

12400035

Gas Oven Igniter Instruction Manual

Model: 12400035

1. PRODUCT OVERVIEW

This Gas Range Igniter, part number 12400035, is designed as a replacement for various oven igniters, including the Norton Ignitor Model 501A. It is specifically rated for use with Eaton NC4100 series valves and operates within a 3.2-3.6 Amps range. The rectangular ceramic portion of the igniter measures 1-1/2 inches in length.

Included Components:

- 1 Igniter
- 2 Ceramic Wire Nuts
- 1 Insulation Pad
- 2 Wire Assemblies
- 1 Metal Bracket (for replacing longer igniters with this shorter one)
- 4 Different Plug Ends
- Instruction Sheet (this manual)



Figure 1: Overview of the Gas Oven Igniter kit, showing the igniter unit, wire nuts, insulation pad, wire assemblies, metal bracket, and various plug ends.

2. SAFETY INFORMATION

WARNING: Before attempting any installation or maintenance, ensure the appliance is completely disconnected from its power source (unplugged or circuit breaker off) and the gas supply is shut off. Failure to do so can result in electric shock, gas leaks, fire, or serious injury.

- Always wear appropriate personal protective equipment, such as gloves and eye protection.
- If you are unsure about any step, consult a qualified appliance technician.
- Ensure proper ventilation when working with gas appliances.
- This igniter is designed for use with Eaton NC4100 series valves. Using it with incompatible systems may cause malfunction or hazards.

3. SETUP AND INSTALLATION

This section provides general guidance for replacing a gas oven igniter. Specific steps may vary depending on

your oven model. Refer to your appliance's service manual for detailed instructions.

Pre-Installation Steps:

1. **Disconnect Power and Gas:** Turn off the electrical power to the oven at the circuit breaker and shut off the gas supply valve.
2. **Access the Igniter:** Open the oven door and remove any racks. Depending on your oven, you may need to remove the oven floor panel or broiler drawer to access the igniter.
3. **Locate the Old Igniter:** The igniter is typically located near the burner tube.

Installation Steps:

1. **Disconnect Old Igniter:** Carefully disconnect the wires leading to the old igniter. Note their connection points. Remove any screws holding the old igniter in place.
2. **Prepare New Igniter:** If replacing a longer igniter, use the provided metal bracket to adapt the new, shorter igniter. Select the appropriate plug ends from the four provided to match your oven's wiring harness.
3. **Connect Wires:** Use the provided ceramic wire nuts to securely connect the new igniter's wires to the oven's wiring. Ensure connections are tight and insulated. The insulation pad can be used to protect connections if needed.
4. **Mount New Igniter:** Secure the new igniter in the same position as the old one using the original screws or new ones if provided. Ensure it is stable and correctly aligned with the burner tube.
5. **Reassemble Oven:** Replace any panels or racks that were removed.

4. OPERATING PRINCIPLES

The gas oven igniter is a safety device that heats up to a glowing temperature when the oven is turned on. This heat then causes the bimetal switch in the oven's gas valve to open, allowing gas to flow to the burner. Simultaneously, the hot igniter ignites the gas. This process ensures that gas only flows when there is a reliable ignition source, preventing unignited gas from accumulating.

After installation, when the oven is set to bake or broil, the igniter should begin to glow within a few seconds. Once sufficiently hot, the gas valve will open, and the burner will ignite. The igniter will typically remain on during the heating cycle to ensure continuous gas flow and reignition if necessary.

5. MAINTENANCE

The gas oven igniter is a durable component, but regular maintenance of your oven can help prolong its lifespan and ensure efficient operation.

- **Keep Oven Clean:** Regularly clean the oven interior to prevent grease and food debris buildup, which can interfere with burner and igniter operation.
- **Inspect Periodically:** During routine oven cleaning or other maintenance, visually inspect the igniter for any signs of damage, cracks, or excessive carbon buildup. A healthy igniter should glow brightly and evenly.
- **Avoid Physical Damage:** Be careful not to strike or damage the igniter during cleaning or when placing/removing oven racks.

6. TROUBLESHOOTING

If your oven is not heating correctly after igniter replacement, consider the following common issues:

Symptom	Possible Cause	Solution
Oven not heating at all.	No power to the oven; gas supply off; igniter not glowing.	Check circuit breaker and gas supply valve. Verify igniter glows when oven is set to bake. If not, recheck wiring connections.
Igniter glows, but gas does not ignite.	Igniter not hot enough to open gas valve; gas valve malfunction; burner orifice clogged.	Ensure igniter glows brightly for at least 30-60 seconds. If it glows dimly, it may be faulty. Check for gas flow to the burner. Clean burner orifices if necessary.
Slow ignition or delayed ignition.	Weak igniter; partial gas flow restriction.	The igniter may be weakening and drawing insufficient current. While it still glows, it might not be hot enough to open the gas valve quickly. Consider replacement if symptoms persist.
Burning smell after installation.	Residual manufacturing oils burning off; gas leak.	A slight burning smell is normal for the first few uses as manufacturing oils burn off. If the smell is strong, like rotten eggs, immediately shut off gas and power, ventilate the area, and contact a professional.

If troubleshooting steps do not resolve the issue, it is recommended to contact a qualified appliance repair technician.

7. SPECIFICATIONS

- **Part Number:** 12400035
- **Replaces:** Norton Ignitor Model 501A, and others (e.g., 7432P067-60)
- **Compatibility:** Designed for Eaton NC4100 series valves
- **Amperage Rating:** 3.2 - 3.6 Amps
- **Ceramic Part Length:** 1-1/2 inches
- **Power Source:** AC
- **Included Components:** Igniter, Ceramic Wire Nuts, Insulation Pad, Wire Assemblies, Metal Bracket, Plug Ends

8. WARRANTY AND SUPPORT

Specific warranty information for this product is not provided in this manual. Please refer to the original purchase documentation or contact the seller directly for details regarding warranty coverage and support.

For technical assistance or further inquiries, please reach out to the seller or a certified appliance repair professional.

