

TSR-310

Handheld Touch Screen Remote



- Customizable handheld wireless remote
- Ergonomic and rugged design
- 3 in. (76 mm) HVGA capacitive color touch screen with Smart Graphics® technology
- Backlit buttons for AV/DVR control and on-screen menu (OSM) navigation
- 5-way navigation pad changes colors when accessing the four-color buttons mode
- Preprogrammed graphical interface for controlling Crestron Home® OS
- Voice recognition executes functions using spoken commands
- Fully programmable functionality via a Crestron® control system
- Advanced, high-performance Wi-Fi® wireless communications
- Movement sensing wakes the remote when picked up
- Instant-Waking® technology executes button presses without picking up the remote
- Autobrightness control maintains optimal visibility
- Setup and diagnostics via touch screen or web browser
- Li-Polymer rechargeable battery
- Space-saving table dock charger

The Crestron® [TSR-310](#) is a durable handheld remote with a 3 in. (76 mm) color touch screen, backlit buttons, voice control capability, and enhanced Wi-Fi® network wireless communications. Movement sensing wakes the remote when it is handled so that it is always ready to be used. The TSR-310 may also be paired with Crestron Home® OS and other Crestron control solutions for complete control over audio, video, lighting, shades, and other amenities.

Backlit Tactile Buttons

Backlit tactile buttons provide access to everything needed to watch TV, listen to music, navigate on-screen menus, and browse through media titles on a TV display. Each button is labeled for easy operation. Button backlighting affords increased legibility in darkened rooms. The 5-way thumbpad affords directional navigation in normal use and changes colors when placed in four-color mode to provide access to the green, blue, red, and yellow option buttons.

Each button on the TSR-310 is fully programmable to deliver precise and predictable behavior, whether simply adjusting audio volume and changing channels, browsing a media library or program guide, controlling a DVR or DVD player, or operating a pan/tilt camera.

Touch Screen with Smart Graphics Technology

The TSR-310 features a high-resolution, high-contrast capacitive touch screen to enable fully customizable control over anything in your home or workplace. Crestron Smart Graphics® technology delivers an engaging and intuitive touch screen experience with fluid gesture-driven controls, kinetic effects, animated feedback, rich metadata, embedded apps and widgets, and personalized themes – all custom tailored to your needs.

Performance UI for Crestron Home

Performance UI is a built-in software program for the TSR-310 that provides a preprogrammed graphical interface for controlling a Crestron Home system. When the TSR-310 is paired with the Crestron Home system and added to a media room, media, light, shades, and quick actions can be controlled directly from the remote. Scrolling menus of channel presets and media titles appear on the touch screen for all your favorite TV channels, radio stations, movies, and music. User profiles are also provided to give users custom control over the media system, including the ability to save favorites, such as television channels and radio stations, for easy access.

Real-time lighting levels, shade positions, and thermostat modes are graphically displayed and can be adjusted with a simple finger stroke. Real-time Performance UI also supports voice control commands if Crestron Home is paired with a voice provider service.^{1,2}

Voice Recognition

With built-in voice recognition, spoken commands can be issued to the TSR-310 to quickly turn devices on or off, change the channel, choose a lighting scene, lower the window shades, lock the doors, or arm the security system. Simply press the voice button and say a command to have the TSR-310 execute the action.^{1,2}

Movement Sensor

A built-in accelerometer wakes the TSR-310 instantly whenever it's picked up or moved, so it's always ready for use.

TSR-310

Handheld Touch Screen Remote

Instant-Waking Technology

The TSR-310 wakes instantly at the press of a button and transmits the button press within milliseconds using the Instant-Waking® Technology. Actions like muting audio, pausing video, or changing channel can be executed, even with the remote left lying on an armrest or placed in its charging dock.

Autobrightness Control

The TSR-310 includes a built-in light sensor, which regulates the brightness of the touch screen display and button backlight according to the light level in the room.

Advanced Wi-Fi Wireless Performance

Crestron enhanced Wi-Fi performance is optimized to deliver fast, dependable wireless communications with 50 ft (15 m) omnidirectional range (conditions permitting). The choice of 802.11 a, b, g, and n protocols affords reliable, high-speed wireless connectivity in any RF environment. For Wi-Fi networks with multiple access points, the TSR-310 supports the ability to hand off communication from one wireless access point (WAP) to another if an active connection is lost.³

NOTE: The TSR-310 has been tested and verified to work with wireless access points from a variety of leading manufacturers. Please view the [TSR-310 Wireless Access Point Configuration Guide](#) for recommended WAP manufacturers and configurations.

Extended Battery Life

To conserve power, the TSR-310 goes into a sleep mode when not in use. In sleep mode, the TSR-310 maintains a low level connection to the wireless access point, ensuring instantaneous response upon waking. Maximum battery life and performance are ensured only when using a Crestron verified wireless access point (WAP). Under typical use, the TSR-310 can operate continuously for 5.5 hours between charges.

A replacement battery pack ([TSR-310-BTP](#)) is also available.

Table Dock Charger

The [TSR-310-DS](#) table dock is included and provides for charging the TSR-310 while occupying minimal space on the tabletop or shelf. When placed on the table dock, the remote remains upright and fully operational while charging.

Additional docks may be ordered separately. Refer to the [TSR-310-DS](#) spec sheet for additional information.

Third-Party Mounting Solution

The TSR-310 is compatible with [Wall-Smart® retrofit mount products](#) via a partnership with Crestron.

Specifications

Touch Screen Display

Display Type	TFT active matrix color LCD
Size	3.00 in. (76 mm) diagonal
Aspect Ratio	3:2 HVGA (portrait orientation)
Resolution	320 x 480 pixels
Brightness	410 nits (cd/m ²) typical
Contrast	700:1 typical
Color Depth	18-bit, 262,144 colors
Viewing Angle	±80° horizontal, ±80° vertical
Illumination	LED backlit with autobrightness control (adjustable high, medium, and low settings)
Touch Screen	Projected capacitive, 3-point multi-touch capable

NOTE: Pressing any button or moving the remote wakes the remote from sleep mode. A second button press or touching the touch screen wakes the touch screen display (configurable for any button or only Power, Voice, and Home). The touch screen display may also be configured to wake on movement.

Buttons

Power	(1) Programmable pushbutton with red power icon
Voice	(1) Pushbutton with microphone icon, initiates voice command capture ²
Home	(1) Programmable pushbutton with list icon
Functions	(8) Programmable pushbuttons with text or icons for volume up, volume down, mute, guide, menu, up, down, and info
Navigation Pad	(1) Programmable 5-way directional navigation pad for up, down, left, right, and select; alternately functions as four context dependent option buttons when the 'four color mode' button is pressed (navigation pad icons illuminate green, blue, red, and yellow in this mode)
Transport	(11) Programmable pushbuttons with text or icons for exit, last, rewind, play, forward, previous, pause, next, stop, DVR, and record
Illumination	White LED backlighting behind all button labels with autobrightness control (adjustable high, medium, and low settings)

TSR-310

Handheld Touch Screen Remote

NOTE: Pressing any button or moving the remote wakes the remote from sleep mode and turns on the button backlight if the room is dark.

Light Sensor

A photosensor detects the ambient light level to enable the button backlight if the room is dark. It automatically adjusts the touch screen display and button backlight brightness.

Movement Sensor

An accelerometer detects if the remote is picked up or moved, wakes the remote from sleep mode, and turns on the button backlight if the room is dark. It may also wake the touch screen display if configured.

Graphics

Graphics Engine Crestron Smart Graphics® technology, on-screen numeric keypad and multi-language keyboard, screensaver, Performance UI for Crestron Home® OS

Maximum Project Size 512 MB

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)

Performance UI 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

Wireless Communication

Transceiver IEEE 802.11a/b/g/n Wi-Fi (2.4 or 5GHz 2-way RF), static IP or dynamic IP via DHCP³

Security 64 & 128-bit WEP, WPA & WPA2-PSK with TKIP & AES

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

Handoff Supports handoff between a maximum of four Wi-Fi wireless access points³

Gateway Requires an 802.11a/b/g/n wireless access point and Ethernet-enabled Crestron control system

NOTE: The TSR-310 has been tested and verified to work with wireless access points from a variety of leading manufacturers. Please view the [TSR-310 Wireless Access Point Configuration Guide](#) for recommended WAP manufacturers and configurations.

TSR-310

Handheld Touch Screen Remote

Wired Communication

USB USB client for console only (installer setup)

Audio

Features Built-in microphone for multi-language voice recognition²

Connectors

USB (1) Micro-USB Type B console port behind battery compartment cover, for installer use only

Charging Contacts (2) Contacts which mate with the charging terminals on the table dock

Battery

Rechargeable Battery Li-Polymer, 3.7V, 2000 mAh, model [TSR-310-BTP](#)

Usage per Charge 5.5 hours continuous

Charging Time 3 hours

Power

Power Pack (included) Input: 100-240VAC, 50/60 Hz;
Output: 2A @ 5VDC

NOTE: Power connection is made via the charging dock.

Environmental

Temperature 32° to 104°F (0° to 40°C);
50° to 104°F (10° to 40°C) while charging

Humidity 10% to 90% RH (noncondensing)

Construction

Ruggedized ABS plastic, black housing, black buttons with backlit laser etched labeling

Dimensions

Height 0.95 in. (24 mm)

Width 2.28 in. (58 mm)

Depth 8.68 in. (221 mm)

Weight

0.40 lb (0.18 kg)

Compliance

Regulatory Model: TSR-310

CE, IC, FCC Part 15 Class B digital device

To search for product certificates, refer to support.crestron.com/app/certificates.

Model

TSR-310

Handheld Touch Screen Remote

Included Accessories

TSR-310-DS

Table Dock for TSR-310
(Qty. 1 included)

TSR-310-BTP

Battery Pack for TSR-310
(Qty. 1 included)

Available Accessories

For a list of available accessories, visit the [TSR-310](#) product page.

Notes:

1. A complete Crestron control system, plus additional equipment and services, are required to deliver all the capabilities and functionality described. Please contact your Crestron representative to learn more.
2. Voice recognition, weather information, and certain other functions require an Internet connection.
3. Refer to the [TSR-310 Wireless Access Point Configuration Guide](#) for a list of recommended wireless access points. Wi-Fi "handoff" capability enables automatic handoff amongst up to four pre-designated Wi-Fi wireless access points, wherein the last successful Wi-Fi connection is maintained indefinitely until that connection is lost, at which point communication is handed off to the next nearest access point. A very brief interruption to wireless Ethernet communication may occur during the handoff.

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 contact us for additional information by visiting 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.

The specific patents that cover Crestron products are listed online at www.crestron.com/legal/patents.

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

TSR-310

Handheld Touch Screen Remote

Crestron, the Crestron logo, Crestron Home, Instant-Waking, and Smart Graphics are either trademarks or registered trademarks of Crestron Electronics, 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. Wi-Fi, WPA, and WPA2 are either trademarks or registered trademarks of Wi-Fi Alliance 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.

©2023 Crestron Electronics, Inc.

Rev 10/02/23

TSR-310

Handheld Touch Screen Remote

