# TLC Pro 526M, 726M and 1026M Series • Setup Guide



### **Overview**

The Extron TLC Pro 526M, TLC Pro 726M, and TLC Pro 1026M are wall mounted capacitive TouchLink® Pro control systems that combine a touchpanel with an internal control processor.

- The TLC Pro 526M series touchpanels have a 5-inch screen with a 800x480 resolution and 24-bit color depth.
- The TLC Pro 726M series touchpanels have a 7-inch screen with a 1024x600 resolution and 24-bit color depth.
- The TLC Pro 1026M series touchpanels have a 10.1-inch screen with a 1280x800 resolution and 24-bit color depth.

Each model has a USB adapter with control ports that can be configured by Extron software. The Touchlink Pro control system acts as an all-in-one module combining touchpanel asthetics with the internal control processor, eliminating the need for an external control processor. This guide provides instructions for experienced installers to mount and install these touchpanels.

## **Setup Checklist**

Power on all devices.

Get Ready	
	<ul> <li>Download and install the latest version of the following software:</li> <li>☐ GUI Designer — for designing layouts for Extron TouchLink® Pro touchpanels and third party touch interfaces.</li> <li>☐ Global Configurator® Plus and Professional (GC) — for configuring the control system.</li> <li>☐ Toolbelt — for discovering the control products on the network, for managing core settings, and for upgrading firmware when needed.</li> </ul>
	NOTE: All three software programs are available from www.extron.com.
	□ IP Link Pro Device Drivers — to allow the control ports to interact with the devices they are controlling.  Obtain the following network information from your network administrator:  □ DHCP status (on or off). If DHCP is off, you will also require  □ IP address □ Subnet mask □ Gateway
	<ul> <li>□ User name — this can be either admin or user.</li> <li>□ Password — the factory configured passwords are the serial number of the touchpanel (for either admin or user).</li> </ul>
	<b>NOTE:</b> The factory configured passwords for all accounts on this device have been set to the device serial number. If the device is reset, the password reverts to extron. Passwords are case sensitive.
	Make a note of the touchpanel MAC address (see the rear panel label).
	Obtain model names and setup information for the devices that will be monitored or controlled by the TouchLink Pro control system.
	The TLC Pro Control System comes with a factory-installed Secure Sockets Layer (SSL) security certificate. To install a different SSL certificate, contact your IT department to obtain the certificate or for instructions on how to obtain one. See "Secure Sockets Layer (SSL) Certificates" in the <i>TLC Pro 526M, 726M, and 1026M Series User Guide</i> .
	IEEE 802.1X authentication is also supported once enabled (see "IEEE 802.1X Certificates" in the <i>TLC Pro 526M</i> , 726M and 1026M Series User Guide for details).
Mou	nt and Cable All Devices
	Connect cables and power cords to the touchpanel and the USB adapter.
	<ul> <li>ATTENTION: <ul> <li>Do not power on the touchpanels until you have read the Attention in the "Rear Panel Features" section of the TLC Pro 526M, 726M, and 1026M User Guide.</li> <li>Ne branchez pas les écrans tactiles avant d'avoir lu la mise en garde dans la section « Rear Panel Features » du</li> </ul> </li> </ul>
	TLC Pro 526M, 726M, and 1026M User Guide.
	Connect control ports to the devices they are controlling or monitoring.  Mount the units. There are several mounting options for TLC Pro Control Systems (see <b>Mounting</b> on page 7). Once the unit is mounted, the rear panel is not accessible. Ensure all cables have been connected before mounting.

### **Set Up the Touchpanels for Network Communication**

- ☐ Connect the PC that you will use for setup and the TouchLink Pro control system to the same Ethernet subnetwork.
- ☐ Use the **Setup Menu** (see page 10) or Toolbelt to set the DHCP status and, if necessary, the IP address, subnet mask, gateway, and related settings for the control system.

### **Configure the TouchLink Pro Control System**

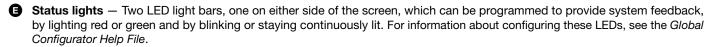
- Use GUI Designer to design, save, and build the graphical user interface layout for the touchpanel.
- ☐ Use Global Configurator to configure the control system and the control ports.
- ☐ Save and build the project and upload it to the TLC Pro control system.

The GUI Designer Help File, Global Configurator Help File, and the Toolbelt Help File provide step-by-step instructions and more detailed information. The Global Configurator Help File includes an introduction to the software and sections on how to start a project and configuration.

### **Front Panel Features**

Figure 1 shows the front panel of the TLC Pro 726M. The front panels of all the touchpanels have the same features and are almost identical apart from the size.

- Motion sensor Detects motion between three to five feet from the touchpanel, and at least 15° from the center axis.
  - When no motion has been detected for a user-defined period of time, the touchpanel enters sleep mode.
  - When motion is detected by the sensor, the screen display is restored and active.
- Communication LED Shows the configuration and connection status of the touchpanel:
  - Unlit during normal operation (the TouchLink Pro control system is correctly configured).
  - Blinks red if the touchpanel has been configured but is not communicating correctly with the TLC Pro control system.
  - · Lit solidly red if the touchpanel has not been configured.
  - The indicator can be toggled between enabled and disabled, using the Setup Menu (see page 10).
- **☐ Light sensor** Monitors ambient light level and adjusts screen brightness.
- Capacitive touchscreen
  - The TLC Pro 526M series has a 5-inch screen with a 800x480 resolution
  - The TLC Pro 726M series has a 7-inch screen with a 1024x600 resolution
  - The TLC Pro 1026M series has a 10.1-inch screen with a 1280x800 resolution



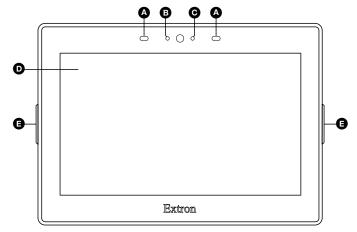


Figure 1. TLC Pro 726M Front Panel

### **Rear Panel Features**

### **NOTES:**

- The panels in figure 2 are for illustration only and are not to the same scale.
- For clarity, the first three rear panels in figure 2 are shown with the USB adapter removed.
- The fourth panel (bottom right corner) shows the TLC Pro 526M with the USB adapter ( ) in place. The alignments of the TLC Pro 726M and 1026M with the adapter are very similar.

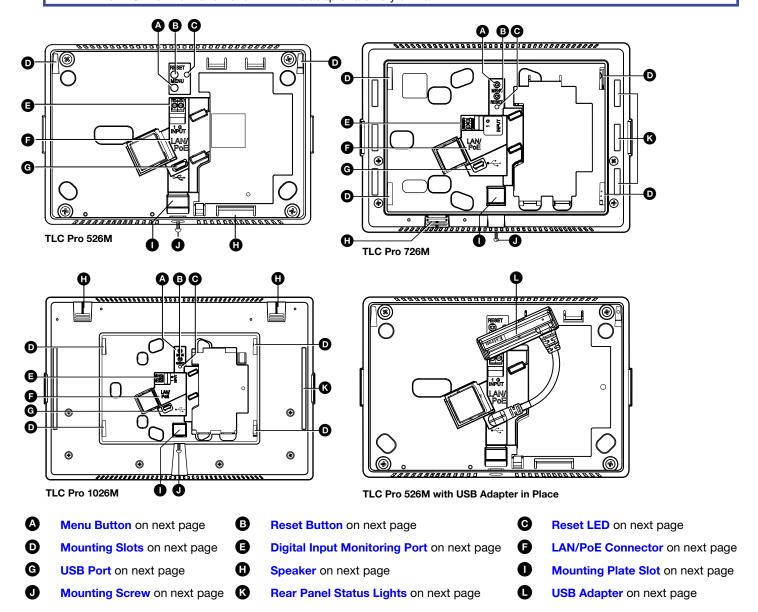


Figure 2. TLC Pro 526M Rear Panel with the USB Adapter Removed (top left).

TLC Pro 726M Rear Panel with the USB Adapter Removed (top right).

TLC Pro 1026M Rear Panel with the USB Adapter Removed (bottom left).

TLC Pro 526M Rear Panel with the USB Adapter In Place (bottom right).

- Menu Button (see figure 2 on the previous page) Activates the setup menu (see Setup Menu on page 10).
- Reset Button Pressing the Reset button allows the unit to be reset in any of four different modes and can also be used to toggle between enabling and disabling the DHCP client (for an overview, see Reset Modes: a Brief Summary on page 9).
- Reset LED Provides feedback about the reset status when the user presses the Reset button (see Reset Modes: a Brief Summary).
- Mounting Slots The TLC Pro 726M and 1026M have four, one in each corner. The TLC Pro 526M has two, one in each top corner. The hooks on the corners of the mounting plate (see figure 13, 3, on page 7) fit into these slots for wall mounting.
- **Digital Input Monitoring Port** This two-pole captive screw port (1 = signal and G = ground) monitors digital input with or without a +5 VDC pull-up.
- **EXAM/PoE Connector** Connect the touchpanel to a PoE power injector (not provided) using a twisted pair cable, terminated with an RJ-45 connector. Connect the power injector to the LAN through a nework switch.

#### **ATTENTION:**

- The TLC Pro 526M, TLC Pro 726M and TLC Pro 1026M are Power over Ethernet (PoE 802.3af, class 3) compliant.
   Do not power on the touchpanels until you have read the Attention in the "Rear Panel Features" section of the TLC Pro 526, 726, and 1026 Series User Guide.
- Le TLC Pro 526M, le TLC Pro 726M et le TLC Pro 1026M supportent l'alimentation via Ethernet (PoE 802.3af, classe 3). Veuillez lire la partie « Attention » dans la section « Rear Panel Features » du TLC Pro 526, 726, and 1026 Series User Guide, avant de mettre sous tension les écrans tactiles.

**NOTE:** These touchpanels are shipped without a power injector. The power injector must be purchased separately.

Extron recommends the Extron XTP PI 100 power injector (see figure 3). Your power injector may look different.

- **G** USB Port Compatible with USB 2.0.
- **B** Speaker Provides audible feedback for the user.
  - TLC Pro 526M a single speaker
  - TLC Pro 726M a single speaker
  - TLC Pro 1026M two (dual mono) speakers
- Mounting Plate Slot The tongue at the bottom of the plate (see figure 13, 4) fits into this slot, for wall mounting.
- Mounting Screw Tightens against the tongue of the mounting plate to secure the touchpanel.
- Rear Panel Status Lights
  - TLC Pro 526M no lights
  - TLC Pro 726M Six lights, three on each side of the panel
  - TLC Pro 1026M Two lights, one on each side of the panel

These lights can provide system feedback by being configured to light red or green and to blink or stay continuously lit. For information about configuring these LEDs, see the *Global Configurator Help File*.

The rear panel status lights can be toggled between enabled and disabled by using the **Setup Menu**.

USB Adapter — Provides additional control ports (see below).

## **USB Adapter Features**

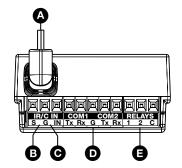


Figure 4. USB Adapter Features

- A USB Connector Insert connector into the USB Port (see figure 2 on page 4, G)
- B IR connector (shares ground with Contact Closure connector)
- Contact Closure connector (shares ground wire with IR connector)
- Communications ports (two, with shared ground wire)
- Relay ports (two, with shared common wire)

For more information about these ports, see Control Ports - USB Adapter on page 5)

#### **Attaching the USB Adapter to the Touchpanel**

- 1. Connect the adapter to the USB port (see figure 2, G on page 3).
- 2. Use the provided zip tie to secure the adapter to the back of the touchpanel.

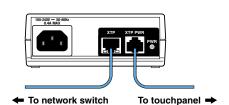


Figure 3. XTP PI 100 Power Injector

## **Control Ports - Touchpanel**

### **Digital Input Monitoring Port**

This port monitors digital input from external devices. Connect a two wires as follows:



Figure 5. Digital Input Monitoring Port

- Pin 1 = signal
- Pin 2 (G) = ground.

The port measures two states: high and low. Digital input is triggered by an external switch or voltage between the digital input pin and ground. The threshold voltages are:

- Low to high 2.8 VDC
- High to low 2.0 VDC

If the connected device does not provide its own power, use Global Configurator to configure an internal pull-up resistor.

## **Control Ports — USB Adapter**

### IR

Insert the wires from an IR Emitter into the IR port and place the head of the emitter over or next to the IR signal pickup window of the device being controlled.

Connect two wires to the IR port, as shown in figure 6. If both the IR port and contact closure port are used, the ground pin must be shared by both devices.

NOTE: Each emitter must be within 100 feet (30.4 meters) of the TLC Pro control system for best IR control results.

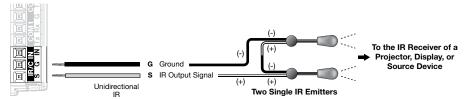


Figure 6. IR Connector

The IR port can accept a single IR emitter (see figure 7), a dual IR emitter (see figure 8) or two single IR emitters, tied in series (see figure 9).

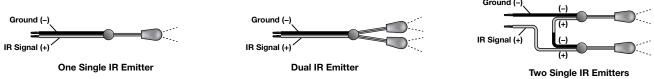


Figure 7. Installing One Single Emitter

Figure 8. Installing One Dual Emitter

Figure 9. Installing Two Single Emitters

#### **Contact closure**

The contact closure port is used to monitor switches, sensors, or similar devices and trigger events in response to changes to the monitored device. Insert the wires from the monitored device into the contact closure port.

A 1k ohm pull-up resistor in a TTL (5 VDC) circuit senses the contact closure.

- When the external switch closes (shorts to ground, logic low) the port is on.
- · When the external switch opens (logic high) the port is off.

Connect two wires to the contact closure port, as shown in figure 10. If both the IR port and contact closure port are used, the ground pin must be shared by both devices.

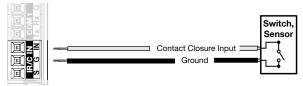


Figure 10. Contact Closure Port

### **COM** ports

The TLC Pro Control System has two COM ports, which support software flow control. They share a common ground pin. COM ports control and receive status messages from connected devices, using the following RS-232 protocols:

- 300 to 115200 baud (default = 9600 baud)
- 7 or 8 data bits (default = 8)
- 1 or 2 stop bits (default = 1)
- No parity, even parity, or odd parity (default = no parity)
- This port supports flow control. The default is no flow control.

**NOTE:** The maximum distance from the touchpanel to the device being controlled is usually 200 feet (61 m), but this can vary, depending on factors such as cable gauge, baud rates, environment, and output levels from the touchpanel and the device being controlled.

To wire the ports, see figure 11. If single port is used, it can be wired using either COM 1 or COM 2. (Figure 11 shows COM 1.)

For bidirectional serial communication, the transmit, ground, and receive pins must be wired at both the adapter and the device being controlled. For information about wiring the device being controlled, see the user guide for that device.

If you use cable that has drain wire, the drain wire must be tied to ground at both ends. For best results, insulate the common or drain wires using heat shrink.

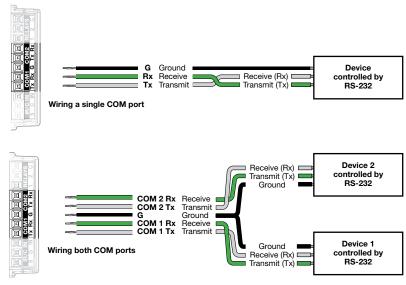


Figure 11, COM Ports

### **Relays**

There are two relay ports, which share a common ground. These ports may be used to control any equipment as long as the contact specifications of a total of 24 V at 1 A are not exceeded for each port. These relays are normally open by default.

When activated, the open contacts close. They can be set up to operate in one of two ways:

- Latching (brief or indefinite period contact) (press to close, press to open), or
- Pulsed (timed cycle) (press to close, timeout to open, with automatic repeat).

In pulse mode the default timeout period (hold time) is 0.5 second (500 ms). This time can be changed with Global Configurator.

**NOTE:** The pulse function is absolute: it always sets the relay state to closed, times out (briefly), then opens the contact. It overrides the previously selected setting (on state, off state, or toggle).

To use a single relay port connect Pin 3 (C) and either Pin 1 (Relay 1) or Pin 2 (Relay 2) to the device being controlled. To use both relay ports, connect the pins as shown in figure 12. Pin 3 (C) must be connected to both devices being controlled.

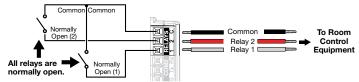


Figure 12. Relay Ports

## **Mounting**

All these touchpanels can be wall-mounted, either using a UL-listed junction box, an external wall box, or directly into drywall or furniture. Suitable mounting accessories can be found at www.extron.com.

#### ATTENTION:

- Do not install touchpanels in a fire resistant rated wall or partition assembly.
- Ne pas installer les écrans tactiles sur un mur protégé par un dispositif coupe-feu ou dans une cloison.
- All structural steps and electrical installation must be performed by qualified personnel in accordance with local and national building codes and electrical codes.
- Toute étape structurelle et installation électrique doit être effectuée par un personnel qualifié, conformément aux codes de sécurité de bâtiments et de produits électriques en vigueur à l'échelle régionale et nationale.

### With a Wall Box or Junction Box

Some local building codes require the touchpanel to be mounted in a junction box. Junction boxes or wall boxes must be purchased separately.

#### NOTES:

- The TLC Pro 526M mounts to a 1-gang junction box. The US 1-gang junction box should be installed so that the long side is horizontal. EU or MK 1-gang junction boxes should be installed in the standard orientation.
- The TLC Pro 726M and 1026M touchpanels mount to a 2-gang junction box.
- Extron provides four 3/4" #6-32 Philips pan head screws for mounting to US junction boxes.
- Extron provides two 16 mm M 3.5 Philips pan head screws for mounting to MK junction boxes.
- EU junction boxes are usually provided with their own screws.

#### With a wall box

Figure 13 shows the TLC Pro 726M. Installation for the TLC Pro 526M or TLC Pro 1026M is very similar.

- Install a junction box or wall box (see figure 13, ), following the instructions provided by the manufacturer.
- 2. Fasten the mounting plate to the wallbox (2) with the provided screws. Use the mounting holes that are appropriate to the junction box you are using (see figure 14, below).
- Secure the USB adapter to the back of the touchpanel (see Attaching the USB Adapter to the Touchpanel on page 4).
- 4. Run and connect cables to the back of the touchpanel (see TLC Pro 726M Front Panel on page 2) and the USB adapter (see Control Ports USB Adapter on page 5).
- 5. The TLC Pro 526M mounting plate has two hooks (one in each top corner). The TLC Pro 726M and TLC Pro 1026M mounting plate has four hooks (3), one in each corner (see figure 14, below). Position the touch panel so that the mounting slots (see figure 2, 0), on page 3) in the rear of the touchpanel align with these hooks.
- 6. Move the touchpanel inward and downward so that touchpanel sits securely on the hooks and the tongue at the bottom of the mounting plate (4) sits in the groove in the bottom of the touchpanel (see inset, 5).
- **7.** Fasten the touchpanel to the mounting plate with the lock screw (**6**).

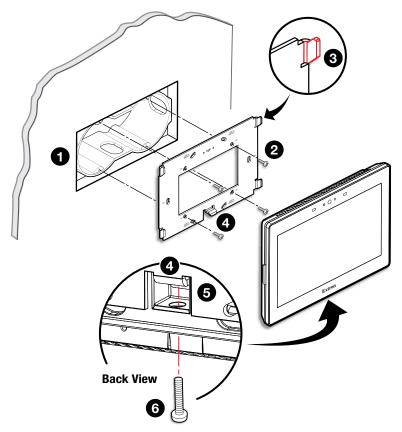


Figure 13. Mounting the TLC Pro 726M with a Junction Box

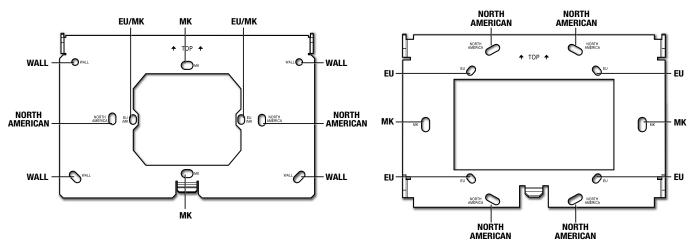


Figure 14. TLC Pro 526M Mounting Plate (left) and TLC Pro 726M and 1026M Mounting Plate (right)

NOTE: The TLC Pro 726M and TLC Pro 1026M series touchpanels use the same mounting plate.

#### Without a wall box

If the wall box is not required by local building codes, you can mount the touchpanel directly into drywall.

- Use the mounting plate as a template to mark the wall or download the cut-out template for your product from www.extron.com. Place the template or mounting plate against the wall or furniture in a suitable location and ensure that it is level.
- 2. Mark the position of the hole and cut the wall.
  - For the TLC Pro 526M, this hole is 2.4 inches (61 mm) wide x 2.1 inches (53 mm) high.
  - For the TLC Pro 726M or 1026M, this hole is 3.5 inches (89 mm) wide x 2.0 inches (51 mm) high.
- 3. Mark the slots labeled WALL (TLC Pro 526M) or MK (TLC Pro 726M or 1026M) (figure 13) and drill the two pilot holes. Extron recommends using two Molly bolts or SnapToggle bolts.
- Secure the mounting plate to the wall (see figure 13, 2), on the previous page).
- 5. Complete the installation as described in steps 3 through 7 on the previous page.

**NOTE:** Allow adequate space to accommodate the USB adapter:

- For the TLC Pro 526M series, allow a minimum of 1.00" (26 mm) behind the mounting plate.
- For the TLC Pro 726M series, allow a minimum of 1.37" (35 mm) behind the mounting plate.
- For the TLC Pro 1026M series, allow a minimum of 1.40" (36 mm) behind the mounting plate.

## **Reset Modes: a Brief Summary**

The TLC Pro Control System Series offers the following reset modes:

Use factory firmware: Press and hold the **Reset** button (figure 2, **B**), on page 3) while applying power to the unit. Use this mode to replace firmware in the event of firmware failure.

Do not continue to operate the TouchLink Pro control system using the factory firmware version. If you want to use the factory default firmware version, you must upload that version

again.

This mode is activated using Global Configurator Plus and Professional. See the *Global Configurator Help File* for more information.

Run/Stop Program:

**Project Recovery:** 

Hold down the **Reset** button for about 3 seconds, until the Power LED blinks once. Release and press the **Reset** button momentarily (for <1 second) within 1 second. (Nothing happens if the momentary press does not occur within 1 second.) The LED blinks 2 times if the program is starting. The LED blinks 3 times if the program is stopping. This mode allows you to restart any programs stopped by an IP settings reset.

Toggle DHCP Client:

This mode toggles between DHCP enabled and DHCP disabled. Press the **Reset** button five times, consecutively. After the fifth press, do not press the button again within 3 seconds.

If DHCP was enabled, it is now disabled and the Reset LED (figure 2, ©) blinks three times.

If DHCP was disabled, it is now enabled and the Reset LED blinks six times.

### **NOTES:**

- DHCP toggle mode is supported on firmware version 3.0 or higher.
- By default DHCP is off and the unit uses a static IP address.
- When you disable the DHCP client, the unit reverts to using the previously-set static IP address.
- Reset All IP Settings:

Press and hold the **Reset** button for 6 seconds. After the Reset LED flashes twice, release and momentarily press the **Reset** button. Use this mode to reset all network settings without affecting user-loaded files.

Reset to Factory Defaults:

Press and hold the **Reset** button for 9 seconds. After the Reset LED flashes three times, release and momentarily press the **Reset** button. Use this mode to return the interface to factory default settings.

**NOTE:** The factory configured passwords for all accounts on this device have been set to the device serial number. If the device is reset to factory defaults, the password reverts to extron. Passwords are case sensitive.

## **Setup Menu**

The setup menu opens when the **menu** button is pressed (see **figure 2**, **(A)** on page 3). Figure 15 shows the TLC Pro 526M menu. The setup menus for the other touchpanels are very similar.

There are five different screens: **Status**, (shown in figure 15) **Network**, **Display**, **Audio**, and **Advanced**. The screens can be selected by pressing the appropriate button in the navigation bar at the top of the screen (for more information, see the *TLC Pro 526M*, *726M*, and *1026M User Guide*).

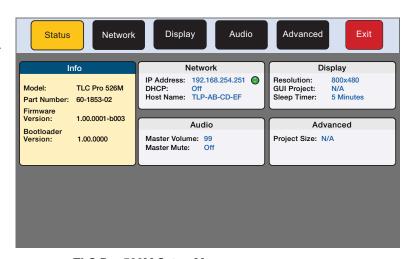


Figure 15. TLC Pro 526M Setup Menu

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the **Extron Safety and Regulatory Compliance Guide** on the Extron website.