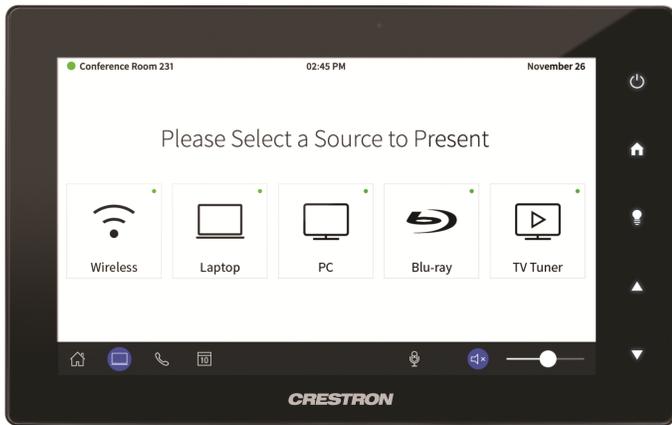


# TSW-760-NC

## 7 in. Touch Screen without Camera or Microphone



- *Affordable and easy to install touch screen with ultra clean, modern appearance*
- *7 in. (178 mm) widescreen active-matrix color display and 1024 x 600 WSVGA display resolution*
- *Capacitive touch screen display and backlit soft-touch capacitive buttons*
- *Supports Crestron HTML5 and Smart Graphics® software custom projects*
- *H.264 or MJPEG streaming video display*
- *Native apps for Sonos® home sound control, Zoom Rooms™ conferencing control, and various room scheduling services*
- *Built-in web browsing*
- *Single-wire Ethernet connection with PoE or PoE+ power*
- *Enterprise grade security*
- *Web or cloud based configuration*
- *Electrical wall box or lectern mount*
- *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 the need for remote controls, wall switches, smartphone apps, and 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, web browsing, and a full-featured media player for an enhanced multiroom entertainment experience.

The TSW-760-NC series features a 7 in. capacitive touch screen display with Crestron HTML5 and Smart Graphics® software technology and five soft-touch buttons. PoE (Power over Ethernet) connectivity and a range of mounting options make installation simple for both new and retrofit applications. Additional features include the ability to view security cameras and other video sources, and browse the Internet. Native applications are included to enable use as a room scheduling panel, to control a [Zoom Rooms™](#) conferencing system, and to access a [Sonos®](#) home sound system.<sup>1</sup>

For dedicated room scheduling applications, see also the [TSS-7](#) series 7 in. room scheduling touch screen.

**NOTE:** The TSW-760-NC series is a modified version of the [TSW-760](#) series, which eliminates the camera and microphone elements to comply with applications demanding extra privacy and security.

### Dynamic User Interfaces

The TSW-760-NC supports custom user interfaces created with [Crestron HTML5 User Interface](#) and Smart Graphics technologies, allowing greater flexibility for UI developers and programmers.

- Crestron HTML5 User Interface enables UI designers to develop rich, front-end user interfaces with increased reusability and efficiency using modern web methodologies. Crestron HTML5 User Interface development components are provided to simplify creating user interfaces built on standard web technologies.
- Smart Graphics enables programmers to integrated fluid gesture-driven controls, animated feedback, rich metadata, embedded apps and widgets, and full-motion video into their user interfaces. Smart Graphics provides dynamic features such as graphical buttons and sliders, lists and toolbars, drag-and-drop objects, dashboard widgets, screensavers, and customizable themes.

### Soft-Touch Buttons

The TSW-760-NC series 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 a control system for custom functionality, and any unused button can be hidden by turning off its backlight.

### Auto Brightness Control

To ensure optimal visibility under varying lighting conditions, the TSW-760-NC series includes a built-in light sensor, which regulates the display and button backlighting brightness 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.

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### Streaming Video

Native support for H.264 and MJPEG formats allows the TSW-760-NC to display live streaming video from an IP camera, a streaming encoder (Crestron [CEN-NVS200-PWE](#), [DM-TXRX-100-STR](#), or similar<sup>2</sup>), or a [DigitalMedia™ switcher](#). Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.

### Sonos App

Merging technologies from [Sonos and Crestron](#) brings a powerful whole-house music experience. From any touch screen in the house, 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-760-NC, enabling enhanced control of Sonos products as part of a complete Crestron system. The app checks for updates nightly so it's always current.<sup>1,10</sup>

### Room Scheduling Apps

The TSW-760-NC comes with apps for all the most popular enterprise scheduling services.

- **Crestron Scheduling App:** Supports direct integration with [Crestron Fusion®](#) software, Microsoft Exchange Server® software (for users of Outlook® software and Office 365® software), the Google Calendar™ calendaring app (including G Suite™ software), CollegeNET® 25Live® scheduling software, and Ad Astra™ software.<sup>3</sup>

Crestron room scheduling touch screens help organizations to maximize productivity and manage usage for every meeting space. They can be installed at the entrance to each room to provide indication of the room's availability and a view of its schedule for the day. If desired, the room can be reserved on the spot for an ad hoc meeting. A [CEN-ODT-C-POE](#) occupancy sensor can also be paired to the touch screen, allowing for occupancy status to be reported instantly to the scheduling app for no-shows and unscheduled room usage.

Crestron room scheduling also offers three levels of customization—ranging from simply configuring settings in the web user interface to modifying the application source code for a completely unique appearance—depending on the needs of an enterprise.<sup>4</sup>

- **Third-Party Apps:** Includes support for numerous third-party scheduling apps. Support for new apps is provided via firmware updates.<sup>5,6</sup>
- **Additional Options:** Supports IBM® Notes® software through a Crestron Fusion on-premises server.

Whatever provider you choose, setup is as simple as connecting the touch screen to the network and choosing an app from the web-based setup menu or built-in setup screens. The selected app downloads from the cloud and installs on the touch screen without any programming or control system required.<sup>6</sup>

### Status Indicator Options

Adding the optional light bar accessory ([TSW-760-LB](#) series) to a TSW-760-NC produces a light around the perimeter of the touch screen. For room scheduling applications, the light bar provides a 180° visual indication of a room's availability status, illuminating green if the room is available and red when reserved. Custom functionality is available by integrating with a control system, allowing for illumination in almost any color.<sup>7</sup>

As an alternative to the light bar, Crestron offers a selection of hallway signs and indicators that mount on the wall or ceiling above each touch screen. The [SSW](#), [SSW-EL](#), [SSC](#), and [SSC-EL](#) series hallway signs feature a two sided acrylic sign face that can be custom engraved with the room name or number. The [SIW-100](#) offers a lower profile wall mount status indicator.<sup>7</sup>

### Zoom Rooms App

The [Zoom Rooms™](#) conferencing control application enables the TSW-760-NC to be used as a touch screen control panel for a Zoom Rooms software-based conferencing and collaboration solution. The TSW-760-NC offers a superior alternative to a consumer tablet device, providing a more reliable and secure platform with versatile, streamlined mounting options. Its 7 in. color touch screen delivers the same user-friendly Zoom Rooms experience as a typical tablet, but without the risk of misplacing the device. Instead of Wi-Fi® communications, the TSW-760-NC uses wired Ethernet to ensure reliable connectivity.<sup>8</sup>

The TSW-760-NC may be configured to run the Zoom Rooms app exclusively, or to allow toggling between the Zoom Rooms app and touch screen control mode. The toggling option is used to integrate Zoom Rooms conferencing into a larger AV system while providing touch screen control for both.

**NOTE:** The Zoom ultrasonic proximity signal is supported up to an average of 3 ft (1 m) from the TSW-760-NC touch screen to an end user device. The range will vary based on environmental noise, the sensitivity of the end user device, and the orientation to the touch screen.

### Web Browsing

Using its built-in web browser, the TSW-760-NC provides access to online program guides and other web-based services at the touch of a button, allowing for touch screen control of DVRs and other devices without having to use a smart device<sup>1</sup>

### Onscreen Keyboard

Typing in passwords, URLs, and text searches is facilitated using the onscreen multilanguage keyboard.

### Multitouch Support

The capacitive touch screen display affords enhanced capabilities for browsing web pages using multitouch control.

### Audio Feedback

Customized audio files can be loaded to add another dimension to the touch screen graphics using personalized sounds, button

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feedback, and voice prompts.

### Single-Wire Connectivity

An Ethernet LAN connection is all that is required to wire the TSW-760-NC, containing all control, video, intercom, and power signals within a single wire.

### Power over Ethernet

Using PoE technology, the TSW-760-NC gets its operating power directly through the network cable. PoE (Power over Ethernet) eliminates the need for a local power supply or any dedicated power wiring. Crestron PoE switches ([CEN-SW-POE-5](#) or [CEN-SW-POE-16<sup>2</sup>](#)) offer a total networking solution with built-in PoE for multiple touch screens. A PoE Injector ([PWE-4803RU<sup>2</sup>](#)) is also available to support a single touch screen.

**NOTE:** Refer to the "Power" specifications for more details.

### Enterprise Grade Security

Crestron touch screens employ enterprise-grade networking with robust security features such as 802.1X authentication, TLS encryption, HTTPS connectivity, and Active Directory® service integration. These features are imperative to protect your network against service interruptions and malicious intrusions, and to ensure compliance with your organization's network policies. Cloud-based provisioning and management streamlines the process of configuring, monitoring, and updating every touch screen on the network. Additional support for SNMP allows every touch screen to be monitored by your IT administrator.

### Crestron XiO Cloud Service

The TSW-760-NC is compatible with the Crestron XiO Cloud™ service, which is an IoT (Internet of Things) based platform for remotely provisioning, monitoring, and managing Crestron devices across an enterprise or an entire client base. Built on the Microsoft® Azure® software platform and utilizing Microsoft's industry-leading Azure IoT Hub technology, Crestron XiO Cloud enables installers and IT managers to deploy and manage thousands of devices in the time it previously took to manage just one. Unlike other virtual machine-based cloud solutions, Azure services provide unlimited scalability to suit the ever-growing needs of an enterprise. For more information, visit [www.crestron.com/xiocloud](http://www.crestron.com/xiocloud).

### Crestron Home OS Control

The TSW-760-NC may be used to control a [Crestron Home™ OS](#) whole home solution. Select the Crestron Home app from the touch screen to control lighting, shades, climate, media, security, and cameras, including the ability to create and recall scenes that create a desired ambiance throughout a home. A TSW-760-NC may be installed in each room in the home to provide easy access to the room's environmental and media subsystems.

### Wall or Lectern Mounting Options

Using the bracket provided, the TSW-760-NC is easily installed over a 2-gang or 3-gang US electrical box, or a 2-gang European or UK electrical box. The same bracket allows for installation in a wooden lectern or podium over a rectangular cutout. When installed, the touch screen protrudes only 1/2 in. out from the mounting surface and leaves no visible screws for an ultra clean appearance. A security latch option is included to deter unauthorized removal of the touch screen.

Additional mounting options are afforded using the [TSW-UMB-60](#) universal mounting bracket:<sup>9</sup>

- Can be used by itself as a postconstruction solution for retrofitting the TSW-760-NC into existing drywall.
- Can be used with the [TSW-UMB-60-PMK](#) preconstruction mounting kit for applications that don't require a back box.
- Can be used with the [TSW-UMB-60-BBI](#) back box for masonry and concrete applications.

The [TS-7-MSMK<sup>2</sup>](#) allows a TSW-760-NC touch screen to be mounted directly to virtually any flat surface, which is ideal for mounting at the entrance to a meeting space for room scheduling applications. The [TSW-760/1060-MSMK<sup>2</sup>](#) provides a similar surface mounting solution that can also be mounted over a conventional electrical box. When installed using the TSW-760/1060-MSMK, the touch screen is angled upwards at a 20° tilt.

When installing the TSW-760-NC in place of an older Crestron touch screen (APAD, CT-1000, LC-1000, TPS-4L, or TPS-2000L series), Crestron offers retrofit mounting brackets ([TSW-60-RMB](#) series<sup>2</sup>), which facilitate replacement without having to tear out the old mounting hardware or patch the wall.

### Other Mounting Options

Using the optional tabletop kit ([TSW-760-TTK<sup>2</sup>](#)), the TSW-760-NC 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<sup>2</sup>](#)). The TSW-760-NC can also be mounted in a 19 in. EIA equipment rack using the optional rack mount kit ([TSW-560/760-RMK-1<sup>2</sup>](#)). When rack mounted, the touch screen occupies three rack spaces.

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### Specifications

#### Touch Screen Display

<b>Display Type</b>	TFT active matrix color LCD
<b>Size</b>	7 in. (178 mm) diagonal
<b>Aspect Ratio</b>	17:10 WSVGA
<b>Resolution</b>	1024 x 600 pixels
<b>Brightness</b>	350 nits (cd/m <sup>2</sup> )
<b>Contrast</b>	1100:1
<b>Color Depth</b>	24 bit, 16.7M colors
<b>Illumination</b>	Edgelit LED with auto brightness control
<b>Viewing Angle</b>	±80° horizontal, ±80° vertical
<b>Touch Screen</b>	Projected capacitive, 5-point multitouch capable

#### Buttons

<b>Hard Keys</b>	(5) Projected capacitive push buttons, backlit with auto brightness control, per-button show/hide (backlight enable/disable), pre-labeled with icons for Power, Home, Lights, Up, and Down
<b>Reset</b>	(1) Miniature push button on rear panel for hardware reset

#### Graphics Engine

Crestron HTML5 and Smart Graphics® software technology, multilanguage web browser<sup>1</sup>, multilanguage onscreen keyboard, screensaver, single scalable streaming video window, native Sonos® app<sup>1</sup>, native room scheduling applications<sup>6</sup>, native Zoom Rooms™ app, native Microsoft Teams® app, native Crestron Home™ OS app, setup and diagnostics via web browser or onscreen UI

#### Room Scheduling Support

<b>Crestron Scheduling App</b>	Crestron Fusion® software, Microsoft Exchange Server® and Office 365® software, Google Calendar™ calendaring app and G Suite™ software, CollegeNET® 25Live® software, and Ad Astra™ software (IBM® Notes® software is also supported through Crestron Fusion on-premises server only) <sup>3</sup>
<b>Third-Party Apps</b>	Includes support for various third-party scheduling apps <sup>5,6</sup>

#### Languages

<b>Smart Graphics</b>	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
<b>Onscreen Keyboard</b>	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
<b>Web Browser</b>	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
<b>Room Scheduling</b>	Chinese (Simplified), Chinese (Traditional), Danish, Dutch (Netherlands), English (US), English (UK), French, German, Hebrew, Italian, Japanese, Korean, Norwegian, Portuguese (Brazil), Portuguese (Portugal), Russian, Spanish, Swedish

#### Memory

<b>RAM</b>	2 GB DDR3L
<b>Storage</b>	Firmware/Application: 4 GB Class 10 microSD card; System: 4GB eMMC
<b>Maximum Project Size</b>	600 MB

#### Communications

<b>Ethernet</b>	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, Active Directory® service authentication, HTTPS web browser setup, Crestron XiO Cloud™ client, IEEE 802.3at compliant
<b>USB</b>	USB 2.0 host for light bar or hallway sign <sup>7</sup>

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### Streaming Decoder

<b>Video Formats</b>	H.264 (MPEG-4 part 10 AVC, MJPEG)
<b>Audio Formats</b>	AAC Stereo
<b>Bitrates</b>	Up to 25 Mbps (20 Mbps maximum recommended)
<b>Input Resolutions</b>	Up to 1920x1080@30fps
<b>Protocol</b>	RTSP

### Audio

<b>Features</b>	Built-in speakers
<b>Audio Feedback Formats</b>	MP3

### Connectors

<b>LAN PoE</b>	(1) 8-pin RJ45 connector, female, with 2 LED indicators; 100Base-TX Ethernet port; PoE+ PD port; Green and yellow LEDs indicate Ethernet port status
<b>USB</b>	(1) USB Type A connector, female; USB 2.0 host port; For optional light bar or hallway sign <sup>7</sup>

### Power

<b>PoE (Power over Ethernet)</b>	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
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### Environmental

<b>Temperature</b>	32 to 112 °F (0 to 45 °C)
<b>Humidity</b>	10% to 95% RH (noncondensing)
<b>Heat Dissipation</b>	44 BTU/hr

### Construction

<b>Housing</b>	Plastic, smooth black or white finish, edge-to-edge glass with black or white surround
<b>Mounting</b>	Surface mount over a 2 or 3-gang US electrical box, 2-gang European (DIN 49073) electrical box, or 2-gang UK (BS 4662) electrical box; Lectern mount over a 2-1/5 in. H x 3-3/4 in. W (56 mm H x 96 mm W) cutout; 1-3/8 in. (35 mm) minimum mounting depth; Additional wall mount, surface mount, rack mount, and tabletop options available separately

### Dimensions

<b>Height</b>	4.79 in. (122 mm)
<b>Width</b>	7.61 in. (194 mm)
<b>Depth</b>	1.52 in. (39 mm)

*Dimensions do not include mounting bracket or add-on accessories*

### Weight

14.1 oz (400 g)

### Compliance

#### Regulatory Model: TSW-760

UL<sup>®</sup> Listed for US and Canada, IC, CE, FCC Part 15 Class B digital device

### Available Models

TSW-760-NC-B-S  
TSW-760-NC-W-S

### Accessories

For supported accessories, visit the appropriate TSW-760-NC product page at [www.crestron.com](http://www.crestron.com).

#### Notes:

1. Web browsing, weather information, and certain other functions require an Internet connection.
2. Item(s) sold separately. Refer to each product's spec sheet for complete information.
3. Room Scheduling mode requires the TSW-760-NC to be designated exclusively for room scheduling use, which precludes use of certain features and functions described in this spec sheet. For design assistance, contact the Crestron True Blue support team at [www.crestron.com/support](http://www.crestron.com/support).
4. For more information on custom programming for the Crestron<sup>®</sup> room scheduling app, refer to the Crestron Room Scheduling Panels Programming Guide (Doc. 8213) at [www.crestron.com/manuals](http://www.crestron.com/manuals).

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5. Refer to the firmware release notes for a list of all scheduling apps that are supported by that firmware release. Rev 06/05/20
6. Additional subscriptions and/or licenses may be required. Refer to each provider's website for details about the capabilities and requirements of its scheduling application and services. Third-party apps typically run on the TSW-760-NC as they do on a tablet device. The TSW-760-NC runs only one app, which is selected at setup. Only the apps approved and delivered by Crestron can run on the TSW-760-NC.
7. The light bar and hallway sign accessories are sold separately. Only one light bar or hallway sign may be connected to the TSW-760-NC. Use of either accessory precludes use of the other without the addition of a custom-programmed control system and Cresnet® network wiring for the hallway sign. Refer to each accessory's spec sheet for further information.
8. A complete Zoom Rooms solution requires a mini PC or Mac computer running Zoom software, a Zoom Rooms subscription, plus additional peripherals and cables. Visit [zoom.us/zoomrooms](https://zoom.us/zoomrooms) for more information about Zoom Rooms capabilities, hardware requirements, and subscription plans. For design assistance, contact the Crestron True Blue support team at [www.crestron.com/support](https://www.crestron.com/support).
9. The [TSW-UMB-60](#), [TSW-UMB-60-PMK](#), and [TSW-UMB-60-BBI](#) are all sold separately. The TSW-UMB-60 is also compatible with older TSW-UMB-PMK preconstruction mounting kits and TSW-550-BBI back boxes, allowing the TSW-760-NC to be installed in place of a previous generation TSW-5xx series touch screen, or any other device that was originally installed using a TSW-UMB-PMK or TSW-550-BBI, without modification to the wall. If replacing another older Crestron device, use the appropriate [TSW-60-RMB](#) series retrofit mounting bracket (sold separately).
10. The TSW-760-NC supports the Sonos app up to S1 App (v10.6.2). The S2 App is not supported.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at <https://www.crestron.com/How-To-Buy/Find-a-Representative> or by calling 855-263-8754.

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

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](https://www.crestron.com/opensource).

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