

## CRESTWAVE F71-102-045-101

# CrestWave RV Macerator Pump User Manual

Model: F71-102-045-101



Image: CrestWave RV Macerator Pump banner, illustrating the product and brand.

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your CrestWave RV Macerator Pump. Please read this manual thoroughly before using the product and retain it for future reference. Proper understanding and adherence to these instructions will ensure optimal performance and longevity of your pump.

## 2. SAFETY INFORMATION

Observe all safety precautions to prevent injury or damage to the product. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Electrical Safety:** Ensure the power source is 12V DC. Do not operate the pump with damaged wiring or if the power cord is frayed. Disconnect power before performing any maintenance or connections.

- **Wastewater Handling:** Always wear appropriate personal protective equipment, such as rubber gloves and eye protection, when handling wastewater. Avoid direct contact with wastewater.
- **Ventilation:** Operate the pump in a well-ventilated area.
- **Secure Connections:** Ensure all hose and electrical connections are secure and leak-free before operation.
- **Children and Pets:** Keep children and pets away from the pump during operation.
- **Intended Use:** This pump is designed for RV, boat, and marine toilet wastewater systems. Do not use it for flammable liquids or corrosive chemicals.

### 3. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, contact customer support.



Image: Complete CrestWave RV Macerator Pump kit, showing all included components.

# One Package - Satisfy All You Need

RV Macerator Pump x 1	Adjustable Metal Clamp x 2
Alligator Clip x 1	Waterproof Tape x 1
2.3M Cigarette Lighter Power Cable x 1	Screwdriver x 1
3/4 Inch Hose Connector x 1	RV Black Water Hose x 1
Rubber Gloves x 1	



Image: Visual representation of the kit contents with labels.

- RV Macerator Pump (x1)
- Alligator Clip (x1)
- 2.3M Cigarette Lighter Power Cable (x1)
- 3/4 Inch Hose Connector (x1)
- Rubber Gloves (x1 pair)
- Adjustable Metal Clamps (x2)
- Waterproof Tape (x1 roll)
- Screwdriver (x1)
- RV Black Water Hose (x1)
- Durable Storage Box (x1)
- Transparent Tube (for visual inspection)

## 4. PRODUCT OVERVIEW

The CrestWave RV Macerator Pump is a heavy-duty, self-priming pump designed for efficient wastewater disposal from RVs, boats, and other applications. It features a powerful motor and robust crushing blades to ensure clog-free operation.

#### 4.1 Key Components

- **144W Copper Motor:** Provides strong pumping power with low noise, thermal protection, and dry-run protection for extended lifespan.
- **SK5 High-Carbon Steel Spiral Blades:** Dual four-blade impellers crush waste particles to less than 15mm, preventing clogs.
- **Self-Priming Capability:** Allows the pump to draw wastewater from tanks up to 3.2 feet suction height and lift it up to 10 feet.
- **3/4" NPT Fittings:** Standard connections for easy integration with RV waste systems.
- **Garden Hose Connector with On-Off Valve:** Simplifies flushing and cleaning of the system.



Image: Diagram illustrating the powerful copper motor with features like low noise, thermal protection, and over-dry protection.

# Unparalleled in Waste Crushing

Ultra Sharp Blades Engineered from SK5 High Carbon Stainless Steel



Exceptional strength, sharpness, and durability

Image: Close-up view of the SK5 high-carbon steel spiral blades designed for efficient waste crushing.

## 5. SETUP INSTRUCTIONS

Follow these steps to properly set up your CrestWave RV Macerator Pump.

### 5.1 Connecting the Pump to Your RV

1. Ensure your RV's waste tank valves are closed.
2. Connect the pump's inlet (larger opening) to your RV's waste outlet using the 3/4" NPT fittings. Secure with adjustable metal clamps.
3. Attach the RV black water hose to the pump's outlet (smaller opening). Ensure a tight connection.
4. Route the black water hose to your desired disposal point (e.g., sewer connection, portable waste tank).

### 5.2 Power Connection

The pump operates on 12V DC power.

- **Option 1: Cigarette Lighter:** Connect the 2.3M cigarette lighter power cable to your vehicle's 12V cigarette lighter socket.
- **Option 2: 12V Battery:** Use the alligator clips to connect directly to a 12V battery. Connect the red clip to the positive (+) terminal and the black clip to the negative (-) terminal.



## Easily Handle RV Sewage

Image: CrestWave macerator pump connected to an RV's sewage outlet, ready for operation.

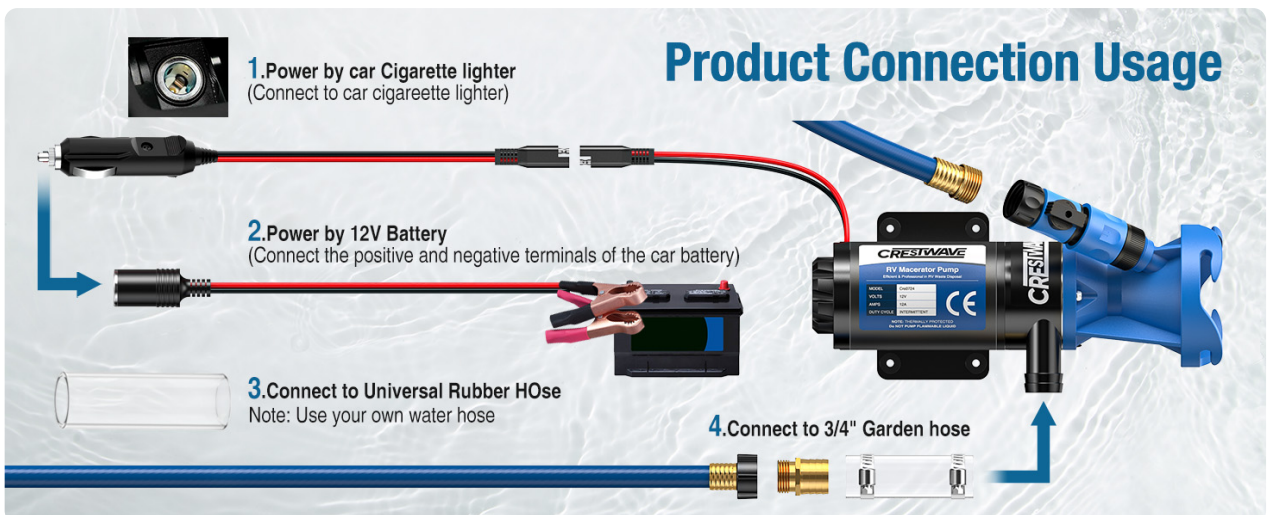


Image: Diagram illustrating various connection methods for the macerator pump, including cigarette lighter and 12V battery,

and hose connections.

## 6. OPERATING INSTRUCTIONS

Follow these steps for safe and effective wastewater disposal.

1. **Prepare for Disposal:** Ensure the discharge hose is securely connected and directed to an approved disposal site.
2. **Open Black Tank Valve:** Slowly open the black water tank valve on your RV.
3. **Start Pump:** Turn on the macerator pump. The pump will begin to draw and macerate the black water. Monitor the flow through the transparent tube if installed.
4. **Flush Black Tank:** Once the black tank appears empty, close the black tank valve. Open the grey water tank valve to allow grey water to flush through the pump, cleaning it and the hose.
5. **Optional: Garden Hose Flush:** For thorough cleaning, connect a garden hose to the pump's flush port, open the valve, and run fresh water through the pump and hose until clear.
6. **Close Grey Tank Valve:** Once the grey tank is empty and the system is flushed, close the grey tank valve.
7. **Stop Pump:** Turn off the macerator pump.
8. **Disconnect:** Disconnect the discharge hose and store it properly. Disconnect power from the pump.



Image: A clear hose showing water flowing, indicating the flushing process.



Image: A hand holding a hose, demonstrating the use of the garden hose for flushing.

## 7. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your macerator pump.

- **Flush After Each Use:** Always flush the pump with clean water after each use to prevent buildup and odors. Using grey water first, then a garden hose, is recommended.
- **Inspect Connections:** Periodically check all hose and electrical connections for leaks, wear, or damage. Tighten clamps as needed.
- **Clean Exterior:** Wipe down the exterior of the pump with a damp cloth. Do not submerge the pump in

water.

- **Storage:** Store the pump in its durable storage box in a dry, cool place when not in use. Ensure all water is drained from the pump before storing, especially in freezing temperatures.

## 8. TROUBLESHOOTING

Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution
Pump does not start	No power; Loose electrical connection; Blown fuse; Thermal overload protection activated.	Check power source (12V DC); Ensure connections are secure; Check vehicle fuse; Allow pump to cool down if overheated.
Low flow or no flow	Clogged inlet/outlet; Kinked hose; Air leak in suction line; Tank valve not fully open.	Inspect and clear any obstructions; Straighten hose; Check all connections for air leaks; Ensure tank valve is fully open.
Pump is noisy	Air in the system; Debris in the pump; Loose mounting.	Ensure pump is fully primed; Flush pump to clear debris; Check mounting screws and tighten if necessary.
Leakage from connections	Loose hose clamps; Damaged fittings; Improperly applied waterproof tape.	Tighten hose clamps; Inspect fittings for damage and replace if needed; Reapply waterproof tape correctly.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact CrestWave customer support.

## 9. SPECIFICATIONS

Technical details for the CrestWave RV Macerator Pump F71-102-045-101.

# Product Dimensions



Image: Diagram showing the dimensions of the macerator pump and its various components.



Image: Close-up of the pump's label, displaying model and electrical specifications.

- **Brand:** CRESTWAVE
- **Model Number:** F71-102-045-101
- **Material:** Copper (Motor)
- **Power Source:** Corded Electric (12V DC)
- **Voltage:** 12 Volts
- **Wattage:** 144 Watts
- **Maximum Flow Rate:** 12 Gallons Per Minute (45 LPM)

- **Maximum Lifting Height:** 10 Feet
- **Suction Height:** 3.2 Feet
- **Crushing Capability:** Waste particles reduced to less than 15mm
- **Noise Level:** ≤70dB
- **Continuous Operation:** Up to 1000 hours
- **Waterproof Rating:** IPX8
- **Operating Water Temperature:** 41°F to 140°F (5°C to 60°C)
- **Item Weight:** 10.83 pounds
- **Package Dimensions:** 15.04 x 11.22 x 7.56 inches

## 10. WARRANTY AND SUPPORT

CrestWave provides dedicated support and a 12-month coverage for manufacturing-related matters from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

### 10.1 What is Covered

- Defects in materials.
- Defects in workmanship.

### 10.2 What is Not Covered

- Damage caused by improper installation or use.
- Damage from accidents, abuse, or neglect.
- Normal wear and tear.
- Unauthorized repairs or modifications.

### 10.3 How to Obtain Support

If you experience any issues with your CrestWave RV Macerator Pump, please contact CrestWave customer service with your purchase details. Our team is committed to your satisfaction and will assist you with troubleshooting or warranty claims.