

DIMPLEX CUH05B31T

DIMPLEX CUH05B31T Compact Industrial Unit Heater Instruction Manual

Model: CUH05B31T

Brand: DIMPLEX

1. PRODUCT OVERVIEW

The DIMPLEX CUH05B31T is a compact industrial unit heater designed for efficient heating in various indoor environments such as workshops and garages. It features a robust construction with a stainless-steel sheathed heating element, adjustable louvers for precise airflow direction, and a built-in single-pole bulb thermostat for temperature regulation. The unit also incorporates a fan-delay function to utilize residual heat and a power interrupt thermal cut-out for overheat protection.



Figure 1: DIMPLEX CUH05B31T Compact Industrial Unit Heater with mounting bracket.

2. IMPORTANT SAFETY INFORMATION

Read all instructions carefully before installing or using this heater. Failure to follow these instructions may result in fire, electric shock, personal injury, or property damage. Retain this manual for future reference.

- **Electrical Installation:** All electrical wiring and connections must be performed by a qualified, licensed electrician in accordance with national and local electrical codes.
- **Power Supply:** Ensure the heater is connected to a dedicated 240V circuit with appropriate amperage (typically 40A) and wire gauge (4-8 AWG copper wire).
- **Grounding:** The heater must be properly grounded to prevent electrical shock.
- **Clearances:** Maintain adequate clearance from combustible materials (walls, furniture, curtains, etc.) as specified in the installation section.
- **Overheat Protection:** The unit is equipped with a power interrupt thermal cut-out that will automatically shut off the heater if it overheats. If this occurs, turn off the power, allow the unit to cool, and inspect for obstructions before restarting.
- **Location:** Do not install the heater in areas where gasoline, paint, or other flammable liquids are stored or used.
- **Moisture:** Do not expose the heater to water or excessive moisture. This unit is for indoor use only.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- DIMPLEX CUH05B31T Unit Heater
- Swivel Mounting Bracket
- Installation Hardware (lag bolts, nuts, washers)
- Power Cord (pigtail)
- Instruction Manual

4. INSTALLATION

4.1 Mounting the Heater

The DIMPLEX CUH05B31T can be mounted on a ceiling or wall using the included swivel bracket. Ensure the mounting surface is structurally sound and capable of supporting the heater's weight (13.2 lbs) plus any additional stress from operation.

1. Select a suitable mounting location, ensuring proper clearances from combustible materials (refer to safety guidelines).
2. Attach the swivel mounting bracket to the chosen surface using the provided lag bolts and appropriate tools. Ensure the bracket is securely fastened.
3. Align the heater with the bracket and secure it using the large knobs on the sides of the unit. These knobs allow for adjustment of the heater's angle.
4. Tighten the smaller knobs to fix the heater at the desired angle. The bracket offers multiple angle positions for optimal heat distribution.

4.2 Electrical Connection

WARNING: Electrical installation must be performed by a qualified, licensed electrician. Ensure power is disconnected at the main circuit breaker before proceeding.

1. Locate the electrical access panel on the side of the heater. Remove the retaining screw and open the panel.
2. Identify the knockout on the side of the heater's casing. Use appropriate tools to remove the knockout.
3. Install the provided grommet with integral strain relief into the knockout opening.
4. Feed the power cord (pigtail) through the strain relief.
5. Connect the wires to the terminal block inside the heater:
 - Connect the Black Wire to L1.
 - Connect the Red Wire to L2.
 - Connect the Green Wire to the Ground terminal.
6. Ensure all wire connections are secure and that no insulation is under the terminals.
7. Tighten the strain relief to prevent the power cord from pulling out or being damaged.
8. Close the electrical access panel and secure it with the retaining screw.

4.3 Adjusting Louvers

The heater features adjustable louvers on the front. These can be manually adjusted to direct the warm airflow to specific areas within your space. Gently move each louver to achieve the desired airflow pattern.

5. OPERATING INSTRUCTIONS

The DIMPLEX CUH05B31T is equipped with a built-in single-pole bulb thermostat for temperature control and a fan delay function.

1. **Power On:** Ensure the heater is properly installed and connected to the power supply. Locate the main power switch/button (typically a red indicator) on the unit and turn it ON.
2. **Set Temperature:** Use the built-in single-pole bulb thermostat to set your desired temperature. Rotate the thermostat dial to increase or decrease the temperature setting. The heater will operate until the set temperature is reached, then cycle on and off to maintain it.
3. **Fan Delay Function:** The fan delay function allows the fan to continue running for a short period after the heating element turns off. This utilizes residual heat, improving efficiency and ensuring all generated heat is distributed.
4. **Overheat Protection:** In the event of overheating, the power interrupt thermal cut-out will activate, shutting down the heater. If this occurs, turn off the heater, allow it to cool down, and check for any obstructions to airflow before restarting.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your heater. Always disconnect power before performing any maintenance.

- **Cleaning:** Periodically clean the exterior of the heater with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the air intake and exhaust areas are free from dust and debris.
- **Electrical Connections:** Annually, have a qualified electrician inspect all electrical connections for tightness and signs of wear or damage.
- **Louvers:** Ensure the adjustable louvers move freely and are not obstructed.

7. TROUBLESHOOTING

If your heater is not operating correctly, consult the following table for common issues and solutions. If the

problem persists, contact a qualified electrician or DIMPLEX customer support.

Problem	Possible Cause	Solution
Heater does not turn on.	No power supply.	Check circuit breaker and electrical connections. Ensure main power switch is ON.
Heater produces insufficient heat.	Thermostat set too low.	Increase thermostat setting.
	Obstruction to airflow.	Clear any obstructions from air intake or exhaust.
Heater shuts off unexpectedly.	Overheat protection activated.	Turn off heater, allow to cool, check for obstructions, then restart.
Fan not operating.	Fan delay in effect or motor issue.	Wait for fan delay cycle to complete. If still not working, contact service.

8. SPECIFICATIONS

Feature	Detail
Brand	DIMPLEX
Model Number	CUH05B31TG
Heat Output	3750/5000 Watts
Voltage	240 Volts (Recommended for 5000W operation)
Airflow Rate	200 CFM
Special Feature	Overheat Protection
Color	Gray
Form Factor	Wall or Ceiling Mountable
Indoor/Outdoor Usage	Indoor
Product Dimensions	9"D x 11"W x 9"H
Recommended Uses	Garage, Workshop
Mounting Type	Ceiling Mount, Wall Mount
Fuel Type	Electric
Item Weight	13.2 pounds
UPC	785934133801, 781052053441

9. WARRANTY AND SUPPORT

This DIMPLEX CUH05B31T Compact Industrial Unit Heater comes with a **1-year warranty on the complete unit** from the date of purchase. This warranty covers defects in materials and workmanship under normal use

and service.

For warranty claims, technical support, or service inquiries, please contact DIMPLEX customer support. Keep your proof of purchase for warranty validation.