

## V-Panel™ 12" HD Touch Screen Displays

- > Sleek, beautiful, versatile
- > 12" touch screen display
- > 800 x 600 SVGA display resolution
- > High-definition 24-bit color graphics
- > 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) installs up to 300 ft (91 m) away<sup>[1,5]</sup>
- > Also works with the DVPHD Digital Video Processor<sup>[7]</sup>
- > Built-in microphone and speakers
- > USB keyboard/mouse port
- > Silent fanless operation
- > Available in white or black



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 compatibility with today's digital sources!

The V12 features a brilliant 12" SVGA display capable of producing stunning 24-bit color graphics and video. Together with a **DGE** Digital Graphics Engine<sup>[1]</sup>, the V12 delivers an elegant and powerful control solution featuring Smart Graphics™<sup>[2]</sup>, dual-window HD video<sup>[2]</sup>, high-performance H.264 streaming video<sup>[3]</sup>, audio feedback, Rava® SIP Intercom<sup>[4]</sup>, and built-in annotation.

### Advanced Touch Screen Control

A Crestron touch screen offers an ideal user-interface for controlling all the technology in your 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 way you use 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 deep, the V12 can be mounted virtually anywhere using a third-party VESA 75 compliant mounting bracket or stand. A tabletop tilt model (V12-TILT) is offered, supplied with its own ultra-stylish, smooth-tilt base to deliver a very sleek-looking, low-profile control solution

for desktops, counters, and other level surfaces. A wall mount model (V12-WALL) is also offered, affording the same V-Panel style and function in a thoroughly modern, yet unimposing, flush mount design.

### Digital Graphics Engine

For every V-Panel application, a DGE Digital Graphics Engine is required.<sup>[1]</sup> 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 to the DGE over a wiring distance of up to 300 feet (91 m), affording exceptional flexibility while minimizing wiring cost and complexity.<sup>[5]</sup>

### Smart Graphics™<sup>[2]</sup>

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, rich metadata, embedded apps and widgets, and full-motion video for a deeply engaging and ultra-intuitive touch screen experience.

Crestron Smart Graphics offers these enhancements and more:

- Cool-looking graphical buttons, sliders, knobs, and gauges that are intuitive and fun to use
- Kinetic effects to enhance the feeling of realism, with lists and toolbars that scroll with momentum at the flick of a fingertip

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- Drag-and-drop objects that snap into place, offering an easy way to switch sources
- Dashboard widgets to personalize the touch screen with clocks, weather, news, and other information
- Customizable themes allowing a completely different look and feel for every user, event, or season
- Fully-developed SmartObjects® that enable sophisticated control over complex devices with minimal programming

## HD Streaming Video<sup>[3]</sup>

High-definition streaming video 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<sup>[3]</sup> and MJPEG formats allows the V12 and DGE<sup>[3]</sup> to display live streaming video from an IP camera, a streaming server (Crestron [CEN-NVS200](#), [DM-TXRX-100-STR](#), or similar <sup>[1]</sup>), or a [DigitalMedia](#) switcher.

## HDMI® and Analog Video<sup>[2]</sup>

In addition to handling streaming video, the V12 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 using conventional BNC, HDMI, and VGA type cables.

## 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.

## Rava® SIP Intercom<sup>[4]</sup>

[Rava SIP Intercom Technology](#) enables VoIP communication with other Rava-enabled touch screens and door stations. Rava works over Ethernet, supporting 2-way intercom, video intercom<sup>[6]</sup>, and paging without requiring any special wiring. VoIP phone capability is also possible through integration with an SIP-compatible IP phone system or SIP server.

The V12 also supports legacy Crestron IP Intercom and Crestron Home® (CH) CAT5 wired intercom. Crestron IP Intercom enables compatibility with older Crestron touch screens that do not support Rava. CH CAT5 wired intercom provides compatibility with the [C2N-IADS30X24<sup>\[1\]</sup>](#) and other CH CAT5 based 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 also 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, allowing for the connection of a physical keyboard and mouse.



Wall mount model, white (V12-WALL-W)

## Real-Time Annotation

Whether conducting a high-level boardroom meeting, training seminar, or watching sports in your home theater, annotation helps put the fine point on any presentation. Built-in annotation provides the ability to illustrate your thoughts on-the-fly, letting you draw and write over high-definition video and computer images, and sketch out ideas on a whiteboard screen, without leaving the podium or your 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 <sup>[2]</sup>

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

## DigitalMedia™ <sup>[2]</sup>

[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<sup>\[1\]</sup>](#), multiple V12 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 display devices and sound systems to serve a larger audience.

The V12 features a DM CAT type input, supporting the direct connection to a Digital Graphics Engine model [DGE-1](#) or [DGE-2](#). It can also connect to any DM switcher or transmitter equipped with a DM CAT output. A single

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DigitalMedia cable carries all video, audio, Ethernet, USB, control, and power signals up to 300 ft (91 m).<sup>[5]</sup>

## DVPHD Integration<sup>[7]</sup>

In addition to the DGE-1 and 2, V-Panel is also compatible with the award-winning DVPHD High-Definition Digital Video Processor<sup>[1]</sup>, enabling the display of up to 8 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 via a DM CAT transmitter or DigitalMedia switcher.<sup>[5]</sup>

## SPECIFICATIONS

### Touch Screen Display

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**Display Type:** TFT Active matrix color LCD

**Size:** 12.1 inch (307 mm) diagonal

**Aspect Ratio:** 4:3 SVGA

**Resolution:** 800 x 600 pixels

**Brightness:** 360 nits (cd/m<sup>2</sup>)

**Contrast:** 1000:1

**Color Depth:** 24-bit, 16.7M colors

**Illumination:** Backlit LED

**Viewing Angle:** ±89° horizontal, ±89° vertical

**Touch Screen:** Resistive membrane

### Buttons & Indicators

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**Hard Key:** (1) Programmable pushbutton, reboots the DGE if held for 5 seconds

**DM Link:** (1) Green LED, indicates connection to DGE or other DM device

### Communications

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**DigitalMedia™:** DM CAT, DMNet®, HDCP, EDID, 100 Mbps Ethernet

**USB:** USB host, supports USB HID class devices

### Video

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**Input Signal Type:** DM CAT

**Input Resolution:** 800x600@60Hz

Refer to DGE-1, DGE-2, or DVPHD specifications for additional information.

### Audio

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**Input Signal Type:** DM CAT

**Hardware Features:** Built-in microphone and amplified speakers

**Amplification:** 3 Watts x 2 channels

Refer to DGE-1 or DGE-2 specification for additional information.

### Connectors

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**USB HID:** (1) USB Type A female;

USB host port for connection of a mouse/keyboard or other USB HID-compliant device

**DM INPUT:** (1) DM CAT input composed of (2) 8-pin RJ45 female, shielded; Connects to DM CAT output of a DGE-1, DGE-2, DM transmitter, or DM switcher via DM-CBL cable<sup>[5]</sup>

**24 A B G:** (1) 4-pin 3.5mm detachable terminal block, DMNet port; Connects to DMNet port of a DGE-1, DGE-2, DM transmitter, or DM switcher via DM-CBL cable<sup>[5]</sup>

### Power Requirements

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**DMNet Power Usage:** 35 Watts (1.46 Amps @ 24 Volts DC); Normally powered from DGE via DMNet connection

### Environmental

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**Temperature:** 41° to 113°F (5° to 45°C)

**Humidity:** 10% to 90% RH (non-condensing)

**Heat Dissipation:** 120 BTU/Hr

### Enclosure

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Plastic case, VESA 75x75 mm mountable

V12-TILT model includes tabletop tilt stand with 0° to 35° 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

### Dimensions

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**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 0° tilt;

Width: 11.72 in (298 mm);

Depth: 8.11 in (206 mm) max at 35° tilt

**V12-WALL:** Height: 11.54 in (293 mm);

Width: 13.04 in (332 mm);

Depth: 2.01 in (52 mm)

### Weight

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**V12:** 5.0 lb (2.3 kg)

**V12-TILT:** 9.0 lb (4.1 kg)

**V12-WALL:** 8.3 lb (3.8 kg)

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## MODELS & ACCESSORIES

### Available Models

- V12-B:** V-Panel™ 12" VESA Mount HD Touch Screen Display, DM CAT, Black
- V12-W:** V-Panel™ 12" VESA Mount HD Touch Screen Display, DM CAT, White
- V12-TILT-B:** V-Panel™ 12" Tilt HD Touch Screen Display, DM CAT, Black
- V12-TILT-W:** V-Panel™ 12" Tilt HD Touch Screen Display, DM CAT, White
- V12-WALL-B:** V-Panel™ 12" Wall Mount HD Touch Screen Display, DM CAT, Black
- V12-WALL-W:** V-Panel™ 12" Wall Mount HD Touch Screen Display, DM CAT, White
- V12-B-DGE-1\_PAK:** V-Panel™ 12" VESA Mount Touch Screen Package w/DGE-1, Black
- V12-W-DGE-1\_PAK:** V-Panel™ 12" VESA Mount Touch Screen Package w/DGE-1, White
- V12-TILT-B-DGE-1\_PAK:** V-Panel™ 12" Tilt Touch Screen Package w/DGE-1, Black
- V12-TILT-W-DGE-1\_PAK:** V-Panel™ 12" Tilt Touch Screen Package w/DGE-1, White
- V12-WALL-B-DGE-1\_PAK:** V-Panel™ 12" Wall Mount Touch Screen Package w/DGE-1, Black
- V12-WALL-W-DGE-1\_PAK:** V-Panel™ 12" Wall Mount Touch Screen Package w/DGE-1, White

### Included Accessories

- DGE-1:** Digital Graphics Engine w/DigitalMedia™ CAT Connectivity (Qty. 1 included with V12-B-DGE-1\_PAK, V12-W-DGE-1\_PAK, V12-TILT-B-DGE-1\_PAK, V12-TILT-W-DGE-1\_PAK, V12-WALL-B-DGE-1\_PAK, & V12-WALL-W-DGE-1\_PAK)
- V-IMCW:** V-Panel™ Interface Module (Qty. 1 included with V12-B, V12-W, V12-TILT-B, V12-TILT-W, V12-B-DGE-1\_PAK, V12-W-DGE-1\_PAK, V12-TILT-B-DGE-1\_PAK, & V12-TILT-W-DGE-1\_PAK)
- V-CBL-T3-B:** V-Cable Triamese Cable, 3 ft, Black (Qty. 1 included with V12-B & V12-B-DGE-1\_PAK)
- V-CBL-T3-W:** V-Cable Triamese Cable, 3 ft, White (Qty. 1 included with V12-W & V12-W-DGE-1\_PAK)
- V-CBL-T6-B:** V-Cable Triamese Cable, 6 ft, Black (Qty. 1 included with V12-TILT-B & V12-TILT-B-DGE-1\_PAK)
- V-CBL-T6-W:** V-Cable Triamese Cable, 6 ft, White (Qty. 1 included with V12-TILT-W & V12-TILT-W-DGE-1\_PAK)
- WMKC-V12-B:** Wall Mount Conversion Kit for V12 and TPMC-V12, Black (Qty. 1 included with V12-WALL-B & V12-WALL-B-DGE-1\_PAK)
- WMKC-V12-W:** Wall Mount Conversion Kit for V12 and TPMC-V12, White (Qty. 1 included with V12-WALL-W & V12-WALL-W-DGE-1\_PAK)

### Available Accessories

- DGE-1:** Digital Graphics Engine w/DigitalMedia™ CAT Connectivity
- DGE-2:** Digital Graphics Engine w/HDMI® and DigitalMedia™ CAT Connectivity
- V-IMCW:** V-Panel™ Interface Module
- V-CBL-T Series:** V-Cable Triamese Cables
- SMK-V15:** Swivel Mount for V12-TILT

- BB-V12:** Back Box for V12-WALL & WMKC-V12
- PMK-V12:** Pre-Construction Mounting Kit for V12-WALL & WMKC-V12
- MMK-V12:** Mud Ring for BB-V12 and PMK-V12
- WMKT-V12:** Post-Construction Mounting Kit w/Trim Ring for V12-WALL & WMKC-V12
- WMKM-V12:** Post-Construction Mounting Kit w/Mud Ring for V12-WALL & WMKC-V12
- WMKC-V12:** Wall Mount Conversion Kit for V12
- BBI-V12:** International Back Box for V12-WALL & WMKC-V12
- DM-CBL-NP:** DigitalMedia™ Cable, non-plenum
- DM-CBL-P:** DigitalMedia™ Cable, plenum-rated
- DM-CBL-D-NP:** DigitalMedia™ D Cable, non-plenum
- DM-CBL-D-P:** DigitalMedia™ D Cable, plenum
- DM-CONN:** Connectors for DM-CBL
- DM-DR:** DigitalMedia™ CAT Repeater

### Notes:

1. Item(s) sold separately.
2. Support for Smart Graphics requires a **DGE-2**. Support for multiple video windows, high-definition video, RGB/VGA, HDMI, presentation output, and DigitalMedia system integration requires a **DGE-2** or **DVPHD**. Additional equipment may be required. The **DGE-1** supports only standard-definition analog video displayed in a single window, and does not support Smart Graphics or integration with a DigitalMedia system.
3. Support for H.264 streaming video requires a **DGE-2**. MJPEG is supported using a **DGE-1** or **DGE-2**.
4. 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 must connect directly to the **DGE** via **DM CAT** with no repeaters or switchers in line.
5. The V12 features a **DM CAT** type input. For direct connection to a **DGE-1**, use **DM-CBL** DigitalMedia Cable up to 150 ft (45 m) in length. For connection to a **DGE-2**, direct or via a DigitalMedia switcher, use **DM-CBL** DigitalMedia Cable up to 300 ft (91 m) in length. For connection to a **DVPHD** via a DigitalMedia transmitter or switcher, use **DM-CBL** DigitalMedia Cable up to 300 ft (91 m) in length. A single **DM CAT** Repeater (Model **DM-DR**) is required for lengths over 150 ft (45 m). Deduct 20 ft (6 m) for each **V-IMCW** interface module. Refer to the **Crestron DigitalMedia Design Guide, Doc. #4546** for DM system design guidelines. The V12 model includes (1) **V-CBL-T3** 3 ft V-Cable and (1) **V-IMCW** interface module, and the V12-TILT model includes (1) **V-CBL-T6** 6 ft V-Cable and (1) **V-IMCW** interface module. The V12-WALL model includes no cable or interface module. Please refer to the spec sheet for each individual product, or contact your Crestron representative, for complete information.
6. H.264 compatible IP camera required.
7. 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.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/salesreps](http://www.crestron.com/salesreps) or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: [patents.crestron.com](http://patents.crestron.com).

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