*think*logical®

A **BELDEN** BRAND

Touch Panel
PRODUCT MANUAL

MODELS

VXM-000011
VXM-000016

Revision C, November 2018

*think*logical, A **BELDEN** BRAND • 100 Washington Street • Milford, CT 06484, U.S.A.

Copyright Notice

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PREFACE

About Thinklogical

Thinklogical, A **BELDEN** BRAND, is the leading manufacturer and provider of fiber optic and CATx KVM, video, audio, and peripheral extension and switching solutions used in video-rich, big-data computing environments.

Governments, entertainment, scientific and industrial customers worldwide rely on Thinklogical's products and solutions for security, high performance, continuous operation and ease of integration. Thinklogical products are designed and manufactured in the USA and are certified to the ISO 9001-2015 standard.

About this Product Manual

This product manual is divided into four sections: **Hardware, Software, Regulatory & Safety Requirements** and **Thinklogical Support.** These are sub-divided to help you find the topics and procedures you are looking for. This manual also contains a **Quick-Start Guide** in Appendix A, pg. 21.

Section 1 – Hardware: Details the features and functions of the VXM-000011 (5.7") and VXM-000016 (9") touch panels

Section 2 – Software: Contains the requirements and procedures necessary to connect, configure and use the touch panels.

Section 3 – Safety & Regulatory Requirements: Thinklogical® strongly recommends that you read this section prior to connecting and using the equipment.

Section 4 – Thinklogical Support: Thinklogical provides the best customer support available. If you have any questions or need to contact us for any reason, please refer to this section of the manual.

Note and Warning Symbols

Throughout this manual you will notice certain symbols that bring your attention to important information. These are **Notes** and **Warnings**. Examples are shown below.

Note: Important notes appear in blue text preceded by a yellow exclamation point symbol, as shown here.

A **note** is meant to call the reader's attention to **helpful or important** information at a point in the text that is relevant to the subject being discussed.

Warning! Warnings appear in red text, followed by blue text, and preceded by a red stop sign, as shown here.

A **warning** is meant to call the reader's attention to **critical** information at a point in the text that is relevant to the subject being discussed.

Section 1: Hardware

Thinklogical's VXM-000011 and VXM-000016 Touch Panels facilitate control of VX, MX or TLX Matrix Switches and support Thinklogical's Configurator, SMP and SMP2 control systems or other customized pages adapted to specific user installations.

Each Touch Panel is a low-power, Linux based computer with a 9" or 5.7" color widescreen TFT LCD display, touch input, and Ethernet interface, running a borderless version of the Chrome web browser in kiosk mode. Each communicates with the control system and boots directly into a Graphical User Interface (GUI), whose display can be controlled by the user to display the appropriate control page for their application.

9" Touch Panel: VXM-000016　　　　　　*5.7" Touch Panel: VXM-000011*

Key Features

- 10/100 Mbps Ethernet
- 2 USB 2.0 (host)
- 1 RS-232/485/422 Ports
- Fanless Design

Thinklogical Touch Panels allow user-friendly access to the Thinklogical GUI for most routine functions. Each unit connects independently to an Ethernet network and requires an easy, one-time configuration set-up. The Touch Panel displays the GUI on a 5.7" or 9" LCD, allowing control of switching between sources and user destinations (desktops, theaters, conference rooms, editing suites, control consoles, etc.) from the location of the panel.

DESTINATIONS
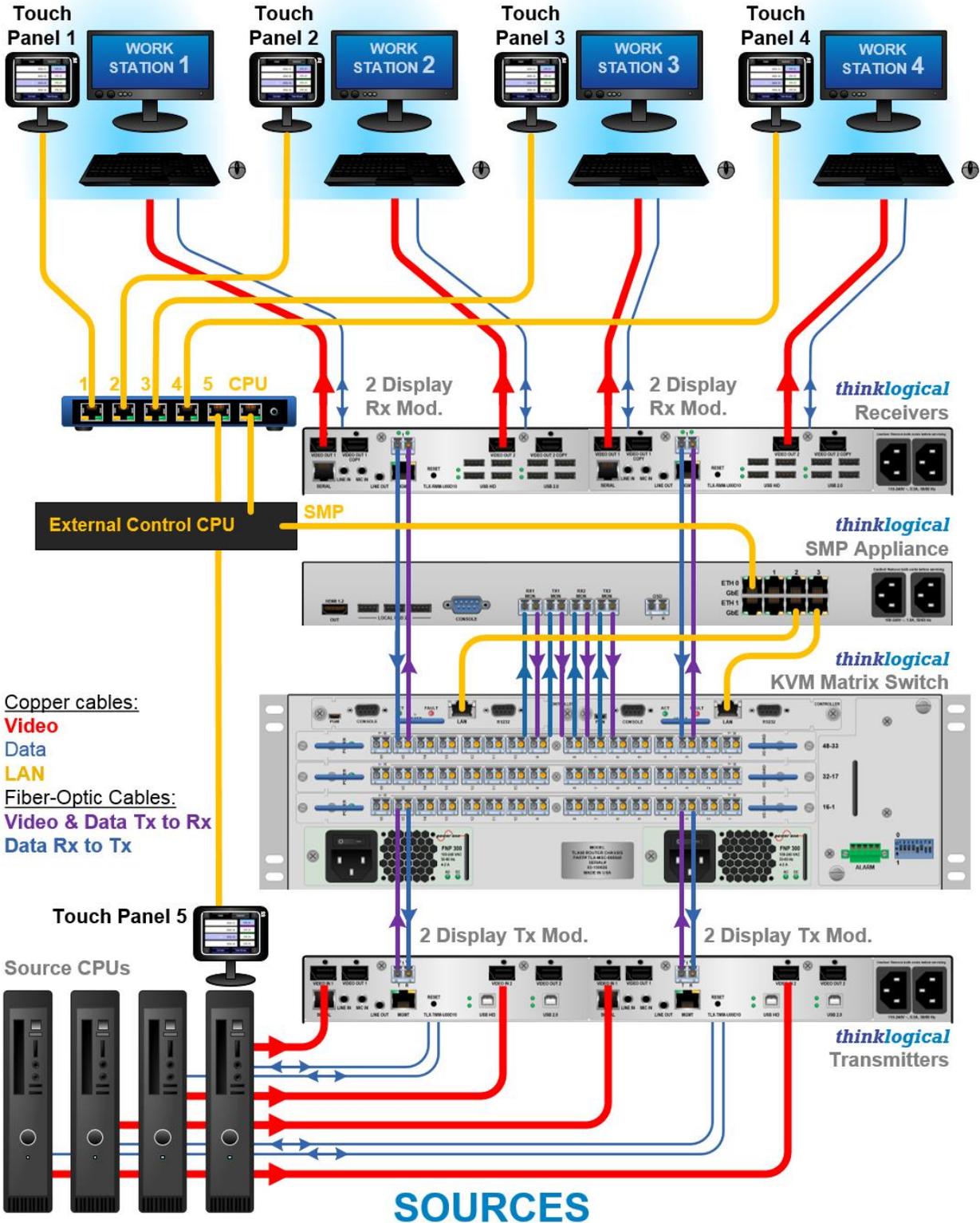
SOURCES

Copper cables:
Video
Data
LAN
Fiber-Optic Cables:
Video & Data Tx to Rx
Data Rx to Tx

⚠️ **Note: Thinklogical® products are designed and identified as Class 1 LASER products. This means the maximum permissible exposure (MPE) cannot be exceeded when viewing the laser with the naked eye or with the aid of typical magnifying optics (e.g. telescope or microscope).**

Contents

When you receive your Thinklogical® Touch Panel, you should find the following items:

- Touch Screen Unit with stand

    5.7" Panel, Part Number **VXM-000011**

    9.0" Panel, Part Number **VXM-000016**

- +5VDC Power Supply, TL P/N **PWR-000070-R**

- Product Manual CD

- Product Quick Start Guide

Installation

Connections and installation hardware for the product use industry-standard devices and methods. All wiring connections are designed to minimize proprietary or customized connectors and cabling. Power connections are made with regionally appropriate power cords and approved methods. Non-supplied cables that may be needed are commercially available.
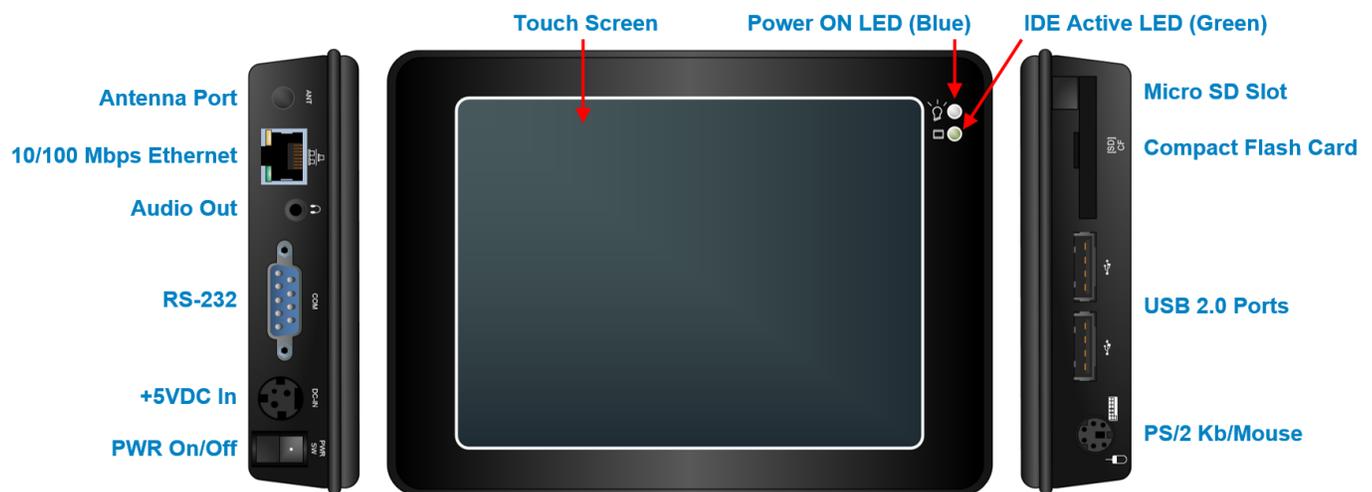
Installation of a Thinklogical Touch Panel is easy and user friendly:

1. Carefully remove the Touch Panel from its shipping package and inspect it to make certain that it is in good condition.

2. Connect the Touch Panel to a standard AC source using the +5VDC power supply provided.

3. Connect the Touch Panel to the network using CAT5 cable (10/100 Mbps Ethernet Port).

4. Turn the Power Switch ON.

STOP WARNING! Do not attempt to open or disassemble this product. Please contact your dealer or _thinklogical_ for qualified servicing. NO USER SERVICEABLE PARTS INSIDE

TECHNICAL SPECIFICATIONS

Mechanical & Environmental_____

Power Requirements	100/240 VAC, 50/60 Hz., 0.6A
Power Consumption	1.3A @ 5 VDC
Operating Temperature	0 ~ +50º (+32 ~ +122º)
Storage Temperature	-10 ~ +60º (+14 ~ +140º)
Relative Humidity	0 ~ 90% @ 35° C (non-condensing)

VXM-000016 9" Model

Dimensions	9.31" x 5.75" x 1.38" (236.6 x 146 x 35 mm)
Weight	1.032 lb. (468 gm)

VXM-000011 5.7" Model

Dimensions	5.98" x 4.41" x 1.3" (152 x 112 x 33 mm)
Weight	0.83 lb. (374 gm)

Certifications	CE, FCC, VCCI

LCD Specifications_____

Display Type	9" or 5.7" TFT LCD	
Backlight Unit	LED	
Display Resolution	1024 (width) x 600 (height)	9" Model
	640 (width) x 480 (height)	5.7" Model
Viewing Angle	Vertical 110°, Horizontal 140°	
Backlight Lifetime	25,000 hours	

Touch Screen_____

Type	Analog Resistive
Resolution	Continuous
Transmittance	80%
Controller	USB interface (RS-232 interface)
Software Driver	Linux
Durability	1 million touches

Warranty_____

1 year from date of shipment. Extended warranties available.

Section 2: Software

Configuring the Touch Panel

Each touch panel is pre-configured at the factory with a static IP address in the range of 192.168.13.xxx which is the range of default IP addresses used by Thinklogical's Matrix Switches and control hardware. **The touch panel is set to 192.168.13.112 by default**.

If the user wishes to change the IP address of the touch panel due to specific network requirements, it must be changed manually. The process differs slightly between the VXM-00011 5.7" panel and the VXM-000016 9"panel. A standard USB keyboard is required.

Initial BIOS Setup

In order to connect the touch panel to the network, it may be necessary to change the BIOS settings on the panel itself. See Appendix B, pg. 22 for instructions.

VXM-000016

Connect the included 5VDC Power Supply to the panel. Connect the USB keyboard to one of the USB ports on the panel.

Switch the panel on by means of the power switch next to the 5VDC power supply connector.

The panel will begin its boot-up process until it reaches:

Configure Network Settings

IP Address: 192.168.13.112 – change [y/n]

*If no response is given within **8 seconds**, the configuration routine will be canceled and boot-up will proceed.*

A response of "**n**" will cancel the configuration routine and boot-up will proceed.

A response of "**y**" will return

Enter new address: and the desired IP address can be entered.

Once entered the netmask and gateway configurations may be changed if desired:

Netmask: 255.255.255.0 – change – [y/n]:

Gateway: 192.168.13.254 – change [y/n]:

 Followed by:

Homepage: 192.168.13.9/ - change [y/n]

The homepage is the specific IP address and port from which the web page GUI of the control system is served to the touch panel.

⚠️ **Note: The homepage IP Address is the address of the control system, not the touch panel.**

Through the evolution of Thinklogical's control system software, the default IP address of the control system has never changed, but the URL has. Depending on the version of the control software to be used, these are the possible ports that may need to be entered in the homepage configuration process:

X4 Configurator prior to version v44.02.48:

http://192.168.13.9/touch   No port specified uses the default HTTP port 80.

http://192.168.13.9:80/touch (Explicitly stating the port also works.)

X44 Configurator version 44.02.48

http:/192.168.13.9:8080 or 60080

SMP Configurator

http://192.168.13.9:60080

SMP2 Appliance or SMP2 Module

https://192.168.13.9:60090 (Note that *https* is required.)

Example Boot Screen Configuration Steps:

```
Configure Network Settings

IP address: 127.0.0.1 - change [y/N]?y
Enter new address:192.168.13.112
Netmask: 255.255.255.0 - change [y/N]?n
Gateway: 192.168.13.254 - change [y/N]?n
Homepage: http://192.168.13.9/touch - change [y/N]?y
Enter new homepage: http://192.168.13.9:60080
```

Once the homepage configuration is complete, the boot-up process will proceed.

The panel will offer to perform calibration of its touchscreen. If it is the first use of the panel, follow the screen prompts to calibrate. If it is chosen not to calibrate the touchscreen, the offer will time out in 5 seconds, and boot-up will be completed. The touchscreen will retain its previous calibration, if any.

VXM-000011

The VXM-000011 panel does not employ the same configuration process as the VXM-000016 panel. The configuration of the IP address, netmask, gateway and homepage must be accomplished by editing the **/etc/network/interfaces** file from the Linux command line using the default Linux file editor **vi Editor.** See Appendix C, pg. 23 for instructions in the use of **vi Editor.**

Switch the panel on by means of the power switch next to the 5VDC power supply connector.

The panel will go through its boot-up process. The panel will offer to perform calibration of its touchscreen. If it is the first use of the panel, follow the screen prompts to calibrate. If it is chosen not to calibrate the touchscreen, the offer will time out in 5 seconds, and boot-up will be completed. The touchscreen will retain its previous calibration, if any.

Connect the USB keyboard to one of the USB ports on the panel.

Press **Ctrl - Alt - F1** on the keyboard to dismiss the Chrome browser window and put the panel into text mode.

When the login appears, type:

Vortex86 login:root

Password:emac_inc

Once logged in, the Vortex86 command line prompt will appear:

 Vortex86:~#

Change directories to /etc/network:

Vortex86:cd /etc/network

Edit the interfaces file with vi Editor:

Vortex86:/etc/network# vi interfaces

```
# /etc/network/interfaces û configuration file for ifup(8), ifdown(8)

# The loopback interface
auto lo
iface lo net loopback

allow-hotplug eth0
iface eth0 inet dhcp
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
- Interfaces 1/9 11%
```

Change the line: **iface eth0 inet dhcp**

To: **iface eth0 inet static**

 Enter the network interface values as shown in the example below:

```
# /etc/network/interfaces û configuration file for ifup(8), ifdown(8)

# The loopback interface
auto lo
iface lo net loopback

allow-hotplug eth0
iface eth0 inet static
    address 192.168.13.112
    netmask 255.255.255.0
    network 192.138.13.0
    broadcast 192.168.13.255
    gateway 192.168.13.1
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
:wq
```

Save and quit vi Editor.

Change directories to /home/user:
Vortex86:/etc/network# cd /home/user

Use vi Editor to edit the homepage file:
Vortex86:/home/user# vi homepage

```
http://192.168.13.9/touch
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
- Homepage 1/1 100%
```

Change the homepage address to the address that is appropriate for the control system sofware in use, as it is done for the VXM-000016:

```
http://192.168.13.9:60080
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
:wq
```

Save and quit vi Editor.

Enter the sync command:

Vortex86:/home/user# sync

Enter the reboot command:

Vortex86:/home/user# reboot

The touch panel will reboot with the new settings. If the touch panel is properly configured in the control software, the desired page will be displayed.

Adding a Touch Panel to the SMP2 Configuration

The SMP2 software does not have a touchscreen configured in its default configuration, therefore one (or more) must be added to the system.

1. Login at the Administrator console of the SMP2 Appliance, or SMP2 Module.

2. Choose the bottom tab **ADMIN**, then the top tab **USERS**.

3. Right-click under the **USERS / KBDS** section and select **TOUCHSCREEN**.

4. A window will pop up; enter a name and IP address for the touchscreen.
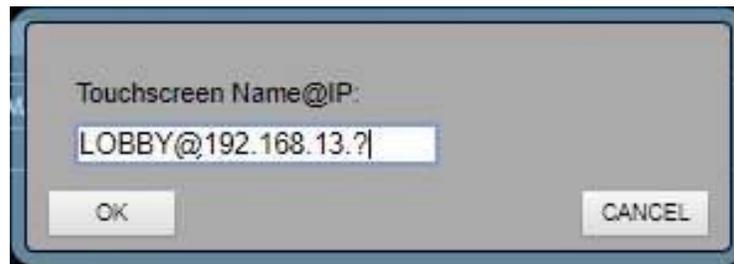
5. The new touchscreen will appear under the **USERS / KBDS** section.

6. Highlight the new touchscreen (if it isn't already) and select **COMBI** in the **START PAGE** row on the right.

7. Select sources and destinations from those on the right. These will then appear on the touchscreen for use.

Warning! *It is very important to select COMBI in the START PAGE. If this is not done the touchscreen will power up with no configuration and will show a blank screen.*

Note: **For medium and large installations it may be inconvenient to select all Sources and Destinations. This would require the user to scroll up or down to find what they wish to select. You can limit which Sources and Destinations are displayed in step 7 above.**

If you wish to add additional touchscreens to the system:

- Ensure that they have unique IP addresses.

- Add them to the SMP2 Configuration as detailed above.

# Adding a Touch Panel to the X44 or SMP Configurator Control Software

The basic configuration of the X44 Configurator or SMP Configurator must be accomplished in terms of adding sources and destinations according to the directions in the Product Manuals for the respective Configurator products.

For the purposes of this manual, a simple configuration of four sources (**Source 1-4**) and four destinations (**Workstation 1-4**) to illustrate the necessary inclusions to the GUI that must be made for use of a touch panel. This section, and the **Using the Touch Panel** section will reference this configuration.

The touch panel is a resource that must be made available to the X44 or SMP Configurator Control software. Through the Configurator, the touch panel communicates connections changes to the Matrix Switch, receives updates on the connection status of the Matrix Switch and allows Macro commands to be invoked on the matrix switch.

The following things must be configured for the touch panel to be used:

- The touch panel must be added to the Configurator ADMIN>GROUPS page of the GUI in the **# Groups assigned by IP address (touch panels)** section. The IP address of the touch panel must be added in the *IP Address:* cell and it must be assigned to the group **touch** in the *Group:* cell, as shown below.
- A *Username:* called **touch** must be added to the **# User definitions** section if it does not already exist. The initial start page for the touch panel must be entered for that *Username:* as **touch panel** as shown below:

In the configuration shown above, the touch panel with the IP address of 192.168.13.112 will load the **Detail** startpage, analogous to the **CONNECT** page of the Configurator, as explained in the **Using the Touch Panel** section of this manual.

- The sources and destinations desired to be available for control by the touch panel must include the entry **touch** in the *Takeable:* column for the source or destination on the **ADMIN>Stations** page of the Configurator GUI as shown below:


The touchscreen at 192.168.13.112 will now start up in this page:

Using the Touch Panel

SMP2

When configured correctly, the Touch Panel will initially display a certificate error upon power up. This indicates a successful connection to the SMP2. Click on [Proceed Anyway] to continue initialization. You will then get the COMBI touchscreen page like the example below.
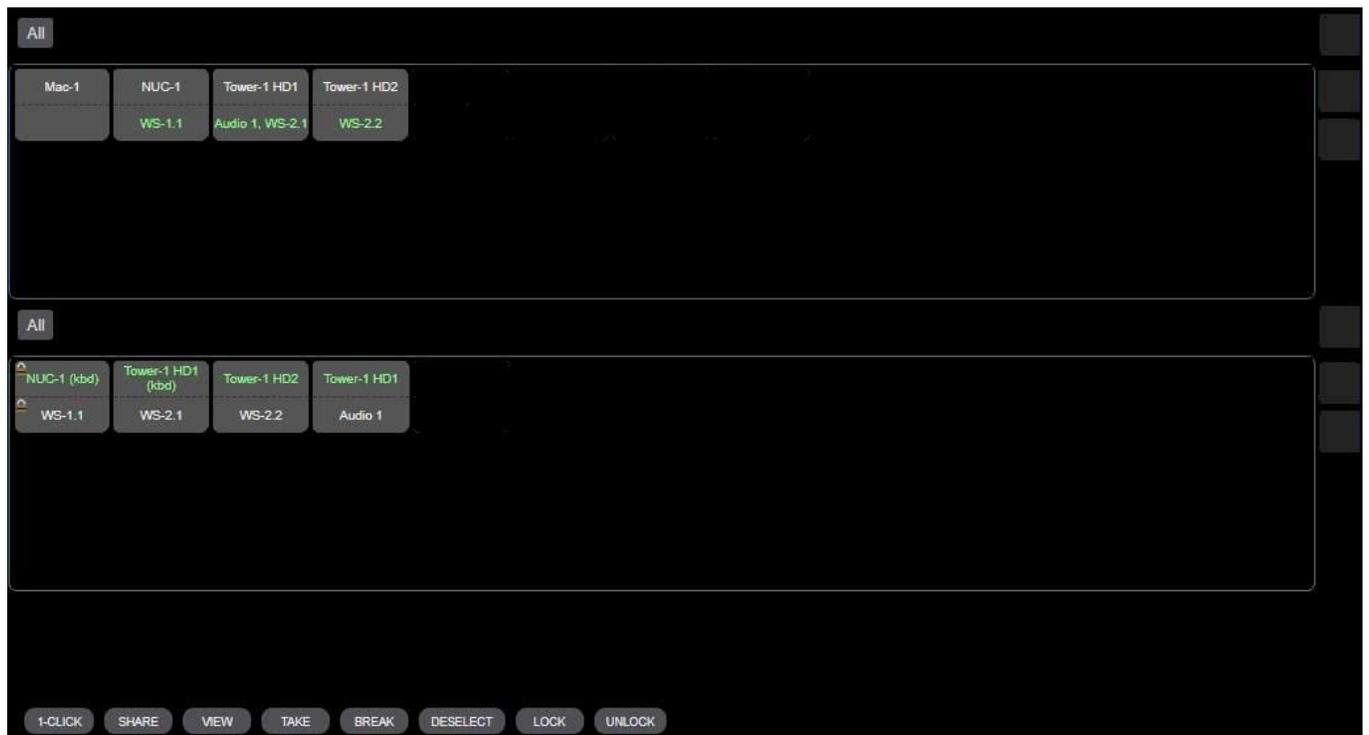
Here we see the sources available to this touchscreen on top (previously allocated in the SMP2 Users tab) and the destinations below. White text indicates the Source and Destination names and green text shows what they are connected to. To make a connection, touch a Source and a Destination, they will turn blue. Then hit the Take button to make the connection. Keyboard and mouse control is indicated by the (kbd) designation.

⚠️ **Note: In this example Destination WS-1.1 is locked. This is done to prevent another Destination from taking that Source. Use the Lock and Unlock buttons to use this feature.**

⚠️ **Note: For sites with many Sources and Destinations there will be many icons on the Touch panel to choose from and arrows to scroll to them. For user convenience assets can be limited in the Users tab of the SMP2.**

SMP1

The Touch Panel will load the operating system, start the GUI, and get updates from the server. The following GUI page (Detail) will be displayed on the screen:

Source Page Up/ Page Down

Destination Page Up/ Page Down
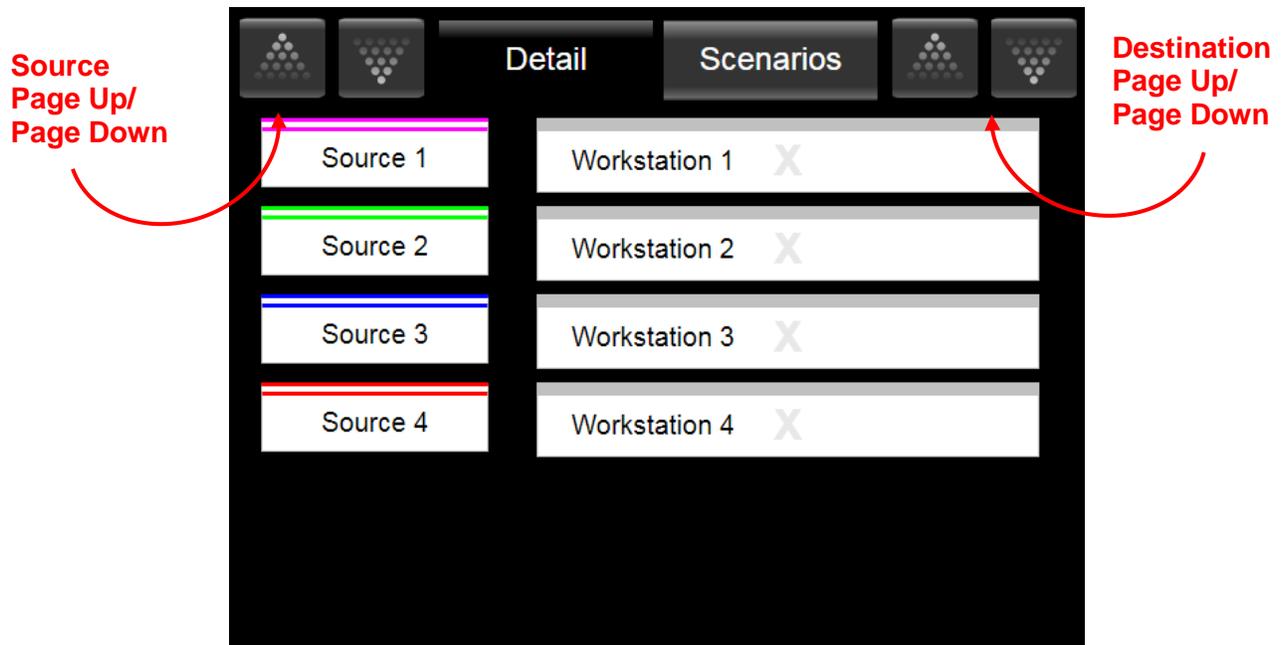
By default, the Touch Panel starts up in "Detail" when "**touchscreen**" is entered as the ***Startpage:*** in Configurator.

SOURCES are listed on the left (Source 1, Source 2 & etc.).
DESTINATIONS are listed on the right (Workstation 1, Workstation2 & etc.).

Making a Connection

Each source on the left side of the screen has a colored band across the top of its icon. By touching a sources icon, it will become highlighted. When one or more destination icons are then touched, the color band across the top of the source will take on a dashed appearance, and the destination icon will display an "X" of the color that corresponds to that of the source icons color band. The name of the source will appear next to the destination name, and the appropriate commands are sent to the matrix switch to connect all the fibers associated with the source to the fibers associated with the destination. Selections will remain while using the *Page Up* or *Page Down* features to show other sources and/or destinations.
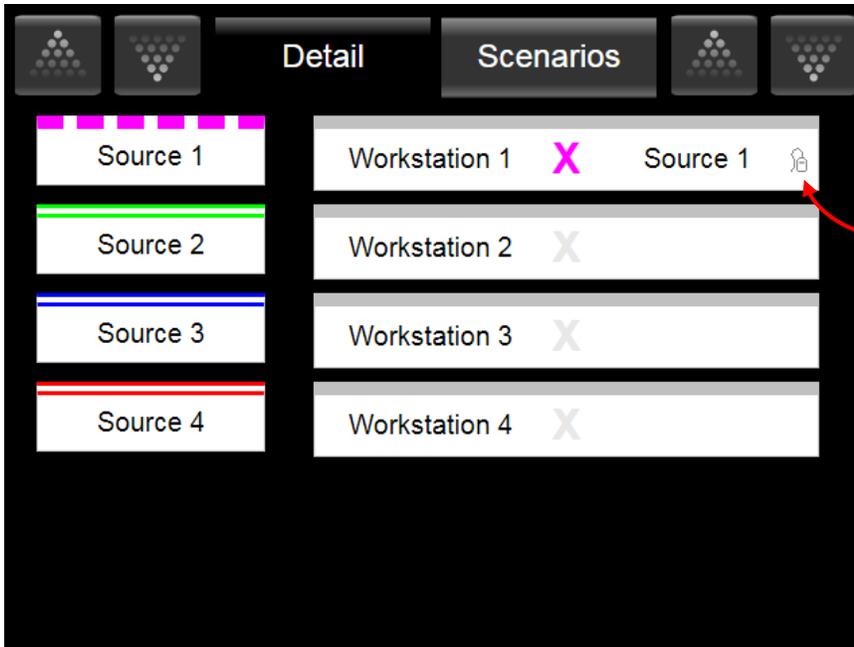
Mouse Control Icon

By default, mouse control is assigned to the first connection made.

Mouse control is indicated by the Mouse icon 🖱 to the right of Source 1 on the Destination side. If it is desired to transfer mouse control to a different destination, press the icon of the already-made source/destination connection. The mouse control icon will move to that connection, and that destination will gain control of the mouse (see "Showing the Active Backchannel (Mouse Control) on the Touch Panel").
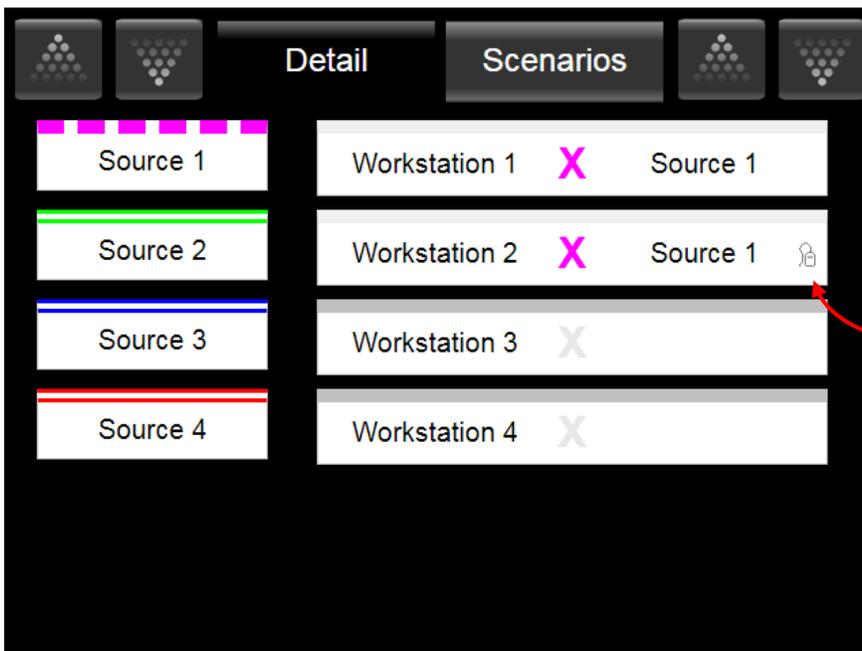
Mouse Control Icon

Breaking a Connection
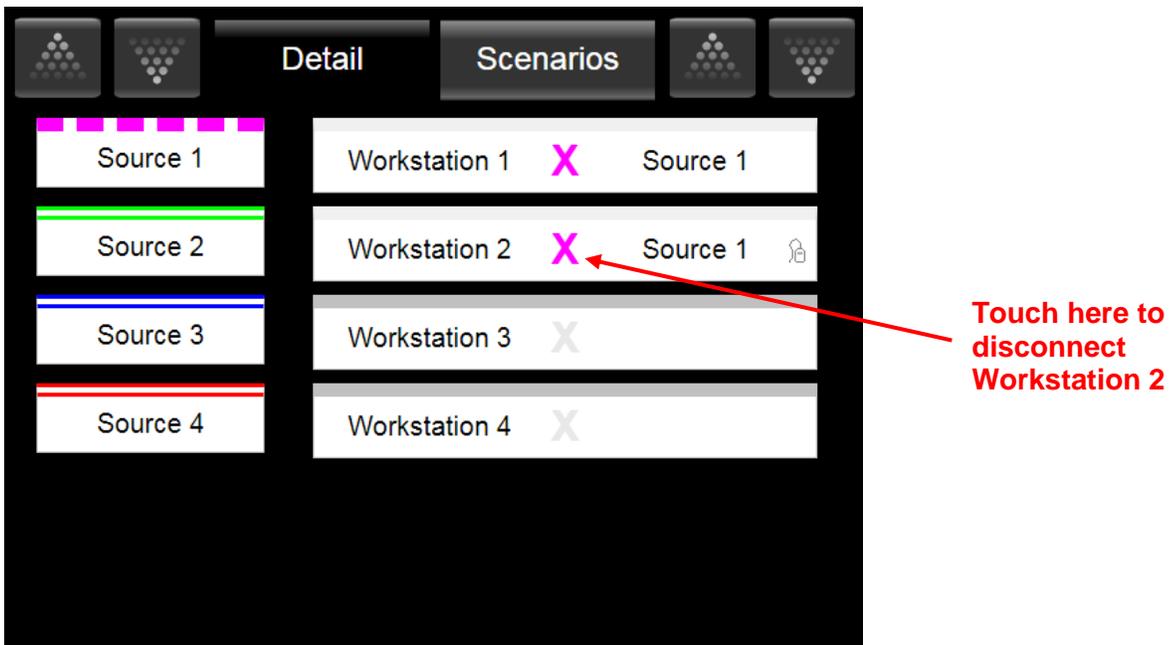
To break a connection, touch the **X** between the Source and Destination to be disconnected. Mouse control will revert to the last previously connected destination, in this case, Workstation 1.

Section 3: Regulatory & Safety Requirements

Symbols found on the product

Markings and labels on the product follow industry-standard conventions. Regulatory markings found on the products comply with domestic and many international requirements.

Regulatory Compliance

Thinklogical's® products are designed and made in the U.S.A. These products have been tested by a certified testing laboratory and found to be compliant with the following standards (both domestic USA and many international locations):

North America

Safety
ANSI/UL 60950-1:2007/03/27 Ed:2 Rev:2011/12/19
CSA C22.2#60950-1: 2007/03/27 Ed: 2 (R2012)
LASER Safety
CDRH 21 CFR 1040.10
Class 1 LASER Product
Canadian Radiation Emitting Devices Act, REDR C1370
IEC 60825:2001 Parts 1 and 2
Class 1 LASER Product
Electromagnetic Interference
FCC 47CFR Part 15 Subpart B: 2016 Class A
Industry Canada ICES-003: 2016

Australia & New Zealand

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

European Union

Declaration of Conformity

Manufacturer's Name & Address: **Thinklogical**® A **BELDEN** BRAND
100 Washington Street
Milford, Connecticut 06460 USA

Thinklogical's products comply with the requirements of the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU, the WEEE Directive 2012/19/EU and carry the C€ marking accordingly.

Standards with Which Our Products Comply

Safety
IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Electromagnetic Emissions
CENELEC EN 55022:2010 +AC:2011
Electromagnetic Immunity
CENELEC EN 55024:2010 +A1:2015
CENELEC EN 55032:2015
EN61000-3-2/: 2000 Harmonics
EN61000-3-3: 2008 Flicker

EN 61000-4-2:2009 Electro-Static Discharge Test
EN 61000-4-3:2006, A1:2008, A2:2010 Radiated Immunity Field Test
EN 61000-4-4:2004 Electrical Fast Transient Test
EN 61000-4-5:2006 Power Supply Surge Test
EN 61000-4-6:2009 Conducted Immunity Test
EN61000-4-11: 2004 Voltage Dips & Interrupts Test

Supplementary Information

The following statements may be appropriate for certain geographical regions and might not apply to your location.

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigencies du Règlement sur le matériel brouilleur du Canada.

Warning! This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take corrective measures.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications in which case the user may be required to take adequate corrective measures at their own expense.

Note: This Class A digital apparatus complies with Canadian ICES-003 and has been verified as being compliant within the Class A limits of the FCC Radio Frequency Device Rules (FCC Title 47, Part 15, Subpart B CLASS A), measured to CISPR 22: 1993 limits and methods of measurement of Radio Disturbance Characteristics of Information Technology Equipment.

Note: The user may notice degraded audio performance in the presence of electro-magnetic fields.

Product Serial Number

Thinklogical products have a unique serial number, which includes a date-code, printed on an adhesive label that is affixed to the unit. The format for the date-code is *2 digits for the month*, dash, *2 digits for the year*, plus *at least four digits for a unique unit number*. For example: **05**-**18**0127 indicates the unit was built in the **5**th month of 20**18** and is unit number **127**.

Section 4: Thinklogical Support

How to Contact Us

Website

Check out our website at **www.thinklogical.com** for current products, support documents and useful information about all the products and services we offer, including technical specification sheets, quick-start guides and product manuals (for viewing online or for download).

⚠️ **Note: Most online documents are stored as Adobe Acrobat "PDF" files. If you do not have the Adobe Acrobat reader needed to view PDF files, visit www.adobe.com for a download.**

Email

Thinklogical® is staffed **Monday through Friday from 8:30am to 5:00pm**, Eastern Time Zone. We will do our best to respond to your email inquiries promptly. Please use the following email addresses:

info@thinklogical.com – Information on Thinklogical® and our products.

sales@thinklogical.com – Sales Department - orders, questions or issues.

support@thinklogical.com – Product support, technical issues or questions, product repairs and request for Return Authorization.

Telephone

Thinklogical Operator: 1-203-647-8700

Product Support

Thinklogical support personnel are available **Monday through Friday from 8:30am to 5:00pm**, Eastern Time Zone. If your application requires assistance at some time outside of our normal business hours, please contact us beforehand, if possible, and we will do our best to help you with your Thinklogical products.

Warranty

Thinklogical® warrants this product against defects in materials and workmanship for a period of one year from the date of delivery. Thinklogical and its suppliers disclaim all other warranties.

⚠️ **Note: Thinklogical® products carry a one year warranty, with longer term available at time of purchase on most products. Please refer to your product invoice for your products Warranty Terms & Conditions.**

Defect remedy shall be the repair or replacement of the product, provided the defective product is returned to the authorized dealer within a year from the date of delivery.

If you wish to return your device, contact the Thinklogical authorized dealer where you purchased the device, or if you purchased directly, call Thinklogical at **1-800-291-3211** (USA).

Return Authorization

> **If you need to return your Thinklogical® product to us for any reason, please get a**
>
> **R**eturn **M**erchandise **A**uthorization Number (RMA#)
>
> **from Thinklogical's Product Support Department (1-203-647-8798) before sending the unit in.**

In the event you must return a product to Thinklogical® directly, please contact **Customer Support** at **1-800-291-3211** or **1-203-647-8700**. Customer Support will ask you to describe the problem and will issue you a **R**eturn **M**erchandise **A**uthorization number (RMA#). Pack the device in its original box, if possible, and return it with the RMA# printed on the outside of the box.

⚠️ **Note: DO NOT return a product to Thinklogical® without a *Return Merchandise Authorization.***

Our Addresses

If you have any product issues or questions or need technical assistance with your Thinklogical® system, please call us at **1-800-291-3211 (USA only)** or **1-203-647-8700** and let us help. If you need to write us or return a product, please use the following address: Return address for products with Return Merchandise Authorization:

Thinklogical® A BELDEN **BRAND**
Attn: *RMA#*
100 Washington Street
Milford, CT 06460 USA

Website: www.thinklogical.com
Facebook: www.facebook.com/ThinklogicalUSA
LinkedIn: www.linkedin.com/company/thinklogical
Google+:   http://plus.google.com/u/0/109273605590791763795/about
YouTube: www.youtube.com/user/thinklogicalNA
Twitter: @thinklogical
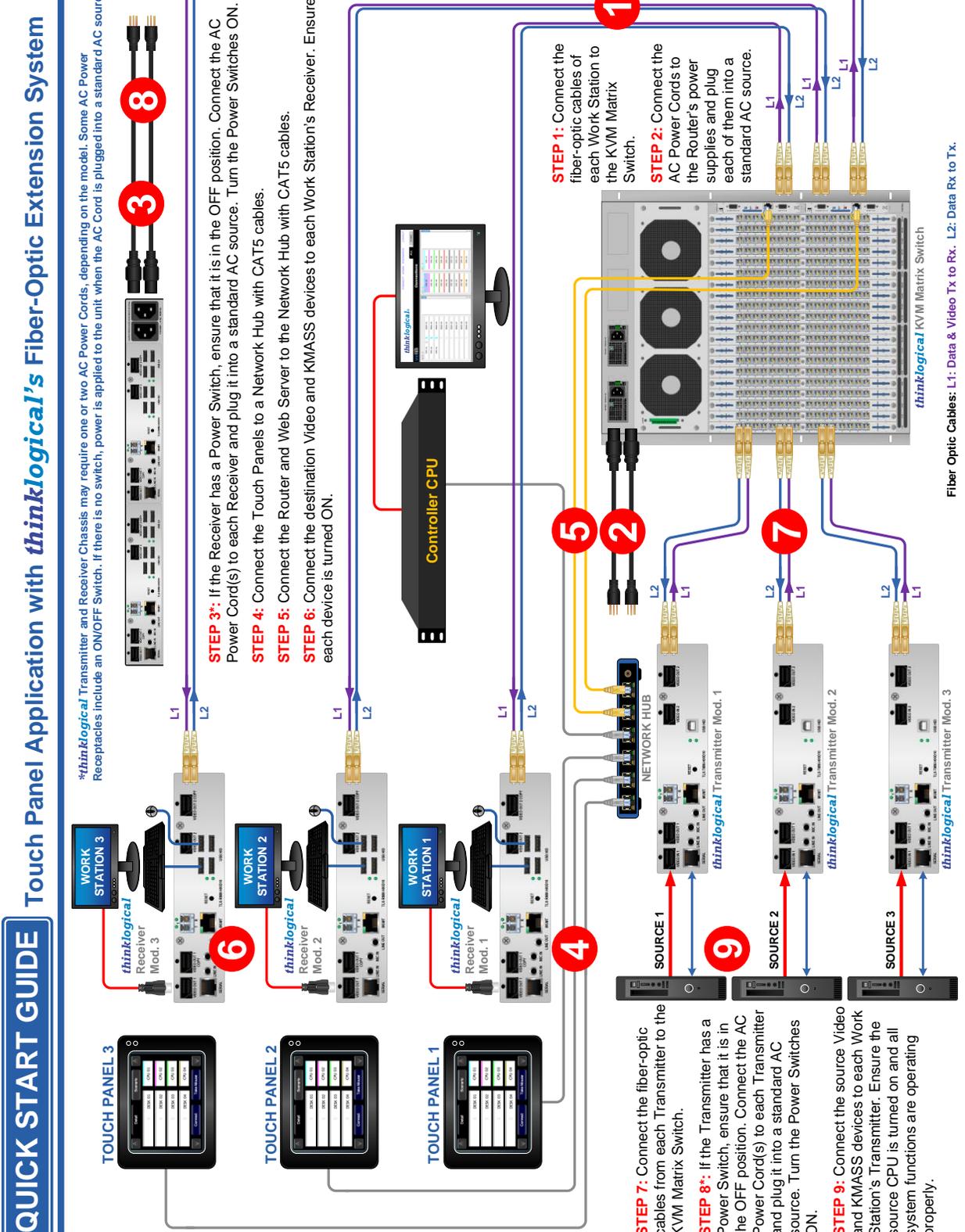
QUICK START GUIDE — Touch Panel Application with *thinklogical's* Fiber-Optic Extension System

STEP 1: Connect the fiber-optic cables of each Work Station to the KVM Matrix Switch.

STEP 2: Connect the AC Power Cords to the Router's power supplies and plug each of them into a standard AC source.

STEP 3*: If the Receiver has a Power Switch, ensure that it is in the OFF position. Connect the AC Power Cord(s) to each Receiver and plug it into a standard AC source. Turn the Power Switches ON.

STEP 4: Connect the Touch Panels to a Network Hub with CAT5 cables.

STEP 5: Connect the Router and Web Server to the Network Hub with CAT5 cables.

STEP 6: Connect the destination Video and KMASS devices to each Work Station's Receiver. Ensure each device is turned ON.

STEP 7: Connect the fiber-optic cables from each Transmitter to the KVM Matrix Switch.

STEP 8*: If the Transmitter has a Power Switch, ensure that it is in the OFF position. Connect the AC Power Cord(s) to each Transmitter and plug it into a standard AC source. Turn the Power Switches ON.

STEP 9: Connect the source Video and KMASS devices to each Work Station's Transmitter. Ensure the source CPU is turned on and all system functions are operating properly.

*thinklogical Transmitter and Receiver Chassis may require one or two AC Power Cords, depending on the model. Some AC Power Receptacles include an ON/OFF Switch. If there is no switch, power is applied to the unit when the AC Cord is plugged into a standard AC source.

Fiber Optic Cables: L1: Data & Video Tx to Rx.   L2: Data Rx to Tx.

thinklogical KVM Matrix Switch

Controller CPU

NETWORK HUB

thinklogical Transmitter Mod. 1
thinklogical Transmitter Mod. 2
thinklogical Transmitter Mod. 3

SOURCE 1   SOURCE 2   SOURCE 3

WORK STATION 3   WORK STATION 2   WORK STATION 1

thinklogical Receiver Mod. 3
thinklogical Receiver Mod. 2
thinklogical Receiver Mod. 1

TOUCH PANEL 3   TOUCH PANEL 2   TOUCH PANEL 1

Touch_Panel_QSG_Manual_Rev_C

APPENDIX B: TOUCH PANEL BIOS Settings

Follow the instructions below to set the BIOS:

1. Connect a keyboard to the touch panel.

2. When the touch panel boots, press the "Delete" key to enter the BIOS.

3. Press the "Right" arrow key to reach the "Advanced" tab.

4. Press the "Down" arrow key to reach "IDE Configuration" and press "ENTER."

5. Press the "Down" arrow to reach "IDE Operate Mode" and press "ENTER." Change the mode to "Native Mode."

6. Press the "Down" arrow to reach "Primary IDE Pin Select" and press "ENTER." Change the option to "Parallel IDE."

7. Press "F10" to save and exit the BIOS. Highlight "Ok" and Press "ENTER." The touch panel will reboot and should open to the correct page.

⚠ **Note: If the Configurator page on the touch panel incorrectly requires a login, stop the web browser service on the touch panel, restart the Configurator service on your server, then restart the touch panel web browser.**

1. Press <Ctrl> <Alt> <F1> to enter the command line of the touch panel.

2. Login as the root user: login = root   Password = emac_inc

3. Type "killall chrome" and press <ENTER>.

4. Restart the Configurator service from your Configurator server. The exact method to do this can vary depending upon whether you are using a Linux or Windows server.

5. On the touch panel, press <Ctrl> <Alt> <F5> to relaunch the chrome web browser. If the correct X4 page does not appear, go back to the command line and type "reboot."

APPENDIX C: vi Editor

The default file editor that comes with the Linux operating system is called vi (**vi**sual) Editor. In this manual, vi Editor will be used on the touch panel to modify certain files.

To Start vi Editor
To use vi on a file, type in **vi filename**<**Enter>.** If the file named filename exists, then the first page (or screen) of the file will be displayed; if the file does not exist, then an empty file and screen are created into which you may enter text. Enter **vi filename<Enter>** to edit filename starting at line 1.
vi Editor has two modes of operation:
1. *Insert mode* in which entered text is inserted into the file. Enter insert mode by typing **I** (uppercase i). When in insert mode a capital **I** is displayed at the bottom of the screen.

2. *Command mode* commands which cause action to be taken on the file. Command mode is entered by pressing **Esc** All commands must be preceded by **:** (colon).

Moving the Cursor
While in the insert mode, use the arrow keys to navigate the cursor up and down lines of text, and right and left along a line of text. Use **dd** to delete an entire line of text.

To Exit vi Editor
Usually the new or modified file is saved when you leave vi Editor. However, it is also possible to quit vi Editor without saving the file.

⚠️ **Note: The cursor moves to bottom of screen whenever a colon (:) is typed. This type of command is completed by pressing the <Enter> key.**

To exit vi type:
:wq<Enter> Quit vi, writing out modified file to file named in original invocation **(Save and Exit)**.
:q!<Enter> Quit vi without saving changes.

APPENDIX D: Resizing the Screen (Zoom) on the Touch Panel

In some cases, such as when a custom browser screen is to be used on the 5.7" touch panel, it may be necessary to resize the screen zoom level so that the whole window will be accessible from the panel.

There are two ways to modify the configuration on a touch panel. One is to use a USB/PS2 keyboard connected directly to the touch panel and make any necessary changes directly on that panel.

The other is to connect the touch panels to a network and log into them remotely.

Direct Configuration:
1. Attach the USB/PS2 keyboard to a port on the touch panel.
2. Press Ctrl-ALT-F1 on the keyboard to go into text mode.
3. When the login prompt appears:

   login as: root
   root@192.168.13.112's password: emac_inc

Remote Configuration:

SSH to the touch panel via another Linux computer or via PuTTY from a Windows computer. PuTTY can be downloaded from
http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

Login the same way as when direct connected.

From the command prompt, type the path to the directory where the file "Custom.css" is located.

vortex86:~# cd /home/user/.config/chromium/Default/User\ StyleSheets/

Use the Linux vi editor to create the zoom percentage (0.845 in this case). Type vi Custom.css

vortex86:/home/user/.config/chromium/Default/User StyleSheets# vi Custom.css

Enter the text shown below in the file using the vi editor.

Save the file and quit vi using the "wq" command.

Make the file Custom.css non-volatile. Otherwise, upon reboot the screen size will revert to 100%.

Switch to the user directory. Type **cd /home/user**

Run the command save_defaults.sh

vortex86:/home/user# sh save_defaults.sh

Reboot the touch panel.

vortex86:/home/user# reboot