Kenmore Norton-501A

Kenmore Gas Oven Range Ignitor (Norton-501A) Instruction Manual

Model: Norton-501A | Part Number: 41-205

1. Introduction

This manual provides detailed instructions for the safe and effective installation, operation, and maintenance of your Kenmore Gas Oven Range Ignitor, model Norton-501A. This ignitor is designed as a universal replacement part for various gas oven and range models, including those from GE, Hotpoint, Whirlpool, Frigidaire, Gibson, Tappan, Magic Chef, Maytag, and Roper. Please read all instructions carefully before proceeding with installation or use.

2. Product Overview

The Norton-501A ignitor (Part Number 41-205) is a critical component in gas ovens and ranges, responsible for igniting the gas supplied to the burner. It features a ceramic bar measuring 1.5 inches in length, designed to replace other ignitors of the same dimension. The package includes the ignitor, ceramic wire nuts for electrical connections, and a metal shield.

Figure 1: Kenmore Gas Oven Range Ignitor, model Norton-501A. This image displays the ignitor with its metallic housing, ceramic heating element, electrical wires, and two white ceramic wire nuts for secure connections.

3. Safety Information

WARNING: Risk of electric shock, gas leak, or fire. Always disconnect power and gas supply before servicing. Installation should only be performed by qualified individuals. Failure to follow these instructions can result in serious injury or property damage.

- Always disconnect the appliance from the electrical power supply before beginning any work.
- Turn off the gas supply to the appliance.
- Wear appropriate personal protective equipment, including gloves and eye protection.
- Ensure the work area is well-ventilated.
- Never bypass safety devices.
- If you are unsure about any step, consult a qualified appliance technician.

4. Installation

This ignitor is a universal fit, meaning it may require splicing into your existing wiring. The included ceramic wire nuts are essential for making these connections.

4.1. Pre-Installation Steps

1. **Disconnect Power and Gas:** Ensure both the electrical power and gas supply to the oven are completely disconnected.
2. **Access the Ignitor:** Depending on your oven model, you may need to remove the oven racks, bottom panel, and/or burner assembly to access the existing ignitor. Refer to your oven's specific service manual for detailed access instructions.
3. **Document Wiring:** Take clear photos or make a diagram of the existing ignitor's wiring connections before disconnecting anything.
4. **Remove Old Ignitor:** Carefully unmount and disconnect the old ignitor. Note its mounting position and orientation.

4.2. Ignitor Replacement

1. **Prepare Wires:** If the new ignitor's wires do not have the correct connector for your oven, you will need to cut the old ignitor's connector (if reusable) or prepare the oven's existing wires for splicing. Strip approximately 1/2 inch of insulation from the ends of the wires.
2. **Connect New Ignitor:** Using the provided ceramic wire nuts, securely connect the wires from the new Norton-501A ignitor to the oven's wiring. Ensure a tight, secure connection. Ceramic wire nuts are designed to withstand high temperatures.
3. **Mount Ignitor:** Mount the new ignitor in the same position and orientation as the old one. Ensure it is securely fastened and does not touch any other components. The metal shield should be positioned correctly around the ignitor.
4. **Route Wires:** Route the wires away from direct heat sources and moving parts. Ensure there is no strain on the connections.
5. **Reassemble Oven:** Reinstall any panels, burner assemblies, or racks that were removed.

4.3. Post-Installation Check

1. **Restore Gas and Power:** Slowly turn on the gas supply and then restore electrical power to the oven.
2. **Check for Leaks:** Perform a gas leak test around all connections using a soapy water solution. Bubbles indicate a leak. If a leak is detected, immediately turn off the gas and power, and rectify the connection.
3. **Test Operation:** Set the oven to bake at a moderate temperature (e.g., 350°F / 175°C). Observe the ignitor. It should glow brightly within 30-60 seconds, followed by the ignition of the gas burner.

5. Operating Instructions

Once installed, the Norton-501A ignitor operates automatically as part of your oven's ignition system. When the oven is set to a temperature, the control board sends power to the ignitor. The ignitor heats up, drawing current, which then signals the gas valve to open. The hot ignitor then ignites the gas. This process is continuous throughout the baking cycle to maintain the set temperature.

6. Maintenance

The Norton-501A ignitor is a wear item and does not require routine maintenance. However, periodic inspection is recommended:

- **Visual Inspection:** Annually, with the power and gas disconnected, visually inspect the ignitor for any signs of cracking, discoloration, or damage to the ceramic element or wires.
- **Performance Check:** If the oven takes longer than usual to ignite or fails to ignite consistently, the ignitor may be weakening and require replacement.

7. Troubleshooting

If your oven is experiencing issues related to ignition, consider the following:

Problem	Possible Cause	Solution
Oven does not light, ignitor does not glow.	Faulty ignitor, no power to ignitor, faulty oven control board.	Check ignitor resistance (should be around 135 ohms). Ensure power supply. Inspect wiring connections. Replace ignitor if faulty.
Oven takes a long time to light, ignitor glows but gas does not ignite quickly.	Weak ignitor (not drawing enough current to open gas valve).	Replace ignitor. Even if it glows, it might not be hot enough or drawing sufficient current.
Oven lights, but then goes out.	Weak ignitor, faulty gas valve, or issues with flame sensor.	Replace ignitor. If problem persists, consult a technician for gas valve or sensor inspection.
Burning smell after installation.	Loose wire nut connection, wires touching hot surfaces.	Immediately disconnect power and gas. Inspect all wire connections and routing. Ensure wire nuts are secure and wires are clear of heat.

For complex issues or if troubleshooting steps do not resolve the problem, it is recommended to contact a certified appliance repair technician.

8. Specifications

- **Model:** Norton-501A
- **Part Number:** 41-205
- **Ceramic Bar Length:** 1.5 inches
- **Compatibility:** Universal fit for various gas oven and range models (e.g., GE, Hotpoint, Whirlpool, Frigidaire, Gibson, Tappan, Magic Chef, Maytag, Roper, Kenmore).
- **Included Components:** Ignitor, ceramic wire nuts, metal shield.
- **Approximate Item Weight:** 5 ounces
- **Manufacturer:** Supco (as per product data)

9. Warranty and Support

This product is an aftermarket replacement part. Specific warranty information may vary depending on the retailer or manufacturer. Please retain your proof of purchase for any warranty claims. For technical support or further assistance, refer to the contact information provided by your original point of purchase or the manufacturer, Supco.