Crestron **V12 & V15**
V-Panel™
12″ & 15″ HD Touch Screen Displays
Operations Guide

CRESTRON®

Regulatory Compliance

As of the date of manufacture, the V12 and V15 have been tested and found to comply with specifications for CE marking.

$$C\,E$$

Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna

- Increase the separation between the equipment and receiver

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

- Consult the dealer or an experienced radio/TV technician for help

Industry Canada (IC) Compliance Statement

CAN ICES-3(B)/NMB-3(B)

Contents

V-Panel 12" and 15" HD Touch Screen Displays: V12 & V15

Introduction

Crestron[®] V-Panels™ deliver the ultimate touch screen experience, blending style and function with advanced high definition graphics. Sleek and beautiful, our V-Panel™ displays are perfectly at home sitting on a contemporary table or desktop but are equally suited for all kinds of custom installations, thanks to integral VESA mount compatibility. Complete connectivity is provided through a simple, one-wire interface that allows for long wire runs while affording an extremely clean appearance. V-Panel also supports HDCP to ensure complete compatibility with today's digital sources.

The V-Panels feature brilliant 12" SVGA (V12) or 15" WXGA (V15) displays capable of producing stunning 24-bit color graphics and video. Together with a DGE Digital Graphics Engine (sold separately), the V12 and V15 deliver elegant and powerful control solutions featuring Smart Graphics™[1], dual window HD video[1], high performance H.264 streaming video[2], onboard multimedia and web browsing, audio feedback, Rava[®] SIP Intercom[3] and built-in annotation.

For simplicity within this guide, the term "V12/15" is used except where noted.

Features and Functions

- Sleek, beautiful, versatile
- 12" (V12) and 15" widescreen (V15) touch screen display
- 800 x 600 SVGA (V12) and 1280 x 768 WXGA (V15) display resolution
- High definition 24-bit color graphics

(Continued on following page)

1. Support for Smart Graphics requires a DGE-2 (sold separately). Support for multiple video windows, high definition video, RGB/VGA, HDMI[®] and presentation output and DigitalMedia™ system integration requires a DGE-2 or DVPHD (both sold separately). Additional equipment may be required. The DGE-1 (sold separately) supports only standard definition analog video displayed in a single window and does not currently support Smart Graphics or integration with a DigitalMedia system.
2. Support for H.264 streaming video requires a DGE-2. MJPEG and Windows Media[®] Player formats are supported used a DGE-1 or DGE-2.
3. Supports Rava SIP Intercom via the DGE-2 only. Supports legacy IP Intercom as well as wired analog intercom via the DGE-1 or DGE-2. Supports push-to-talk mode only. Hands-free mode is not supported. For Rava or IP Intercom, the V12/15 must connect directly to the DGE via DM[®] CAT with no repeaters or switchers in line.

Features and Functions

(Continued)

- HDCP-ready touch screen controller
- VESA compatible mounting affords endless install options
- Tabletop tilt model features clean, modern design
- Wall mount model installs flush in shallow spaces
- Contemporary appearance blends in anywhere
- DigitalMedia™ technology minimizes the amount of visible wiring
- Digital Graphics Engine (DGE) (sold separately) installs up to 300 feet (91 meters) away[1]
- Also works with the DVPHD Digital Video Processor (sold separately) [2]
- Built-in microphone and speakers
- USB keyboard/mouse port
- Silent fanless design
- Available in white or black

Advanced Touch Screen Control

A Crestron touch screen offers an ideal user interface for controlling all the technology in a home, boardroom, classroom, courtroom or command center. Touch screens do away with piles of remote controls, cluttered wall switches and cryptic computer screens, simplifying and enhancing the technology. For controlling audio, video, lighting, shades, HVAC, security and other systems, Crestron touch screens are fully customizable with easy to use controls and icons, true feedback and real time status display, full-motion video windows and advanced navigation of digital media servers, tuners and other devices.

Sleek, Versatile Design

Our V-Panels have been designed with appearance and versatility in mind. At less than 2 inches (51 millimeters) deep, the V12/15 can be mounted virtually anywhere using a third-party VESA 75 compliant mounting bracket or stand. Tabletop tilt models (V12-TILT and V15-TILT) are offered, each supplied with its own ultra stylish, smooth tilt base to deliver a sleek looking, low profile control solution for desktops, counters and other level surfaces. Wall mount models (V12-WALL and V15-WALL) are also offered, affording the same V-Panel style and function in a thoroughly modern, yet unimposing, flush mount design.

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1. The V12/15 features a DM CAT type input. For direct connection to a DGE-1, use DM-CBL DigitalMedia cable up to 150 feet (45 meters) in length. For connection to a DGE-2, direct or via a DigitalMedia switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. For connection to a DVPHD, via a DigitalMedia transmitter or switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. A single DM Repeater (model DM-DR, sold separately) is required for lengths over 150 feet (45 meters). Deduct 20 feet (6 meters) for each V-IMCW interface module. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4546) for DM system design guidelines. It is available at www.crestron.com/manuals. The V12 and V15 include (1) V-CBL-T3 three foot (~0.9 meter) V-Cable and V-IMCW interface module and the V12-TILT and V15-TILT models include (1) V-CBL-T6 6 foot (~1.8 meter) V-Cable and V-IMCW interface module. The V12-WALL and V15-WALL models include no cable or interface module. Refer to the spec sheet for each individual product or contact your Crestron representative for complete information.
2. An Ethernet enabled control system and DM CAT interface are required for use with a DVPHD. Be advised, DVPHD does not support audio, intercom, streaming media, web browsing or other embedded PC functionality.

Digital Graphics Engine

For every V-Panel application, a DGE Digital Graphics Engine (sold separately) is required. The DGE can be installed at the central equipment location, dramatically reducing all the wiring from head end AV sources, switchers and the control network. A choice of DGEs is offered, allowing V-Panel to fit a range of applications and budgets. A single DigitalMedia cable connects the V12/15 to the DGE over a wiring distance of up to 300 feet (91 meters), affording exceptional flexibility while minimizing wiring cost and complexity.*

Smart Graphics

Crestron touch screens use Smart Graphics to deliver the ultimate user experience and the ultimate value, by enabling the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Smart Graphics, programmers can swiftly integrate fluid gesture-driven controls, animated feedback, metadata, embedded apps and full-motion video for a deeply engaging and ultra-intuitive touch screen experience.

Crestron Smart Graphics include the following enhancements:

- Cool looking graphical buttons, sliders, knobs and gauges are intuitive and fun to use.

- Kinetic effects enhance the feeling of realism with lists and toolbars that scroll with momentum at the flick of a fingertip.

- Drag and drop objects snap into place offering an easy way to switch sources.

- Dashboard widgets personalize the touch screen with clocks, weather, news and other information.

- Customizable themes allow a completely different look and feel for every user, event or season.

- Fully developed SmartObjects™ enable sophisticated control over complex devices with minimal programming.

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* The V12/15 features a DM CAT type input. For direct connection to a DGE-1, use DM-CBL DigitalMedia cable up to 150 feet (45 meters) in length. For connection to a DGE-2, direct or via a DigitalMedia switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. For connection to a DVPHD, via a DigitalMedia transmitter or switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. A single DM Repeater (model DM-DR, sold separately) is required for lengths over 150 feet (45 meters). Deduct 20 feet (6 meters) for each V-IMCW interface module. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4546) for DM system design guidelines. The V12 and V15 include (1) V-CBL-T3 three foot (~0.9 meter) V-Cable and V-IMCW interface module and the V12-TILT and V15-TILT models include (1) V-CBL-T6 6 foot (~1.8 meter) V-Cable and V-IMCW interface module. The V12-WALL and V15-WALL models include no cable or interface module. Refer to the spec sheet for each individual product or contact your Crestron representative for complete information.

Embedded PC Applications

In combination with a DGE graphics engine, the V12/15 provides everything needed to enjoy online music and videos, browse the Internet and even review digital documents without a separate computer. With Microsoft® Internet Explorer® embedded, there is full access to the entire World Wide Web including sites that use Flash® or Java®. Windows Media® Player ensures broad compatibility for playing most types of digital media. Adobe® Acrobat® Reader and Microsoft PowerPoint®, Word and Excel® document viewers complete the online experience, allowing downloading and viewing of documents and presentations.

In addition, VNC Viewer support delivers enhanced cross-platform interaction with computers over the network or Internet, allowing remote access and control of desktop applications to unleash a host of possibilities for system integration and multimedia presentation.

HD Streaming Video

High definition streaming video[1] capability makes it possible to view security cameras and other video sources over the network right on the touch screen. Native support for H.264[1] and MJPEG formats allows the TPMC-V12/15 and DGE[1] to display live streaming video from an IP camera, a streaming server (Crestron CEN-NVS200[2] or similar), a DigitalMedia switcher, or a Capture HD® system. Also, through the embedded web browser and media player, they support a wide variety of other streaming and downloadable video formats, enabling access to all kinds of content from media servers and websites like YouTube® and Netflix®[3].

HDMI and Analog Video

In addition to handling streaming video, the V12/15 can simultaneously display up to two fully scalable, full motion video windows, each supporting SD or HD video and high resolution computer signals from external sources. All connections are made at the DGE (sold separately) using conventional BNC, HDMI® and VGA type cables[4].

HDCP Support

Industry leading support for HDCP (High-bandwidth Digital Content Protection) ensures seamless compatibility with content protected DVD, Blu-ray Disc®, digital HDTV and multimedia computer sources.

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1. Support for H.264 streaming video requires a DGE-2. MJPEG and Windows Media Player formats are supported used a DGE-1 or DGE-2.
2. Item(s) sold separately.
3. Accessing Netflix content requires an active Netflix account. Refer to www.netflix.com for details.
4. Support for Smart Graphics requires a DGE-2 (sold separately). Support for multiple video windows, high definition video, RGB/VGA, HDMI and presentation output and DigitalMedia system integration requires a DGE-2 or DVPHD (both sold separately). Additional equipment may be required. The DGE-1 (sold separately) supports only standard definition analog video displayed in a single window and does not currently support Smart Graphics or integration with a DigitalMedia system.

Rava SIP Intercom

Rava SIP Intercom[1] technology enables VoIP communication between any two Rava-enabled Crestron touch screens. Rava works over Ethernet, supporting 2-way intercom, video intercom[2], and paging without requiring any special wiring. VoIP phone capability is also possible through integration of an SIP-compatible IP phone system or SIP server.

The V12/15 also supports legacy Crestron IP Intercom and Crestron Home® (CH) CAT5 wired intercom. Crestron IP Intercom enables compatibility with the C2N-IADS30X24 (sold separately) or other CH CAT5 switchers and processors.

Speakers and Microphone

Built-in front firing speakers provide clear audio for listening to multimedia and monitoring external AV sources, as well as for intercom in combination with the integrated microphone. Customized audio files can be used to add another dimension to the touch screen graphics with personalized sounds, button feedback and voice prompts.

Keyboard/Mouse Options

On-screen keyboard and mouse capabilities enable complete control of the embedded web browser and other applications and can also be used to control computers running TouchPoint® Virtual Mouse & Keyboard Software (VMK-WIN). A USB port is also provided on the V12/15, allowing for the connection of a physical keyboard and mouse.

Real Time Annotation

Whether conducting a high level boardroom meeting, training seminar or watching sports in the home theater, annotation helps put the fine point on any presentation. Built-in annotation provides the ability to illustrate thoughts on the fly, letting the user draw and write over high definition video and computer images and sketch out ideas on a whiteboard screen, without leaving the podium or a favorite chair while other viewers watch on the big screen.

Remote Annotation

Remote annotation capability allows multiple touch screen users to draw with their fingertips over the same video image or whiteboard screen, enabling enhanced interaction between several participants in a courtroom, classroom or council chamber.

Presentation Output

Through an HDMI or DigitalMedia connection at the DGE, the V12/15 screen image can be sent to additional displays, allowing videos, PowerPoint presentations, annotation and other on-screen media to be shared with a live audience[3].

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1. Supports Rava SIP Intercom as well as legacy IP Intercom. Supports push-to-talk mode only. Hands-free mode is not supported.
2. H.264 compatible IP camera required.
3. Support for Smart Graphics requires a DGE-2 (sold separately). Support for multiple video windows, high definition video, RGB/VGA, HDMI and presentation output and DigitalMedia system integration requires a DGE-2 or DVPHD (both sold separately). Additional equipment may be required. The DGE-1 (sold separately) supports only standard definition analog video displayed in a single window and does not currently support Smart Graphics or integration with a DigitalMedia system.

DigitalMedia

DigitalMedia (DM®) connectivity opens up new ways to configure a touch screen control system. For instance, using a DM switcher such as the DM-MD8X8 (sold separately), multiple V12/15 touch screens can be connected to a single DGE, providing a simple, cost effective way for multiple participants to view and control the same graphical interface. DigitalMedia also provides a versatile means for distributing touch screen content to additional displays and sound systems to serve a larger audience[1].

The V12/15 features a DM CAT type input, supporting the direction connection to a Digital Graphics Engine model DGE-1 or DGE-2 (both sold separately). It can also connect to any DM switcher or transmitter equipped with a DM CAT output. A single DigitalMedia cable carries all video, audio, Ethernet, USB, control and power signals up to 300 feet (91 meters)[2].

DVPHD Integration

In addition to the DGE-1 and DGE-2, V-Panel is also compatible with the award winning DVPHD High Definition Digital Video Processor (sold separately), enabling the display of up to eight simultaneous video windows along with HD touch screen graphics and annotation. The DVPHD supports high definition video and computer signals from a wide variety of digital and analog sources. Its DVI output connects to the V12/V15 via a DM CAT transmitter or DigitalMedia switcher[2, 3].

1. Support for Smart Graphics requires a DGE-2 (sold separately). Support for multiple video windows, high definition video, RGB/VGA, HDMI and presentation output and DigitalMedia system integration requires a DGE-2 or DVPHD (both sold separately). Additional equipment may be required. The DGE-1 (sold separately) supports only standard definition analog video displayed in a single window and does not currently support Smart Graphics or integration with a DigitalMedia system.

2. The V12/15 features a DM CAT type input. For direct connection to a DGE-1, use DM-CBL DigitalMedia cable up to 150 feet (45 meters) in length. For connection to a DGE-2, direct or via a DigitalMedia switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. For connection to a DVPHD, via a DigitalMedia transmitter or switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. A single DM Repeater (model DM-DR, sold separately) is required for lengths over 150 feet (45 meters). Deduct 20 feet (6 meters) for each V-IMCW interface module. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4546) for DM system design guidelines. The V12 and V15 include (1) V-CBL-T3 three foot (~0.9 meter) V-Cable and V-IMCW interface module and the V12-TILT and V15-TILT models include (1) V-CBL-T6 6 foot (~1.8 meter) V-Cable and V-IMCW interface module. The V12-WALL and V15-WALL models include no cable or interface module. Refer to the spec sheet for each individual product or contact your Crestron representative for complete information.

3. An Ethernet enabled control system and DM CAT interface are required for use with a DVPHD. Be advised, DVPHD does not support audio, intercom, streaming media, web browsing or other embedded PC functionality.

Applications

The following diagram shows a V12/15 in a typical application.

V12/15 in a Typical Application
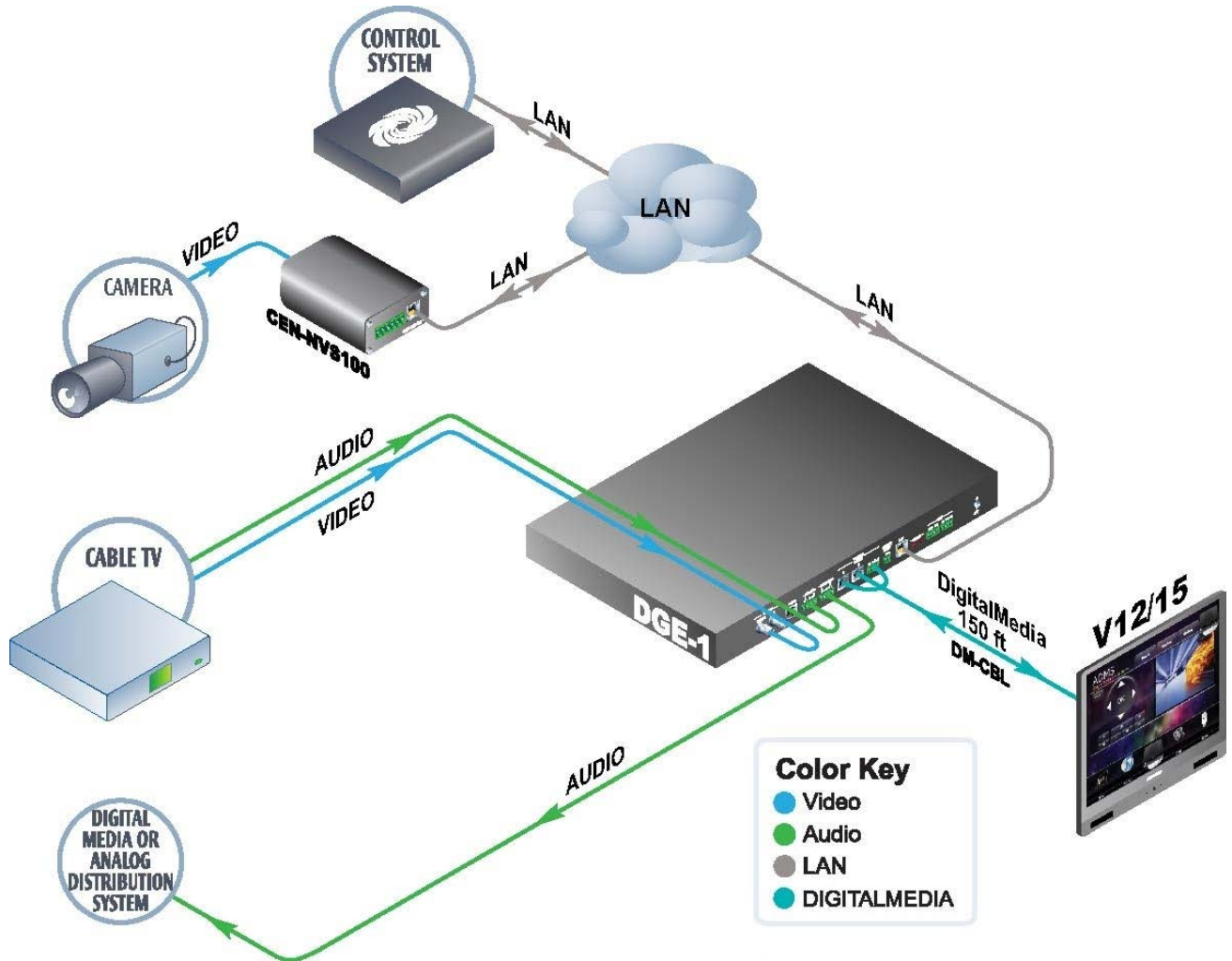
Specifications

Specifications for the V12/15 are listed in the following table.

V12/15 Specifications

SPECIFICATION	DETAILS
Touch Screen Display	
Display Type	TFT Active Matrix Color Display
Size	
V12	12.1 inch (307 mm) diagonal
V15	15.3 inch (390 mm) diagonal
Aspect Ratio	
V12	4:3 SVGA
V15	15:9 WXGA
Resolution	
V12	800 x 600 pixels
V15	1280 x 768 pixels
Brightness	
V12	360 nits
V15	360 nits
Contrast	
V12	1000:1
V15	700:1
Color Depth	24-bit, 16.7 million colors
Illumination	
V12	Backlit LED
V15	Backlit LED
Viewing Angle	
V12	±89º horizontal, ±89º vertical
V15	±88º horizontal, ±88º vertical
Touch Screen	Resistive membrane
Communications	
DigitalMedia	DM CAT, DMNet®, HDCP, EDID, 100 mbps Ethernet
USB	USB host, supports USB HID (Human Interface Device) class devices
Video	Refer to DGE-1, DGE-2 or DVPHD specifications for additional information
Input Signal Type	DM CAT
Input Resolution	
V12	800 x 600 @ 60 Hz
V15	1280 x 768 @ 60 Hz

(Continued on following page)

V12/15 Specifications (Continued)

SPECIFICATION	DETAILS
Audio	Refer to DGE-1 or DGE-2 specifications for additional information
Input Signal Type	DM CAT
Hardware Features	Built-in microphone and amplified speakers
Amplification	3 Watts x two channels
Power Requirements	
DMNet Power Usage	
V12	35 watts (1.46 amps @ 24 Vdc), normally powered from DGE (sold separately) via DMNet connection
V15	30 watts (1.25 amps @ 24 Vdc), normally powered from DGE (sold separately) via DMNet connection
Environmental	
Temperature	41º to 113º F (5º to 45º C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	
V12	120 Btu/h
V15	103 Btu/h
Enclosure	
V12	Plastic case, VESA 75 x 75 mm mountable; V12-TILT model includes tabletop tilt stand with 0º to 35º adjustable screen tilt, optional swivel mount sold separately; V12-WALL model includes WMKC-V12 wall mount conversion kit with plastic front bezel, additional mounting accessories sold separately
V15	Plastic case, VESA 75 x 75 mm mountable; V15-TILT model includes tabletop tilt stand with 0º to 35º adjustable screen tilt, optional swivel mount sold separately; V15-WALL model includes WMKC-V15 wall mount conversion kit with plastic front bezel, additional mounting accessories sold separately
Dimensions	
V12	
Height	10.22 in (260 mm)
Width	11.72 in (298 mm)
Depth	1.66 in (42 mm)
V12-TILT	
Height	10.81 in (275 mm) max at 0º tilt
Width	11.72 in (298 mm)
Depth	8.11 in (206 mm) max at 35º tilt

(Continued on following page)

V12/15 Specifications (Continued)

SPECIFICATION	DETAILS
Dimensions (Continued)	
V12-WALL	
Height	11.54 in (293 mm)
Width	13.04 in (332 mm)
Depth	2.01 in (52 mm)
V15	
Height	11.10 in (282 mm)
Width	15.33 in (390 mm)
Depth	1.85 in (47 mm)
V15-TILT	
Height	11.69 in (297 mm) max at 0º tilt
Width	15.33 in (390 mm)
Depth	8.35 in (212 mm) max at 35º tilt
V15-WALL	
Height	12.44 in (316 mm)
Width	16.67 in (424 mm)
Depth	2.20 in (56 mm)
Weight	
V12	5.0 lb (2.3 kg)
V12-TILT	9.0 lb (4.1 kg)
V12-WALL	8.3 lb (3.8 kg)
V15	7.5 lb (3.4 kg)
V15-TILT	11.5 lb (5.2 kg)
V15-WALL	11.8 lb (5.4 kg)
Available Models	
V12-B	V-Panel 12" VESA Mount HD Touch Screen Display, Black
V12-W	V-Panel 12" VESA Mount HD Touch Screen Display, White
V12-TILT-B	V-Panel 12" Tilt HD Touch Screen Display, Black
V12-TILT-W	V-Panel 12" Tilt HD Touch Screen Display, White
V12-WALL-B	V-Panel 12" Wall Mount HD Touch Screen Display, Black
V12-WALL-W	V-Panel 12" Wall Mount HD Touch Screen Display, White
V15-B	V-Panel 15" VESA Mount HD Touch Screen Display, Black
V15-W	V-Panel 15" VESA Mount HD Touch Screen Display, White
V15-TILT-B	V-Panel 15" Tilt HD Touch Screen Display, Black

(Continued on following page)

V12/15 Specifications (Continued)

SPECIFICATION	DETAILS
Available Models (Continued)	
V15-TILT-W	V-Panel 15" Tilt HD Touch Screen Display, White
V15-WALL-B	V-Panel 15" Wall Mount HD Touch Screen Display, Black
V15-WALL-W	V-Panel 15" Wall Mount HD Touch Screen Display, White
Included Accessories	
V12	
V-CBL-T-3	V-Cable Triamese Cable, 3 feet (~0.9 meters) (Included with V12 models only)
V-CBL-T-6	V-Cable Triamese Cable, 6 feet (~1.8 meters) (Included with V12-TILT models only)
V-IMCW	V-Panel Interface Module (Included with V12 and V12-TILT models only)
WMKC-V12	Wall Mount Conversion Kit for V12 (Included with V12-WALL models only)
V15	
V-CBL-T-3	V-Cable Triamese Cable, 3 feet (~0.9 meters) (Included with V15 models only)
V-CBL-T-6	V-Cable Triamese Cable, 6 feet (~1.8 meters) (Included with V15-TILT models only)
V-IMCW	V-Panel Interface Module (Included with V15 and V15-TILT models only)
WMKC-V15	Wall Mount Conversion Kit for V12 (Included with V15-WALL models only)
Available Accessories	
BB-V12	Pre-Construction Wall Mount Back Box for V12-WALL
BB-V15	Pre-Construction Wall Mount Back Box for V15-WALL
BBI-V12	Wall Mount Back Box – International Version
BBI-V15	Wall Mount Back Box – International Version
DGE-1	Digital Graphics Engine
DGE-2	Digital Graphics Engine
DM-CBL	DigitalMedia Cable
DM-CONN	DigitalMedia Cable Connector
DM-DR	DigitalMedia Repeater
MMK-V12	Mud Ring for BB-V12 or PMK-V12
MMK-V15	Mud Ring for BB-V15 or PMK-V15

V12/15 Specifications (Continued)

SPECIFICATION	DETAILS
Available Accessories (Continued)	
PMK-V12	Pre-Construction Wall Mounting Kit for V12-WALL
PMK-V15	Pre-Construction Wall Mounting Kit for V15-WALL
SMK-V15	Swivel Mount Kit for V12-TILT and V15-TILT
V-CBL-T	V-Cable Triamese Cables
V-IMCW	V-Panel Interface Module
WMKC-V12	Wall Mount Conversion Kit for V12
WMKC-V15	Wall Mount Conversion Kit for V15
WMKM-V12	Post-Construction Wall Mounting Kit with Mud Ring for V12-WALL
WMKM-V15	Post-Construction Wall Mounting Kit with Mud Ring for V15-WALL
WMKT-V12	Post-Construction Wall Mounting Kit with Trim Ring for V12-WALL
WMKT-V15	Post-Construction Wall Mounting Kit with Trim Ring for V15-WALL

Physical Description

This section provides information on the connections, controls and indicators available on the V12/15.

V12-TILT Physical View (Shown in Black)

V12-WALL Physical View (Shown in White)

V15-TILT Physical View (Shown in Black)

V15-WALL Physical View (Shown in White)

V-Panel Physical View (Rear Showing Connector Ports)

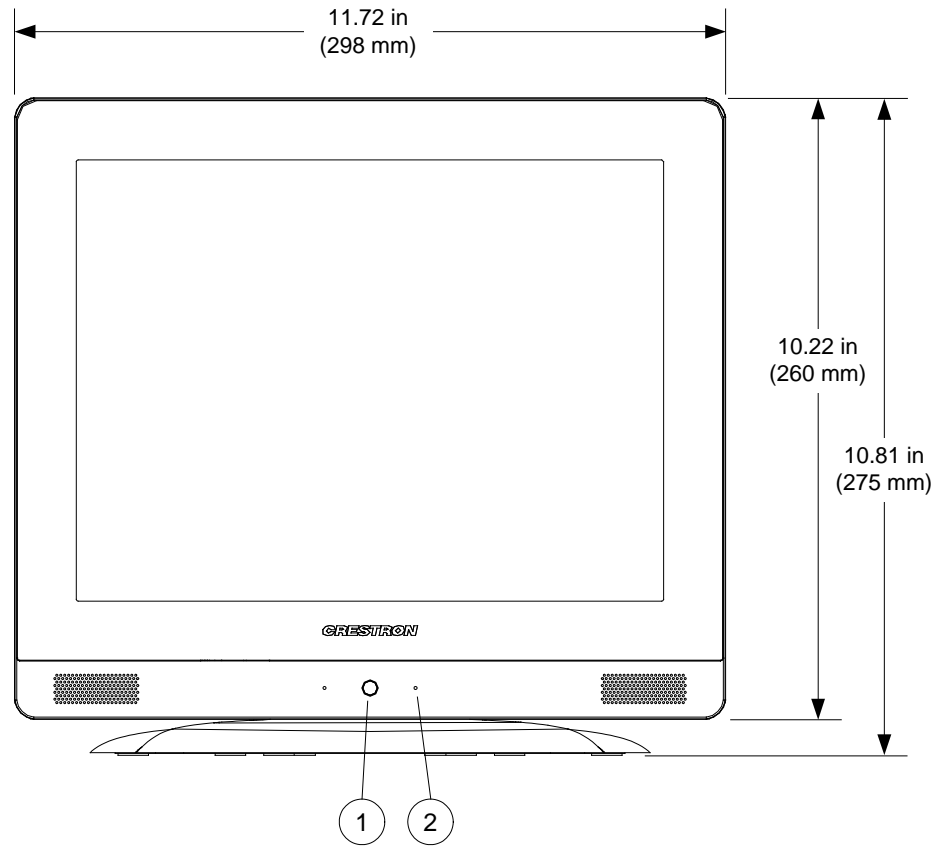*V12 Overall Dimensions (Front and Side Views)*

11.72 in
(298 mm)

10.22 in
(260 mm)

1.66 in
(42 mm)
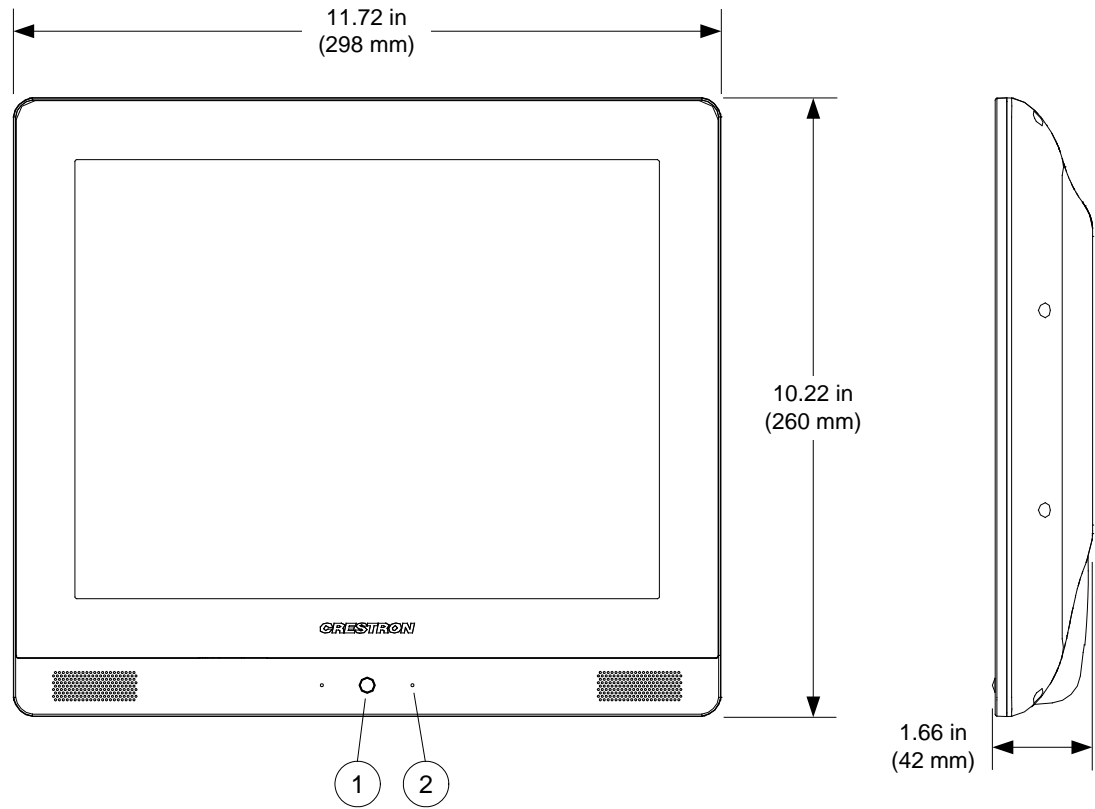
V12 Overall Dimensions (Rear View)
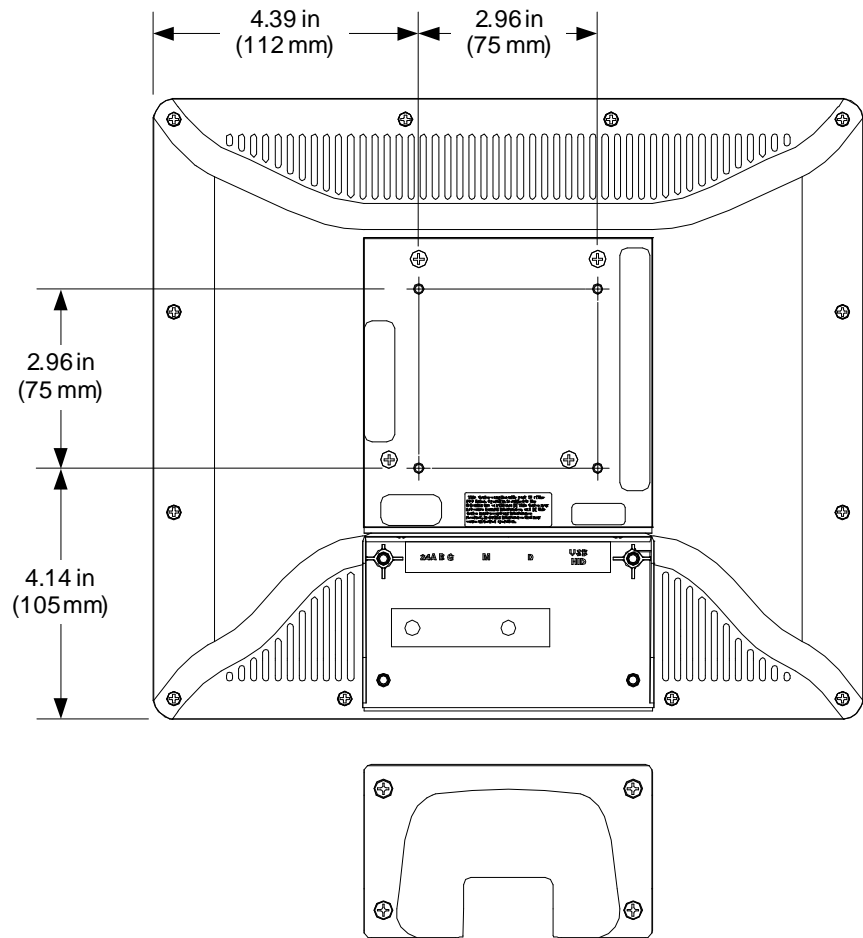
NOTE: In the illustration above, the V12 is shown with the rear cover removed. When making cable connections to the V12, first removing the four screws holding the cover in place, then remove the cover. Replace the cover when connections have been made.
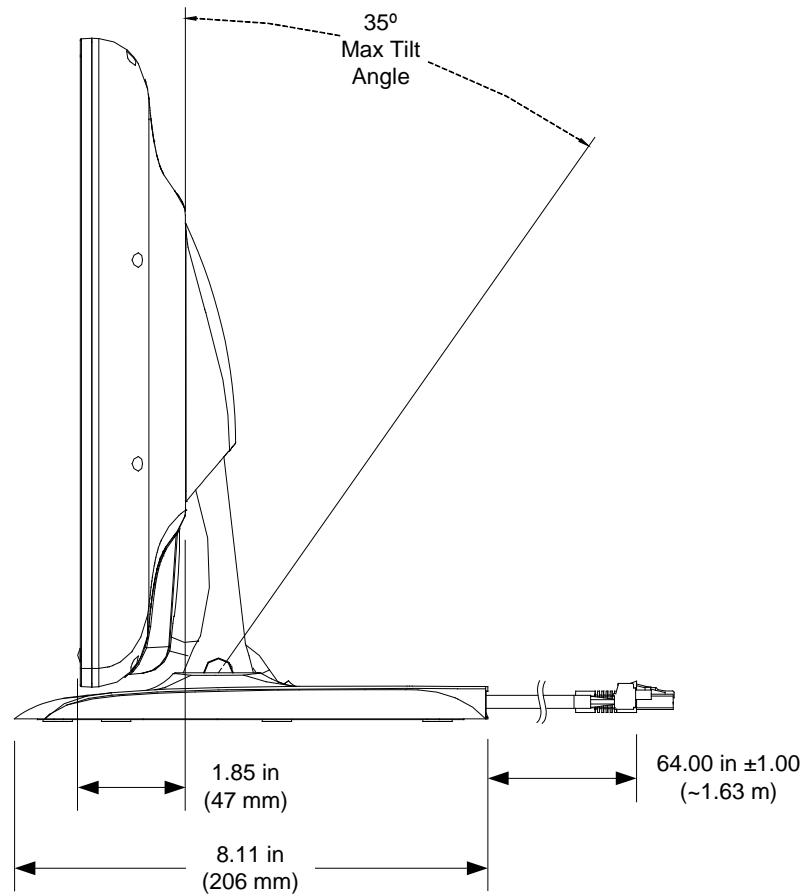
V12-TILT Overall Dimensions (Front View)

11.72 in
(298 mm)

10.22 in
(260 mm)

10.81 in
(275 mm)

CRESTRON

1   2

V12-TILT Overall Dimensions (Side View)

35⁰
Max Tilt
Angle

1.66 in
(42 mm)

64.00 in ±1.00
(~1.63 m)

8.11 in
(206 mm)
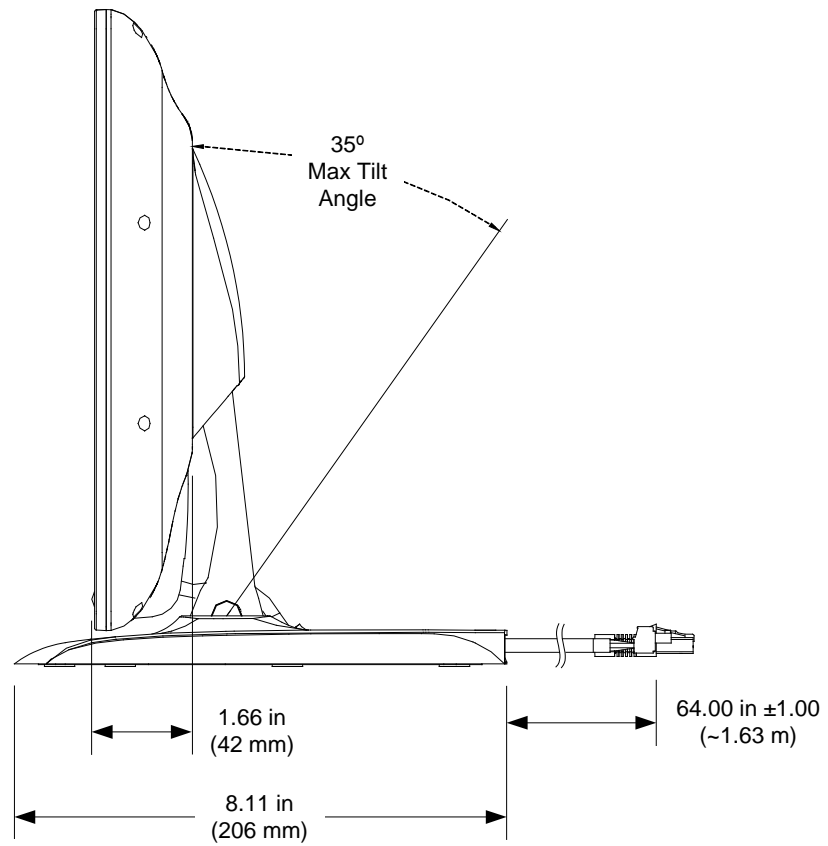
V15 Overall Dimensions (Front and Side Views)
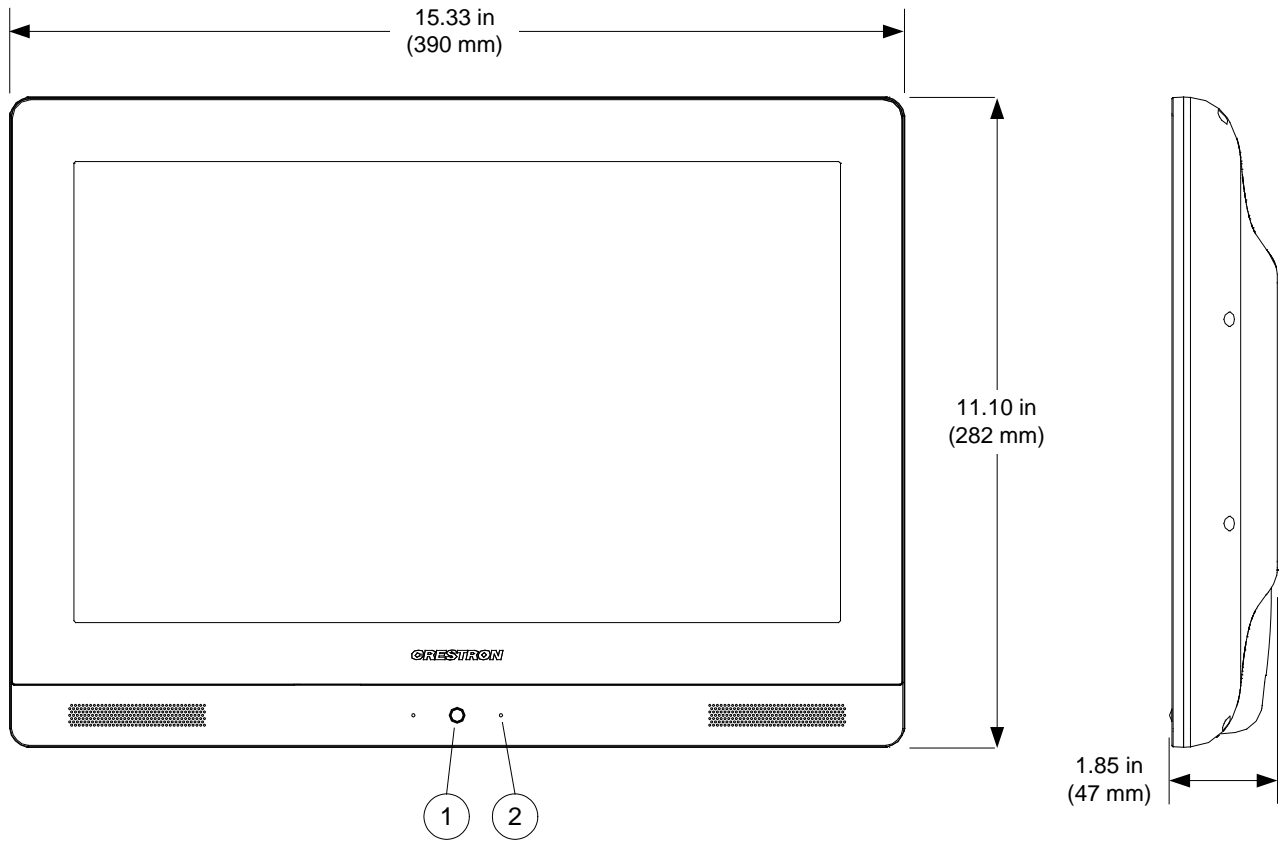
V15 Overall Dimensions (Rear View)
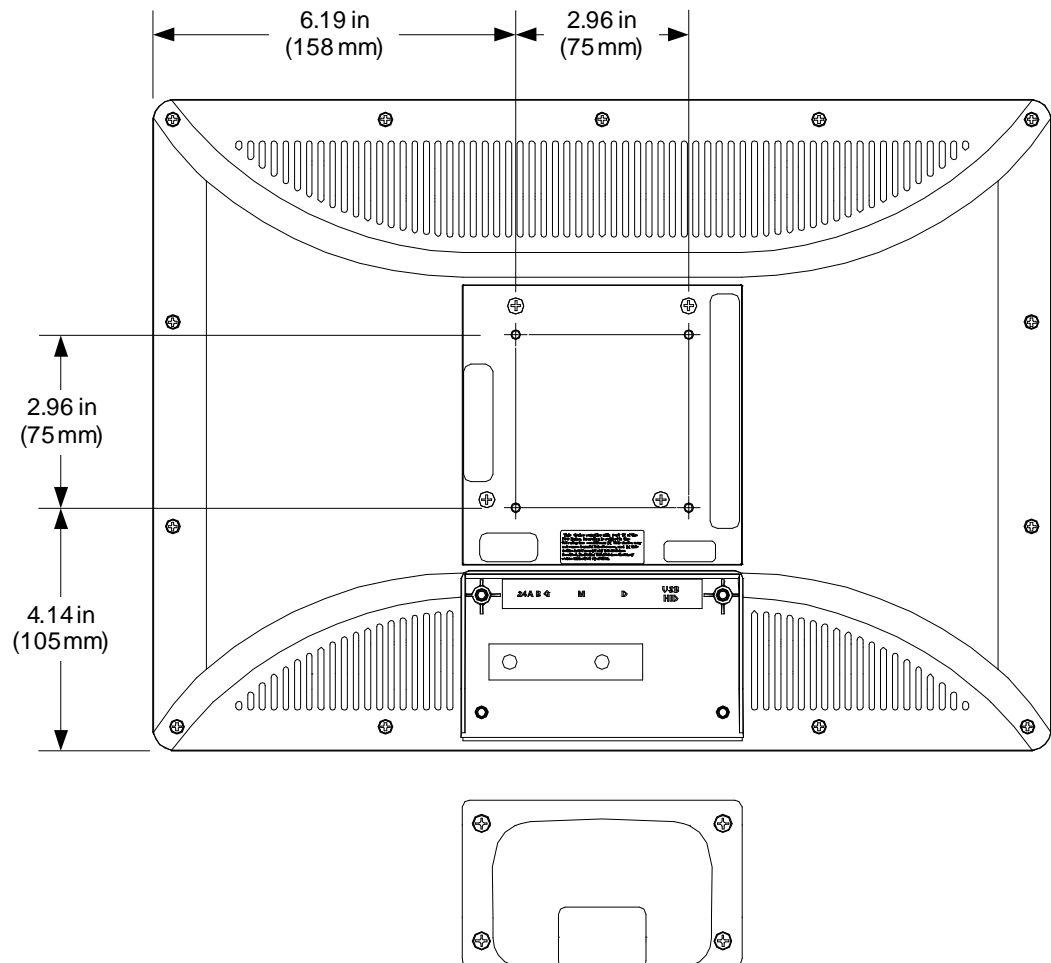
NOTE: In the illustration above, the V15 is shown with the rear cover removed. When making cable connections to the V15, first removing the four screws holding the cover in place, then remove the cover. Replace the cover when connections have been made.
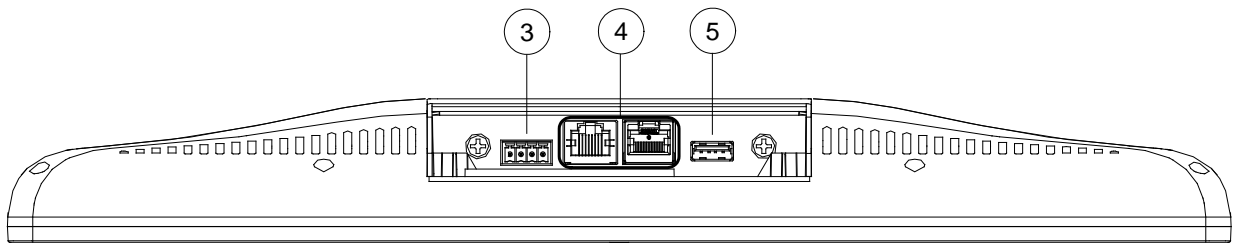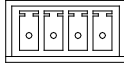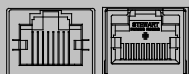
V15-TILT Overall Dimensions (Front View)

15.33 in
(390 mm)

11.10 in
(282 mm)

11.69 in
(297 mm)

CRESTRON

(1) (2)

V15-TILT Overall Dimensions (Side View)

35º
Max Tilt
Angle

1.85 in
(47 mm)

64.00 in ±1.00
(~1.63 m)

8.11 in
(206 mm)
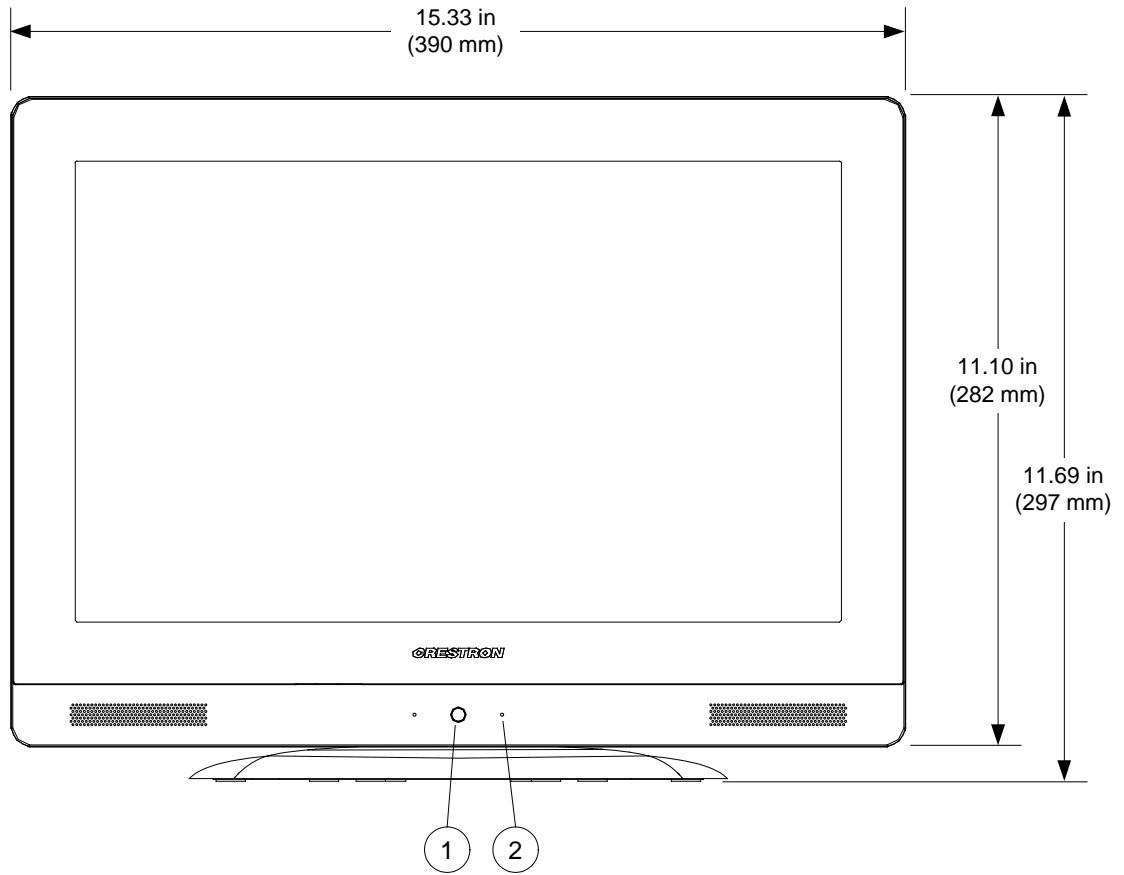
V12/15 Overall Dimensions (Rear View – V15 Shown)

③ ④ ⑤
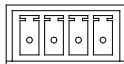
Connectors, Controls & Indicators

#	CONNECTORS[1], CONTROLS & INDICATORS	DESCRIPTION
1	Hard Key	(1) Programmable push button, also reboots DGE if held for five seconds
2	DM Link LED	(1) Green LED, indicates power and connection to DGE or other DM device
3	24 A B G[2, 3] 24 A B G 	(1) 4-pin 3.5 mm detachable terminal block, DMNet port; Connects to DMNet port of a DGE, DGE-2, DM transmitter or DM switcher (all sold separately) via DB-CBL cable[4, 5]
4	DM INPUT D & M[6] M D 	(1) DM CAT input comprised of (2) 8-pin RJ-45 female, shielded; Connects to DM CAT output of a DGE-1, DGE-2, DM transmitter or DM switcher (all sold separately) via DB-CBL cable[4, 5]
5	USB 	(1) USB Type A female; USB host port for connection of a mouse/keyboard or other HID compliant device

1. Interface connectors for **24 A B G** and **DM INPUT** ports are provided with the unit.
2. Refer to the following table for the **24 A B G** connector pinouts.

24 A B G Port

PIN #	SIGNAL	DESCRIPTION	WIRE COLOR
24	24V DC	DC Power	Red
A	DMNet+	DMNet	White
B	DMNet-	DMNet	Blue
G	Ground	DC Ground	Black

3. DMNet wiring is not compatible with Cresnet® wiring. DMNet wiring cannot be daisy chained.
4. The V12/15 features a DM CAT type input. For direct connection to a DGE-1, use DM-CBL DigitalMedia cable up to 150 feet (45 meters) in length. For connection to a DGE-2, direct or via a DigitalMedia switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. For connection to a DVPHD, via a DigitalMedia transmitter or switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. A single DM Repeater (model DM-DR, sold separately) is required for lengths over 150 feet (45 meters). Deduct 20 feet (6 meters) for each V-IMCW interface module. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4546) for DM system design guidelines. The V12 and V15 include (1) V-CBL-T3 three foot (~0.9 meter) V-Cable and V-IMCW interface module and the V12-TILT and V15-TILT models include (1) V-CBL-T6 6 foot (~1.8 meter) V-Cable and V-IMCW interface module. The V12-WALL and V15-WALL models include no cable or interface module. Refer to the spec sheet for each individual product or contact your Crestron representative for complete information.
5. An Ethernet enabled control system and DM CAT interface are required for use with a DVPHD. Be advised, DVPHD does not support audio, intercom, streaming media, web browsing or other embedded PC functionality.

6. The **DM INPUT** port consists of two separate RJ-45 connectors labeled **D** and **M**. The **D** port carries HDMI signal. The **M** port carries data. Refer to the following table for the connector pinouts.

D and M Ports

PIN #	WIRE COLOR	PIN #	WIRE COLOR
1	Orange/White	5	Blue/White
2	Orange	6	Green
3	Green/White	7	Brown/White
4	Blue	8	Brown

Setup

Configuring the V-Panel

The V-Panel is configured from the setup menu using the DGE Digital Graphics Engine (sold separately). Refer to the Operations Guide that came with the DGE.

Hardware Hookup

Ventilation

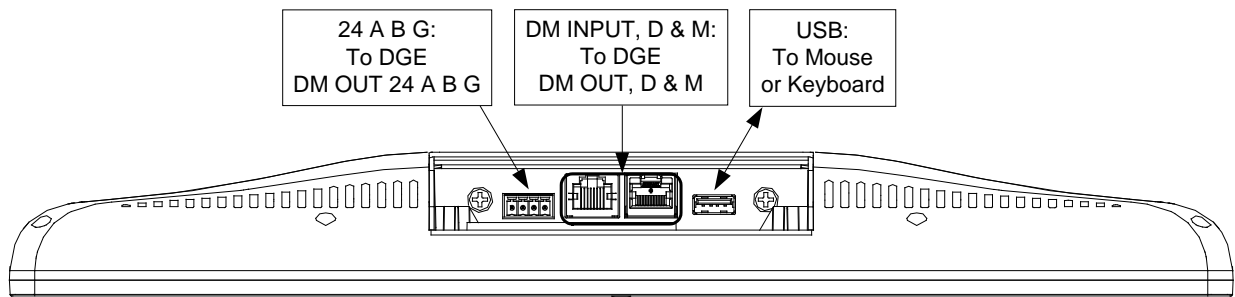The V12/15 should be used in a well-ventilated area.

To prevent overheating, do not operate this product in an area that exceeds the environmental temperature range listed in the table of specifications.

Connect the Device

Make the necessary connections as called out in the illustration that follows this paragraph. Apply power after all connections have been made.

When making connections to the V12/15, use Crestron power supplies for Crestron equipment.

*Hardware Connections for the V12/15 (V15 Shown)*

NOTE: The V12/15 features a DM CAT type input. For direct connection to a DGE-1, use DM-CBL DigitalMedia cable up to 150 feet (45 meters) in length. For connection to a DGE-2, direct or via a DigitalMedia switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. For connection to a DVPHD, via a DigitalMedia transmitter or switcher, use DM-CBL DigitalMedia cable up to 300 feet (91 meters) in length. A single DM Repeater (model DM-DR, sold separately) is required for lengths over 150 feet (45 meters). Deduct 20 feet (6 meters) for each V-IMCW interface module. Refer to the latest version of the Crestron DigitalMedia Design Guide (Doc. 4546) for DM system design guidelines. The V12 and V15 include (1) V-CBL-T3 three foot (~0.9 meter) V-Cable and V-IMCW interface module and the V12-TILT and V15-TILT models include (1) V-CBL-T6 6 foot (~1.8 meter) V-Cable and V-IMCW interface module. The V12-WALL and V15-WALL models include no cable or interface module. Refer to the spec sheet for each individual product or contact your Crestron representative for complete information.

NOTE: DMNet® wiring and Cresnet® wiring are not compatible.

Tilt Tension Adjustment

Tilt tension on the V12 and V15 is preset at the factory to allow the panel to be tilted anywhere within its 35 degree tilt range and maintain its position during use. To tighten tilt tension or to fix the panel at a given tilt position, use the three Allen screws accessed through the hole in the touch screen base, as shown in the following illustration.

Position of Allen Screws for Tilt Tension Adjustment

Allen Screws for
Tilt Tension Adjustment
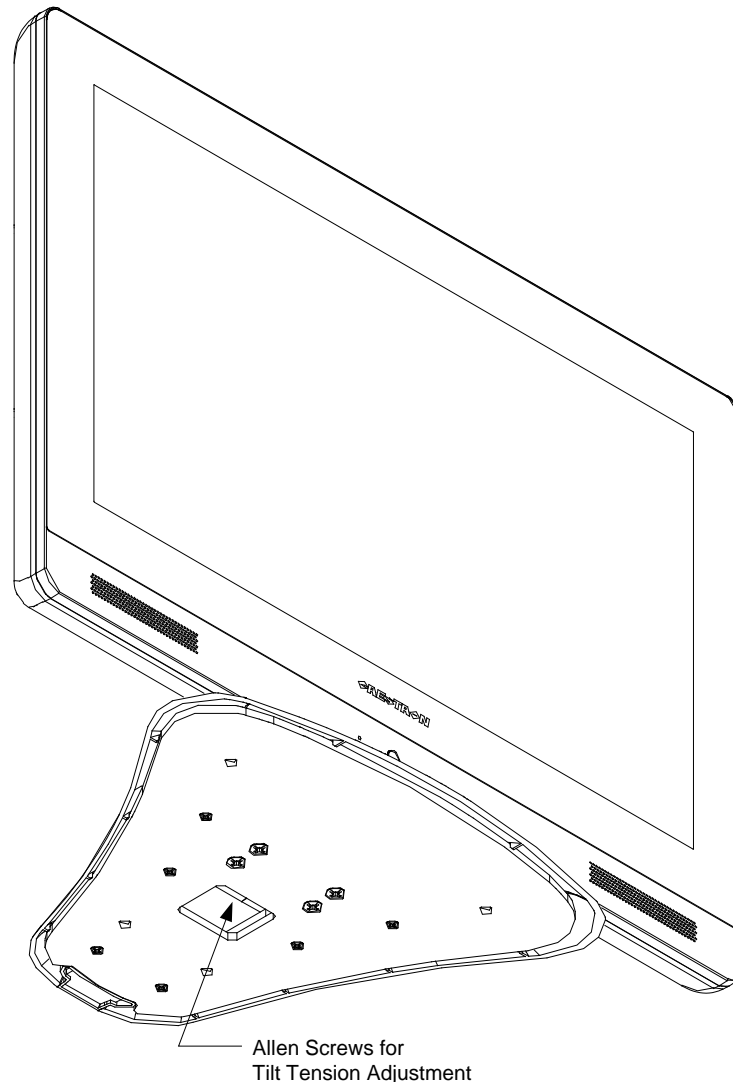
Recommended Cleaning

Keep the surface of the touch screen free of dirt, dust or other materials that could degrade optical properties. Long-term contact with abrasive materials can scratch the surface, which may detrimentally affect image quality.

For best cleaning results, use a clean, damp, non-abrasive cloth with any commercially available non-ammonia glass cleaner. Bezels may not provide a complete watertight seal. Therefore, apply cleaning solution to the cloth rather than the surface of the touch screen. Wipe touch screen clean and avoid getting moisture beneath the bezels.

Resources

Reference Documents

All documents mentioned in this guide are available at www.crestron.com/manuals.

List of Related Reference Documents

DOCUMENT TITLE
Crestron DigitalMedia Design Guide

Further Inquiries

To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Support at 1-888-CRESTRON [1-888-273-7876] or, for assistance within a particular geographic region, refer to the listing of Crestron worldwide offices at www.crestron.com/offices.

To post a question about Crestron products, log onto Crestron's Online Help at www.crestron.com/onlinehelp. First-time users must establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features, and extends the capabilities of the V12/15, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an "Addendum" in the Download column.

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