

## Viefow 2304885

# Instruction Manual: 2304885 Thermocouple

For Dyna Glo & Thermoheat Forced Air LP Heaters

Brand: Viefow

## 1. INTRODUCTION

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This manual provides essential information regarding the Viefow 2304885 Thermocouple, a critical replacement component for various Dyna Glo and Thermoheat forced air LP heaters. The thermocouple is a safety device designed to detect the presence of a pilot flame or main burner flame. If the flame is not present, it signals the gas valve to shut off, preventing the release of uncombusted gas and ensuring safe operation of your heater. Regular maintenance and timely replacement of wear parts like the thermocouple are crucial for the longevity and safe performance of your heating appliance.

## 2. COMPATIBLE HEATER MODELS

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The 2304885 Thermocouple is compatible with a wide range of Dyna Glo, Thermoheat, and Dyna Glo Pro forced air LP heaters. Please verify your heater's model number against the list below to ensure compatibility.

### Dyna Glo, Thermoheat, and Dyna Glo Pro Models:

- FA40DGD, FA40DGP, FA40DGP-01
- FA50DGD, FA50DGP, FA50DGP-01
- FA60DGD, FA60DGP, FA60DGP-01
- FA100DGD, FA100DGP, FA100DGP-01
- FA125DGD, LPFA125DGD, FA125DGP, FA125DGP-01
- FA150DGD, FA150DGP, FA150DGP-01

### GHP Products (Heaters):

- RMC-FA50/C/L
- RMC-FA60/L/L-01
- RMC-FA100/C/L

- RMC-FA125/L/L-01

### 3. PRODUCT SPECIFICATIONS

Attribute	Detail
Part Number	2304885
Thermocouple Length	17 inches (43.18 cm)
Wire Length	4 inches (10.16 cm)
Type	Two-wire Thermocouple
Item Weight	0.317 ounces (9 grams)
Package Dimensions	5 x 3.03 x 0.28 inches (12.7 x 7.7 x 0.7 cm)

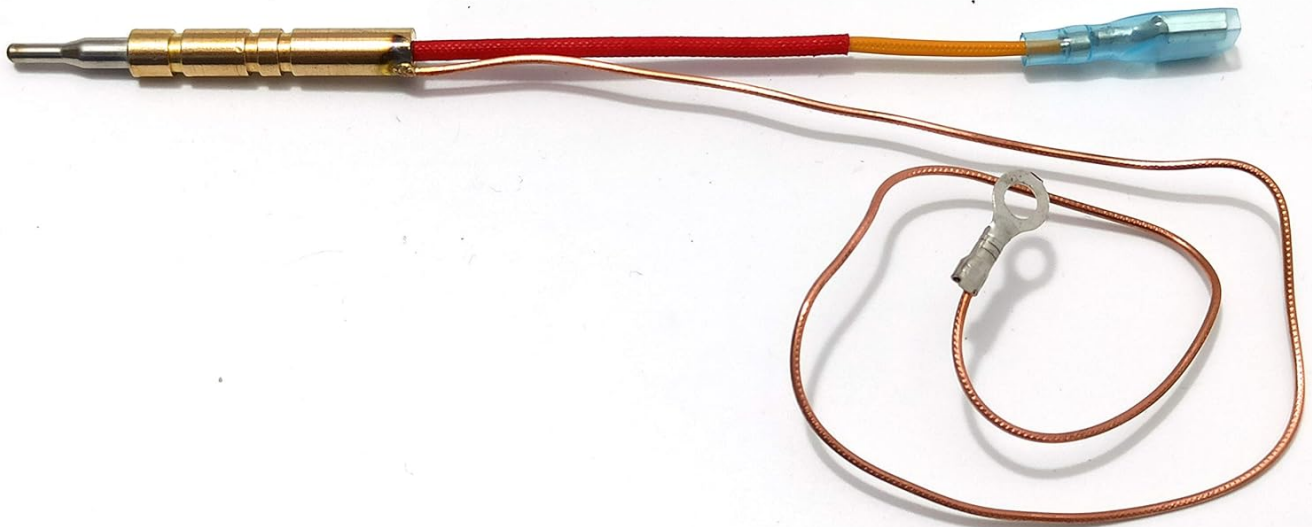


Figure 3.1: Overview of the 2304885 Thermocouple. This image displays the full length of the thermocouple, including the brass sensing tip, the insulated red and yellow wires leading to a blue connector, and the coiled copper ground wire terminating in a ring terminal.



Figure 3.2: Angled view of the 2304885 Thermocouple. This perspective provides a closer look at the connection points and the overall construction of the thermocouple, emphasizing the brass tip and the wiring.

## 4. INSTALLATION (SETUP)

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**WARNING: Always disconnect the heater from its power source and fuel supply before attempting any installation or maintenance. Gas appliances should only be serviced by qualified personnel if you are unsure about the procedure.**

Replacing a thermocouple can be a complex process depending on the specific heater model. It often involves disassembling parts of the heater to access the thermocouple's mounting location and connections. Refer to your heater's specific service manual for detailed, model-specific installation instructions.

### General Installation Steps (Consult Heater Manual for Details):

1. **Safety First:** Ensure the heater is completely cool, unplugged from electrical power, and disconnected from the LP gas supply.

2. **Locate the Thermocouple:** Identify the existing thermocouple, typically positioned near the pilot light or main burner flame.
3. **Disconnect Wiring:** Carefully disconnect the electrical connections of the old thermocouple. Note their positions for reinstallation.
4. **Remove Old Thermocouple:** Unscrew or unclip the old thermocouple from its mounting bracket.
5. **Install New Thermocouple:** Position the new 2304885 Thermocouple in the same location as the old one, ensuring the tip is correctly exposed to the flame. Secure it with its mounting hardware.
6. **Connect Wiring:** Reconnect the wires of the new thermocouple to the appropriate terminals. Ensure a secure connection. Pay attention to the wire length; some users have noted the 4-inch wire length can be tight for certain installations.
7. **Reassemble Heater:** Carefully reassemble any heater components that were removed during the process.
8. **Test Operation:** Reconnect the LP gas supply and electrical power. Follow your heater's instructions for lighting and testing to ensure the new thermocouple functions correctly and the heater stays lit.

If you encounter difficulties or are uncomfortable performing this replacement, it is highly recommended to seek assistance from a certified technician.

## 5. OPERATING PRINCIPLE

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The 2304885 Thermocouple operates on the principle of the Seebeck effect, generating a small electrical voltage when its tip is heated by a flame. This voltage signals the gas valve to remain open, allowing fuel to flow to the burner. If the flame extinguishes, the thermocouple cools down, the voltage drops, and the gas valve automatically closes, preventing gas leakage. This is a crucial safety feature in LP heaters.

## 6. MAINTENANCE

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Thermocouples are considered "wear parts" in heating systems. Over time, continuous exposure to high temperatures can degrade their performance, leading to intermittent heater operation or complete failure to stay lit. There is no routine maintenance required for the thermocouple itself beyond ensuring its tip is clean and free from debris that might obstruct flame contact.

**Replacement:** The primary maintenance action for a thermocouple is replacement when it fails. Symptoms of a failing thermocouple include:

- Heater lights but immediately shuts off when the ignition button/knob is released.
- Pilot light goes out frequently.
- Difficulty in keeping the main burner lit.

If you experience these issues, replacing the thermocouple with a compatible part like the Vieflow 2304885 is often the solution.

## 7. TROUBLESHOOTING

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If your heater is not functioning correctly after replacing the thermocouple, consider the following common

troubleshooting steps:

- **Incorrect Installation:** Double-check that the thermocouple tip is correctly positioned within the flame path and that all electrical connections are secure and properly seated.
- **Loose Connections:** Ensure all wiring, especially the ground wire, is tightly connected. A loose connection can prevent the thermocouple from generating sufficient voltage.
- **Obstructed Tip:** Verify that the thermocouple tip is clean and free from soot or debris, which can insulate it from the flame.
- **Gas Supply Issues:** Confirm that there is adequate LP gas supply and that the gas valve is fully open.
- **Other Component Failure:** While the thermocouple is a common failure point, other components like the gas valve, pilot assembly, or ignition system could also be faulty. If replacing the thermocouple does not resolve the issue, further diagnosis by a qualified technician may be necessary.

## 8. WARRANTY INFORMATION

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For specific warranty details regarding the Vieflow 2304885 Thermocouple, please refer to the warranty documentation provided with your purchase or contact the seller directly. Warranty terms typically cover manufacturing defects but may not cover damage due to improper installation or normal wear and tear.

## 9. CUSTOMER SUPPORT

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Should you require further assistance, have questions about installation, or need to report an issue with your Vieflow 2304885 Thermocouple, please contact the retailer or manufacturer's customer support. When contacting support, please have your purchase details and the product's part number (2304885) readily available.

For general inquiries about Vieflow products, you may visit the official Vieflow Store on Amazon:[Vieflow Store](#)