

wassermann 4STM4-6/115

WASSERMANN 1HP 115V 60Hz Submersible Deep Well Pump

Model: 4STM4-6/115 - Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your WASSERMANN 1HP 115V 60Hz Submersible Deep Well Pump, Model 4STM4-6/115. Please read these instructions carefully before use and retain them for future reference. This pump is designed for pumping clean, non-corrosive water from deep wells for various applications including domestic water supply, irrigation, and livestock watering.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions may result in electric shock, fire, serious injury, or death.

- Always disconnect power before installing, servicing, or performing any maintenance on the pump.
- Ensure the electrical supply matches the pump's voltage and frequency (115V/60Hz).
- All electrical connections must be performed by a qualified electrician and comply with local codes.
- The pump must be properly grounded to prevent electric shock.
- Do not operate the pump without water. Dry running will cause severe damage and void the warranty.
- Do not use this pump for flammable, corrosive, or abrasive liquids. It is designed for clean water only.
- Ensure the pump is installed vertically. Do not place horizontally.
- Keep children and unauthorized personnel away from the pump and well area during operation.

3. PRODUCT FEATURES

The WASSERMANN deep well pump is engineered with durable materials and efficient design for reliable performance.

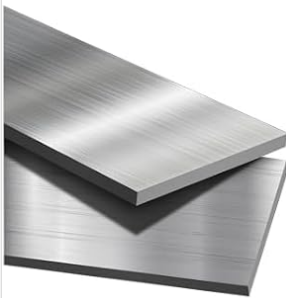
- **High-Quality Construction:** Features a high-quality stainless steel body and SS304 pump head for extended lifespan and corrosion resistance.

- **Efficient Motor:** Equipped with an all-copper motor and high-precision rotor for powerful and energy-saving operation.
- **Integrated Control Box:** Convenient 2-wire (2 wires + ground) design with an integrated control box, eliminating the need for an external control box.
- **Multi-stage Floating Impeller:** Designed for high head lift and large flow capacity.
- **Filtration System:** Stainless steel inlet filter screen to prevent impurities from entering the pump. An additional gauze layer can be added for new wells with excess granular sediment.
- **Pressure Relief:** Includes a high toughness pressure relief oil sac.

SS304
stainless steel
pump head

Rope hole

Stainless steel
inlet filter screen



Stainless
steel
body



Multistage floating
impeller



All copper motor



High toughness
pressure relief oil sac

Figure 3.1: Internal Components and Materials



Figure 3.2: High Quality Motor and Rotor



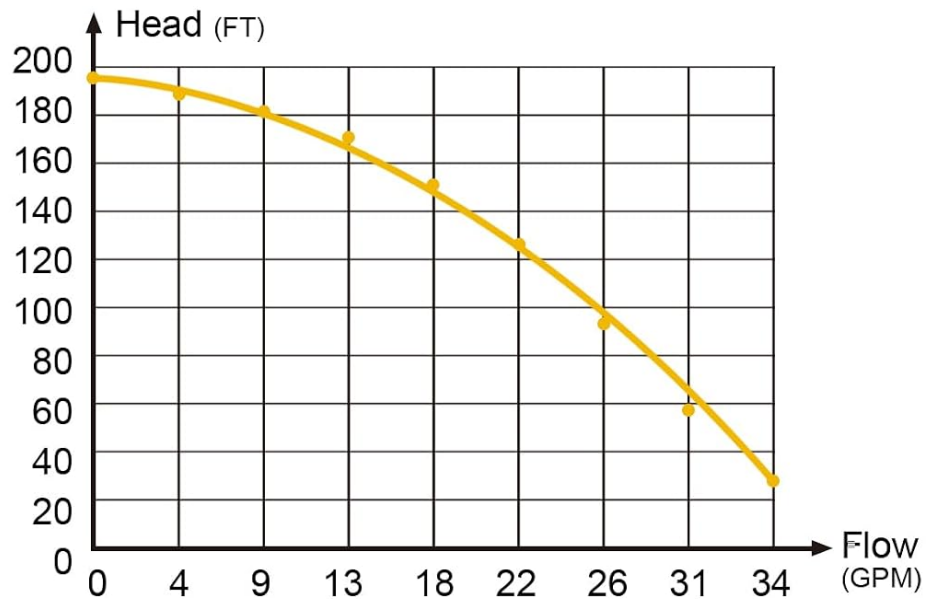
Figure 3.3: Multiple Filtration Mesh

4. SPECIFICATIONS

Refer to the table below for detailed technical specifications of the WASSERMANN 1HP 115V 60Hz Submersible Deep Well Pump.



PRODUCT SPECIFICATIONS



Power: 1HP/750W	Max.Head: 196 FT
Voltage: 115V/60HZ	Max.Flow: 34 GPM

Figure 4.1: Product Specifications and Performance Curve

Parameter	Value
Model Number	4STM4-6/115
Rated Power	1 HP (750W)
Rated Voltage	115 V / 60 Hz
Maximum Flow Rate	34 GPM (Gallons Per Minute)
Maximum Head Lift	196 Feet (60 meters)
Outlet Diameter	1.5 inches (3.8 cm) FNPT
Pump Diameter	3.74 inches (for 4-inch well casings and larger)
Material	Stainless Steel (SS304 pump head)
Product Weight	13.18 kg (29.06 lbs)

Parameter	Value
Cable Length	10 feet (3 meters)

5. SETUP AND INSTALLATION

Proper installation is crucial for the pump's performance and longevity. Follow these steps carefully.

5.1 Pre-Installation Checks

- Verify that the well casing diameter is at least 4 inches (10.2 cm) to accommodate the pump.
- Ensure the well is free from debris and excessive sediment.
- Confirm the power supply matches the pump's requirements (115V/60Hz).

5.2 Electrical Wiring

The pump comes with a 2-wire (Live, Neutral, Ground) cable. If an extension cord is needed, ensure it is of appropriate gauge and waterproof. The wire colors are typically: Live (Brown), Neutral (Blue), Ground (Yellow/Green).



Figure 5.1: Wire Identification and Initial Connection

USING GRAPHICAL

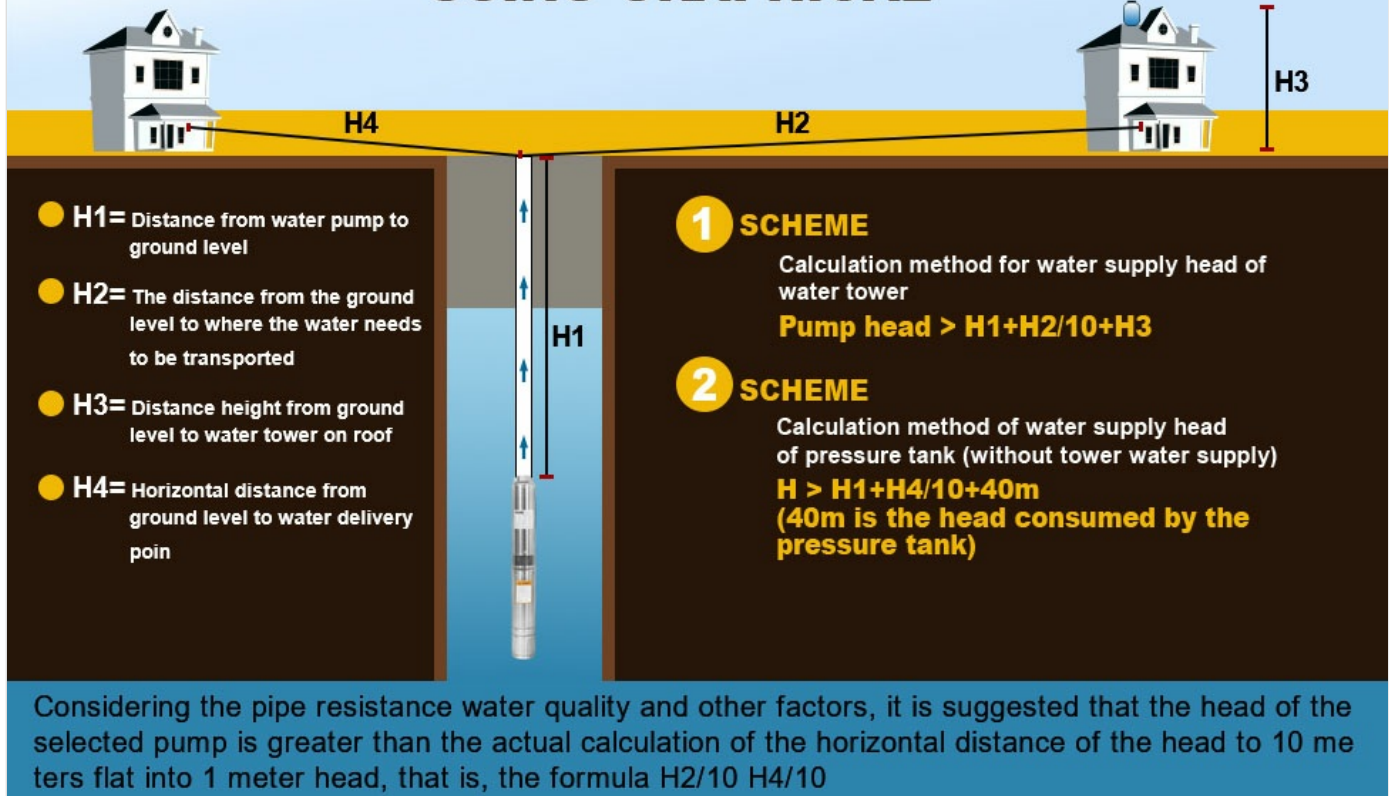


Figure 5.2: Waterproof Electrical Connection Steps

1. Identify Live, Neutral, and Ground wires.
2. Carefully strip the insulation and perform copper wire cross winding for a secure connection.
3. Apply electrical tape to insulate each individual connection.
4. Cover the electrical tape with waterproof tape for enhanced protection.
5. Wrap the entire wire group with waterproof tape.
6. Apply a final layer of electrical tape for complete protection.

5.3 Pipe and Rope Connection



Figure 5.3: Applying Teflon Tape



Figure 5.4: Hose Connection with Clamp



Figure 5.5: Rope Attachment for Lowering

1. Apply Teflon tape to the threaded outlet of the pump.
2. Connect the discharge pipe (e.g., hose) to the pump outlet (1.5-inch FNPT) and secure it with a hose clamp.
3. Attach a strong wire or nylon rope to the designated rope holes on the pump head. This rope will be used to lower and retrieve the pump, and to support its weight in the well.

5.4 Lowering the Pump into the Well

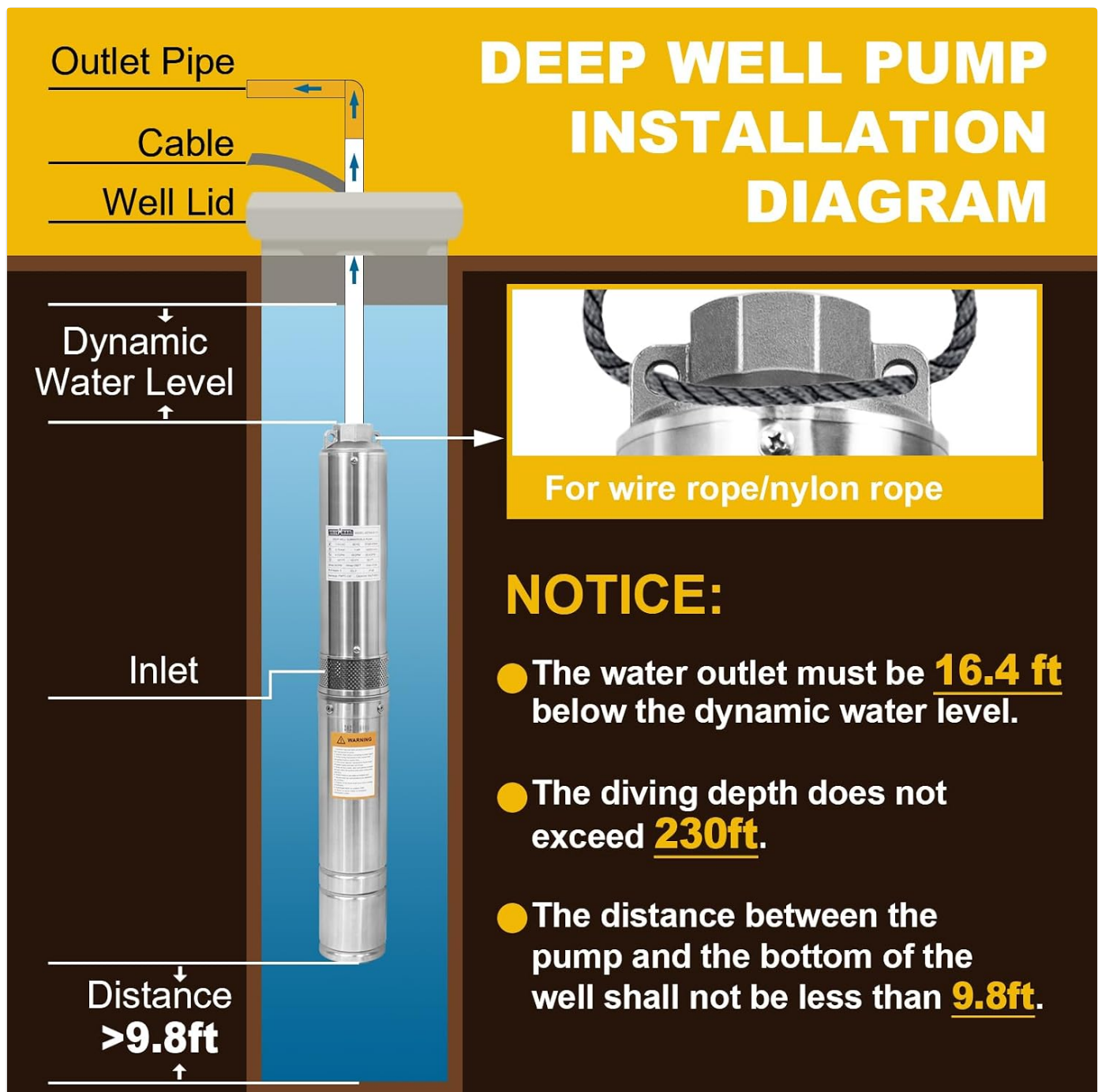


Figure 5.6: Deep Well Pump Installation Diagram

- Slowly lower the pump into the well using the attached rope. Do not use the electrical cable to lower or support the pump.
- **Important:** The water outlet of the pump must be at least 16.4 feet (5 meters) below the dynamic water level to ensure proper operation and prevent cavitation.
- The total diving depth of the pump must not exceed 230 feet (70 meters).
- Maintain a minimum distance of 9.8 feet (3 meters) between the bottom of the pump and the bottom of the well to avoid drawing in sediment.
- Secure the rope at the top of the well.

6. OPERATING INSTRUCTIONS

Follow these guidelines for safe and effective operation of your WASSERMANN deep well pump.

6.1 Initial Start-up

1. Ensure all electrical connections are secure and waterproof.
2. Verify the pump is fully submerged in water and positioned vertically.
3. Connect the pump to the appropriate power supply (115V/60Hz).
4. The pump should start automatically. Monitor for any unusual noises or vibrations.

6.2 Operational Guidelines



The pump body should be under the water level when it is running.





**Do not run pump dry!
Do not place horizontally!**





This pump is for clean water, pumping sand will clog the pump. Installing a good filter may prevent the pumping of abrasives.

Figure 6.1: Correct vs. Incorrect Pump Operation

- **Do not run dry:** The pump body must always be under the water level when it is running. Operating the pump without water will cause severe damage.
- **Vertical Installation:** The pump must be installed and operated vertically. Do not place it horizontally.
- **Clean Water Only:** This pump is designed for clean water. Pumping sand or abrasive materials will clog and damage the pump. Consider installing an additional filter if your well has high sediment content.
- **Head Calculation:** When planning your water system, consider the total head required, which includes the distance

from the pump to ground level (H1), distance to transport water (H2), height to water tower/roof (H3), and horizontal distance (H4). The pump's head capacity should exceed the calculated total head.



Figure 6.2: Water Supply Head Calculation Schemes

6.3 Applications

WIDE APPLICATION SCENARIOS



Deep/Shallow Well



Livestock Water



Farmland Irrigation



Domestic Supply

Figure 6.3: Wide Application Scenarios

This pump is suitable for a variety of applications, including:

- Deep and Shallow Wells
- Livestock Water Supply
- Farmland Irrigation
- Domestic Water Supply for homes, villages, and camping vehicles

7. MAINTENANCE

Regular maintenance ensures optimal performance and extends the life of your pump.

- **Regular Inspection:** Periodically check the pump's performance. Listen for unusual noises or reduced water flow, which may indicate an issue.
- **Filter Screen:** The stainless steel inlet filter screen helps prevent debris. If operating in a well with high sediment, consider periodically retrieving the pump to inspect and clean the filter screen.

- **Electrical Connections:** Ensure all electrical connections remain waterproof and free from corrosion.
- **Winterization:** In freezing climates, if the pump is not in continuous use, ensure the system is drained or protected from freezing to prevent damage.
- **Avoid Dry Running:** Always ensure the pump is fully submerged during operation.

8. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
Pump does not start	No power supply Faulty wiring Motor overload protection tripped Pump jammed by debris	Check power source and circuit breaker Inspect and secure all electrical connections Allow motor to cool, then reset. Check for cause of overload. Retrieve pump and clear any obstructions from impeller.
Low water flow or pressure	Low water level in well Clogged inlet filter screen Leak in discharge pipe Worn impeller/pump components	Check well water level; ensure pump is adequately submerged Retrieve pump and clean filter screen Inspect and repair any leaks in the piping system Contact qualified service personnel for inspection and repair.
Pump runs but no water is delivered	Well dry or water level too low Air lock in pump/pipe Discharge pipe blocked Impeller damage	Check well water level; ensure pump is adequately submerged Restart pump several times to clear air. Ensure pump is fully submerged. Inspect discharge pipe for blockages Retrieve pump and inspect impeller for damage.
Pump cycles on and off frequently	Low water level in well Pressure switch malfunction (if external) Small leak in system	Check well water level Inspect and adjust or replace pressure switch Check for leaks in the plumbing system.

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided at the time of purchase or contact your WASSERMANN dealer or the manufacturer directly. Keep your purchase receipt as proof of purchase.

If you require technical assistance or have questions not covered in this manual, please contact WASSERMANN customer support through the retailer where the product was purchased or visit the official WASSERMANN website for contact details.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Answered questions about this manual

Can I use the WASSERMANN 4STM4-6/115 pump with a pump start relay activated by an irrigation controller instead of a pressure tank, and what is the amp draw for this motor?

Yes, you can use the WASSERMANN 4STM4-6/115 with a pump start relay and an irrigation controller. Since this pump features an integrated control box and a 2-wire (plus ground) design, it is designed to...

[Read full answer](#)