

- Next generation Crestron® wall mount touch screen
- 10.1 in. (257 mm) widescreen active-matrix color display and 1920 x 1200 WUXGA display resolution
- Capacitive touch screen display
- Custom-programmable virtual control buttons
- Supports Crestron HTML5 and Smart Graphics® software custom user projects
- Built-in Rava® SIP intercom
- Built-in speakers and microphone
- H.265, H.264, or MJPEG streaming video display
- Native apps for Crestron Home[™] OS, Sonos® home sound control, Zoom Rooms[™] conferencing control, Microsoft Teams® online meeting solution, and various room scheduling services
- Built-in Bluetooth® communications beacon
- Built-in web browsing
- Single wire Ethernet connection with PoE or PoE+ power
- Wi-Fi® network connectivity
- Dual USB 2.0 ports for room availability accessories
- Enterprise grade security and authentication
- Web, cloud, or device-based configuration
- Electrical box mounting with provided mounting bracket

The Crestron® TSW-1070 is a stylish and versatile wall mount touch screen that is ideal for residential and enterprise applications. The TSW-1070 features a 10.1 in. (257 mm) capacitive touch screen display with custom-programmable control buttons and support for Smart Graphics® software and HTML5-based custom UI projects. PoE and Wi-Fi® network connectivity and a comprehensive assortment of mounting accessories simplify new and retrofit installations.

Advanced Touch Screen Control

The TSW-1070 offers a sleek and powerful user interface for controlling technology in a home, boardroom, classroom, or command center. The touch screen provides an intuitive interface that is fully customizable with easy-to-use capacitive controls, true feedback, and real-time status display. A built-in proximity sensor wakes the screen without requiring any user interaction, and automatic brightness controls ensure optimal visibility under varying lighting conditions.

Custom-Programmable Virtual Buttons

The TSW-1070 provides a universal status bar that is populated with virtual buttons for quick access to common touch screen functions. The touch screen comes preconfigured with virtual buttons for Power, Home, Lights, Up, Down, and Microphone. Each button can be programmed via a Crestron control system to provide custom functionality, and unused buttons can be hidden individually. The universal status bar is expanded or hidden using simple swipe gestures on touch screen display.

Dynamic User Interfaces

The TSW-1070 supports custom user interfaces created with <u>Crestron HTML5 User Interface</u> 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 tools are provided to simplify creating user interfaces built on standard web technologies
- Smart Graphics enables programmers to integrate 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.

Voice Recognition

With built-in voice recognition, spoken commands can be issued to the TSW-1070 to quickly turn devices on or off, select and play a specific media source, change the channel, choose a lighting scene, lower the window shades, lock the doors, arm the security system, or enter a password. Simply say a command and Crestron does the rest.^{1,2}

Streaming Video

Native support for H.265, H.264, and MJPEG formats allows the TSW-1070 to display live streaming video from an IP camera, a streaming encoder (Crestron DM-TXRX-100-STR, or similar), or a DigitalMedia™ switcher. Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.



TSW-1070

10.1 in. Wall Mount Touch Screen

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 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 integrated microphone and speakers.²

Sonos App

Sonos and Crestron have partnered to provide 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-1070, enabling enhanced control of Sonos products as part of a complete Crestron system. The app checks for updates nightly so it's always current, and support for the Sonos S2 App is provided.1

Crestron Room Scheduling App

As part of a complete enterprise room scheduling solution, the TSW-1070 can be deployed as a scheduling panel via the Crestron room scheduling app. A Crestron scheduling panel can be installed at the entrance of a meeting 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.^{3,4}

Running the Crestron Scheduling App, the TSW-1070 integrates directly with <u>Crestron Fusion</u>® 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, or Ad Astra™ software. IBM® Notes® software is also supported through a Crestron Fusion on-premises server.

Third-Party Scheduling Apps

The TSW-1070 also includes support various third-party scheduling applications. New providers are made available via firmware updates. 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.^{5,6}

Zoom Rooms App

The Zoom Rooms™ conferencing control application enables the TSW-1070 to be used as a touch screen control panel for a Zoom Rooms software-based conferencing and collaboration solution. The TSW-1070 offers a superior alternative to a consumer tablet device, providing a more reliable and secure platform with versatile, streamlined mounting options. The TSW-1070 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 latter option is used to integrate Zoom Rooms conferencing into a larger AV system while providing touch screen control for both.⁷

NOTE: The Zoom ultrasonic proximity signal is supported up to an average of 9 ft (2.74 m) from the TSW-1070 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.

Microsoft Teams App

The Microsoft Teams® online meeting solution is the hub for teamwork in Office 365® software, engaging people through messaging, voice over IP, online meetings, conferencing, content sharing, and collaboration. The Microsoft Teams application on the TSW-1070 enables presentation, calling, conferencing, and collaboration — all through a single touch screen console, with exceptional full-duplex wideband audio and HD video. A consistent user experience in every meeting space is provided via the familiar and intuitive Microsoft Teams UI, affording simple operation, built-in calendaring, and one-touch meeting joins.

NOTE: The TSW-1070 must be operated in Microsoft Teams mode in conjunction with a <u>UC-ENGINE</u> or <u>UC-BRKT-100-ASSY</u>.³

Crestron Home OS Control

The TSW-1070 may be used to control a <u>Crestron Home™ OS</u> 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-1070 may be installed in each room to provide easy access to various Crestron Home functions for both the room and the home.

Bluetooth Beacon

The built-in Bluetooth® 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 is in. It works with the Crestron Go App and Crestron App 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 the room.^{2,8}



Web Browsing

Using its built-in web browser, the TSW-1070 provides access to online program guides and other web-based services, and it can be used to control DVRs and other devices without having to pick up a separate tablet or smartphone.¹

Wired and Wi-Fi Connectivity

An Ethernet LAN connection is all that is required to wire the TSW-1070, containing all control, video, intercom, and power signals within a single wire.

For deployments without access to Ethernet, the touch screen can also be connected the network over Wi-Fi communications via a local wireless access point (WAP).

Power over Ethernet

Using PoE technology, the TSW-1070 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-SWPOE-16³) offer a total networking solution with built-in PoE for multiple touch screens. A PoE Injector (PWE-4803RU³) is also available to support a single touch screen.

NOTE: PoE+ is required when connecting a light bar or hallway sign via USB. Refer to the "Power" specifications for more details.

Room Scheduling Accessories

The TSW-1070 provides dual high-speed USB 2.0 ports for connecting supported Crestron room scheduling accessories to the touch screen.³

- The <u>TSW-1070-LB</u> series light bars provide a 180° visual indication of a room's availability status, illuminating green if the room is available and red when reserved, with options for custom color mixing and programming.³
- The <u>SSW</u>, <u>SSW-EL</u>, <u>SSC</u>, and <u>SSC-EL</u> series hallway signs feature a two sided acrylic sign face that can be custom engraved with the room name or number. The <u>SIW-100</u> offers a lower profile wall mount status indicator.³

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 the touch screen to be monitored by your IT administrator.

XiO Cloud Service

The TSW-1070 is compatible with the 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, 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.

Crestron One™ App Support

The TSW-1070 is compatible with the <u>Crestron One™ mobile</u> room control app. The Crestron One app creates a peer-to-peer network over Bluetooth communications between a mobile device and the TSW-1070 in the room, allowing mobile-optimized room controls to be pushed to the device from the touch screen. Programmers can specify the controls that display on the mobile app by mapping joins from Smart Graphics projects to the mobile project. A <u>SW-MOBILITY</u> license is required to enable mobile room control functionality.

Wall Mount Options

Using the bracket provided, the TSW-1070 is easily installed over a 2-gang or 3-gang US electrical box, or a 2-gang European or UK electrical box. A security latch option is included to deter unauthorized removal of the touch screen.

Additional wall mounting options are afforded using the optional TSW-UMB-70 universal mounting bracket, TSW-UMB-70-PMK preconstruction mounting kit, and TSW-UMB-70-BBI back box.^{3,9}

Optional Mounting Accessories

The TSW-1070 supports numerous optional mounting accessories that allow the touch screen to be installed in all kinds of installations:

- The TSW-1070-MSMK multisurface mount kit allows a TSW-1070 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.³
- The <u>TSW-770/1070-MUMK</u> allows the touch screen to be attached to the mullion of an interior glass wall, window, or partition.³
- The TSW-770/1070-RMB-1, TSW-770/1070-RMB-2, and TSW-1070-RMB-3, retrofit mounting brackets allow for retrofit installations in place of an older Crestron touch screen (APAD, CT-1000, LC-1000, TPS-4L, TPS-6L, or TPS-2000L) without having to tear out the old mounting hardware or patch the wall.³



The TSW-1070-RMK-2 rack mount kit allows the touch screen to be mounted into a 19 in. rack. When installed, the touch screen occupies four rack spaces.3

The TSW-1070 is also compatible with Wall-Smart® flush wall mount products via a partnership with Crestron. For more information on supported Wall-Smart hardware, click here.

Specifications

Touch Screen Display

Display Type TFT active matrix color LCD

10.1 in. (257 mm) diagonal Size

16:10 WUXGA Aspect Ratio Resolution 1920 x 1200 pixels **Brightness** $400 \text{ nits (cd/m}^2)$

1000:1 Contrast

Color Depth 24 bit, 16.7M colors

Illumination Edgelit LED with auto brightness control

Viewing Angle ±80° horizontal, ±80° vertical

Touch Screen Projected capacitive, 5-point multitouch

capable

Buttons

Virtual (6) Virtual buttons in collapsible universal **Buttons**

tool bar, per-button show/hide,

preconfigured with icons for Power, Home, Lights, Up, Down, and Microphone, optional custom programming via control system for

additional functions

Reset (1) Pin hole on rear panel for hardware reset

Graphics Engine

Crestron HTML5 and Smart Graphics® software technology, multilanguage web browser¹, multilanguage onscreen keyboard, screensaver, single scalable streaming video window, native room scheduling applications^{4,5,6}, native Sonos® app¹, native Zoom Rooms™ app⁷, native Microsoft Teams® app, native Crestron Home™ OS app, setup and diagnostics via web browser, cloud, or onscreen UI

Room Scheduling Support

Crestron Scheduling App

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)4

Third-Party Apps

Includes support for various third-party

scheduling applications.5,6



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

Onscreen 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 Recognition¹ 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 Browser¹

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

Room Scheduling⁴ Chinese (Simplified), Chinese (Traditional), Danish, Dutch (Netherlands), English (US), English (UK), French, German, Hebrew, Italian, Japanese, Korean, Norwegian, Portuguese (Brazil), Portuguese (Portugal),

Memory

RAM 2 GB LPDDR3

Storage Firmware/Application: 16 GB eMMC pSLC

Russian, Spanish, Swedish

600 MB Maximum

Project Size

Wired Communications

Ethernet 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, XiO Cloud® client, IEEE 802.3at compliant

USB USB 2.0 host for room scheduling

accessories

Wireless Communications

Transceiver IEEE 802.11a/b/g/n/ac Wi-Fi (2.4 or 5 GHz

2-way RF), static IP or dynamic IP via DHCP

64 and 128-bit WEP, WPA and WPA2-PSK Security

with TKIP and AES

Up to 50 ft (15 m), subject to site-specific Range

Crestron Bluetooth beacon^{2,8}

conditions

Bluetooth®

Hardware

Streaming Decoder

Video Formats H.265, H.264 (MPEG-4 part 10 AVC, MJPEG)

Audio Formats AAC Stereo

Bitrates Up to 25 Mbps (20 Mbps maximum

recommended)

Input Up to 1920x1080@30fps

Resolutions

Protocol **RTSP**

Audio

Features Built-in microphone and speakers, Rava® SIP

Intercom, voice recognition¹

Audio

Feedback **Formats**

MP3

Connectors

LAN PoE (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

USB (2) USB Type A connectors, female;

USB 2.0 host ports;

For optional room scheduling accessories³

NOTE: The touch screen supports the use of a single light bar or status indicator accessory.

Power

PoE (Power over Ethernet)

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

Normally requests 15 W from an 802.3at Type 2 PSE with LLDP advanced power

management;

With room scheduling and USB enabled, requests 18 W from an 802.3at Type 2 PSE with LLDP:

Requests 30 W (PoE+ Class 4) from an 802.3at Type 2 PSE without LLDP; Requests 15.4 W (PoE Class 0) from an 802.3af (or 802.3at Type 1) PSE

NOTE: Enabling the USB port requires use of an 802.3at Type 2 PoE+ PSE.

Environmental

Temperature

32 to 104 °F (0 to 40 °C)

Humidity

10% to 95% RH (noncondensing)

Heat

Dissipation

44 BTU/hr

Construction

Housing

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

surround

Mounting

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 in. H x 3-3/4 in. W

(51 mm H x 96 mm W) cutout;

1-3/8 in. (35 mm) minimum mounting depth; Wall mount, surface mount, and rack

options available separately

Dimensions

Height 5.87 in. (149 mm)
Width 9.46 in. (240 mm)
Depth 2.01 in. (51 mm)

Dimensions do not include mounting bracket or add-on

accessories

Weight

1.61 lb (730 g)

Compliance

Regulatory Model: M201923003

IC, CE, FCC Part 15 Class B digital device

Models

TSW-1070-B-S

10.1 in. Wall Mount Touch Screen, Black Smooth

TSW-1070-W-S

10.1 in. Wall Mount Touch Screen, White Smooth

Available Accessories

For supported accessories, visit the appropriate TSW-1070 product page at www.crestron.com.

Notes:

- Voice recognition, web browsing, weather information, and certain other functions require an Internet connection.
- 2. The microphone and Bluetooth® transceiver may be defeated programmatically at any time.
- 3. Item(s) sold separately. Refer to each product's spec sheet for complete information.
- 4. Room scheduling mode requires the TSW-1070 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.
- Refer to the firmware release notes for a list of all scheduling apps that are supported by that firmware release.
- 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-1070 as they do on a tablet device. The TSW-1070 runs only one app, which is selected at setup. Only the apps approved and delivered by Crestron can run on the TSW-1070.
- 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 <u>zoom.us/zoomrooms</u> for more information about Zoom Rooms capabilities, hardware requirements, and subscription plans. For design assistance, contact the Crestron True Blue support team at <u>www.crestron.com/support</u>.
- 8. The TSW-1070 provides an integrated, equivalent alternative to the standalone PP-100-W beacon. For more details, refer to the PP-100-W spec sheet. Bluetooth technology is used solely for proximity detection and does not transmit or receive any control, multimedia, or personal data. Crestron Bluetooth beacons are only visible to Bluetooth enabled devices that are specifically programmed and configured to work with them.
- The TSW-UMB-70 is also compatible with older TSW-UMB-PMK series
 preconstruction mounting kits and TSW-BBI series back boxes, allowing
 the TSW-1070 to be installed in place of a previous generation touch
 screen.



TSW-1070

10.1 in. Wall Mount Touch Screen

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 www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

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.

Crestron, the Crestron logo, Cresnet, Crestron Fusion, Crestron Home, Crestron One, DigitalMedia, Rava, Smart Graphics, Sonnex, and XiO Cloud are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Ad Astra is either a trademark or a registered trademark of Ad Astra Information Systems, LLC in the United States and/or other countries. Bluetooth is either a trademark or registered trademark of Bluetooth SIG, Inc. in the United States and/or other countries. CollegeNET and 25Live are either trademarks or registered trademarks of CollegeNET, Inc. in the United States and/or other countries. G Suite and Google Calendar are either trademarks or registered trademarks of Google, Inc. in the United States and/or other countries. IBM and Notes are either trademarks or registered trademarks of International Business Machines Corporation in the United States and/or other countries. Microsoft, Active Directory, Azure, Microsoft Exchange Server, Microsoft Teams, Office 365, and Outlook are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. Sonos is either a trademark or registered trademark of Sonos, Inc. in the United States and/or other countries. UL is either a trademark or a registered trademark of Underwriters Laboratories, Inc. in the United States and/or other countries. Wall-Smart is either a trademark or registered trademark of Wall-Smart Ltd. in the United States and/or other countries. Zoom and Zoom Rooms are either trademarks or registered trademarks of Zoom Video Communications, Inc. in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

Specifications are subject to change without notice.

©2022 Crestron Electronics, Inc.

Rev 03/25/22





