

Dixell Universal XR Controller for Reach-In Applications

Universal XR Replacement Controller

Universal Images



Introduction

- The Universal - XR controller offers a 7 in 1 solution for Heating/ Medium & Low Temperature/ Defrost/ Fans/ Alarms etc. in just one control.
- It is equipped with a flashing visual alarm and buzzer. Each instrument is fully configurable through special parameters that can be easily programmed through the keypad.

Key Features

- One Control for many applications.
- Easy & intuitive programming mode.
- Easy one button detection of probe type.
- Hot key for backup and restore.
- XWEB/ Monitoring system connection capability.

Training & Development

Basic Operation Overview

Parameter “tC” Settings

Parameter	Settings	Type of Control
tC	1	Heating, On / Off thermostat
	2	Cooling, Off Cycle Defrost, Time Ended
	3	Cooling, Off Cycle Defrost, Temperature Ended
	4	Cooling, Off Cycle Defrost, Temperature Ended, Alarm Relay
	5	Cooling, Electric or Hot Gas Defrost Temperature Ended
	6	Low Temp, Elec. Or Hot Gas Defrost, Temp. Ended, Fan Control
	7	Open Map to be Configured for any application

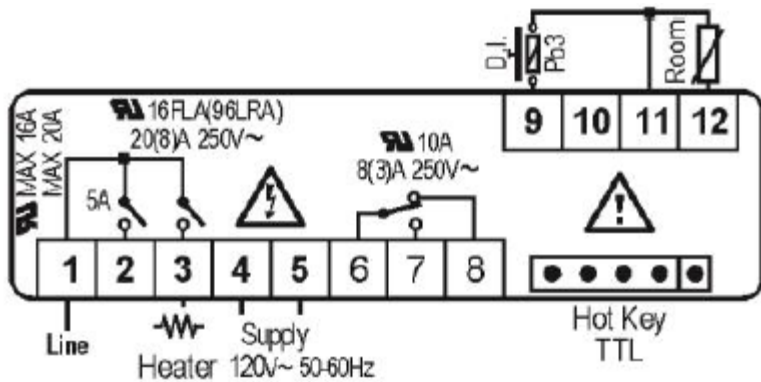
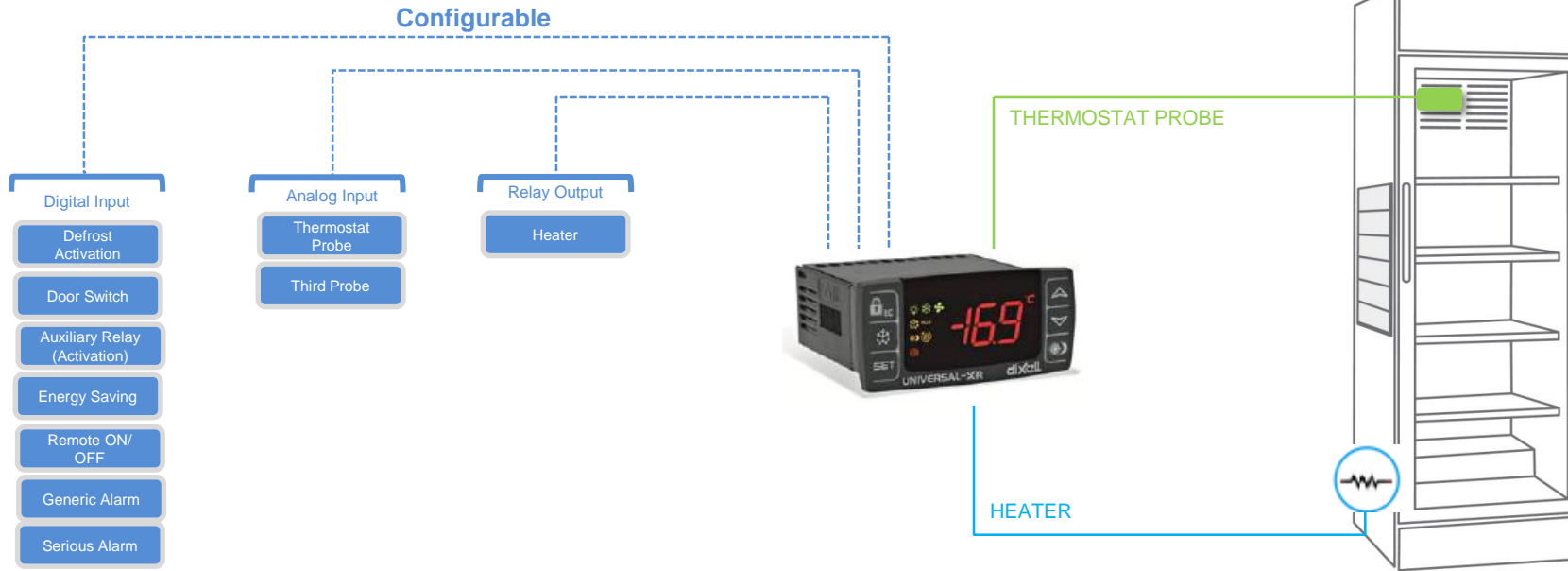
Training & Development

Basic Operation Overview

Available Probes (“tC” Settings)

Parameter	Settings	Available Probes		
tC	1	Room	-	DI/ Pb3
	2	Room	-	DI/ Pb3
	3	Room	Evaporator	DI/ Pb3
	4	Room	Evaporator	DI/ Pb3
	5	Room	Evaporator	DI/ Pb3
	6	Room	Evaporator	DI/ Pb3
	7	Room	Evaporator	DI/ Pb3

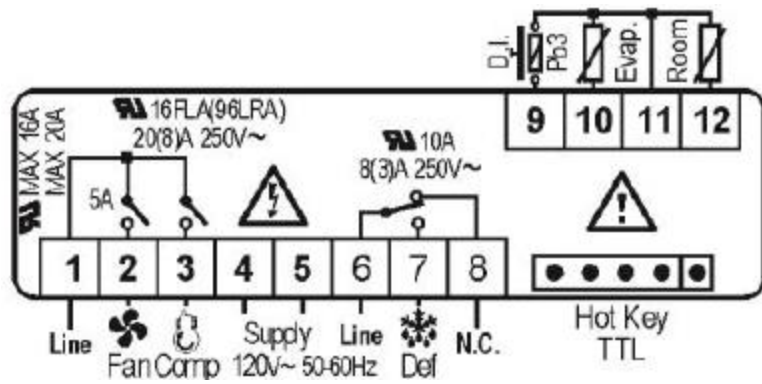
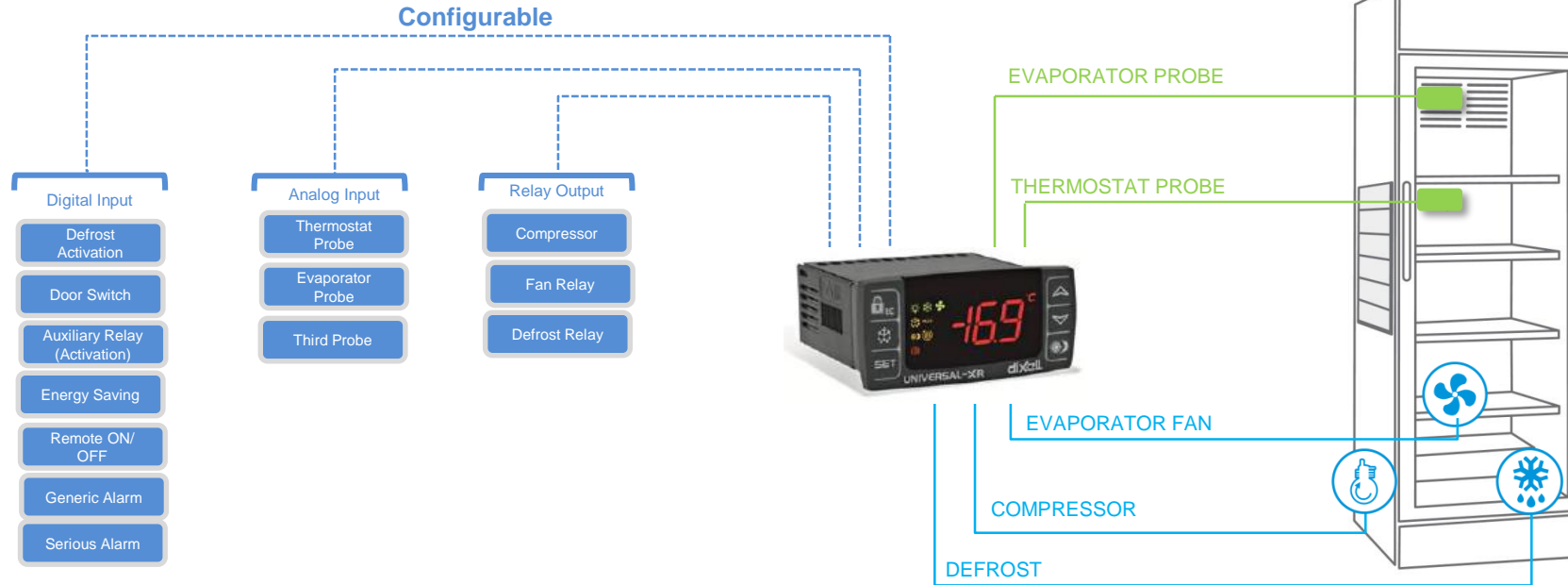
TC = 1 Heating



Features

- Hot Key Parameter Programming
- XJ485-CX Connectivity
- X-WEB Communication
- 1 Relay & 1 Probe
- On / Off Thermostat

TC = 6 Low Temp, Elec or Hot Gas Defrost, Temp Ended, Fan Control



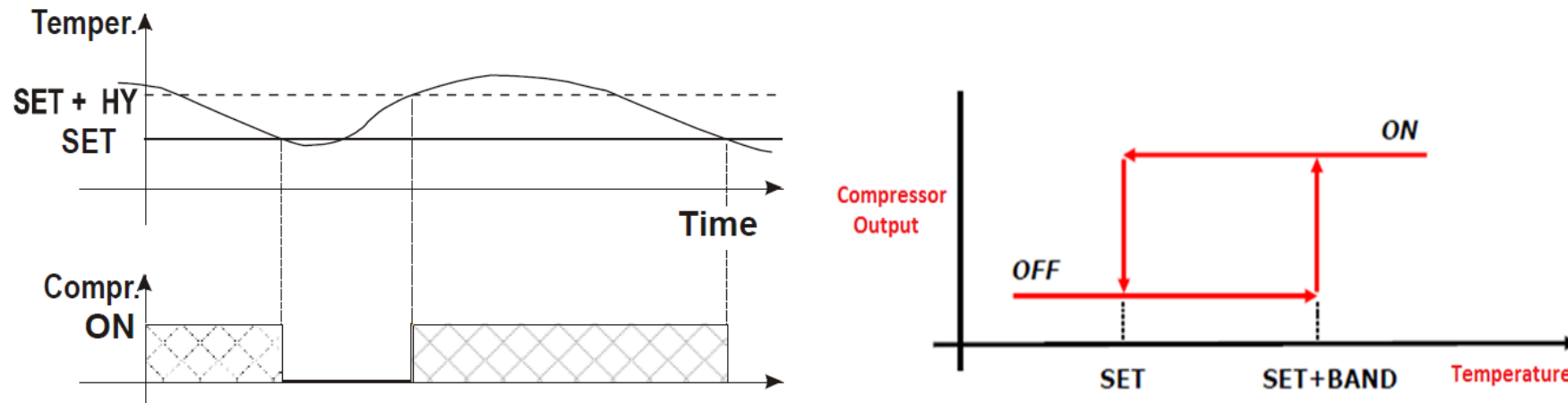
Features

- Hot Key Parameter Programming
- 3 Relays & 3 Probes
- XJ485-CX Connectivity
- Electric/Hot Gas Defrost
- X-WEB Communication

Training & Development

Basic Operation Overview

Compressor Control



- The regulation is performed according to the temperature measured by the thermostat probe with a positive differential from the set point: if the temperature increases and reaches set point plus differential the compressor is started and then turned off when the temperature reaches the set point value again.
- In case of fault in the thermostat probe the start and stop of the compressor are timed through parameters “COn” and “COF”.
- Programming can be done manually by pressing the desired buttons and by using a HOTKEY for quick and easy way.

Basic Operation Overview

Control of Evaporator Fans

- FnC=C_n – fans will switch ON and OFF with the compressor and not run during defrost.
- FnC=o_n – fans will run even if the compressor is OFF, and not run during defrost. **(Default Setting)**
- FnC=C_Y – fans will switch ON and OFF with the compressor and run during defrost.
- FnC=o_Y – fans will run continuously also during defrost.
- FSt - Fan Stop Temperature – Fans will not run until PR2 - evaporator temperature probe drops below this value **(Default Setting=46)**.

Fast Freezing

- Timed alternate setpoint to quick chill product.
- When defrost is not in progress, it can be activated by holding the UP arrow key for about 3s until ❄️ icon lights.
- The compressor (LLS) operates in continuous mode for the time set through the “CCt” parameter.
 - **(Default Setting=0.00)** Resolution = 10 minutes.
- Setpoint is adjusted by value of CCS parameter
 - **(Default Setting= -5)**
- The continuous cycle can be terminated before the end of the set time using the same activation key, press the UP arrow button for about 3s.

Basic Operation Overview

Energy Saver Mode

- Acts like a second cooling setpoint
- Activated by pressing ☀ button, or digital input
- -54 to 54 range
- HES = (**Default Setting=0**)

Other Features

- Temperature probe calibration
- Faulty Probe run cycle (**15 min ON, 30 min OFF default**)
- Display update delay after defrost available (**default to 0 min**)
- Door open alarm
- Alarm relay output (MT tC4 only)
- Second digital input configurable
- Two levels of parameter menus

Training & Development User Interface

Image

TYPE CONTROLLER MENU

DEFROST : to start a
manual defrost

SET : to display target
setpoint, in programming
mode it selects a
parameter or confirm an
operation



UNIVERSAL XR

UP : to browse the
parameter codes and
increases display value.
View most recent High
Temp recorded

DOWN : to browse the
parameter codes and
decreases display value.
View most recent Low temp
recordded

ENERGY SAVING : Allows
the control to use the HES
offset parameter to change
the set point. Can be set for
ON/OFF as well.

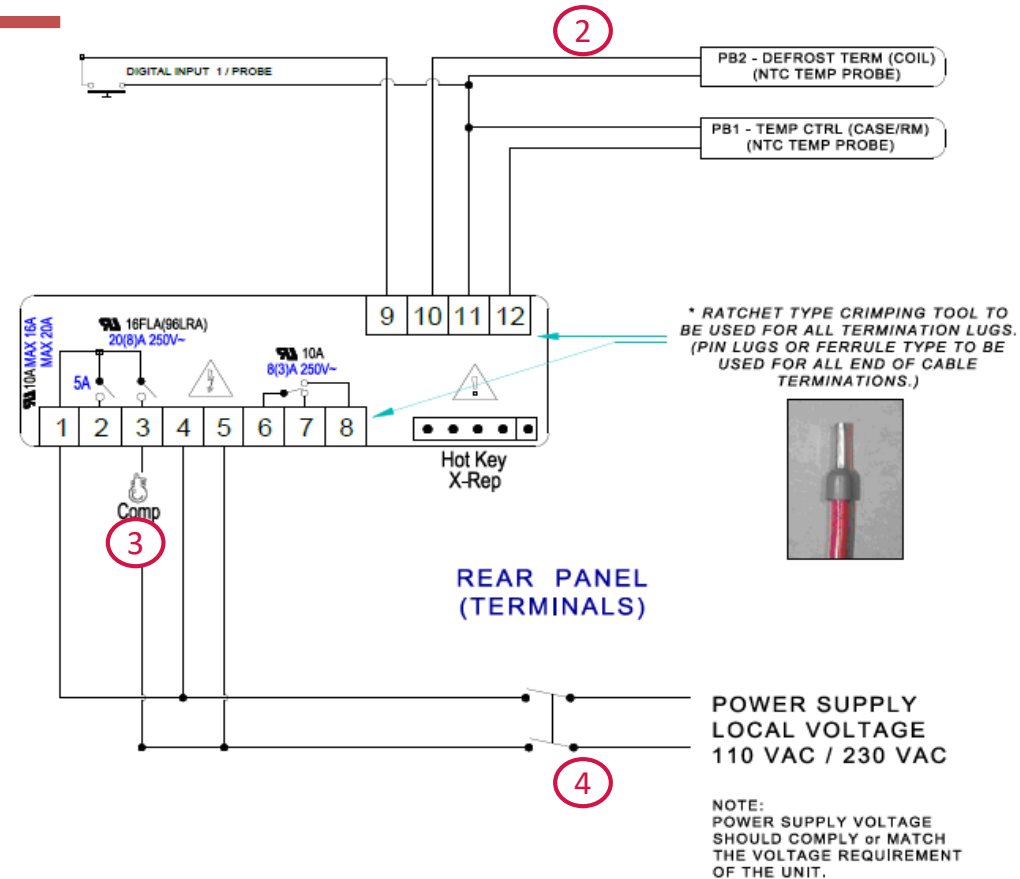
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Getting Started

Step 1C: Wiring Connection

tC = 3 : Medium Temp with Off Cycle Defrost
(Time Initiated/Temp Terminated) – 2 probes

1. Set the wiring first before powering up the device.
2. Wire the **NTC** or **PTC** probe on terminals **11** and **12** for the **room temp** and terminals **10** and **11** for the **evap temp**. You can only use one type of probe (NTC or PTC) for the room temp and evap temp.
3. Connect the **cooling** activation on terminal **3**.
4. Power up the device and proceed to Step 2.



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Getting Started Cont...

Step 2: Probe Detection

NOTE: Steps 2 – 4 should be done within 1 minute after you powered up the device.

1. Press the **DOWN** key for **3 seconds** to **automatically** detect and set the **probe**.
2. The display should briefly show **tPd**.
3. Depending on the **type of probe** you connected, the display will show **ntC** or **PtC**.



or



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Getting Started Cont...

Step 3: Setting the Type of Control (tC)

1. Press the **AUX/tC** key for 3 seconds.
2. The **tC** parameter should appear. Press **SET** key to modify the parameter.
3. Use the **UP** or **DOWN** keys to adjust to the required setting.
4. Press again the **SET** key to confirm the setting.

Note: Always set "tC" first before other programming. As you move "tC" between settings 1 to 7, all non-relevant parameters will be hidden. After setting "tC", it will be possible to modify all the other relevant parameters only.

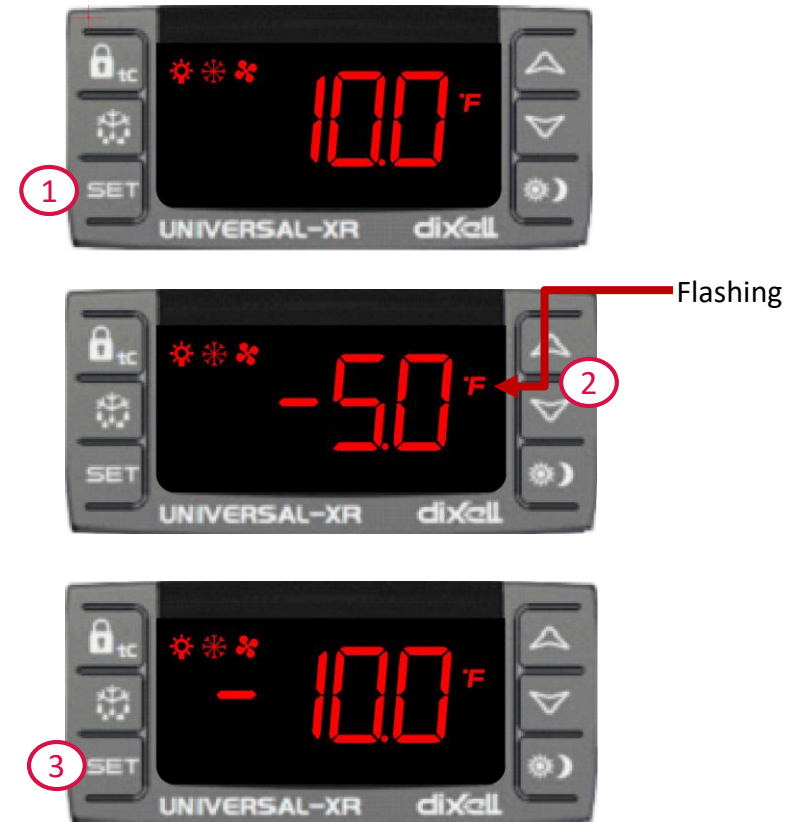


Training & Development

Getting Started Cont...

Step 4: Modify the Setpoint

1. Press the **SET** key for 3 seconds until the °C or °F is flashing.
2. Use the **UP** or **DOWN** keys to adjust the setpoint.
3. Press again the **SET** key to confirm the setpoint.



Instruction Sheet

Universal-XR60CX

The all in one control



General description of the Universal-XR

The Universal-XR has been developed to allow for the refrigeration technicians to replace any refrigeration control easily with just three SKUs stocked on their Service Truck. With three voltage options: 12/24Vac/dc, 120Vac, and 230Vac. With the press of a few buttons the control can be set up to replace such OEM controls as: XR10CX, XR10CX, XR110CX, XR12CX, XR20CX and CX, XR120CX, XR20CX, XR20CX, XR20CX, XR40CX, XR60CX, XR60CX, XR160CX and many other manufacturers' controls.

1. Quick start up procedure - Up and running in 5 easy steps

First, please be sure you've got the control that is the correct voltage; For 12 or 24 volt controls use XR60CX-AN1F1, for 120 volt applications use XR60CX-4N1F1, and for 230 volt use the XR60CX-3N1F1. This Quick Start Up section is designed to get you up and running with the minimum of fuss, just follow these 5 simple steps.

STEP	Icon	Description
STEP 1		Install the new Universal-XR, connect the correct number of probes and connect the wiring. See below: 1. Table 1: parameter TC settings, 2. Table 2: Typical connections
STEP 2		Turn on power, THEN WITHIN 1 MINUTE COMPLETE STEPS 3, 4 AND 5.
STEP 3		Press the "DOWN" key for 3 seconds and the controller will automatically recognise and adjust itself to the type of probes connected. (The display briefly shows TP# followed by uTC or PiC).
STEP 4		Press the "AUX TC" key for 3 seconds and the setting of parameter TC is displayed. Use the UP or DOWN keys to adjust to required setting then confirm by pressing SET (see table 1 below).
STEP 5		Press SET for 3 seconds until the 'C' or 'F' icon starts to flash, then adjust the SET POINT using the UP or DOWN keys, then press SET again to confirm.

NOTE: You must complete these steps within 1 minute or you will have to power the control OFF then ON to start set up again or enter the parameters as per the full instructions and adjust your TC parameter settings manually.

Table 1: parameter "TC" settings

Parameter TC	Type of control	Models replaced	Required probes
1	On / Off thermostat - Heating	XR81CX, XR10CX, XR10CX	x1
2	Off cycle defrost (time)	XR82CX, XR20CX, XR20CX	x1
3	Off Cycle defrost time initiated / temperature terminated	XR82CX, XR20CX	x2
4	Off Cycle defrost time initiated / temperature terminated, Alarm Relay	XR82CX, XR20CX	x2
5	Electrical / Hot Gas defrost, time initiated / temperature terminated	XR84CX, XR40CX	x2
6	Electrical / Hot Gas defrost, time initiated / temperature terminated + evap. Fan delay and control	XR80CX, XR60CX	x2
7	Full open map of parameters configure your own control	Your determination	1 to 7

NOTE: As you change the parameter "TC", defaults change and should be approximately correct for that application but we strongly recommend you check all parameter default values listed in the full instructions to ensure they suit your particular application and make further adjustments if necessary.

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2. Change over from F to C or vis-versa

1. Hold the Set & Down (▼) buttons, until MYi is displayed, release both buttons then hold the Set and Down (▼) buttons until Pr2 is displayed. Release the buttons.

2. Scroll with the Up (▲) button to Cr, then press and release Set. Change the 1 to 8, then press and release Set.

3. Scroll down and adjust the ALL, ALU, FST, AFH, ALM, LS, US, RES as well as the HY.

4. Let the control time out to the temp display. Adjust the Set temp by holding the Set until the C or F starts to flash, adjust the set point.

3. Typical connections - for general guidance only

Table 2: typical connections

<p>TC=1 Heating</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>	<p>TC=2 Cooling, Off Cycle Defrost, Time Ended</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>
<p>TC=3 Cooling, Off Cycle Defrost, Temperature Ended</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>	<p>TC=4 Cooling, Off Cycle Defrost, Temperature Ended, Alarm Relay</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>
<p>TC=5 Cooling, Electric or Hot Gas Defrost Temperature Ended</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>	<p>TC=6 Low Temp, Elec. Or Hot Gas Defrost, Temp. Ended, Fan Control</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>
<p>TC=7 Open Map to be configured for any application</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>	<p>Actual Label on The Control in the Box.</p> <p>For 12/24Vac/dc use terminals 4 & 3</p>

Scan this code for the full manual



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Universal XR Support

- Updated Instruction Sheet With QR Code
- Updated Technical Slides
- youtube instruction videos
- Online training module
- New Full Line Brochure
- Universal XR Display Card



DIXELL™
UNIVERSAL REPLACEMENT CONTROLLER
INCLUDES: (2) NTC 5' PROBES

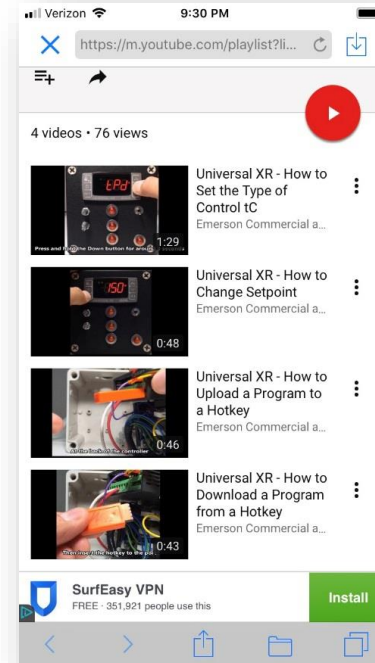
- Convenient, versatile, easy to install
- Designed to Replace over 150 Models of heating and refrigeration controllers
- Available 120V/230V and 12/24V
- Automatic Probe Detection
- 7 Pre-configured application parameters
- Saves you Time and Money

REPLACES:
XR110C, XR10C, XR10CX, XR01CX
XR120C, XR20C, XR20CX, XR02CX
XR130C, XR30C, XR30CX, XR03CX
XR140C, XR40C, XR40CX, XR04CX
XR160C, XR60C, XR60CX, XR06CX

NSF
XR50CX-UR

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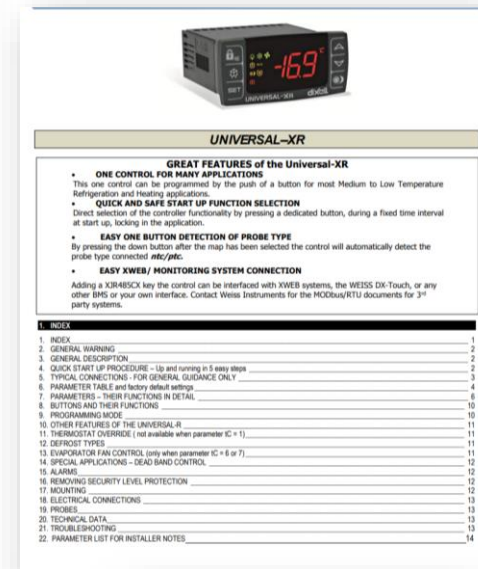
Verizon 9:30 PM
https://m.youtube.com/playlist?li...

4 videos · 76 views

- Universal XR - How to Set the Type of Control tC
Emerson Commercial a... 1:29
- Universal XR - How to Change Setpoint
Emerson Commercial a... 0:48
- Universal XR - How to Upload a Program to a Hotkey
Emerson Commercial a... 0:46
- Universal XR - How to Download a Program from a Hotkey
Emerson Commercial a... 0:43

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Install



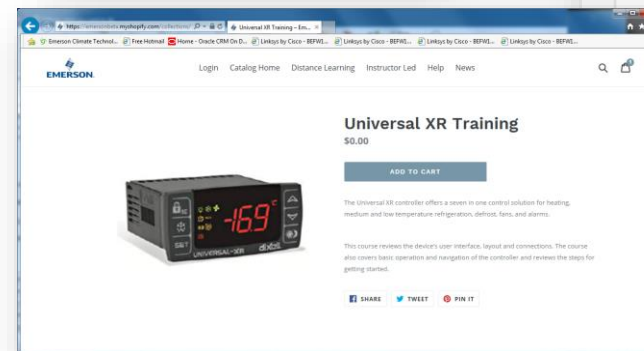
UNIVERSAL-XR

GREAT FEATURES of the Universal-XR

- **ONE CONTROL FOR MANY APPLICATIONS**
This one control can be programmed by the push of a button for most Medium to Low Temperature Refrigeration and Heating applications.
- **QUICK AND SAFE START UP FUNCTION SELECTION**
Direct selection of the controller functionality by pressing a dedicated button, during a fixed time interval at start up, taking in the application.
- **EASY ONE BUTTON DETECTION OF PROBE TYPE**
By pressing the down button after the map has been selected the control will automatically detect the probe type connected *auto/ptc*.
- **EASY WIESS/ MONITORING SYSTEM CONNECTION**
Adding a XIR45CX key the control can be interfaced with WIESS systems, the WIESS DX-Touch, or any other BMS or your own interface. Contact Weiss Instruments for the MODbus/RTU documents for 3rd party systems.

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Universal XR Training
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ADD TO CART









The Universal XR controller offers a seven in one control solution for heating, medium and low temperature refrigeration, defrost, fans, and alarms.

This course reviews the device's user interface, layout and connections. The course also covers basic operation and navigation of the controller and reviews the steps for getting started.

SHARE TWEET PIN IT



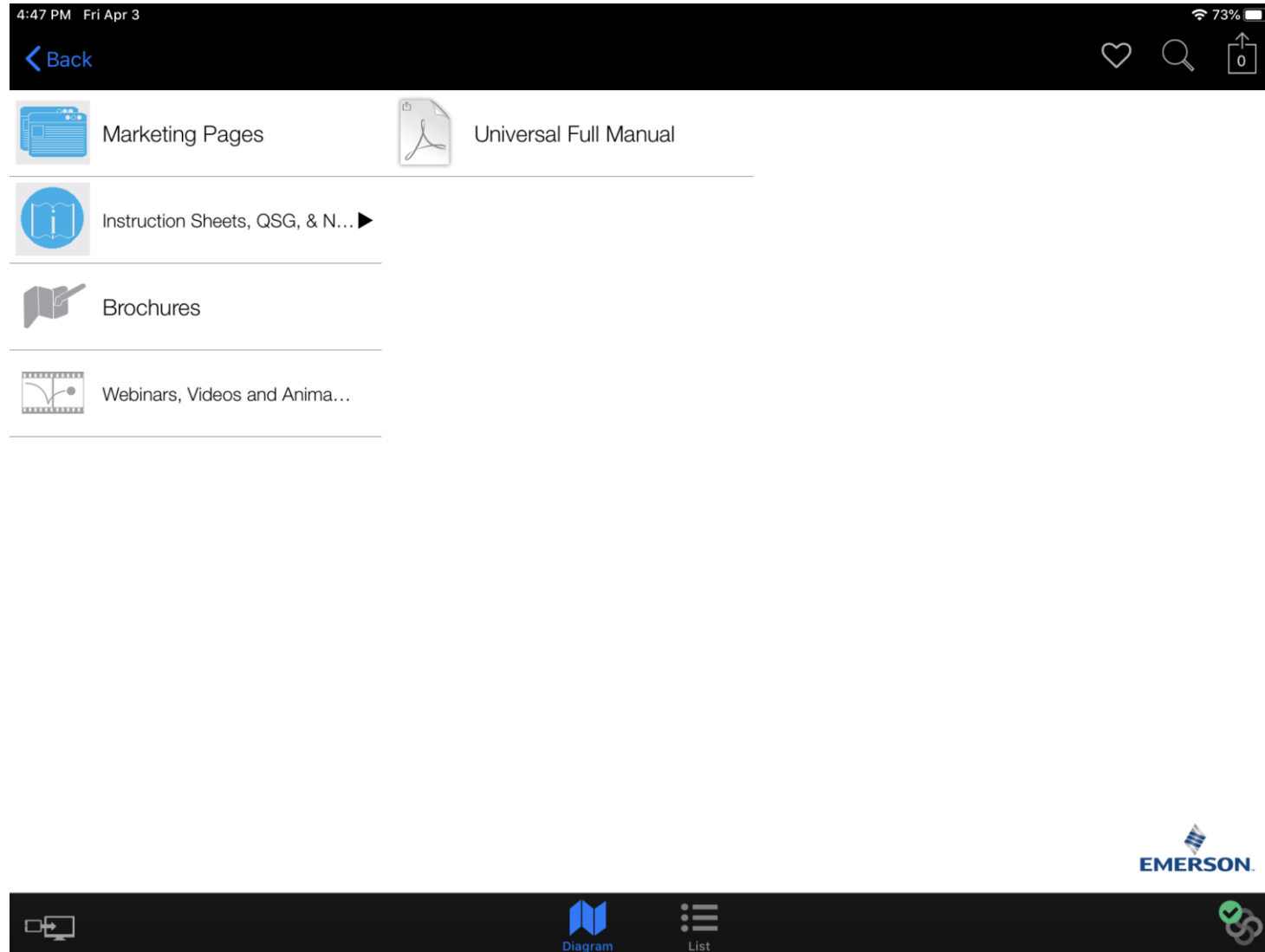
Accessories

	<p>PAN</p> <p>Pushbutton backlight panic alarm.</p>		<p>H300</p> <p>Current transformer to detect defrost.</p>
	<p>C-Box</p> <p>Wall mount Dim. 108 x 108 x 90mm</p>		<p>Door switch</p>
	<p>AZ2700</p> <p>Outboard relay SPST 30A</p>		<p>Hot Key</p>
	<p>AZ2800</p> <p>Outboard relay SPDT 30A</p>		<p>XJRS485</p> <p>TTL to Mod-Bus</p>

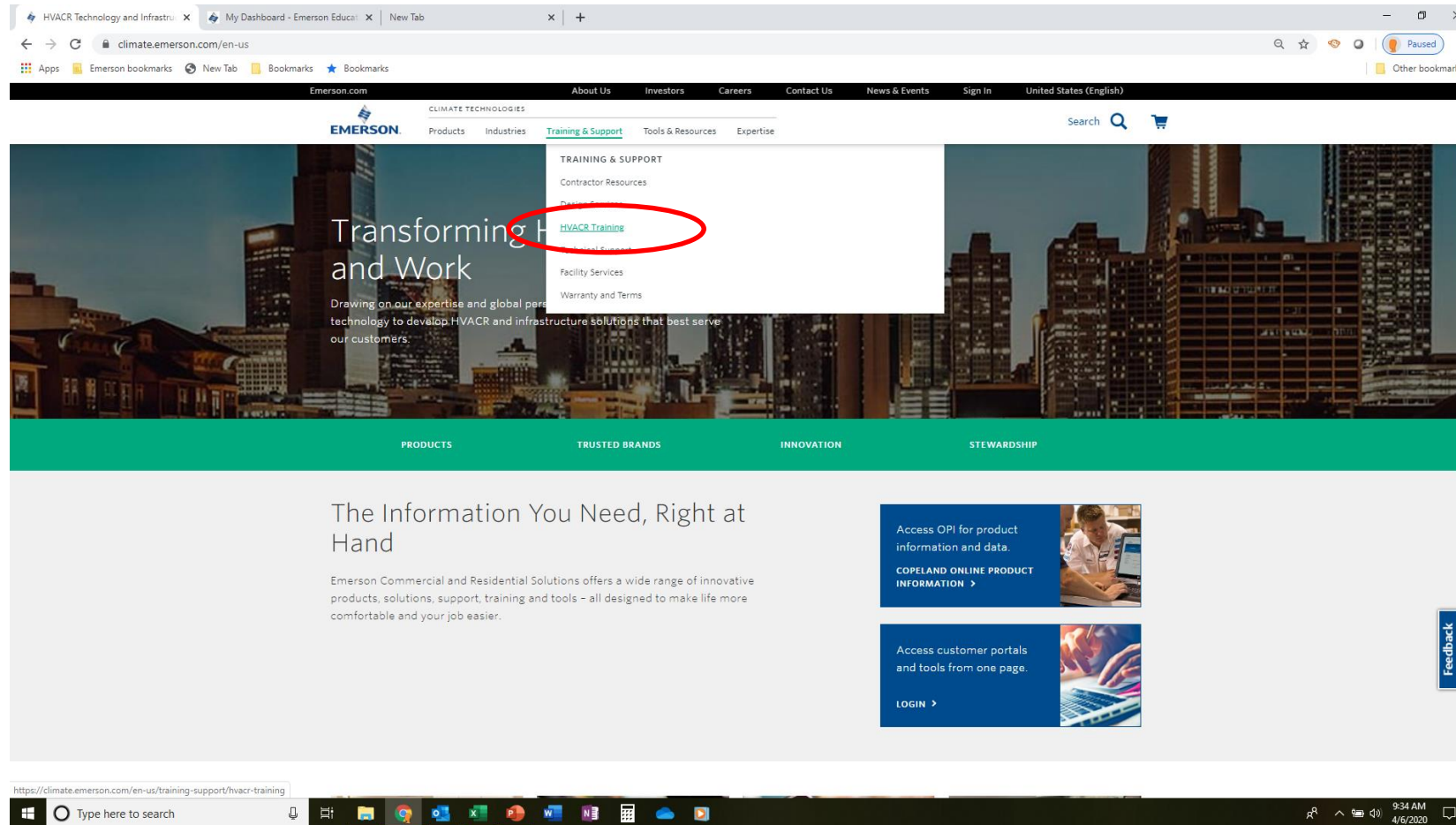
Climate Sync - StorySlab



Climate Sync - StorySlab



Self-Paced Learning



Self-Paced Learning

The screenshot shows the Emerson HVACR Training website. The main navigation bar includes links for About Us, Investors, Careers, Contact Us, News & Events, Sign In, and United States (English). The page title is "HVACR Training" with a sub-header "Emerson's comprehensive training courses allow you to keep up with changing industry dynamics while earning IACET and NATE certification." Below this is a green navigation bar with four categories: INSTRUCTOR-LED COURSES, TAKE YOUR LEARNING ONLINE, SELF-PACED TRAINING, and FILLING THE KNOWLEDGE GAP. The main content area features the heading "Stay Ahead of the Times - at Times that Fit Your Schedule" and a paragraph explaining the benefits of Emerson's training. A green button labeled "SEE CLASS SCHEDULE >" is positioned below the text. To the right, there are two blue boxes: "Instructor-Led Courses" with a "REGISTER >" button, and "Self-Paced Training Courses" with a "REGISTER >" button. The "Self-Paced Training Courses" box is circled in red. At the bottom, there is a section titled "Register Now for Free Online Learning Access". The browser's address bar shows "climate.emerson.com/en-us/training-support/hvacr-training" and the Windows taskbar at the bottom displays the date and time as 9:37 AM on 4/6/2020.

Self-Paced Learning

The screenshot displays the 'My Dashboard' interface for a user named Young Mike. The dashboard is divided into several sections:

- My Profile:** Shows the user's name 'Young Mike' and email 'mike.young@emerson.com'. There are links for 'CHANGE PASSWORD', 'MY ACTIVITIES', and 'MY PROFILE'.
- Recommended Browsers:** A message stating that content is best displayed using the most up-to-date version of Google Chrome or Internet Explorer. It includes a link to check the browser version.
- Course Catalog:** A section with a 'View Course Catalog' link.
- Subscription Code:** A field for entering a subscription code.
- Course Status:** A list of courses with search and sorting options. The courses listed are:
 - Emerson Enterprise (3 courses)
 - Emerson Electronics and Solutions (9 courses)
 - Dixell (22 courses)** - This course is circled in red and marked as 'IN PROGRESS'.
 - Compression: Copeland Compressors, Conde... (14 courses)
 - Cooper Atkins (13 courses)
 - Connect + (5 courses)

Self-Paced Learning

education.emerson.com/learn/lp/34/dixell

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Search courses, content and more...

Back to My Courses

RESUME WHERE YOU LEFT OFF

About this Learning Plan

In this learning plan, you'll review Dixell products. Products reviewed in this learning plan include:

- XWeb
- XR Series
- XM Series
- XEV
- XC Series
- XJ Series
- XW Series
- XRB
- XLH
- XLR
- Universal XR

Universal XR Controller
The Universal XR controller offers a seven in one control solution for heating, medium and low temperature refrigeration, defrost, fans, and alarms. This course ...
E-Learning

XR Prime Series Case Controller
This course provides an overview of the XR Prime Series case controller. You'll learn about: The user interface and device connections. Basic functions and ope...
E-Learning

XR E-Class Series
The XR E-Class series of case controllers are designed for medium temp and low temp refrigeration and heating applications. This course provides an overview ...
E-Learning

Type here to search

9:39 AM
4/6/2020

Self-Paced Learning

Universal XR_1.2F

Universal XR_1.2F

Menu

Resources

INTRODUCTION

Click the tabs below for an introduction to the Universal XR Controller.

Overview

Key Features and Regulation

Parts Required

Application

Universal XR Quiz **NEXT**

Type here to search

3:56 PM 4/3/2020