COPELAND 026-4962 R1 iPro Rack User Interface User Guide

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QUICK START GUIDE
iPro Rack User Interface

Contents

026-4962 R1 iPro Rack User Interface

The iPro Rack is a unit controller designed to manage compressors, fans, and control valves used in refrigeration systems. The Visograph user interface allows for navigation and acquisition of system information. This guide provides an overview of the information provided by the Visograph user interface.

STEP 1: Enter the Top Screen

To enter the main screen to access system status and navigation, press T1 under the ENTER prompt.

Figure 1 - Top Screen

STEP 2: Activate the Application

If the application is inactive, press and hold T3 under the ON 1 prompt for five seconds.

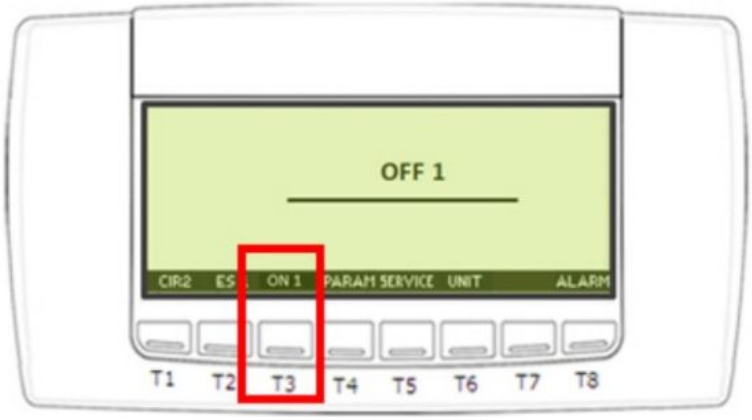

Figure 2 - Inactive Application

Press and hold T1 under the ON 1 prompt until the status changes from OFF to ON, then press EXIT. The until will now be activated. To deactivate the unit, follow the same procedure for activation.

NOTE: The prompts that originally read ON will now read OFF when the status changes from activated to deactivated.

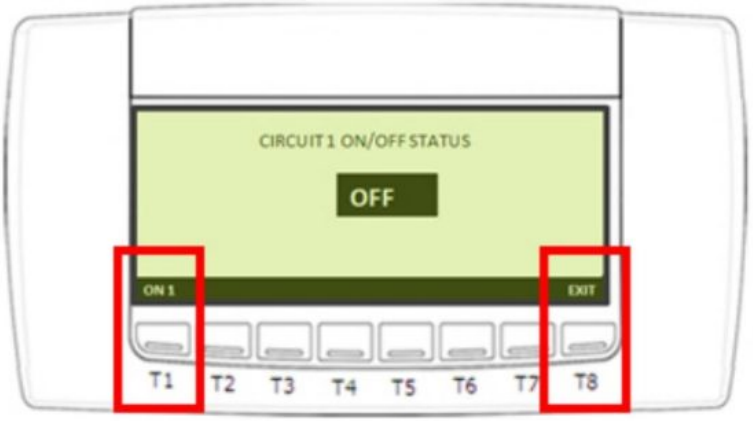

Figure 3 - Active Application

STEP 3: Enter the Main Screen

The main screen is designed to provide an overview of the main system status and allow for navigation to peripheral device status and application configuration.

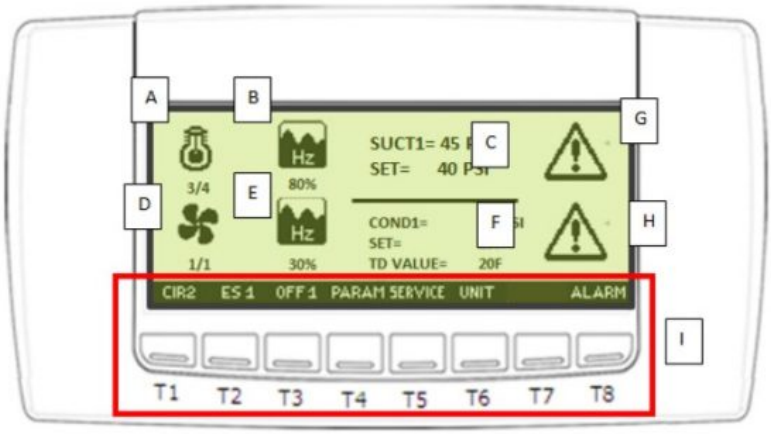

Figure 4 - Main Screen

a. Number of compressors turned on / Number of compressors available
b. Digital unloader active capacity
c. Suction pressure, Suction set point
d. Number of fans running / Number of fans available
e. Variable speed fan capacity
f. Temperature differential, Temperature differential set point
g. Compressor alarms active
h. Fan alarms active
i. Navigation buttons

STEP 4: View Active Alarms

To view active alarms, press T8 under the ALARM prompt. Alarms are grouped according to type, and each group in active alarm state will be flashing in the ALARM menu. Alarms will clear once conditions for alarms are no longer present. Other alarms must be manually cleared.

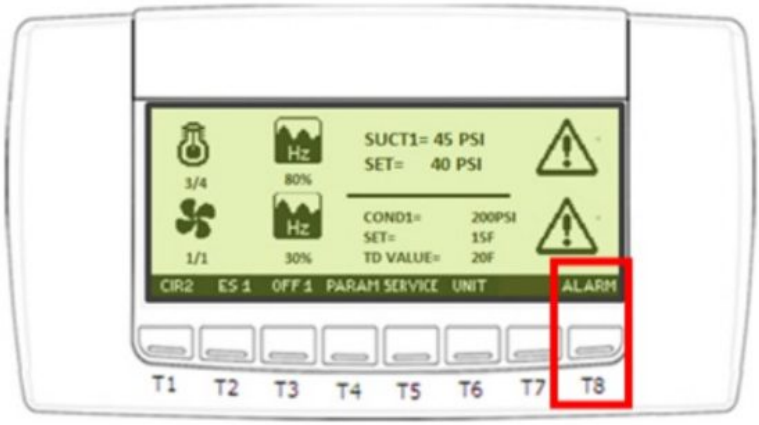

Figure 5 - Active Alarms

STEP 5: Enter the Service Menu

The service menu allows the user to view the IO status and peripheral system status, and create overrides for outputs. To enter the service menu, press T5 under the Service prompt. The list below defines what is available in the service menu. To enter any service submenu, scroll over the desired menu with arrow keys T1/T2/T4/T5 and press T3 under the Enter prompt.

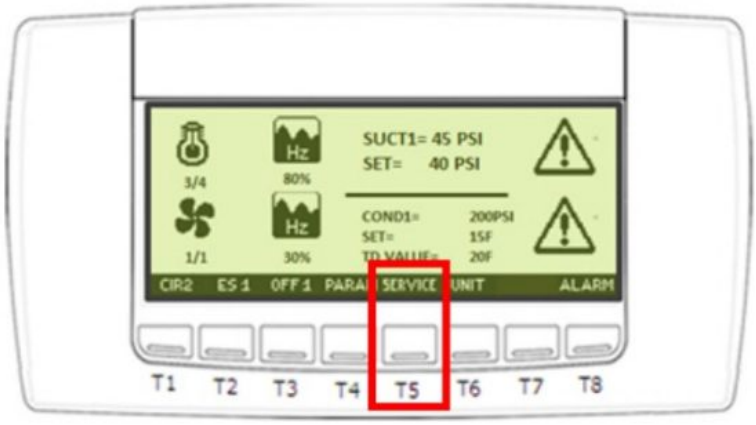

Figure 6 - Service Menu

Analog Outputs: Status of Analog Outputs

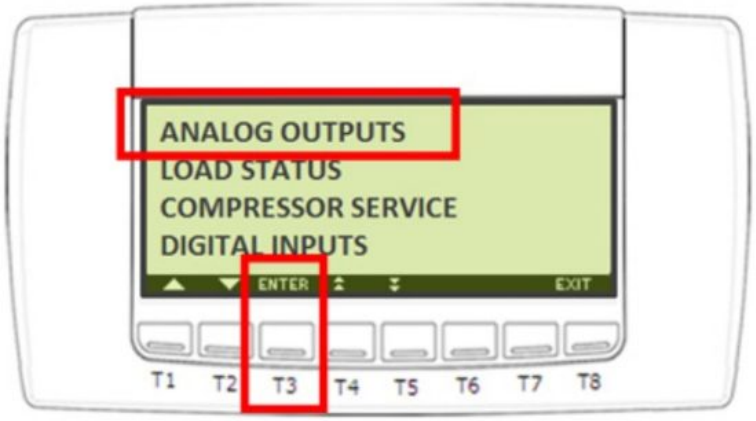

Figure 7 - Analog Outputs

Scroll to the ANALOG OUTPUTS menu using the T1/T2 keys, then press ENTER (T3).

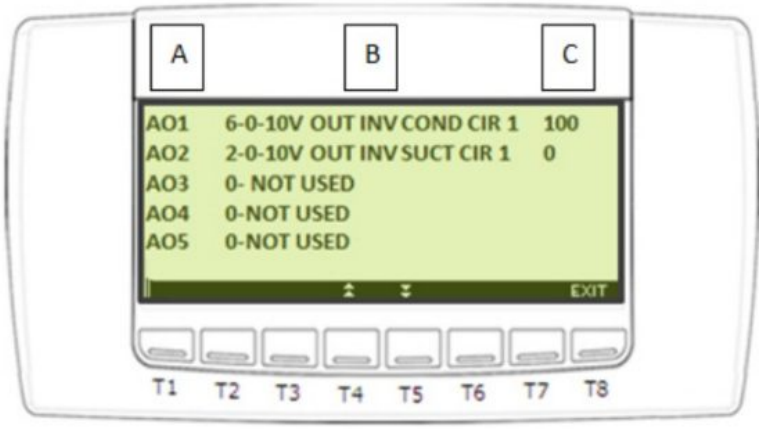

Figure 8 - Analog Outputs Menu

- Column A – Analog output designation
- Column B – Configuration of analog output
- Column C – Value of analog output (0-100%)

Load Status: Status of Relay Outputs

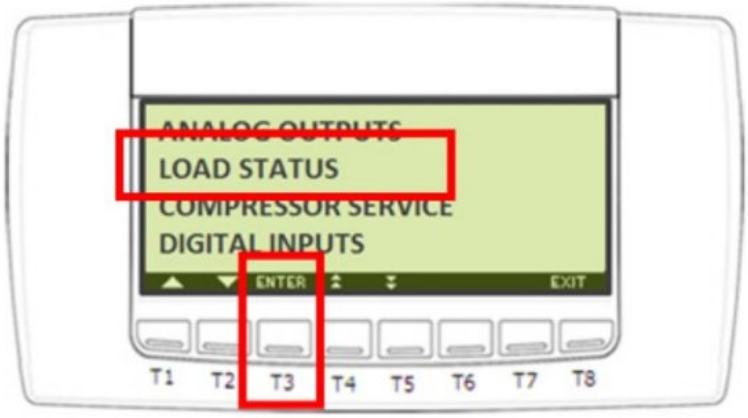

Figure 9 - Load Status

Scroll to the LOAD STATUS menu using the T1/T2 keys, then press ENTER (T3).

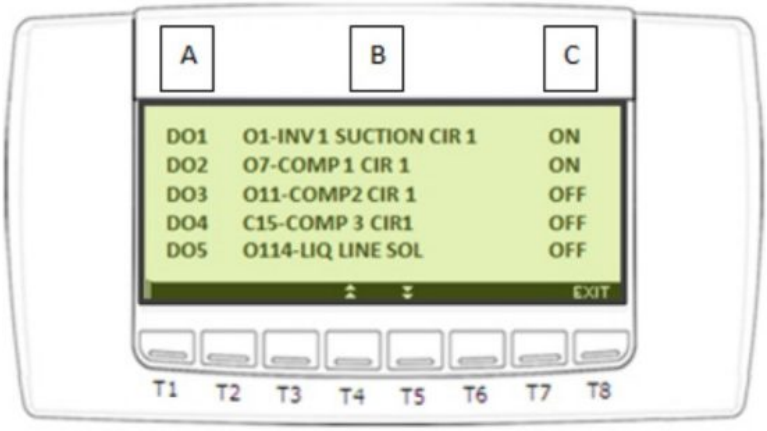

Figure 10 - Load Status Menu

- Column A – Digital output designation
- Column B – Configuration of digital output
- Column C – Value of digital output (ON/OFF)

Compressor Service:

Information Regarding Compressor Run Time and Output Status

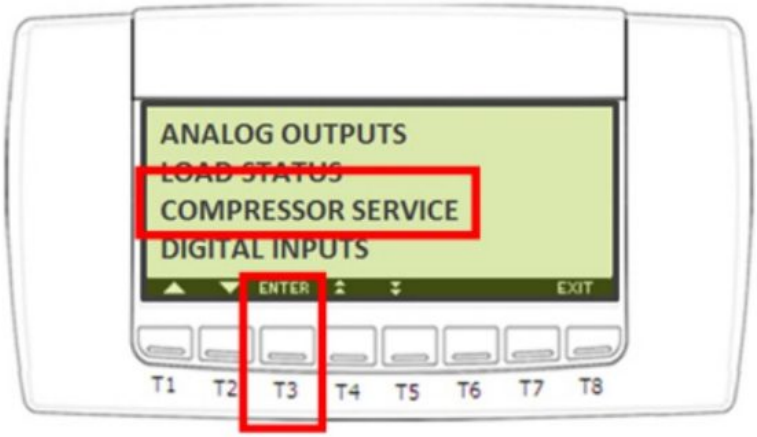

Figure 11 - Compressor Service

Scroll to the COMPRESSOR SERVICE menu using the T1/T2 keys, then press ENTER (T3).

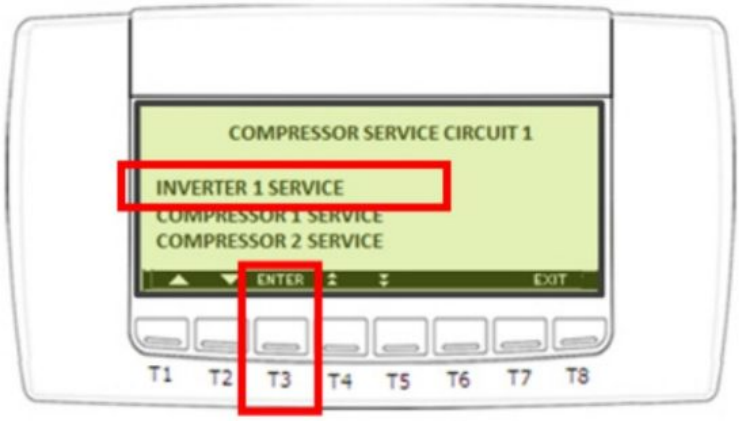

Figure 12 - Compressor Service Menu

Compressor Service information is listed for each configured compressor.

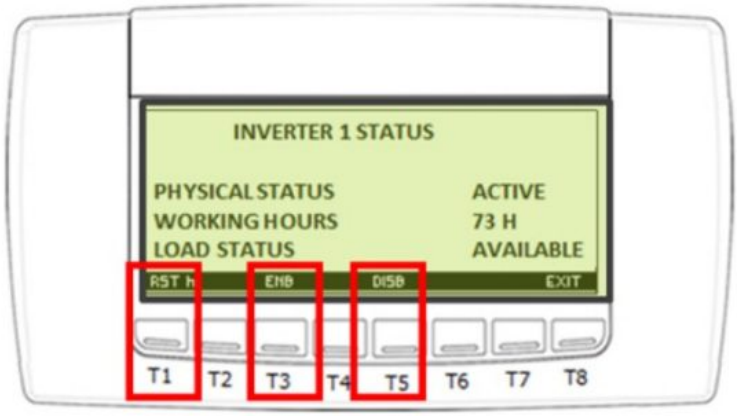

Figure 13 - Compressor Service Menu Commands

Available commands in the COMPRESSOR SERVICE menu are:

- Reset Hour Counter (T1)
- Enable Compressor (T2)
- Disable Compressor (T3)

Press and hold the corresponding button for the desired command.

Digital Inputs: Status of Digital Inputs

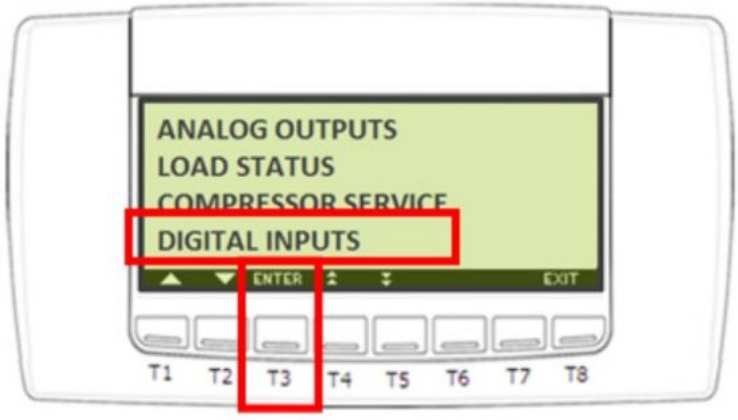

Figure 14 - Digital Inputs

Scroll to the DIGITAL INPUTS menu using the T1/T2 keys, then press ENTER (T3).

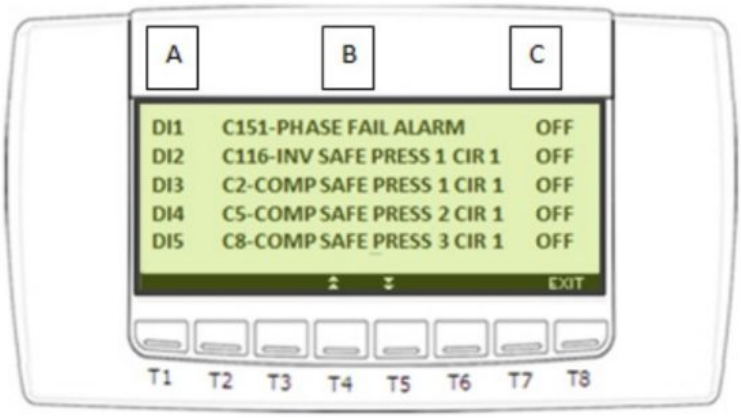

Figure 15 - Digital Inputs Menu

- Column A – Digital input designation
- Column B – Configuration of digital input
- Column C – Value of digital input (ON/OFF)

Probes: Status of Analog Inputs

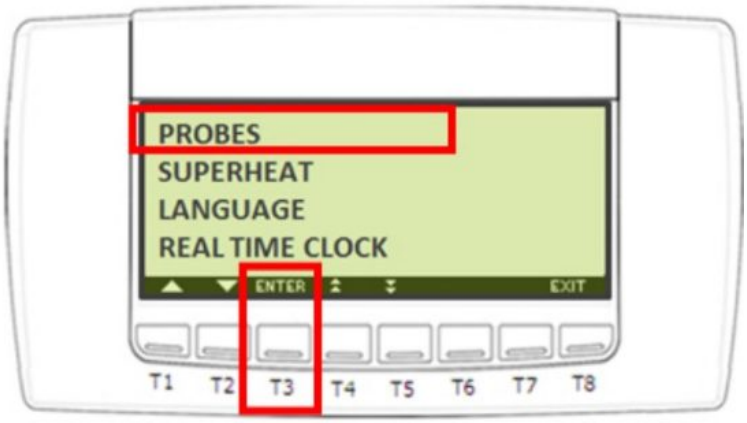

Figure 16 - Probes

Scroll to the PROBES menu using the T1/T2 keys, then press ENTER (T3).

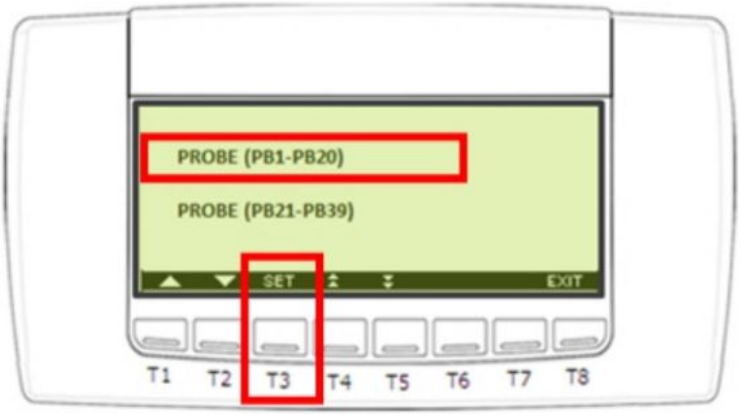

Figure - 17 - Probes Menu

Probe values are divided by two groups. Group 1 (PB1-PB20) shows probe values for inputs landed on the iPro controller.
Group 2 (PB21-PB39) shows probe values for inputs landed on XEV30 valve drivers.

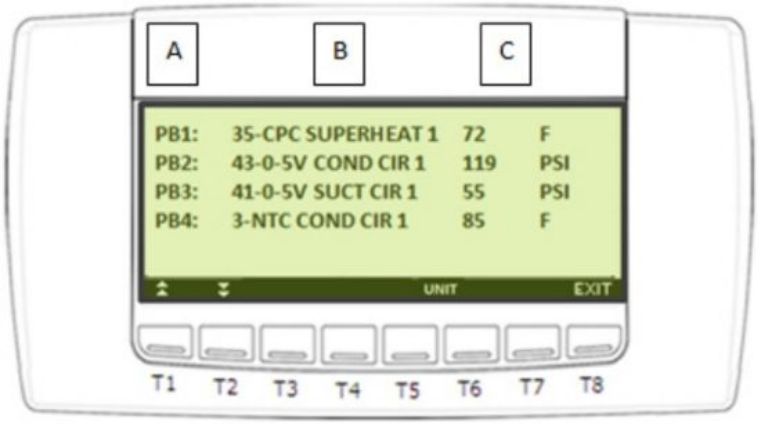

Figure 18 - Probe Values

- Column A – Analog output designation
- Column B – Configuration of analog output
- Column C – Value of analog output (0-100%)

Superheat: Displays Calculated Rack Superheat

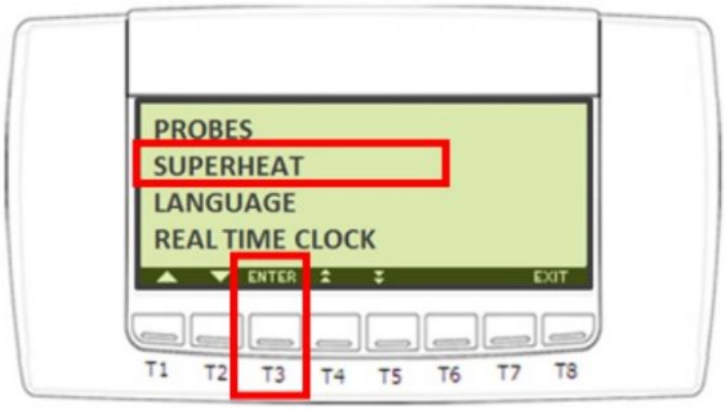

Figure 19 - Superheat

Scroll to the SUPERHEAT menu using the T1/T2 keys, then press ENTER (T3).

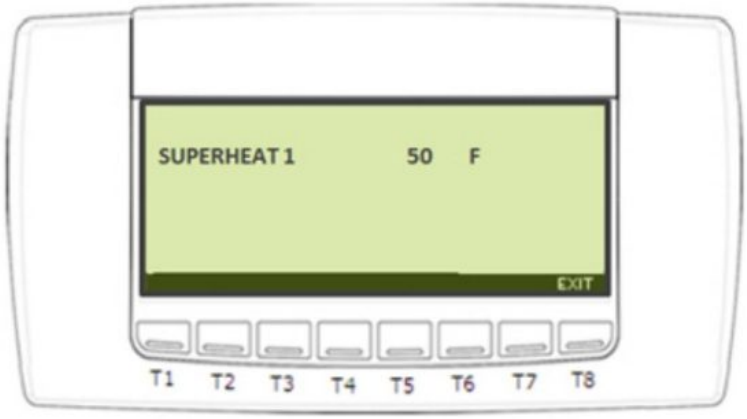

Figure 20 - Superheat Menu

Coresense Setup:

Setup of Safety Parameters Inherent to Coresense Modules

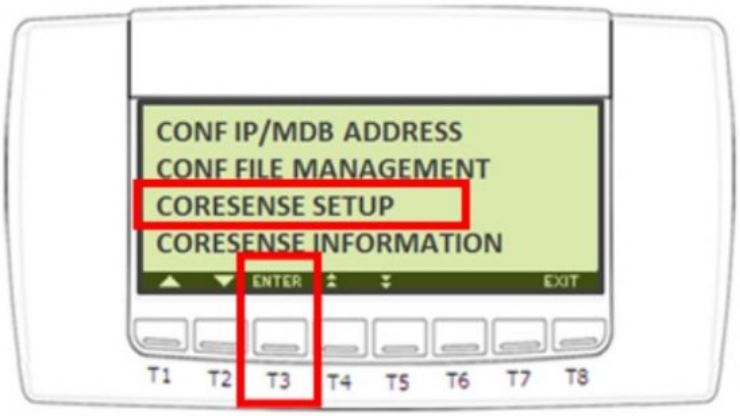

Figure 21 - Coresense Setup

Scroll to the CORESENSE SETUP menu using the T1/T2 keys, then press ENTER (T3).

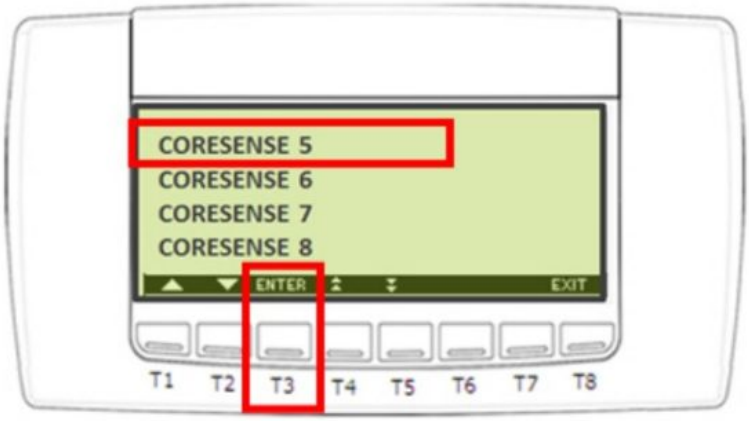

Figure 22 - Coresense Devices

The setup of CORESENSE is grouped by device address. Scroll to the desired device by using the T1/T2 keys, then press ENTER (T3).

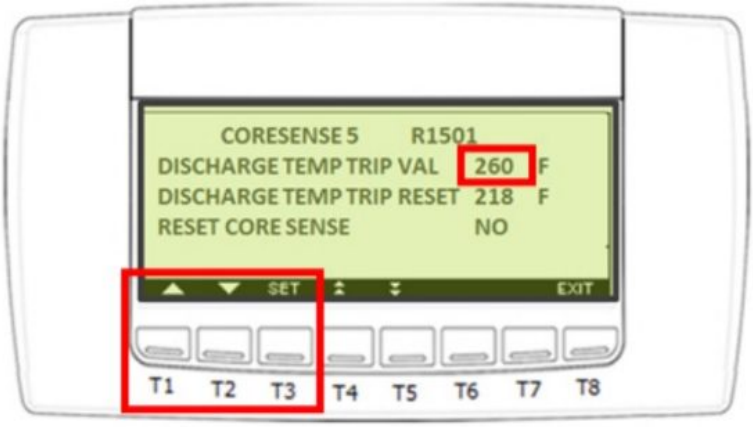

Figure 23 - Coresense Values

To change values, scroll to the desired value using the T1/T2 arrow keys, then press SET (T3). The value will flash when it is ready to be edited.
Use the arrow keys T1/T2 to change the value, then press SET (T3) to save changes.

Coresense Information: View the Status of Coresense Inputs

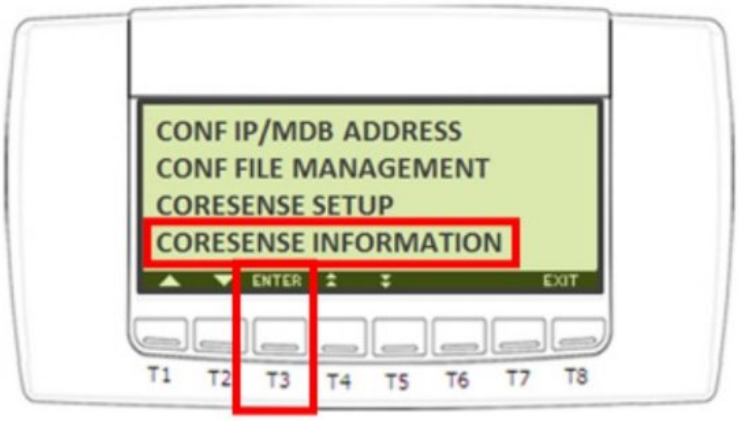

Figure 24 - Coresense Informataion

Scroll to the CORESENSE INFORMATION menu using the T1/T2 keys, then press ENTER (T3).

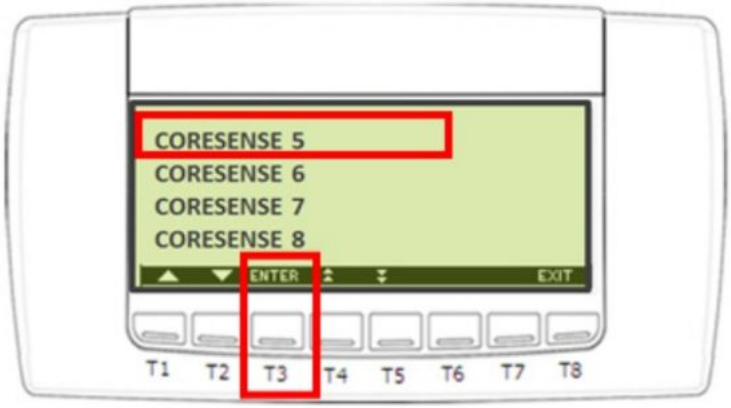

Figure 25 - Coresense Devices Information

Information related to CORESENSE is grouped by device address. Scroll to the desired device by using the T1/T2 keys, then press ENTER (T3).
CORESENSE INFORMATION displays the following input values:

- Compressor Current
- Locked Rotor Peak Current
- Discharge Temperature
- Number of Running Hours
- Number of Compressor Switching Cycles
- Total Number of Short Cycles
- Alarm Status

Analog Outputs Override: Allows for Override of Analog Outputs

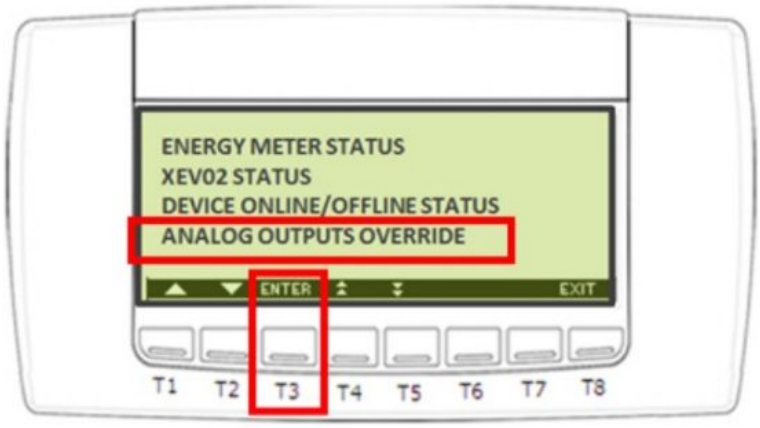

Figure 26 - Analog Outputs Override

Scroll to the ANALOG OUTPUTS OVERRIDE menu using the T1/T2 keys, then press ENTER (T3).

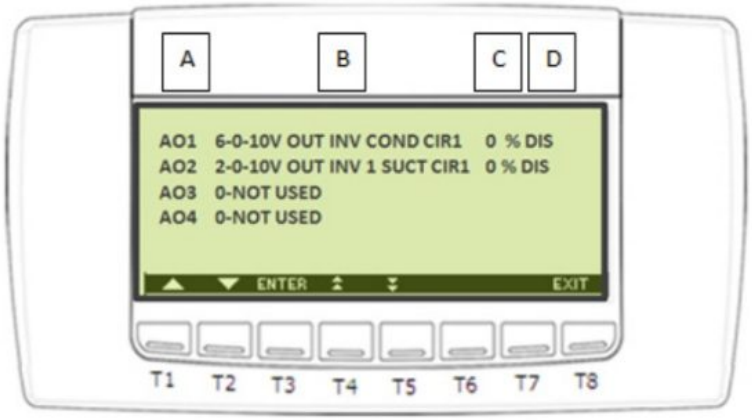

Figure 27 - Analog Outputs Override Menu

- Column A – Analog output designation
- Column B – Configuration of analog output
- Column C – Override value of analog output (0-100%)
- Column D – Override status (disabled/enabled)

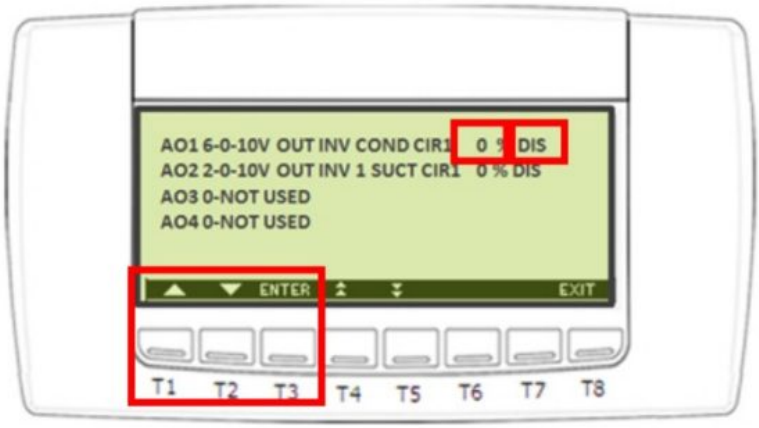

Figure 28 - Analog Outputs Override Values

To override a value, scroll to the desired value using the T1/T2 arrow keys, then press SET (T3). The value will flash when it is ready to be edited. Use the arrow keys T1/T2 to change the value, then press SET (T3) to save changes.

Digital Output Override: Allows for Override of Digital Outputs

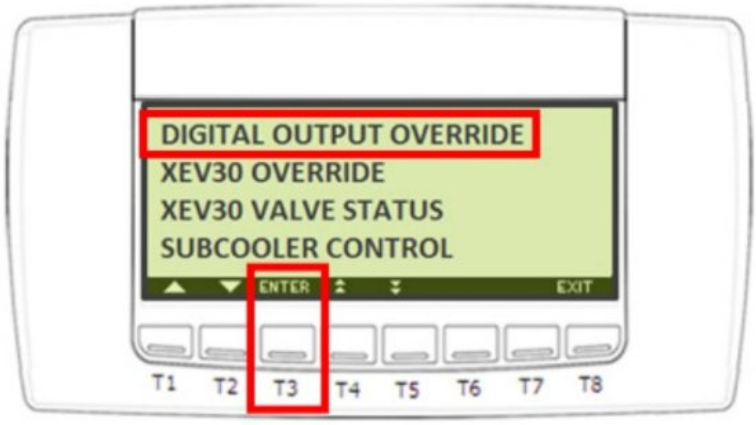

Figure 29 - Digital Output Override

Scroll to the DIGITAL OUTPUT OVERRIDE menu using the T1/T2 keys, then press ENTER (T3).

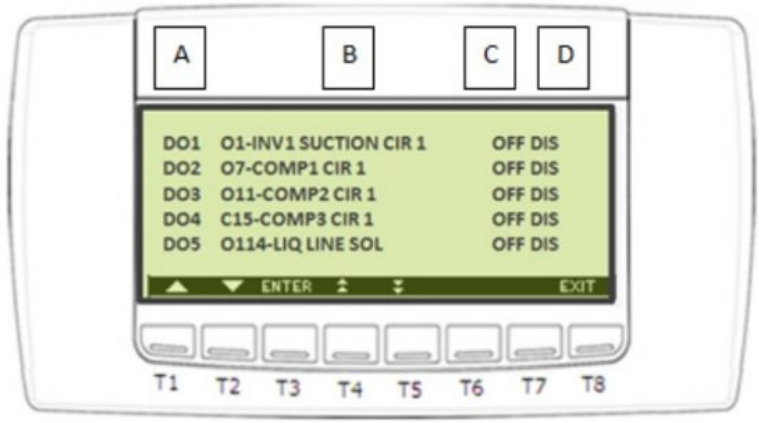

Figure 30 - Digital Output Override Menu

- Column A – Digital output designation
- Column B – Configuration of digital output
- Column C – Override value of digital output (ON/OFF)
- Column D – Override status (disabled/enabled)

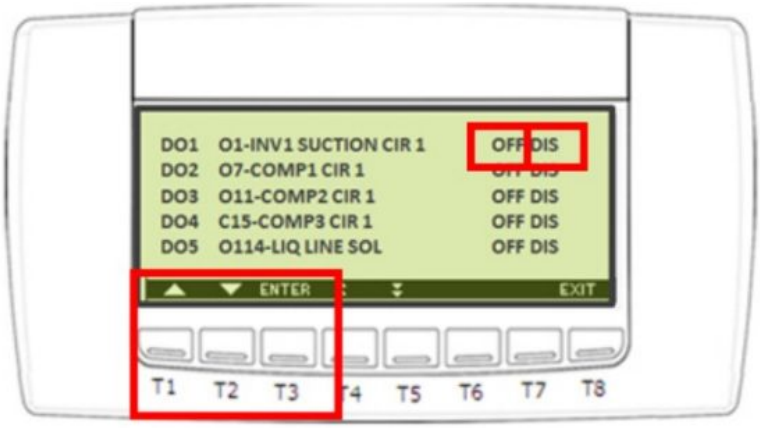

Figure 31 - Digital Output Override Values

To override a value, scroll to the desired value using the T1/T2 arrow keys, then press SET (T3). The value will flash when it is ready to be edited. Use the arrow keys T1/T2 to change the value, then press SET (T3) to save changes. Scroll to the override status using the T1/T2 keys, then press SET (T3). The value will flash when it is ready to be edited. Use the arrow keys T1/T2 to change the value from disable to enable, then press SET (T3) to save changes.

XEV30 Override: Allows for Override of XEV30 Values

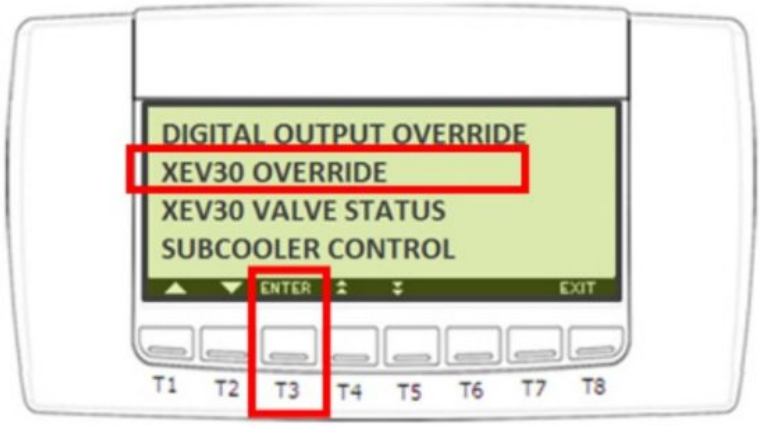

Figure 32 - XEV30 Override

Scroll to the XEV30 OVERRIDE menu using the T1/T2 keys, then press ENTER (T3).

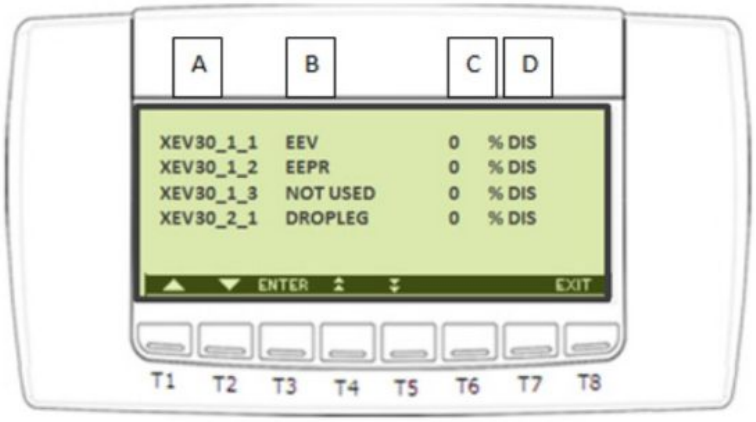

Figure 33 - XEV30 Override Menu

- Column A – XEV valve output location
- Column B – Valve assignment
- Column C – Valve override value (0-100%)
- Column D – Override status (disabled/enabled)

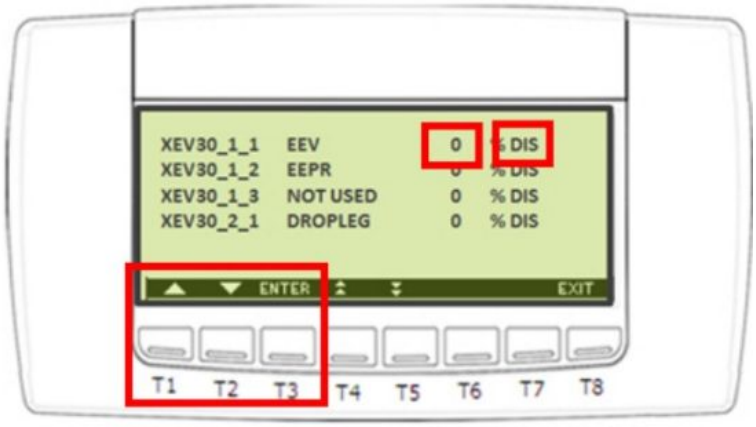

Figure 34 - XEV30 Override Values

To override a value, scroll to the desired value using the T1/T2 arrow keys, then press SET (T3). The value will flash when it is ready to be edited. Use the arrow keys T1/T2 to change the value, then press SET (T3) to save changes. Scroll to the override status using the T1/T2 keys, then press SET (T3). The value will flash when it is ready to be edited. Use the arrow keys T1/T2 to change the value from disable to enable, then press SET (T3) to save changes.

XEV Valve Status: Displays Status for XEV30 Values

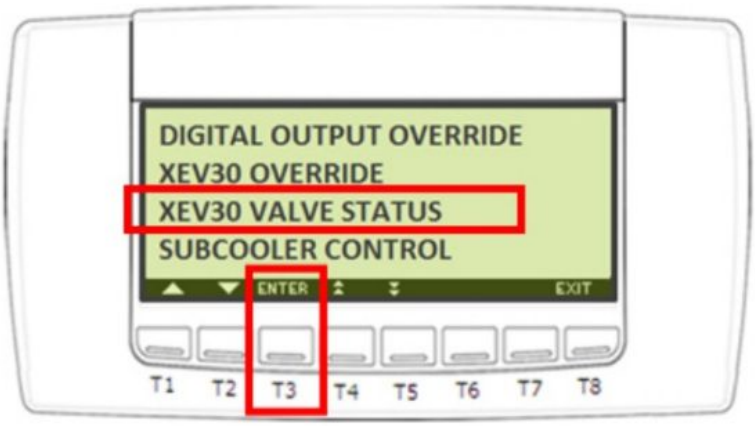

Figure 35 - XEV30 Valve Status

Scroll to the XEV30 VALVE STATUS menu using the T1/T2 keys, then press ENTER (T3).

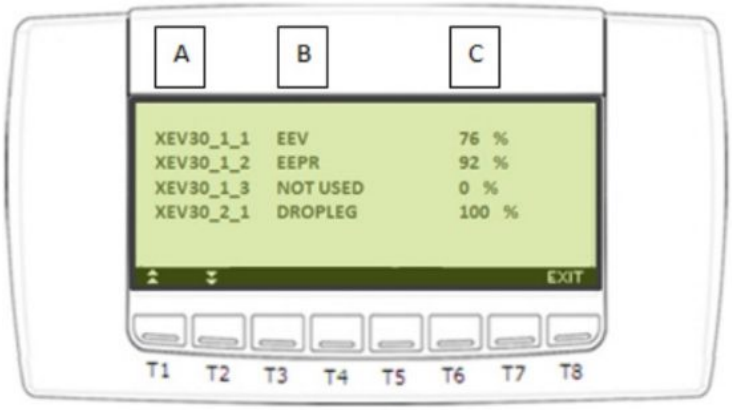

Figure 36 - XEV30 Valve Status Menu

- Column A – XEV valve output location
- Column B – Valve assignment
- Column C – Valve status (0-100%)

Subcooler Control: Allows for Viewing Status of Subcooler Operation and Input Values

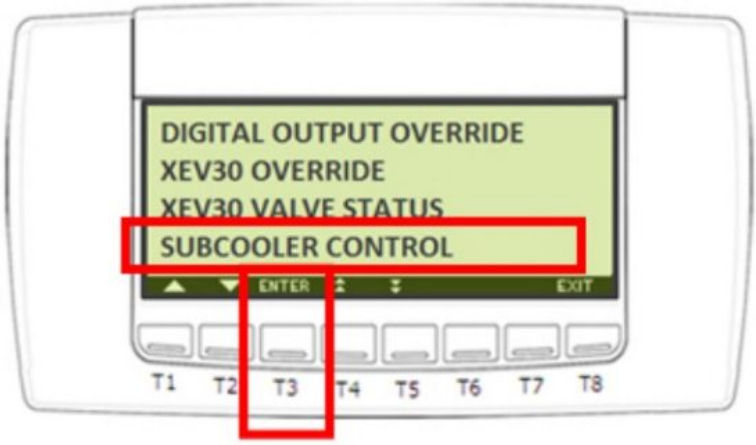

Figure 37 - Subcooler Control

Scroll to SUBCOOLER CONTROL menu using the T1/T2 keys, then press ENTER (T3).

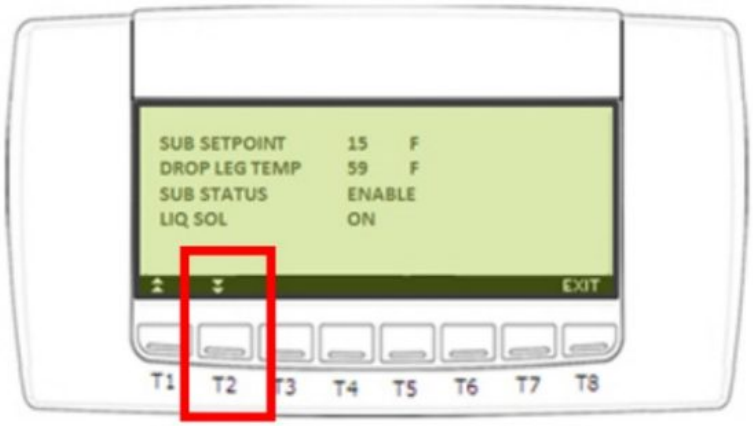

Figure 38 - Subcooler Control Page 1

Scroll to the next page by pressing T2.

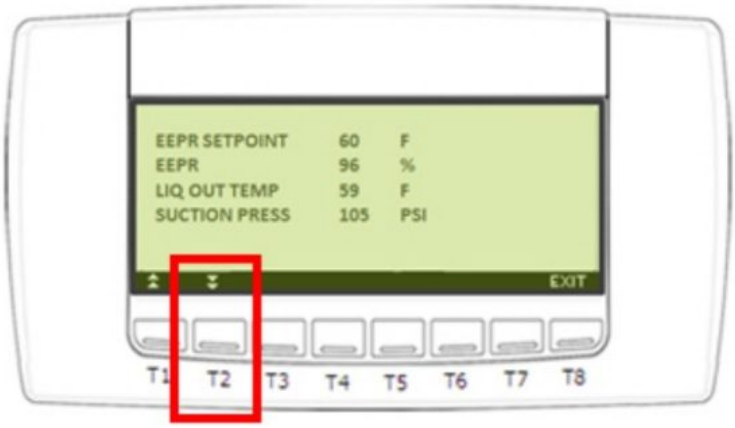

Figure 39 - Subcooler Control Page 2

Scroll to the next page by pressing T2.

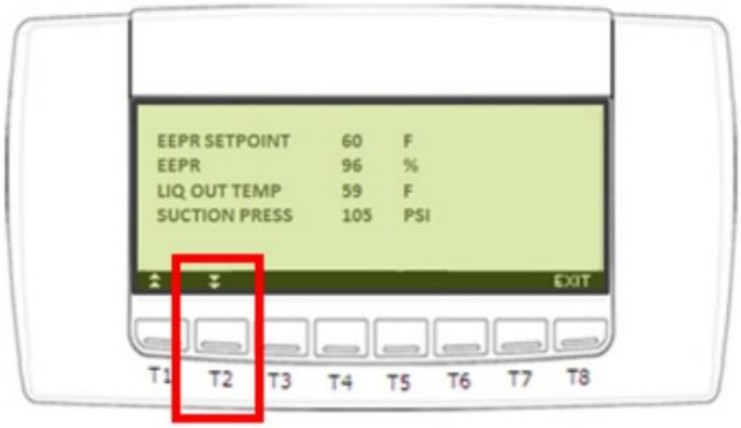

Figure 40 - Subcooler Control Page 3

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For Technical Support call **833-409-7505** or email **ColdChain.TechnicalServices@Copeland.com**
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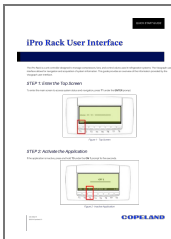
Documents / Resources

	COPELAND 026-4962 R1 iPro Rack User Interface [pdf] User Guide 026-4962 R1 iPro Rack User Interface, 026-4962 R1, iPro Rack User Interface, Rack User Interface, User Interface, Interface

References

- User Manual