JT-500 DC Submersible Water Pump Instruction Manual

Model: JT-500 DC Submersible Water Pump

Brand: Seablue

1. Introduction

The Seablue JT-500 DC Submersible Water Pump is a versatile and compact pump designed for various applications requiring water circulation or transfer. Its submersible design and low noise operation make it suitable for uses such as car washing, garden watering, powering rockery water features, shower systems, and aquariums. This manual provides essential information for the safe and efficient use of your pump.

Figure 1: JT-500 DC Submersible Water Pump

This image shows the JT-500 DC Submersible Water Pump, highlighting its compact design suitable for various water-related tasks.

2. Specifications

Feature	Detail
Model Number	JT-500
Rated Voltage	12V DC
Working Voltage	6-15V DC
Rated Current	1.2A
Power (W)	17W
Maximum Head	5 meters
Maximum Flow	600 L/H
Dimensions (HxW)	10.8 cm x 4 cm
Noise Level	Less than 35dB (at 10cm)
Max Water Temperature	40°C
Power Source	Electric
Application	Submersible
Structure	Submersible Pump
Usage	Water

Figure 2: Key Dimensions of the JT-500 DC Submersible Water Pump

This image illustrates the physical dimensions of the pump, including its length (10.8cm), width (4cm), and cable length (150cm).

3. Safety Information

- This pump is designed for use with water only. Do not use with other liquids.
- Ensure correct polarity when connecting power to avoid damage and ensure proper function.

- Do not operate the pump for more than 24 consecutive hours.
- The maximum water temperature for operation is 40°C. Exceeding this temperature may damage the pump.
- This is a submersible pump; it is not designed for self-suction or land-based operation.

4. Setup and Installation

4.1 Power Connection

The JT-500 pump can be powered by a 12V DC source, such as a car battery, offering mobile convenience. It is crucial to connect the power with correct polarity to ensure proper operation and prevent damage to the pump.

- Connect the **brown wire** to the **positive electrode** (+).
- Connect the **blue wire** to the **negative electrode** (-).
- The **yellow wire** is for ground and typically **does not need to be connected** for standard operation.

Figure 3: Wiring Diagram

This diagram illustrates the correct wiring for the pump: brown to positive, blue to negative, and the yellow ground wire typically not required for connection.

4.2 Placement

As a submersible pump, the JT-500 must be fully immersed in the water it is intended to pump. It is not designed to operate dry or as a self-priming pump.

5. Operation

Once properly installed and connected to a 12V DC power source, the pump will begin to operate when power is supplied.

- Ensure the pump is fully submerged in water before applying power.
- Monitor the water temperature to ensure it does not exceed 40°C.
- Avoid continuous operation for more than 24 hours to prolong the pump's lifespan.
- The pump operates with low noise, typically less than 35dB at 10cm distance.

Figure 4: Typical Applications

This image displays various uses for the pump, such as car washing, showering, and water transfer for camping or gardening.

6. Maintenance

To ensure the longevity and optimal performance of your JT-500 DC Submersible Water Pump, regular maintenance is recommended.

- Periodically inspect the pump for any debris or blockages in the inlet or outlet. Clean as necessary.
- Ensure the power cable is free from damage or kinks.
- Store the pump in a clean, dry place when not in use.

7. Troubleshooting

If you encounter issues with your pump, consider the following common troubleshooting steps:

- **Pump not starting:**
    - Check power connections for correct polarity (brown to positive, blue to negative).
    - Ensure the power source (e.g., 12V battery) is adequately charged and providing sufficient voltage (6-15V).
    - Inspect the power cable for any damage.
- **Low flow or no water output:**
    - Verify the pump is fully submerged in water.
    - Check for blockages in the pump's inlet or outlet.
    - Ensure the water temperature is within the operating limit (max 40°C).
    - Confirm the power source is providing stable voltage. Incorrect polarity can impact head flow.
- **Unusual noise:**
    - Check for any foreign objects caught in the pump impeller.
    - Ensure the pump is stable and not vibrating against surfaces.

8. User Tips

- For portable applications like car washing or camping showers, a fully charged 12V car battery provides excellent mobility.
- Always ensure the pump is placed in a stable position to prevent it from moving or tipping during operation.
- Consider using a filter or mesh over the inlet in dirty water environments to prevent debris from entering the pump.

9. Warranty and Support

For any warranty claims, technical support, or further inquiries, please contact the seller or retailer from whom you purchased the product.

A detailed user manual in PDF format is available for download: JT-500 DC Submersible Water Pump User Manual (PDF).