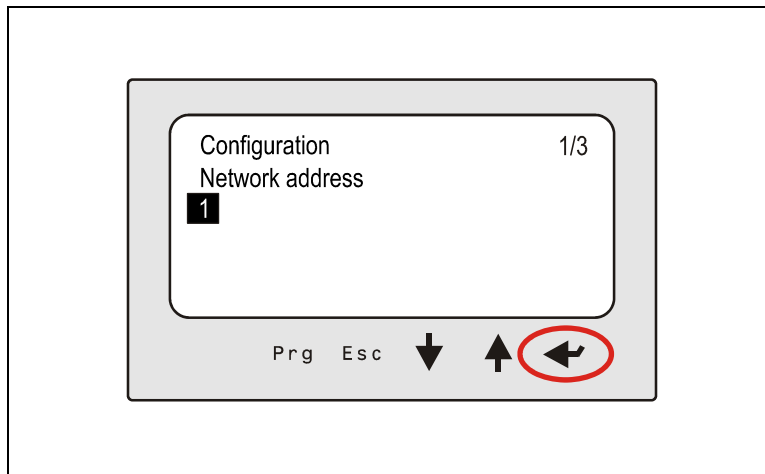


Figure 10 - Confirming the New Parameter Value

16. Press the **UP** or **DOWN** key to access the refrigerant parameter.

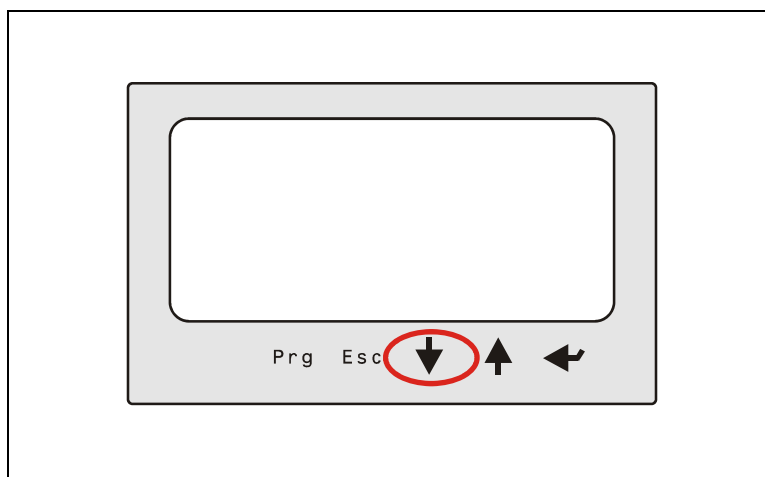



Figure 11 - Refrigerant Parameter

STEP 6: After configuring the baud rate, the device must be commissioned.

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

14. Highlight the device and press **F4** (COMMISSION). Select the MODBUS port that you will be assigning the device and then select the MODBUS device address.

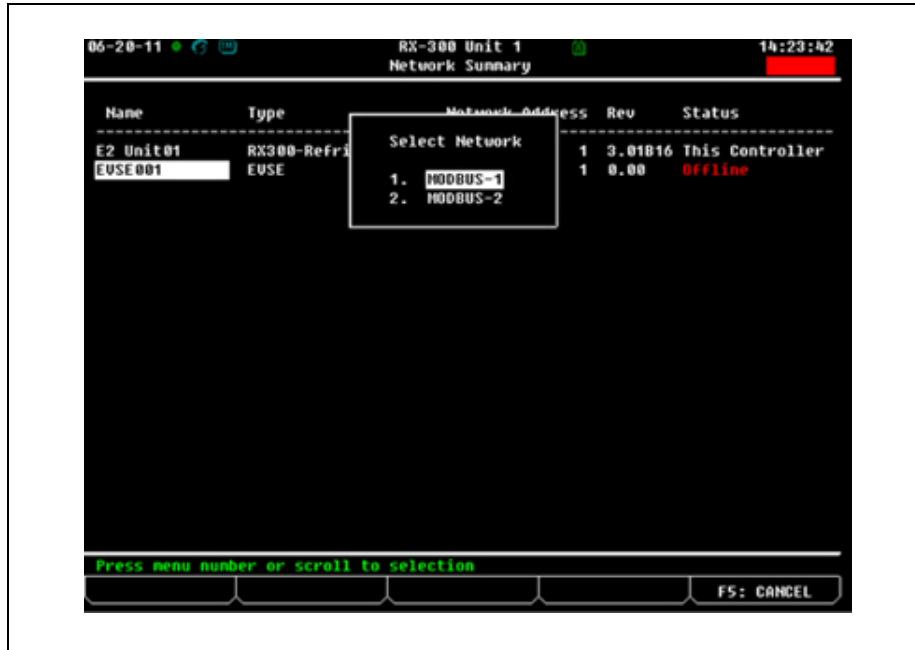


Figure 12 - Network Summary Screen

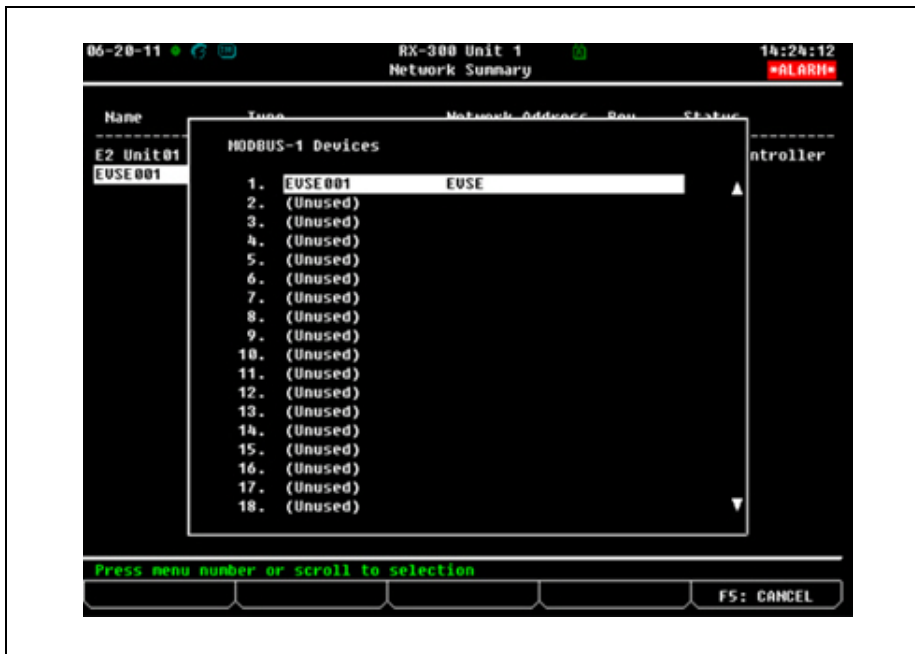


Figure 13 - MODBUS Port Assignment



Figure 14 - Device Physical Address Setting

STEP 7: After assigning the MODBUS address of the device and verifying that the connections are wired properly, the device should go online.

- Make sure the polarity is reversed on the E2.

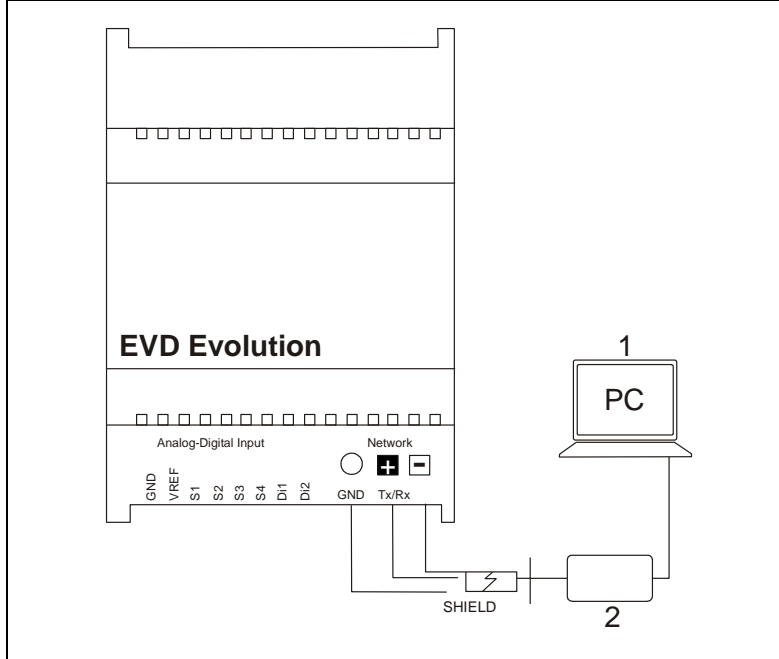


Figure 15 - Wiring Diagram

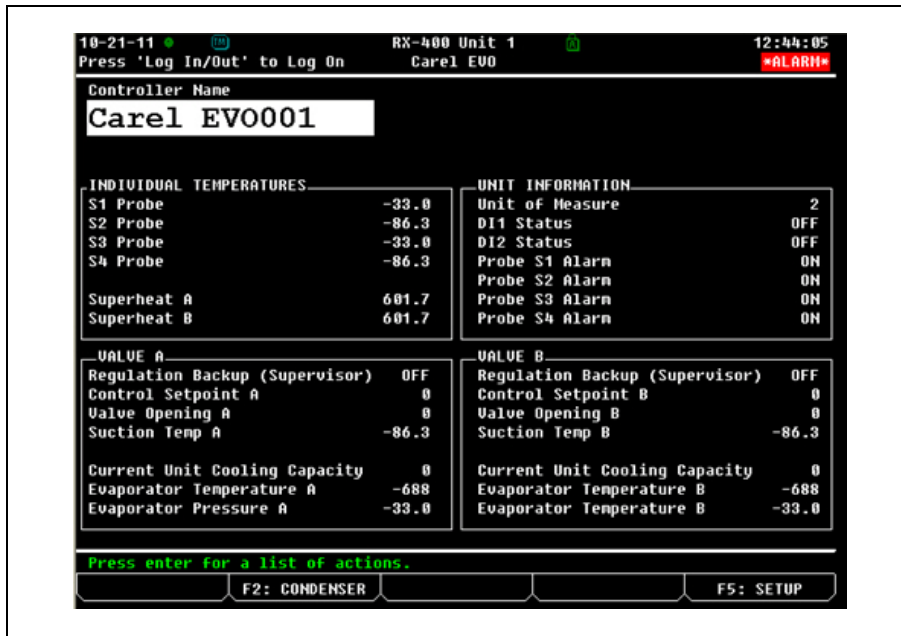


Figure 16 - E2 Carel Status Screen