TSW-560

5" Touch Screen

- > Ultra clean, modern appearance
- > Thin profile and small footprint
- > Affordable and easy to install
- > 5" widescreen active-matrix color display
- > 960 x 540 qHD display resolution
- > Capacitive touch screen technology
- > Multi-touch capable
- > Smart Graphics® performance
- > Backlit soft-touch capacitive buttons
- > Any/all button hide feature
- > Auto-brightness control
- > Voice recognition capability [1,2]
- > H.264 or MJPEG streaming video display
- > Built-in 5 MP H.264 IP camera [2]
- > Built-in microphone and speakers [2]
- > Rava® SIP intercom and phone technology [2]
- > Native Sonos® app
- > Built-in PinPoint™ beacon [2,4]
- > Customizable audio feedback
- > Built-in web browsing[1]
- > On-screen multi-language keyboard
- > Customizable screensaver
- > Single-wire Ethernet connectivity
- > PoE or PoE+ network powered (refer to specifications)
- > Pre or post-construction wall mounting
- > Lectern mount over a rectangular cutout
- > TSW-UMB-60 Universal Mounting Bracket included
- > TSW-UMB-60-PMK Pre-Construction Mounting Kit included [5]
- > Masonry compatible back box available [3,5]
- > Tabletop and swivel mount options available [3]
- > 3 RU rack mount option available [3]
- > Available in smooth black or white finish

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 simplify and enhance the way you use technology, doing away with those piles of remote controls, cluttered wall switches, disparate smartphone apps, and cryptic computer screens. 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, live streaming video, voice recognition, web browsing, and a full-featured media player for an enhanced multiroom entertainment experience.



With its clean, contemporary design highlighted by edge-to-edge glass and stunning color graphics, the Crestron TSW-560 touch screen makes an elegant statement on any wall, tabletop, lectern, or equipment rack. Perfectly at home in the most contemporary residence or modern office building, its high-tech good looks underline its power for simplifying everyday tasks and functions throughout any facility.

The TSW-560 delivers the ultimate touch screen experience in an unobtrusive, space-saving design. It features a brilliant 5 inch capacitive touch screen display with Smart Graphics® and 5 soft-touch buttons. PoE connectivity and a range of mounting options make installation a breeze for both new and retrofit applications. Additional advanced features include the abilities to control any function using voice commands, view security cameras and other video sources, communicate using built-in video intercom and phone capabilities, browse the Internet, and enjoy full access to your Sonos® Home Sound System. [1]

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





TSW-560-W-S - Shown in White



- A power-saving screensaver that allows display of time, temperature, and other text content at a reduced brightness level
- 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
- A consistent look and feel across multiple touch screens of varying sizes

Soft-Touch Buttons

The TSW-560 includes five backlit, soft-touch capacitive buttons for quick access to commonly used functions. These buttons are pre-labeled with icons for "Power", "Home", "Lights", "Up", and "Down" functions. Each button is programmable via the control system for custom functionality, and any unused button can be hidden by simply turning off its backlight.

Auto-Brightness Control

To ensure optimal visibility under varying lighting conditions, the TSW-560 includes a built-in light sensor, which regulates the brightness of the display and button backlighting according to the ambient light level in the room. Separate auto-brightness settings are provided for the display and buttons to allow each to be adjusted or defeated as needed.

Voice Recognition

Some things are easier *said* than *done*, so why not just *say* what you want and let Crestron *do* it for you? With built-in voice recognition, the TSW-560 provides the ability to use spoken commands to control virtually anything. Voice recognition can be used to quickly turn devices on or off, select and play a specific media title or playlist, change the channel, choose a lighting scene, lock the doors, arm the security system, or enter a password. Simply say a command and Crestron does the rest.^[1,2]



TSW-560-B-S with TSW-560-TTK-B-S Tabletop Kit

Streaming Video

High-performance streaming video capability makes it possible to view security cameras and other video sources right on the touch screen. Native support for H.264 and MJPEG formats allows the TSW-560 to display live streaming video from an IP camera, a streaming encoder (Crestron CEN-NVS200, DM-TXRX-100-STR, or similar ^[3]), or a DigitalMedia™ switcher. Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.

Rava® SIP Intercom

Rava SIP Intercom Technology enables hands-free VoIP communication with other Rava-enabled touch screens and door stations. Rava works over Ethernet, supporting 2-way intercom, video intercom, and paging without requiring any special wiring. VoIP phone capability is also possible through integration with a SIP-compatible IP phone system or SIP server, allowing hands-free telephone functionality complete with speed-dialing, caller ID, custom ringers, and other enhancements. Built-in echo cancellation affords full-duplex performance for clear, seamless voice communication using the TSW-560's integrated microphone and speakers. [2]

Built-in Camera

A 5 megapixel camera is built into the TSW-560 to support video intercom and room monitoring capabilities. This feature allows individuals to communicate both verbally and visually between two touch screens, or between one touch screen and a Rava-compatible video door station. It can also be used to visually monitor any room securely using an H.264 compatible decoder (Crestron DM-TXRX-100-STR, DM-RMC-100-STR, or similar ^[3]) or a third-party video monitoring system. When not needed, the camera feature can be turned off programmatically through the control system. A "no-camera" model is also available. ^[2]

Sonos® App

Merging technologies from Sonos and Crestron brings a whole-house music experience like no other. From any touch screen in the house, a family can effortlessly browse for tracks, artists, or playlists using all the services available from Sonos and instantly play them in any room using Sonos wireless speakers or a Crestron Sonnex® Multiroom Audio System. The Sonos app runs natively on the TSW-560, enabling enhanced control of Sonos products as part of a complete Crestron system. The app checks for updates nightly so it's always current.[1]

PinPoint™ Beacon (Coming Soon)

The built-in PinPoint proximity detection beacon enhances the intelligence and personalization of a Crestron system by enabling a smartphone or tablet device to always know what room it's in. It works with the Crestron App or Crestron PinPoint App, using Bluetooth® technology to determine when the mobile device is in or near the same room as the beacon, and signals the mobile app to automatically display the appropriate controls and information for that location.^[2,4]

Web Browsing

Using its built-in web browser, the TSW-560 provides quick access to online program guides and other web-based services at the touch of a button, allowing enhanced touch screen control of DVRs and other appliances without having to pick up a separate tablet or smartphone. If a device can be controlled or managed through a web browser, it can be integrated into the Crestron system through the TSW-560. Of course, the web browser may also be used to simply browse the Internet, check traffic conditions, or look up a recipe.^[1]

On-Screen Keyboard

Typing in passwords, URLs, and text searches is facilitated using the on-screen multi-language keyboard.

Multi-Touch Support

The TSW-560's capacitive touch screen affords enhanced capabilities for browsing web pages using multi-touch gestures.

Audio Feedback

Customized audio files can be loaded to add another dimension to the touch screen graphics using personalized sounds, button feedback, and voice prompts.

Single-Wire Connectivity

A simple Ethernet LAN connection is all that is required to wire the TSW-560, containing all control, video, intercom, and power signals within a single wire.

Power over Ethernet

Using PoE technology, the TSW-560 gets its operating power right through the LAN wiring. PoE (Power over Ethernet) eliminates the need for a local power supply or any dedicated power wiring. A PoE Injector (PWE-4803RU [3]) simply connects in line with the LAN cable at a convenient location. Crestron PoE switches (CEN-SW-POE-5 or CEN-SWPOE-16 [3]) may also be used to provide a total networking solution with built-in PoE.

Note: Refer to the "Power" specifications for additional details.

Simple, Versatile Mounting

The TSW-560 is easily installed into drywall and other surfaces using the included TSW-UMB-60 Universal Mounting Bracket. By itself, the TSW-UMB-60 provides a post-construction solution for retrofitting the TSW-560 into existing drywall. For pre-construction applications, the TSW-UMB-60 can be used along with the included TSW-UMB-60-PMK Pre-Construction Mounting Kit. Masonry and concrete applications are accommodated using the TSW-UMB-60 along with a TSW-UMB-60-BBI back box (sold separately). The TSW-UMB-60 is compatible with TSW-560, -760, and -1060 model touch screens, making it easy to change devices at any time without having to cut or patch the wall. [5]

When installed, the touch screen protrudes just 1/2 inch from the mounting surface and latches firmly into the mounting bracket leaving no visible screws for an ultra clean appearance.

Secure Mounting

Every TSW-560 includes an optional security latch for installations in which the physical security of the touch screen is important. When installed, the security latch ensures that a casual passerby cannot remove the TSW-560 from its mounted position in the wall. The latch can only be disengaged through a special removal sequence, protecting the touch screen against theft while still allowing serviceability where required.

Tabletop Option

Using the optional Tabletop Kit (TSW-560-TTK [3]), the TSW-560 becomes a stylish, freestanding touch screen that fits perfectly on a table, desk, or countertop. It can even be permanently attached to the surface using the optional Swivel Mount Kit (TSW-560/760/1060-SMK [3]).

Rack Mount Option

The TSW-560 can be mounted in a 19" EIA equipment rack using the optional Rack Mount Kit (TSW-560/760-RMK-1 [3]). When rack mounted, the touch screen occupies three rack spaces.



SPECIFICATIONS

Touch Screen Display

Display Type: TFT active matrix color LCD

Size: 5 inch (127 mm) diagonal Aspect Ratio: 16:9 qHD Resolution: 960 x 540 pixels Brightness: 400 nits (cd/m²)

Contrast: 750:1

Color Depth: 24-bit, 16.7M colors

Illumination: Edgelit LED w/auto-brightness control Viewing Angle: ±80° horizontal, ±80° vertical

Touch Screen: Projected capacitive, 5-point multi-touch capable

Buttons

Hard Keys: (5) Projected capacitive pushbuttons, backlit w/auto-brightness control, per-button show/hide (backlight enable/disable), pre-labeled with isona for "Power" "Lights", "Lights", and "Power"

icons for "Power", "Home", "Lights", "Up", and "Down"

Reset: (1) Miniature pushbutton on rear panel for hardware reset

Graphics Engine

Crestron Smart Graphics, multi-language web browser [1], multi-language on-screen keyboard, screensaver, single scalable streaming video window, native Sonos app [1], setup and diagnostics via web browser or onscreen UI

Languages

Smart Graphics: Arabic, Chinese (Simplified), Chinese (Traditional), Czech, Danish, Dutch, English (UK), English (US), Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Portuguese (Brazilian), Romanian, Russian, Slovak, Spanish, Swedish, Thai

On-Screen Keyboard: Arabic, Chinese (Simplified), Croatian, Czech, Danish, Dutch, English (UK), English (US), Finnish, French (Canada), French (Switzerland), German, Hebrew, Hungarian, Italian, Japanese, Norwegian Bokmal, Polish, Portuguese, Russian, Serbian, Spanish, Swedish, Turkish Voice Recognition: Afrikaans (South Africa); Chinese, Mandarin (China, Simplified); Chinese, Mandarin (Hong Kong, Simplified); Chinese, Mandarin (Taiwan, Traditional); Chinese, Yue (Hong Kong, Traditional); Czech (Czech Republic); Dutch (Netherlands); English (Australia); English (Canada); English (Generic); English (India); English (New Zealand); English (South Africa); English (UK); English (US); French (France); German (Germany); isiZulu (South Africa); Italian (Italy); Japanese (Japan); Korean (South Korea); Polish (Poland); Portuguese (Brazil); Russian (Russia); Spanish (Spain); Turkish (Turkey)

Web Browser: Arabic, Bulgarian, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Filipino, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian Bokmal, Pashto, Persian, Polish, Portuguese, Romanian, Romansh, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Vietnamese

Memory

RAM: 2 GB DDR3L

Storage: Firmware/Application: 4 GB Class 10 microSD card;

System: 4 GB eMMC

Maximum Project Size: 600 MB

Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1X, SNMP, IPv4 or IPv6, IEEE 802.3at compliant

Bluetooth: Crestron PinPoint proximity detection beacon [2,4]

Streaming Decoder

Video Formats: H.264 (MPEG-4 part 10 AVC), MJPEG

Audio Formats: AAC stereo

Bitrates: Up to 25 Mbps (20 Mbps maximum recommended) Streaming Input Resolutions: Up to 1920x1080@30fps

Streaming Protocol: RTSP

Streaming Encoder & Camera [2]

Camera Resolution: 5.0 MP Field of View: 50° horizontal

Video Format: H.264 (MPEG-4 part 10 AVC) Streaming Output Resolution: 1280x720 Streaming Protocol: RTSP, ONVIF discovery

Audio

Features: Built-in microphone and speakers, Rava SIP Intercom, multi-

language voice recognition [1,2] **Audio Feedback Formats:** MP3

Connectors

LAN PoE: (1) 8-pin RJ45 connector, female, with 2 LED indicators;

10Base-T/100Base-TX Ethernet port;

PoE+ PD port;

Green and yellow LEDs indicate Ethernet port status

USB: (1) USB Type A connector, female;

(not used)

Power

Power over Ethernet:

IEEE 802.3at Type 2 compliant PoE+ PD (Powered Device);

- Requests 15 Watts from an 802.3at Type 2 PSE with LLDP advanced power management;
- Requests 30 Watts (PoE+ Class 4) from an 802.3at Type 2 PSE without LLDP;
- Requests 15.4 Watts (PoE Class 0) from an 802.3af (or 802.3at Type 1) PSE



Environmental

Temperature: 32° to 112° F (0° to 45° C) Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 44 BTU/hr

Enclosure

Construction: Plastic, smooth black or white finish, edge-to-edge glass with black or white surround

Mounting: Surface mount over a 2-1/5" H x 3-3/4" W (56 mm H x 96 mm W) cutout, 2-13/16 in (72 mm) minimum mounting depth, 1-1/4 in (32 mm) maximum mounting surface thickness, pre/post-construction mounting bracket assembly included $^{[5]}$; optional back box, rack mount, and tabletop options available separately

Dimensions

Height: 3.49 in (89 mm) Width: 5.68 in (145 mm) Depth: 1.52 in (39 mm)

Dimensions do not include the mounting bracket

Weight

9.5 oz (267 g)

MODELS & ACCESSORIES

Available Models

TSW-560-B-S: 5" Touch Screen, Black Smooth TSW-560-W-S: 5" Touch Screen, White Smooth

TSW-560-NC-B-S: 5" Touch Screen without Camera, Microphone, or

PinPoint[™] Beacon; Black Smooth

TSW-560-NC-W-S: 5" Touch Screen without Camera, Microphone, or

PinPoint™ Beacon: White Smooth

Included Accessories

TSW-UMB-60: Universal Mounting Bracket for TSW-x60 Series
TSW-UMB-60-PMK: Pre-Construction Mounting Kit for TSW-UMB-60

Available Accessories

TSW-560-TTK: Tabletop Kit for TSW-560

TSW-560/760/1060-SMK: Swivel Mount Kit for TSW-560-TTK TSW-UMB-60-BBI: Wall Mount Back Box for TSW-UMB-60 TSW-560/760-RMK-1: Rack Mount Kit for TSW-560 & TSW-760

PWE-4803RU: PoE Injector

CEN-SW-POE-5: 5-Port PoE Switch

CEN-NVS200: Network Video Streamer

CEN-SWP0E-16: 16-Port Managed PoE Switch

DM-TXRX-100-STR: HD Streaming Transmitter/Receiver

DM-RMC-100-STR: HD Streaming Receiver & Room Controller 100

Notes:

- Voice recognition, web browsing, weather information, Sonos app, and certain other functions require an Internet connection.
- The camera, microphone, and PinPoint beacon (Bluetooth) are included on models TSW-560-B-S and TSW-560-W-S only. To ensure privacy, the camera, microphone, and Bluetooth transceiver can each be defeated programmatically at any time. For applications demanding an extra measure of privacy, Crestron offers models TSW-560-NC-B-S and TSW-560-NC-W-S, which have no physical camera, microphone, or Bluetooth transceiver installed.
- 3. Item(s) sold separately.
- 4. PinPoint beacon functionality will be enabled through a future firmware update. When enabled, the TSW-560 will provide an integrated, equivalent alternative to the standalone PP-100 beacon. For more details, refer to the PP-100 spec sheet. Bluetooth technology is used solely for proximity detection and does not transmit or receive any control, multimedia, or personal data. PinPoint beacons are only visible to Bluetooth enabled devices that are specifically programmed and configured to work with your system.
- 5. The TSW-UMB-60 mounting bracket (included) is compatible with older TSW-UMB-PMK preconstruction mounting kits and TSW-550-BBI back boxes, allowing the TSW-560 touch screen to be installed in place of a previous generation TSW-5xx series touch screen, or any other device that was originally installed using the a TSW-UMB-PMK or TSW-550-BBI, without modification to the wall.

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 or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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