#### 50 vs. 60 Hz

Step Up/Step Down Transformers ONLY convert voltage, they do not convert cycles (Hz). Motorized appliances designed to operate on 60 Hz may operate differently when used on 50 Hz power sources. Check with the appliance manufacturer before using a 60 Hz motorized appliance on a 50 Hz power source.

#### **Motorized Appliances**

At start up the current demand of a motorized appliance surges increasing the wattage required 50% to 200% above it's listed wattage rating.

#### **OPERATING INSTRUCTIONS**

- 1. Place the transformer on a firm, flat surface.
- 2. Be sure the ON/OFF power switch is in the "OFF" position before plugging (or unplugging) the power cord into a 110-120VAC or 220-240VAC power source. NOTE: In some countries a Voltage Valet Grounded Adaptor Plug will be needed to connect to 220-240VAC power sources (see grounded adaptor plug list).
- 3. Step Up Mode: Set the INPUT VOLTAGE SELECTOR switch to 120VAC for use with 220-240VAC appliances in countries with 110-120VAC power sources. Be sure your appliance ON/OFF switch is in the "OFF" position and fully insert your 220-240VAC appliance plug into the 240VAC receptacle.
  NOTE: Use grounded adaptor plug, model GUB, to modify the 240VAC receptacle to fit most foreign 220-240 volt appliance plugs (except the South African 15 amp).
- 4. **Step Down Mode:** Set the INPUT VOLTAGE SELECTOR switch to 240VAC for use with 110-120VAC appliances in countries with 220-240VAC power sources. Be sure your appliance ON/ OFF switch is in the "OFF" position and fully insert your 110-120VAC appliance plug into the 120VAC receptacle.

5. Turn the transformer's ON/OFF power switch to the "ON" position. You are ready to use your appliance. NOTE: Due to the constant reversing of the AC current flowing through it, this transformer may produce an audible hum when turned on. This is normal and will not harm the transformer or any appliance plugged into it.

#### **MAINTENANCE AND CLEANING**

DO NOT IMMERSE THE TRANSFORMER INTO WATER OR ANY OTHER LIQUID.

- 1. Before cleaning, disconnect the appliance from the electrical outlet. Allow to cool completely.
- **2.** Clean transformers by wiping with a soft damp cloth. Do not use abrasive or harsh cleaning agents. No other maintenance is required.
- Store transformer where it will not be damaged. Do not wrap cord around transformer.
- **4.** Do not attempt to repair the transformer yourself. Return to Voltage Valet for service.

#### **Grounded Adaptor Plugs**

The Voltage Valet Step Up/Step Down Transformer includes a North American grounded appliance plug. A grounded adaptor plug may be needed to connect to 220-240VAC power sources. Contact your Voltage Valet dealer for adaptors listed below.

GUB	Continental Europe, 4.8mm	GUI	Italy
GUC	Australia/New Zealand/China	GUL	Israel
GUD	United Kingdom/Hong Kong	GUR	Russia, 4.0 mm
GUE	South Africa/India, 15 Amp	GUS	Switzerland
GUF	India/Middle Fast, 5 Amp		

#### **One Year Warranty**

We guarantee each new transformer to be free from defects in material or workmanship and to perform under normal use and service. This guarantee shall run for a period of one year from the date of purchase and obligations under this guarantee are limited to remedying any defect or replacing any defective part and shall be effective only if the defective unit is returned to us within 12 months after purchase. Damage due to abuse, misuse or overloading is not covered by this guarantee. We shall not be responsible for any other loss or damage that may arise through the use by a purchaser or others of this device and the purchaser assumes such responsibility and will hold Hybrinetics, Inc. harmless in respect to all such loss or damage.

Important: This is a factory direct warranty. Do not return defectives to your retailer. All defectives must be returned to the factory accompanied by a sales receipt with the original date of purchase. For more information please call our toll free number (800) 247-6900.

Voltage Valet Division, Hybrinetics, Inc.

225 Sutton Place, Santa Rosa, CA 95407 www.voltagevalet.com

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# $\begin{array}{c} V_{OLTAGE} \ V_{ALET^{\rm TM}} \\ \text{Step Up/Step Down Transformer} \end{array}$



Model TGC300

300 Watt Maximum Load

Model TGC500

500 Watt Maximum Load

Model TGC1000

1000 Watt Maximum Load

Model TGC2000 2000 Watt Maximum Load

Step Up Mode: Input 110-120VAC 60 Hz

Output 220-240VAC 60 Hz

Step Down Mode: Input 220-240VAC 50 Hz

Output 110-120VAC 50 Hz

## Instruction Manual

Read instructions before using this transformer

HYB880\_TGC\_Instr.indd 1

## **IMPORTANT SAFEGUARDS**

When using electrical appliances, especially when children are present, certain basic safety precautions should always be followed, including:

### Read all instructions before using.

**DANGER**—As with most electrical appliances, electrical parts are electrically live even when the switch is off. To reduce the risk of injury or death by electric shock:

- 1. KEEP THIS APPLIANCE AWAY FROM WATER.
- 2. Do not immerse the transformers in water or other liquid.
- 3. Do not use while bathing.
- 4. Do not place or store appliance where it can fall or be pulled into bathtub or sink. If the appliance falls into water, UNPLUG IT IMMEDIATELY. DO NOT REACH INTO THE WATER TO RETRIEVE IT WHILE IT IS STILL PLUGGED IN. DO NOT USE THE UNIT IF IT HAS BEEN IMMERSED IN WATER.
- **5.** Always unplug this appliance immediately after use.

**WARNING**—To reduce the risk of burns, electrocution, fire, or injury:

- 1. Do not leave unattended when connected to electrical outlet.
- Always disconnect the transformer from the electrical outlet immediately after use or before cleaning. Never yank the cord to disconnect from outlet; instead, grasp plug and pull to disconnect.
- 3. Close supervision is necessary when any appliance is used by or near children or invalids.

- 4. Use the transformer for its intended use only as described in this manual. Never use any attachments with this unit that were not made specifically by Voltage Valet for use with this product.
- 5. Never operate appliance with a damaged cord or plug, or if the unit has been dropped or damaged. To avoid the risk of electrical shock, do not disassemble the transformer. No user-serviceable parts are contained. Instead, return the unit to Voltage Valet for examination and repair. Incorrect reassembly can cause risk of electric shock when the transformer is used.
- **6.** Do not allow cord to touch hot surfaces. Let transformer cool completely before putting away.
- 7. Burns can occur while touching hot parts.
- 8. Never drop or insert any other object into the transformer or any other openings.
- **9.** Do not use outdoors or operate where aerosol products are being used, where oxygen is being administered, or in the presence of explosive and/or flammable fumes.
- 10. This appliance is intended for household and travel use only; it is not intended for commercial or industrial use.
- **11.** This transformer is intended for use with single phase alternating current (A.C.). Never plug the unit into a direct current (D.C.) outlet.

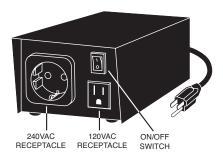


Figure 1 – front view

#### SPECIAL INSTRUCTIONS

#### **Input Power Source**

- 1. Caution—Use only with single phase 110-120VAC or 220-240VAC electrical power sources.
- **2.** Earthing—The output receptacles, transformer case, power cord and plug are grounded. Do not defeat the grounding system.

#### **Transformer Overload**

Voltage Valet Step Up/Step Down Transformers are equipped with a replaceable fuse to protect your appliance and the transformer from overload. To replace the fuse:

- Unplug the power cord and push the ON/OFF switch to the "OFF" position.
- 2. Unscrew the cap on the fuse holder.
- **3.** Remove the opened fuse and replace with a new fuse of the same rating (see chart). Replace the fuse cap.

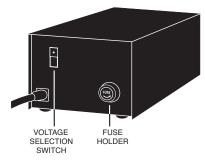


Figure 2 – rear view

#### Model TGC300

Maximum Load: 300 Watts Fuse Rating: 3A 250VAC Fuse Size: 5mm X 20mm

Fuse Type: Time Delay (SLO BLO)

#### Model TGC500

Maximum Load: 500 Watts Fuse Rating: 5A 250VAC Fuse Size: 5mm X 20mm

Fuse Type: Time Delay (SLO BLO)

#### Model TGC1000

Maximum Load: 1000 Watts Fuse Rating: 10A 250VAC Fuse Size: 5mm X 20mm

Fuse Type: Time Delay (SLO BLO)

#### Model TGC2000

Maximum Load: 2000 Watts Fuse Rating: 20A 250VAC Fuse Size: 5mm X 20mm Fuse Type: Time Delay (SLO BLO)

## **SAVE THESE INSTRUCTIONS**

#### To Move Transformer

- 1. Be sure the ON/OFF switch is in the "OFF" position and the power cord is disconnected. Allow transformer to cool.
- **2.** As transformer is heavy, use caution when moving. Be sure you have a secure grip on the transformer case or handle.

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