



Model: 18590-0010

SELF-PRIMING MACERATOR PUMP UNITS

FEATURES

Pump:	Self-Priming Flexible Impeller with Stainless Steel Wearplate
Impeller:	Jabsco Nitrile Compound
Macerator:	Cast Bronze Cutter reduces particle size to 1/8" maximum
Seal:	Lip Type
Ports:	Inlet – 3" Slip-on Hose Outlet – 1" ID Hose Barb
Motor:	12 Vdc Permanent Magnet Type, Fully Enclosed, with Stainless Steel Shaft
Weight:	7 lb (3.2 kg) Approx.

This pump should be used in accordance with EPA Sanitation Regulations.

APPLICATION

The Jabsco 18590-series DC macerator pump unit is the ideal solution for emptying holding tanks on recreational vehicles and avoiding dump stations. The macerator section grinds waste down to a particle size of 1/8" maximum so it can easily be pumped through a 1" ID discharge hose. The pump section is self-priming, permitting the unit to be mounted above the tank in a convenient location. (For optimal efficiency, locate pump as close to holding tank as possible.)

Recommendation: Purchase a commercial 1" garden hose and cut off a 1 to 2 foot length of the outlet end. Attach this short hose to the macerator 1" outlet. Now attach the swivel female connector to the short hose male connector. You can now easily remove and store the 1" service hose.

Empties most recirculating toilets in less than 2 minutes; empties a typical 30 gallon holding tank in less than 3 minutes.

The 18590-series 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.**



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OPERATING INSTRUCTIONS

The Jabsco macerator pump unit has been designed to handle waste, toilet tissue, and facial tissue. It will also handle solids such as filter tip cigarettes, cigars and chunks of soft fruits or vegetables less than 1" size. It will not pump solid objects like peach pits, rags, or sanitary napkins. The holding tank and pump should be flushed with several gallons of water after each pumpout.

Do NOT run pump dry. Make sure the battery is fully charged. The DC motor is suitable only for intermittent duty; do not run for more than 15 minutes continuously.

After long periods of nonuse, the macerator pump may not turn freely. Pour a cup of water down pump discharge line to help free the impeller. The motor shaft has a screw driver slot machined at the rear of the motor. This may be used to free a stuck impeller after months of non use.

INSTALLATION INSTRUCTIONS

Locating the pump: The macerator is self-priming to a six foot lift when impeller is wet, four foot when dry, and may be mounted in any convenient point in the waste discharge system. It may be mounted in any position or angle without affecting performance. Use the rubber grommets provided to absorb vibration. Do not over tighten mounting screws. For optimal performance, mount the pump as close to tank as possible.

Plumbing Connections: Use 3" ID non-collapsible hose and clamp on outside diameter of macerator housing.

All suction connections must be airtight and free of sharp bends or restrictions to ensure proper priming. Use minimum 1" ID hose for discharge to direct waste to an appropriate sewage receiver such as a sewer clean-out. See recommendation on page 1.

Wiring Hookup: For permanent connection, use heavy duty stranded copper wire to avoid excessive voltage drop. Consult recommended wire and fuse size table for correct size. Install 20 Amp fuse in positive lead between power source and on-off switch for macerator.

NOTICE: Connect orange wire to positive circuit and black wire to negative for proper rotation. Failure to connect wires as described will damage unit and void warranty.

PERFORMANCE DATA

HEAD CAPACITY TABLE

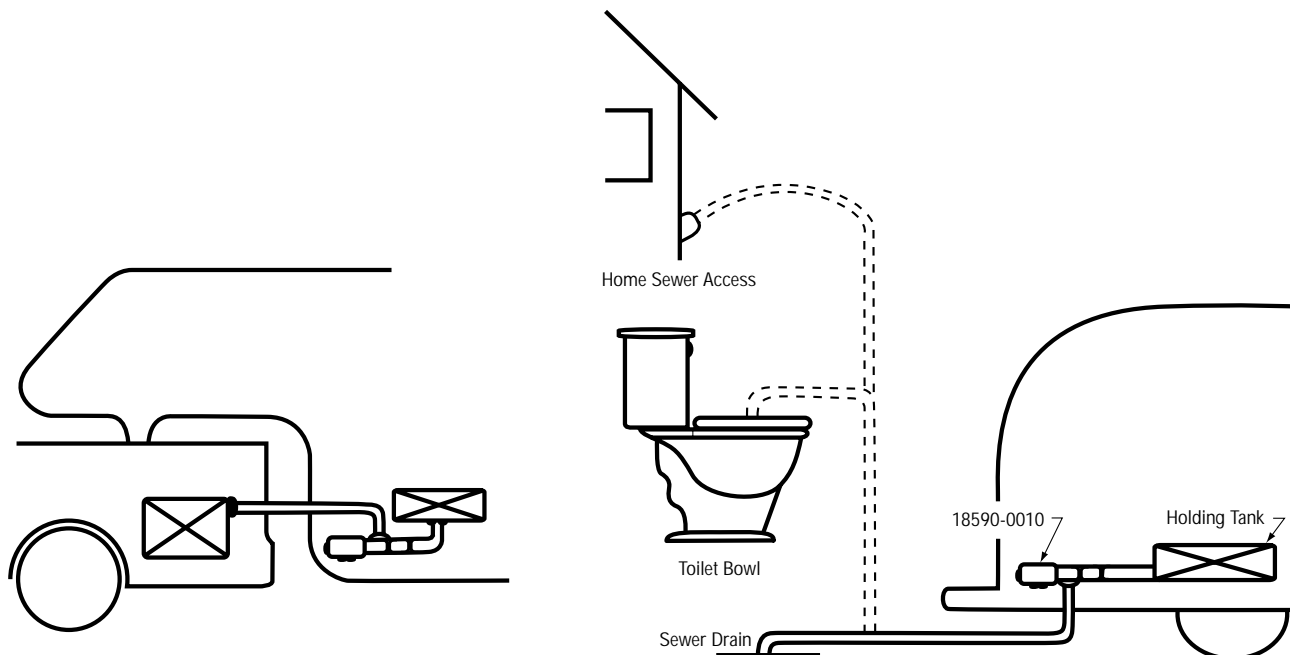
Head Feet	GPM	Amps
Free Flow	14.0	14.0
5	13.0	14.5
10	11.5	15.0
15	10.5	16.0
20	9.0	16.5

** Flow rates and amperage will vary slightly depending on pump loading (sanitation system design).

RECOMMENDED WIRE & FUSE SIZE

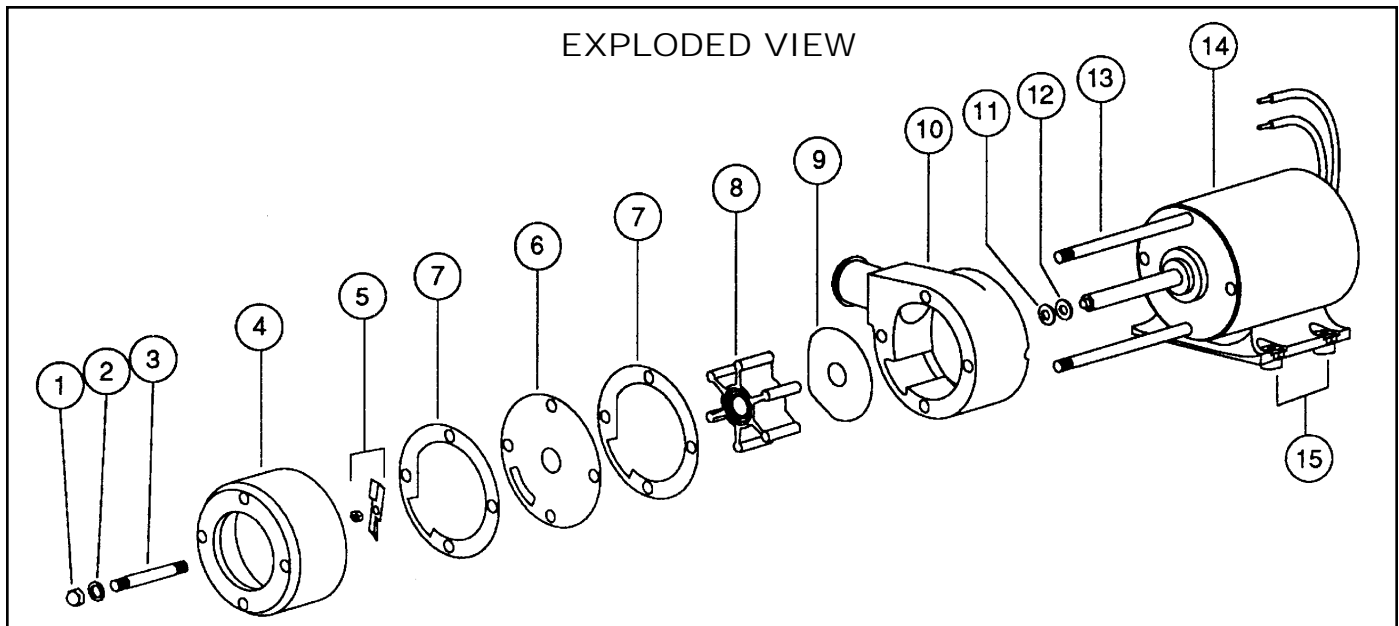
Voltage	Wire Size for Connection Length between Battery & Motor		Fuse/Breaker*
	1-10'	10-20'	
12	12 AWG	10 AWG	20 amp

TYPICAL RECREATIONAL VEHICLE USES



FROM HOLDING TANK TO EXTRA HOLDING TANK

HOLDING TANK PUMP OUT - PERMANENT INSTALLATION



DISASSEMBLY

Remove the four acorn nuts (Key 1) and fiber washers (Key 2) from the pump studs (Key 3). Slide the macerator housing (Key 4) off the studs. Insert a thin bladed 9/32" (7mm) ignition wrench behind the chopper plate (Key 5) and onto the flat of the motor shaft to prevent it from turning. Unscrew (counter-clockwise) the locknut on the end of the motor shaft and remove the stainless steel chopper blade.† Remove the pump wearplate (Key 6) and two paper gaskets (Key 7). Now slide the pump body (Key 10) with impeller (Key 8), small wearplate (Key 9), two studs and shaft seal as an assembly off the motor shaft and remaining two mounting studs. Remove the starlock retaining washer on the seal and push the seal out of the seal bore.

If reconditioning pump with a service kit (Part No. 18598-1000), it is not necessary to remove the seal because the new seal is pre-installed in the new body. It is also generally not necessary to remove the slinger or brass studs screwed into the motor end bell.

ASSEMBLY

If installing a new seal, push it into the seal bore of the body with the lip pointing toward the impeller bore. Press the starlock washer into the seal bore with the concave side up to secure the seal in the bore. Install the two shorter studs in the two holes with threaded inserts in the new pump body and tighten finger tight. If required, screw the two longer studs into the tapped holes in the motor end bell. Slide the new pump body with the shaft seal installed onto the motor shaft and two long mounting studs in the motor. Slide the small wearplate over the motor shaft and position it in the bottom of the impeller bore. Slide the new impeller onto the motor shaft and, with a counter-clockwise motion, push it into the pump impeller bore. Position one new gasket on the studs and against the pump body assuring the cut-out aligns with the inlet groove in the body. Position the large wearplate and second gasket on the studs and against the body

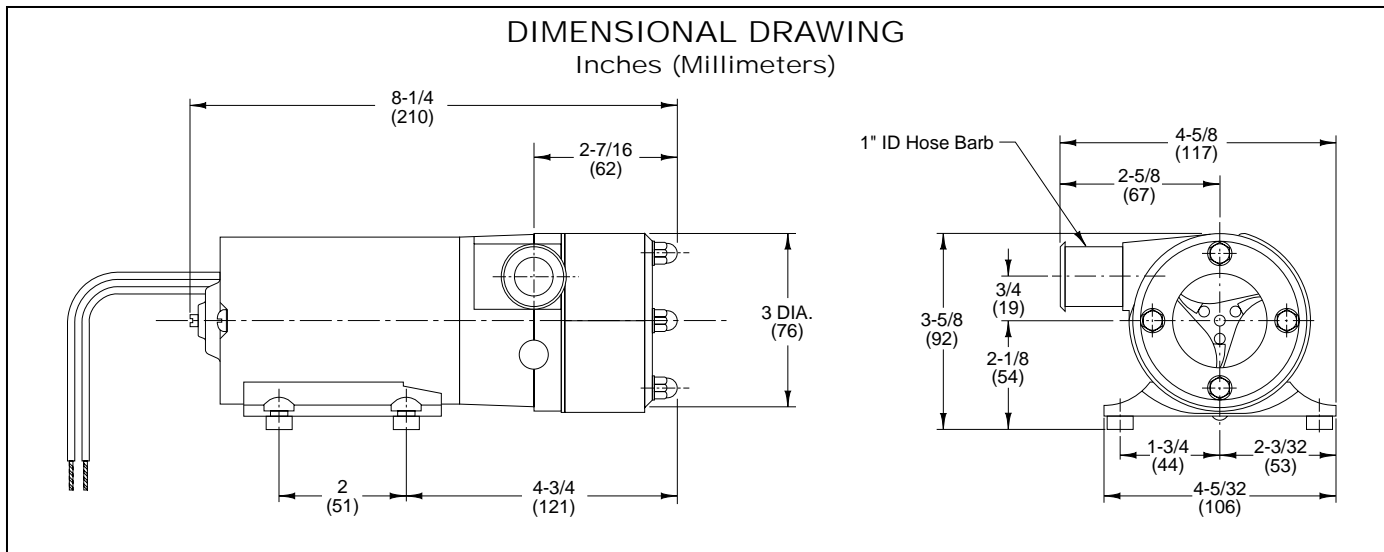
PARTS LIST

Key	Description	Qty.	Part Number
1	Acorn Nut	4	91085-0340
2	Fiber Washer	4	91613-0140 *
3	Stud	2	17288-0010 *
4	Macerator Housing	1	18594-1000
5	Chopper Plate with Locknut	1	37056-1000
6	Wearplate, Large	1	18597-1000
7	Gaskets (2 each per kit)	1	18596-1000 *
8	Impeller	1	6303-0003 *
9	Wearplate, Small	1	12316-1002
10	Body	1	18593-1000 *
11	Seal	1	1040-0000 *
12	Slinger	1	6342-0000
13	Stud	2	17288-0000
14	Motor Sub-Assembly-12 volt	1	17246-0000
	Motor Sub-Assembly-24 volt	1	17246-0001
	Motor Sub-Assembly-32 volt	1	17246-0002
15	Grommets (Set of 4)	1	92900-0120
	Service Kit	1	18598-1000

* These parts are supplied in 18598-1000 Service Kit.

again aligning the hole in the wearplate and gasket cut-out with the pump inlet. Position the chopper on the end of the motor shaft with drive tab aligned with flat of shaft and pointing toward the motor. Hold the shaft with the ignition wrench and secure the chopper to the shaft with the locknut. Position the macerator housing on the four studs ensuring the cut-out in the inner wall aligns with pump body inlet port and hole in the wearplate. Position a new fiber washer on each of the studs and secure the macerator housing in place with the four acorn nuts.

† On pumps manufactured prior to April of 1998, position a screwdriver between the prongs of the bronze chopper and unscrew it (counter-clockwise) and remove it with its lock washer from the motor shaft.



ONE YEAR LIMITED WARRANTY

A. LIMITED WARRANTY: Jabsco warrants that at the time of shipment, the products manufactured by Jabsco and sold hereunder shall be in conformity with applicable written specifications and descriptions referred to or set forth herein, free from defects in material and workmanship, merchantable, and suitable for a particular purpose, provided such is implied by State law under the circumstances of this sale.

B. WARRANTY ADJUSTMENT:

1. Jabsco agrees to repair or furnish a replacement for, but not to remove or install, any product or component thereof which, within one (1) year from date of purchase, shall upon test and examination by Jabsco prove defective within the above warranty. Receipt verifying purchase date is required to obtain adjustment.
2. Buyer shall notify Jabsco of any defect within this warranty no later than ninety (90) days after the defect is discovered.
3. No product will be accepted for return or replacement without the prior written authorization of Jabsco. Upon such authorization, and in accordance with instructions from Jabsco, the product will be returned to Jabsco, shipping charges prepaid by Buyer. Products returned to Jabsco will be addressed as follows:

JABSCO
1485 Dale Way
Costa Mesa, California 92626-3998

Or to such alternate locations as may be designated on the product, its container, or this sheet.

Repair or replacement made under this warranty will be shipped prepaid to Buyer

C. EXCLUSIONS FROM WARRANTY AND LIMITATION OF LIABILITY:

1. The foregoing warranty is limited solely as set forth herein and applies only for the period designated above.

2. JABSCO SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE, SPECIAL OR CONSEQUENTIAL DAMAGE OF ANY KIND, WHETHER BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, OR STRICT LIABILITY ARISING IN CONNECTION WITH THE SALE, USE, OR REPAIR OF THE PRODUCT.
3. THE MAXIMUM LIABILITY OF JABSCO IN CONNECTION WITH THIS WARRANTY SHALL NOT IN ANY CASE EXCEED THE CONTRACT PRICE FOR THE PRODUCT CLAIMED TO BE DEFECTIVE OR UNSUITABLE.
4. This warranty does not extend to any product manufactured by Jabsco which has been subjected to misuse, neglect, accident, improper installation, or use in violation of instructions furnished by Jabsco.
5. This warranty does not extend to or apply to any unit which has been repaired or altered at any place other than Jabsco's factory, or by persons not expressly approved by Jabsco, nor to any unit the serial number, model number, or identification of which has been removed, defaced or changed.
6. Components manufactured by any supplier other than Jabsco shall bear only that warranty made by the manufacturer of that product.
7. This warranty applies to products defined as "consumer products" by the Consumer Product Warranties Act as from time to time amended.

D. CONSUMER RIGHTS: This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow exclusion or limitation of damages.

STANDARD WARRANTY: If the products manufactured and sold hereunder are not Consumer Products, the warranty extended to Buyer shall be as set forth in subparagraphs (A), (B), and (C), **EXCEPT THAT ALL EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR SUITABILITY FOR ANY PARTICULAR PURPOSE ARE EXCLUDED.**

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THE PRODUCTS DESCRIBED HEREIN ARE SUBJECT TO THE JABSCO ONE YEAR LIMITED WARRANTY, WHICH IS AVAILABLE FOR YOUR INSPECTION UPON REQUEST.