



# **TDR FORCE**®

green power for life

## **INSTRUCTION MANUAL**

with Warranty Card



### **BOOSTER PUMP**

**JETS-60**

**JETS-80**

**JT-100**

## Specifics

<b>JETS-60</b>			
<b>Input Voltage</b>	110-120V	<b>Power</b>	370W (1/2Hp)
<b>Frequency</b>	60Hz	<b>Rated Working Pressure</b>	1.5 bar
<b>Connection</b>	1"	<b>Max Working Pressure</b>	3.3 bar
<b>Max Working Temperature</b>	60 °C (140 °F)	<b>Max Head</b>	32m (104ft)
		<b>Max Flow</b>	14.5 GPM

<b>JETS-80</b>			
<b>Input Voltage</b>	110-120V	<b>Power</b>	550W (3/4Hp)
<b>Frequency</b>	60Hz	<b>Rated Working Pressure</b>	2 bar
<b>Connection</b>	1"	<b>Max Working Pressure</b>	4 bar
<b>Max Working Temperature</b>	60 °C (140 °F)	<b>Max Head</b>	40m (131ft)
		<b>Max Flow</b>	17 GPM

<b>JT-100</b>			
<b>Input Voltage</b>	110-120V	<b>Power</b>	750W (1Hp)
<b>Frequency</b>	60Hz	<b>Rated Working Pressure</b>	2 bar
<b>Connection</b>	1"	<b>Max Working Pressure</b>	4.5 bar
<b>Max Working Temperature</b>	60 °C (140 °F)	<b>Max Head</b>	45m (150ft)
		<b>Max Flow</b>	18 GPM

# OPERATION MANUAL

## 1.INSPECTION

-After unpacking the pump, please check if it has been damaged during transport. If so, please contact *TDRFORCE* online services at the first time.

## 2.INSTALLATION

- Make sure that the main voltage corresponds to the voltage specified on the motor rating plate.
- Place the pump as near as possible to the suction tank.
- Do not submit the pump body to mechanical stress.
- The pump must be sheltered from weather ( sun- rain- wind- snow- chill).
- The motor must be absolutely grounded before any other operation.
- The suction pipe diameter must always be bigger than the suction port. Always fit a foot valve with strainer on the suction pipe. Both suction and delivery pipe must be well fastened.

## 3.STARTING THE PUMP

- Fill the pump body with water. Only after being filled with water will the pump be ready to start.
- Dry running could damage the pump. The lack water protection circuit will automatically shut off the pump after 5-minute running.
- Check that the pump does not run out of the operating data.
- The pump could be only used in fresh water circulating.

## 4.MAINTENANCE

- Pumps do not require any particular maintenance.
- If the pump remain unused for a long period of time, we recommend emptying it to prevent formation of deposits or increase of water volume due to frozen water, which could tear the fixing bolts or cracking the pump body.
- When starting the pump again, refill it and check that the shaft runs free.

## POSSIBLE WORKING DEFECTS

TYPE OF DEFECT	CAUSE	SOLUTION
-The pump does not start	<ul style="list-style-type: none"> <li>-The electronic card is broken</li> <li>-Voltage failure</li> <li>-Pump jammed</li> <li>-Electric cables inverted (line/motor)</li> <li>-Pressure of inlet water is higher than the starting pressure of the pump</li> </ul>	<ul style="list-style-type: none"> <li>-Replace the controller</li> <li>-Use at rated voltage</li> <li>-Clean the impeller</li> <li>-Install according to manual</li> <li>-No action should be taken</li> </ul>
-The pump does not stop	<ul style="list-style-type: none"> <li>-The pump is over pressure</li> <li>-The electronic card is broken</li> <li>-The flow detector is blocked in the upper position</li> <li>-The reset button is blocked</li> <li>-The pump does not provide sufficient pressure</li> <li>-Presence of leaks</li> </ul>	<ul style="list-style-type: none"> <li>-Adjust the pressure screw behind the controller counterclockwise ( - ) to release the pressure</li> <li>-Replace the controller</li> <li>-Replace the controller</li> <li>-Replace the controller</li> <li>-Replace the controller</li> <li>-Fix the leakage</li> </ul>
-Intermittent pump working	<ul style="list-style-type: none"> <li>-The electronic card is broken</li> <li>-The pump does not provide sufficient pressure</li> <li>-Presence of leaks</li> </ul>	<ul style="list-style-type: none"> <li>-Replace the controller</li> <li>-Replace the controller</li> <li>-Fix the leakage</li> </ul>
-The pump is jammed	<ul style="list-style-type: none"> <li>-The electronic card is broken</li> <li>-The pump provides a pressure which is lower than the restarting pressure</li> <li>-Water failure</li> <li>-Suction problem</li> </ul>	<ul style="list-style-type: none"> <li>-Replace the controller</li> <li>-Replace the controller</li> <li>-Install according to manual</li> <li>-Clean the inlet and impeller</li> </ul>
-The pump has no suction	<ul style="list-style-type: none"> <li>-The distance between pump and water surface is beyond the max head of the pump</li> <li>-Leakage on the inlet tube, air in</li> <li>-Starting without water in the pump body</li> </ul>	<ul style="list-style-type: none"> <li>-Shorten the distance between pump and water</li> <li>-Fix the inlet leakage</li> <li>-Fill water in the pump body before starting. Make sure the check valve has no leakage.</li> </ul>

## Automatic Controller for Booster Pump

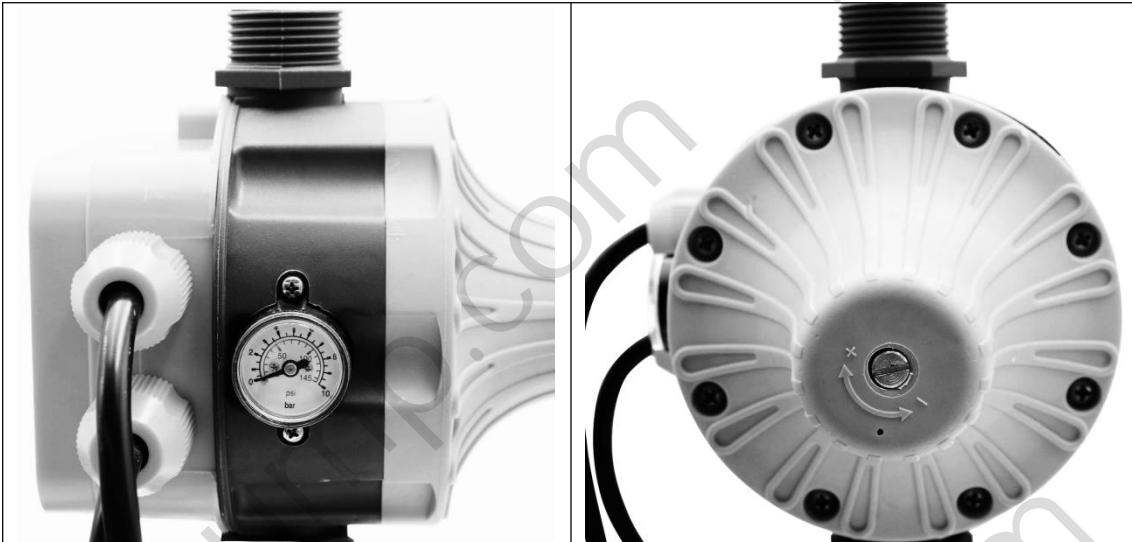


### Starting

- When the unit is connected to the electrical network, the green led “ Power On” lights up and the yellow led “ On ” indicates that the pump has been started.
- The pump continues to operate for dozens of seconds enabling the system to fill in the pipes and to reach the required pressure.
- If this lapse is insufficient, the red led “ Failure ” lights up. In this event, keep the “ Restart” button pressed and wait, with a tap opened, until the red led is off.

### Functioning

- The starting operation archived, the unit is programmed to perform all the pump control operations automatically.
- When particular operational breakdowns occur, such as water failure, obstruction of the suction pipe etc., the unit recognizes the breakdown and the red led “ Failure” lights up. At the same time a stop signal is sent to the pump to prevent damages caused by its working in the absence of water.
- Rectification of the failures that have caused the blockage, allowing the system to be restarted by pressing the “ Restart” button.
- Once released the button and closed the tap, the unit stops the pump at its maximum pressure.



-The starting pressure has been pre-set by manufacturer at 1.5 bar (JETS-60) or 2.0 bar(JETS-80).

-The starting pressure of the controller can be adjusted to 2.2 bar maximum.

-Adjust the pressure screw clockwise to increase the starting pressure.

-Adjust the pressure screw counterclockwise to decrease the starting pressure or release the pressure.

**Warning**

-Never take the electronic board out of the control box.

-The wiring diagram inside the terminal block will show you how to make correct connection. Wrong connection will destroy the whole electronic circuit.

-Cable used for connection must be a three-wired one with compulsory grounding end. It shall have the outer diameter at 7.5mm-8.5mm. One of the leading end of the cable must be lower than the position of the fixing screws while the cable being connected to the power as shown in the Fig.

-The four screws on the panel board and the two nuts for fixing cable must be well fastened to avoid water entering into the control box and damaging the electronic circuit.

## Warranty Card

Customer contact, please keep it properly.

Dear customer:

Thank you for choosing products of *TDRFORCE*. In order to provide you with more satisfactory service and better protect your rights, please read this regulation carefully and keep the warranty card properly.

*Regulations:*

1. For any quality issue of *TDRFORCE* product within 180 days after sale, we offer no-hassel return service for our customers;
2. Please contact our Amazon online customer service or [sales04@tdrshine.com](mailto:sales04@tdrshine.com) before return;
3. Valid evidence of purchase will be essential such as order ID or warranty card;
4. Valid evidence showing product problems shall be provided in the contact such as videos, photos or detailed descriptions.
5. Warranty card shall be filled out and attached with the return product.

*Please notice:*

The following situations are not applicable to our no-hassel return policy.

1. Product damage caused by installation or use not in accordance with the instruction manual;
2. Product beyond 180 days after sale;
3. Product return with no reason;
4. Product damage caused by self-disassembly or sabotage;
5. Product damage caused by force majeure such as earthquakes, fires, etc.

Buyer's Name: \_\_\_\_\_

Tele: \_\_\_\_\_

E-mail: \_\_\_\_\_

Order ID: \_\_\_\_\_

Return Address: \_\_\_\_\_

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Product Problem Description:

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