




TruVision 20MP (4 x 5MP) 360 Degree Multi-Imager Camera Installation Guide

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Manufacturer	Interlogix. Authorized EU manufacturing representative: UTC Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, The Netherlands
Certification	
FCC compliance	<p>Class A: 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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.</p>
FCC conditions	<p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:</p> <p>(1) This device may not cause harmful interference.</p> <p>(2) This Device must accept any interference received, including interference that may cause undesired operation.</p>
ACMA compliance	<p>Notice! 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.</p>
Canada	<p>This Class A digital apparatus complies with Canadian ICES-003.</p> <p>Cet appareil numérique de la classe A est conforme à la norme NMB-0330 du Canada.</p>

cUL

Safety Instruction:

Improper use or replacement of the battery may result in explosion hazard. Replace with the same or equivalent type only. Dispose of used batteries in conformance with the local codes.

Instructions de sécurité :

L'utilisation ou le remplacement inadéquats de la pile peuvent entraîner un risque d'explosion. Remplacez-la par le même type ou l'équivalent du même type seulement. Jetez les piles usagées conformément aux directives fournies par le fabricant de la pile.

European Union directives

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.



2013/56/EU & 2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

Contact information and manuals/tools/ firmware

For contact information and to download the latest manuals, tools, and firmware, go to the web site of your region.

EMEA: firesecurityproducts.com

Manuals are available in several languages.

Australia/New Zealand: utcfs.com.au

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Introduction

Product overview

This is the installation manual for TruVision Multi-Imager 360 Degree IP Camera:

SKU	Description
TVS-5101	TruVision Multi-Imager 360 Degree IP Camera, 20MP/4 x 5MP image sensors, 2.8 to 12 mm motorized lenses, True D/N, WDR, 30 m IR, Audio, Alarm, Micro SD/SDHC /SDXC Slot, IP67, IK10, Heater, Hi-PoE/12 VDC

You can download the following manuals from our web site:

- TruVision 20MP (4 x 5MP) 360 Degree Multi-Imager Camera Installation Guide
- TruVision 20MP (4 x 5MP) 360 Degree Multi-Imager Camera Configuration Manual

The manuals are available in several languages on the EMEA web site.

Installation

This chapter provides information on how to install the camera.

Installation environment

When installing your product, consider these factors:

- **Electrical:** Install electrical wiring carefully. It should be done by qualified service personnel. Always use a proper Hi-PoE switch or a 12 VDC UL listed Class 2 or CE certified power supply to power the camera. Do not overload the power cord or adapter.
- **Ventilation:** Ensure that the location planned for the installation of the camera is well ventilated.
- **Temperature:** Do not operate the camera beyond the specified temperature, humidity or power source ratings. The operating temperature of the camera is between -40°C to +60°C (40°F to +140°F). Humidity 95% or less (non-condensing) for the camera.

- **Moisture:** Do not expose the camera to rain or moisture, or try not to operate it in wet areas. Turn the power off immediately if the camera is wet and ask a qualified service person for servicing. Moisture can damage the camera and also create the danger of electric shock.
- **Servicing:** Do not attempt to service this camera yourself. Please refer to the instructions in this manual when removing the camera cover. Refer all servicing to qualified service personnel.
- **Cleaning:** Do not touch the bubble with fingers. If cleaning is necessary, use a clean cloth with some ethanol and wipe the camera bubble gently.

Contact information and manuals/firmware

For contact information and to download the latest installation and configuration manuals as well as firmware for this camera, go to the web site of your region:

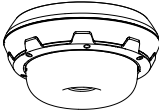
EMEA:	firesecurityproducts.com
	Manuals are available in several languages.

Australia/New Zealand:	utcs.com.au
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Package contents

Check the package and contents for visible damage. If any components are damaged or missing, do not attempt to use the unit; contact the supplier immediately. If the unit is returned, it must be shipped back in its original packaging.

- Camera

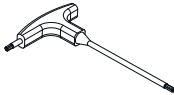


- Cup base



- Torx wrench

(Used on the bubble assembly)



- G3/4 cable gland



- Screws:

Drywall anchor
6 x 29mm (4 pcs)

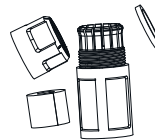


Screw M4
9.8 x 25mm (4 pcs)



- Water joint

(Provides water resistance to the network connection)



Screw M5 (attach the camera to the cup base) x 10mm (4 pcs)



- Hex wrench 80 x 150 mm

(Used to lock the mount screws)



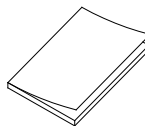
- Water resistant tape (6 pcs)



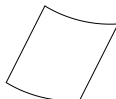
- Gray cloth



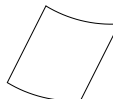
- Installation manual



- Equipment disposal sheet



- Battery disposal sheet



CAUTION: Use direct plug-in UL listed power supplies marked Class 2/CE certified or LPS (limited power source) of the required output rating as listed on the unit.

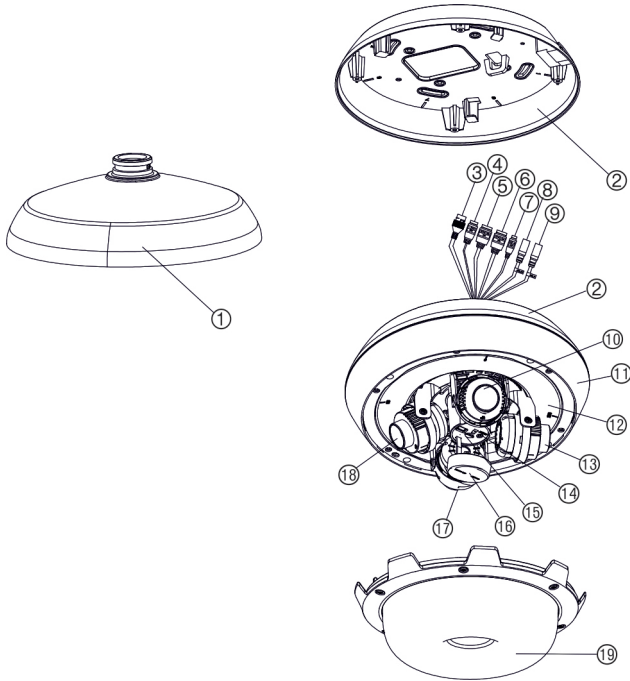
Cable requirements

For proper operation, adhere to the following cable and power requirements for the cameras. It is recommended to use CAT 5 cabling or better. All network cabling must be installed according to applicable codes and regulations.

The recommended power cable requirements to use are a 12 VDC or Hi-PoE (802.3at) when connecting the camera.

Camera description

Figure 1: Multi-imager camera



1. Cup base
2. Camera base
3. Hi-PoE and network port
4. Power, 12 VDC
5. Alarm input & output 1
6. Alarm input & output 2
7. RS-485 port
8. Audio out
9. Audio in
10. Lens

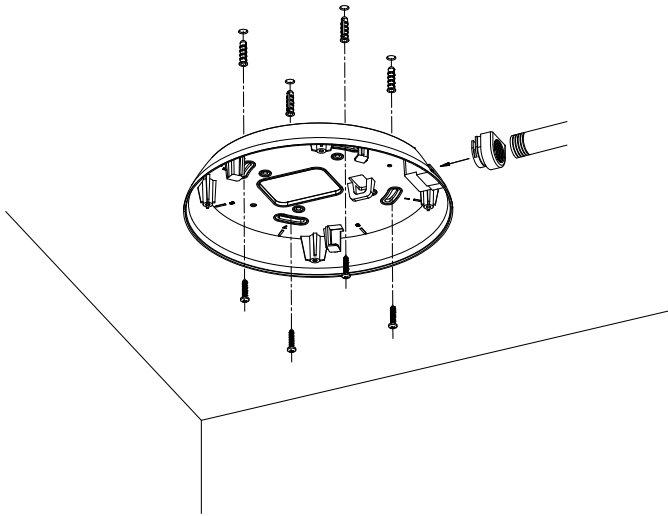
11. IR transparent cover
12. Camera positioning tray
13. Lens
14. Reset button
15. SD card slot
16. Access cover for SD card slot and reset button
17. Lens
18. Lens
19. Bubble assembly

Install the camera

Note: Please refer to the camera configuration guide for detailed information on the camera configuration.

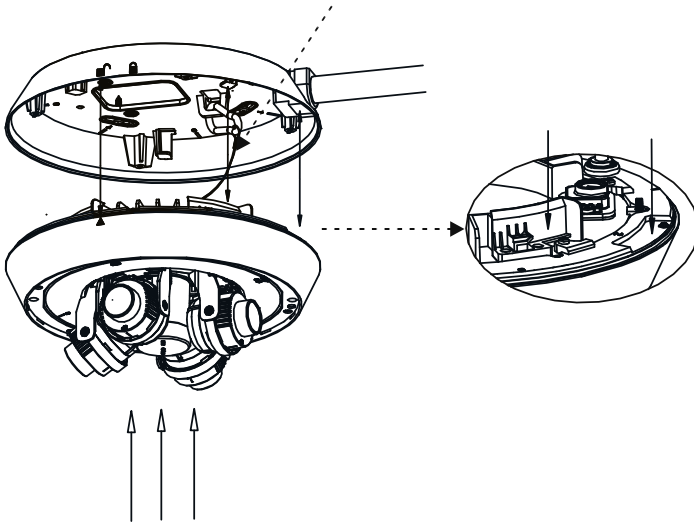
To install the multi-imager camera to a ceiling:

1. Install the camera base to the ceiling.
 - a) Use the camera base as a template to mark the mounting holes.
 - b) If running the cables in to the side of the camera install the cable gland into the side of the camera base.



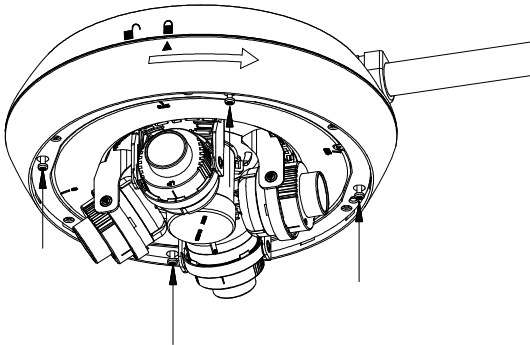
2. Install the camera base to the ceiling.
 - a) Route the cables.
 - b) Attach the camera safety cable to the camera base.
 - c) Align the ▲ mark of the camera body with the Unlock mark ■ of the camera base to ensure that the catches in the camera base and body are correctly aligned. Then push the camera body upward.

Attach the safety cable

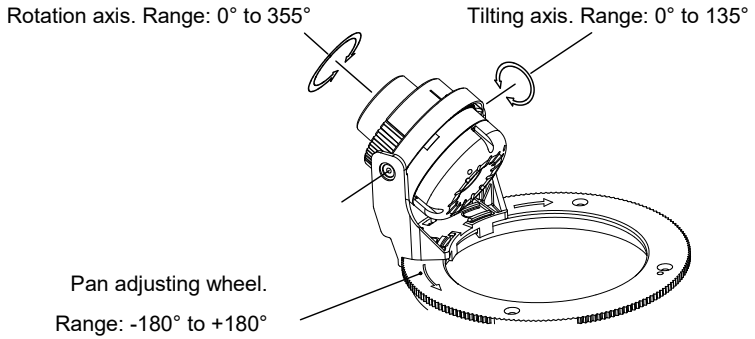


d) Rotate the camera body to the end according to the direction arrow below. Make sure the ▲ mark of the camera body is aligned with the Lock mark 🔒 of the camera base.

3. Insert the screws to secure the camera body to the base.

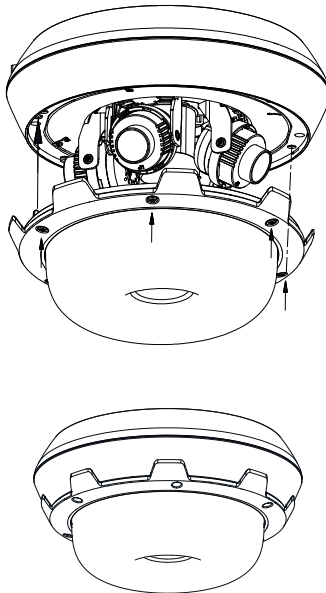


4. Adjust the position of the lenses.



5. Install the bubble assembly.

Use the Torx wrench to fix the captive screws and secure the bubble assembly to the camera body.



IR illuminators

The camera's built-in IR illumination provides high-quality video in low-light environments, even when there is no other illumination available.

You can configure the IR illumination using a web browser or a client software. If the function is enabled, the IR light is on when the camera enters night (black and white) mode. If disabled, the IR light is always off.

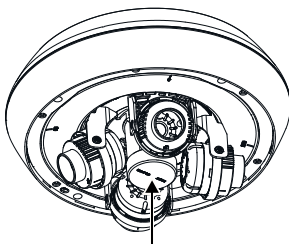
The visible IR range may vary due to multiple factors, such as weather, IR reflection, rate of viewing objects, lens adjustment, and camera settings. Please refer to the camera datasheet for the standard IR range.

Note: Avoid installing the IR camera near large items, such as, a tree or wall. The reflection will cause over-exposure and impact the quality of the image.

Accessing the micro SD/SDHC/SDXC slot

Remove the camera cover ring and insert a micro SD/SDHC/SDXC card in the slot for local storage as a backup in case the network fails. The micro SD card is NOT supplied with the camera.

Figure 2: Access the micro SD card in the camera



SD card cover

Video and log files stored on the micro SD card can only be accessed via the web browser. You can access video from the card using TruVision Navigator or a recording device, but log files must be accessed via the web browser interface.

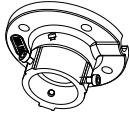
Mounting accessories

The camera can be installed on a cup base (included with the camera) and then attached to a TruVision wall or pendant mount, which are sold separately.

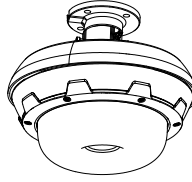
Note: The wall and pendant mounts are shipped with installation hardware.

TruVision Multi-imager camera pendant mount (TVMI-PM)

The multi-imager camera can be installed on a TVMI-PM pendant mount. The mount length is 116.5 × 57 mm (4.59 × 2.24 in.).



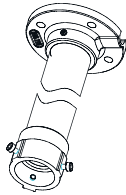
Pendent mount



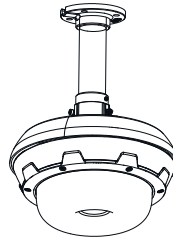
Example: Pendent mount with camera

TruVision Multi-imager camera pendent mount (TVMI-PM2)

The multi-imager camera can be installed on a TVMI-PM2 pendent mount. The mount length is 116.5 × 200 mm (4.59 × 7.87 in.).



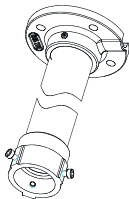
Pendent mount



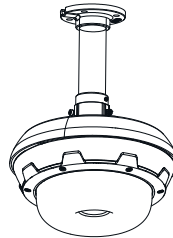
Example: Pendent mount with camera

TruVision Multi-imager camera pendent mount (TVMI-PM3)

The multi-imager camera can be installed on a TVMI-PM3 pendent mount. The mount length is 116.5 × 500 mm (4.59 × 19.68 in.).



Pendent mount



Example: Pendent mount with camera

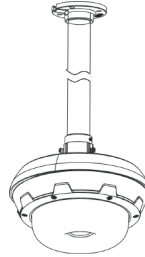
For further information, please refer to the “TruVision Multi-imager Camera Mount Installation Guide”.

TruVision Multi-imager camera extension pipe (TVMI-PMA)

The multi-imager camera can be installed on a TVMI-PM/ TVMI-PM2/ TVMI-PM3 pendent mount with TVMI-PMA. The mount length is 364.1 × 182.0 mm (14.3 × 7.2 in.).



Extension pipe

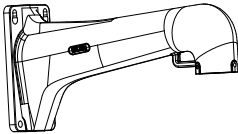


Example: Pendent mount and extension pipe with camera

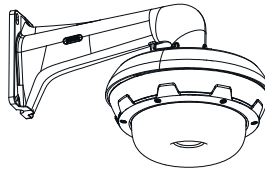
For further information, please refer to the “TruVision Multi-imager Camera Mount Installation Guide”.

TruVision Multi-imager camera wall mount (TVMI-WM)

The multi-imager camera can be installed on a TVMI-WM wall mount.



Wall mount



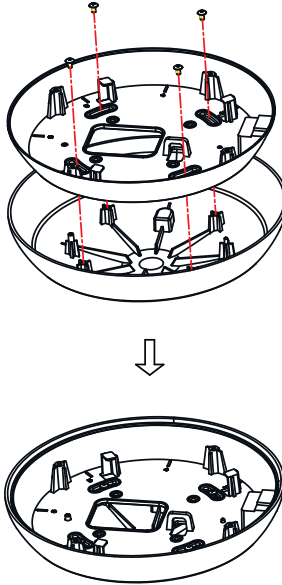
Example: Wall mount with camera

For further information, please refer to the “TruVision Multi-imager Camera Mount Installation Manual”.

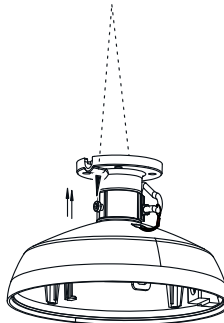
Install the camera to a mount

To install the multi-imager camera to a mount:

1. Install the camera base to the cup base using the screws provided.

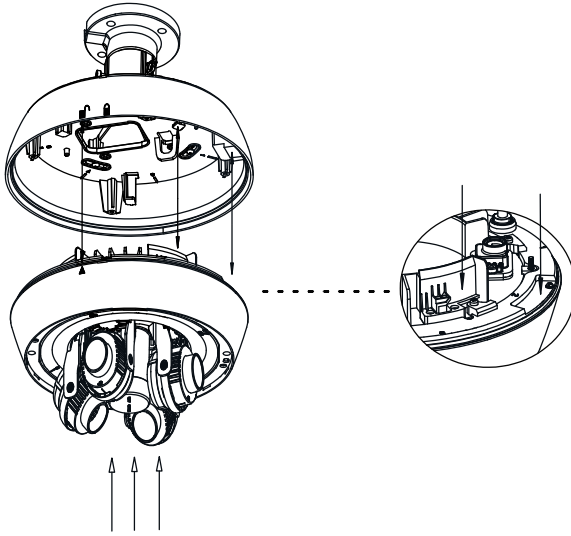


2. Route the cables.
3. Attach the cup base to the mount and tighten the screw on the mount to secure the camera to the mount. Attach the camera safety cable to the mount.



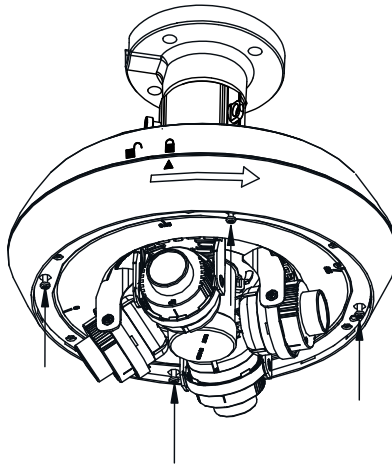
4. Install the camera body to the camera base.
 - a) Route the cables.

- b) Align the ▲ mark of the camera body with the Unlock mark ◻ of the camera base to ensure that the catches in the camera base and body are correctly aligned. Then push the camera body upward.



- c) Rotate the camera body to the end according to the direction arrow below. Make sure the ▲ mark of the camera body is aligned with the Lock mark ◻ of the camera base.

Insert the screws to secure the camera body to the base.



- See the last two steps of “To install the multi-imager camera to a ceiling” on page 7 for instructions on positioning the lens and installing the bubble assembly.

Using the camera with an Interlogix NVR or another system

Please refer to the NVR/DVR user manuals for instructions on connecting and operating the camera with these systems.

Using the camera with TruVision Navigator

A camera must be connected to an Interlogix NVR in order to be operated by TruVision Navigator.

Please refer to the TruVision Navigator user manual for instructions on operating the camera with TruVision Navigator.

Specifications

Electrical

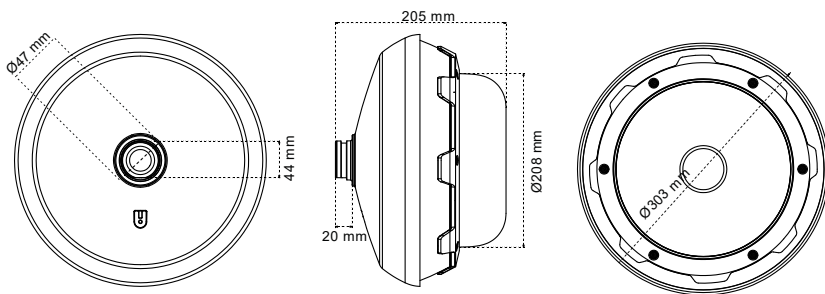
Voltage input	12 VDC \pm 20%, 2.3 A
Power consumption (Hi-PoE)	42.5 VDC to 57 VDC, 0.6 A to 0.8 A, max. 34 W

Miscellaneous

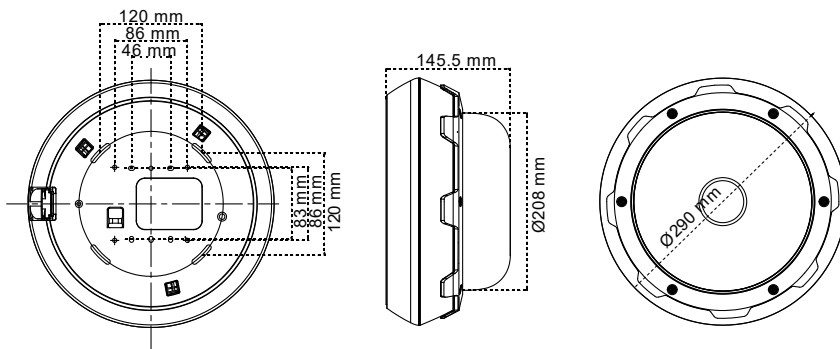
Connectors	12 VDC, RJ45, I/O, alarm, audio, RS-485
Operating temperature	-40 °C to +60 °C (40 °F to +140 °F). Humidity 95% or less (non-condensing)
Dimensions (Ø × H)	290 × 145.5 mm (11.42 × 5.73 in.) (camera without the cup base)
Weight	Camera: Approx. 4.7 kg (10.3 lb.) With package: Approx. 7.7 kg (16.8 lb.)
Environmental rating	IP67 and IK10

Camera dimensions

With cup base:



Without cup base:



Pin definitions

There are eight wires on a standard UTP/STP cable and each wire is color-coded. The following shows the pin allocation and color of straight and crossover cable connection:

Figure 3: Straight-through cable









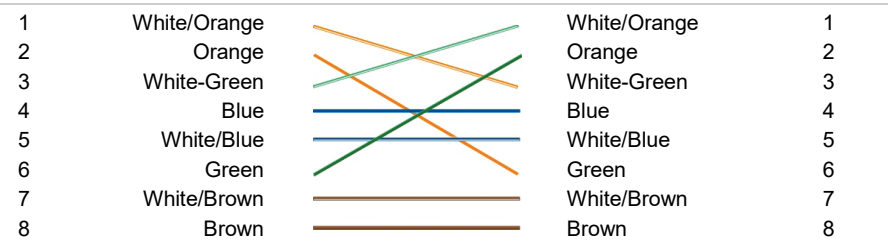
1	White/Orange		White/Orange	1
2	Orange		Orange	2
3	White-Green		White-Green	3
4	Blue		Blue	4
5	White/Blue		White/Blue	5
6	Green		Green	6
7	White/Brown		White/Brown	7
8	Brown		Brown	8

Figure 4: Cross-over cable



Please make sure your connected cables have the same pin assignment and color as above before deploying the cables in your network.

