

Taco 006-B4

Taco 006-B4 Bronze Circulator Pump 3/4-Inch Sweat User Manual

Model: 006-B4

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Taco 006-B4 Bronze Circulator Pump. The Taco 006-B4 is designed for circulating hot or chilled fresh water in various open or closed loop applications, including hydronic heating, domestic hot water recirculation, hydro-air heating/cooling, heat recovery units, water source heat pumps, drain-down open loop solar systems, and potable water applications. Please read this manual thoroughly before installation and operation.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions could result in serious injury or property damage.

- Always disconnect power before servicing the pump.
- Installation and servicing should only be performed by qualified personnel.
- Ensure all electrical connections comply with local codes and regulations.
- Do not operate the pump without water flowing through it, as this can cause damage.
- The pump operates at 115 Volts. Exercise caution to prevent electrical shock.
- The pump can become hot during operation. Avoid direct contact with the pump housing.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.

3. PRODUCT OVERVIEW

The Taco 006-B4 is a compact and efficient bronze circulator pump designed for reliable performance in various water circulation systems. Its unique design features a replaceable cartridge containing all moving parts, simplifying service and extending product life.

Key Features:

- Bronze construction for corrosion resistance.
- Standard high capacity output with a compact design.
- Quiet and efficient operation.
- Direct drive motor with low power consumption (0.025 HP).
- Unique replaceable cartridge design for easy field service.
- Self-lubricating, requiring no mechanical seal and minimal maintenance.
- Suitable for potable water applications.



Figure 1: Taco 006-B4 Bronze Circulator Pump. This image shows the compact design of the circulator pump with its bronze housing and electrical connection box.

4. SETUP AND INSTALLATION

Proper installation is crucial for the optimal performance and longevity of your circulator pump. It is highly recommended that installation be performed by a qualified plumber or HVAC technician.

4.1 Pre-Installation Checks

- Verify that the pump model (006-B4) is suitable for your application.
- Ensure the power supply matches the pump's requirements (115 Volts AC/DC).
- Confirm that the piping system is clean and free of debris.
- Have all necessary tools and materials, including appropriate fittings for 3/4-inch sweat connections.

4.2 Mounting and Piping

1. Choose a location that allows for easy access for future servicing and provides adequate ventilation.
2. Mount the pump securely in the piping system. The pump is designed for 3/4-inch sweat connections. Ensure proper soldering techniques are used to prevent leaks.
3. Ensure the pump is installed with the motor shaft in a horizontal position to ensure proper lubrication and operation.
4. Install isolation valves on both sides of the pump to facilitate future maintenance without draining the entire system.
5. Fill the system with water and purge all air before operating the pump.

4.3 Electrical Connections

- Ensure the main power supply is OFF before making any electrical connections.
- Connect the pump to a dedicated 115 Volt AC/DC circuit, protected by a fuse or circuit breaker as required by local electrical codes.
- Follow the wiring diagram provided with the pump or consult a qualified electrician.
- Ensure all connections are tight and secure.

5. OPERATION

5.1 Initial Start-up

1. After installation and filling the system, ensure all air has been purged from the piping.
2. Restore power to the pump. The pump should start operating quietly.
3. Check for any leaks around the connections.
4. Monitor the system for proper circulation and temperature distribution.

5.2 Normal Operation

- The Taco 006-B4 operates with a flow range of 0-10 GPM and a head range of 0-9 feet.
- It is designed to handle fluid temperatures between 40°F (4°C) and 220°F (104°C).
- The maximum working pressure for this pump is 125 psi.
- The pump's 0.025 horsepower motor ensures efficient circulation with low power consumption.
- The pump is self-lubricating and does not require external lubrication.

6. MAINTENANCE

The Taco 006-B4 circulator pump is designed for maintenance-free operation due to its self-lubricating properties and unique replaceable cartridge design.

6.1 Routine Checks

- Periodically inspect the pump and piping for any signs of leaks.
- Listen for any unusual noises during operation, which could indicate a problem.
- Ensure the pump is not running dry. Operating the pump without water will cause damage and is not covered under warranty. If the water supply to the house is turned off, ensure the pump is also unplugged or powered down.

6.2 Cartridge Replacement

The unique replaceable cartridge contains all the moving parts of the circulator. If the pump requires service beyond simple checks, the cartridge can be replaced, effectively renewing the pump's internal components. Refer to the specific cartridge replacement instructions provided by Taco or consult a qualified technician.

1. **WARNING:** Disconnect all power to the pump before attempting any service.
2. Close the isolation valves on both sides of the pump.
3. Drain the water from the pump section.
4. Follow the manufacturer's instructions for removing and replacing the cartridge assembly.
5. After replacement, reopen isolation valves, refill the system, purge air, and restore power.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your Taco 006-B4 circulator pump. For problems not listed here, or if solutions do not resolve the issue, contact a qualified technician.

Problem	Possible Cause	Solution
Pump does not run	No power; tripped circuit breaker; faulty wiring; seized motor.	Check power supply and circuit breaker. Verify wiring connections. If motor is seized, consider cartridge replacement or professional service.
Pump runs but no circulation	Air in system; closed isolation valves; clogged impeller; incorrect rotation.	Purge air from the system. Ensure isolation valves are fully open. Inspect impeller for obstructions (requires professional service). Verify correct motor rotation if applicable.
Unusual noise or vibration	Air in system; cavitation; worn bearings (in cartridge); debris in pump.	Purge air from the system. Ensure adequate water flow to prevent cavitation. If noise persists, consider cartridge replacement.
Pump is hot to the touch	Normal operation; running dry; restricted flow; motor overload.	Some heat is normal. Ensure pump is not running dry. Check for restricted flow in piping. If excessively hot, disconnect power and seek professional advice.
Leaks at connections	Improperly sealed connections; damaged fittings.	Tighten connections. If leaks persist, drain system and re-seal or replace fittings.

8. SPECIFICATIONS

Model Number	006-B4
Connection Size	3/4-Inch Sweat
Material	Bronze (Housing), Cast Iron (Motor Casing)
Flow Range	0-10 GPM (Gallons Per Minute)
Head Range	0-9 Feet
Minimum Fluid Temperature	40°F (4°C)
Maximum Fluid Temperature	220°F (104°C)
Maximum Working Pressure	125 psi
Voltage	115 Volts
Power Source	AC/DC
Motor Horsepower	0.025 HP (1/40 HP)
Item Weight	4.41 pounds (2 kg)
Product Dimensions	5 x 4 x 7 inches (12.7 x 10.2 x 17.8 cm)

9. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product packaging or visit the official Taco website. If you require technical support, have questions about installation, or need assistance with troubleshooting, please contact Taco customer service or your authorized dealer.

Manufacturer: Taco, Inc.

Website: www.tacomfort.com