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› Simran THG-10000(T) 10000 Watt Voltage Transformer User Manual

Simran

Simran Voltage Transformer Power Converter THG-10000(T) User Manual

Model: THG-10000(T) | UPC: 810128011389

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Simran THG-10000(T) Voltage Transformer Power Converter. This heavy-duty, continuous-use transformer is designed to convert single-phase voltage between 110/120V and 220/240V, making it suitable for worldwide use. It has a maximum capacity of 10000 watts, including surge. Please read this manual thoroughly before use and retain it for future reference.

2. IMPORTANT SAFETY INFORMATION

Failure to follow these safety instructions may result in electric shock, fire, or serious injury.

- **Power Capacity:** Always ensure the total wattage of the appliance(s) connected to the transformer does not exceed the transformer's maximum capacity of 10000 watts.
- **Surge Margin:** When selecting a transformer, leave at least a 100-percent margin for power surges or spikes. For appliances with high inrush current (e.g., televisions, computer monitors), a margin of 3 times the appliance's capacity is recommended. For power tools, laser printers, and heating appliances (e.g., coffee makers, toasters, microwaves, halogen/fluorescent bulbs), a margin of 3-4 times the appliance's capacity is necessary.
- **Voltage Compatibility:** This transformer is designed for single-phase 110/120V and 220/240V systems. **It cannot be used with two-phase 220V America power.**
- **Frequency:** The transformer is compatible with both 50Hz and 60Hz frequencies. However, it does not convert frequency. Appliances designed for a specific frequency (e.g., 60Hz in North America, 50Hz in most of the rest of the world) may operate differently or be damaged if used on an incompatible frequency. Motors, in particular, can overheat.
- **Grounding:** Ensure proper grounding. The transformer comes with terminal connectors where the left knob is neutral and the right knob is live for both 110V and 220V. Consult a qualified electrician if you are unsure about grounding requirements in your specific setup.
- **Ventilation:** Do not block the ventilation openings on the transformer. Ensure adequate airflow around the unit to prevent overheating.
- **Environment:** Use the transformer in a dry, well-ventilated area. Avoid exposure to moisture, direct sunlight, or extreme

temperatures.

- **Handling:** The unit is heavy (approximately 75 pounds). Use the two heavy-duty carrying handles for transport. Exercise caution when moving.
- **Unplug When Not In Use:** Disconnect the transformer from the power source when not in use.

3. PACKAGE CONTENTS

Verify that all items are present and in good condition.

- Simran THG-10000(T) Voltage Transformer
- Power Cord (integrated)

4. PRODUCT OVERVIEW

Familiarize yourself with the components of your Simran Voltage Transformer.



Figure 4.1: Front Panel

This image displays the front of the Simran THG-10000(T) transformer. Visible are the "UP/DOWN AC CONVERTER" label, the "THG-10000" model number, and the "SIMRAN" brand logo. On the lower part of the panel, there are two sets of terminal connectors: two red knobs for 220V output and two black knobs for 110V output, with a double-headed arrow indicating bidirectional conversion.



Figure 4.2: Side Panel

This image shows the side panel of the Simran THG-10000(T) transformer. Prominently featured are the ventilation slots for heat dissipation. Below the slots, a "POWER ON" indicator light and a main power switch (labeled "ON" and "OFF") are visible. A "CE" certification mark is also present.

- **110V Output Terminals:** Black knobs for connecting 110/120V appliances.
- **220V Output Terminals:** Red knobs for connecting 220/240V appliances.
- **Power Switch:** Controls the main power to the unit.
- **Power Indicator:** Illuminates when the unit is powered on.
- **Ventilation Slots:** Essential for heat dissipation. Do not obstruct.
- **Carrying Handles:** Two heavy-duty handles for safe transport.

5. SETUP

1. **Placement:** Place the transformer on a stable, flat surface in a well-ventilated area. Ensure there is sufficient space around the unit for proper airflow.
2. **Initial Inspection:** Before connecting, inspect the transformer for any visible damage.
3. **Power Off:** Ensure the transformer's power switch is in the "OFF" position.
4. **Connect to Power Source:** Plug the transformer's integrated power cord into a suitable wall outlet.
 - If converting 110/120V to 220/240V (Step-Up), plug into a 110/120V outlet.
 - If converting 220/240V to 110/120V (Step-Down), plug into a 220/240V outlet.
5. **Connect Appliance:** Connect your appliance to the appropriate output terminals on the transformer.

- For 110/120V appliances, use the black 110V terminals.
- For 220/240V appliances, use the red 220V terminals.

Ensure connections are secure. The left knob is neutral and the right knob is live for both 110V and 220V.

6. OPERATING INSTRUCTIONS

The Simran THG-10000(T) transformer can operate in both step-up and step-down modes.

6.1. Step-Up Operation (110/120V to 220/240V)

1. Ensure the transformer is plugged into a 110/120V wall outlet.
2. Connect your 220/240V appliance to the red 220V output terminals.
3. Turn on the transformer's power switch. The power indicator light will illuminate.
4. Turn on your appliance.

6.2. Step-Down Operation (220/240V to 110/120V)

1. Ensure the transformer is plugged into a 220/240V wall outlet.
2. Connect your 110/120V appliance to the black 110V output terminals.
3. Turn on the transformer's power switch. The power indicator light will illuminate.
4. Turn on your appliance.

Important Note: This is an auto-transformer, meaning the primary and secondary coils are not isolated. When operating in step-down mode, it is crucial to ensure proper wiring and grounding to avoid potential hazards. If you are unsure, consult a qualified electrician.

7. MAINTENANCE

- **Cleaning:** Disconnect the transformer from the power source before cleaning. Use a dry, soft cloth to wipe the exterior. Do not use liquid cleaners or aerosols.
- **Ventilation:** Regularly check that the ventilation slots are clear of dust and debris.
- **Storage:** If storing the transformer for an extended period, ensure it is in a cool, dry place, away from direct sunlight and moisture.
- **Fuse Replacement:** The unit may contain an internal fuse for protection. If the unit stops functioning, and you suspect a blown fuse, contact qualified service personnel. Do not attempt to replace fuses yourself unless explicitly instructed and qualified.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Transformer does not power on.	No power from wall outlet. Power switch is off. Internal fuse blown.	Check wall outlet with another device. Ensure power switch is in the "ON" position. Contact customer support for fuse replacement or service.
Appliance does not work when connected.	Appliance not properly connected. Incorrect voltage output selected. Appliance wattage exceeds transformer capacity. Appliance is faulty.	Ensure appliance is securely connected to the correct terminals. Verify you are using the 110V terminals for 110V appliances or 220V terminals for 220V appliances. Check appliance wattage and ensure it is within the transformer's limits, considering surge margins. Test appliance directly in a compatible wall outlet if possible.
Transformer becomes excessively hot.	Overload (appliance wattage too high). Insufficient ventilation. Continuous heavy load.	Immediately disconnect the appliance and turn off the transformer. Allow it to cool. Re-evaluate appliance wattage. Ensure ventilation slots are clear and there is ample space around the unit. While designed for continuous use, prolonged operation at or near maximum capacity can generate heat. Consider a higher capacity transformer if this is a frequent issue.

9. SPECIFICATIONS

Feature	Detail
Model Number	THG-10000(T)
Brand	Simran
Manufacturer	VCT Electronics
Capacity	10000 Watts (Maximum, including surge)
Input Voltage	110/120V or 220/240V (Single Phase)
Output Voltage	110/120V or 220/240V (Single Phase)
Frequency Compatibility	50Hz / 60Hz
Dimensions (L x W x H)	15 x 10.5 x 10.5 inches
Item Weight	75 Pounds
Certification	CE Certified
Power Source	Corded Electric

Note: Specifications are subject to change without notice.

10. WARRANTY AND SUPPORT

For information regarding warranty coverage, technical support, or service, please contact Simran customer service directly or refer to the warranty card included with your purchase.

Manufacturer: VCT Electronics

