English

Warnings and Caution

1. Do not unplug the AC power cord when the power supply is in use. Doing so may cause damage to your components.
2. Do not place the power supply in a high humidity and/or temperature environment.
3. High voltages exist in the power supply. Do not open the power supply case unless you are an authorized service technician or electrician. Doing so will void the warranty.
4. The power supply should be powered by the source indicated on the rating label.
5. Please use only genuine Thermaltake modular cables with Thermaltake Cable Management power supply models. Third party cables might not be compatible and could cause serious damage to your system and power supply. The warranty is voided with the use of third party cables.
6. All warrantees and guarantees will be voided, if failure to comply with any of the warnings and cautions covered in this manual.

Components Check

- SMART power supply unit
- AC power cord
- User manual
- Mounting screws x 4
- Cable straps x 4

Power Connector Introduction

CABLE P/N	Main Power Connector (24 Pin)	ATX 12 V Connector (4+4 Pin)	SATA Connector (5 Pin)	PCI-E Connector (6+2 Pin)	Peripheral Connector (4 Pin)	PATA to FDD (4 Pin)
SPR-0850F-R	1	1	9	4	6	1
SPR-0750F-R	1	1	9	4	6	1
SPR-0650F-R	1	1	6	4	4	1

Output Specification

P/N	AC INPUT	Input Voltage: 100V - 240V~ ; Input Current: 15A ; Frequency: 50Hz - 60Hz					Continuous Power
	DC OUTPUT	+3.3V	+5V	+12V	-12V	+5VSB	
SPR-0850F-R	Max Output Current	22A	22A	70.5A	0.5A	3.0A	850W
	Max Output Power	140W		846W	6.0W	15W	

P/N	AC INPUT	Input Voltage: 100V - 240V~ ; Input Current: 12A ; Frequency: 50Hz - 60Hz					Continuous Power
	DC OUTPUT	+3.3V	+5V	+12V	-12V	+5VSB	
SPR-0750F-R	Max Output Current	22A	22A	62.5A	0.3A	2.5A	750W
	Max Output Power	120W		750W	3.6W	12.5W	

P/N	AC INPUT	Input Voltage: 100V - 240V~ ; Input Current: 10A ; Frequency: 50Hz - 60Hz					Continuous Power
	DC OUTPUT	+3.3V	+5V	+12V	-12V	+5VSB	
SPR-0650F-R	Max Output Current	22A	22A	54.2A	0.3A	2.5A	650W
	Max Output Power	120W		650W	3.6W	12.5W	

Installation Steps

Note: Make sure that your system is turned off and unplugged.
Disconnect the AC power cord from your old power supply.

1. Open your computer chassis; please refer to the instruction manual provided with your chassis.
2. Install the PSU into the case with the four screws provided.
3. If your motherboard requires a 24pin Main Power connector,
   please connect the 24pin Main Power connector to the motherboard.
4.1 For motherboard that only requires a 4pin ATX 12V (CPU) connector, please detach a
   4pin connector from the 4+4pin ATX 12V connector and connect it to the motherboard.
   (Either one of the 4pin from the 4+4pin ATX 12V connector will work)
4.2 For motherboard that requires a single 8pin EPS connector, please use the 4+4pin
   connector from the power supply.
5. Connect other peripheral power connectors to devices such as hard drives, optical drives, etc.
6. If your graphic card requires PCI-E power connector, please connect corresponding PCI-E
   connector instructed by your graphic card's user manual. Please note the power supply
   utilizes an unique 6+2pin PCI-E connector that can be effectively used as a single 8pin or
   6pin PCI-E connector. To use it as a 6pin PCI-E connector, please detach the 2pin
   connector from the 6+2pin connector.
7. Close your computer case and connect the AC power cord to the power supply AC inlet.
8. Attention! When Smart Zero Fan System is turned on, the fan will not operate until the power supply
   reaches approximately 10% of rated load; It is normal if the fan does not operate when computer is
   at a low working load.
9. This PSU is equipped with a patented 256 colors Riing 14 RGB Fan which features:
(1) Five lighting modes
   The lighting modes can be changed when the RGB lighting button is pressed.
   You can either choose RGB Cycle Mode, Solid Red/Green/Blue/White Mode or you can switch off
   the LED.
(2) Built-in memory
   Automatically recovers the previous lighting mode after you restart the PSU.

Total Protection

- Over Voltage Protection

Voltage Source	Protection Point
+3.3V	4.3Vmax.
+5V	6.5Vmax.
+12V	15.5Vmax.

- Over Current Protection

P/N	SPR-0850F-R	SPR-0750F-R	SPR-0650F-R
Voltage Source	Protection Point	Protection Point	Protection Point
+3.3V	24.2A - 39.6A	24.2A - 39.6A	24.2A - 39.6A
+5V	24.2A - 39.6A	24.2A - 39.6A	24.2A - 39.6A
+12V	77.55A - 126.9A	68.75A - 112.5A	59.62A - 97.56A

- Short Circuit Protection
Activated when any DC rails short circuited.

- Over Power Protection
The power supply shall be shut down and latch off, if the wattage of the power supply is 110% ~ 160% over continuous power.

EMI & SAFETY

EMI Regulatory & SAFETY Standards	
SMART PRO RGB 850W/ 750W/ 650W BRONZE	CE, cTUVus, TÜV SÜD, FCC, EAC, CCC and BSMI certified.

Environments

Operating temperature	0°C to +40°C
Operating humidity	20% to 90%,non-condensing
MTBF	> 100,000 hours

Trouble-Shooting
If the power supply fails to function properly, please follow the troubleshooting guide before application for service:
1. Is the power cord plugged properly into electrical outlet and into the power supply AC inlet?
2. Please make sure the I/O switch on the power supply is switched to I position.
3. Please make sure all power connectors are properly connected to all the devices.
4. If connected to a UPS unit, is the UPS on and plugged in?

If the power supply is still unable to function properly after following the above instruction, please contact your local store or Tt branch office for after sales service. You may also refer to Thermaltake's website for more technical support: thermaltake.com