Crestron **C2N-DEMO** Lighting Case Reference Guide



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Crestron Demonstration Case: C2N-DEMO Lighting Case

Introduction

Features and Functions

The Crestron[®] C2N-DEMO Lighting Case (herein known as the Lighting Case) is a pre-programmed Crestron system in a portable case. It is designed with the sales person in mind to give customers a basic understanding of Crestron automation and lighting systems. The Lighting Case is programmed entirely in Crestron D3 Pro programming software to allow for a more realistic demonstration of Crestron hardware and software packages. In order for this demo to function properly, it must be used in conjunction with the Crestron C2N-DEMO Interface Case.



The Crestron C2N-DEMO Lighting Case (Opened)

Case Contents

The following table summarizes the products contained within the Lighting Case.

MODEL	DESCRIPTION	QTY
PAC2	2-Series Control Processor	1
C2ENET-2	Dual Port WAN/LAN Ethernet Card	1
CLX-1DIM8	1 – 20 AMP Feed, 8 – Controlled Circuits	1
CLT-1DIM8	Termination Block for the CLX-1DIM8	1
CAEN-2x1	Automation Cabinet with 2 Module Slots	1

The Lighting Case also ships with two cables:

- Power Cable
- Cross-over Cable

There are eight light bulbs representing loads at one end of the case. The loads are identified in the following illustration.

Loads in the Lighting Case



Setup

Complete the following steps to setup your portable Lighting Case.

1. Apply Power

Open the case lid, simply plug the supplied power cord into the side of the case (exterior face, near the large handle), and then into a standard 120 VAC wall receptacle.

NOTE: The following step describes the IP setup for a Windows[®] XP operating system. The procedure may vary slightly for other systems.

2. Set IP Address

To setup the static IP address for your laptop, go to **Start | Settings | Control Panel** and double click Network Connections.

Right click on the icon for your Ethernet adapter and select Properties.

Highlight the *Internet Protocol (TCP/IP)* selection and click the **Properties** button.

Select the radio button labeled *Use the following IP address:* and enter in the following information.

Internet Protocol (TCP/IP) Properties				
General				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
O <u>O</u> btain an IP address automatically				
● Use the following IP address:				
<u>I</u> P address:	192 . 168 . 1 . 100			
S <u>u</u> bnet mask:	255 . 255 . 255 . 0			
Default gateway:	192.168.1.1			
Obtain DNS server address automatically				
• Use the following DNS server addresses:				
Preferred DNS server:	64 . 31 . 129 . 6			
<u>A</u> lternate DNS server:	216 . 174 . 31 . 6			
Ad <u>v</u> anced				
OK Cancel				

"Internet Protocol (TCP/IP) Properties" Window

Click on **OK** to exit and save settings.

NOTE: The PAC2 utilizes a dual port Ethernet card with firewall enabled. Use this as a point for discussions regarding system security. Refer to step 4 for accessing a web page through a firewall.

3. Ethernet Cable

Connect the supplied Ethernet cross-over cable between the Lighting Case Ethernet port (marked LAN A) and the Ethernet port on your laptop. Use the Ethernet cross-over cable supplied with the Crestron C2N-DEMO Interface Case to connect the Ethernet port on the Interface Case with the Lighting Case Ethernet port (marked LAN B).

NOTE: Unless you have a hub, a standard Ethernet cable does not work when connecting the Lighting Case to your laptop.

4. Web Page

Open Internet Explorer on your laptop and type in the following address: <u>http://192.168.1.2:8080</u>. The ":8080" portion allows for a specially defined path through the firewall. Use this opportunity to discuss other security features such as SSL (Secure Socket Layer).

System Functionality

This section describes each interface and how it is intended to function. This information should be useful in how you approach your sales presentation, enabling you to concentrate on the features most relevant to your customer.

Since this system was programmed in D3 Pro, it is important to understand what features are available as they apply to each interface. The first thing to examine is the way buttons can be programmed. This is defined as a "Button Model" in D3 Pro. There is a wide variety of button models available to suit particular applications. All of these models are listed with a description of how each function.

Button Models

Single Press

The single press button model provides one programmable event, meaning that when you press this button, it always does the same thing.

Single Press + Dim

The single press + dim button model adds dimming capabilities to the single press button model. If you press and release the button within 0.5 seconds, the button operates normally. If you hold the button for longer than 0.5 seconds, the button enters multi-dim mode. Once in this dimming mode, each alternate press of the button 'dims up' or 'dims down' all the lights assigned to this button. That is, each time the dim operation is activated, the lights dim in the opposite direction from the last dimming operation. If all the lights are currently off, then the lights always 'dim up'.

NOTE: Multi-dim mode is a function of a press and hold. When a hold is released, normal single press functionality resumes.

Toggle

The toggle button model has two programmable events generally referred to as the on and off events. Each one of the events can be programmed independently, but are usually programmed so that the first tap of the button turns on a light or lights to a preset level and the second press turns it or them off.

Toggle + Dim

The toggle + dim button model adds dimming capabilities to the toggle button model. If you press and release the button within 0.5 seconds, the button operates normally. If you hold the button for longer than 0.5 seconds, the button enters multidim mode. Once in this dimming mode, each alternate press of the button 'dims up' or 'dims down' all the lights assigned to the press 1 event. That is, each time the dim operation is activated, the lights dim in the opposite direction from the last dimming operation. If all the lights are currently off, then the lights always 'dim up'.

NOTE: Multi-dim mode is a function of a press and hold. When a hold is released, normal toggle functionality resumes.

Multi-Press

The multi-press button model triggers different actions each time the button is pressed, to a maximum of 10 button presses. If the button is not pressed after a specified period, a timeout event occurs and the button resets. Thus, the next button press triggers the first event. A timeout is also an event that can trigger actions. If the timeout period is set to 0 seconds, then the timeout event never occurs and the button simply cycles through each press action. By default, this button model generates momentary feedback for each press, and blinks once when the timeout event occurs.

Tap and Hold

The tap and hold button model triggers different actions depending on whether the user taps the button, or presses and holds the button for a specified 'hold time'. By default, this button model generates momentary feedback for a tap and blinking feedback for a hold.

Timeout

The timeout button model triggers one or more actions when the user presses the button, as with a single press button model. If the button is not pressed again for a specified time (as set in the timeout field) then a timeout event occurs, which also triggers actions. Pressing the button when the timer is still counting re-triggers the press event and restarts the timer. By default, this button model generates momentary feedback while the button is pressed, and blinks when the timeout occurs.

Press and Release

The press/release button model triggers one set of actions when the button is pressed and a different set of actions when it is released. In this way, you can assign actions to both the rising and falling edge of the button press signal. By default, this button model generates momentary feedback.

Master Raise/Lower

A master raise or lower button model raises or lowers all the lights associated with the last button that was pressed on the keypad.

Learnable Lighting

Learnable lighting is a button model modifier. The toggle and single press have this option that allows the end user to dynamically change and resave the lighting levels programmed to the press event. To use this feature, simply manually adjust light levels for a given scene. Then press and hold the scene button that has learnable lighting selected.

Feedback Types

In addition to button models, each model also has selectable feedback types. Some feedback types are applicable to all button models while others are more specific.

Always On

The button's feedback is always active (e.g., LED is always illuminated).

Always Off

The button's feedback is always inactive (e.g., LED is never illuminated).

Momentary

The button's feedback is active while the button is being pressed and inactive when the button is released.

On when ANY light in preset is ON

The button's feedback is active if any of the lights assigned to the button's press or tap event are above 0%.

On when ALL lights in preset are ON

The button's feedback is active only if all the lights assigned to the button's press or tap event are above 0%.

On when ALL lights are at PRESET LEVEL

The button's feedback is active only if all the lights assigned to the button's press or tap event are at their target values.

Linked to a device output

This type of feedback links the button's feedback directly to another device in the program. When you select a device from the *Source Device* list, the *Output Signal* list provides the digital outputs per the device. Once you select the device and output signal, the button's feedback is active for as long as that output signal is high.

Interfaces

This section reviews each interface in the system and describes the features and functions of each button press. If the button provides lighting control, these descriptions utilize the aforementioned information such as button model and feedback type. In addition to this, each button description lists the lighting load it controls in the virtual house.

NOTE: The light bulbs in the demonstration case only refer to one zone of lights in one room of the virtual house. The entire house can be monitored from the web project under the monitor selection.

NOTE: The eight light bulbs represent loads. Refer to "Case Contents" on page 2 for an illustration.

NOTE: The following abbreviations are used, if applicable. Button model is abbreviated as BM. Feedback type is abbreviated as FB.





This interface was programmed as a secondary interface for the dining room in this system. The entire virtual house can be monitored from the web page project associated with this system.

Button 1 (DINNER PARTY)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Dining Chandelier, Dining Downlights, Dining Sconces]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 2 (MUSIC)

When this button is pressed the first time, it turns on the virtual audio system. Each additional press of the button scrolls through the sources. In order to better demonstrate this function, audio files have been stored to announce what source is currently active. The audio level is adjusted from the other dining room keypad (the CNX-B8).

CNX-B4 (Master Bedroom)



This interface was programmed as a secondary interface for the master bedroom. The entire virtual house can be monitored from the web page project associated with this system.

Button 1 (LIGHTS)

[BM = Toggle + Dim, FB = Toggle, Loads = Master Bed Downlights, Master Bed Downlights2]

On press 1, this button turns on all loads to a preset level and then off again on press 2.

Button 2 (LIGHTING OVERRIDE)

[BM = Tap and Hold, FB = Connected to Relay, Loads = Relay 1 on PAC2]

When this button is pressed, the relay opens. When the button is held, the relay closes.

Button 3 (A TEMP)

This button changes the CHV-THSTAT's set point up by one degree with each press. Have your customer watch the front panel display of the thermostat or one of the graphical user interfaces as they display the same data.

Button 4 (TEMP 🔫)

This button functions the same as **TEMP**, but increments the set point down.

CNX-B6 (Bathroom)



This interface was programmed as the primary control point for the guest bathroom. The entire virtual house can be monitored from the web page project associated with this system.

Button 1 (MORNING)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Bath Vanity, Bath Downlights]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 2 (EVENING)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Bath Vanity, Bath Downlights]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 3 (VANITY)

[BM = Toggle + Dim, FB = Toggle, Loads = Bath Vanity]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 4 (DOWN LIGHTS)

[BM = Toggle + Dim, FB = Toggle, Loads = Bath Downlights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 5 (FAN)

[BM = Timeout, FB = Blink until Timeout, Loads = Bath Exhaust Fan]

When this button is pressed, the load turns on until the timeout occurs at which point the load shuts off. If the button is pressed before the timeout occurs, the timer resets.

Button 6 (ALL OFF)

[BM = Single Press, FB = Momentary, Loads = Bath Vanity, Bath Downlights]

When this button is pressed, it turns all loads off over a defined period.

CNX-B8 (Dining Room)



This interface was programmed as the primary control point for the dining room. The entire virtual house can be monitored from the web page project associated with this system.

Button 1 (DINNER PARTY)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Dining Chandelier, Dining Downlights, Dining Sconce]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 2 (CHAND)

[BM = Toggle + Dim, FB = Toggle, Loads = Chandelier]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 3 (SCONCE)

[BM = Toggle + Dim, FB = Toggle, Loads = Dining Sconce]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 4 (DOWN LIGHTS)

[BM = Toggle + Dim, FB = Toggle, Loads = Dining Downlights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 5 (MUSIC)

This button toggles the audio system for the dining room on and off. The feedback LED illuminates when the audio system is active.

Button 6 (VOL)

This button increases the volume level of the virtual audio system. The feedback LED illuminates only while the button is pressed.

Button 7 (SOURCE)

This button cycles through the various virtual audio sources. The feedback LED illuminates only while the button is pressed. Audio WAV files are triggered with the selection of each new source. This demonstrates how even a simple interface such a keypad can give detailed feedback information.

Button 8 (VOL -)

This button decreases the volume level of the virtual audio system. The feedback LED illuminates only while the button is pressed.



CNX-B12 (Master Bathroom)

This interface was programmed as the primary control point for the master bathroom. The entire virtual house can be monitored from the web page project associated with this system.

NOTE: The CNX-B12 is designated for the master bathroom and the CNX-B2 is designated for the dining room. Both are ganged together in the case to conserve space and to demonstrate how two keypads can be mounted together.

Button 1 (MORN)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Bath Vanity, Bath Ceiling Lights, Bath Downlights]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 2 (DOWN)

[BM = Toggle + Dim, FB = Toggle, Loads = Bath Downlights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 3 (NOON)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Bath Vanity, Bath Ceiling Lights, Bath Downlights]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 4 (VANITY)

[BM = Toggle + Dim, FB = Toggle, Loads = Bath Vanity]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 5 (EVEN)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Bath Vanity, Bath Ceiling Lights, Bath Downlights]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 6 (CLOSETS)

[BM = Toggle + Dim, FB = Toggle, Loads = Bath Ceiling Lights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 7 (RELAX)

[BM = Single Press / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Bath Vanity, Bath Ceiling Lights, Bath Downlights]

When this button is pressed, it turns on all loads to a preset level over a defined period.

Button 8 (FAN)

[BM = Timeout, FB = Blink until Timeout, Loads = Bath Exhaust Fan]

When this button is pressed, the load turns on until the timeout occurs at which point the load shuts off. If the button is pressed before the timeout occurs, the timer resets.

Button 9 (MUSIC)

This button toggles the audio system for the master bathroom on and off. The feedback LED illuminates when the audio system is active.

<u>Button 10 (VOL +)</u>

This button increases the volume level of the virtual audio system. The feedback LED illuminates only while the button is pressed.

Button 11 (SOURCE)

This button cycles through the various virtual audio sources. The feedback LED illuminates only while the button is pressed. Audio WAV files are triggered with the selection of each new source. This demonstrates how even a simple interface such a keypad can give detailed feedback information.

Button 12 (VOL -)

This button decreases the volume level of the virtual audio system. The feedback LED illuminates only while the button is pressed.



This interface was programmed as the primary control point for the family room. The entire virtual house can be monitored from the web page project associated with this system.

Button 1 (FRONT)

[BM = Toggle + Dim, FB = Toggle, Loads = Front Downlights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 2 (LAMP)

[BM = Toggle + Dim, FB = Toggle, Loads = Lamp]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 3 (REAR)

[BM = Toggle + Dim, FB = Toggle, Loads = Rear Downlights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 4 (FAN)

[BM = Multi-press, FB = Connected to Fan, Loads = Ceiling Fan]

This button turns on the fan and selects various speeds. The first press sets the fan to speed 4, the second press to speed 3, then to speed 2, speed 1, and finally back to the off state.

Button 5 (FAMILY)

[BM = Toggle / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Front Downlights, Rear Downlights, Lamp]

On press 1, this button turns the loads to a preset level and then off again on press 2.

Button 6 (PARTY)

[BM = Single Press, FB = On when ALL lights are at PRESET LEVEL, Loads = Family Front Downlights, Family Rear Downlights, Family Lamp, Entry

Chandelier, Bath Vanity, Bath Downlights, Breakfast Chandelier, Dining Room Lights, Hall 1 Lights, Hall 2 Lights, Front Porch]

When this button is pressed, it turns all loads to a preset level over a defined period. If it is past sunset, the front porch light illuminates as well.

C2N-DB8 (Entry)



This interface was programmed as the primary control point for the entry. The entire virtual house can be monitored from the web page project associated with this system.

Button 1 (HOME)

[BM = Single Press, FB = On when ALL lights are at PRESET LEVEL, Loads = Family Front Downlights, Family Rear Downlights, Family Lamp, Entry Chandelier, Kitchen Downlights, Kitchen Pendants, Breakfast Chandelier, Master Bed Lights, Master Bath Lights, Hall 1 Lights, Hall 2 Lights]

When this button is pressed, it turns all loads to a preset level over a defined period.

Button 2 (AWAY)

[BM = Single Press, FB = On when ALL lights are at PRESET LEVEL, Loads = ALL LOADS]

When this button is pressed, it turns all loads off over a defined period.

Button 3 (PATH)

[BM = Toggle / Learnable, FB = Toggle, Loads = Hall 1 Lights, Hall 2 Lights, Kitchen Downlights, Kitchen Pendants, Entry Chandelier]

On press 1, this button turns the loads to a preset level and then off again on press 2.

Button 4 (PORCH)

[BM = Toggle + Dim, FB = Toggle, Loads = Porch Downlights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 5 (MUSIC)

This button toggles the audio system in the common areas of the virtual home on and off. The feedback LED illuminates when the audio system is active.

Button 6 (VOL +)

This button increases the volume level of the virtual audio system. The feedback LED illuminates only while the button is pressed.

Button 7 (SRC)

This button cycles through the various virtual audio sources. The feedback LED illuminates only while the button is pressed. Audio WAV files are triggered with the selection of each new source. This demonstrates how even a simple interface such a keypad can give detailed feedback information.

Button 8 (VOL -)

This button decreases the volume level of the virtual audio system. The feedback LED illuminates only while the button is pressed.

C2N-DB12 (Entry)



This interface was programmed as the primary control point for the entry. The entire virtual house can be monitored from the web page project associated with this system.

Button 1 (DOWN)

[BM = Toggle + Dim, FB = Toggle, Loads = Downlights]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 2 (FAN)

This button turns on the fan and selects various speeds. The first press sets the fan to speed 4, the second press to speed 3, then to speed 2, speed 1, and finally back to the off state. The feedback LED illuminates whenever the fan is on.

Button 3 (LAMP)

[BM = Toggle + Dim, FB = Toggle, Loads = Lamp]

On press 1, this button turns the load to a preset level and then off again on press 2.

Button 4 (RAISE)

[BM = Master Raise, FB = Momentary, Loads = Last Selected]

Button 5 (PATH)

[BM = Toggle / Learnable, FB = On when ALL lights are at PRESET LEVEL, Loads = Bedroom Lamp, Bath Vanity, Bath Downlights, Hall 2 Downlights]

On press 1, this button turns the loads to a preset level and then off again on press 2.

Button 6 (LOWER)

[BM = Master Lower, FB = Momentary, Loads = Last Selected]

Button 7 (XM)

This button turns on the virtual audio system and selects the XM radio for the source.

Button 8 (VOL +)

This button raises the volume level of the virtual audio system.

Button 9 (MP3)

This button turns on the virtual audio system and selects the MP3 server for the source.

Button 10 (VOL -)

This button lowers the volume level of the virtual audio system.

Button 11 (CD)

This button turns on the virtual audio system and selects the CD player for the source.

Button 12 (OFF)

This button turns off the virtual audio system and deselects the current source. Discuss the possibility of this same button resetting the default volume level in the room, stopping all the transport decks, and shutting off the amplifier.

Touchpanel Interfaces

Due to the vast number of possibilities associated with touchpanel interfaces, it is not realistic to provide a detailed button-by-button overview of functionality. We trust the interfaces were designed in an intuitive self-explaining manner. Please call Bill Schafer for further explanation of system functionality.

Appendix: Factory Settings

The C2N-DEMO Lighting Case ships completely configured. In the event that the original factory settings are altered, corrupted, or erased, the following information is necessary for reconfiguring the processor in each case.

C2N-DEMO Interface Case:

- IP address is 192.168.40.11
- Subnet mask is 255.255.255.0
- Default router is 192.168.40.10

C2N-DEMO Lighting Case:

LAN A

- IP address is 192.168.1.2
- Subnet mask is 255.255.255.0
- Default router is 192.168.1.1

LAN B

- IP address is 192.168.40.10
- Subnet mask is 255.255.255.0
- Default router is 0.0.0.0

The Network Address Translator (NAT) setting for the Ethernet card in the processor is as follows:



CRESTRON	SETUP	PORTMAP	PASSWORD
PORTMAP	This page configures the NAT facility of the controller. IP traffic meant for specific ports on the WAN side may be redirected to a specific port or IP address combination on the LAN side.		
External Port	Protocol	IP Address	Internal Port
1001	Both 🕶	192 . 168 . 40 . 11	41795
8080	Both 🛩	192 . 168 . 40 . 11	80
41794	Both 🛩	192 . 168 . 40 . 11	41794
0	TCP 🛩	192 . 168 . 40 . 0	0
0	TCP 🕶	192 . 168 . 40 . 0	0
0	TCP 🕶	192 . 168 . 40 . 0	0
0	TCP 🕶	192 . 168 . 40 . 0	0
0	TCP 💌	192 . 168 . 40 . 0	0
0	TCP 🛩	192 . 168 . 40 . 0	0
0	TCP 🛩	192 . 168 . 40 . 0	0
0	TCP 🕶	192 . 168 . 40 . 0	0
0	TCP 💌	192 . 168 . 40 . 0	0
0	TCP 🕶	192 . 168 . 40 . 0	0
0	TCP 🛩	192 . 168 . 40 . 0	0
0	TCP 🛩	192 . 168 . 40 . 0	0
0	TCP 🕶	192 . 168 . 40 . 0	0
Chillins .	Apply Cancel He DISABLE NAT		

Details on NAT can be found in the latest version of the NAT Reference Guide (Doc. 6001), which can be found on the Downloads | Product Manuals page of the Crestron website (<u>www.crestron.com</u>).

Return and Warranty Policies

Merchandise Returns / Repair Service

- 1. No merchandise may be returned for credit, exchange, or service without prior authorization from CRESTRON. To obtain warranty service for CRESTRON products, contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number, and return address.
- 2. Products may be returned for credit, exchange, or service with a CRESTRON Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to CRESTRON, 6 Volvo Drive, Rockleigh, N.J., or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. CRESTRON reserves the right in its sole and absolute discretion to charge a 15% restocking fee, plus shipping costs, on any products returned with an RMA.
- 3. Return freight charges following repair of items under warranty shall be paid by CRESTRON, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

CRESTRON Limited Warranty

CRESTRON ELECTRONICS, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from CRESTRON, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touchscreen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from CRESTRON or an authorized CRESTRON dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

CRESTRON shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended, or if it has been subjected to misuse, accidental damage, modification, or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced, or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall CRESTRON be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. CRESTRON is not liable for any claim made by a third party or made by the purchaser for a third party.

CRESTRON shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, CRESTRON makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supercedes all previous warranties.

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Specifications subject to change without notice.