



# thermaltake Toughpower GF1 ARGB 650W Fully Modular Analog PSU User Manual

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## thermaltake Toughpower GF1 ARGB 650W Fully Modular Analog PSU



### 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 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 warranties and guarantees will be voided if failure to comply with any of the warnings and cautions covered in this manual.

## Power Connector Introduction

CABLE Wattage						
	Main Power Connector (24 Pin)	ATX 12 V Connector (8 Pin/4+4 Pin)	SATA Connector (5 Pin)	PCI-E Connector (6+2 Pin)	Peripheral Connector (4 Pin)	Floppy Adapter (4 Pin)
850W	1	2	12	6	4	1
750W	1	1	9	4	4	1
650W	1	1	9	4	4	1

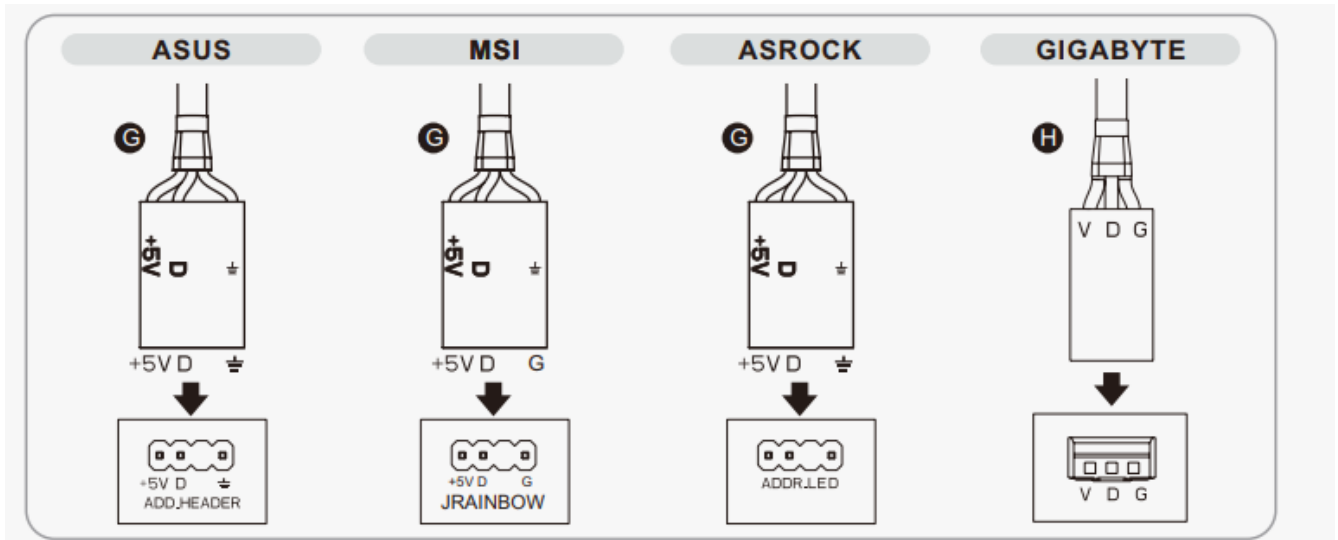
## Output Specification

Wattage	AC INPUT	Input Voltage: 100V – 240V~ ; Input Current: 12A max ; Frequency: 47Hz – 63Hz				
850W	DC OUTPUT	+3.3V	+5V	+12V	-12V	+5VSB
	Max Output Current	22A	22A	70.9A	0.3A	3A
	Max Output Power	120W		850.8W	3.6W	15W
Wattage	AC INPUT	Input Voltage: 100V – 240V~ ; Input Current: 10A max ; Frequency: 47Hz – 63Hz				
750W	DC OUTPUT	+3.3V	+5V	+12V	-12V	+5VSB
	Max Output Current	22A	22A	62.5A	0.3A	3A
	Max Output Power	120W		750W	3.6W	15W
Wattage	AC INPUT	Input Voltage: 100V – 240V~ ; Input Current: 10A max ; Frequency: 47Hz – 63Hz				
650W	DC OUTPUT	+3.3V	+5V	+12V	-12V	+5VSB
	Max Output Current	22A	22A	54.2A	0.3A	3A
	Max Output Power	120W		650.4W	3.6W	15W

## Installation Steps

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. Connect the SATA devices (if applicable) to the power supply using the SATA cables provided, i.e. hard drives, CD/DVD drives

5. Connect any devices that may use the 4 pin peripheral connectors, i.e. hard drives, CD/DVD drives or case fans.
6. Attention! When Smart Zero Fan System is turned on, the fan will not operate until the power supply reaches approximately 30% of the rated load; It is normal if the fan does not operate when the computer is at a low working load.
7. This PSU is equipped with a patented 16.8 million colors Riing Duo 14 RGB Fan which features:



### Button controlled 8 lighting modes

The lighting modes/colors can be changed when the Mode/Color button is pressed. You can either choose Wave, Spiral, Flow, Heartbeat, Ripple, Full Lighted, Spectrum Mode, or you can switch off the LEDs. Long pressing the Mode button can reset settings to default. The fan also has a built-in memory that can automatically recover the previous lighting mode after you restart the PSU.

### Synced with all RGB lighting devices on your system

The lighting effects can be synced through the motherboards with the ARGB Sync function. After switching off the PSU, connected the ARGB Sync Cable to the ARGB Sync Header on the PSU and to the +5V ARGB header on the motherboard (Caution: This power supply does not support +12V RGB header). Next, install the software provided by your motherboard's vendor, such as ASUS AURA SYNC, GIGABYTE RGB FUSION, is MYSTIC LIGHT SYNC, or AsRock Polychrome software. Finally, choose your favorite lighting theme. Every time you turn on the PC, the chosen lighting theme will be automatically recovered only when the software boots up.

**Caution:** Please power off the PC and check the positive and negative ends on the connector before connecting the ARGB Sync Cable to the motherboard. Connecting the cable to the wrong header or in the wrong direction can damage the LEDs.

### EMI & SAFETY

- TOUGHPower GF1 ARAB
- 850W/750W/650W
- CE, cTUVus, TUV, FCC, EAC, CCC, BSMI, and S-Mark certified.

### Environments

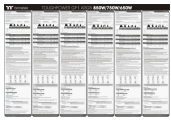
Operating temperature	0°C to +50°C
Operating humidity	20% to 90%, non-condensing
MTBF	> 120,000 hours

## Trouble-Shooting

1. If the power supply fails to function properly, please follow the troubleshooting guide before applying for service:
2. Is the power cord plugged properly into an electrical outlet and into the power supply AC inlet?
3. Please make sure the I/O switch on the power supply is switched to I position.
4. Please make sure all power connectors are properly connected to all the devices.
5. 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](https://www.thermaltake.com)**

## Documents / Resources



**[thermaltake Toughpower GF1 ARGB 650W Fully Modular Analog PSU](#)** [pdf] User Manual  
Toughpower GF1 ARGB 650W, Fully Modular Analog PSU, Toughpower GF1 ARGB 650W Fully Modular Analog PSU, TOUGHPOWER GF1 ARGB 850W, TOUGHPOWER GF1 ARGB 750W, TOUGHPOWER GF1 ARGB 650W