

# TS2

## Film Interactive Touchpad

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# Preface

## Purpose of this Manual

This manual provides step-by-step installation instructions and connection examples, along with basic user information for installation and ongoing use of the TS2. This manual is written for the installer of this equipment.

## Organization

The following information is contained in this manual.

<b>TS2 Introduction</b>	Provides an introduction to ELAN Home Systems' TS2 , along with system features to include Front and Rear panel controls, indicators and connections, along with a short description of each.
<b>TS2 System Design and Installation</b>	Provides a system design application overview and installation requirements for the TS2.
<b>TS2 System Connections</b>	Provides a description of the TS2 system connections and direct connections from the TS2 to other components.
<b>TS2 Setup and Programming</b>	Provides directions for enabling / disabling TS2 features and initial TS2 incorporation into the system.
<b>TS2 Display Overview</b>	Provides information on the display screens and their functions for the Home Page and sub-system display and control.
<b>Troubleshooting</b>	Provides troubleshooting tables to help fix common problems that may be encountered when installing the TS2.
<b>Specifications</b>	Provides equipment specifications for the TS2.

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**Items in Package:**

- TS2 Touchpad
- White Trim Plate
- Black Film Overlay
- White Film Overlay
- Quick Install Guide
- User's Guide
- Mounting Screws (4)

## Chapter 1: Introduction

TS2 Film Interactive Touchpad (FIT) is a double-gang, in-wall system controller that uses a touch film in lieu of hard buttons to perform all functions normally associated with a keypad. Source and system control icons and function names are printed on interchangeable backlit film transparencies. Each icon or function name corresponds to an active “hot spot” that issues a control command and gives both audible and visual confirmation to the user when pressed.

The TS2 is for use with ELAN Home Controllers running Core Module Software 5.0 or later and is not interchangeable with the Olé2XL.

The touchpad features a 2" color OLED to provide source, sub-system and programming feedback to the user.

Programming for the TS2 resides in the Home Controller and is accomplished with ELAN's Configuration Software.

### Film Interactive Technology

The TS2 utilizes a polyester plastic film suspended over a glass panel, which is placed over a changeable backlit film. Depressing the polyester film with a finger allows the film to touch the glass panel underneath, generating a location signal that is read by the electronics.

## The ELAN Story

Located in Lexington, KY, USA, ELAN Home Systems has designed innovative multi-room audio/video systems since 1989. ELAN systems were the first to integrate music, intercom and TV distribution features that used the homeowner's stereos, televisions and telephones to create the whole-house entertainment experience. These Systems allow people to move from room to room, controlling centrally located equipment with ease.

ELAN's product line includes:

- Power Amplifiers
- Multi-Zone Pre-Amps
- Intelligent Keypads
- In-Wall LCD Color Touch Panels
- Wireless LCD Color Touch Panels
- Film Interactive Touchpads
- In-Wall and In-Ceiling Speakers
- Outdoor Speakers
- Home Automation Controllers
- A/V Controllers
- Volume Controls
- Telephone-Based Intercom Controllers
- Video Switchers
- Digital Music & DVD Management Systems
- Satellite Radios
- Accessories for Home Systems Installation

## TS2 Features

Full touchpad design, no hard buttons

2" color OLED (Organic LED) Display

Brightness-adjusting light sensor (can be disabled)

Audible 'click' to indicate a button press (can be disabled)

ELAN Configuration Software programming

Compatible with all current ELAN Home Controllers running 5.0 software or higher

System and sub-system feedback

Built-in IR receiver (can be disabled)

Connectivity for Remote IR Receiver

Sense Trigger Input (future use)

Fits in a double-gang electrical box

THE TS2 SUPPORTS THE FOLLOWING FEATURES:

**Basic Time & Weather information:** The home interface displays time and basic weather information. Optionally, additional pages for weather forecast and/or house modes can be enabled.

**Lighting Control:** The lighting interface displays a custom lighting keypad for 2-way control of scenes or lighting loads.

**Security Control:** The security interface displays status of one partition and a keypad to arm/disarm that partition.

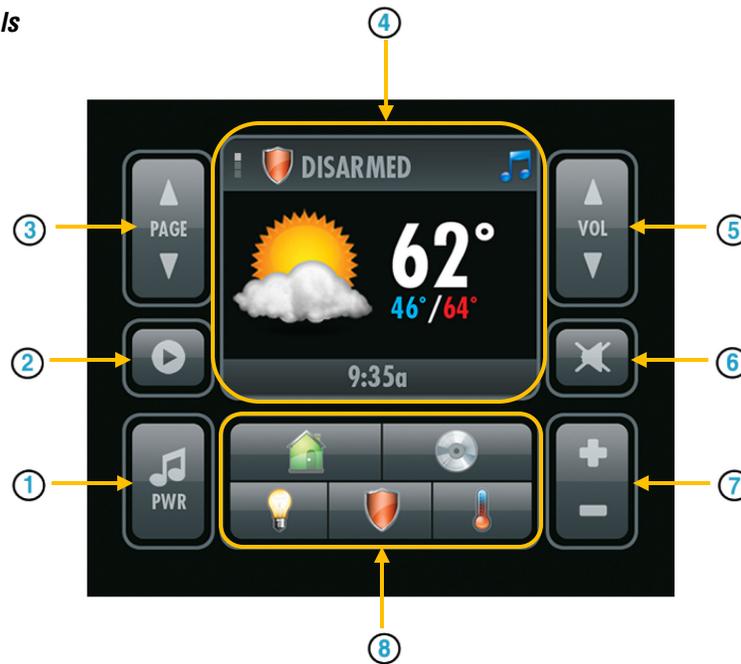
**Climate Control:** The climate interface displays status of one climate zone and provides mode, fan, and set point adjustments.

**Media Control:** The media interface displays status of one media zone and provides controls for power, source, volume, mute, and basic source control. The interface provides meta data feedback (no cover art at this time) for supported two way devices or customizable single or multi-page interfaces for one way device control.

# TS2 Controls and Display

## Front Panel Layout

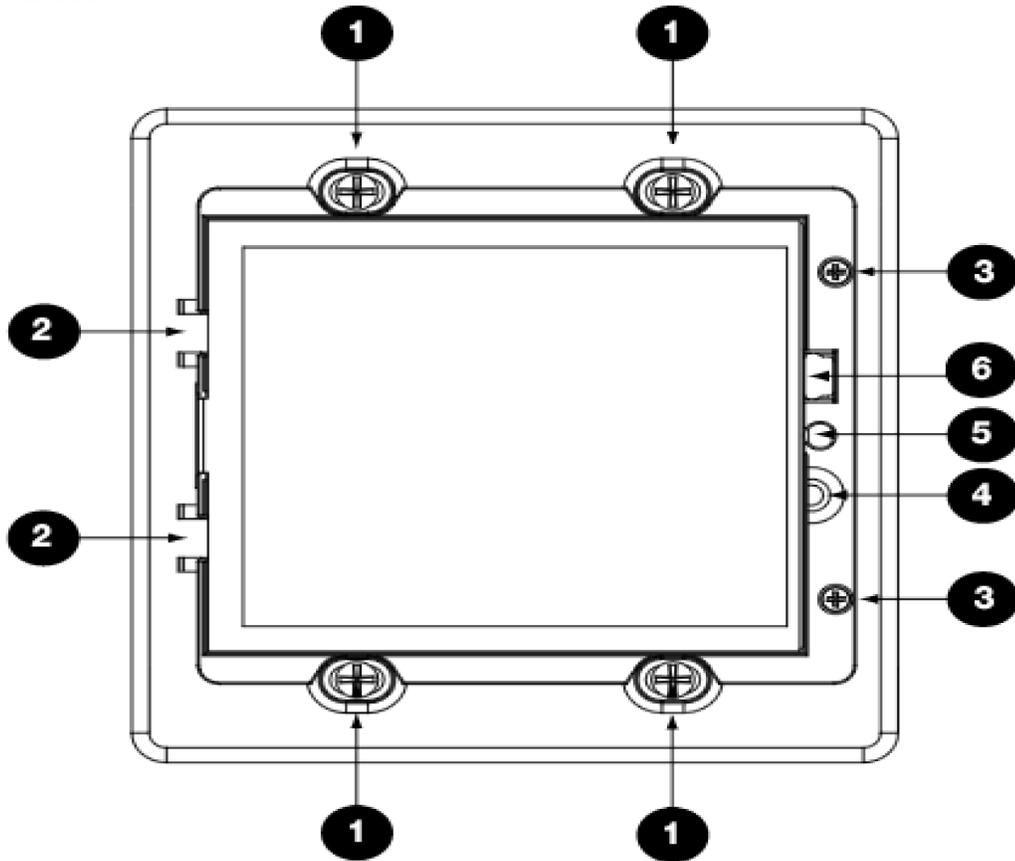
**Figure 1-1:**  
*TS2 Front Panel Controls and Display*



- ① Power Button  
Press and release to turn the zone on and off.  
Press and hold to turn the system off.
- ② Now Playing Button  
Press to select the main control page of the source currently selected in the zone.
- ③ Page Scroll Button  
Press to select additional pages of information for the device currently being controlled.
- ④ Display  
Provides information about the source or device currently being controlled.
- ⑤ Volume Control  
Press to adjust volume up and down.
- ⑥ Mute Button  
Press to mute or un-mute the audio.
- ⑦ Up and Down Buttons  
Press to “step” up or down when controlling an ELAN source (such as the DT22) or to adjust a thermostat.
- ⑧ Sub-system Select Buttons  
Press to access controls for Media, Security HVAC, Lighting, and Home Page functions.

### Front Panel Hardware

Figure 1-2:  
TS2 Front Panel Hardware



1) Mounting Screws (x4)

4) Service Menu Button

2) Film Hinge (x2)

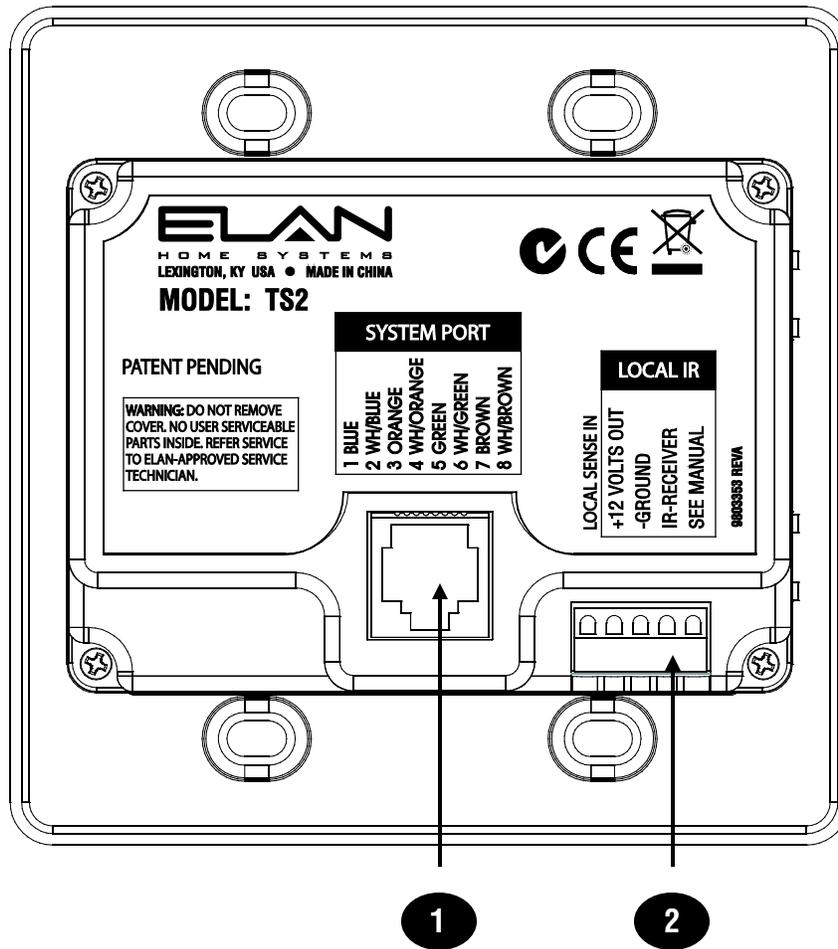
5) Light Sensor

3) Film Screw (x2)

6) Mini USB Download Port  
(Future firmware upgrades)

# TS2 Rear Panel Connections

Figure 1-3:  
TS2 Rear Panel Connections



1) System Port RJ-45 Jack

2) Local IR Interface

## Chapter 2: System Design and Installation

### Planning

Before installing the TS2, it is essential to have a detailed and accurate system design. Talk with the homeowner to make sure all expectations and design goals are explored. The first step to a good design is to map the system. It is advisable to mark up a copy of the house floor plan with speaker, touchpad, touch panel, volume control, and equipment locations etc. Make sure that all locations are decided upon before pre-wiring commences so that all necessary wiring and installation hardware is in place.

It is essential that ALL system components are accounted for prior to the pre-wire stage. After establishing design goals with the homeowner, make a detailed list of all components. Include source equipment, keypads, touch panels, volume controls, amplifiers, communications gear, etc. Gather up any IR remote controls that may be necessary for final programming, or ensure that the IR codes for all equipment to be installed are available in the ELAN Configuration Software.

### Installation

TS2 is designed to fit into a standard 32 cu. in. two-gang electrical box. Consult local building codes for specifics in your geographic area. The TS2 is not compatible with some two-gang mud rings. ELAN recommends test fitting a unit prior to installation.

### Pre-Wire

Each TS2 Touchpad has an RJ45 jack on the back to allow for easy connection. Run Cat-5 wire from the central equipment location (head-end) to the location where each Touchpad will be installed.

***Note: Maximum wire run is 1000 feet. The total of wire runs to all TS2s must not exceed 2000 feet. In the event you need to exceed that limit, VIA!Net Repeaters must be installed on the longest wire runs.***

## Rough-In

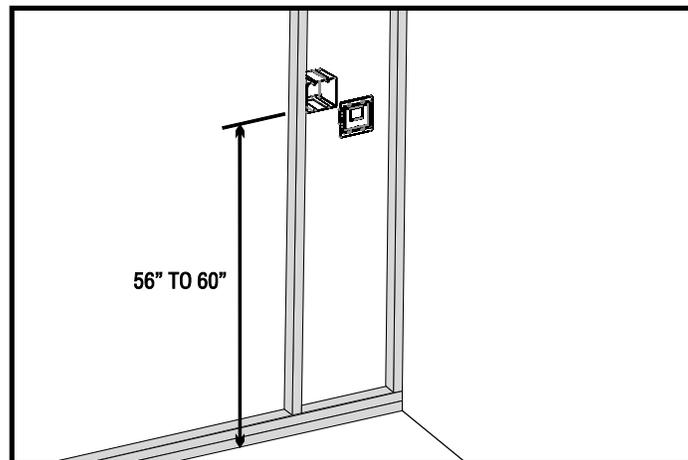
Roughing-in the TS2 requires careful attention to the design plan made previously. See System Design & Applications for a list of things to factor in to specific mounting locations before deciding exactly where to place the unit. In order to avoid Electro-Magnetic Interference (EMI), do not mount Touchpads close to light dimmers. Leave at least one stud-bay open between Touchpads and dimmers (leave more space if multiple dimmers are present). Avoid installing TS2 Touchpads in areas that will receive direct sunlight. Sunlight can flood the IR receiver and make the system inoperative.

Do not mount Touchpads outdoors! Corrosion will damage them. ELAN does not warrant TS2 Touchpads for outdoor use.

## Mounting Height

The TS2 has no viewing angle limitations, so mounting height should be determined by the average height of the user. Typical mounting height is 56-60 inches from the floor to the bottom of the electrical box. This will provide optimum viewing for the largest number of people.

**Figure 2-1:**  
**TS2 Mounting Height**

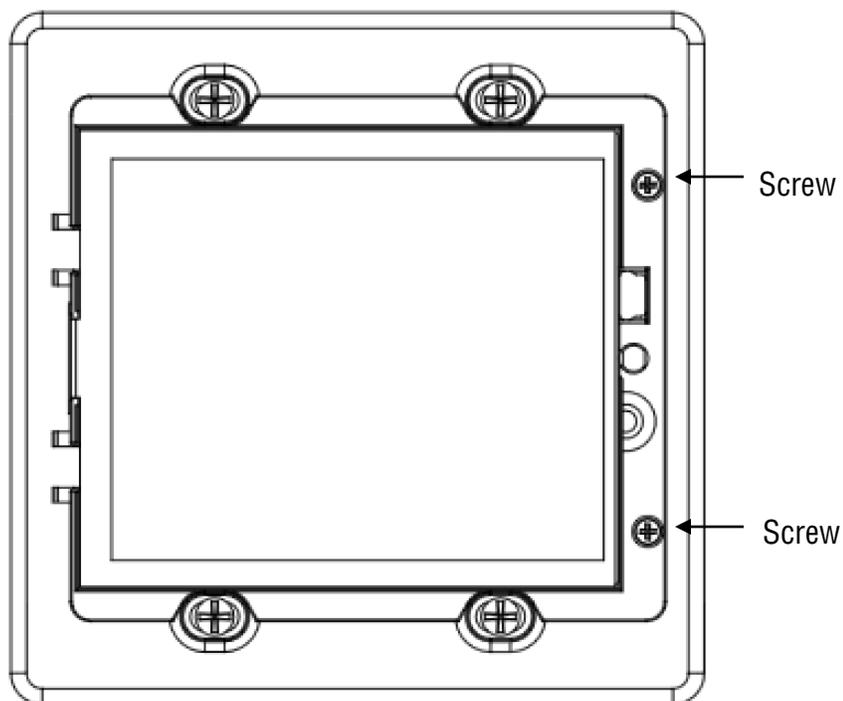


## Changing Films

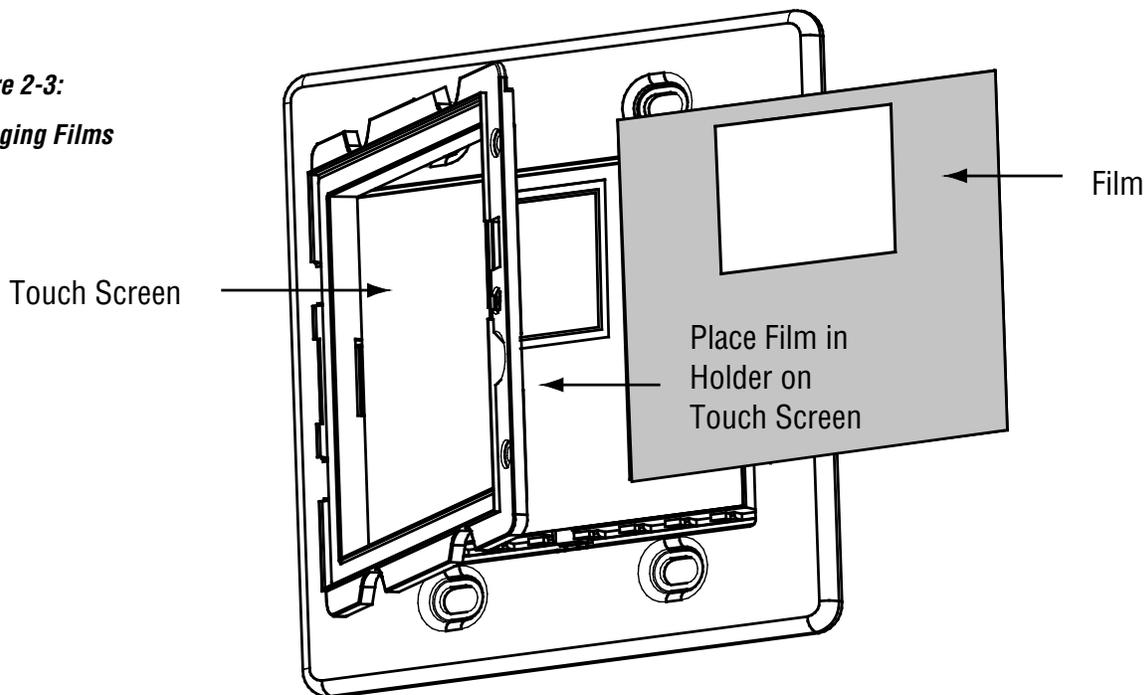
To change films:

1. Remove the magnetic wall plate from the front of the unit.
2. Remove the two film screws on the right side of the unit.
3. Use the notch located in the upper right-hand corner to open the touch screen (45° max.).
4. Remove the existing film.
5. Place the new film into the holder of the transparent touch screen making sure of the proper orientation.
6. Close the touch screen.
7. Replace the two film screws.
8. Replace the wall plate.

**Figure 2-2:**  
**Film Screw Location**



**Figure 2-3:**  
**Changing Films**



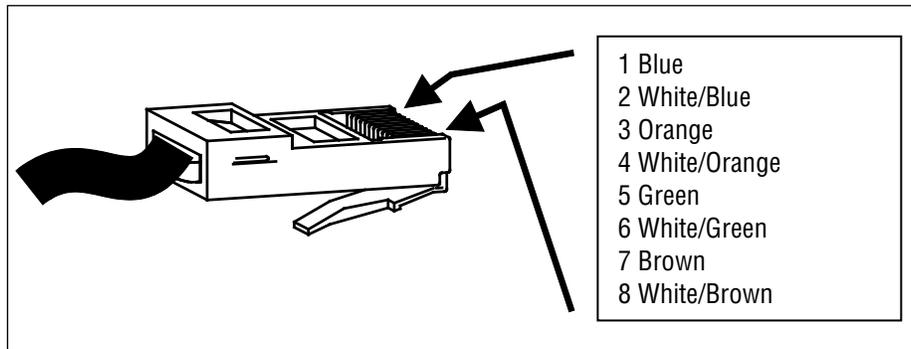
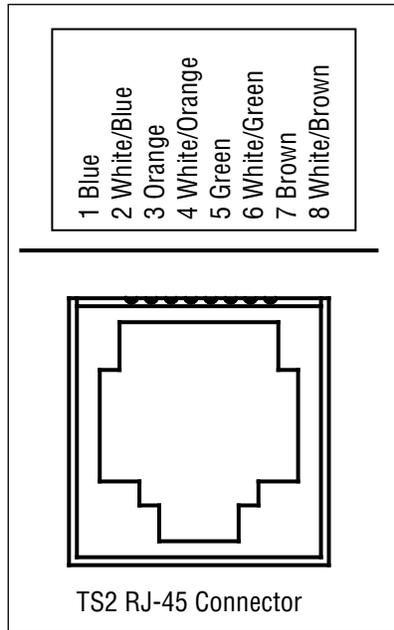
## Connectors/Pinout

The TS2 has a System RJ-45 connector and a five pin Interface Port connector which each perform specific functions. All applications will use the RJ-45 connector, while certain situations will require the use of the Interface Port.

### System Port RJ-45 Connector

The System RJ-45 uses the **ELAN Standard Pinout** configuration shown below and connects to the PPVN precision panel.

**Figure 2-4:**  
**TS2 RJ-45 Pinout**



### Local IR Interface Port

Use this connector when utilizing the TS2’s Local Control features such as Local source IR routing, Local IR Sensors, or Sense-enabled automated sequences (future use.)

### IR-Emitter Out

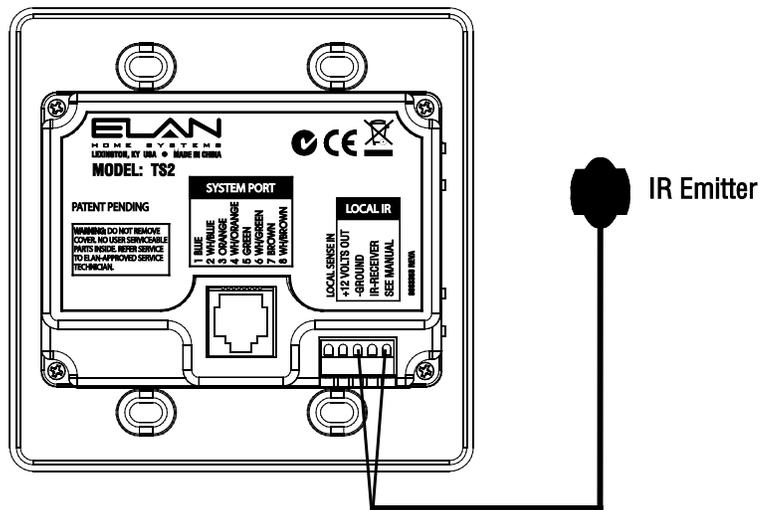
The Local IR-EMITTER OUT is typically used to route IR to devices that are not part of the main system, such as a receiver or DVD player located within the same room as the touchpad. IR is routed to an emitter or IR distribution block connected to the Local IR Output.

For example: You have local gear in a cabinet with closed doors; simply point the remote at the IR receiver in the TS2.

Any IR signal that is received from the **front IR-RECEIVER** is sent out both the Local IR-EMITTER OUT and the System IR Output. Pressing a button on the TS2 will not issue IR commands from these outputs.

Connect IR-EMITTER OUT and -GROUND as shown below.

**Figure 2-5:**  
**Interface Port IR Out**





The connection labeled “+12 VOLTS OUT” is a Voltage Output.

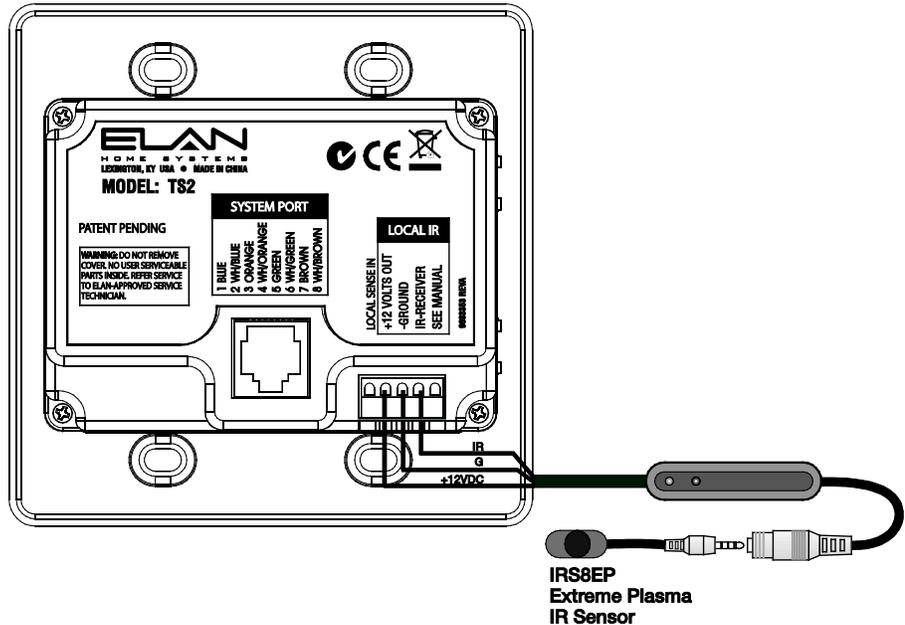
**DO NOT CONNECT A POWER SUPPLY TO THIS CONNECTION**

### IR Receiver In

The Local IR-RECEIVER IN is typically used to connect an external IR sensor to the touchpad. Typical applications include a plasma-friendly IR sensor (ELAN IRS8EP, for example) placed near a TV, or an auxiliary IR sensor placed in an area more convenient than the location of the touchpad. IR signals that are received by the IR Input are sent out both the Local IR-EMITTER OUT and the System IR Output.

Connect IR-RECEIVER IN, -GROUND and +12VOLTS OUT as shown below.

**Figure 2-6:**  
**Interface Port IR Receiver**



Note: In certain cases, the TS2's built-in IR sensor can be flooded with plasma TV interference or other ambient light interference. In this case, connect a plasma-friendly IR sensor (ELAN IRS8EP, for example) to the Local IR Input and disable the built-in IR sensor using the Service Menu

(See SERVICE MENU on page 25.)

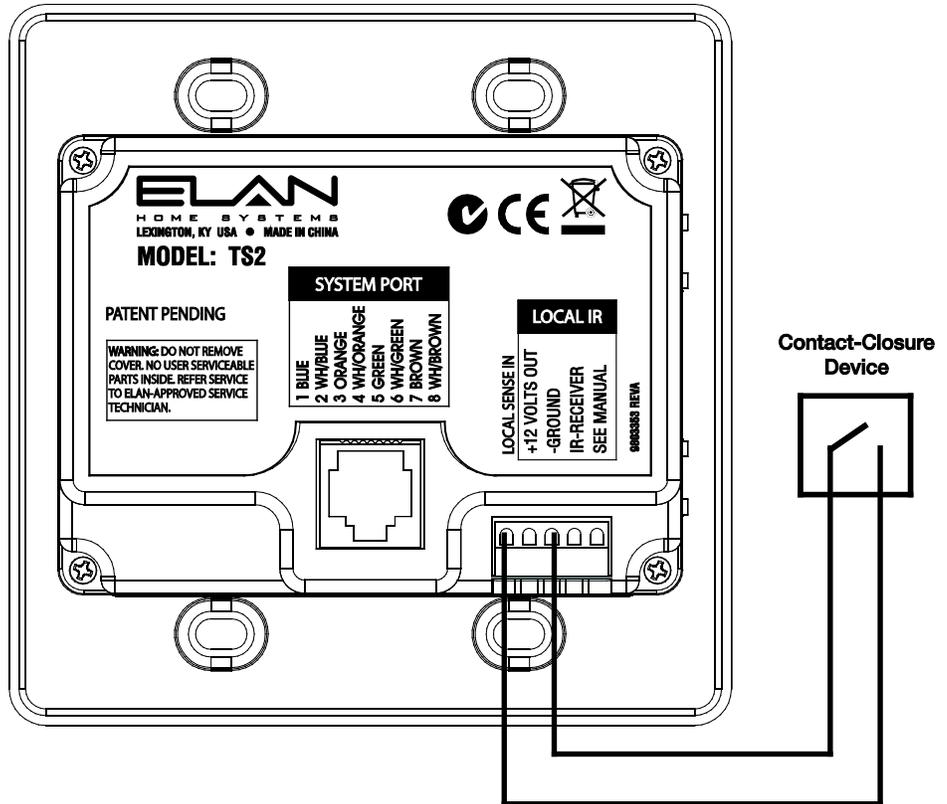
### Local Sense Input

(Future applications)

The LOCAL SENSE IN port allows a contact-closure to trigger IR or RS-232 sequences programmed in the ELAN Configuration Software. Use a motion sensor to activate a contact-closure and cause automated actions such as system power on, drapes closed, and lights dimmed, for example.

Connect LOCAL SENSE IN and –GROUND to a contact-closure device as shown below.

**Figure 2-7:**  
**Interface Port Local Sense Input**



# Chapter 3: System Connections

## HCxx Series System Controllers

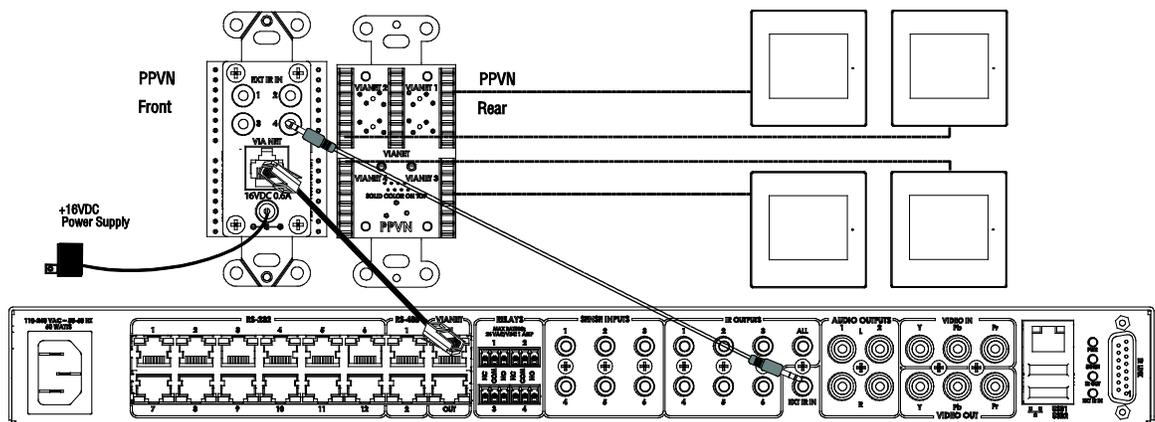
### TS2 to PPVN Connections

TS2 connection to any of the ELAN System Controllers (HC12, HC6, etc.) is accomplished using the PPVN (VIA!NET Precision Panel.) A single Cat5 connects the TS2 to the VIA!NET punch downs on the back of the PPVN and a Cat5 jumper connects from the front of the PPVN to the VIA!NET port on the System Controller. The IR output on the front of the PPVN may be connected to an IR distribution system or to the **EXT IR IN** of the Home Controller as shown below.

Each PPVN will accommodate connections for up to four TS2s. PPVNs may be “daisy-chained” to allow additional TS2s to be incorporated into the system. The TS2s are powered by a 16V power supply connected to the PPVN. Each PPVN requires its own 16V power supply.

The TS2 sends VIA!NET messages to the System Controller. The System Controller then issues the proper commands for the sub-system being controlled.

**Figure 3-1:**  
**TS2 to PPVN**



### Legacy Home Controllers

TS2 connection to any of the legacy Home Controllers (HomeBrick, MultiBrick) is accomplished using the PPVN (VIA!NET Precision Panel) and an SC1. A single Cat5 connects the TS2 to the VIA!NET punch downs on the back of the PPVN and a Cat5 jumper connects from the front of the PPVN to the VIA!NET port on the SC1.

There are two methods that may be used to connect the RS-232 port of the SC1 to the HomeBrick or the MultiBrick. Each method will be shown in the following pages.

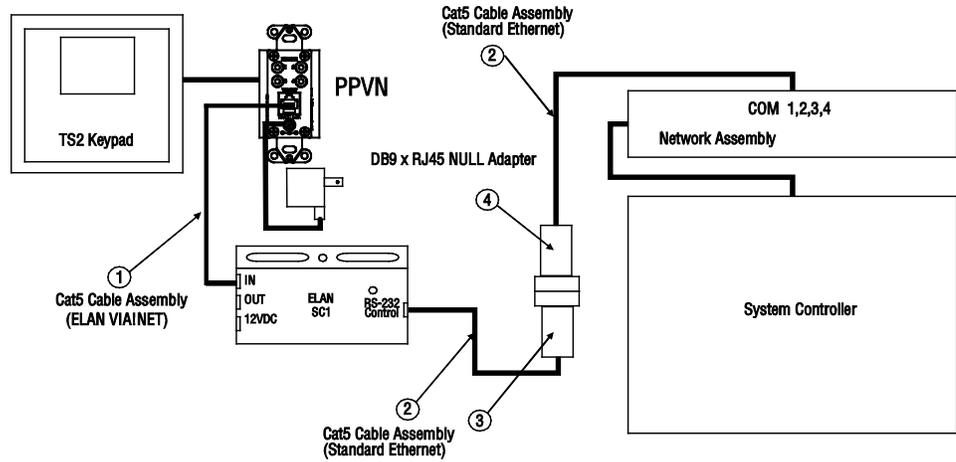
Each PPVN will accommodate connections for up to four TS2s. PPVNs may be “daisy-chained” to allow additional TS2s to be incorporated into the system. The TS2s are powered by a 16V power supply connected to the PPVN. Each PPVN requires its own 16V power supply. The SC1 will receive its power from the PPVN’s power supply as well.

When using legacy Home Controllers the TS2 sends VIA!NET messages to the SC1 which then converts them to RS-232 commands and sends them to the Home Controller. The Home Controller then issues the proper commands for the sub-system being controlled.

### Connection Method #1

This method requires the use of RJ45 to DB9 adapter HA-CB-328 (DB9 female to RJ45 female NULL adapter) and the SC1’s DB9 male to RJ45 female adapter to connect the SC1 to the Network Assembly.

**Figure 3-2:**  
**TS2 / SC1 / Legacy**  
**Controllers with**  
**DB9 Adapters**



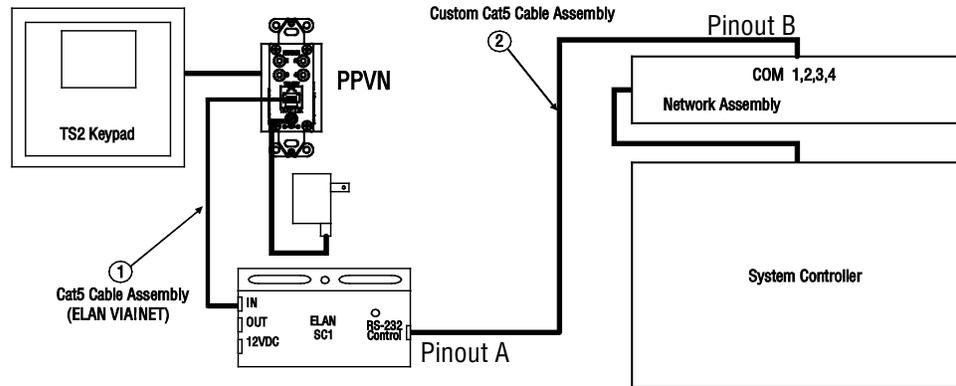
1 – ELAN Standard Cat5 Cable (See page 14 for pinout)	3 – SC1 DB9M to RJ45 Adapter
2 – Ethernet Standard Cat5 Cable	4 – HA-CB-328 DB9F to RJ45 NULL Adapter

**Legacy Home Controllers (continued)**

**Connection Method #2**

This method requires the use of a custom Cat5 cable that connects the SC1 to the Network Assembly.

**Figure 3-3:**  
**TS2 / SC1 / Legacy**  
**Controllers with**  
**Custom Cable**



1 – ELAN Standard Cat5 Cable <b>(See page 14 for pinout)</b>	2 – Custom Cat5 Cable (pin out below) <b>NOTE: Do not connect pins 2 and 3</b>
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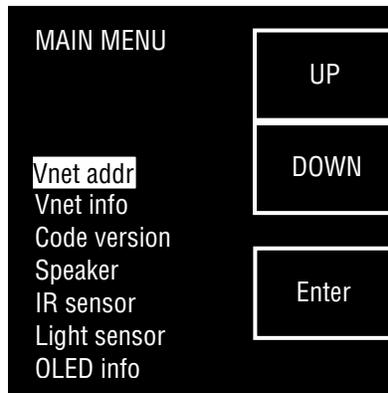
Custom Cat5 Cable Pinout		
A	Pin Position	B
White / Orange	1	White / Orange
Orange	2	<b>N/C</b>
White / Green	3	<b>N/C</b>
Blue	4	Blue
White / Blue	5	Green
Green	6	White / Blue
White / Brown	7	Brown
Brown	8	White / Brown

# Chapter 4: Setup and Programming

## The Service Menu

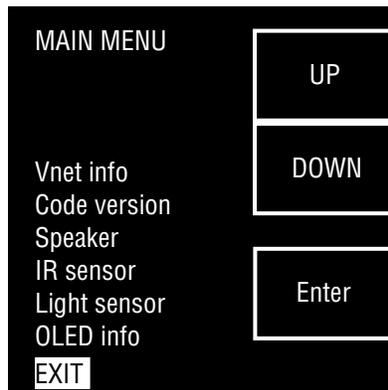
The Service Menu is used to make initial connections to the system, enable and disable TS2 features and to provide VIA!NET and TS2 configuration information. It is accessed by pressing the SERVICE MENU BUTTON (see Page 8.) The MAIN MENU screen will be displayed as shown below.

**Figure 4-1:**  
**Service Menu MAIN MENU screen**



Press the UP or DOWN button to access the EXIT option.

**Figure 4-2:**  
**Service Menu MAIN MENU screen EXIT Option**

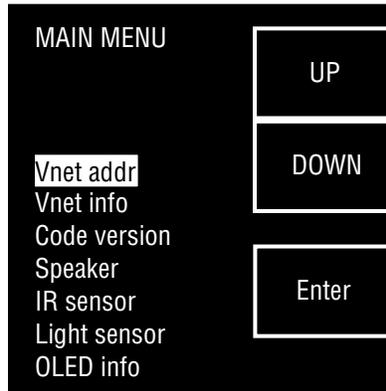


### Initial TS2 Integration

The TS2 touchpads are automatically added to the system using ELAN Configuration Software and cannot be added manually. Use the following procedure to make initial touchpad connections to the system.

1. In the ELAN Configuration Software on the Interface Tab add the SC1 as a communication device and select the COM port that it is connected to. See the TS2 Integration Note for more information.
2. Connect and power up all touchpads using one of the previously described methods. The touchpads should boot to a screen with an option to **GET ADDRESS**. If the touchpad does not boot to the **GET ADDRESS** screen then follow the steps below:
  - a. Press the **Service Menu Button** once to access the **MAIN MENU** screen.
  - b. Press the **UP/DOWN** buttons to highlight **VNet addr** then press the **Enter** button.

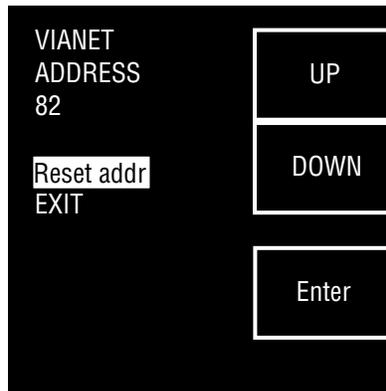
**Figure 4-3:**  
*Service Menu / VIA!NET address*



- c. Press the **UP/DOWN** buttons to highlight **Reset addr** then press **Enter**.

You will then be prompted to press ENTER to reset the VIA!NET address. Once you reset the current ID you can't "back out" of the process; you must complete the request for a new ID.

**Figure 4-4:**  
*Service Menu / Reset VIA!NET address*



### Initial TS2 Integration (continued)

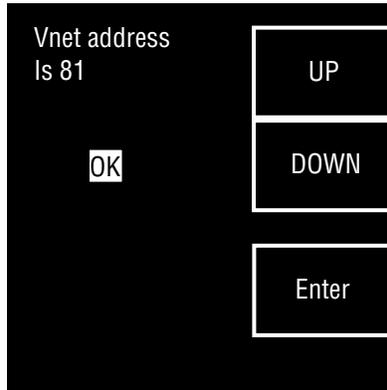
3. With the **GET ADDRESS** menu item highlighted press the **Enter** button.

**Figure 4-5:**  
**Service Menu / Get VIA!NET address**



The touchpad will receive an address from the controller and display it at the top of the screen. If more than one touchpad is installed it may be helpful to make note of the address and the touchpad location to help select the proper control zones in the Configuration Software.

**Figure 4-6:**  
**Service Menu / VIA!NET address confirmation**



- 4. With the **OK** menu item highlighted press **Enter**. The controller will check the touchpad program and download any required information to it. Be patient as this may take up to 5 minutes. For best results do not try to add another touchpad until this download has completed.
- 5. Repeat steps 1-4 until all touchpads have been added.
- 6. Using the address noted in step 3 identify each touchpad on the Configuration Software Interface Tab and configure the desired zones, partitions, control, and backlight behavior. See the ELAN Configuration Reference Guide for more information.

## The Service Menu (continued)

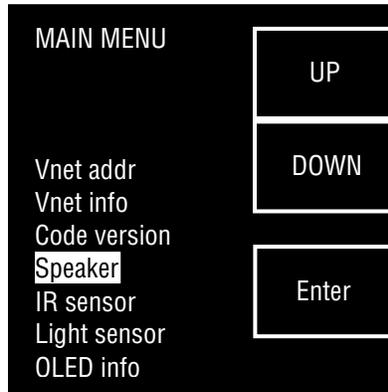
### Speaker

The TS2 features a small speaker that allows audible feedback signals to be heard as a result of button pushes. The speaker can be enabled or disabled in the Service Menu.

**Factory default setting is ENABLED.**

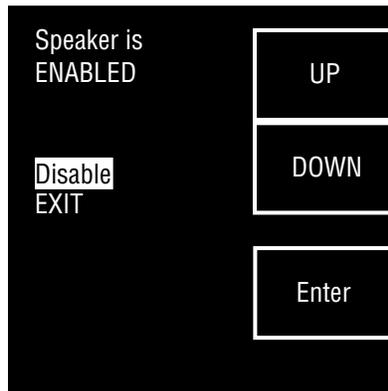
1. Press the SERVICE MENU BUTTON once to access the MAIN MENU screen.
2. Press the “DOWN” button until the SPEAKER option is highlighted and press “ENTER.”

**Figure 4-7:**  
*Service Menu /  
Speaker*



3. The current status of the speaker will be displayed at the top of the screen. The opposite option will be highlighted below the current status. Press the “ENTER” button to toggle to the other selection.

**Figure 4-8:**  
*Service Menu /  
Speaker Enable /  
Disable*



4. Press the “EXIT” button to return to the MAIN MENU screen.

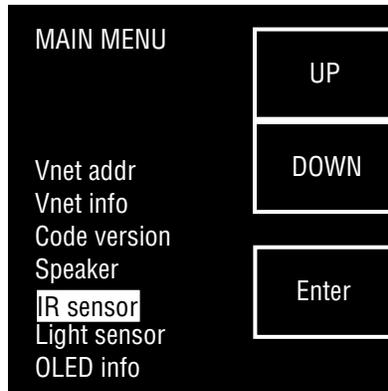
### IR Sensor

The TS2 features a built-in IR Sensor. IR signals from a hand-held IR remote control pass through the IR sensor and travel to the head-end location and out of the IR emitter OUT connection of the Interface Port. The IR sensor can be enabled or disabled in the Service Menu. Please note that this setting does not affect the Local IR Interface connection.

**Factory default setting is ENABLED.**

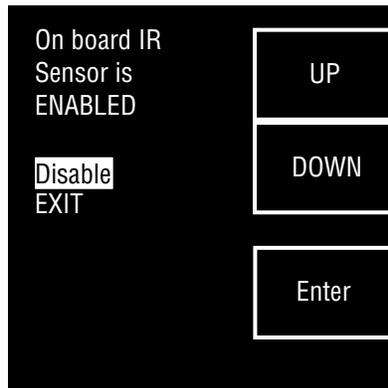
1. Press the SERVICE MENU BUTTON once to access the MAIN MENU screen.
2. Press the “DOWN” button until the IR SENSOR option is highlighted and press “ENTER.”

**Figure 4-9:**  
**Service Menu / IR Sensor**



3. The current status of the IR sensor will be displayed at the top of the screen. The opposite option will be highlighted below the current status. Press the “ENTER” button to toggle to the other selection.

**Figure 4-10:**  
**Service Menu / IR Sensor Enable / Disable**



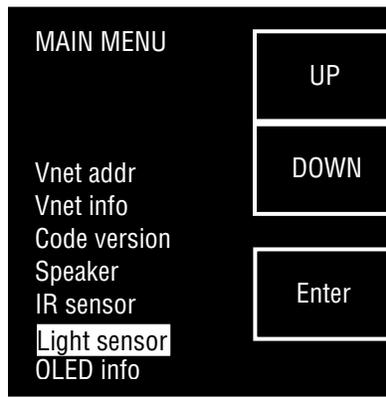
4. Press the “EXIT” button to return to the MAIN MENU screen.

### Light Sensor Disable

The TS2 features a light sensor that allows the backlighting of the TS2 to adjust based on the ambient light in the room. The light sensor can be enabled or disabled in the Service Menu. **The light sensor should be calibrated with the room lighting at its brightest setting. The factory default setting is DISABLED.**

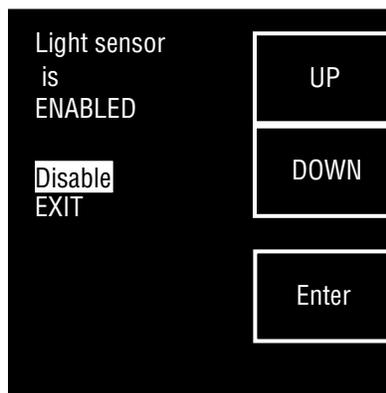
1. Press the SERVICE MENU BUTTON once to access the MAIN MENU screen.
2. Press the “DOWN” button until the LIGHT SENSOR option is highlighted and press “ENTER.”

**Figure 4-11:**  
**Service Menu /**  
**Light Sensor**



3. The current status of the light sensor (ENABLED) will be displayed at the top of the screen. The DISABLE option will be highlighted below the current status. Press the “ENTER” button to toggle to DISABLE the light sensor.

**Figure 4-12:**  
**Service Menu /**  
**Light Sensor**  
**Disable**

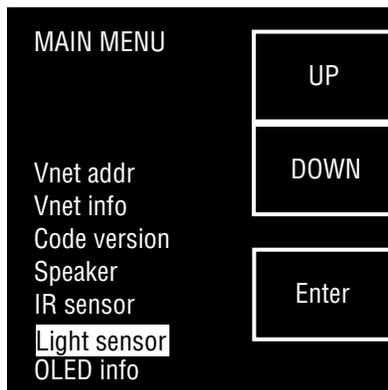


4. Press the “EXIT” button to return to the MAIN MENU screen.

## Light Sensor Enable

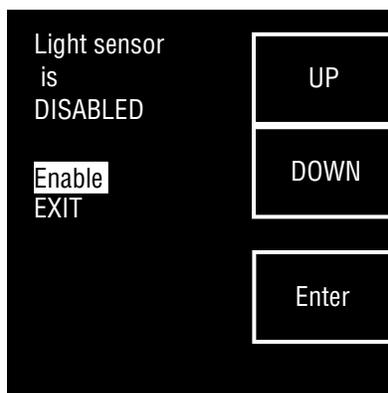
1. Press the SERVICE MENU BUTTON once to access the MAIN MENU screen.
2. Press the “DOWN” button until the LIGHT SENSOR option is highlighted and press “ENTER.”

**Figure 4-13:**  
*Service Menu /  
Light Sensor*



3. The current status of the light sensor (DISABLED) will be displayed at the top of the screen. The ENABLE option will be highlighted below the current status. Press the “ENTER” button to ENABLE the light sensor.

**Figure 4-14:**  
*Service Menu /  
Light Sensor Enable*

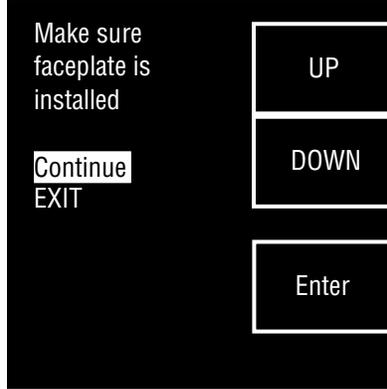


(Continued on next page.)

### Light Sensor Enable (continued)

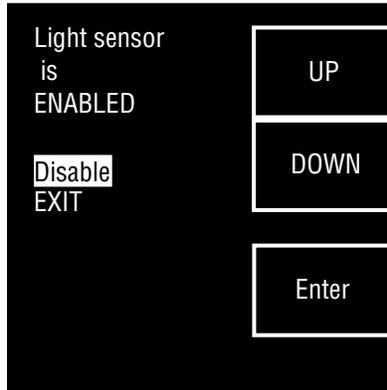
4. After pressing the “ENTER” button you will be prompted to replace the TS2 faceplate. Be sure the faceplate is installed and press “ENTER.”

**Figure 4-15:**  
*Service Menu /  
Light Sensor Enable  
Continue*



The display will now show that the light sensor is enabled.

**Figure 4-16:**  
*Service Menu /  
Light Sensor Enable  
Confirmation*



4. Press the “EXIT” button to return to the MAIN MENU screen.

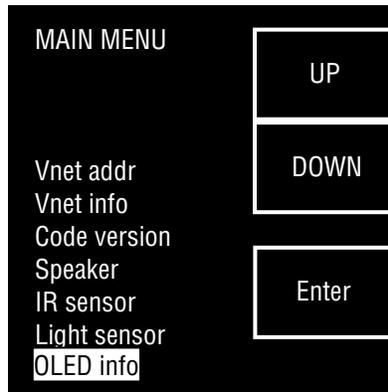
The backlight time out is set in the ELAN Configuration Software.

### OLED Info

The TS2 features a color adjustment menu for the OLED to correct for color variances that can occur with OLED displays.

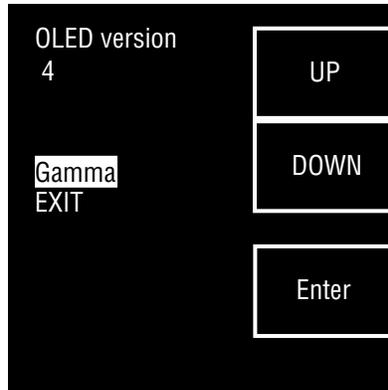
1. Press the SERVICE MENU BUTTON once to access the MAIN MENU screen.
2. Press the “DOWN” button until the OLED INFO option is highlighted and press “ENTER.”

**Figure 4-17:**  
*Service Menu /  
OLED Info*



3. The OLED version is displayed at the top of the screen. To adjust color, press the “DOWN” button until the GAMMA option is highlighted and press “ENTER.”

**Figure 4-18:**  
*Service Menu /  
Gamma Select*

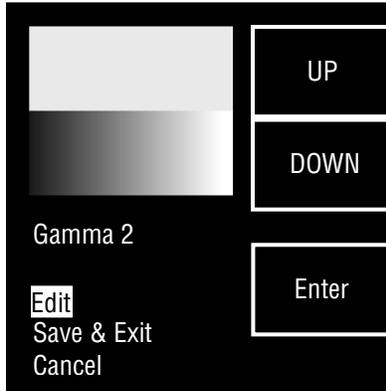


(Continued on next page.)

### OLED Info (Continued)

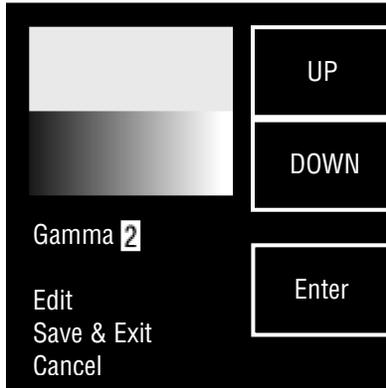
The display will now show the current GAMMA setting below a “test pattern” and EDIT will be highlighted.

**Figure 4-19:**  
**Service Menu /**  
**OLED Gamma Edit**



4. Press “ENTER” to highlight the current GAMMA setting. Using the UP and DOWN buttons adjust the GAMMA setting until the upper half of the test pattern is at its whitest setting.

**Figure 4-20:**  
**Service Menu /**  
**OLED Gamma**  
**Adjustment**



5. Once the GAMMA setting has been adjusted to the whitest setting press the “ENTER” button

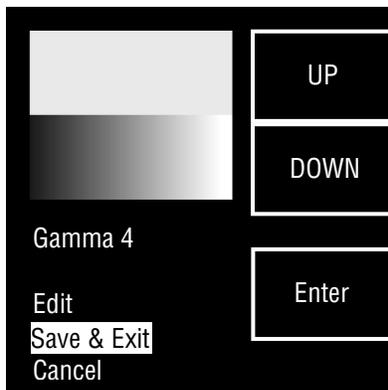
(Continued on next page.)

### OLED Info (Continued)

6. Press SAVE & EXIT to save your changes and return to the MAIN MENU screen. Press CANCEL to discard your changes and return to the MAIN MENU screen. You may also select EDIT again if you wish to make additional changes.

**Figure 4-21:**

**Service Menu /  
OLED Gamma  
Adjust – Save &  
Exit**



# Chapter 5: Display Screens

The TS2 will control and/or provide feedback for the following sub-systems:

**Basic Time & Weather information:** The home interface displays time and basic weather information. Optionally, additional pages for weather forecast and/or house modes can be enabled.

**Lighting Control:** The lighting interface displays a custom lighting keypad for 2-way control of scenes or lighting loads.

**Security Control:** The security interface displays status of one partition and a keypad to arm/disarm that partition.

**Climate Control:** The climate interface displays status of one climate zone and provides mode, fan, and set point adjustments.

**Media Control:** The media interface displays status of one media zone and provides controls for power, source, volume, mute, and basic source control. The interface provides meta data feedback (no cover art at this time) for supported two way devices or customizable single or multi-page interfaces for one way device control.

Each sub-system is accessed by pressing the appropriate icon on the touch film. Each sub-system’s display and controls will be described in the following pages.

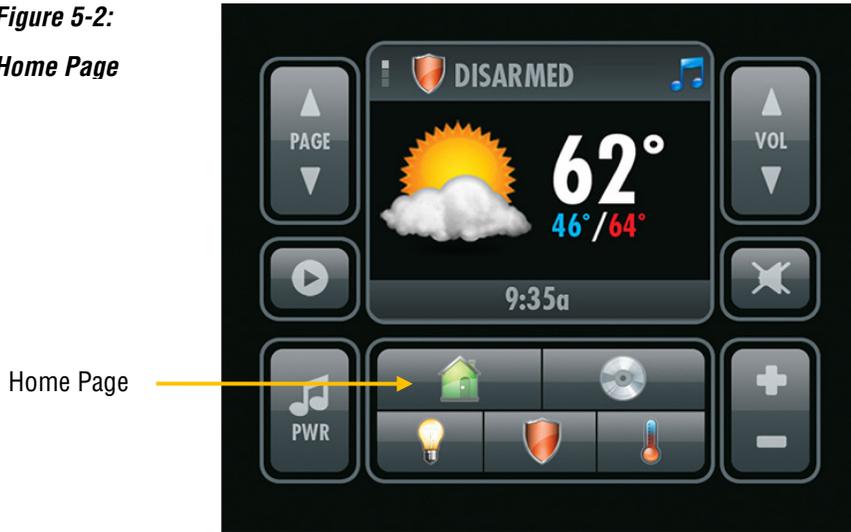
**Figure 5-1:**  
**Page Select Icons**



### Home Pages

When the Home Page icon is pressed, the TS2 will display the Main Home Page which shows general Security, Climate, and Media information as well as showing current weather information and time. The PAGE UP and PAGE DOWN arrows will change the display to the Weather Forecast page and the System Mode page if enabled in the ELAN Configuration software.

**Figure 5-2:**  
**Home Page**



The PAGE DOWN arrow will change the display to the Weather Forecast page.

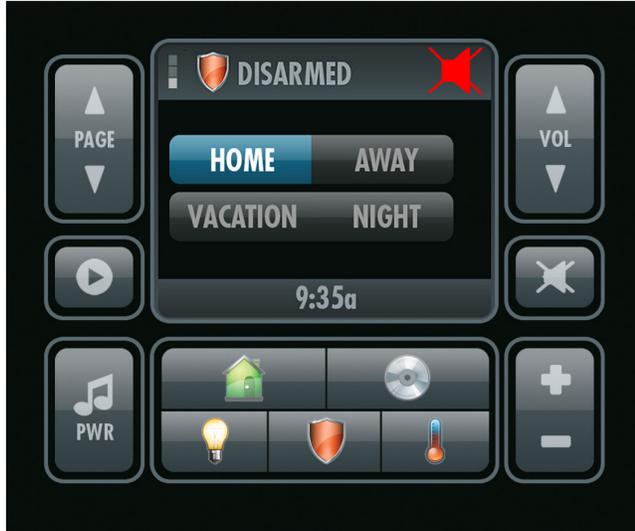
**Figure 5-3:**  
**Forecast Page**



### Home Pages (Continued)

When the TS2 is displaying the Forecast page, pressing the PAGE UP arrow will change the display back to the MAIN Home Page and pressing the PAGE DOWN arrow will change the display to the SYSTEM MODE Page.

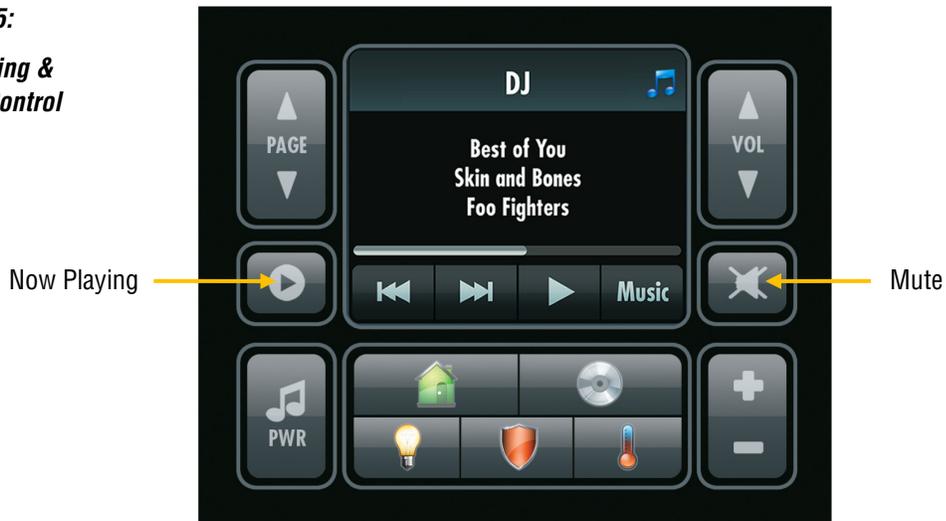
**Figure 5-4:**  
**System Mode Page**



Pressing the “NOW PLAYING” button will change the display to the main page for the currently selected source in the zone and allow the source to be controlled. If no source is currently selected in the zone the display will remain on the Home Page. The currently selected source name is displayed at the top of the screen.

Volume in the zone is controlled by using the VOLUME UP and DOWN arrows and the MUTE button on the right side of the touchpad.

**Figure 5-5:**  
**Now Playing & Volume Control**



### Media Page

The TS2 can be programmed to control multiple sources using the ELAN Configuration Software.

Pressing the Media icon will change the display to the Source select page. The currently selected source in the zone will be highlighted.

NOTE: The BLUE music notes in the upper right corner of the display indicate that the zone is on and is not muted. GREY notes indicate that the zone is off. The notes will disappear when all zones are off.

**Figure 5-6:**  
**Media Page Select**  
**Page One**



Pressing the PAGE UP and PAGE DOWN buttons will scroll the display through the source options. To change sources tap the icon or name for the source you wish to select.

**Figure 5-7:**  
**Media Select Page**  
**Two**

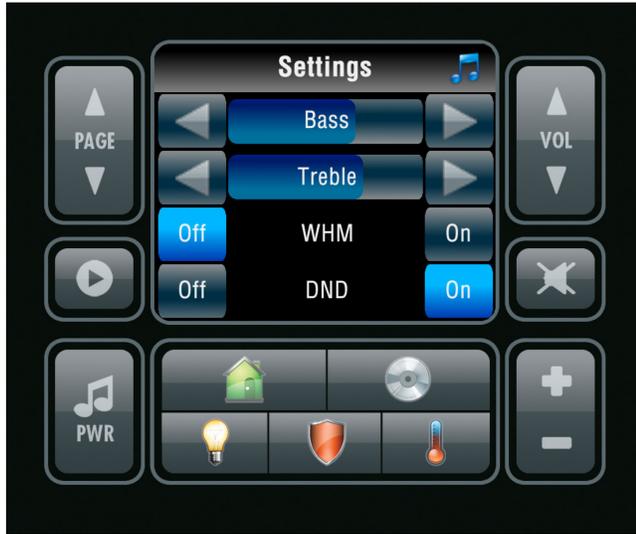


NOTE: The red symbol in the upper right corner of the display indicates that the zone is on but is muted.

### Media Page (Continued)

Press and hold the Media icon to access the media settings page. This allows control of Bass and Treble settings for the zone as well as the Whole House Music (WHM) and Do Not Disturb (DND) features of ELAN A/V Controllers.

**Figure 5-8:**  
**Media Settings**  
**Page**



The **+** and **-** buttons function as “up” and “down” on the Media Page in the pre-made templates in the ELAN Configuration Software. “Seek” up and down for the DT22 tuner, for example.

**Figure 5-9:**  
**Media Select + / -**  
**Buttons**



When the source is selected the TS2 will display the main control page for the selected source.

See the ELAN Configuration Reference Guide and Integration Notes for programming and setup information for your sources.

### Source Page Samples

The following images are examples only. Your actual source control programming may look different.

**Figure 5-10:**  
**Selected Source**  
**HDTV with Audio**  
**Present**



Note: The “page flip” icons at the top left of the display indicate that the currently displayed controls are on page two of four pages of controls for this source.

**Figure 5-11:**  
**Selected Source**  
**DT22 Tuner**



### Source Page Samples (Continued)

**Figure 5-12:**  
**Selected Source**  
**Internal Player**



**Figure 5-13:**  
**Selected Source**  
**DVD with Audio**  
**Muted**

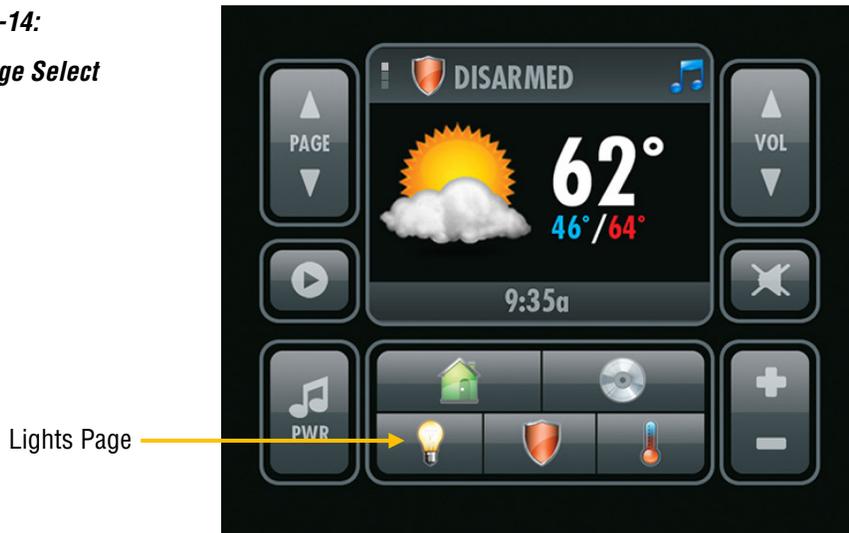


### Light Page

The TS2 can be “linked” to a single lighting keypad that can control multiple dimmers. Pressing the LIGHTS icon will change the display to the controls for the keypad the TS2 is linked to in the ELAN Configuration Software.

See the ELAN Configuration Reference Guide and Integration Notes for programming and setup information for your lighting system.

**Figure 5-14:**  
**Light Page Select**



The following images are examples only. Your actual lighting control programming may look different.

**Figure 5-15:**  
**Den Keypad**



### Light Page Examples (Continued)

**Figure 5-16:**  
**Theater Keypad**



**Figure 5-17:**  
**Outside Keypad**

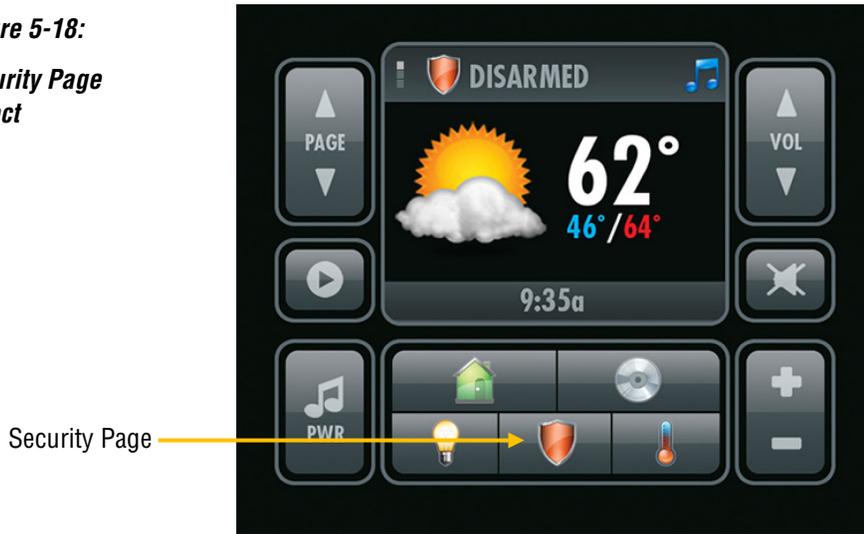


### Security Page

The TS2 Security interface controls basic alarm functions for one alarm partition, including DISARM, ARM STAY and ARM AWAY functions.

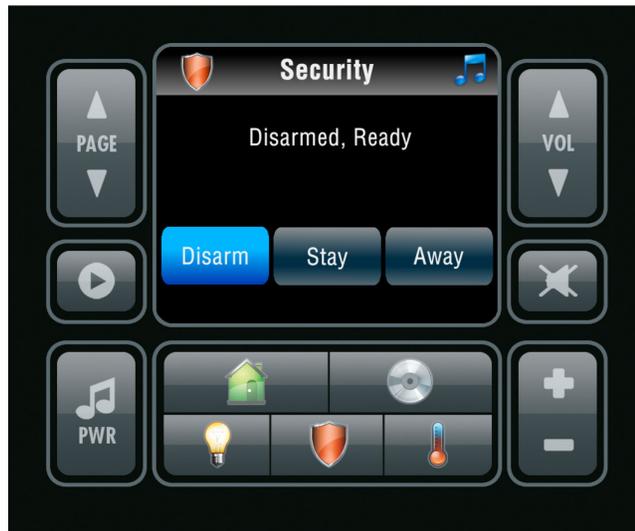
See the ELAN Configuration Reference Guide and Integration Notes for programming and setup information for your security system.

**Figure 5-18:**  
**Security Page**  
**Select**



When the Security icon is selected the screen will change to display the main security page and the current security mode will be displayed and highlighted.

**Figure 5-19:**  
**Security Page**  
**Disarmed**



### Security Page (Continued)

Select the alarm function you would like to execute (Disarm, Arm Stay or Arm Away) and the display will change to the numeric keypad. Enter the code and press enter to complete the command. You may cancel the command as well.

**Figure 5-20:**  
**Security Page**  
**Keypad**



The TS2 display will change back to the main security screen and the new alarm status will be displayed and highlighted.

**Figure 5-21:**  
**Security Page**  
**Armed**

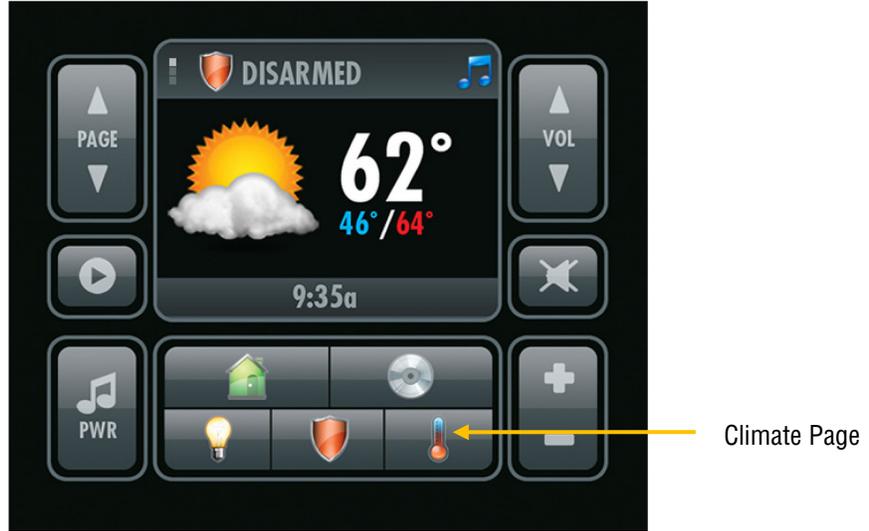


### Climate Page

The TS2 can be “linked” to a single climate zone. Pressing the Climate icon will change the display to the controls for the thermostat the TS2 is linked to in the ELAN Configuration Software.

See the ELAN Configuration Reference Guide and Integration Notes for programming and setup information for your climate system.

**Figure 5-22:**  
**Climate Page Display**



When the Climate icon is pressed the display will change to the Status screen as shown below.

The following image shows that the fan is set to auto and that the thermostat is also set to auto. The BLUE number in the upper right is the COOLING set point and the RED number at the lower right is the HEAT set point. The current temperature in the zone is displayed to the left.

**Figure 5-23:**  
**Climate Page Auto Mode**



### Climate Page (Continued)

Pressing the “FAN” button will cycle between ON and AUTO and pressing the “MODE” button will cycle through HEAT, COOL, AUTO and OFF modes for the HVAC.

The following image shows the fan set to on and the thermostat set to HEAT only.

**Figure 5-24:**  
**Climate Page**  
**HEAT Mode**



When set to HEAT only or COOL only the + and - buttons are used to adjust the set point.

**Figure 5-25:**  
**Climate Page**  
**COOL Mode**



**Climate Page (Continued)**

When set to AUTO the **+** button will raise the HEAT set point and the **-** button will lower the COOL set point.

Once the HEAT and COOL set points are within two degrees of each other (for example, HEAT is set to 70° and COOL is set to 72°) they will track up and down together.

If scheduling is ENABLED in your system whenever you change the thermostat MODE (HEAT to OFF, COOL to AUTO, etc.) the system will revert back to the schedule programming.

## Troubleshooting

<i>Symptom</i>	<i>Possible Cause</i>	<i>Solution</i>
TS2 will not power up.	<ol style="list-style-type: none"> <li>1. RJ45 plug incorrectly crimped or has incorrect pinout.</li> <li>2. Break in Cat5 between TS2 and "Head-End."</li> <li>3. Power supply not connected to PPVN or power supply has failed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify crimp and pinout. Re-crimp or correct pinout. <b>(See page 14 for ELAN standard pinout.)</b></li> <li>2. Check connection at PPVN. Verify wiring run with cat5 tester if possible. Test for continuity with meter.</li> <li>3. Verify power supply is securely connected. Use meter and verify DC voltage. Verify AC outlet with meter. Reset breaker if needed.</li> </ol>
TS2 powers up but displays "Vianet receive error."	RJ45 plug incorrectly crimped or has incorrect pinout.	Verify crimp and pinout. Re-crimp or correct pinout. <b>(See page 14 for ELAN standard pinout.)</b> Check connection to SC1 or to Home Controller.
TS2 displays a function page but there is no response to button presses.	Communication problem with serial connection from SC1 to Home Controller.	Verify connections from SC1 to HomeBrick, MultiBrick or Home Controller.
TS2 backlights illuminate but there is no display.	System is rebooting or is non-responsive.	Power cycle HomeBrick, MultiBrick or Home Controller. Verify system is completely booted up.
IR control not working or intermittent.	<ol style="list-style-type: none"> <li>1. Incorrect commands: Incorrect remote or incorrect programming on remote.</li> <li>2. Wiring: Incorrect wiring from TS2 to "Head-End," emitter or IR distribution block.</li> <li>3. Defective IR emitter</li> <li>4. IR flooding</li> </ol>	<ol style="list-style-type: none"> <li>1. Correct programming, use correct remote.</li> <li>2. Verify and correct wiring</li> <li>3. Replace emitter</li> <li>4. Check for ambient light shining on the IR receiver. Check for flooding from plasma or LCD monitors. Relocate the TS2 or disable the IR receiver and use an external plasma friendly IR receiver. <b>(See pages 16 and 25 for more information.)</b></li> </ol>
Pressing sub-system icon does nothing.	Sub-system (i.e. Lighting, Security, Media, and Climate) not programmed in the ELAN Configuration Software.	Verify programming in ELAN Configuration Software. <b>(See the ELAN Configuration Reference Guide for more information.)</b>

## Specifications

<b>Viewing Angle</b>	180°up/down, 180° left/right
<b>Operating Temperature</b>	32°F-104°F / 0°C-40°C
<b>Wiring Requirements</b>	Cat5
<b>OLED Display</b>	
<b>Type</b>	2" Organic LED (OLED)
<b>Colors</b>	262K
<b>Resolution</b>	220 pixels (W) x 176 pixels (H)
<b>Connectors</b>	
<b>System Port</b>	RJ-45
<b>Download Port</b>	Mini USB
<b>Interface Port</b>	5-position screw terminal
<b>Power</b>	
<b>DC Power Requirements</b>	12-16VDC
<b>Current Draw</b>	150mA
<b>Dimensions (w/front bezel)</b>	
<b>In.</b>	4 5/8 W x 4 5/8 H x 1 3/16 D
<b>mm.</b>	117 W x 117 H x 30 D
<b>Dimensions (w/o front bezel)</b>	
<b>In.</b>	4 7/16 W x 4 7/16 H x 1 1/8 D
<b>mm.</b>	112 W x 112 H x 26 D
	Fits in 32 cu in. double-gang electrical box
<b>Weight (w/o packaging)</b>	
<b>oz.</b>	14
<b>Kg.</b>	.4
<b>Weight (w/packaging)</b>	
<b>oz.</b>	16
<b>Kg.</b>	.45

# Limited Warranty

## TS2

ELAN HOME SYSTEMS L.L.C. ("ELAN") warrants the TS2 to be free from defects in materials and workmanship for the period of two years (2 years) from date of purchase. If within the applicable warranty period above purchaser discovers that such item was not as warranted above and promptly notifies ELAN in writing, ELAN shall repair or replace the item at the company's option. This warranty shall not apply (a) to equipment not manufactured by ELAN, (b) to equipment which shall have been installed by other than an ELAN authorized installer, (c) to installed equipment which is not installed to ELAN's specifications, (d) to equipment which shall have been repaired or altered by others than ELAN, (e) to equipment which shall have been subjected to negligence, accident, or damage by circumstances beyond ELAN's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or other catastrophic events beyond ELAN's control, or to improper operation, maintenance or storage, or to other than normal use of service. With respect to equipment sold by, but not manufactured by ELAN, the warranty obligations of ELAN shall in all respects conform to the warranty actually extended to ELAN by its supplier. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation or other expenses which may be incurred in connection with repair or replacement.

Except as may be expressly provided and authorized in writing by ELAN, ELAN shall not be subject to any other obligations or liabilities whatsoever with respect to equipment manufactured by ELAN or services rendered by ELAN.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES EXCEPT WARRANTIES OF TITLE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

### ATTENTION: TO OUR VALUED CONSUMERS

To ensure that consumers obtain quality pre-sale and after-sale support and service, ELAN Home Systems products are sold exclusively through authorized dealers. ELAN products are not sold online. The warranties on ELAN products are NOT VALID if the products have been purchased from an unauthorized dealer or an online E-tailer. To determine if your ELAN reseller is authorized, please contact ELAN Home Systems at (859) 269-7760.

[www.elanhomesystems.com](http://www.elanhomesystems.com)