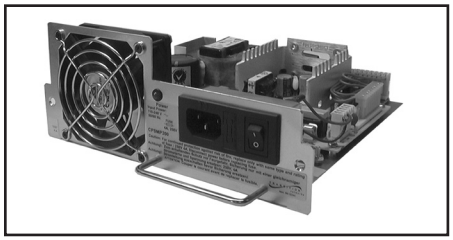
TRANSITION NETWORKS



User's Guide

CPSMP-200

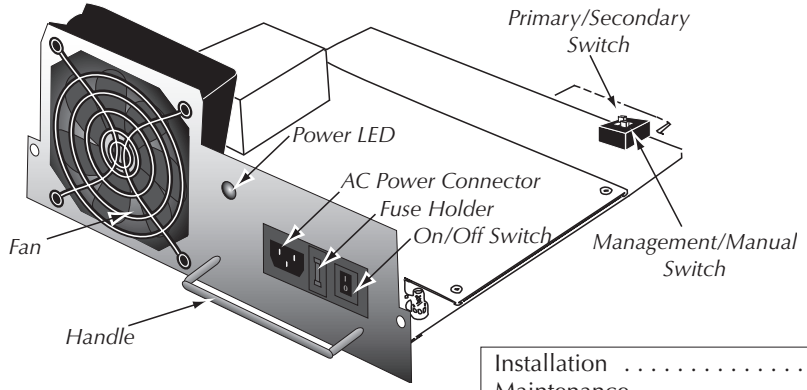
AC Power Supply Module

- ***PointSystem™***
- ***CPSMC18xx-xxx Accessory***
- ***CPSMC19xx-100 Accessory***

The Transition Networks CPSMP-200 power supply is a slide-in-module that provides optional, redundant AC power to the CPSMC18xx-xxx and the CPSMC19xx-100 *PointSystem™* chassis.

The figure below illustrates the components of the CPSMP-200 power supply:

- A **power LED** indicator.
- An **AC power connector** that supplies power from an AC wall outlet.
- A **fuse** installed in a fuse holder.
- An **On/Off switch** that, when set to **"I"**, allows the module to supply power to the *PointSystem™* chassis.
- A **Primary/Secondary** switch that allows the module to be configured as the "primary" or as the "secondary" power supply.
- A **Management/Manual** switch that allows the *PointSystem™* software to control and override the physical setting of the *Primary/Secondary* switch.
- A **fan** to cool the interior of the *PointSystem™* chassis.
- A **handle** for installing and removing the power supply module.



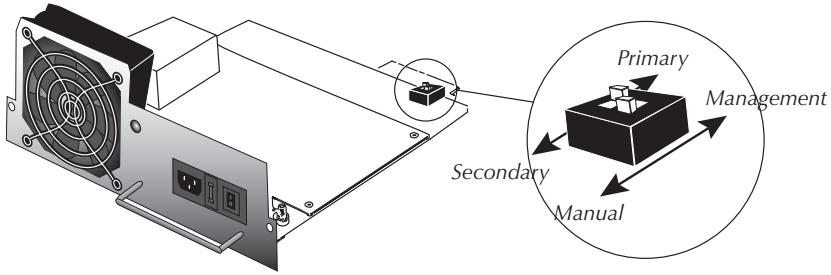
CAUTION: Wear a grounding device and observe electrostatic discharge precautions when installing or servicing the power supply module. Failure to observe this caution could result in damage to, and subsequent failure of, the power supply module.

Installation

The CPSMP-200 AC power supply module may replace an existing AC module, or it may be installed as the redundant power supply module in either an AC-powered or a DC-powered *PointSystem*™ chassis.

Switch Settings

The CPSMP-200 power supply module has a set of **Primary/Secondary-Management/Manual** switches installed on the circuit board.



Management/Manual Switch

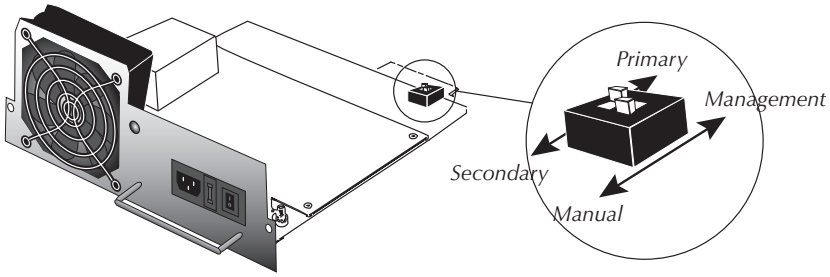
The Management/Manual switch allows the *PointSystem*™ software to control and override the physical setting on the Primary/Secondary switch.

- When set to **'Management'**, the power supply module has the default configuration of 'Primary', unless changed at the software interface to 'Secondary'.
- When set to **'Manual'**, the power supply module has the configuration as set by the Primary/Secondary switch. The software interface cannot change the setting.

Primary/Secondary Switch

The *Primary/Secondary* switch allows the module to be configured as the 'Primary' or as the 'Secondary' power supply.

- As the ***'Primary'*** power supply, it provides power to the entire chassis.
- As the ***'Secondary'*** power supply, it waits in stand-by mode, ready to supply power to the chassis in the event of power failure from the 'Primary' power supply.



Configuring Two Power Supply Modules

- For **load sharing**, where each module supplies power to half the chassis, set both power supply modules to 'Primary'.
- For **back-up power supply**, set one power supply module to 'Primary' (which supplies power to the entire chassis) and the other to 'Secondary'. In this mode, the secondary module is in stand-by mode and takes over in the event of a power failure of the primary module.

NOTE: At least one power supply module must be set to 'Primary.' If both modules are set to 'Secondary,' neither will supply power to the chassis.

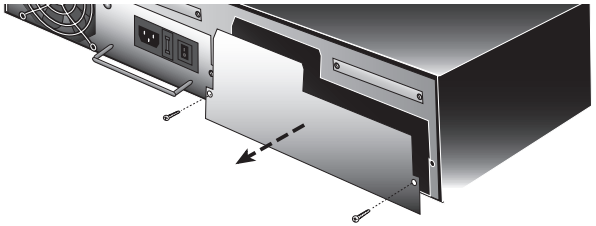
WARNING: Do not connect the power supply module to the external power source before installing it into the chassis. Failure to observe this caution could result in equipment damage and/or personal injury or death.

Install the CPSMP-200

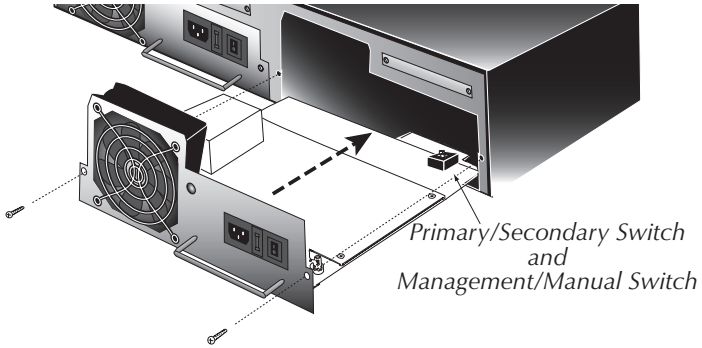
NOTE: The CPSMP-200 power supply module may be "hot swapped" (i.e., installed in the chassis while the chassis is in operation) **provided the module to be installed has been disconnected from its external power source and the module's On/Off switch has been set to "0".**

To install the CPSMP-200 as the redundant power supply module into either the CPSMC18xx-xxx or the CPSMC19xx-100 *PointSystem*™ chassis:

1. Remove and retain the two (2) screws that secure the protective plate to the rear of the chassis and pull the plate away from the chassis.



2. **Set the On/Off switch on the power supply module to "0".**
3. Set the *Primary/Secondary* switch and the *Management/Manual* switch, if necessary (see page 3.)



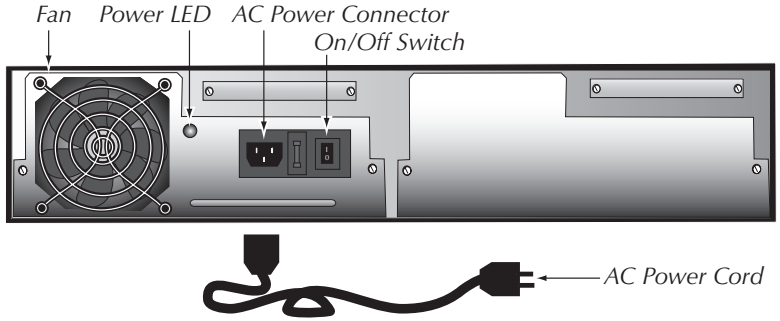
4. Carefully slide the power supply module into the installation slot, aligning the module with the installation guides. Ensure that the power supply module is firmly seated against the chassis backplane.
5. Carefully install the two (2) screws (retained in step 1) through the power supply module and into the chassis. Rotate the screws clockwise to secure.

Connect to External Power

CAUTION: Ensure that the On/Off switch on the power supply module is set to "0" when connecting to the external power source. Failure to observe this caution could result in damage to, and subsequent failure of, the power supply module.

To connect the CPSMP-200 to external power:

1. Set the On/Off switch on the power supply module to **"0"**.
2. Connect the female end of the AC power cord to the male end of the AC power connector.
3. Connect the male end of the AC power cord into the correct voltage AC rack or wall socket.
4. Set the On/Off switch on the power supply module to **"I"**.
5. Verify that the CPSMP-200 power supply module is powered by observing the fan and the illuminated power LED.

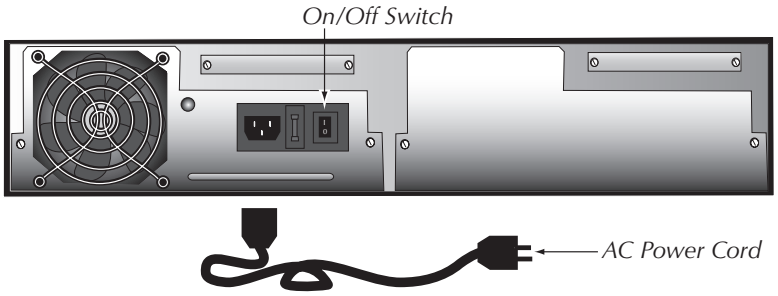


WARNING: Do not connect the power supply module to the external power source before installing it into the chassis. Failure to observe this caution could result in equipment damage and/or personal injury or death.

Maintenance

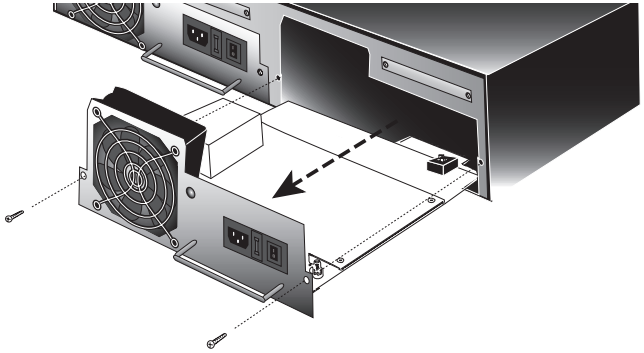
Replace the CPSMP-200

NOTE: The CPSMP-200 power supply module may be "hot swapped" (i.e., replaced while the chassis is in operation) **provided the module to be replaced has been disconnected from its external power source and the module's On/Off switch has been set to "0".**

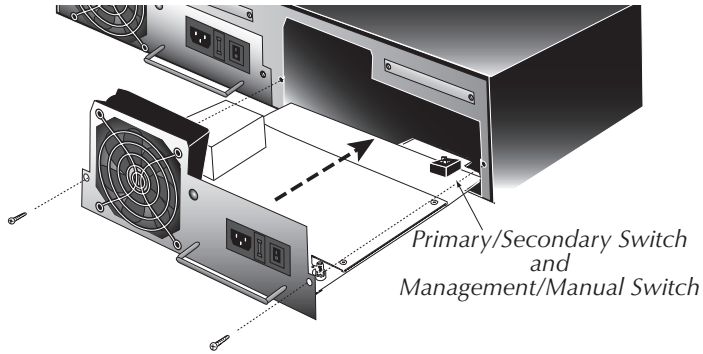


To replace the CPSMP-200 power supply module:

1. Ensure the On/Off switch on the power supply module is set to **"0"**.
2. **Disconnect the AC power cord from the AC power source.**
3. Remove the two (2) screws that secure the power supply module to the chassis. Retain the screws for installing the replacement module.
4. Carefully slide the power supply module out of the chassis.



5. Set the Primary/Secondary switch and the Management/Manual switch on the replacement power supply module, if necessary (see page 3).



6. Carefully slide the replacement power supply module into the installation slot, aligning the module with the installation guides.
7. Ensure that the power supply module is firmly seated inside the chassis.
8. Carefully install the two (2) retained screws through the power supply module into the chassis, rotating clockwise to secure.
9. See the "*Connect to External Power*" section (page 5) for instructions on re-connecting the power supply module to the external power source.

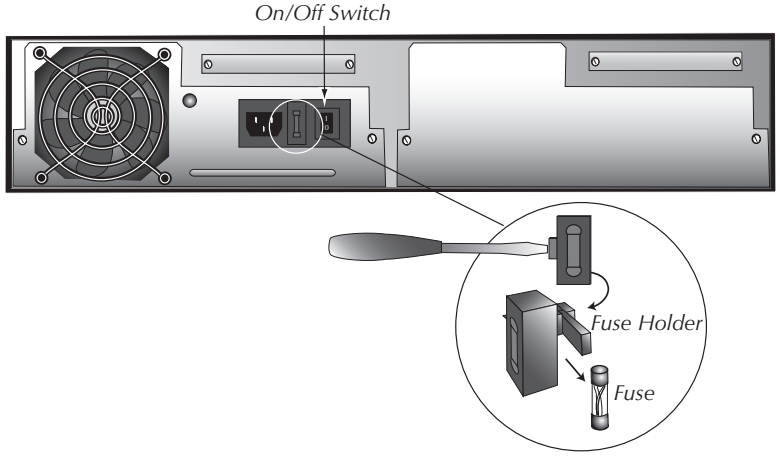
Replace the Fuse

CAUTION: Ensure that the power supply module has been disconnected from the external power source and the module's On/Off switch has been set to "0". Failure to observe this caution could result in damage to, and subsequent failure of, the power supply module.

NOTE: The CPSMP-200 power supply module may be "hot swapped" (i.e., serviced while the chassis is in operation) **provided the module to be serviced has been disconnected from its external power supply and the module's On/Off switch has been set to "0".**

To replace the fuse in the CPSMP-200 power supply module:

1. Ensure the On/Off switch on the power supply module is set to **"0"**.
2. **Disconnect the AC power cord from the external power source.**
3. From the inside edge of the power receptacle, insert a small flat blade screwdriver into the groove on the front, inside edge of the fuse holder and carefully pry the fuse holder from the power supply module.



4. Carefully remove the fuse from the fuse holder.
5. Install a **same size and rating** replacement fuse in the fuse holder.
6. Return the fuse holder and fuse to the installation position in the power supply module. Snap the fuse holder into place.
7. See the "*Connect to External Power*" section (page 5) for instructions on re-connecting the power supply module to the external power source.

Technical Specification

For use with Transition Networks Model CPSMP-200 or equivalent.

Standards	UL Listed EN60950; FCC & CISPR Class A&B; EN61000-3-2 Class D**;** CE Mark	
Dimensions	8.3" x 8.4" x 2.7" (211 mm x 211 mm x 69 mm)	
Weight	1 lb. (0.45 kg) approximately	
Power Input	100-240 V, 47/63Hz, 0.62-1.5 Amp, (typical with a fully-loaded chassis)	
Voltage Tolerance	± 10%	
Low-Line Input Current	3.3A max.	
Inrush Current	40A max.(peak starting current) @ high line	
Transient Recovery Time	1ms max.	
Power Output	12VDC at 10.83 Amp max.	
Power Factor	≥ 0.95 (no inductive or capacitive distinction)	
Fuse	4 Amp/250 V	
MTBF	60,000 hours (MIL217F2 V5.0) (MIL-HDBK-217F) 248,000 hours (Bellcore7 V5.0)	
Environment	Tmra*:	0 to 60°C (32 to 140°F)
	Storage Temperature:	-20 to 85°C (-4 to 185°F)
	Humidity:	5 to 95%, non condensing
	Altitude:	0 to 10,000 feet
Warranty	Lifetime	

*Manufacturer's rated ambient temperature: Tmra range for this power supply module depends on the physical characteristics and the installation configuration of the Transition Networks *PointSystem*™ chassis in which this module will be installed.

Troubleshooting

If the power supply module fails, isolate and correct the failure by determining the answers to the following questions and then taking the indicated action:

1. **Is the Power LED on the CPSMP-200 power supply module illuminated?**

   NO
   - Is the power supply module inserted properly into the chassis?
   - Is the power supply module properly connected to the external power source?
   - Does the external power source provide power?
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

   YES
   - Proceed to step 2.

2. **Is the fuse on the CPSMP-200 power supply intact?**

   NO
   - **CAUTION: See the *"Replace the Fuse"* section (page 8) for the proper method for replacing the fuse to the power supply module.**
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

   YES
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

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**

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.
techsupport@transition.com

Address

Transition Networks; 6475 City West Parkway; Minneapolis, MN 55344, USA
telephone: 952-941-7600; toll free: 800-526-9267; fax: 952-941-2322

Declaration of Conformity

Name of Mfg:	**Transition Networks** 6475 City West Parkway, Minneapolis MN 55344 USA
Model:	**CPSMP-200 Redundant Power Supply 120/240 VAC**
Part Number(s):	**CPSMP-200**
Regulation:	**EMC Directive 89/336/EEC**

Purpose: To declare that the ***CPSMP-200*** to which this declaration refers is in conformity with the following standards.

CISPR 22:1997+A1:2000; EN 55022:1998 + A1:2000 Class A&B; EN 55024:1998; FCC Part 15 Subpart B; EN61000-3-2:1995+A14:2000; EN61000-3-3:1995

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 — July 8, 2000 (Date)

Compliance Information

CISPR22/EN55022 Class A & B, EN61000-3-2 Class D, EN61000-3-3
CE Mark

FCC Regulations

This equipment has been tested and found to comply with the limits for a Class A&B 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&B 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&B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Printed in the U.S.A. **33186.D**