

## Red Lion RL-WC50TA

# Red Lion RL-WC50TA Cast Iron Sewage Pump User Manual

Model: RL-WC50TA (Part Number: 14942748)

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Red Lion RL-WC50TA Cast Iron Sewage Pump. Please read all instructions carefully before use to ensure proper function and longevity of the product.

The Red Lion RL-WC50TA is a robust 1/2 HP submersible pump designed for high-volume transfer of sewage or effluent. It is capable of handling semi-solids up to 2 inches in diameter, making it suitable for applications such as basement washrooms, sewage systems, or holding tanks. This pump is equipped with a piggyback tethered float switch for automatic operation.

**Important: This pump is not recommended for pond use.**

## 2. SAFETY INFORMATION

Always prioritize safety during installation, operation, and maintenance. Failure to follow safety guidelines can result in serious injury or property damage.

- **Electrical Safety:** Ensure the power supply matches the pump's requirements (115 Volts). Always disconnect power before servicing the pump. Use a ground fault circuit interrupter (GFCI) for electrical connections.
- **Personal Protective Equipment (PPE):** Wear appropriate PPE, including gloves and eye protection, when handling the pump or working with wastewater.
- **Proper Installation:** Install the pump according to local plumbing and electrical codes. Ensure the pump is placed on a solid, level surface in the basin.
- **Hazardous Materials:** Be aware that sewage and effluent contain hazardous biological materials. Avoid direct contact and ensure proper disposal.
- **Children and Pets:** Keep children and pets away from the pump and installation area.

## 3. PRODUCT OVERVIEW

The Red Lion RL-WC50TA is engineered for durability and reliable performance in demanding wastewater applications.



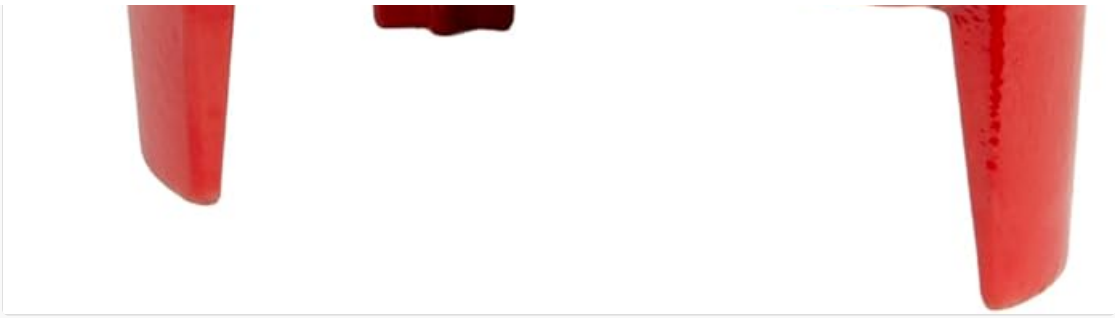


Figure 1: Red Lion RL-WC50TA Cast Iron Sewage Pump with tethered float switch.

### Key Features:

- **Heavy-Duty Construction:** Cast iron housing and vortex-style impeller for durability and efficient solids handling.
- **Solids Handling:** Capable of passing semi-solids up to 2 inches in diameter, preventing clogs.
- **Automatic Operation:** Piggyback tethered float switch for automatic activation and deactivation based on water levels.
- **Motor Protection:** 1/2 HP PSC dual bearing motor with thermal overload protection for extended life.
- **CSA Listed:** Certified for safety in both USA and Canada.

### Internal Components:



# RL-WC50TA SEWAGE PUMP

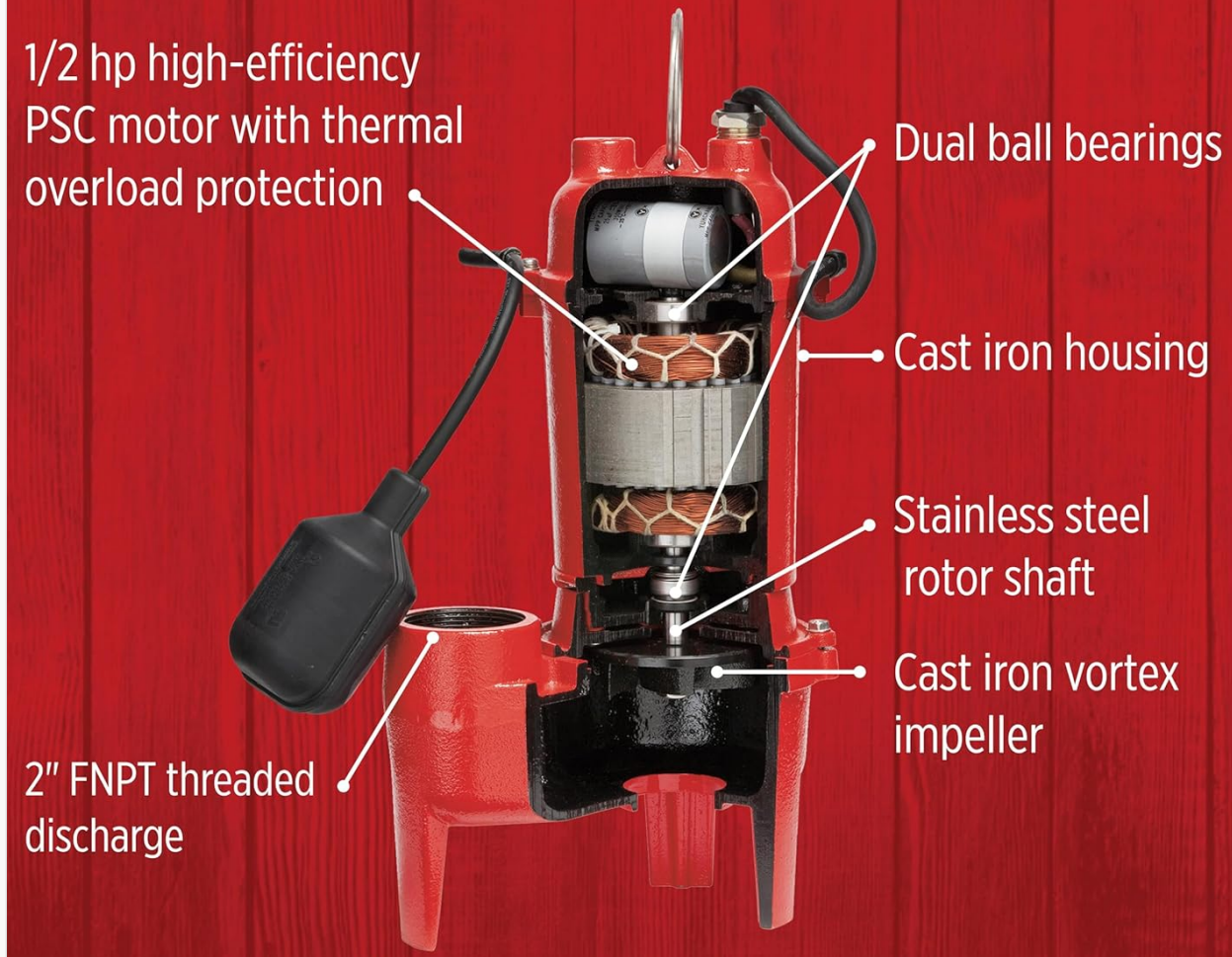


Figure 2: Diagram illustrating the internal components of the RL-WC50TA, including the 1/2 HP high-efficiency PSC motor with thermal overload protection, dual ball bearings, cast iron housing, stainless steel rotor shaft, cast iron vortex style impeller, and 2-inch FNPT threaded discharge.

## 4. SETUP AND INSTALLATION

Proper installation is critical for the performance and safety of your sewage pump. If you are unsure about any step, consult a qualified professional.

### Pre-Installation Checklist:

- Verify power supply (115 Volts).
- Ensure the basin diameter is at least 18 inches.
- Gather necessary tools and plumbing fittings (2-inch FNPT discharge).
- Confirm the installation area is clear and accessible.

### Installation Steps:

1. **Prepare the Basin:** Ensure the sump basin is clean and free of debris. The pump should rest on a solid, level surface at the bottom of the basin.
2. **Connect Discharge Piping:** Attach a 2-inch FNPT discharge pipe to the pump outlet. Use appropriate sealant or tape to ensure a watertight connection.
3. **Install Check Valve:** Install a check valve in the discharge line above the pump to prevent backflow of water into the basin.
4. **Position the Pump:** Carefully lower the pump into the basin. Ensure the float switch can move freely without obstruction from the pump, basin walls, or piping.
5. **Electrical Connection:** Connect the pump's 10-ft. power cord to a dedicated 115 Volt, GFCI-protected outlet. The piggyback plug allows for automatic or manual operation.

### Understanding Pump Types (Video):

For a better understanding of different pump types and their applications, including sewage and effluent pumps, please watch the following informational video:

Video 1: This video explains the differences between sump, sewage, effluent, and utility pumps, helping users understand the correct application for each type. Provided by Franklin Electric - Little Giant.

## 5. OPERATING INSTRUCTIONS

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The Red Lion RL-WC50TA operates automatically via its tethered float switch. It can also be manually tested.

### Automatic Operation:

- The pump will activate when the water level reaches approximately 17.5 inches.
- The pump will continue to run until the water level falls to approximately 7.5 inches, at which point it will shut off.
- Ensure the float switch has a clear path of travel and is not restricted by any objects in the basin.



# RL-WC50TA

## SEWAGE PUMP

# AUTOMATIC

### Piggyback float switch

- On at 17.5"
- Off at 8.5"

Piggyback plug allows pump to be switched to manual mode for testing or maintenance



Figure 3: Illustration of the piggyback float switch and its activation/deactivation levels for automatic operation. The piggyback plug allows for switching to manual mode for testing or maintenance.

### Manual Operation/Testing:

The piggyback plug design allows for manual testing of the pump. To operate manually, simply unplug the float switch plug from the wall outlet, then plug the pump's main power cord directly into the wall outlet. The pump will run continuously. To return to automatic operation, unplug the pump's main power cord and re-insert the float switch plug into the wall outlet.

**Caution: Do not run the pump dry for extended periods in manual mode, as this can cause damage.**

## 6. MAINTENANCE

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

- **Monthly Inspection:** Check the sump basin for excessive debris. Remove any large objects that could obstruct the float switch or pump intake.
- **Float Switch Check:** Periodically test the float switch by manually raising it to ensure the pump activates and

deactivates correctly.

- **Clean Impeller:** If the pump's performance decreases, disconnect power and inspect the impeller for clogs or buildup. Clean as necessary.
- **Power Cord Inspection:** Examine the power cord for any signs of damage, fraying, or wear. Replace if damaged.
- **Winterization (if applicable):** If the pump is in an area subject to freezing temperatures and will not be used, remove it from the basin, clean it thoroughly, and store it in a dry, frost-free location.

## 7. TROUBLESHOOTING

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
Pump does not run	No power; tripped breaker; faulty float switch; clogged impeller	Check power supply and breaker; test float switch; clear impeller
Pump runs continuously	Float switch stuck in ON position; faulty float switch	Check float switch for obstructions; replace float switch if faulty
Pump runs but no water is discharged	Clogged intake or discharge pipe; air lock; low water level	Clear clogs; prime pump if air locked; ensure sufficient water level
Pump cycles too frequently	Basin too small; check valve not holding; float switch differential too narrow	Consult a professional for basin size; inspect/replace check valve; adjust float switch if possible (refer to specifications)

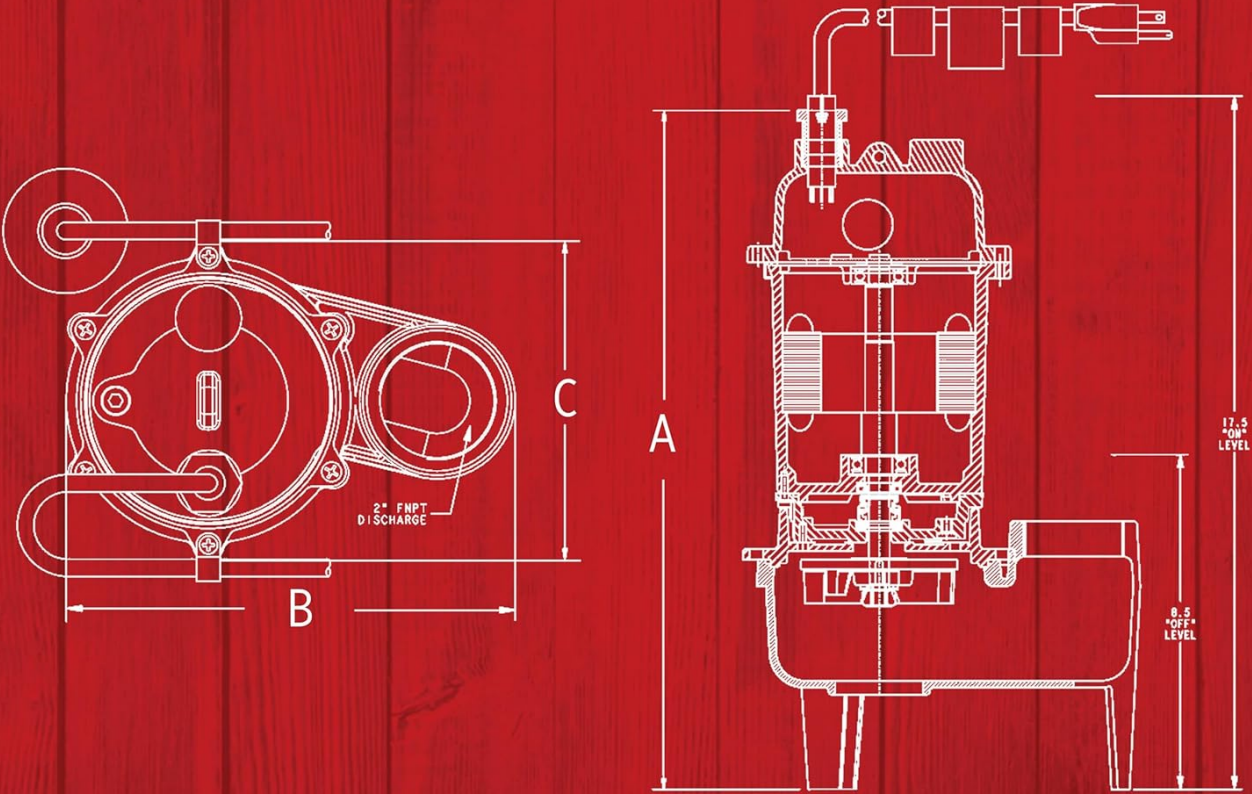
## 8. SPECIFICATIONS

Detailed technical specifications for the Red Lion RL-WC50TA Sewage Pump.

# RL-WC50TA

## SEWAGE PUMP

# DIMENSIONS



HEIGHT (A)	LENGTH (B)	WIDTH	WEIGHT
15.8" (401 mm)	9" (229 mm)	6" (152 mm)	30 lbs (13.6 kg)

Figure 4: Dimensions diagram for the Red Lion RL-WC50TA Sewage Pump. Height (A): 15.8" (401 mm), Length (B): 9" (229 mm), Width (C): 6" (152 mm), Weight: 30 lbs (13.6 kg).

Specification	Value
Model	RL-WC50TA
Part Number	14942748
Brand	Red Lion
Horsepower (HP)	0.5 (1/2 HP)
Voltage	115 Volts
Amperage	9 Amps
Wattage	950 watts
Maximum Flow Rate	5600 GPH (93 Gallons Per Minute)



Specification	Value
Maximum Lifting Height (Shutoff)	22 Feet
Discharge Size	2-inch FNPT
Solids Handling	Up to 2-inch diameter semi-solids
Float Switch Type	Piggyback Tethered
Float Switch ON Level	17.5 inches
Float Switch OFF Level	7.5 inches
Power Cord Length	10 Feet
Minimum Basin Diameter	18 inches
Material	Cast Iron
Product Dimensions (L x W x H)	9" x 6" x 15.8"
Item Weight	29.8 Pounds



# RL-WC50TA SEWAGE PUMP

HP	Volts	Amps	Watts	Discharge	Max. Head	Max. Flow	Cord
1/2	115	9	1100	2" FNPT	22'	5600 gph	10'

## Cast Iron Sewage Pump

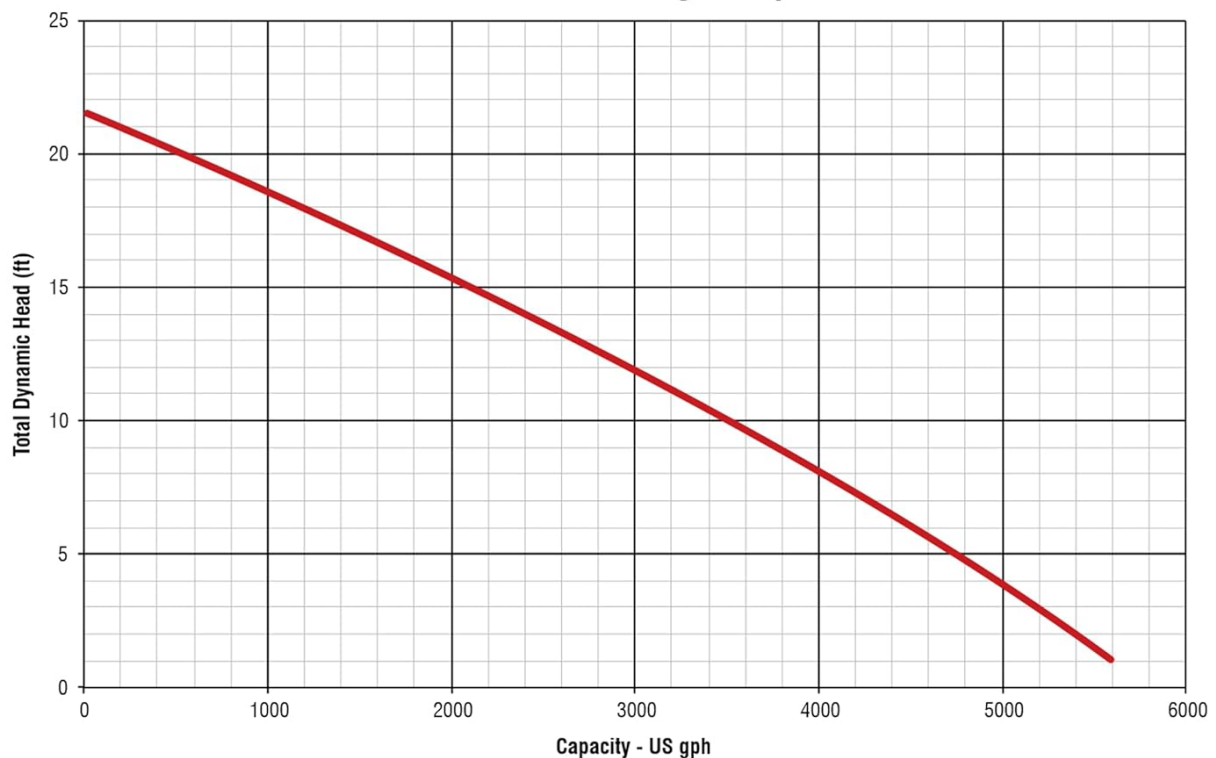


Figure 5: Performance curve and table for the Red Lion RL-WC50TA, showing Gallons Per Hour (GPH) at various lift heights and the shut-off point.

## 9. WARRANTY

The Red Lion RL-WC50TA Sewage Pump comes with a **2-year manufacturer's warranty**. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the warranty documentation included with your product or contact Red Lion customer support.

## 10. SUPPORT

For technical assistance, product inquiries, or warranty support, please contact Red Lion customer service. You can also visit the official Red Lion website for additional resources and FAQs.

- **Red Lion Website:** [Visit the Red Lion Store on Amazon](#)
- **Technical Support:** Refer to your product packaging or the Red Lion website for the most current contact information.

## Related Documents - RL-WC50TA

	<p><a href="#">Red Lion RLWA Series Sewage Pumps Owner's Manual</a></p> <p>Official owner's manual for Red Lion RLWA Series sewage pumps, including models RL50WA and RL75WA. Provides detailed information on installation, operation, safety guidelines, maintenance, troubleshooting, and warranty.</p>
	<p><a href="#">Red Lion Pump Troubleshooting Guide: Solutions for Jet, Submersible, and Transfer Pumps</a></p> <p>Comprehensive troubleshooting guide for Red Lion water pumps, including Shallow Well Jet Pumps (e.g., RJS-50-PREM), Convertible Jet Pumps (e.g., RJC-50), 4" Submersible Well Pumps (e.g., RL12G10-3W2V), Submersible Utility &amp; Sump Pumps, RL-S Cast Iron Surface Effluent Pumps, RL-50 Transfer Pumps, and RLSP/RLHE Sprinkler Pumps. Find solutions for common issues like motor failure, priming problems, low pressure, and more.</p>
	<p><a href="#">Red Lion RL-SPRK Series Sprinkler Pump Owner's Manual - Installation, Operation, Maintenance Guide</a></p> <p>This manual provides comprehensive instructions for the Red Lion RL-SPRK Series Sprinkler Pumps, covering installation, voltage settings, operation, maintenance, troubleshooting, and replacement parts. Designed for residential and commercial lawn and turf sprinkler systems.</p>
	<p><a href="#">Red Lion RL-MP25A Utility Pump Owner's Manual and Specifications</a></p> <p>Comprehensive owner's manual for the Red Lion RL-MP25A Utility Pump, detailing specifications, safety instructions, installation, operation, maintenance, and troubleshooting. Includes flow rate charts and technical data.</p>
	<p><a href="#">Red Lion 4-Inch Deep Well Submersible Pump Owner's Manual &amp; Installation Guide</a></p> <p>Comprehensive guide for Red Lion 4-inch deep well submersible pumps (RL-series and RS-series), covering specifications, safety, installation, maintenance, and troubleshooting for rural water supply. Includes model details, electrical requirements, and operational advice.</p>



[Red Lion RLHE-300 Cast Iron Industrial Sprinkler Pump Owner's Manual](#)

Comprehensive owner's manual for the Red Lion RLHE-300 industrial sprinkler pump, covering installation, operation, maintenance, and troubleshooting. Features include heavy-duty iron casing, high-efficiency impeller, and automatic thermal protector.