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OSRAM HTL 50-225VA

OSRAM Halotronic HTL 50-225VA Professional Electronic Transformer User Manual

Model: HTL 50-225VA

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1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the OSRAM Halotronic HTL 50-225VA Professional Electronic Transformer. This electronic transformer is designed for use with low-voltage halogen lamps, offering dimmable functionality with both leading and trailing edge phase control dimmers. Please read this manual thoroughly before installation and retain it for future reference.

2. SAFETY INFORMATION

WARNING: Risk of electric shock. Installation should only be performed by a qualified electrician in accordance with all local and national electrical codes.

- Disconnect power at the circuit breaker before installing or servicing the transformer.
- Ensure the transformer is installed in a well-ventilated area, away from flammable materials.
- Do not exceed the maximum load capacity of 225W.
- Do not connect more than 150W to any single output terminal.
- Ensure proper grounding as required by local codes.
- This transformer is designed for indoor use only.
- Do not immerse in water or expose to excessive moisture.
- Operating temperature range: -20°C to +50°C. Maximum casing temperature (t_c): 85°C.
- The transformer is suitable for emergency installation.

3. PRODUCT OVERVIEW

The OSRAM Halotronic HTL 50-225VA is a high-quality electronic transformer designed to provide stable low-voltage power for halogen lighting systems. It features a compact design and is compatible with dimmers for adjustable light

output.



Figure 1: OSRAM Halotronic HTL 50-225VA Professional Electronic Transformer. This image shows the top view of the transformer, highlighting its compact rectangular shape with rounded ends and the product label detailing specifications and wiring diagrams.

Key Features:

- Electronic transformer for low-voltage halogen lamps.
- Dimmable with leading and trailing edge phase control dimmers.
- Input Voltage: 230-240V AC, 50-60Hz.
- Output Voltage: 11.8V AC.

- Power Range: 50-225W.
- Multiple output terminals (up to 3), each supporting a maximum of 150W.
- Short-circuit and overload protection.
- Thermal protection.
- SELV (Safety Extra Low Voltage) compliant.

4. SETUP & INSTALLATION

Before beginning installation, ensure all power is disconnected at the main circuit breaker. Refer to the wiring diagram printed on the transformer casing for precise connections.

Installation Steps:

1. **Power Disconnection:** Turn off the main power supply to the circuit where the transformer will be installed. Verify with a voltage tester.
2. **Mounting:** Securely mount the transformer in a suitable location. Ensure adequate ventilation around the unit to prevent overheating. The transformer dimensions are approximately 6.69" x 1.73" x 1.34".
3. **Input Wiring (Primary Side):**
 - Connect the 230-240V AC mains supply (Live and Neutral) to the primary input terminals marked "PRI 230-240 V".
 - Ensure correct polarity and secure all connections.
 - The maximum input current is 1.0 A.
4. **Output Wiring (Secondary Side):**
 - Connect the low-voltage halogen lamps to the secondary output terminals marked "SEC 11.8 V".
 - The transformer has multiple output terminals. Each individual output terminal can support a maximum load of 150W.
 - The total combined load across all output terminals must not exceed 225W.
 - The maximum cable length from the transformer to the lamp should not exceed 2 meters to maintain optimal voltage.
 - Ensure all connections are tight and insulated.
5. **Dimmer Connection (Optional):** If using a dimmer, connect it on the primary (input) side of the transformer. This transformer is compatible with both leading and trailing edge phase control dimmers.
6. **Power Restoration:** Once all connections are secure and verified, restore power at the circuit breaker.
7. **Testing:** Test the lighting system to ensure proper operation and dimming functionality (if applicable).

Note: The product label on the transformer provides a detailed wiring diagram. Always refer to this diagram during installation.

5. OPERATION

The OSRAM Halotronic HTL 50-225VA transformer operates automatically once installed and powered. It converts the high input voltage to a stable 11.8V AC output suitable for low-voltage halogen lamps.

Dimming Functionality:

If connected to a compatible leading or trailing edge phase control dimmer, the light output of the connected halogen lamps can be adjusted by operating the dimmer switch. Ensure the dimmer's wattage rating is appropriate for the total

load of the lamps connected to the transformer.

6. MAINTENANCE

The OSRAM Halotronic HTL 50-225VA transformer is designed for long-term, maintenance-free operation. However, periodic checks can help ensure continued performance and safety.

- **Cleaning:** Ensure the transformer casing remains free from dust and debris to maintain proper heat dissipation. Disconnect power before cleaning. Use a dry, soft cloth.
- **Connection Checks:** Periodically inspect wiring connections for tightness and signs of wear or corrosion. Disconnect power before inspection.
- **Ventilation:** Ensure that the area around the transformer remains unobstructed to allow for adequate airflow.
- **Lamp Replacement:** When replacing halogen lamps, ensure they are of the correct voltage (12V) and that the total wattage does not exceed the transformer's maximum load of 225W, or 150W per output terminal.

7. TROUBLESHOOTING

If you experience issues with your OSRAM Halotronic HTL 50-225VA transformer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Lamps do not light up.	<ul style="list-style-type: none">◦ No power supply.◦ Loose wiring connections.◦ Faulty lamps.◦ Overload protection activated.◦ Short circuit.	<ul style="list-style-type: none">◦ Check circuit breaker and power switch.◦ Verify all input and output connections are secure.◦ Replace lamps with known good ones.◦ Reduce total wattage load to below 225W.◦ Inspect wiring for shorts; correct any issues.
Lamps flicker or dim inconsistently.	<ul style="list-style-type: none">◦ Incompatible dimmer.◦ Minimum load not met.◦ Loose connections.	<ul style="list-style-type: none">◦ Ensure dimmer is compatible (leading/trailing edge phase control).◦ Ensure total lamp wattage is at least 50W.◦ Check all wiring connections.
Transformer is hot to the touch.	<ul style="list-style-type: none">◦ Overload.◦ Insufficient ventilation.◦ Short circuit.	<ul style="list-style-type: none">◦ Reduce total wattage load.◦ Ensure adequate airflow around the transformer.◦ Check for short circuits in the wiring or lamps.
Lamps are not as bright as expected.	<ul style="list-style-type: none">◦ Voltage drop due to long cables.◦ Faulty lamps.◦ Under-rated transformer (unlikely for this model within specified range).	<ul style="list-style-type: none">◦ Ensure cable length from transformer to lamp does not exceed 2 meters.◦ Replace lamps.◦ Verify total wattage is within the 50-225W range.

If the problem persists after attempting these solutions, consult a qualified electrician or contact OSRAM customer support.

8. SPECIFICATIONS

Feature	Detail
Model Number	HTL 50-225VA (Part Number: HTL 225/230-240 UNV1 Osram)
Input Voltage	230-240V AC
Frequency	50-60 Hz
Output Voltage	11.8V AC
Rated Power (Output)	50-225W
Max. Load per Output Terminal	150W (for each of the 3 output terminals)
Dimmability	Yes, with leading and trailing edge phase control dimmers
Dimensions (L x W x H)	6.69 x 1.73 x 1.34 inches (170 x 44 x 34 mm)
Weight	7.7 ounces (approx. 218g)
Operating Temperature	-20°C to +50°C
Max. Casing Temperature (t _c)	85°C
Protection	Short-circuit, overload, thermal protection
Safety Standards	CE, EN 61347, EN 55015, SELV
Max. Secondary Cable Length	2 meters
Batteries Required	No

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official OSRAM website or contact your local OSRAM distributor. Keep your purchase receipt as proof of purchase.

OSRAM Official Website: www.osram.com

