

# MARUSON®

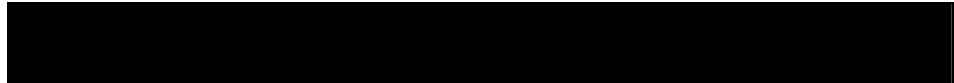
## UPS SYSTEMS

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Please visit our website [www.MarusonUSA.com](http://www.MarusonUSA.com) click on "Warranty Registration" to register your Maruson UPS products.

### Tower Series UPS

#### TOW-600 / TOW-800US / TOW-1000US



Thank you for purchasing Maruson Tower Series UPS products. Please read the **USER'S MANUAL** before using the Tower Series UPS product.

The Tower Series UPS will protect your computer hardware from physical damage and will provide emergency battery backup power to prevent data loss in the event of power problem.

Save the original carton and styrofoam inserts. If you require service, your warranty may be voided if the Tower Series UPS is sent back to Maruson without proper packaging.

The main features include:

- ◆ Advanced equipment & data protection from blackouts, brownouts, sags, AC line noise and surges.
- ◆ Full analytical high performance micro processor control with true RMS synchronous calculation
- ◆ Intelligent battery management for battery status, battery power saving & battery replacement control.
- ◆ DC direct starts up capability, complete diagnostic indication and control.
- ◆ Built-in USB communication port on (800VA/1000VA) only
- ◆ RJ45 jack for LAN surge Protection for (800AV/1000VA).

## Operation & Installation

The Tower Series UPS can protect your equipment from all power problems such as surge, spikes, blackouts, brownouts and line noise. When AC power is present and the ON/OFF switch is turned on, the Tower Series UPS is constantly charging the battery and providing the power to the equipment from AC line directly. The reliable battery can provide enough stable power to complete your work, save the data and safely shut down your system in the event of a blackout.

The Tower Series UPS is simple to operate and install. The following are the steps of installation prior to connecting the equipment to the UPS.

1. Connect the Power Office UPS to grounded AC power Outlets.
2. Charge the battery at least 8 hours for fully charge before you turn on the ON/OFF switch. (The ON/OFF switch does not have to be on.)
3. Plug your computer and monitor into the "Battery Backup &

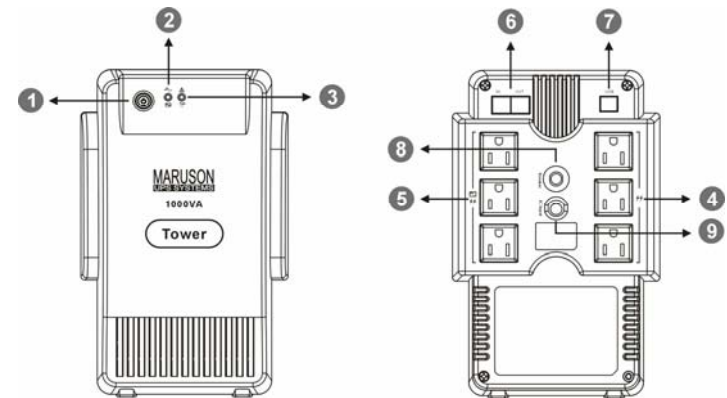
Surge Protection" outlets. (These outlets will provide emergency battery backup power during power problems as well as surge protection from surge and spike.)

**CAUTION:** Do **NOT** plug **LASER PRINTERS** into any of the "Battery Backup & Surge Protection" or "Surge Protection" outlets.

**CAUTION:** Do **NOT** plug **ACCESSORY SURGE** strip into any of the "Battery Back & Surge Protection" outlets.

4. Plug your peripheral equipment (printer, scanner, fax, speaker, etc.) into the "Surge Protection" outlets. (These outlets will **NOT** provide battery backup power during a utility power failure.
5. With your equipment turn off, switch on the Power Office UPS product.
6. When the "On Line" LED light is illuminated, turn on your connected equipments.

## Indicators



### 1. On/Off Switch

This On/Off switch controls the power to your equipment and performs self-test to detect inverter, line, battery status & LEDs.

**NOTE:** Turn on the UPS

Press and hold the switch in for more than one second and release after the beep is presented. The UPS will be started. In addition, the UPS will turn on automatically when you plug the UPS into the wall outlets and utility power is present.

**NOTE:** Turn off the UPS

Press and hold the switch in for more than one second and release after the beep is presented. The UPS will be shut down completely.

**NOTE:** Perform Self-testing

The UPS will perform self-testing for about 5 seconds when the UPS is turned on..

### 2. Line/ Battery LED(Green LED)

Indicates the UPS is providing AC power to your equipment. When the LED is blinking, the UPS is providing power from battery.

### 3. Warning LED (Red)

When in AC or DC mode the blinking LED could indicate that the battery should be replaced. When the LED is always on it indicates an overload condition or UPS fault. For details please see indicator Table.

### 4. Battery Backup & Surge Protection Outlets

These outlets not only provide full time surge protection but also provide emergency battery backup power.

### 5. Surge Protection Outlets (Bypass Outlets)

These outlets provide full time protection from surge and spike.

### 6. LAN / Internet Surge Protection

Built-in RJ11/ RJ45 jacks protect Internet and Networks from surges.

**Note:** The UPS will operate normally without this connection.

### 7. USB Communication Port

The built-in USB port connects to your computer. The software will shut down your computer automatically in case of power failure. It prevents the possibility if damaging your files with abrupt power outage. The software can also provide the information regarding the status of your utility power line.

### 8. Circuit Breaker

The button will protrude when the overload condition occurs. The UPS will switch off of utility power. If the button protrudes, disconnect some non-essential equipment and reset the circuit breaker by pushing the button inward.

### 9. AC inlet

Please plug the AC power cord into this connector.

## Safety Instructions

Once you have received the Tower Series UPS product, you should remove and inspect the product for shipping damage. If any damage is found, please notify the carrier and your dealer. You will need to keep the shipping carton and the packing foam in case the product must be returned to the factory for service.

### SAFETY INSTRUCTIONS

- Place the Tower Series UPS indoors in an area that has adequate airflow and is free of excessive dust. Do NOT allow the UPS to be exposed to moisture, rain, excessive heat or direct sunlight.
- Use of the Tower Series UPS product for life support applications, where failure of this equipment can reasonably be expected to cause failure to life support equipment or to significantly affect its safety or effectiveness, is **NOT** recommended.
- Please always disconnect the input power cord from the wall outlet before replacing the battery.
- Do **NOT** dispose of battery in a fire. The battery may explode.
- Do **NOT** open or mutilate the battery. They contain an electrolyte that is toxic and harmful to the skin and eyes.
- Proper disposal of battery is required. Please refer to your local laws/regulations regarding to battery disposal.
- Use tools with insulated handles to replace the battery to avoid personal injury. Due to energy hazard, please remove wrist watches and jewelry such as rings when replacing battery.

## Indication Table

Green LED	Red LED	Alarm	UPS Status Indication
On	X	X	AC Mode(Operation)
On	On	4 beeps @ 0.25 sec/ per 10 sec	Self test Mode
Blinking	On	On	Over Load 110% (DC Mode)
X	On	On	Over Load 120% (DC Mode)
X	On	On	Short (DC Mode)
Blinking	X	4 beeps @ 0.25 sec/ per 10 sec	DC Mode (Operation)
Blinking	On	1 beep @ 1 sec	Low Battery Voltage
On	Blinking	On	Charge Mode abnormal

## Specification

Model	TOW-600	TOW-800US	TOW-1000US
Capacity	600VA/300W	800VA / 400W	1000VA/500W
Input Voltage Range	120V +15%/- 20%		
	220V+20%/-26%		
Output Voltage Range	120V +/-12%		

	220V+/-10%		
Frequency	50 / 60 Hz auto sensing		
Outlets	6 Outlets (3 Battery Backup & Surge)		
Lighting / Surge Protection	480 Joules		
Transfer Time to Battery/AC	4 ms (typical)		
Battery Type	Sealed and leak proof maintenance free lead-acid battery		
Battery Specification	12V/5AH×1	12V/7AH x 1	12V/9AH x 1

Phone / Fax/ Network Protection	W/O	RJ11/RJ45	RJ11/RJ45
Short Circuit Protection	Circuit breaker		
Communication Port	W/O	USB	USB
Operation Temperature	+32°F ~ 104°F (0°C ~ 40°C)		
Operation Relative Humidity	0 to 95% non-condensing		
Storage Temperature	+5°F ~ 113°F (-15°C ~ 45°C)		
Net Weight	8.82lbs	9.02 lbs	9.12 lbs
Dimensions (WxDxH) inch	6.1×4.3×8.3	7.1x6x9.5	7.1x6x9.5

\* Specification may change without notice.

## Troubleshooting

Symptom	Possible Cause	Action to Take
The UPS will not turn on.	UPS is not turn on	Switch on the On/Off switch. If the power is not present, please make sure your circuit breaker on the building is not accidentally turned off.
	Circuit Breaker has tripped.	Reduce the amount of equipment plugged into the "Battery Backup & Surge Protection" outlets of the UPS. Next, rest the circuit breaker by pushing it back in.
The UPS is making a continuous sound and the "Overload" indicator is light.	The "Battery Backup & Surge Protection" outlets are overload.	Turn of the UPS and reduce the amount of equipment connected to these outlets.
The UPS does not provide expected runtime.	Due to age the battery does not hold a full charge	Removed all connected equipments from the UPS and charge the battery at least 8 hours.
		Return for service or you can replace the battery by ordering one at <a href="http://www.MarusonUSA.com">www.MarusonUSA.com</a>
Connected equipments lose power while connected to the Power the UPS.	The "Battery Backup & Surge Protection" outlets are overload.	Refer to the Indicator Table "Tower UPS is making a continuous sound and the Overload indicator is light"
	The UPS has exhausted its available run time.	The Tower UPS will turn off when the battery has been depleted during the failure of utility power. Allow UPS to re-charge before continuing using of the UPS.
	Connected equipment is connected to the wrong outlet.	Ensure the equipment that you want to stay powered during a failure of utility power is plugged into the "Battery Backup & Surge Protection" outlets.
	The UPS may be faulty.	Please Call <b>1-866-TPC-4-UPS</b> for further troubleshooting.

### Recycling Information:

Your UPS contains Non-Spill Sealed Lead Batteries. On the battery you will find the battery name. Please reference the chart below for recycling information. Other brand(s) of battery please contact Maruson Technology Corp. If outside the USA or Canada, please contact your local authorized distributor.

Battery Name	Recycling inside the USA
Vision Battery	1-877-730-2877
First Power Battery	1-877-730-2877
BB Battery	1-800-278-8599