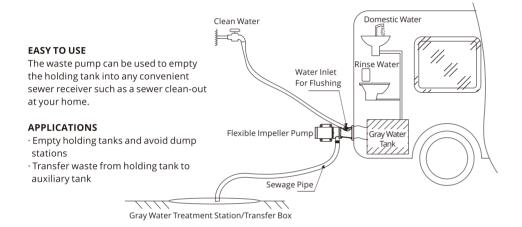
RECOMMENDED WIRE & FUSE SIZE

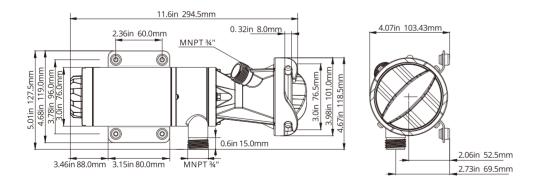
Wire Size for Connection Length between Battery & Motor

Voltage	1-5'	5-10'	Fuse/Breaker
12V	14AWG	12AWG	20A
24V	14AWG	12AWG	10A

APPLICATION DIAGRAM



DIMENSIONS



page 4



03 SERIES MACERATOR PUMP INSTALLATION MANUAL

FEATURES

- · Connects directly to the RV waste outlet
- · Water inlet isolation cover to isolate odor
- · Ability to drain holding tanks at home
- Garden hose discharge port (3/4" MNPT)

- · Ability to dump longer distances·
- Remote hand held on/off switch
- Fresh water rinse capabilities
- Ignition protection

APPLICATION

The macerator pump is the ideal solution for emptying holding tanks on recreational vehicles and avoiding dump stations. Empties a typical 40-gallon holding tank in less than 5 minutes. Do not run more than 15 minutes continuously. The waste pump will macerate and pump all waste and tissue normally found in recreational vehicle waste systems. IT WILL NOT HANDLE HARD SOLID OBJECTS, SANITARY NAPKINS OR RAGS.

SPECIFICATIONS

Pump: Self-Priming Flexible Impeller with Stainless Steel Wearplate

Macerator: Stainless Steel Cutter reduces particle size to 1/8" (4 mm) maximum

Seal: Lip Type

Ports: Inlet - 3" (75 mm) RV Connector

Outlet - 3/4" MNPT

Motor: 12 Vdc Permanent Magnet Type, Fully Enclosed, with Stainless Steel Shaft Intermittent Duty Only

Weight: 5.84 lbs (2.65kg)

Case Size: 12.04" x 5.02" x 4.07" (305.9 mm x 127.5 mm x 103.5 mm)

Model	Voltage	Open Flow (GPM/LPM)	Max Draw	Impeller	Ports
SFMP1-120-03	12V	12/45	15 A	Rubber & Copper	3" (75 mm) RV Connector 3/4" MNPT
SFMP2-120-03	24V	12/45	7 A		

RECOMMENDED HOSE TABLE

Hose Size	Maximum Hose Length	
5/8"(16 mm)	25 feet (7.5m) max	
3/4"(19 mm)	50 feet (15m) max	

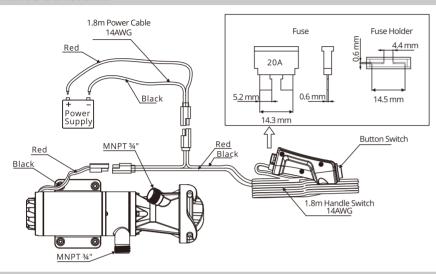
Recommended lengths are based on horizontal discharge. Longer discharge runs create higher resistance and may result in the pump motor overheating.

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WARNING

- 1. DO NOT RUN DRY FOR MORE THAN 30 SECONDS.
- 2. DO NOT MOUNT PERMANENTLY TO THE RV WASTE PORT.

WIRING DIAGRAM



OPERATING INSTRUCTIONS

- 1. Remove end cap from drain pipe.
- 2. Install waste pump on drain in any convenient position, twisting clockwise to lock.

Be sure that o-ring is on pump adapter prior to installing unit.

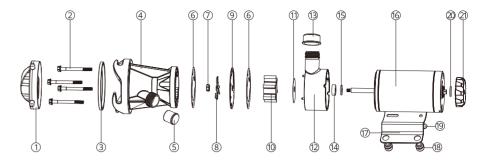
- 3. Install waste/garden hose on discharge port adapter.
- 4. Install rinse water hose to on-off valve.
- 5. Open black water valve, turn on pump.
- 6. Turn off pump and open gray water valve. Let gray water backflush black water tank. Turn on pump.
- 7. Turn off pump, open rinsing valve and back fill tanks for rinsing. Turn on pump, Turn off rinse water. Drain tanks.
- 8. Close both drain valves, turn on rinse water (40 PSI max.) and pump. Rinse pump and discharge hose.
- 9. Turn off water and pump, disconnect hose and pump. Store until next use.
- 10. Replace end cap on drain pipe.

ELECTRICAL INSTRUCTIONS

- Refer to electrical drawing above. Connect the 6 foot switch assembly to RV waste pump motor wires with butt connectors (connect the red motor wire to the red switch wire; and the black motor wire the black connector wire).
- 2. Locate a 12 VDC, 20 amp power source and install the 6 foot power connector-cable; Connect the red positive wire to a 20 amp circuit, and the Black negative wire to a negative circuit or chassis ground. Locate this connector in the waste compartment or adjacent to the 3 inch waste drain and valves. Optionally, alligator clips (with 20 amp rating) may be installed on the 6 foot power connector-cable for a fully portable installation.
- 3. Fuse Replacement: The fuse is located under the black dust cover on the bottom of the On/Off Control Handle. Use an automotive 20 amp fuse for replacement.

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DETAILED COMPOSITION



Key	Description	Key	Description
1	Plumbing Cap	12	Impeller Housing
2	Screw	13	Outlet Cover
3	Pump Head Gasket	14	Oil Seal
4	Pump Head	15	Seal
5	Pump Head Check Valve	16	Motor
6	Gasket	17	Iron Plate
7	Screw Nut	18	Rubber Feet
8	Blade	19	Screw
9	Round Stainless Steel Sheet	20	Adjustment Cap O-ring
10	Impeller	21	Adjustment Cap
11	Convex Stainless Steel Sheet		

MAINTENANCE

TURN OFF ALL POWER!

· REAR END CAP/MOTOR SHAFT ACCESS

Loosen shaft knob(21), put the D-type rotary knob mounted on one end of the rear end of the motor.

· PUMP DISASSEMBLY

Remove 4 cover screws (2). Remove cutter housing (4) and gasket (6). It is necessary to hold the motor shaft steady. Insert a screwdriver into slot on motor shaft, or slip a thin wrench(9/32"[7mm]) behind blades onto flat of motor shaft. Remove hex nut (7) and cutter (8).Remove top wear plate (9), gasket (6), impeller (10) and bottom wear plate (11). Remove impeller housing (12) and shaft seal (14). It is not necessary to remove slinger (15).

· PUMP ASSEMBLY

Ensure the slinger (15) is on the motor shaft. Ensure that the shaft seal (14) can be inserted into the right position of impeller housing (12). Install the impeller housing (12) to the motor shaft. Install the bottom wear plate (11) insert to the impeller housing (12). Rotate the impeller (10) to the impeller housing (12) with counterclockwise. Install the gasket (6) and top wear plate (9). Install the cutter blade (8), and aligned with the motor shaft. Fixing the motor shaft with a screwdriver or a wrench(9/32"[7mm]) to tighten the hex nut (7). Installed gasket (6), cutter housing (4), and tighten the screw (2).