Crestron TPCS-4SM & TPCS-4SMD 4.3" Touch Screen Control Systems Configuration Guide



This document was prepared and written by the Technical Documentation department at:



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4.3" Touch Screen Control Systems: TPCS-4SM & TPCS-4SMD

Access the Setup Screens

The setup screens are the starting point for configuring the TPCS-4SM and TPCS-4SMD from Crestron®.

NOTE: If no project has been loaded or if an invalid project has been loaded, the TPCS-4SM and TPCS-4SMD default to the setup screens.

The setup screens enable basic configuration procedures prior to regular operation of the TPCS-4SM and TPCS-4SMD.

When power is applied for the first time, the screen shown in the following illustration appears.





NOTE: Most screens on the TPCS-4SM and TPCS-4SMD are identical. The few instances where they differ are noted in the text.

Touch **Setup** to display the main "TPMC-4SM Setup" (or TPMC-4SMD Setup") menu, shown in the following illustration.

"TPCS-4SM Setup" Menu



During regular operation of the touch screen, there are two ways to activate the setup functions:

- 1. Place a button on the project main page and assign the reserved join number (17242) that activates setup.
- 2. Press hard keys 1, 2, 3 and 4, on the left side of the touch screen display, in sequence twice (i.e., press 1, 2, 3, 4, 1, 2, 3, 4) within a five second period.

NOTE: For hard key numbering refer to the "Diagnostic – Keypad" illustration at the bottom of page 12.

The "TPCS-4SM Setup" (or "TPCS-4SMD Setup") menu is comprised of buttons for Ethernet Setup, Audio Setup, Display Setup, Application Setup, Standby Timeout and Diagnostics. In addition, there are buttons that provide information about the touch screen and a Save & Exit button. The functions of each are detailed in the next section of this guide.

Configure the TPCS-4SM or TPCS-4SMD

Ethernet Setup

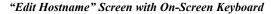
On the "TPCS-4SM[D] Setup" menu, touch **Ethernet Setup** to display the "Ethernet Setup" menu, shown in the following illustration.

"Ethernet Setup" Menu



The "Ethernet Setup" menu displays current settings, such as whether DHCP is on or off, the touch screen's *Hostname* and its *IP Address*. There are controls for turning *DHCP* **On** or **Off** as well as controls which allow editing of the *Hostname* and *IP Address*. This menu also contains *Link* and *Ethernet* indicators to show the status and activity of the Ethernet connection. Other controls on this menu are explained in paragraphs that follow.

To edit the *Hostname*, touch **Edit** on the right side of the menu. The "Edit Hostname" screen opens with its on-screen keyboard, shown in the following illustration.





Use the keyboard to enter the new name. Touch **Clear** to clear any previous entry, **Save** to save a new entry or **Cancel** to return to the previous screen.

To edit the *IP Address*, touch **Edit** on the right side of the "Ethernet Setup" menu. The "Edit IP Address" screen opens with its on-screen numeric keyboard, shown in the following illustration.

"Edit IP Address" Screen with On-Screen Numeric Keyboard



Use the keyboard to enter the new IP address. Touch **Clear** to clear any previous entry, **Backspace** to delete the last digit, **Enter** to save a new entry or **Cancel** to return to the previous screen.

Touch the ellipsis (...) at the top of the "Ethernet Setup" menu to display additional Ethernet parameters and the controls which allow their entry, as shown in the following illustration.

"Ethernet Setup" Menu (Additional Parameters)



The additional parameters are *Subnet Mask*, *Default Router*, *Mac Address* and *Domain*. For *Subnet Mask*, *Default Router* or *Domain*, touch **Edit** on the right side of the menu to open on-screen keyboards like the ones described above.

After all new settings have been made, touch **Reboot** at the bottom of the "Ethernet Setup" menu to reboot the touch screen, so the new settings can take effect.

Touch **Advanced Settings** to display the "Advanced Ethernet Setup" menu, shown in the following illustration.

Edit

Edit

Advanced Ethernet Setup

Static Settings

SSL: SSL Crertificate: None

Off CIP Port: 41794

Self Secure CIP Port: 41796

Edit

CTP Port: 41795

Secure CTP Port: 41797

"Advanced Ethernet Setup" Menu

The "Advanced Ethernet Setup" menu provides controls for enabling or disabling *SSL* (Secure Sockets Layer, a protocol for encrypting information over the Internet) and for editing the *CIP Port*, *Secure CIP Port*, *CTP Port* and *Secure CTP Port*.

The SSL controls work as follows:

- Off: Disables the SSL capabilities of the TPMC-4SM (or TPMC-4SMD)
- **Self**: Sets up self signing certificates
- CA: Uses an authority to assign the SSL certificates

NOTE: For more details on SSL settings, refer to the latest version of the 3-Series Control Systems Reference Guide (Doc. 7150). It is available from the Crestron Web site at www.crestron.com/manuals.

To edit the CIP Port, Secure CIP Port, CTP Port or Secure CTP Port, , touch Edit on the right side of the menu to open an on-screen keyboard like the ones described earlier in this guide.

Touch **DNS** Servers to display the "DNS Servers" screen, shown in the following illustration.

"DNS Servers" Screen



The "DNS Servers" screen provides controls for adding or deleting the IP addresses of DNS (Domain Name System) registered computers on the network. To add a server's IP address, touch **New** to open an on-screen keyboard.

Use the keyboard to enter the IP address of the new DNS server. Touch **Clear** to clear any previous entry, **Backspace** to delete the last digit, **Enter** to save a new entry or **Cancel** to return to the previous screen.

On the "Advanced Ethernet Setup" menu, touch the ellipsis (...) at the top to display the **On** and **Off** controls which allow enabling or disabling the *Webserver* and for editing the *Web Port* and *Secure Web Port*.

The default *Webserver* setting is **On**. Touching **Off** disables access to setup from a Web browser.

To edit the *Web Port* or *Secure Web Port*, touch **Edit** on the right side of the screen to open an on-screen keyboard like the ones described earlier in this guide.

"Advanced Ethernet Setup" Menu (Webserver)



Touch to return to the main "Ethernet Setup" menu.

On the "Ethernet Setup" menu, touch **Ethernet Diagnostics** to display the "Ethernet Diagnostics" screen, shown in the following illustration.

"Ethernet Diagnostics" Screen



The "Ethernet Diagnostics" screen provides controls for verifying connections. Touch **Ping Default Router** to verify connection to the router. (The screen displays a "Passed" message to show successful connection.) Touch **Ping Crestron.com** to verify connection to an external DNS server.

Touch **Who** to display a list of devices connected to the PC via the Ethernet connection. These devices may be Crestron Ethernet devices, third-party Ethernet devices or PCs (including any PC using Crestron ToolboxTM to connect to the processor via Ethernet).



to return to the "Ethernet Setup" menu.

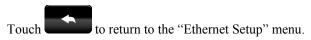
On the "Ethernet Setup" menu, touch **MyCrestron Dynamic DNS** to display the "MyCrestron Dynamic DNS Setup" screen, shown in the following illustration.

"MyCrestron Dynamic DNS Setup" Screen



To use MyCrestron Dynamic DNS, use a PC with Internet Explorer[®] to navigate to www.mycrestron.com and register a system with Crestron.

With the information provided from the MyCrestron home page, complete the information on the "MyCrestron Dynamic DNS Setup" screen. To enter the *Domain* and *Password*, touch **Edit** on the right side of the screen to open an on-screen keyboard like the ones described earlier in this guide. Then touch **Register This System**.



Touch again to return to the "TPCS-4SM[D] Setup" menu.

Audio Setup

On the "TPCS-4SM[D] Setup" menu, touch **Audio Setup** to display the "Audio Setup" screen, shown in the following illustration.

"Audio Setup" Screen



The "Audio Setup" screen provides controls for muting (or unmuting) the audio, adjusting *Volume* and playing a test .wav file.



to return to the "TPCS-4SM[D] Setup" menu.

Display Setup

On the "TPCS-4SM[D] Setup" menu, touch **Display Setup** to display the "Display Setup" screen. The "Display Setup" screens on the TPCS-4SM and TPCS-4SMD are different as noted below.

On the TPCS-4SM, the "Display Setup" screen, shown in the illustration below, provides controls to set the color of the *Left Side* and *Right Side* hard key LEDs (either **Green** or **Red**) or to turn the hard key LEDs **Off**. There are also controls to adjust *Green LED Brightness* and *Red LED Brightness*.

TPCS-4SM "Display Setup" Screen (HardKey Options)



TPCS-4SM

Touch **Show LCD** to display the *LCD Options* controls, shown in the following illustration.

TPCS-4SM "Display Setup" Screen (LCD Options)



The LCD Options include controls to adjust screen Brightness along with **On** and **Off** controls for Hard Key Wakes LCD and Proximity Sensor Wakes LCD.



to return to the "TPCS-4SM[D] Setup" menu.

TPCS-4SMD

On the TPCS-4SMD, the "Display Setup" screen, shown in the illustration below, provides controls for *LED (Hard Key) Brightness* and *LCD (Screen) Brightness* along with **On** and **Off** controls for *Hard Key Wakes LCD* and *Proximity Sensor Wakes LCD*.

TPCS-4SMD "Display Setup" Screen



Touch to return to the "TPCS-4SM[D] Setup" menu.

Application Setup

On the "TPCS-4SM[D] Setup" menu, touch **Application Setup** to display the "Application Setup" screen, shown in the following illustration.

"Application Setup" Screen



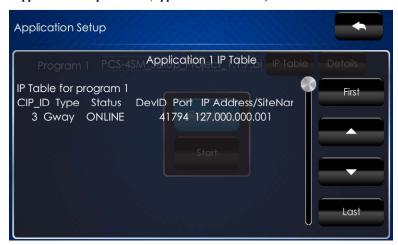
The "Application Setup" screen has controls to enable or disable the user program from running when the device boots and to restart the program.

Touch **Register** to enable the user program to load when the touch screen boots. The control text changes to **Unregister**. Touch **Unregister** to prevent the program from loading when the touch screen boots. The control text reverts to **Register**.

Touch **Start** to start the program. The control text changes to **Stop**. Touch **Stop** to stop the program. The control text reverts to **Start**.

Touch **IP Table** to display the IP table associated with the program, shown in the following illustration.

"Application Setup" Screen (Application 1 IP Table)

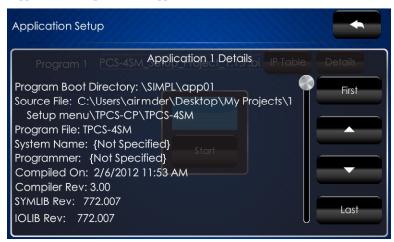


If there is more information than fits on the screen, touch **First**, \triangle , ∇ or **Last** to navigate the display.

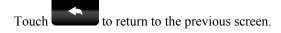
Touch to return to the previous screen.

On the main "Application Setup" screen, touch **Details** to display specific information about the program, shown in the following illustration.

"Application Setup" Screen (Application 1 Details)



If there is more information than fits on the screen, touch **First**, \triangle , ∇ or **Last** to navigate the display.

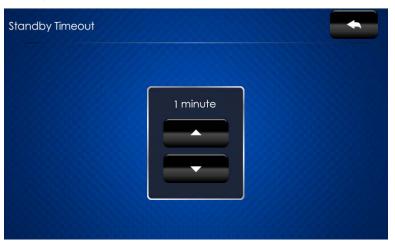


Touch again to return to the "TPCS-4SM[D] Setup" menu.

Standby Timeout

On the "TPCS-4SM[D] Setup" menu, touch **Standby Timeout** to display the "Standby Timeout" screen, shown in the following illustration.

"Standby Timeout" Screen



The "Standby Timeout" screen provides controls to adjust standby timeout from 0 to 120 minutes.

Touch to return to the "TPCS-4SM[D] Setup" menu.

Diagnostics

On the "TPCS-4SM[D] Setup" menu, touch **Diagnostics** to display the "Diagnostics" menu, shown in the following illustration.

"Diagnostics" Menu



The "Diagnostics" menu displays the *Available Memory* and contains controls to **Show Hardware Configurations**, **Show Cresnet Devices**, **Show Message Log**, **Show Last Reboot Message** and **Performance Statistics**. In addition there are controls to open various test screens and to initiate touch screen calibration. These are explained in the paragraphs that follow.

Keypad Test

On the "Diagnostics" menu, touch **Keypad Test** to display the "Diagnostic - Keypad" screen, shown in the illustration below.

"Diagnostic - Keypad" Screen



The "Diagnostics - Keypad" screen can be used to test the function of the hard key push buttons on either side of the screen. When a button is pressed, its corresponding indication on the screen lights.

Touch to return to the main "Diagnostics" menu.

Touch Test

On the "Diagnostics" menu, touch **Touch Test** to display the touch test screen, shown in the illustration below.

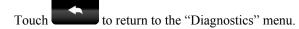
Touch Test Screen



The touch test screen contains a **Calibrate** button to initiate touch screen calibration and a **Return** button to return to the "Diagnostics" menu.

During touch screen calibration, a crosshair appears at the center of the screen. Touch the center of the crosshair, which then moves to the lower right part of the screen. Touch the center of the crosshair and it moves to another part of the screen. Continue touching the center of the crosshair until calibration is complete.

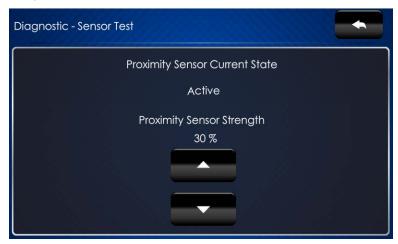
NOTE: When touching the screen during calibration, be as accurate as possible. Use the tip of a capped pen or the eraser end of a pencil.



Proximity Sensor Test

On the "Diagnostics" menu, touch **Proximity Sensor Test** to display the "Diagnostic – Sensor Test" screen, shown in the illustration below.

"Diagnostic - Sensor Test" Screen



The "Diagnostic – Sensor Test" screen indicates the current state of the proximity sensor (*Active* or *Inactive*) and provides controls to adjust *Proximity Sensor Strength*.





to return to the main "Diagnostics" menu.

Test Patterns

On the "Diagnostics" menu, touch **Test Patterns** to display the "Test Patterns" menu, shown in the illustration below.

"Test Patterns" Menu



The "Test Patterns" menu contains buttons for selecting the different available test patterns: Display Color Bars, Display Vertical Lines, Display Gray Scale, Display Grid Pattern and Display Test Pattern.



to return to the "Diagnostics" menu.

Calibrate

On the "Diagnostics" menu, touch **Calibrate** to initiate the screen calibration procedure. Refer to "Touch Test" on page 13 for details.



to return to the "TPCS-4SM[D] Setup" menu.

About

On the "TPCS-4SM[D] Setup" menu, touch **About** to display the "About" screen, shown in the following illustration.

"About" Screen



The "About" screen displays information about the firmware in the unit. Touch **Show Details** to display more information, shown in the following illustration.

"About" Screen (Details)



Touch to return to the "TPCS-4SM[D] Setup" menu.

Save & Exit

On the "TPCS-4SM[D] Setup" menu, touch **Save & Exit** to save all settings, exit the setup screens and return to the main project.



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