Franklin Electric 11E19-18-02101B

Franklin Electric 1/2 HP Submersible Water Pump Control Box User Manual

Model: 11E19-18-02101B | Brand: Franklin Electric

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Franklin Electric 1/2 HP Submersible Water Pump Control Box. This control box is designed for use with 3-wire submersible motors, providing reliable starting and protection for your well pump system. Please read this manual thoroughly before attempting any installation or service.

2. Safety Information

WARNING: ELECTRIC SHOCK HAZARD. DISCONNECT POWER BEFORE SERVICING.

- All electrical work must be performed by a qualified electrician in accordance with national and local electrical codes.
- Ensure the main power supply to the pump system is disconnected and locked out before performing any installation, maintenance, or troubleshooting.
- This control box is designed for indoor/outdoor use (Enclosure 3 rated). Protect it from direct water spray and extreme weather conditions.
- Do not operate the control box if it appears damaged.
- Ensure proper grounding of the control box and pump motor.

3. Product Overview

Figure 1: Franklin Electric QD Control Box. This image shows the front view of the gray metal control box with its identification label. The label indicates it is a "QD Control Box" for 1/2 HP, 230 Volts, with a maximum amp rating of 6.0. It also states "MADE IN USA" and includes safety warnings regarding electric shock hazard.

Key Features:

- Designed for 1/2 HP submersible pump motors.
- Compatible with 3-wire motors.
- Operates on 230 Volts, Single Phase power.
- Provides starting and running capacitor functions for optimal motor performance.
- Durable metal construction for indoor/outdoor use (Enclosure 3).
- Made in USA.

4. Specifications

Attribute	Value
Brand	Franklin Electric
Model Number	11E19-18-02101B
Horsepower	1/2 HP
Voltage	230 Volts

Phase	Single Phase
Max Amp (S.F.)	6.0 Amps
Motor Compatibility	3-wire submersible motors
Enclosure Rating	Indoor/Outdoor Use (Enclosure 3)
Material	Metal
Color	Black
Product Dimensions (L x W x H)	7.48" x 7.48" x 3.94"
Item Weight	1.1 pounds (approx. 500 Grams)
UPC	755717495143

5. Setup and Installation

Proper installation is crucial for the longevity and safe operation of your pump system. It is highly recommended that installation be performed by a certified professional.

Installation Steps (General Guidelines):

1. **Power Disconnection:** Ensure all power to the well pump circuit is completely disconnected at the main breaker and verified with a voltage tester.
2. **Mounting:** Mount the control box securely in a dry, accessible location, protected from direct weather exposure if installed outdoors. Ensure adequate ventilation.
3. **Wiring Connections:**
    - Connect the incoming power supply (230V, single phase) to the designated terminals within the control box.
    - Connect the 3-wire cable from the submersible pump motor to the corresponding terminals (typically L1, L2, and Ground for power, and a separate terminal for the motor's start winding). Refer to the wiring diagram inside the control box cover for precise connections.
    - Ensure all connections are tight and secure.
4. **Grounding:** Properly ground the control box to a reliable earth ground according to local electrical codes.
5. **Enclosure Closure:** Securely close the control box cover after all wiring is complete.
6. **Power Restoration:** Carefully restore power to the circuit and test the pump operation.

Always consult the specific wiring diagram provided inside your control box and adhere to all local electrical codes.

6. Operation

The Franklin Electric 1/2 HP Submersible Water Pump Control Box is designed to automatically manage the starting and running of your 3-wire submersible well pump motor. Once properly installed and connected to a pressure switch or other control device, the control box will engage the motor when water demand is detected and disengage it when the demand is met.

- The control box provides the necessary starting capacitors to give the motor the initial torque required to begin pumping.
- It then switches to running capacitors to maintain efficient operation.
- The internal components are designed to protect the motor from electrical surges and overloads.

No user interaction is typically required for daily operation once the system is correctly installed and configured.

7. Maintenance

Regular, simple maintenance can help ensure the longevity and reliable performance of your control box and pump system.

- **Visual Inspection:** Periodically inspect the control box for any signs of physical damage, corrosion, or loose connections. Ensure the enclosure is sealed and free from moisture ingress.
- **Cleaning:** Keep the exterior of the control box clean and free of dust, dirt, and debris. Use a dry cloth for cleaning. Do not use abrasive cleaners or solvents.
- **Ventilation:** Ensure that the area around the control box is clear to allow for proper air circulation and heat dissipation.
- **Professional Check:** Consider having a qualified technician inspect your entire pump system, including the control box, annually.

WARNING: Always disconnect power before opening the control box for inspection or cleaning.

8. Troubleshooting

This section provides basic troubleshooting steps for common issues. For complex problems, contact a qualified pump technician.

Problem	Possible Cause	Solution
Pump does not start.	No power to control box; tripped breaker; faulty pressure switch; motor issue.	Check power supply and circuit breaker. Verify pressure switch operation. Consult a technician for motor issues.

Pump cycles too frequently.	Low air charge in pressure tank; leaky plumbing; faulty pressure switch.	Check pressure tank air charge. Inspect plumbing for leaks. Test or replace pressure switch.
Control box hums but pump doesn't start.	Faulty starting capacitor; motor locked up.	**Disconnect power immediately.** This indicates a serious issue. Contact a qualified technician.

Always disconnect power before attempting any troubleshooting inside the control box.

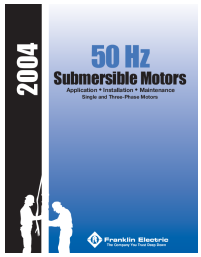
9. Warranty Information

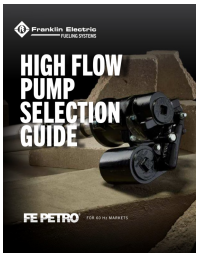
This Franklin Electric 1/2 HP Submersible Water Pump Control Box is covered by a**1-year limited warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use and service.
For specific warranty terms, conditions, and claim procedures, please refer to the warranty documentation included with your product or visit the official Franklin Electric website. Keep your proof of purchase for warranty claims.

10. Customer Support

If you require technical assistance, have questions about installation, or need to report a problem that cannot be resolved using the troubleshooting guide, please contact Franklin Electric customer support.
For the most current contact information, please visit the official Franklin Electric website or refer to the packaging materials.
When contacting support, please have your product model number (11E19-18-02101B) and purchase details ready.

Related Documents

	Franklin Electric 50 Hz Submersible Motors: Application, Installation, and Maintenance Manual A comprehensive technical manual from Franklin Electric detailing the application, installation, and maintenance of 50 Hz submersible motors. Covers single-phase and three-phase models, electrical specifications, troubleshooting, and control systems.

	[Franklin Electric Date Codes and Serial Number Guide] Learn how to interpret Franklin Electric motor date codes and serial numbers, including year, month, plant, day, and sequence information. This guide details the structure and provides lookup tables for manufacturing details.
	[Franklin Electric FE PETRO High Flow Pump Selection Guide] A comprehensive guide to selecting Franklin Electric FE PETRO Submersible Turbine Pumps (STPs) for high-flow fueling applications. It covers pump features, benefits of variable speed technology, high capacity options, manifolding, fuel compatibility, and model number configuration, along with system selection tables.
	[Franklin Electric VS 4" 50 Hz Submersible Pumps for 4" or Larger Wells] This catalog provides detailed information on the Franklin Electric VS 4" 50 Hz series of submersible pumps, designed for 4" or larger wells. It includes product overview, features, benefits, technical data, performance curves, and spare parts for models VS 1-2-3, VS 4-6, VS 7-8-10-15.