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› AT12 - Universal Aftermarket Furnace Thermostat Adjustable Limit Switch User Manual

ClimaTek AT12

AT12 Universal Aftermarket Furnace Thermostat Adjustable Limit Switch User Manual

Brand: ClimaTek

Model: AT12

INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your ClimaTek AT12 Universal Aftermarket Furnace Thermostat Adjustable Limit Switch. Please read this manual thoroughly before attempting any installation or operation to ensure proper function and safety.

SAFETY INFORMATION

WARNING: Electrical shock hazard. Disconnect power before installation or servicing. Improper installation or maintenance can result in property damage, serious injury, or death.

- Always ensure power to the furnace or HVAC system is completely disconnected at the main breaker before beginning any work.
- Installation and servicing should only be performed by a qualified HVAC technician or licensed electrician.
- Wear appropriate personal protective equipment (PPE), such as insulated gloves and safety glasses.
- Verify all wiring connections are secure and correct according to the furnace manufacturer's specifications and local electrical codes.
- Do not operate the furnace if the limit switch is damaged or appears to be malfunctioning.

PRODUCT OVERVIEW

The ClimaTek AT12 is a universal aftermarket adjustable limit switch designed for use in furnace thermostat systems. It acts as a safety device, preventing the furnace from overheating by shutting off the heating element or burner when a set temperature limit is reached. This particular model is a high-quality replacement part.

Key Features:

- Universal aftermarket replacement part.
- Adjustable temperature limit between 135 and 170 degrees Fahrenheit.
- Designed for furnace thermostat applications.

Product Image:



An image showing the ClimaTek AT12 Universal Aftermarket Furnace Thermostat Adjustable Limit Switch, a compact black and silver disc-shaped component with electrical terminals and an adjustable dial.

SETUP AND INSTALLATION

The installation of a furnace limit switch involves working with electrical components and high temperatures. It is strongly recommended that installation be performed by a certified HVAC professional or licensed electrician to ensure safety and compliance with all applicable codes.

General Installation Steps (for qualified personnel only):

1. **Power Disconnection:** Turn off all power to the furnace at the main electrical panel. Verify power is off using a voltage tester.
2. **Locate Existing Switch:** Identify the current limit switch within your furnace. It is typically located near the heat exchanger or blower compartment.
3. **Disconnect Wiring:** Carefully disconnect the wires from the existing limit switch, noting their positions for correct re-connection. Take a photo if necessary.
4. **Remove Old Switch:** Unmount the old limit switch from its position.
5. **Mount New Switch:** Securely mount the ClimaTek AT12 limit switch in the same location as the old one. Ensure it is firmly attached.
6. **Connect Wiring:** Reconnect the wires to the new AT12 limit switch according to the furnace manufacturer's wiring diagram and your previous notes. Ensure all connections are tight and secure.
7. **Restore Power:** Once installation is complete and all connections are verified, restore power to the furnace.
8. **Test Operation:** Test the furnace operation to ensure the new limit switch functions correctly and the furnace cycles on and off as expected.

OPERATING INSTRUCTIONS

The ClimaTek AT12 limit switch is an automatic safety device. Once installed and properly adjusted, it operates without direct user intervention during normal furnace operation. Its primary function is to monitor and limit the internal temperature of the furnace.

Adjusting the Temperature Limit:

The AT12 switch allows for adjustment of its temperature activation point between 135 and 170 degrees Fahrenheit. This adjustment is typically made using a dial or screw on the switch itself. Refer to your furnace manufacturer's specifications for the recommended limit switch settings.

- **Power Off:** Always disconnect power to the furnace before attempting to adjust the limit switch.
- **Locate Adjustment Dial:** Identify the adjustment dial or screw on the AT12 switch.
- **Set Temperature:** Carefully turn the dial to the desired temperature setting within the 135-170°F range.

- **Restore Power and Test:** Restore power and monitor furnace operation to ensure the new setting is appropriate and the furnace cycles correctly.

Note: Incorrect adjustment can lead to furnace short-cycling or unsafe operating conditions. Consult a professional if unsure.

MAINTENANCE

The ClimaTek AT12 limit switch is designed for reliable operation and generally requires minimal maintenance. However, periodic inspection of your furnace system, including the limit switch, is recommended as part of routine HVAC maintenance.

- **Annual Inspection:** Have a qualified HVAC technician inspect your furnace annually. During this inspection, they should check the limit switch for proper operation, signs of wear, or corrosion.
- **Cleanliness:** Ensure the area around the limit switch is free from dust, debris, or obstructions that could affect its temperature sensing capabilities.
- **Wiring Integrity:** Periodically (during professional inspection) check that all wiring connections to the limit switch are secure and free from damage.

Do not attempt to disassemble or repair the limit switch yourself. If it is found to be faulty, it should be replaced by a qualified professional.

TROUBLESHOOTING

If your furnace is experiencing issues related to overheating or frequent cycling, the limit switch may be a contributing factor. Always consult a qualified HVAC technician for diagnosis and repair of furnace problems.

Symptom	Possible Cause (Limit Switch Related)	Recommended Action
Furnace cycles on and off too frequently (short-cycling)	Limit switch set too low, faulty limit switch, or restricted airflow.	Verify limit switch setting. Check air filter for cleanliness. Contact HVAC professional.
Furnace runs continuously without shutting off	Faulty limit switch (not opening circuit), or wiring issue.	Immediately shut off furnace power. Contact HVAC professional.
Furnace not heating, but blower runs	Limit switch tripped due to overheating, or faulty switch.	Check for airflow obstructions. Reset furnace (if applicable). If issue persists, contact HVAC professional.

Note: These are general troubleshooting tips. Many furnace issues can mimic limit switch problems. Always consult a professional for accurate diagnosis and repair.

SPECIFICATIONS

Attribute	Detail
Product Model	AT12
Brand	ClimaTek
Type	Universal Aftermarket Furnace Thermostat Adjustable Limit Switch
Adjustable Range	135 to 170 degrees Fahrenheit
Product Dimensions	8 x 6 x 1 inches
Item Weight	2 ounces

Attribute	Detail
Material	Copper
Manufacturer	Universal

WARRANTY AND SUPPORT

For specific warranty information regarding your ClimaTek AT12 Universal Aftermarket Furnace Thermostat Adjustable Limit Switch, please refer to the documentation provided with your purchase or contact the seller directly. As an aftermarket part, warranty terms may vary.

For technical support or assistance with installation and troubleshooting, it is highly recommended to contact a qualified HVAC professional or the original seller, North America HVAC, for expert guidance.

Brand Website: While specific product support may be through the seller, you can learn more about ClimaTek products at their Amazon store: [ClimaTek Amazon Store](#)

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