

# TS-770-GV

## 7 in. Tabletop Touch Screen, Government Version



- Next generation Crestron® tabletop touch screen
- 7 in. (178 mm) widescreen active-matrix color display and 1280 x 800 WXGA display resolution
- Capacitive touch screen display
- Custom-programmable virtual control buttons
- Supports Crestron HTML5 and Smart Graphics® software custom user projects
- Built-in speakers
- H.265, H.264, or MJPEG streaming video display
- Built-in web browsing
- Single wire Ethernet connection with PoE or PoE+ power
- USB 2.0 port
- Enterprise grade security and authentication
- Web or device-based configuration

The Crestron® TS-770-GV is a stylish and versatile tabletop touch screen that is ideal for residential and enterprise applications. The TS-770-GV features a 7 in. (178 mm) capacitive touch screen display with custom-programmable control buttons and support for Smart Graphics® software and HTML5-based custom UI projects. PoE connectivity and a modern tabletop design allow the touch screen to be deployed just about anywhere.

**NOTE:** The TS-770-GV series is a modified version of the TS-770 series, which eliminates the microphone, the Bluetooth® communications beacon, and Wi-Fi® network connectivity to comply with government applications demanding extra privacy and security.

### Advanced Touch Screen Control

The TS-770-GV 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 TS-770-GV 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, and Down. 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 TS-770-GV 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 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.<sup>1</sup>

### Streaming Video

Native support for H.265, H.264, and MJPEG formats allows the TS-770-GV to display live streaming video from an IP camera, a streaming encoder (Crestron [DM-TXRX-100-STR](#), or similar), or a [DigitalMedia™ switcher](#).<sup>2</sup> Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.

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### 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 TS-770-GV, 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.<sup>1</sup>

### Crestron Room Scheduling App

As part of a complete enterprise room scheduling solution, the TS-770-GV 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.<sup>2,3</sup>

Running the Crestron Scheduling App, the TS-770-GV integrates directly 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, or Ad Astra™ software. IBM® Notes® software is also supported through a Crestron Fusion on-premises server.

### Third-Party Scheduling Apps

The TS-770-GV 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.<sup>4,5</sup>

### Zoom Rooms App

The [Zoom Rooms™](#) conferencing control application enables the TS-770-GV to be used as a touch screen control panel for a Zoom Rooms software-based conferencing and collaboration solution. The TS-770-GV offers a superior alternative to a consumer tablet device, providing a more reliable and secure platform. The TS-770-GV 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.<sup>6</sup>

**NOTE:** The Zoom ultrasonic proximity signal is supported up to an average of 9 ft (2.74 m) from the TS-770-GV 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.

### Crestron Home OS Control

The TS-770-GV 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 TS-770-GV may be installed in each room to provide easy access to various Crestron Home functions for both the room and the home.

### Web Browsing

Using its built-in web browser, the TS-770-GV 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.<sup>1</sup>

### Wired Connectivity

An Ethernet LAN connection is all that is required to wire the TS-770-GV, containing all control, video, intercom, and power signals within a single wire.

### Power over Ethernet

Using PoE technology, the TS-770-GV 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-16](#)) offer a total networking solution with built-in PoE for multiple touch screens. A PoE Injector ([PWE-4803RU](#)) is also available to support a single touch screen.

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

### High-Speed USB Port

The TS-770-GV provides a high-speed USB 2.0 port for connecting supported Crestron accessories to the touch screen.<sup>2</sup>

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### 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.

### Optional Mounting Accessories

The [TS-770/1070-SMK](#) allows the touch screen to be mounted permanently to a tabletop and permits up to 330 degree swivel rotation.

### Specifications

#### Touch Screen Display

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<b>Display Type</b>	TFT active matrix color LCD
<b>Size</b>	7 in. (178 mm) diagonal
<b>Aspect Ratio</b>	16:10 WXGA
<b>Resolution</b>	1280 x 800 pixels
<b>Brightness</b>	350 nits (cd/m <sup>2</sup> )
<b>Contrast</b>	850:1
<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

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<b>Virtual Buttons</b>	(5) Virtual buttons in collapsible universal tool bar, per-button show/hide, preconfigured with icons for Power, Home, Lights, Up, and Down, optional custom programming via control system for additional functions
<b>Reset</b>	(1) Pin hole on bottom for hardware reset

#### Graphics Engine

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Crestron HTML5 and Smart Graphics® software technology, multilanguage web browser<sup>1</sup>, multilanguage onscreen keyboard, screensaver, single scalable streaming video window, native room scheduling applications<sup>3,4,5</sup>, native Sonos® app<sup>1</sup>, native Zoom Rooms™ app<sup>6</sup>, native Crestron Home® OS app, setup and diagnostics via web browser, cloud, or onscreen UI

#### Room Scheduling Support

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<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 applications. <sup>4,5</sup>

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### 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<sup>1</sup></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<sup>3</sup></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 LPDDR3
<b>Storage</b>	Firmware/Application: 16 GB eMMC pSLC
<b>Maximum Project Size</b>	600 MB

### Wired 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, IEEE 802.3at compliant
<b>USB</b>	USB 2.0 host

### Streaming Decoder

<b>Video Formats</b>	H.265, H.264 (MPEG-4 part 10 AVC, MJPEG)
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<b>Audio Formats</b>	AAC Stereo
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<b>Bitrates</b>	Up to 25 Mbps (20 Mbps maximum recommended)
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<b>Input Resolutions</b>	Up to 1920x1080@30fps
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<b>Protocol</b>	RTSP
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### Audio

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

<b>LAN PoE</b>	(1) 8-pin RJ-45 connector, female, with 2 LED indicators; 100BASE-TX Ethernet port; PoE+ PD port; Green and yellow LEDs indicate Ethernet port status
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<b>USB</b>	(1) USB Type A connector, female; USB 2.0 host port
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### Power

<b>PoE (Power over Ethernet)</b>	IEEE 802.3at Type 2 compliant PoE+ PD (Powered Device); Requests 15 W from an 802.3at Type 2 PSE with LLDP advanced power management; 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
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### Environmental

<b>Temperature</b>	32 to 104°F (0 to 40°C)
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<b>Humidity</b>	10% to 95% RH (noncondensing)
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<b>Heat Dissipation</b>	44 BTU/hr
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### Construction

<b>Housing</b>	Plastic, smooth black or white finish, edge-to-edge glass with black or white surround
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### Dimensions

<b>Height</b>	4.02 in. (102 mm)
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<b>Width</b>	6.87 in. (175 mm)
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<b>Depth</b>	4.37 in. (111 mm)
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### Weight

1.33 lb (605 g)

### Compliance

**Regulatory Model: M201923005**

IC, CE, FCC Part 15 Class B digital device

### Models

#### TS-770-GV-B-S

7 in. Tabletop Touch Screen, Government Version, Black Smooth

#### TS-770-GV-W-S

7 in. Tabletop Touch Screen, Government Version, White Smooth

### Available Accessories

For supported accessories, visit the appropriate TS-770-GV 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 TS-770-GV to be designated exclusively for room scheduling use, which precludes use of certain features and functions described in this spec sheet. Additionally, CollegeNET® 25Live® scheduling software and Ad Astra™ software do not support scheduling ad hoc meetings from the touch screen. For design assistance, contact the Crestron True Blue support team at [www.crestron.com/support](http://www.crestron.com/support).
4. Refer to the firmware release notes for a list of all scheduling apps that are supported by that firmware release.
5. 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 TS-770-GV as they do on a tablet device. The TS-770-GV runs only one app, which is selected at setup. Only the apps approved and delivered by Crestron can run on the TS-770-GV.
6. 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](http://www.crestron.com/support).

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](http://www.crestron.com/How-To-Buy/Find-a-Representative) or contact us for additional information by visiting [www.crestron.com/contact/our-locations](http://www.crestron.com/contact/our-locations) for your local contact.

The original language version of this document is U.S. English. All other languages are a translation of the original document.

The product warranty can be found at [www.crestron.com/warranty](http://www.crestron.com/warranty).

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

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