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> A. O. Smith Century Electric B852 3/4-Horsepower Pool Pump Motor Instruction Manual

## A. O. Smith B-852

# A. O. Smith Century Electric B852 3/4-Horsepower Pool Pump Motor Instruction Manual

Model: B-852 | Part Number: B2852(C)

## 1. INTRODUCTION

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This manual provides comprehensive instructions for the installation, operation, and maintenance of your A. O. Smith Century Electric B852 3/4-Horsepower Square Flange Replacement Motor. Designed for swimming pool pumps, this motor offers reliable and efficient performance. Please read this manual thoroughly before installation and operation to ensure safe and correct usage.

## 2. SAFETY INFORMATION

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**WARNING:** Electrical installation and service should only be performed by a qualified electrician or licensed pool professional. Failure to do so may result in serious injury or death.

- Always disconnect power to the pump motor at the main circuit breaker before attempting any installation, service, or maintenance.
- Ensure proper grounding to prevent electrical shock.
- Do not operate the pump if any parts are damaged or missing.
- Keep children and pets away from the pool equipment area.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.

## 3. PRODUCT FEATURES

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The A. O. Smith Century Electric B852 motor is engineered with the following key features:

- High-quality, super efficient replacement motor
- Corrosion-resistant outer shell for extended durability in humid and chemically treated environments
- Square flange design for straightforward installation and compatibility with various pump housings
- Easy wiring access to simplify the setup process
- Operates on both 115 and 230-Volt power supplies

- Features the big barrel Centurion-Style 56Y-Frame
- Compatible with Sta-Rite Dura-Glas, Dura-Glas II, Max-E-Glas, Max-E-Glas II, Dyna-Glas, and Max-E-Pro pumps, Hayward Max-Flow II pumps, and Pentair Whisper-Flo, Challenger, and Ultra-Flow pumps.

## 4. SPECIFICATIONS

<b>Brand</b>	A. O. Smith
<b>Model</b>	B-852
<b>Part Number</b>	B2852(C)
<b>Horsepower</b>	0.75 HP
<b>Frame Type</b>	56Y-Frame (Centurion-Style)
<b>Flange Type</b>	Square Flange
<b>Voltage Compatibility</b>	115V / 230V
<b>Material</b>	Copper (internal windings)
<b>Item Weight</b>	0.01 Ounces <i>(Note: This weight may be a data entry error and is unusually low for a motor.)</i>
<b>Number of Items</b>	1

## 5. SETUP AND INSTALLATION

This section outlines the general steps for replacing your pool pump motor. It is highly recommended that installation be performed by a qualified professional due to the electrical nature of the task.

1. **Disconnect Power:** Turn off all power to the pool pump at the main circuit breaker. Verify power is off using a voltage tester.
2. **Drain Pump:** If necessary, drain the pump housing to prevent water spillage during motor removal.
3. **Disconnect Wiring:** Access the motor's wiring compartment. Carefully disconnect the electrical wiring, noting the connections for proper re-installation. The B852 features easy wiring access.
4. **Remove Old Motor:** Unbolt the old motor from the pump housing. The square flange design of the B852 ensures compatibility with many existing pump housings.
5. **Inspect and Clean:** Inspect the pump housing for any wear or damage. Clean any debris or corrosion from the mounting surface.
6. **Install New Motor:** Mount the new A. O. Smith Century Electric B852 motor onto the pump housing, ensuring a secure fit.
7. **Connect Wiring:** Reconnect the electrical wiring to the new motor, following the manufacturer's instructions and local electrical codes. Ensure correct voltage (115V or 230V) is selected if applicable.
8. **Prime Pump:** Before restoring power, ensure the pump is properly primed according to your pump's specific instructions.
9. **Restore Power:** Once all connections are secure and the pump is primed, restore power at the circuit breaker.



Figure 1: The A. O. Smith Century Electric B852 3/4-Horsepower Pool Pump Motor, featuring its robust design and square flange for easy integration.

## 6. OPERATING INSTRUCTIONS

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Once installed, the A. O. Smith Century Electric B852 motor operates in conjunction with your pool pump system. Follow these general guidelines:

- **Initial Start-up:** After installation, ensure the pump is filled with water (primed) before turning on the motor. Running a dry pump can cause severe damage.
- **Power On:** Turn on the power to the pump motor at the circuit breaker or designated switch. The motor should start smoothly and quietly.
- **Monitor Performance:** Observe the pump's operation. Ensure water is circulating properly and there are no unusual noises or vibrations.
- **Voltage Selection:** The motor is designed to operate on either 115V or 230V. Ensure the motor is wired for the correct voltage supply in your installation. Incorrect voltage can lead to motor damage.

## 7. MAINTENANCE

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Regular maintenance ensures the longevity and efficient operation of your pool pump motor.

- **Keep Clean:** Regularly clean the exterior of the motor to prevent dust and debris buildup, which can hinder cooling.
- **Check Ventilation:** Ensure the motor's ventilation openings are clear and unobstructed to allow for proper airflow and prevent overheating.
- **Inspect for Leaks:** Periodically check for any water leaks around the pump seal or plumbing connections. Address leaks promptly to prevent water damage to the motor.
- **Corrosion Resistance:** While the motor features a corrosion-resistant outer shell, it is still advisable to minimize direct exposure to harsh chemicals and excessive moisture to maximize its lifespan.
- **Winterization:** Follow standard pool equipment winterization procedures for your region, which may include draining the pump and motor to prevent freeze damage.

## 8. TROUBLESHOOTING

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If you encounter issues with your motor, refer to the following common problems and solutions. Always disconnect power before inspecting the motor.

Problem	Possible Cause	Solution
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Motor does not start	No power, tripped breaker, incorrect wiring, seized impeller	Check circuit breaker. Verify wiring connections. Ensure impeller spins freely. Consult a professional if unsure.
Motor overheats	Poor ventilation, low voltage, clogged impeller, prolonged dry running	Clear ventilation openings. Verify correct voltage supply. Check for impeller clogs. Ensure pump is primed.
Excessive noise or vibration	Loose mounting, worn bearings, foreign object in pump, cavitation	Tighten mounting bolts. Inspect pump for foreign objects. Ensure adequate water flow to prevent cavitation. Professional inspection may be required for bearings.
Water leaks	Damaged pump seal, loose plumbing connections	Inspect and replace pump seal if damaged. Tighten all plumbing connections.

If problems persist after attempting these solutions, contact a qualified pool technician or the manufacturer's support.

## 9. WARRANTY AND SUPPORT

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For specific warranty information regarding your A. O. Smith Century Electric B852 motor, please refer to the documentation included with your purchase or visit the official A. O. Smith website. Warranty terms and conditions may vary.

For technical support or further assistance, please contact A. O. Smith customer service through their official channels.