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## quakadjs 802089

# User Manual: 4075-029 Gas Solenoid Valve

Model: 802089 | Brand: quakadjs

## PRODUCT OVERVIEW

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The quakadjs 4075-029 Gas Solenoid Valve is a commercial-grade component designed for use in ovens, griddles, and fryers. This normally closed solenoid valve is compatible with both natural gas and LP gas systems and features AC rectification for silent operation. It is engineered to provide reliable gas flow control in various commercial cooking applications.



Figure 1: Front view of the 4075-029 Gas Solenoid Valve, showing the main body, solenoid coil, and electrical terminals.

This valve is a direct replacement for numerous part numbers across various brands, ensuring broad compatibility for maintenance and repair needs in commercial kitchens.

## SPECIFICATIONS

<b>Attribute</b>	<b>Detail</b>
Part Number	4075-029
Model Number	802089
Brand	quakadjs
Material	Metal
Valve Type	Solenoid Valve (Normally Closed)
Pipe Inlet and Outlet	3/8"
Coil Voltage	110/120 Volt
Coil Wattage	5 Watt
Current Rating	10 Amp
BTU Capacity	119,000 BTU
Max Operating Pressure	0.5 PSI
Gas Compatibility	Natural Gas or LP Gas
Included Components	2 - 1/8" plugs
Dimensions (L x W x H)	Approx. 1 x 1 inches (refer to images for scale)
Item Weight	1 pound



Figure 2: Top view of the solenoid valve, illustrating its compact size relative to a standard ruler.

## INSTALLATION AND SETUP

**Important Safety Information:** Installation of gas components should only be performed by qualified and licensed professionals. Ensure all gas and electrical supplies to the appliance are turned off before beginning any installation or maintenance work. Failure to follow these instructions can result in property damage, serious injury, or death.

### 1. Preparation:

- Verify that the new solenoid valve (Part Number 4075-029) matches the specifications and requirements of your appliance.
- Ensure the appliance is completely disconnected from its gas supply and electrical power source.
- Have appropriate tools ready, including wrenches for gas fittings and electrical tools for wiring.

### 2. Removal of Old Valve:

- Carefully disconnect the electrical wiring from the existing solenoid valve. Note the wiring configuration for reinstallation.
- Using appropriate wrenches, loosen and remove the gas lines connected to the inlet and outlet of the old valve. Be prepared for any residual gas in the lines.
- Remove any mounting hardware securing the old valve and carefully extract it from the appliance.

### **3. Installation of New Valve:**

- Apply a suitable pipe thread sealant (compatible with gas) to the male threads of the gas lines before connecting them to the new valve.
- Connect the gas inlet and outlet lines to the 3/8" pipe connections on the new 4075-029 valve. Ensure connections are tight but do not overtighten. The valve has an arrow indicating gas flow direction.
- Secure the valve using appropriate mounting hardware if applicable.
- Connect the 110/120 Volt electrical wiring to the terminals on the solenoid coil. Ensure correct polarity if specified by the appliance manufacturer.
- If applicable, install the two 1/8" plugs into the designated pilot outlet ports if they are not being used.

### **4. Leak Testing:**

- Once all connections are made, slowly turn on the main gas supply to the appliance.
- Apply a leak detection solution (e.g., soapy water) to all gas connections. Bubbles indicate a leak.
- If a leak is detected, turn off the gas supply immediately, tighten the connection, and re-test. Repeat until no leaks are present.

### **5. Electrical Check:**

- Restore electrical power to the appliance.
- Test the appliance's operation to ensure the solenoid valve functions correctly, allowing gas flow when energized and stopping flow when de-energized.



Figure 3: Side view of the valve, highlighting the electrical connections and the main gas ports.

## OPERATING PRINCIPLES

The 4075-029 is a normally closed (NC) solenoid valve. This means that when no electrical current is applied to the coil, the valve remains in a closed position, preventing gas flow. When the 110/120 Volt AC power is supplied to the coil, it creates an electromagnetic field that pulls the plunger, opening the valve and allowing gas

to flow through. Upon removal of the electrical power, the electromagnetic field collapses, and a spring returns the plunger to its closed position, shutting off the gas supply.

The AC rectification feature ensures quiet operation, minimizing humming or buzzing sounds often associated with AC solenoids.





Figure 4: Bottom view of the valve, showing the main gas inlet/outlet port and a visible internal filter screen.

## MAINTENANCE

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The 4075-029 Gas Solenoid Valve is designed for durability and minimal maintenance. However, periodic checks are recommended to ensure optimal performance and safety:

- **Visual Inspection:** Regularly inspect the valve and its connections for any signs of wear, corrosion, or damage. Check for any visible gas leaks (e.g., discolored areas, strong gas odor).
- **Leak Checks:** Periodically perform a leak detection test on all gas connections using a suitable leak detection solution.
- **Electrical Connections:** Ensure electrical terminals are clean, secure, and free from corrosion. Loose connections can lead to intermittent operation or overheating.
- **Cleaning:** Keep the exterior of the valve clean and free from grease or debris. Do not use harsh chemicals that could damage the valve's components.

Any internal maintenance or repair should only be performed by a qualified technician. Do not attempt to disassemble the valve unless specifically instructed by the manufacturer or a qualified professional.

## TROUBLESHOOTING

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This section provides general troubleshooting guidance. For complex issues, consult a qualified technician.

Problem	Possible Cause	Solution
Valve does not open (no gas flow)	<ul style="list-style-type: none"> <li>• No electrical power to coil</li> <li>• Incorrect voltage</li> <li>• Faulty coil</li> <li>• Valve stuck closed</li> </ul>	<ul style="list-style-type: none"> <li>• Check electrical connections and power supply.</li> <li>• Verify correct 110/120V AC supply.</li> <li>• Test coil resistance with a multimeter; replace if open or shorted.</li> <li>• Valve may need replacement if stuck.</li> </ul>
Valve does not close (gas continues to flow)	<ul style="list-style-type: none"> <li>• Coil remains energized</li> <li>• Debris preventing closure</li> <li>• Damaged internal components</li> </ul>	<ul style="list-style-type: none"> <li>• Check electrical control circuit; ensure power is removed from coil when off.</li> <li>• Valve may be fouled; replacement usually required.</li> <li>• Valve needs replacement.</li> </ul>
Gas Leak at connections	<ul style="list-style-type: none"> <li>• Loose fittings</li> <li>• Improper thread sealant</li> <li>• Damaged threads</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten connections (do not overtighten).</li> <li>• Reapply appropriate gas-rated thread sealant.</li> <li>• Inspect threads for damage; replace components if necessary.</li> </ul>
Valve is noisy (humming/buzzing)	<ul style="list-style-type: none"> <li>• Voltage fluctuations</li> <li>• Minor internal vibration</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure stable power supply.</li> <li>• Minor noise is normal for some AC solenoids, but this model features AC rectification for silent operation. If noise is significant, inspect for loose mounting or internal issues.</li> </ul>

**Note:** Always turn off gas and electrical supply before attempting any troubleshooting or repair.



Figure 5: The solenoid valve as packaged, displaying key product information on the box.

## REPLACEMENT PART NUMBERS

The 4075-029 Gas Solenoid Valve is compatible with or replaces the following part numbers from various manufacturers:

- 513 Imper
- 0513 Imperial
- 5 American Range
- 70085 Wolf
- 340267 Tri-Star
- 770085 ITW
- 802089 Wolf
- 804402 Wolf
- 951516 Allpoints
- 1027300 Garland
- 1446401 Garland
- 1952211 Toastmaster
- 8523378 Whirlpool
- 8523689 Whirlpool
- 2392207700 Bradford White
- 00-411497-F1 Vulcan

- 111497-F1 Vulcan
- 146-1005T FMP
- 20608-11 Vulcan
- 233-37788-00D Bradford White
- 348047-1 Vulcan
- 4075-008 Robertshaw
- 4075-012 Robertshaw
- 4075-02J Robertshaw
- 4075-044 Robertshaw
- 4077-029 Robertshaw
- 411497000F1 ITW
- 411497-1 ITW
- 411497-F1 ITW
- 513-1 Imperial
- 624624-0 Nordyne
- 770085-2 ITW
- 770085-3 ITW
- 920608-11 Vulcan
- A80101 American Range
- C-227 CCC
- FJ080000000 Robertshaw
- FJ120000000 Robertshaw
- FJ130000000 Robertshaw
- FJ290000000 Robertshaw
- FJ410000000 Garland
- FJ440000000 Robertshaw
- FJ520000000 Robertshaw
- FJ530000000 ITW
- FJ620000000 Garland
- FJ650244000 Garland
- FJ671202000 Bradford White
- FJ700244000 Nordyne
- FJ701204000 American Range
- FJ770242000 Bradford White
- FJT-02 Viking
- FJT-04 Imperial
- FJT-08 Wolf
- FJT-09 DCS
- FJT-10 Wolf
- FJT-101-1040 Imperial
- FJT-101-2441 Viking
- FJT-102-1040 Robertshaw
- FJT-102-1040 Robertshaw

- FJT-12 Whirlpool
- FJT-14 American Range
- FJT-15 Robertshaw
- FJT-20 ITW
- FJT-21 Pitco
- FJT-31 Garland
- FJT-34 Whirlpool
- FJT-37 Cecilware
- FJT-40 Robertshaw
- FJT-41 Robertshaw
- FJT-42 Garland
- FJT-45 ITW
- FJT-48 Robertshaw
- FJT-49 Nordyne
- FJT-52 Robertshaw
- FJT-54 ITW
- FJT-55 Wolf
- FJT-58 Toastmaster
- FJT-59 Tri-Star
- FJT-69 Robertshaw
- FJT-74 Robertshaw
- FJT-75 Robertshaw
- FJT-76 Robertshaw
- FJT-77 Robertshaw
- FJT-78 ITW
- FJT-81 Robertshaw
- FJT-82 Garland
- G02965-1 Garland
- NCX1-2002-1 EATON
- PA010139 Viking

## WARRANTY AND SUPPORT

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For information regarding warranty coverage for the quakadjs 4075-029 Gas Solenoid Valve, please refer to the documentation provided with your purchase or contact the seller directly. As a replacement part, warranty terms may vary depending on the distributor or original equipment manufacturer.

For technical support or further assistance with installation and troubleshooting, it is recommended to consult a qualified and licensed HVAC or commercial kitchen appliance technician. Always prioritize safety when working with gas and electrical systems.

For general inquiries about quakadjs products, please refer to the brand's official channels or the retailer from whom the product was purchased.

