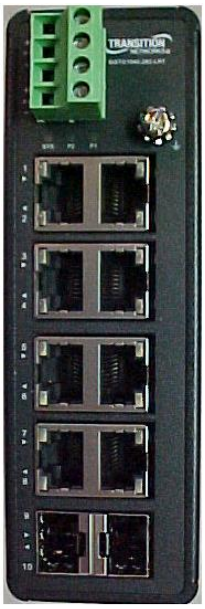
SISTG1040-242-LRT and -282-LRT

Unmanaged Hardened GbE Ethernet Switches

SISTG1040-242-LRT



SISTG1040-282-LRT

Install Guide

33735 Rev. E

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SISTG1040-242-LRT & -282-LRT Unmanaged Hardened GbE Ethernet Switches Install Guide33735 Rev. E

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Revision History

Rev.	Date	Description
A	3/9/18	Initial release at Code version 1.0.
B	7/3/18	Add Class I, Division 2 information.
C	10/21/20	Note that the switches support either positive 12 – 48VDC or negative 12 – 48VDC.
D	11/23/20	Update specifications and certifications.
E	7/28/21	Update Safety certification from EN60950 or IEC60950 to IEC62368-1/EN62368-1.

Cautions and Warnings

Definitions

Cautions indicate that there is the possibility of poor equipment performance or potential damage to the equipment. **Warnings** indicate that there is the possibility of injury to person.
Cautions and Warnings appear here and may appear throughout this manual where appropriate. Failure to read and understand the information identified by this symbol could result in poor equipment performance, damage to the equipment, or injury to persons.

Cautions

While installing or servicing the power module, wear a grounding device and observe all electrostatic discharge precautions. Failure to observe this caution could result in damage to, or failure of the power module.

Warnings

Warning: Do not connect the power module to an external power source before installing it into the chassis. Failure to observe this warning could result in an electrical shock, even death.
WARNING: Equipment grounding is vital to ensure safe operation. The installer must ensure that the power module is properly grounded during and after installation. Failure to observe this warning could result in an electric shock, even death.
WARNING: A readily accessible, suitable National Electrical Code (NEC) or local electrical code approved disconnect device and branch-circuit protector must be part of the building's installed wiring to accommodate permanently connected equipment. Failure to observe this warning could result in an electric shock, even death.
WARNING: Turn any external power source OFF and ensure that the power module is disconnected from the external power source before performing any maintenance. Failure to observe this warning could result in an electrical shock, even death.
WARNING: Ensure that the disconnect device for the external power source is OPEN *(turned OFF)* before disconnecting or connecting the power leads to the power module. Failure to observe this warning could result in an electric shock, even death.

See Electrical Safety Warnings on page 27 for Electrical Safety Warnings translated into multiple languages.

Contents

1. Introduction

The Transition Networks SISTG1040-2x2-LRT industrial unmanaged GbE switches are a plug-and-play Ethernet switches offering an easy way to make the transition to Gigabit Ethernet and increase the speed of your network connections. The energy efficient, built to last, and rigorously tested switches provide the reliability businesses need, and they are suitable for industrial Ethernet applications. The SISTG1040-2x2-LRT series includes two models, the SISTG1040-242-LRT and the SISTG1040-282-LRT.

Models

This manual documents the models below. Models differ mainly in port count, and differences are noted where applicable throughout this manual.

Model	Description
SISTG1040-242-LRT	Unmanaged full Gigabit Ethernet hardened switch with (4) 10/100/1000Base-T ports and two 100/1000 dual speed SFP slots. Has redundant input power connections for safe, reliable operation in temperatures of -40°C - +75°C. Includes DIN Rail Kit.
SISTG1040-282-LRT	Unmanaged full Gigabit Ethernet hardened switch with (8) 10/100/1000Base-T ports and two 100/1000 dual speed SFP slots. Includes DIN Rail Kit.
Options (sold separately)	
25135	Optional Industrial Power Supply Optional Accessory (sold separately). Input: 85 -264VDC, 120-370VDC. Output: 24VDC, 10Watts, -20°C to +70°C.
25130	Optional Industrial Power Supply Optional Accessory (sold separately). Input: 88 -264VDC, 120-370VDC. Output: 48VDC, 39.8Watts, -20°C to +70°C.
WMBH-01	Optional Wall Mountable brackets.
DRBH-01	Optional Din Rail Bracket for Hardened Switches
OCA-P181610	Outdoor Cabinet Assembly; 18x16x10” Polycarbonate Enclosure for Outdoor Switches
SFP Modules	See Transition Networks SFP webpage for details.

Features

- Slim type industrial Ethernet switch
- IEEE 802.3az Energy Efficient Ethernet standard for green Ethernet applications. The switch design helps save power and reduce TCO in a green Ethernet network environment.
- Layer 2 wire-speed switching engine
- Ruggedized metal closure
- Fan-less design

Specifications

Port Configuration

Model	Total Ports	RJ45 (10M/100M/1G)	SFP (100M/1G)	Console
SISTG1040-242-LRT	6	4	2	--
SISTG1040-282-LRT	10	8	2	--

Hardware Performance

Model	Forwarding Capacity (Mpps)	Switching Capacity (Gbps)	Mac Table (K)	Jumbo Frames (Bytes)
SISTG1040-242-LRT	8.928	12	4	9K
SISTG1040-282-LRT	14.88	20	4	9K

Environmental Range

Operating Temperature		Storage Temperature		Operating Humidity	Altitude	
Fahrenheit	Centigrade	Fahrenheit	Centigrade	5% to 95% non-condensing	Feet	Meters
-40 to 167	-40 to 75	-40 to 185	-40 to 85		< 10000	<3000

Dimensions, Weights, Mounting

Model	Dimensions (WxHxD)		Weight		Mounting Type
	Millimeters	Inches	Kilograms	Pounds	
SISTG1040-242-LRT	44x 135x 130	1.7x 5.3x 5.1	0.36	0.79	DIN rail, Wall
SISTG1040-282-LRT	44x 135x 130	1.7x 5.3x 5.1	0.86	0.39	DIN rail, Wall

Voltage and Frequency

Primary Power Supply (DC Input Voltage)	
DC Nominal	12/24/48 VDC dual inputs (+12 to +48VDC or -12 to -48VDC)
DC Operating Range	9.6 to 57 VDC
DC Power Consumption	SISTG1040-242-LRT: 4.4Watts max. SISTG1040-282-LRT: 5.8Watts max.

Certifications and Compliance

Regulatory Compliance	
EMS	IEC 61000-4-2 ed1.2: 2001 : ESD Test level 3: 8kV contact, 15kV air EN61000-4-4 EFT – DC:2KV(up to 4KV) EN61000-4-4 EFT – Signal Ports:1KV(up to 2KV) EN61000-4-3 Radiated Immunity – Enclosure: 10V/m (up to 6GHz)
EMI	FCC part 15 approval Class A; CE marking CISPR22/EN55022 Class A and CISPR24/EN55024/EN55032 Class A; VCCI Japan EN61000-3-2 Ed.3.0 Amendment A1 1998 Amendment A2 1998 Class A IEC 61000-3-3 Ed2: 2008 Electromagnetic Compatibility – Limitation of voltage fluctuation and flicker in low voltage supply systems for equipment rated up to 16A Class C "
Standards	IEEE 802.3; IEEE 802.3u; IEEE 802.3z; IEEE802.3ae; IEEE 802.3x; IEEE 802.1p; IEEE 802.3az
Protocols	CSMA/CD
Compliance	UL Class 1 / Div 2; EMI: CE, FCC Part 15; Safety: EN62368-1
Compliant	EN50121-4, EN50155, NEMA TS-2, IEC61850-3, IEEE1613
Ingress Protection	IP30

MTBF

Model	MTBF	Environment
SISTP1040-242-LRT	1,188,425 Hrs.	GB, GC - Ground Benign, Controlled. Temp: 25.00 deg. C.
	211,393 Hrs.	GB, GC - Ground Benign, Controlled. Temp: 75.00 deg. C.
SISTP1040-282-LRT	1,043,630 Hrs.	GB, GC - Ground Benign, Controlled. Temp: 25.00 deg. C.
	184,723 Hrs.	GB, GC - Ground Benign, Controlled. Temp: 75.00 deg. C.

Applications

This SISTG1040-2x2-LRT unmanaged full Gigabit Ethernet hardened switches can be used at the edge of a hardened network to provide Gigabit Ethernet connections in hazardous locations. The fiber uplink ports can also be used in a daisy chain for maximum network reliability. Redundant input power connections ensure safe reliable operation at temperatures of -40°C to +75°C. Transition Networks' hardened switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

About This Manual

This manual describes how to install and troubleshoot the SISTG1040-2x2-LRT switch, including how to:

- Install the switch.
- Check the switch status LED behavior.
- Reset the switch or restore the switch to factory defaults.
- Troubleshoot switch installation.

Related Manuals

A printed Quick Start Guide is shipped with each switch.

For Transition Networks Drivers, Firmware, etc. go to the Product Support webpage (logon required).

For Manuals, Application Notes, Brochures, Data Sheets, Specifications, etc. go to the Support Library (no logon required).

Note that this manual provides links to third party web sites for which Transition Networks is not responsible.

2. Switch Overview

Package Contents

Verify that you have received the items below. Contact your sales representative if any item is missing.

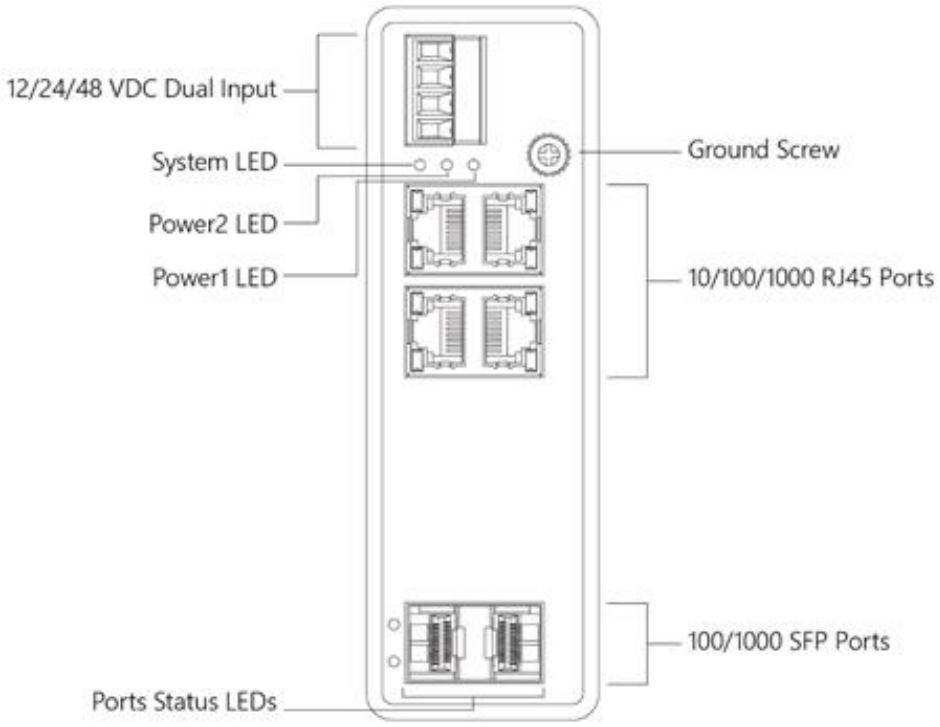
Please save the packaging for possible future use.

- The Switch
- Terminal Block
- Quick Start Guide
- Mounting kit
- Industrial Power Supply (Optional Accessory - sold separately)

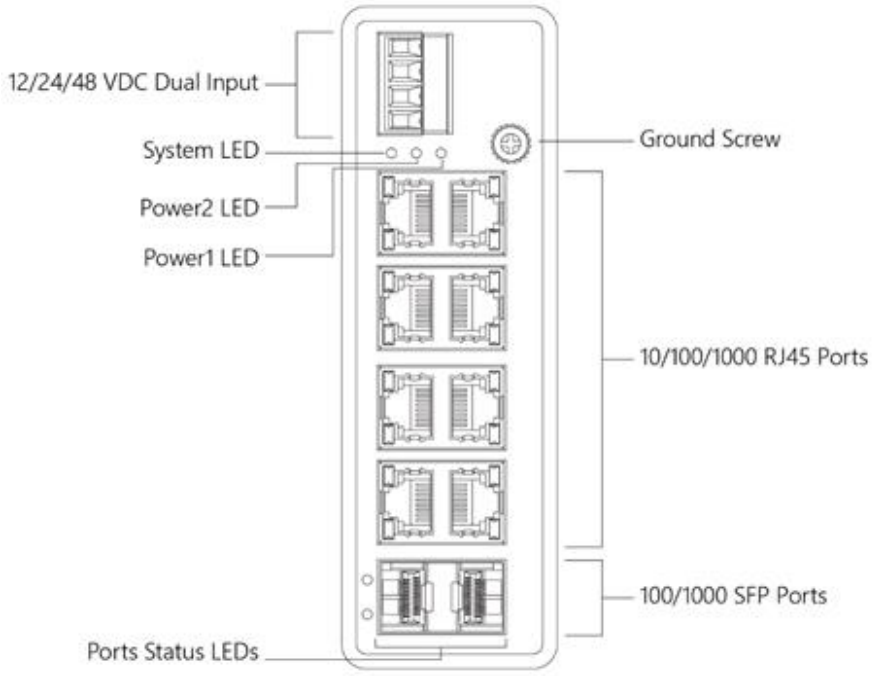
Unpacking

Unpack and verify the contents in their install location and continue with one of the mounting procedures (Desktop, DIN Rail, or Wall mounting) in chapter 3.

Front Panels

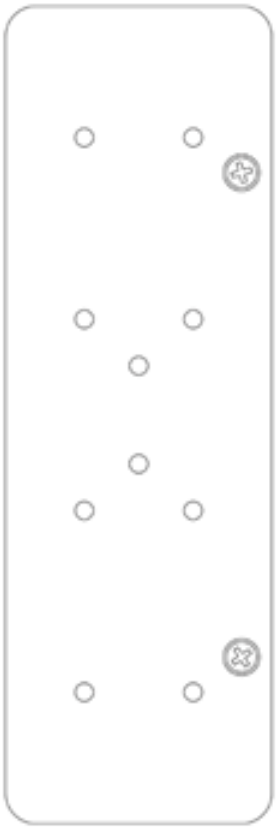


SISTG1040-242-LRT Front Panel

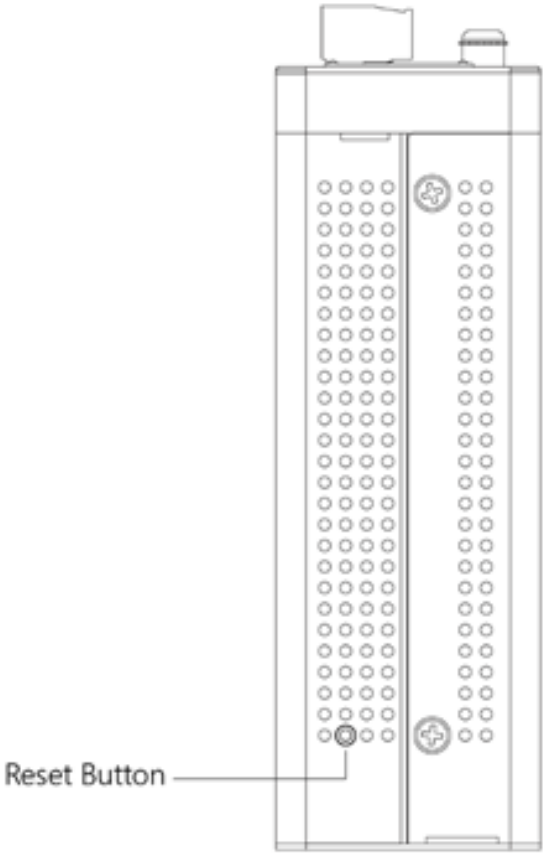


SISTG1040-282-LRT Front Panel

Back Panel and Bottom Panel



Back Panel



Bottom Panel

RESET Button

Press the **RESET** button to reboot the switch. The front panel LEDs flash and the switch is reset.

LED Descriptions

The front panel LEDs let you check and monitor switch status. The three types of front panel LEDs are:

- **Power** LEDs (P1, P2) indicate if the switch is powered up correctly.
- **System** LED indicates if the system is ready.
- **Port Status** LEDs indicates the current status of each port. Check these LEDs to understand the port status.

The following tables describe the LED indicator functions.

Power LEDs

LED	Color	State	Description
P1 Power1	Green	On	The switch is powered ON correctly.
		Off	The switch is not receiving power from the first power source.
P2 Power2	Green	On	The switch is powered on correctly.
		Off	The switch is not receiving power from the second power source.

System LED

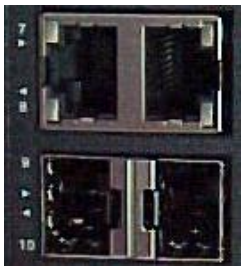
LED	Color	State	Description
SYS System	Green	On	The switch is ready.
		Off	The switch is not ready.

Port Status LEDs

The table below describes port status LED behaviors.

LED	Color	State	Description
RJ45 Ports (Left Side)	Green	On	The port is enabled and has established a link to a connected device, and the connection speed is 1000Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000Mbps.
	Amber	On	The port is enabled and has established a link to connected device, and the connection speed is 10/100Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 10/100Mbps.
	--	Off	The port has no active network cable connected, or it has not established a link to a connected device.
SFP Ports	Green	On	The port is enabled and has established a link to a connected device, and the connection speed is 1000Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000Mbps.
	Amber	On	The port is enabled and has established a link to a connected device, and the connection speed is 100Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 100Mbps.
	--	Off	The port has no active network cable connected, or it has not established a link to connected device.

10/100/1000 RJ-45 Port LEDs

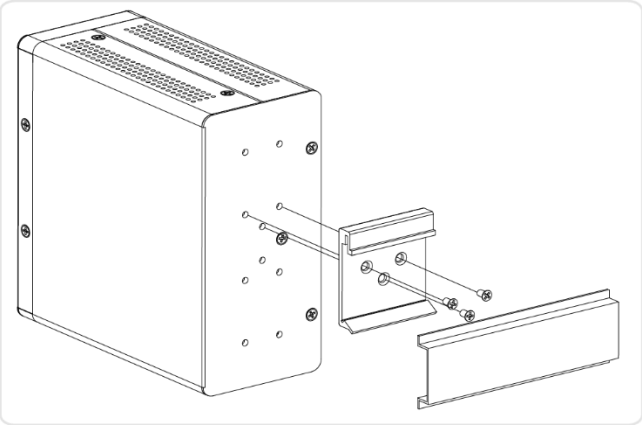


100/1000 SFP Port LEDs

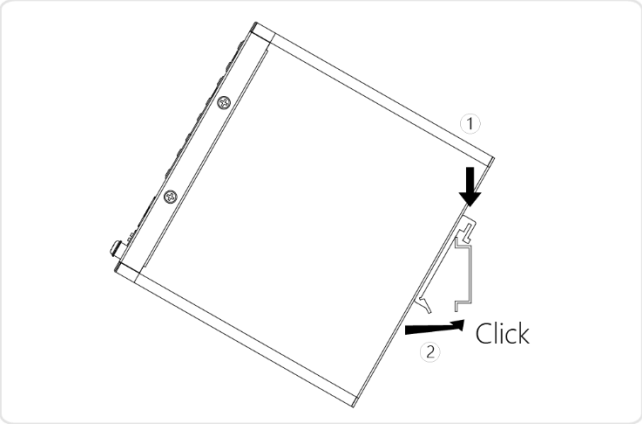
3. Installation

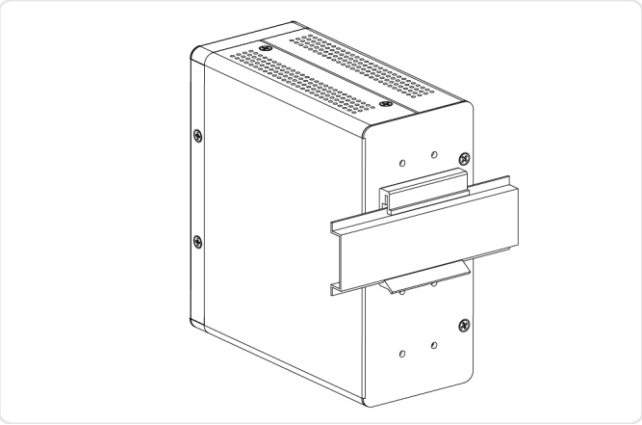
Mounting the Switch on a DIN Rail

1. Attach the DIN Rail mounting kit to rear panel of the chassis. Insert screws and tighten with a screwdriver to secure the kit.



2. Insert the upper lip of the DIN rail into the DIN-rail mounting kit. Press the switch towards the DIN rail until it snaps into place.



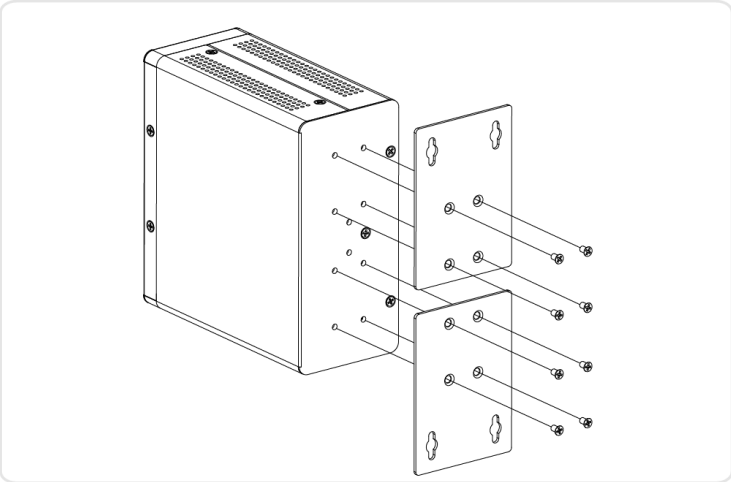


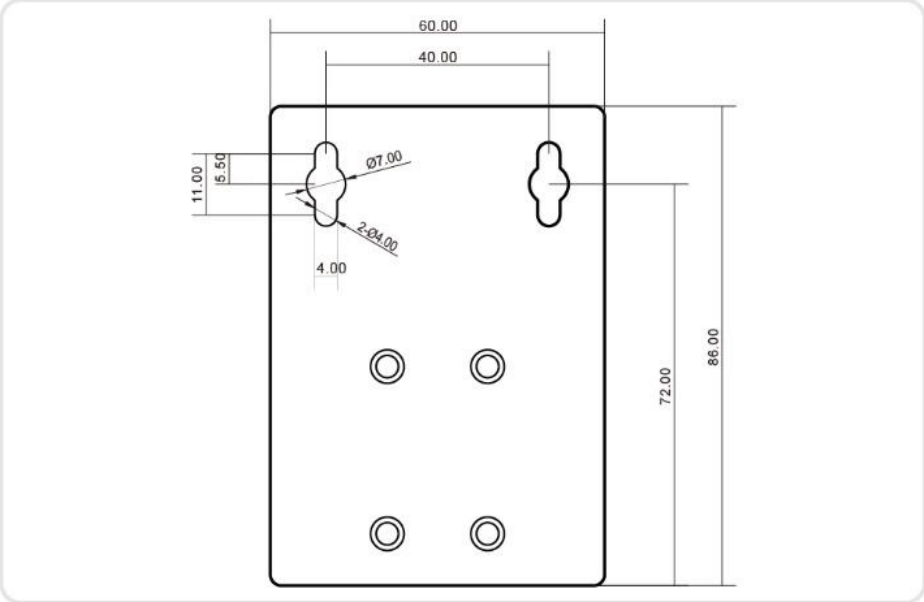
3. Make sure that the switch is attached securely to DIN Rail.

Mounting the Switch on Wall (Optional)

Use the Optional Wall Mountable brackets (WMBH-01 option).

1. Attach the wall mounting plates to rear panel of the chassis. Insert screws and tighten then with a screwdriver to secure the plates.





2. Install user-supplied screws on the appropriate location on the wall.

3. Make sure that the switch is attached securely to the wall.

Grounding Screw

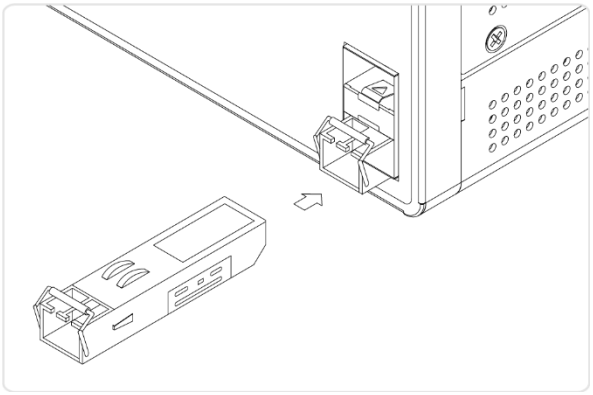
The front panel grounding screw ( ) is used for grounding. Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screws to the grounding surface prior to connecting devices.

Installing SFP Modules

The switch provides two 100M/1G SFPs. You can install or remove a mini-GBIC SFP module from a SFP port without having to power off the switch. Transition Networks offers a full line of small form factor pluggable (SFP) transceivers. See our SFP webpage for details. Refer to the specific SFP manual for Cautions and Warnings.

Note: The SFP ports should use UL Listed Optional Transceiver product, Rated 3.3Vdc, Laser Class 1.

1. Insert the module into the SFP port (cage).
2. With the SFP module aligned correctly, slide the module into the SFP slot until you hear a click.
3. Press firmly to ensure that the module seats into the connector.



4. Insert the fiber cable into the transceiver.

Connecting to Network / Devices

The switches provide eight or four 10M/100M/1G RJ45 ports. Use Cat 5e or better unshielded twisted pair (UTP) cable terminated with an RJ-45 connector.

- Use four twisted-pair, Category 5e or above cabling for RJ-45 port connection. The cable between the switch and the link partner (switch, hub, PC, etc.) must be less than 100 meters (328 ft.) long.
- A Fiber segment using single-mode connector type must use 9/125 μm single-mode fiber cable.
- A Fiber segment using multi-mode connector type must use 50 or 62.5/125 μm multi- mode fiber cable.

Connecting the Terminal Block

The switch ships with a keyed Terminal block (Euro block). Unpack the Terminal block and insert it into the receptacle. It is keyed so it can only be inserted correctly. You can use a small flat-blade screwdriver to remove an inserted Terminal block.

Power Supply Features and Specifications

Two Industrial Power Supply options are available (sold separately).

25135 Industrial Power Supply Optional Accessory

Input: 85 -264VDC, 120-370VDC. Output: 24VDC, 10Watts, -20°C to +70°C.

See the Transition Networks webpage for more information.

25130 Industrial Power Supply Optional Accessory

Input: 88 -264VDC, 120-370VDC. Output: 48VDC, 39.8Watts, -20°C to +70°C.

See the Transition Networks webpage for more information.

Connecting to DC Power

The SISTG1040-2x2-LRT ships with no Power Cord. The SISTG1040-2x2-LRT can be ordered with optional accessories (sold separately) including Industrial Power Supply PN **25130** or **25135**.

This section is for reference only as site requirements can vary greatly. For example, the switch can be powered from a DIN rail or it can be powered with a PDU (Power Distribution Unit). Typically a PDU would deliver 48 volts, but a PDU can provide higher voltages where the **25130** or **25135** would need to be used. See the PDU manual for PDU installation and operation.

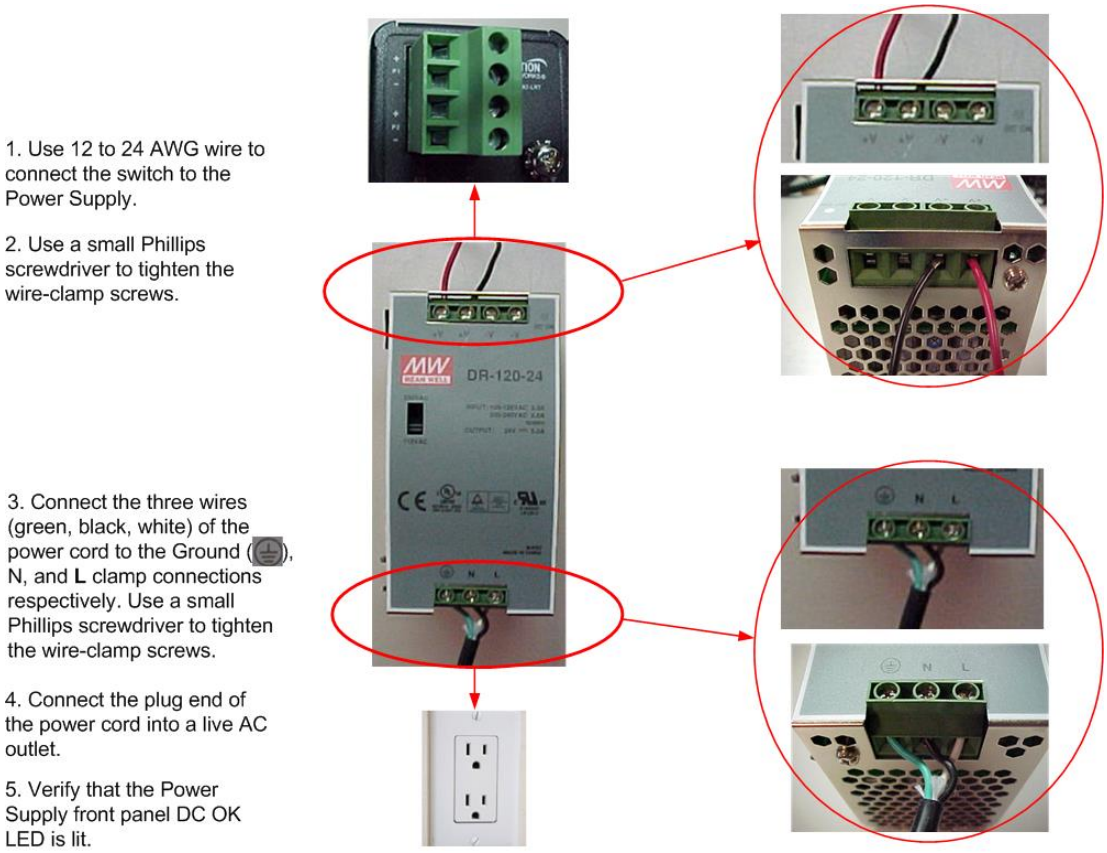
Caution: Be sure the power cord is disconnected from AC power before connecting the power cord to the SISTG1040-2x2-LRT switch.

Use the procedure below to connect Power Supply DC to the Switch and connect AC to the wall outlet.

Power Connection Procedure

Caution: Before applying power from an AC outlet, insert terminal connectors into the SISTG1040-2x2-LRT switch and verify all connections. Plugging in power connection after energizing power supply(s) may damage the switch.

1. Paying close attention to the polarity markings, connect the wires between the **+P1** and **–P1** terminals on the switch terminal block and the **+V** and **-V** terminals on the power supply. Optionally, connect the wires between the **+P2** and **–P2** terminals on the switch terminal block and the **+V** and **-V** terminals on the power supply if redundant power is to be used.
2. Use a small Phillips screwdriver to tighten the wire-clamp screws.



Power Supply DC to Switch and AC to Wall Outlet

3. Connect the three wires (e.g., green, black, white) of the power cord to the power supply Ground ( ), **N**, and **L** clamp connections respectively. Use a small Phillips screwdriver to tighten the wire-clamp screws.
4. Connect the plug end of the power cord into a live AC outlet.
5. Verify that the Power Supply front panel **DC OK** LED is lit.

4. Troubleshooting

Basic Troubleshooting

1. Make sure your switch model supports the feature or function attempted; see chapter 1.
2. Verify the install process; see chapter 2.
3. Troubleshoot connected network devices to pinpoint the problem to the switch.

LED Troubleshooting

The LED behavior is summarized below.

LED	Color	Function
SYS (System)	Green	Lit Green when Power A on Switch is Ready. Blinks when POST is running.
P1 (Power 1)	Green	First input power supply providing power.
P2 (Power 2)	Green	Second input power supply providing power.
Link/Act/Speed	Green/ Amber	Light off: port disconnected or link failed. Green Light on: 1G Link Present, No Activity. Amber Light on: 100M/10M Link Present, No Activity. Green Blinking: 1G Activity. Port is sending or receiving data. Amber Blinking: 100M/10M Activity. Port is sending or receiving data.
Link/Act/,Speed	Green/ Amber	LNK: Amber/Green (Two Color) Light off: port disconnected or link failed Amber Light on: link-up (100M) Green Light on: link-up (1G) Blinking: activity (receiving or transmitting data)

The table below provides information to troubleshoot problems by taking actions based on suggested solutions.

Symptoms	Possible Causes	Suggested Solutions
System LED is Off	The switch is not receiving power.	1. Check if correct power cord is connected firmly to the switch and to the DC outlet socket. 2. Power cycle the switch by unplugging and plugging the power cord back into the switch. 3. If the LED is still off, plug power cord into different DC outlet socket to make sure correct DC source is supplied.
Port (Left Side) Status LED is Off	The port is not connected or the connection is not working.	1. Check if the cable connector plug is firmly inserted and locked into the port at both the switch and the connected device. 2. Make sure the connected device is up and running correctly. 3. If the symptom still exists, try a different cable or different port, to identify if it is related to the cable or specific port.

Device Label and Packaging Label

You can find device information on the device Serial Label (left) and box Serial Label (right).

Serial Label on Unit

Serial Label on Box

Record Device and System Information

After performing the troubleshooting steps, and before calling or emailing Technical Support, please record as much information as possible in order to help the Transition Networks Tech Support Specialist.

1. Record Model Name: _____ Serial Number: _____

2. Record the LED Status: _____

_____

_____

3. Provide additional information to your Tech Support Specialist. See the "Troubleshooting" section above.

Your Transition Networks service contract number: _____

Describe the failure: _____

_____

_____

Describe any action(s) already taken to resolve the problem (e.g., rebooting, etc.): _____

_____

_____

_____

The serial and revision numbers of all involved Transition Networks products in the network:

_____

_____

Describe your network environment (layout, cable type, etc.): _____

_____

_____

Network load and frame size at the time of trouble (if known): _____

The device history (i.e., have you returned the device before, is this a recurring problem, etc.):

_____

_____

_____

Any previous Return Material Authorization (RMA) numbers: _____

5. Regulatory and Safety Information

Compliance and Safety Statements

FCC-CLASS A: This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when 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. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

CE MARK DECLARATION OF CONFORMANCE FOR EMI AND SAFETY (EEC): This equipment has been tested and found to comply with the protection requirements of European Emission Standard EN55022/EN61000-3 and the Generic European Immunity Standard EN55024/55032.

Declaration of Conformity

Declaration of Conformity

Manufacture's Name: Transition Networks, Inc.

Manufacture's Address: 10900 Red Circle Drive, Minnetonka, Minnesota 55343 U.S.A.

Declares that the products: SISTP1010-360-LRT, SISTP1010-380-LRT-C, SISTP1040-342-LRT, SISTP1040-382-LRT, SISTG1040-242-LRT, SISTG1040-282-LRT

Conform to the following Product Regulations:

FCC Part 15 Class A, EN 55032:2012, EN 55024:2010

Directive 2014/30/EU , Directive 2015/863/EU

Low-Voltage Directive 2014/35/EU

IEC62368-1/EN62368-1

2011/65/EU EN 50581:2012

With the technical construction on file at the above address, this product carries the **CE Mark**

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Place: Minnetonka, Minnesota

Date: July 28, 2021

Signature: *Stephen Anderson*

Full Name: Stephen Anderson

Position: Vice President of Engineering

Certificate of Compliance

CERTIFICATE OF COMPLIANCE

Certificate Number	20180629-E245060
Report Reference	E245060-20180517
Issue Date	2018-June-29
Issued to:	TRANSITION NETWORKS, SUB OF COMMUNICATIONS SYSTEMS INC 10900 RED CIRCLE DR MINNETONKA MN 55343-9106
This is to certify that representative samples of	INFORMATION TECHNOLOGY EQUIPMENT FOR USE IN HAZARDOUS LOCATIONS USL, CNL – Class I, Division 2, Groups A, B, C, and D Hazardous Locations Industrial Gigabit Ethernet Switch, Models SISTP1010-360-LRT, SISTP1040-342-LRT, SISTP1040-382-LRT, SISTG1040-242-LRT, SISTG1040-282-LRT. Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 121201 Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations, CSA C22.2 NO. 213 Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

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User Information

High Risk Activities Disclaimer

Components, units, or third-party products used in the product described herein are NOT fault-tolerant and are NOT designed, manufactured, or intended for use as on-line control equipment in the following hazardous environments requiring fail-safe controls: the operation of Nuclear Facilities, Aircraft Navigation or Aircraft Communication Systems, Air Traffic Control, Life Support, or Weapons Systems ("High Risk Activities"). Transition Networks and its supplier(s) specifically disclaim any expressed or implied warranty of fitness for such High Risk Activities.

Warning and Caution - Proper Installation and Operation (English)

These devices are open-type devices that are to be installed in an enclosure only accessible with the use of a tool, suitable for the environment. This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only. WARNING – EXPLOSION HAZARD. DO NOT DISCONNECT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.

Avertissement et mise en garde - Installation et fonctionnement corrects (français)

Ces périphériques sont des périphériques de type ouvert qui doivent être installés dans un enceinte uniquement accessible à l'aide d'un outil, adapté à environnement. Cet équipement peut être utilisé dans la classe I, division 2, groupes A, B, C, et D ou des emplacements non dangereux seulement. AVERTISSEMENT - RISQUE D'EXPLOSION. NE PAS SE DÉCONNECTER LORSQUE LE CIRCUIT EST VIVANT OU À MOINS QUE LA ZONE NE SOIT LIBRE DE CONCENTRATIONS IGNIFIABLES.

Class I, Division 2

These devices are open-type devices that are to be installed in an enclosure only accessible with the use of a tool, suitable for the environment.
This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.
WARNING – EXPLOSION HAZARD. DO NOT DISCONNECT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.
Temperature code (T-Code) – T4.

Cautions and Warnings

Definitions

Cautions indicate that there is the possibility of poor equipment performance or potential damage to the equipment. Warnings indicate that there is the possibility of injury to person.

Cautions and Warnings appear here and may appear throughout this manual where appropriate. Failure to read and understand the information identified by this symbol could result in poor equipment performance, damage to the equipment, or injury to persons.

Cautions

While installing or servicing the power module, wear a grounding device and observe all electrostatic discharge precautions. Failure to observe this caution could result in damage to, or failure of the power module.

Warnings

Warning: Do not connect the power module to an external power source before installing it into the chassis. Failure to observe this warning could result in an electrical shock, even death.

WARNING: The power module has a provision for grounding. Equipment grounding is vital to ensure safe operation. The installer must ensure that the power module is properly grounded during and after installation. Failure to observe this warning could result in an electric shock, even death.

WARNING: A readily accessible, suitable National Electrical Code (NEC) or local electrical code approved disconnect device and branch-circuit protector must be part of the building's installed wiring to accommodate permanently connected equipment. Failure to observe this warning could result in an electric shock, even death.

WARNING: Turn the external power source OFF and ensure that the power module is disconnected from the external power source before performing any maintenance. Failure to observe this warning could result in an electrical shock, even death.

WARNING: Ensure that the disconnect device for the external power source is OPEN (turned OFF) before disconnecting or connecting the power leads to the power module. Failure to observe this warning could result in an electric shock, even death.

See Electrical Safety Warnings below for Electrical Safety Warnings translated into multiple languages.

Electrical Safety Warnings

Electrical Safety

IMPORTANT: This equipment must be installed in accordance with safety precautions.

Elektrische Sicherheit

WICHTIG: Für die Installation dieses Gerätes ist die Einhaltung von Sicherheitsvorkehrungen erforderlich.

Elektrisk sikkerhed

VIGTIGT: Dette udstyr skal installeres i overensstemmelse med sikkerhedsadvarslerne.

Elektrische veiligheid

BELANGRIJK: Dit apparaat moet in overeenstemming met de veiligheidsvoorschriften worden geïnstalleerd.

Sécurité électrique

IMPORTANT: Cet équipement doit être utilisé conformément aux instructions de sécurité.

Sähköturvallisuus

TÄRKEÄÄ: Tämä laite on asennettava turvaohjeiden mukaisesti.

Sicurezza elettrica

IMPORTANTE: questa apparecchiatura deve essere installata rispettando le norme di sicurezza.

Elektrisk sikkerhet

VIKTIG: Dette utstyret skal installeres i samsvar med sikkerhetsregler.

Segurança eléctrica

IMPORTANTE: Este equipamento tem que ser instalado segundo as medidas de precaução de segurança.

Seguridad eléctrica

IMPORTANTE: La instalación de este equipo deberá llevarse a cabo cumpliendo con las precauciones de seguridad.

Elsäkerhet

OBS! Alla nödvändiga försiktighetsåtgärder måste vidtas när denna utrustning används.

6. Service, Warranty & Tech Support

Warranty

Five-Year Limited Hardware Warranty

Transition Networks warrants to the original consumer or purchaser that each of its SISTG1040-242-LRT and SISTG1040-282-LRT products and all components thereof, will be free from defects in material and/or workmanship for a period of five years from the original factory shipment date. Any warranty hereunder is extended to the original consumer or purchaser and is not assignable. Transition Networks makes no express or implied warranties including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, except as expressly set forth in this warranty. In no event shall Transition Networks be liable for incidental or consequential damages, costs, or expenses arising out of or in connection with the performance of the product delivered hereunder. Transition Networks will in no case cover damages arising out of the product being used in a negligent fashion or manner.

This warranty does not cover damage from accident, acts of God, neglect, contamination, misuse or abnormal conditions of operation or handling, including over-voltage failures caused by use outside of the product's specified rating, or normal wear and tear of mechanical components.

Transition Networks will, at its option:

- Repair the defective product to functional specification at no charge
- Replace the product with an equivalent functional product
- Refund a portion of purchase price based on a depreciated value

To return a defective product for warranty coverage, contact Transition Networks' Customer Support for a return authorization number.

Send the defective product postage and insurance prepaid to the following address:

Transition Networks, Inc.
10900 Red Circle Drive
Minnetonka, MN 55343
USA
Attn: RETURNS DEPT: CRA/RMA # _____

Failure to properly protect the product during shipping may void this warranty. The return authorization number must be written on the outside of the carton to ensure its acceptance. We cannot accept delivery of any equipment that is sent to us without a CRA or RMA number.
CRA's are valid for 60 days from the date of issuance. An invoice will be generated for payment on any unit(s) not returned within 60 days.

Upon completion of a demo/ evaluation test period, units must be returned or purchased within 30 days. An invoice will be generated for payment on any unit(s) not returned within 30 days after the demo/ evaluation period has expired.

The customer must pay for the non-compliant product(s) return transportation costs to Transition Networks for evaluation of said product(s) for repair or replacement. Transition Networks will pay for the shipping of the repaired or replaced in-warranty product(s) back to the customer (any and all customs charges, tariffs, or/and taxes are the customer's responsibility).

Before making any non-warranty repair, Transition Networks requires a $200.00 charge plus actual shipping costs to and from the customer. If the repair is greater than $200.00, an estimate is issued to the customer for authorization of repair. If no authorization is obtained, or the product is deemed not repairable, Transition Networks will retain the $200.00 service charge and return the product to the customer not repaired. Non-warranted products that are repaired by Transition Networks for a fee will carry a 180-day limited warranty. All warranty claims are subject to the restrictions and conventions set forth by this document.

Transition Networks reserves the right to charge a $50 fee for all testing and shipping incurred, if after testing, a return is classified as “No Problem Found.”

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. TRANSITION NETWORKS IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY. AUTHORIZED RESELLERS ARE NOT AUTHORIZED TO EXTEND ANY DIFFERENT WARRANTY ON TRANSITION NETWORKS’S BEHALF.

Contact Us

Technical Support: Technical support is available 24-hours a day

US and Canada: 1-800-260-1312

International: 00-1-952-941-7600

Main Office

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