Crestron **STX-1550CW**
Wall Mount 2-Way RF Compact Color Touchpanels
Operations Guide

CRESTRON

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Contents

Wall Mount 2-Way RF Compact Color Touchpanel: STX-1550CW

Description

Functional Description

The STX-1550CW is a 2-way radio frequency (RF) compact color SmarTouch™ touchpanel that, when used with the BB-1550CW back box and DA-1550CW docking assembly, is wall mounted and provides a user interface to a Crestron remote control system (herein referred to as the Cresnet system). While the touchpanel is docked, the DA-1550CW provides operating power, hard-wire communications with standard Crestron remote control system (herein referred to as the Cresnet system), and recharges the Crestron High Performance Rechargeable Power Pack (ST-BTP) of the touchpanel.

The STX-1550CW touchpanel offers:

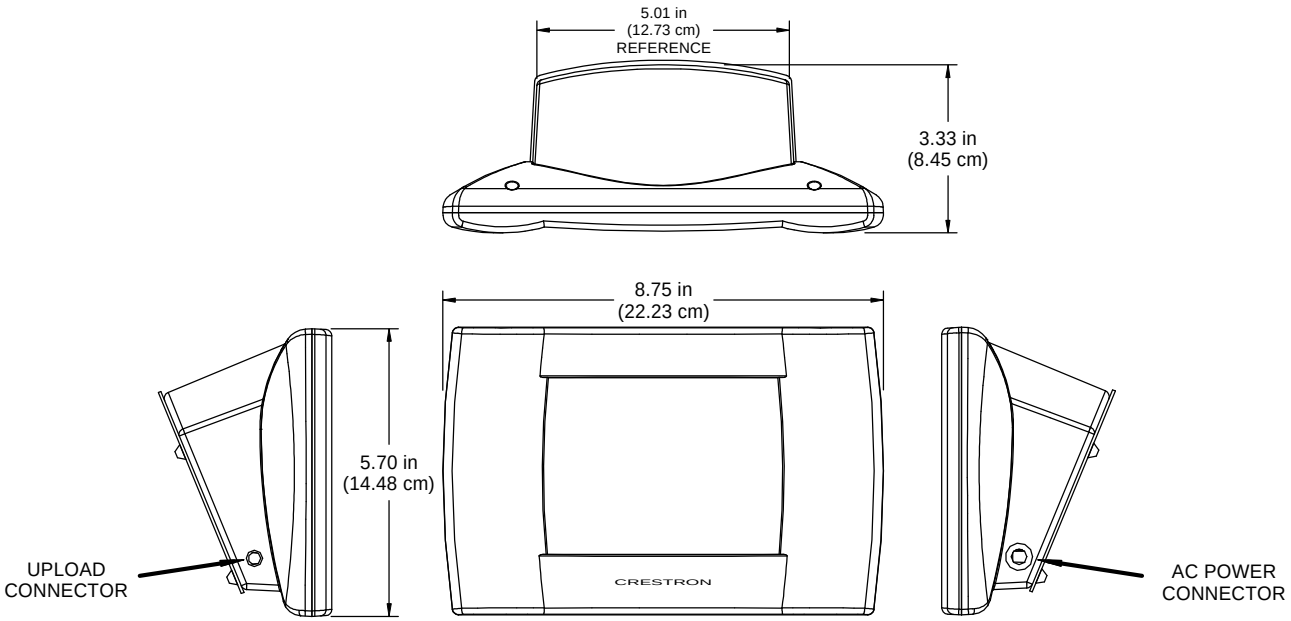
- 256 color display
- pop-up subpages to reduce memory requirements, providing optimal speed and performance
- multiple button and icon configurations
- up to 999 functions and 96 screens
- imported photographs, drawings, and icons
- support for downloadable fonts, proportional and non-proportional
- foreign language text

When not docked in the DA-1550CW, the touchpanel is a handheld, long range, RF, 2-way wireless transceiver that communicates through a RF transceiver/gateway, STRFGWX (sold separately) to the Cresnet system. The 2-way communications provide delivery of commands to the Cresnet system and provide dynamic onscreen feedback for real-time confirmation of commands. Up to 15 touchpanels can communicate with one STRFGWX. The RF signals can travel from a minimum of three feet up to a maximum of 150 feet. The location of the STRFGWX and the orientation of the antenna are important factors in the RF performance.

Physical Description

The touch-sensitive viewing screen is located on the top of each touchpanel. The electronic hardware is housed in a high impact, black molded plastic enclosure. As shown below, connectors to upload touchscreen projects via a personal computer (PC) and to power the unit using the external AC power pack (and simultaneously trickle-charge the ST-BTP) are located on the left and right sides of the unit, respectively.

Physical Views of STX-1550CW



At the underside of the unit is a docking plate and the power pack/battery compartment that holds one ST-BTP. Electrical contacts for the DA-1550CW are through the underside of the unit. There are also four rubber feet on the underside for stability and to prevent slippage.

Software

Have a comment about Crestron software? Direct software related suggestions and/or complaints to Crestron via email (software@crestron.com). Do not forward any queries to this address. Instead, refer to "Further Inquiries" on page 13 for assistance.

The STX-1550CW is supported by the VisionTools™ Pro-e (VT Pro-e) SmarTouch Wizard that automatically configures the entire system and the touchpanel pages. VT Pro-e, a design and programming Windows®-based software, permits the creation of unlimited control screen variations incorporating two and three-dimensional graphics and text. A set of pages which make up a project can be designed for each touchpanel application. Each page contains objects such as custom control graphics, two and three-dimensional buttons, sliders, and digital readouts which allow the user to interface with the Cresnet system. The project is uploaded to the touchpanel and programmed into the flash PROM. The touchpanel uses the programmed project until another set is uploaded from the PC. The PC may be disconnected from the rack or panel except during reprogramming. VT Pro-e also allows users the option to generate projects destined for web browsers rather than for physical touchpanels.

For additional software information, refer to the help file provided with the software. A copy of the software can be obtained from the Downloads page (TOUCHPNL Library) of Crestron's website (www.crestron.com). New users are required to register in order to obtain access to the FTP site. A tutorial is provided as a guide for the novice programmer.

Leading Specifications

The table below provides a summary of leading specifications for the STX-1550CW. Dimensions and weight are rounded to the nearest hundredth unit.

Leading Specifications of the STX-1550CW Touchpanel

SPECIFICATION	DETAILS
Power Source Options	
DA-1550CW	Docking assembly, Cresnet system load factor 34 Watts.
ST-BTP	Rechargeable NiCad power pack.
Domestic AC Power Pack or	PW-1215 or equivalent.
International AC Power Pack	PWI-1215 or equivalent.
RF Communications	2-Way, 418MHz, range 3 ft to 150 ft. [1] (Requires one STRFGWX transceiver per 15 touchpanels.)
Default NET ID	03
Default RF ID	1
Default RF Channel	0
SIMPL™ Windows®	Version 1.30.01 or later [2] (with the addition of smwlib70.exe and smwlib70.txt.) or Version 1.51.07 or later. [2]
VisionTools™ Pro-e	Version 2.1.8.2 or later [1] for SmarTouch Wizard support or version 2.1.8 or later [1] for regular support (use a CT-1600 model).
Crestron Database	Version 12.1.4 or later [2] for SmarTouch Wizard support or 12.1.3 later [2] for regular support (use a CT-1600 model).
CEN-CN Update File	Version 51180N.UPZ or later. [3]
CNMSX-AV/Pro Update File	Version 51020X.UPZ or later. [3]
CNRACKX/-DP Update File	Version 51020W.UPZ or later. [3]
ST-CP Update File	Version 40104S.UPZ or later. [3]
Default Timeouts	One (1) minute for standby, two (2) minutes for powerdown.
Touchpanel Dimensions & Weight	Height: 5.70 in (14.48 cm) Width: 8.75 in (22.23 cm) Depth: 3.33 in (8.45 cm) Weight: 1.60 lb (0.73 kg) [4]
Touchpanel Memory	768Kb flash memory for display.
View Screen Dimensions	Height: 3.55 in (9.02 cm) Width: 4.70 in (11.94 cm) Diagonal: 5.70 in (14.50 cm)
View Screen Resolution	320 x 240 pixels
View Screen Display	Passive Matrix Color LCD
View Screen Illumination	Backlit fluorescent
View Screen Touchscreen	Resistive Membrane

1 The location of the STRFGWX and the orientation of the antenna are important factors in the RF performance. Locate the unit outside of any metal enclosures and position the antenna horizontally, pointing straight out of the unit. Adjust the antenna to achieve the best range. The range of the unit is also dependent on its placement and the construction of the building that it is used in.

2 The latest versions can be obtained from the Downloads page (SIMPLWIN, TOUCHPNL, and CRESDB Libraries) of Crestron's website (www.crestron.com). New users are required to register in order to obtain access to the FTP site.

3 Filenames for update files have a UPZ extension and can be obtained from the Downloads page (OPSYS Library) of Crestron's website.

4 The weight listed is for the touchpanel only and does not include the BB-1550CW back box, DA-1550CW docking assembly, ST-BTP, or AC power pack.

As of the date of manufacture, the unit has been tested and found to comply with specifications for CE marking.

CE

NOTE: Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

General Use and Safety

WARNING: To avoid shock hazard and possible damage to the unit, do not use touchpanel in rain or expose it to unnecessary moisture.

Recommended Touchpanel Cleaning

Keep the surface of the touchscreen free of dirt, dust, or other materials that could degrade optical properties. Long term contact with abrasive materials can scratch the surface which may detrimentally affect image quality.

For best cleaning results, use a clean, damp, non-abrasive cloth with any commercially available non-ammonia glass cleaner. Surrounding plastic enclosure may not provide a complete water-tight seal. Therefore, apply cleaning solution to the cloth rather than the surface of the touchscreen. Wipe touchscreen clean and avoid ingress of moisture beneath panels.

Applying Power

The touchpanel can be powered via the DA-1550CW while docked, the ST-BTP, or external AC power pack. Each of these items has their own Operations Guides which details proper usage. Refer to the table on the next page for the required document.

STX-1550CW Power Source Options

POWER SOURCE OPTION	NOMENCLATURE	DOCUMENT NUMBER
Docking Assembly	DA-1550CW	5930
Rechargeable Power Pack	ST-BTP	5746
Domestic External AC Power Pack or	PW-1215	5762
International External AC Power Pack	PWI-1215	5763

Identity Codes

The STX-1550CW touchpanel uses three distinct types of identity (ID) codes: Cresnet identity (NET ID), RF ID, and RF CHANNEL. These codes are assigned to the touchpanel from the Interface Submenu when the unit is configured. Refer to "Interface Submenu" on page 7. For the touchpanel to be identified within the Cresnet system, these assignments must match assignments made in the SIMPL Windows program. The RF CHANNEL assignment made for the STRFGWX is made in the Crestron Viewport via SIMPL Windows or VT Pro-e. Refer to "Programming in SIMPL Windows" on page 9.

NET ID

Every equipment and user interface within the Cresnet system requires a unique NET ID. These codes are recognized by a two-digit hexadecimal number from 03 to FE. The NET ID of the unit must match the NET ID specified in the SIMPL Windows program.

RF ID

Every STX-1550CW touchpanel communicating with a STRFGWX requires a unique RF ID to secure RF communications. There are 15 useable codes for multiple touchpanel(s) ranging from 1 to F (hexadecimal number). The RF ID of the unit must match the RF ID specified in the SIMPL Windows program.

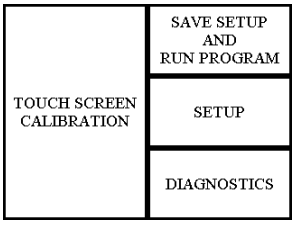
RF CHANNEL

Each STX-1550CW touchpanel communicating to the network via a specific STRFGWX transceiver must have a RF CHANNEL that matches the RF CHANNEL of the STRFGWX. Each STRFGWX in a system requires a unique RF CHANNEL. There are 16 possible RF CHANNELS ranging from 0 to F (hexadecimal number). The RF CHANNEL of the unit must match the RF CHANNEL assigned to the STRFGWX via the Viewport in SIMPL Windows or VT Pro-e.

Configuring the Touchpanel

To configure the touchpanel, it is necessary to access a series of setup screens prior to viewing run-time screens that are loaded into the touchpanel for normal operation. The Main Menu for configuring the touchpanel appears when a finger is held to the touchscreen as power is applied. Remove your finger when the message "SETUP MODE" appears on the touchscreen. Holding a finger to the touchscreen for five seconds after the "SETUP MODE" message is displayed sets the brightness to high.

Main Menu



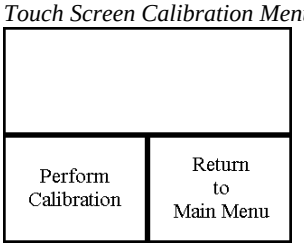
Upon entering SETUP MODE, the Main Menu, shown to the left, displays four buttons: **TOUCH SCREEN CALIBRATION**, **DIAGNOSTICS**, **SETUP**, and **SAVE SETUP AND RUN PROGRAM**.

The **SAVE SETUP AND RUN PROGRAM** button, located at the upper right corner of the Main Menu, saves all of the setup information to EEPROM and displays the main page that has been programmed into the system.

The remaining buttons on the Main Menu open additional menus and their functionality is described in the following paragraphs.

Touch Screen Calibration Menu

Touch Screen Calibration Menu



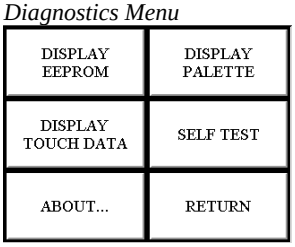
Calibration of the touchscreen is required if the active touch area of a button does not coincide with the button's image. Select the **TOUCH SCREEN CALIBRATION** button on the Main Menu to display the Touch Screen Calibration Menu, shown to the left. The menu offers the choice to initiate calibration with the **Perform Calibration** button or return to the previous screen with the **Return to Main Menu** button. Choose an option by touching the correct button. When touching the screen, be as accurate as possible.

If you proceed to calibrate the touchpanel, the screen prompts you with the message "Touch Screen Calibration Menu" nearly centered on the display. Another message, "Touch Upper Left Corner", appears in the upper left corner. Touch the corner of the screen to initiate calibration. Another message, "Touch Lower Right Corner", appears in the lower right corner. Touch the corner of the screen to return to the Main Menu and terminate calibration.

NOTE: When touching the screen during calibration, be as accurate as possible. A fine tipped, but not sharp, object (i.e., pen cap) should be used to get the finest possible resolution.

Diagnostics Menu

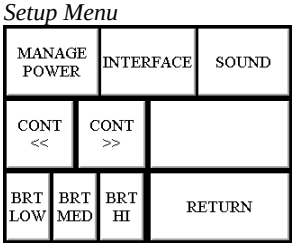
Diagnostics Menu



The **DIAGNOSTICS** button from the Main Menu should only be used under supervision from a Crestron customer service representative during telephone support. The options available from the Diagnostics Menu, shown to the left, are beyond the scope of this guide. Select the **RETURN** button, located at the lower right corner, to get back to the Main Menu.

Setup Menu

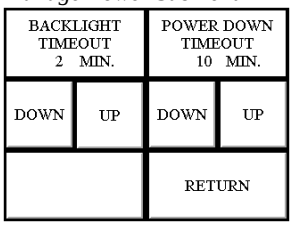
Setup Menu



To obtain the Setup Menu, shown to the left, select the **SETUP** button from the Main Menu. Many options for setting touchpanel parameters are available from the Setup Menu. This menu also provides buttons (**MANAGE POWER**, **INTERFACE** and **SOUND**) that open submenus for specific features. After setup parameters have been set, select the **RETURN** button, located at the lower right corner of the Setup Menu.

Manage Power Submenu

Manage Power Submenu



NOTE: Display backlight requires warm-up time. A display reaches 80% of its final level in five minutes and full brightness in 20 minutes.

The touchpanel display hardware life can be lengthened by turning off the backlight when the touchpanel is inactive. The **MANAGE POWER** button on the Setup Menu reveals the Manage Power Submenu, shown to the left. The length of touchpanel inactivity can be specified to minimize power utilization.

BACKLIGHT TIMEOUT is displayed on the Manage Power Submenu. This setting turns the backlight off when the touchpanel is inactive for the specified time (shown in minutes). When the touchpanel is activated, the last screen to be displayed reappears. A two minute **BACKLIGHT TIMEOUT** is shown in the diagram. Minutes can vary from 0 to 120, where 0 disables the timeout. The **DOWN** and **UP** buttons decrease and increase the timeout, respectively.

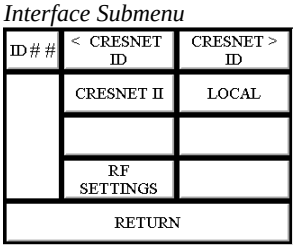
NOTE: Power Down Timeout should be set low to maximize power pack/battery life. However, Power Down Timeout should be set greater than Backlight Timeout. Otherwise, the Backlight Timeout is never reached.

NOTE: The purpose of the Power Down Timeout is to maximize power pack/battery life. If the touchpanel is docked in the DA-1550CW docking assembly or utilizes an external AC power pack, the panel does not power down when the power down timeout is achieved. Standby timeout still functions.

Touch the **RETURN** button, located in the bottom right corner of the screen, to display the Setup Menu.

Interface Submenu

Interface Submenu



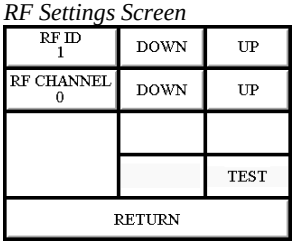
The touchpanel communicates with a Cresnet system to activate other controls or to display feedback from components within the system. The communication interface must be correctly specified or communication will not occur. To set communication parameters select the **INTERFACE** button from the Setup Menu to display the Interface Submenu, shown to the left.

The NET ID is represented by **ID # #** for illustrative purposes on the Interface Submenu. NET ID is the two-digit hexadecimal number that can range from 03 to FE and must correspond to the NET ID set in the Crestron Viewport via SIMPL Windows or VT Pro-e software. Matching NET IDs between the STX-1550CW touchpanel and a VT Pro-e program is required if new touchpanel screens are to be loaded. Matching NET IDs between touchpanels and a SIMPL Windows program is required if data is to be successfully transferred. The NET ID of each STX-1550CW is factory set to 03.

Two side-by-side buttons, **< CRESNET ID** and **CRESNET > ID**, decrease and increase the NET ID by one, respectively.

The touchpanel usually communicates with a Cresnet system. Occasionally the touchpanel can be used in a local demo mode where it merely displays various menus, but does not communicate with the Cresnet system. In local mode, the directory buttons change pages, but buttons requiring feedback do not work. Two buttons on the Interface Submenu, **CRESNET II** and **LOCAL**, determine communication mode. Select **CRESNET II** for the normal Cresnet communication mode and **LOCAL** to set the touchpanel into demo mode. Text within the selected button changes color from black to red and the communication mode is factory set to **CRESNET II**.

RF Settings Screen



The **RF SETTINGS** button opens the RF SETTINGS screen, shown to the left. The **RF ID** is displayed in the RF SETTINGS screen. The RF ID must match the identity code in the SIMPL Windows program and is identified by a hexadecimal number in the range from 0 to F. In the diagram, the RF ID is shown with a setting of "1". The DOWN and UP buttons associated with the RF ID field decrease and increase the RF ID by one, respectively.

The RF CHANNEL of the touchpanel must be identical to the RF CHANNEL of the STRFGWX to which it communicates.

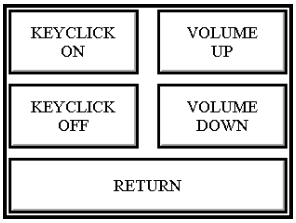
The **RF CHANNEL** is displayed in the RF SETTINGS screen. The RF CHANNEL is identified by a hexadecimal number in the range from 0 to F. In the diagram, the RF CHANNEL is shown with a setting of "0". The **DOWN** and **UP** buttons associated with the RF ID field decrease and increase the RF ID by one, respectively.

The **TEST** button should only be used under supervision from a Crestron customer service representative during telephone support. The options available from the TEST Menu are beyond the scope of this guide.

Select the **RETURN** button after interface parameters have been set.

Sound Submenu

Sound Submenu



The **SOUND** button, located at the top right corner of the Setup Menu, is used to display the Sound Menu, shown to the left. Use this screen to activate audible key clicks. This feature is a useful feedback tool. Confirmation of a button press on a touchpanel is acknowledged by an audible click assuming this feature is enabled. To enable this feature, verify that the **KEYCLICK ON** button is active (red). An active **KEYCLICK OFF** button disables the feature. Volume of the audible click is controlled with the **VOLUME UP** and **VOLUME DOWN** buttons. The unit is factory set with the sound on.

Contrast Buttons

Screen contrast may need to be altered because of ambient light conditions, panel temperature, or personal preference. Two contrast buttons, **CONT <<** and **CONT >>,** on the Setup Menu may be held down for continuous adjustment of the screen.

Brightness Buttons

Screen brightness may need to be altered because of ambient light conditions or personal preference. Three brightness buttons, **BRT LOW**, **BRT MED**, and **BRT HI**, on the Setup Menu may be selected to assign the backlight setting.

Return Button

Select the **RETURN** button, located at the lower right corner of the Setup Menu, after setup parameters have been set.

Programming

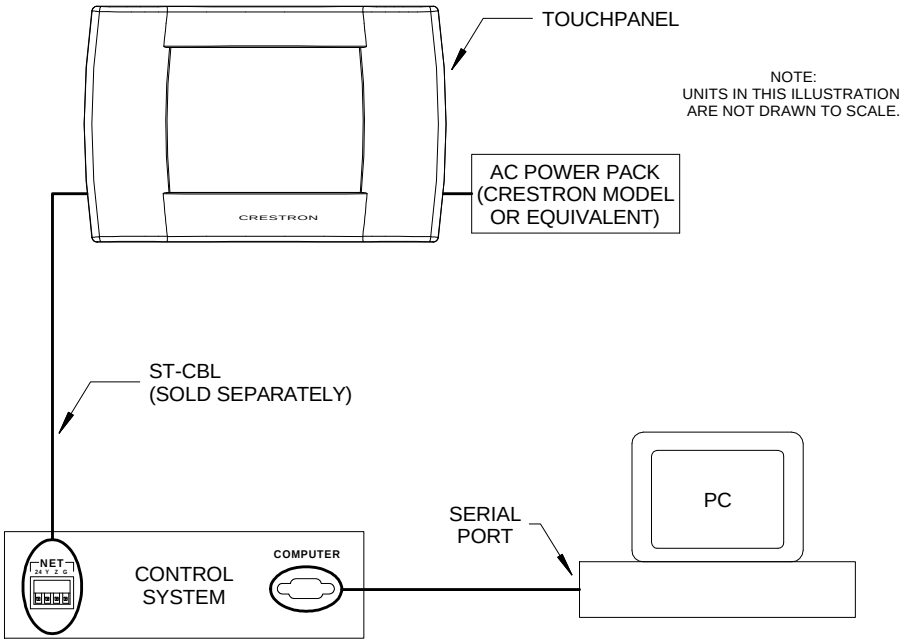
Uploading a VT Pro-e Project

VT Pro-e is a Windows compatible software package for creating Crestron touchpanel screen designs. Refer to "Software" on page 2 for additional details.

To upload a project, refer to the figures shown below and on the next page for typical connection diagrams. Complete the following steps provided to ensure proper connection to the system.

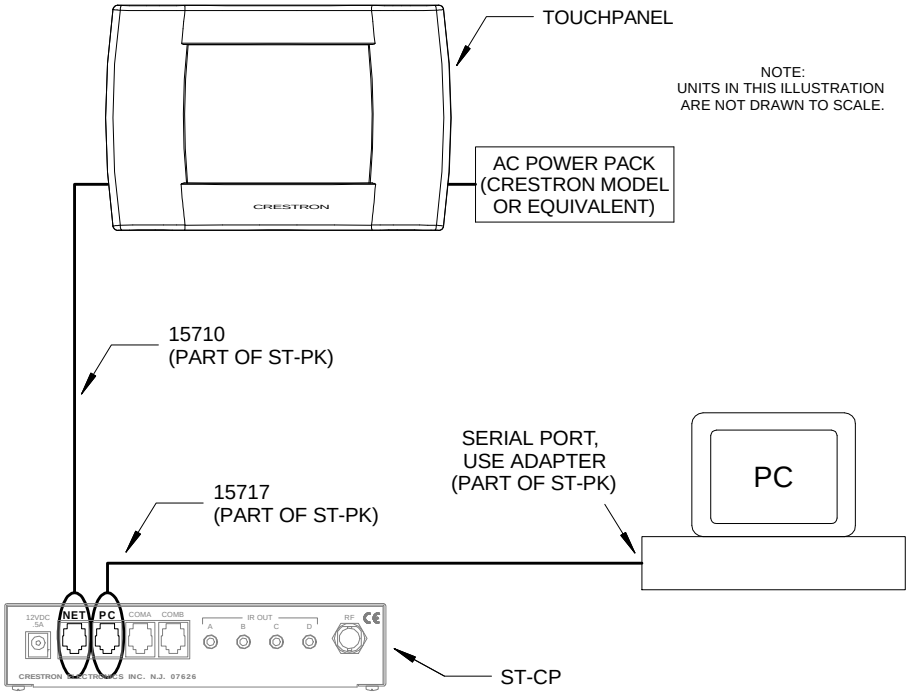
NOTE: If the control system in use has a 4-pin network connector rather than a modular (RJ11-type) NET connector, use a ST-CBL (sold separately) or make a cable. Refer to the programming cable specifications diagram on the next page.

Typical Connection Diagram when Loading a Program from the CNMSX-AV/Pro or CNRACKX/-DP



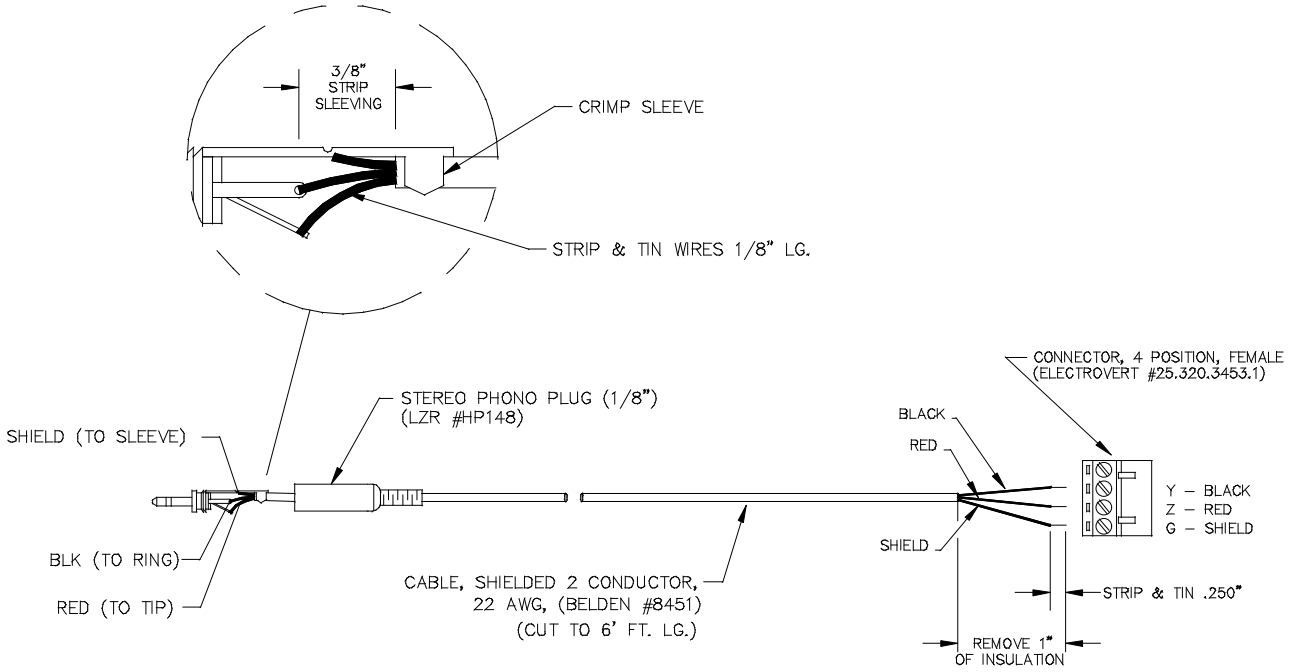
NOTE: The cable components in the figure below are part of the SmarTouch Programming Kit (ST-PK). If available, use these components.

Typical Connection Diagram when Loading a Program from the ST-CP



1. Before making any connections to the touchpanel, verify that control system is properly connected to the PC (for ST-CP, use cable 15717 and adapter) and powered on.
2. Refer to the programming cable specifications diagram on the next page for connection to the NET port. Attach the stereo connector end of the programming cable, (for ST-CP, use cable 15710) to the touchpanel.
3. Attach the RJ11 connector end of the programming cable, (for ST-CP, use cable 15710) to the connector labeled NET on the control system.
4. Attach the appropriate external AC power pack or equivalent to touchpanel and plug into outlet.
5. Use Crestron VT Pro-e software to upload the panel design project to the touchpanel. Refer to the software help file for upload settings.
6. After the touchpanel project has been uploaded, disconnect the programming cable. The touchpanel communicates with the control system via RF signals.

Programming Cable Specifications



SIMPL Windows

SIMPL (Symbol Intensive Master Programming Language) is an easy-to-use programming language that is completely integrated and compatible with all Crestron system hardware. The objects that are used in SIMPL are called symbols. SIMPL Windows offers drag and drop functionality in a familiar Windows® environment.

SIMPL Windows is Crestron's software for programming Crestron control systems. It provides a well-designed graphical environment with a number of workspaces (i.e., windows) in which a programmer can select, configure, program, test, and monitor a Cresnet system.

Example Program

The STX-1550CW and the STX-1550C (non-wall mounted touchpanel) can be programmed identically. Use the example program for the STX-1550C which is available from the Downloads page (EXAMPLES Library) of Crestron's website (www.crestron.com). Search for STX1550C.SMW. To see how to implement the STX-1550CW with the DA-1550CW, search for DA1550CW.ZIP. New users are required to register in order to obtain access to the FTP site.

Reserved Join Numbers

A reserved join number is a feature of the software that enables a designer to create a button on a touchpanel page that completes a predetermined function. The table on the next page provides a list of reserved join numbers available within SIMPL Windows.

NOTE: Many touchpanel configuration "shortcuts" are available via the software. A button can be created on a page that either calls up the Setup Menu, ramps contrast, adjusts brightness, etc., via reserved join numbers.

Reserve Join Numbers for STX-1550CW Touchpanel

JOIN NUMBER	FUNCTION	VALUE
1015	Power	Off
1016	Stand by	On
1017	Brightness	Low
1018	Brightness	Medium
1019	Brightness	High
1023	Contrast	Up
1024	Contrast	Down
1035	Reboots the Touchpanel [1]	N/A
1036	Discharges ST-BTP	N/A
1120 - 1123	Digital Battery Bargraph	Gauge Bottom (1120) to Gauge Top (1123)
1160	Keyclick Volume	Up
1161	Keyclick Volume	Down
1172	Keyclick	On
1173	Keyclick	Off
1210	Update Request	N/A
1213	Out of Range (RF) Indicator	N/A [2]

1 If finger is left on touchscreen after touchpanel reboots, the touchpanel enters the SETUP MODE.

2 Only for touchpanel firmware version 5.066.0 or greater.

Problem Solving

Troubleshooting

The table below and continued on the next page provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

STX-1550CW Touchpanel Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Touchpanel does not function when docked.	Error caused by DA-1550CW.	Refer to "Troubleshooting" section of the latest revision of the DA-1550CW Operations & Installation Guide (Doc. 5930). [1]
Touchpanel display is blank.	Backlight or power down timeout has elapsed.	Touch the screen to reactivate the touchpanel.
	Power is not applied to the touchpanel.	Verify that power is properly applied and all connections are made.
Touchpanel display is too dark or too light.	Screen brightness or contrast is improperly set.	Hold a finger to the touchscreen for more than 10 seconds as power is applied. The display sets the brightness and contrast to a safe value.
Screens are wrong.	Screens were not uploaded.	Upload screens as described in the help files found in VT Pro-e.

STX-1550CW Touchpanel Troubleshooting (Continued)

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Touchpanel does not function.	Touchpanel is not calibrated.	Refer to "Configuring the Touchpanel" in this Operations Guide to perform "Touchscreen Calibration.
	Touchpanel is not communicating to the control system.	Poll the network (F4 in either VT Pro-e or SIMPL Windows) to verify communication.
Touchpanel does not function and SIG LED on STRFGWX illuminates, but Rx or Tx LEDs do not illuminate.	Touchpanel RF ID is not set to match the RF ID assigned in the control system program.	Verify that RF ID match. Refer to "Interface" in this Operations Guide and RF ID parameters assigned in the program.
Project can not be uploaded: 1. Screen is blank.	Touchpanel is in standby or powered down.	Touch the touchpanel to display a screen. Verify that the panel has power supplied to it, either battery or power pack.
2. Checking communica-tions error.	Incorrect COM port specified.	Verify upload preferences is set to the COM port being used to communicate to the control system.
	NET ID on touchpanel is improperly set.	Verify that NET IDs match. Refer to "Interface" in this Operations Guide and NET ID parameters assigned in the program.
	Incorrect load selection.	Verify upload specifies correct NET ID and not "Send Direct to Wired Touchpanel".
Touchpanel exhibits slow operation.	Compressed graphics take time to decompress.	If there are no memory problems, decompressed graphics decrease the drawing time of panel pages.
Touchpanel operation appears unreliable.	Touchpanel is not within RF range of STRFGWX.	Position STRFGWX between 3 - 150 ft of touchpanel. [2]

1 The latest version can be obtained from the Downloads page (MANUAL Library) of Crestron's website (www.crestron.com). New users are required to register in order to obtain access to the FTP site.

2 The location of the STRFGWX and the orientation of the antenna are important factors in the RF performance. Locate the unit outside of any metal enclosures and position the antenna horizontally, pointing straight out of the unit. Adjust the antenna to achieve the best range. The range of the unit is also dependent on its placement and the construction of the building that it is used in.

Further Inquiries

If after reviewing this Operations Guide, you cannot locate specific information or have questions, please take advantage of Crestron's award winning customer service team by calling:

- In the US and Canada, call Crestron's corporate headquarters at 1-888-Crestron [1-888-273-7876] or 1-201-767-3400.
- In Europe, call Crestron International at +32-15-50-99-50.
- In Asia, call Crestron Asia at +852-2341-016.
- In Latin America, call Crestron Latin America at +525-260-4336.

For local support from exclusive Crestron factory-trained personnel call:

- In Australia, call Soundcorp at +613-9488-1555.
- In New Zealand, call Amber Technologies at +649-410-8382.

Future Updates

As Crestron improves functions, adds new features, and extends the capabilities of the STX-1550CW, additional information and programming examples may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

The Downloads page of the Crestron website (www.crestron.com) directs the reader to the location and description of each update. Check the site periodically for update availability and its subjective value.

Appendix

The purpose of this Appendix is to provide a programming solution for those that prefer the last screen to be displayed when the touchpanel turns on after encountering a POWER DOWN TIMEOUT. Stated simply, an INTERLOCK symbol needs to be incorporated so that the control system flips to the last page rather than the page marked as first. The information in this Appendix is not meant for everyone; only those who wish to adopt this feature.

Overview

This Appendix offers a simple example of a control system that has three devices to control: TV, VCR, and projector. As such, the VT Pro-e project includes three pages, one for each device. Particular settings must be made on each device page to ensure proper functionality. To support the goal of having the last page appear, the program needs to be adjusted via SIMPL Windows. This Appendix provides a SIMPL block diagram and description to characterize the details of the adjustment.

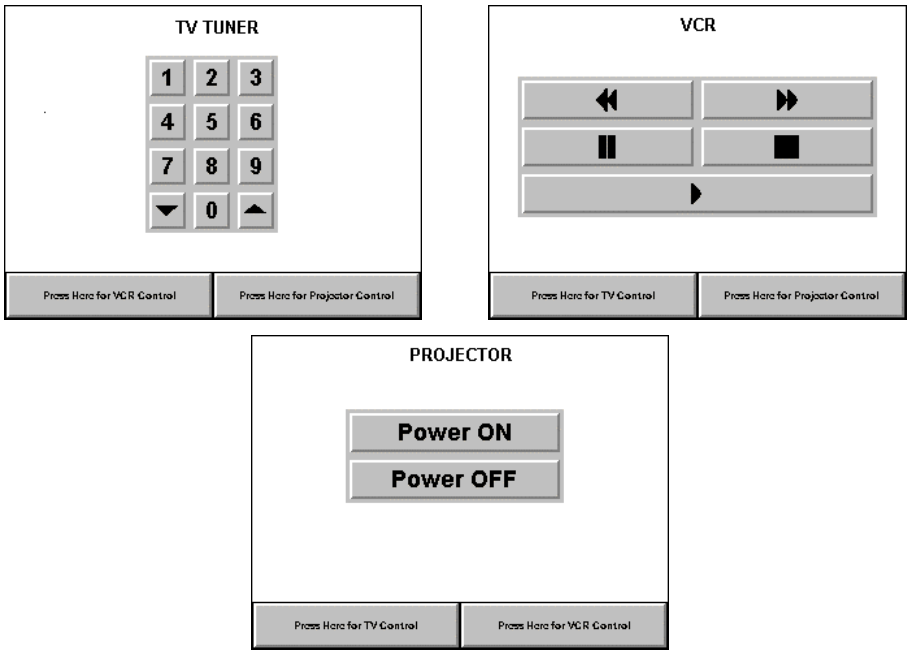
VT Pro-e Project

NOTE: The control logic for these devices is omitted for the sake of clarity.

NOTE: It is assumed that the reader has a working knowledge of VT Pro-e. If any of the terms in this discussion are unfamiliar, please review VT Pro-e's on-line help contents.

The VT Pro-e project in this example contains three device pages: TV, VCR, and PROJECTOR, shown below.

Three Device Pages in the VT Pro-e Project



Button Assignment

In this system, the buttons labeled **Press Here for VCR Control** on the TV and PROJECTOR pages are assigned a page flip to the VCR page and command the projector to switch to its first video input. The buttons labeled **Press Here for TV Control** on the VCR and PROJECTOR pages are assigned a page flip to the TV page and command the projector to switch to its second video input. The buttons labeled **Press Here for Projector Control** on the TV and VCR pages are assigned a page flip to the PROJECTOR page. No other action is assigned.

All buttons on the device pages that cause page flips must be joined. This setting permits the control system to keep track of every page flip and determine which page is currently being displayed. That information is useful if the last page to be displayed appears after a POWER DOWN TIMEOUT.

Join Number Assignment

In this example, **Press Here for TV Control** (Join # 6) and **Press Here for VCR Control** (Join # 9) already have joined numbers assigned because they perform a function. Only **Press Here for Projector Control** requires a new join number assignment (Join # 22).

Each device page that is a destination of a page flip must be assigned a join number. For this example, the page join numbers shown in the table below are assigned to the device pages.

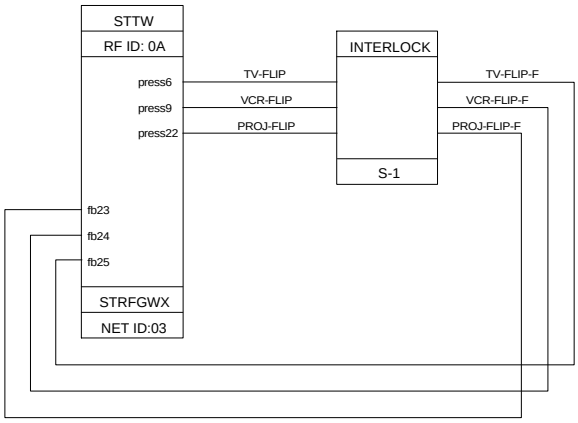
Page Join Number Assignments

DEVICE PAGE NAME	PAGE JOIN NUMBER
PROJECTOR	23
VCR	24
TV	25

SIMPL Program

In the SIMPL program, a signal must be assigned to Join # 22, so that the system knows when a page is flipped to the PROJECTOR page. The name *PROJ-FLIP* is assigned and placed on the button press side. There is no reason to have feedback on the button since it flips the page immediately. For this example, assume Join # 6 is assigned the signal name of *TV-FLIP* and Join # 9 has the signal name of *VCR-FLIP*. Refer to the block diagram shown below.

SIMPL Block Diagram for the Example



These three signal names should drive an INTERLOCK symbol so that the system can "remember" which page was shown last on the touchpanel. The outputs of the INTERLOCK are assigned unique names: *TV-FLIP-F*, *VCR-FLIP-F*, and *PROJ-FLIP-F*.

Finally, the corresponding feedback signals from the INTERLOCK must match the appropriate page join number. For this example, the page join numbers shown in the table below correlate to the INTERLOCK output signals.

Feedback Signal Name with Join Number Assignments

FEEDBACK SIGNAL NAME	JOIN NUMBER
PROJ-FLIP-F	23
VCR-FLIP-F	24
TV-FLIP-F	25

Conclusion: How the Example Works

NOTE: Since the control system is controlling the page flips on the touchpanel, the page flip setting on the buttons shown on the device pages can be removed via VT Pro-e.

To illustrate how the example works, consider the following actions taken by the user operating a STX touchpanel.

1. While viewing the TV page of the VT Pro-e project on the touchpanel, the user touches the **Press Here for Projector Control** button.
2. Join # 22 feedback is activated which forces *PROJ-FLIP* to logic "1".
3. The INTERLOCK symbol outputs *PROJ-FLIP-F* as logic "1"; all other outputs from the symbol are logic "0".
4. Join # 23 feedback is activated which forces the touchpanel to flip to the PROJECTOR page of the project.
5. Let the POWER DOWN TIMEOUT period expire so that the touchpanel turns off (or turn off the unit) while the PROJECTOR page is displayed.
6. When the touchpanel is reactivated, the control system provides the current state of all the analog and digital feedback signals. A logic "1" for Join # 23 is one of the signals resynced and therefore, the touchpanel flips to the PROJECTOR page rather than the page marked as first.

Return and Warranty Policies

Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange, or service without prior authorization from Crestron. To obtain warranty service for Crestron products, contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number, and return address.
2. Products may be returned for credit, exchange, or service with a Crestron Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to Crestron, Cresskill, N.J., or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. Crestron reserves the right in its sole and absolute discretion to charge a 15% restocking fee, plus shipping costs, on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by Crestron, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

Crestron Limited Warranty

Crestron ELECTRONICS, Inc. warrants its Cresnet products, denoted by a "CN" prefix model number, to be free from manufacturing defects in materials and workmanship for a period of three (3) years from the date of shipment to purchaser. Disk drives and any other moving or rotating mechanical parts are covered for a period of one (1) year. Crestron warrants all its other products for a period of one year from the defects mentioned above, excluding touchscreen display components which are covered for 90 days. Incandescent lamps are completely excluded from Crestron's Limited Warranty. Crestron shall, at its option, repair or replace any product found defective without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Crestron shall not be liable to honor warranty terms if the product has been used in any application other than that for which it was intended, or if it has been subjected to misuse, accidental damage, modification, or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced, or removed.

This warranty shall be the sole and exclusive remedy to the purchaser. In no event shall Crestron be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. Crestron makes no other warranties nor authorizes any other party to offer any warranty, expressed or implied, including warranties of merchantability for this product. This warranty statement supersedes all previous warranties.

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