

## TDRFORCE FL-530E

# TDRFORCE FL-530E 110V AC Fresh Water Circulating Pump User Manual

Model: FL-530E 110V AC | Brand: TDRFORCE

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your TDRFORCE FL-530E 110V AC Fresh Water Circulating Pump. Please read these instructions thoroughly before use and retain them for future reference.

The TDRFORCE FL-530E is a versatile 110V AC electric water transfer pump designed for various fresh water applications, including pressure boosting, circulation, and washdown tasks. It features a self-priming function and delivers a flow rate of 4 GPM with a maximum pressure of 45 PSI.

## 2. PRODUCT FEATURES

- **Wide Applications:** Suitable for freshwater washdown on boats, marine water systems, RVs, and garden hose boosting.
- **Powerful Performance:** 170W motor provides 4 GPM (240 GPH) flow and increases water pressure up to 45 PSI.
- **Self-Priming Function:** Automatically primes itself for convenient operation.
- **Easy Installation:** Equipped with 3/4" male inlet/outlet and 1/2" male inlet connector, and a 4.3ft power cord with a standard US plug.
- **Inlet Strainer:** Includes a 50-mesh inlet strainer to filter impurities, protecting the pump.
- **Thermal Overload and Ignition Protection:** Enhances safety during operation.
- **Vibration-Resistant Mounting:** Aluminum alloy mounting base feet reduce working noise.
- **Pure Copper Motor:** Ensures durability and efficient performance.

# Product Advantages



Pure copper motor  
low power  
consumption



Plug into your stand wall  
outlet for easy of use



Thermal overload  
and ignition protection



Running longer



Vibration-resistant aluminum  
alloy mounting base feet  
reduce working noise



Adjustable  
pressure up  
to 75PSI

Image 2.1: Key features of the TDRFORCE FL-530E pump, including its pure copper motor and thermal protection.

## 3. APPLICATIONS

The TDRFORCE FL-530E pump is designed for a variety of fresh water applications:

- **RV Water Systems:** Provides reliable water pressure for recreational vehicles.
- **Car Wash:** Ideal for boosting water pressure for car washing tasks.
- **Yacht Pressurization:** Maintains consistent water pressure on marine vessels.
- **Agriculture Irrigation:** Can be used to supply water for small-scale irrigation needs.
- **Garden Hose Booster:** Increases pressure for garden hoses, improving watering efficiency.



Image 3.1: Visual representation of the pump's diverse applications.

## 4. SAFETY INFORMATION

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

- Always disconnect the pump from the power source before performing any maintenance or installation.
- Ensure the power supply voltage matches the pump's specifications (110V AC).
- Do not operate the pump with damaged cords or plugs.
- This pump is designed for fresh water circulation only. Do not use with solid particles, corrosive liquids, flammable liquids, or liquids above 140°F (60°C).
- Avoid continuous dry running, as this can damage the pump.
- Keep children and pets away from the pump during operation.
- Ensure proper ventilation around the pump to prevent overheating.

- Do not submerge the pump in water.

## 5. PACKAGE CONTENTS

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Upon unpacking, verify that all components are present and undamaged. The package typically includes:

- TDRFORCE FL-530E 110V AC Water Pressure Pump
- 3/4" Male Inlet/Outlet Connectors
- 1/2" Male Inlet Connector
- 50-Mesh Inlet Strainer
- Hose Clamps (quantity may vary)
- PTFE Thread Seal Tape (for sealing connections)

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Video 5.1: An overview of the TDRFORCE FL-530E pump and its included accessories, demonstrating the components typically found in the package.

## 6. SETUP AND INSTALLATION

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Follow these steps for proper setup and installation of your water pump:

1. **Mounting:** Securely mount the pump on a stable, flat surface using the integrated mounting feet. Ensure adequate space for ventilation and access to connections.
2. **Inlet Connection:** Connect the inlet hose to the pump's inlet port. Install the 50-mesh inlet strainer between the water source and the pump's inlet to prevent debris from entering. Ensure all connections are tight to prevent leaks. Use the provided PTFE thread seal tape on threaded connections, but apply carefully to avoid excess material entering the pump.
3. **Outlet Connection:** Connect the outlet hose to the pump's outlet port. Use appropriate connectors and hose clamps to secure the connection.
4. **Power Connection:** Plug the 110V AC power cord into a standard electrical outlet. Ensure the outlet is properly grounded.
5. **Priming:** The pump is self-priming. Ensure the inlet hose is submerged in water before starting the pump. The pump will draw water and expel air until a steady flow is achieved.
6. **Pressure Adjustment (Optional):** The pump's pressure can be adjusted. To do this, locate the pressure adjustment screw under the cover near the top of the front of the pump (secured by a Philips screw). Use a 2mm or 2.5mm Allen wrench. Turning clockwise increases pressure. Exercise caution and ensure the pump is unplugged or take appropriate electrical safety measures if adjusting while powered.



**HIGH FLOW UP TO 4.0GPM**

**LIFT UP TO 102FT**



Image 6.1: Illustration of pump connections, showing the inlet with strainer and outlet for water flow.

## 7. OPERATION

Once installed, operating the TDRFORCE FL-530E pump is straightforward:

1. Ensure all connections are secure and the inlet hose is in the water source.
2. Plug the pump into a suitable 110V AC power outlet. The pump will begin to operate.
3. Allow the pump to run until a steady stream of water is achieved, indicating it is fully primed.
4. When finished, unplug the pump from the power source.

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Video 7.1: Demonstration of the pump in operation, drawing water from a bucket and showing its self-priming capability.

## 8. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your pump:

- **Strainer Cleaning:** Periodically inspect and clean the 50-mesh inlet strainer to remove any accumulated debris. A clogged strainer can reduce pump efficiency and cause damage.
- **Winterization:** If operating in freezing temperatures, drain all water from the pump and hoses to prevent damage from ice expansion. Store the pump in a dry, frost-free location.
- **General Cleaning:** Keep the exterior of the pump clean and free from dirt and dust. Do not use harsh chemicals for cleaning.
- **Hose Inspection:** Regularly check hoses and connections for wear, cracks, or leaks. Replace damaged components as needed.

## 9. TROUBLESHOOTING

Refer to the table below for common issues and their solutions:

Problem	Possible Cause	Solution
Pump does not start	No power supply Faulty power cord/plug Motor overheating	Check power connection and outlet Inspect cord/plug for damage Allow pump to cool down; check for obstructions
Pump runs but no water flows	Inlet hose not submerged Air leak in inlet line Clogged inlet strainer Pump not primed	Ensure inlet hose is fully in water Check all inlet connections for tightness Clean the inlet strainer Allow pump to run to self-prime
Low flow or pressure	Clogged inlet strainer Partial air leak Hose kinked or restricted Pressure setting too low	Clean the inlet strainer Check inlet connections Straighten hoses, remove restrictions Adjust pressure setting (refer to Setup section)
Pump cycles on and off rapidly	Small leak in system Pressure switch issue	Check all connections for leaks Contact customer support if issue persists

## 10. SPECIFICATIONS

Specification	Value
Brand	TDRFORCE

Specification	Value
Model Number	FL-530E 110V AC
Voltage	110 Volts
Maximum Flow Rate	4.5 Gallons Per Minute (GPM)
Maximum Pressure	45 PSI
Power Source	Corded Electric
Material	Plastic, Metal
Item Weight	6.47 pounds (2.94 Kilograms)
Package Dimensions	12.48 x 6.06 x 5.2 inches
Color	Black

## 11. WARRANTY AND SUPPORT

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TDRFORCE offers a **180-day warranty** for this product. This warranty covers manufacturing defects and ensures the product functions as described under normal use. For warranty claims, technical assistance, or any questions regarding your TDRFORCE FL-530E pump, please contact TDRFORCE customer support.

You can typically find contact information on the product packaging or through the retailer where the product was purchased. Please have your model number (FL-530E 110V AC) and purchase date available when contacting support.