The Transition Networks SPS-2460-xx external power supply provides a wide range of input power (24-60 VDC and 24-42 VAC rms) to accommodate most industrial, telecom, and commercial applications. The SPS-2460-xx can deliver 12 watts of power, enough to power all Transition Networks stand-alone media converters as well as the single-slot (p/n CPSMC0100-20x) and the dual-slot (p/n CPSMC0200-2xx) chassis.

The 24-60 VDC and 24-42 VAC rms inputs allow installing the SPS-2460-xx external power supply in all popular telecom, commercial, industrial applications, as well as HVAC and building control environments.

The 'piggy-back' feature of the SPS-2460-PS, and SPS-2460-CC allows these power supplies to physically attach directly to the media converter chassis, eliminating the power cable commonly found between the power supply and the media converter.
Installation

All Installation and service must be performed by qualified service personnel. Read and follow all warning notices and instructions marked on the power supply or included in the manual.

Power source circuit requirements

The SPS-2460-xx power supply must be connected to a Safety Extra Low Voltage (SELV) circuit. The installer must first determine the circuit’s characteristics (limited current, and hazardous energy levels, etc.) and then install the power supply in accordance with local and national electrical codes.

Grounding

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

**Wire size**

The wire size of the Protective Earth (ground) conductor should be greater than or equal to the wire size of the power source conductors. The power-source conductor wire size is installation dependent and sized to accommodate an acceptable voltage drop between the power source and the device terminal block.

The SPS-2460-xx terminal block accommodates a #6 wire lug. A #6 wire lug typically terminates #16 - #20 wire, with #18 being the most common.

Required disconnect

**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.

**CAUTION:** Ensure that the power source is NOT powered ON when connecting it to the SPS-2460-xx external power supply. Failure to observe this caution could result in damage to or failure of the SPS-2460-xx.

**CAUTION:** Wear a grounding device and observe electrostatic discharge precautions when installing or servicing the power supply module. Failure to observe this caution could result in damage to or failure of the power supply module.
**SPS-2460-SA / SPS-2460-CC / SPS-2460-PS**

The SPS-2460-SA, SPS-2460-CC, and SPS-2460-PS are designed for three different types of media converters. Each has slightly different dimensions and each has the barrel connector in a different location to ensure that each power supply is used for the proper application. Note the differences between the three devices below:

The SPS-2460-SA is designed to plug into any style Transition Networks stand-alone media converter.

The SPS-2460-CC is designed to mate with Transition Networks Conversion Center™ stand-alone media converters.

The SPS-2460-PS is designed to mate with Transition Networks PointSystem™ stand-alone media converter.

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**SPS-2460-SA (Stand Alone)**

**Note:** All SPS-2460-xx external power supplies are shipped with four (4) rubber attached feet.

1. Place on any well-ventilated table-top or shelf with access to a power source with a range between 24-60 VDC or 24-42 VAC rms.
2. Connect the barrel connector on the SPS-2460-SA to the barrel connector of the media converter as shown below.
Installation — Continued

**SPS-2460-CC (Conversion Center™)**

1. Remove the left-rear and right-rear screws from the Conversion Center™ media converter.
2. Connect the barrel connector on the SPS-2460-CC to the barrel connector of the media converter by sliding the SPS-2460-CC over the rear of the media converter until the two device connect. The screw holes on the left and right sides should align.
3. Secure the two devices together by reinstalling the screws removed in Step 1 into the screw hole on each side of the SPS-2460-CC power supply.

**SPS-2460-PS (PointSystem™)**

1. Remove the left-rear and right-rear screws from the PointSystem™ media converter.
2. Connect the barrel connector on the SPS-2460-PS to the barrel connector of the media converter by sliding the SPS-2460-PS cover the rear of the media converter until the two devices connect. The screw holes on the left and right sides should align.
3. Secure the two devices together by reinstalling the screws removed in Step 1 into the screw hole on each side of the SPS-2460-PS power supply.

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**Supplying Power to the SPS-2460-xx**

**CAUTION:** TURN OFF the main power source before making connection to the SPS-2460-xx external power supply. Failure to observe this caution could result in damage to or failure of the SPS-2460-xx power supply and any attached device.

**WARNING:** ONLY qualified person should connect power to the SPS-2460-xx power supply. Failure to observe this warning could result in an electrical shock or equipment damage.

To supply power to the SPS-2460-xx, see the drawing below and do the following:

1. Turn external power source OFF.
2. Connect the ground terminal of the power source to the ground terminal on the SPS-2460-xx power supply.
3. Connect the power wires to the DC (+) and (-) terminals on the main external power panel (note polarity).
4. Loosen the two screws on the keyed Euro block.
5. Insert the positive (+) power wire from the main power into the Euro block (note polarity on power supply) and tighten the screw to secure the wire.
6. Insert the negative (-) power wire from the main power into the Euro block (note polarity on power supply) and tighten the screw to secure the wire.
7. Orient the Euro Block as shown below and then insert it into the Euro Header on the power supply.
8. Tighten the two screws to secure the Euro block to the Euro header on the power supply.
9. Turn ON the external power source.
**Maintenance**

**Replacing the Fuse**

**CAUTION:** The external power source must be TURNED OFF when replacing the fuse to the SPS-2460-xx external power supply. Failure to observe this caution could result in damage to or failure of the SPS-2460-xx power supply and any attached device.

**Note:** Replace the fuse only with one of the same size and rating.

To replace the fuse in the SPS-2460-xx external power supply:

1. Ensure that the external power source is turned OFF.
2. Remove and retain the four (4) screws that secure the cover to the SPS-2460-xx power supply.
3. Carefully lift the cover from the SPS-2460-xx power supply.
4. Locate the fuse on the SPS-2460-xx (see illustration below).

5. Carefully remove the fuse from the fuse holder shown above.
6. Install a same physical size and rated replacement fuse in the fuse holder.
7. Carefully reinstall the cover over the SPS-2460-xx power supply.
8. Reinstall the four (4) screws from Step 2 that secure the cover to the SPS-2460-xx power supply.
9. Power UP the external power source.

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**Technical Specifications**

For use with Transition Networks Model SPS-2460-xx or equivalent.

**Dimensions:**
- SPS-2460-SA - 3.8L x 3.1W x 1.0 in H (96.5 x 79 x 25 mm)
- SPS-2460-CC - 4.5L x 3.1W x 1.04 in H (114 x 79 x 26 mm)
- SPS-2460-PS - 4.5L x 3.4W x 1.04 in H (114 x 86 x 26 mm)

**Output Voltage:** 12.25 VDC at 1.0 A maximum

**Load Regulation:** ±5% at 10% load to fully rated load

**No Load Protection:** no damage to power supply when operating with no load

**Over Load Protection:** when the average power rating exceeds approximately 125% of the maximum power, the output voltage is reduced to a safe dissipation level. This action protects against output short circuit.

**Transition Protection:** no voltage spikes during power up, power off, or power failures

**Power Consumption:** 3 W maximum @ 24 VDC input, 12 W output

**Efficiency:** 80% (typical)

**Noise and Ripple:** ±40 mV peak-to-peak

**MTBF:** greater than 250,000 MIL-HDBK-217F hours at 25°C (77°F) greater than 687,500 Bellcore hours at 25°C (77°F)

**Operating Temp:** -20 to 65°C (-4 to 149°F)

**Storage Temp:** -40 to 85°C (-40 to 185°F)

**Humidity:** 5 to 95%, non condensing

**Altitude:** 0 to 10,000 feet

**Input:**

**Input Voltage:** 24-60 VDC or 24-42 VAC rms

**Isolation Voltage:** (Dielectric withstand) meets EN 60950-1:2006 for one minute
- 1500 VAC: Output/Input
- 1500 VAC: Input/Protective GND
Compliance Information

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 the user’s own expense.

Canadian Regulations
This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Regulations

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 adequate measures.

ACHTUNG!
Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten. In diesem Fäll ist der Benutzer für Gegenmaßnahmen verantwortlich.

ATTENTION !
Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l’utilisateur de prendre les mesures spécifiques appropriées.

In accordance with European Union Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003, Transition Networks will accept post usage returns of this product for proper disposal. The contact information for this activity can be found in the 'Contact Us' portion of this document.

CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentliches Telekommunikationsnetz in den EG-Mitgliedstaaten verstößt gegen die jeweiligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendgeräte einschliesslich der gegenseitigen Anerkennung ihrer Konformität.

Contact Us

Technical Support
Technical support is available 24 hours a day.
United States: 1-800-260-1312
International: 00-1-952-941-7600

Transition Now
Chat live via the Web with Transition Networks Technical Support. Log onto www.transition.com and click the Transition Now link.

Web-Based Seminars
Transition Networks provides seminars via live web-based training. Log onto www.transition.com and click the Learning Center link.

E-Mail
Ask a question anytime by sending an e-mail to our technical support staff.
technicalsupport@transition.com

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toll free: 800-526-9267
fax: 952-941-2322

declaration of Conformity

Name of Mfg: Transition Networks
10900 Red Circle Drive, Minnetonka MN 55343 U.S.A.

Model: SPS-2460-xx External Power Supply

Part Number: SPS-2460-SA, SPS-2460-CC, SPS-2460-PS

Purpose: To declare that the SPS-2460-xx to which this declaration refers is in conformity with the following directive(s) and standard(s):


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

Stephen Anderson, Vice-President of Engineering
June, 2010