



Type III MSD Waste Management System

- ✓ Rugged Polyethylene holding tank
- ✓ Barbed fittings for all hose connections
- ✓ Heavy Duty Macerator Evacuation pump
- ✓ Three run-dry and accidental activation safety features
- ✓ Touch-pad waste management control panel
- ✓ Additional dock side evacuation pick up

PUMP FEATURES

Pump:	Self-Priming Flexible Impeller with Stainless Steel Wearplate
Impeller:	Jabsco Nitrile compound
Macerator:	Stainless Steel Cutter reduces particle size to 1/8" (3mm) maximum
Seal:	Lip Type
Ports:	Inlet - 1-1/2" (38mm) Hose Barb and 1-1/2" N.P.T. (Male) Outlet - 1" (19mm) Hose Barb
Motor:	Permanent Magnet Type, Fully Enclosed, with Stainless Steel Shaft Includes Run-Dry Protection Device that shuts-off pump. Powder coated housing with sealed end-bells and bearings.

System Features

Level Indication: When pressed, the level indicator will illuminate for 1 minute. When the tank level reaches $\frac{3}{4}$ full, the indicator will flash automatically to alert the user to empty the tank

Sleep Mode: If the flashing LED is a disturbance the unit can be put into sleep mode. The unit will emerge from sleep if the system is turned off or the tank level is increased. NOTE: the unit is unable to be put into sleep mode if the tank is $\frac{7}{8}$ full or greater.

Empty Button: This button needs to be pressed and held for 3 seconds to activate the pump. This eliminates the possibility of accidental operation.

Averaging: Two different level averaging methods have been used - one when filling and one when emptying. This compensates for the the boats movement when the tank is filling, and still allows an accurate reading when emptying.

Fail Safe Feature: If no fluid movement is sensed 20 seconds after the pump is set to run, the pump will shut down and the fault LED on the indicator panel will flash. This protects the pump from failure. NOTE: To re set the unit simply press the level button, If unit continues to shut down and indicate a fault check pump and plumbing for a blockage.



38110-SERIES

Installation:

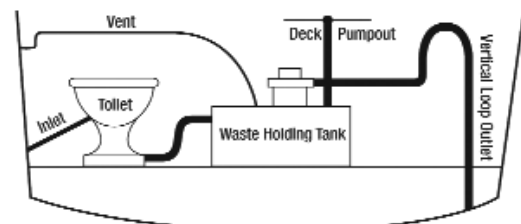
- 1: The holding tank should be located as close to the toilet and discharge thru-hull fitting
- 2: A proper seacock is required if the discharge thru-hull is positioned below the waterline
- 3: If both the discharge thru-hull and the holding tank are fitted below the waterline, a vented loop must be fitted to prevent a potential siphon being created. If unfamiliar with the installation of a vented loop please consult a marine plumber or contact Jabsco for further details.
- 4: Mount on a strong flat surface. Note the area of installation needs to support the weight of the unit plus its contents. The total weight for this unit when full can equal 90lbs.
- 5: 4 mounting feet are supplied these need to be attached to the platform with 4 machine or lag screws and flat washers

Plumbing:

Each tank is fitted with the following:

- 1 x 1 1/2" deck pump out - evacuation pick up tube - fit to dockside pump-out deck plate
 - 1 x 1 1/2" inlet port - from toilet system
 - 1 x 3" o-ring sealed inspection hatch
 - 1 x 1" vent* - connect to vent outlet usually sited high on a vessels hull near the gunwale.
 - 1 x 1" Overboard discharge port - macerator pump Discharge - connect to the overboard discharge thru-hull fitting.
- See Plumbing Diagram for suggested Installation

Plumbing Diagram



Electrical:

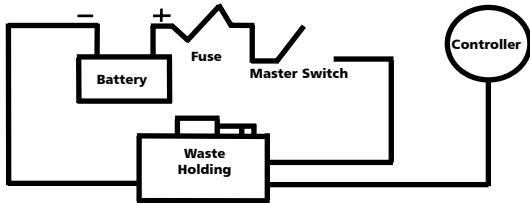
Wire the unit in an Independent Circuit
 Consult the wiring table for fuse and wire size
 Consult the wiring diagram for connections

Wiring Table

VOLTAGE	DRAW	AMP	FUSE	WIRE SIZE PER FEET OF RUN*			
				0'-10'	10'-15'	15'-25'	25'-40'
12 Vdc	16	20	#16(1.5)	#14(2.5)	#14(2.5)	#12(4)	#6(16)
24 Vdc	8	15	#18(1)	#16(1.5)	#16(1.5)	#14(2.5)	#10(6)

* Length of run is total length of the circuit from the power source to product and back to ground. Wire sizes listed are SAE guage and metric millimeters.

Wiring Diagram



Maintenance:

To keep in good working condition flush the system with clean water to remove any build up of sludge or debris. It is recommended that this process be completed at least once a year.

For Macerator pump servicing see 18590 Series Macerator datasheet Servicing Section

Winter storage:

Empty the complete system of all water making sure pipe work and pump are completely free of waste.

DIMENSIONAL DRAWINGS Inches (Millimeters)

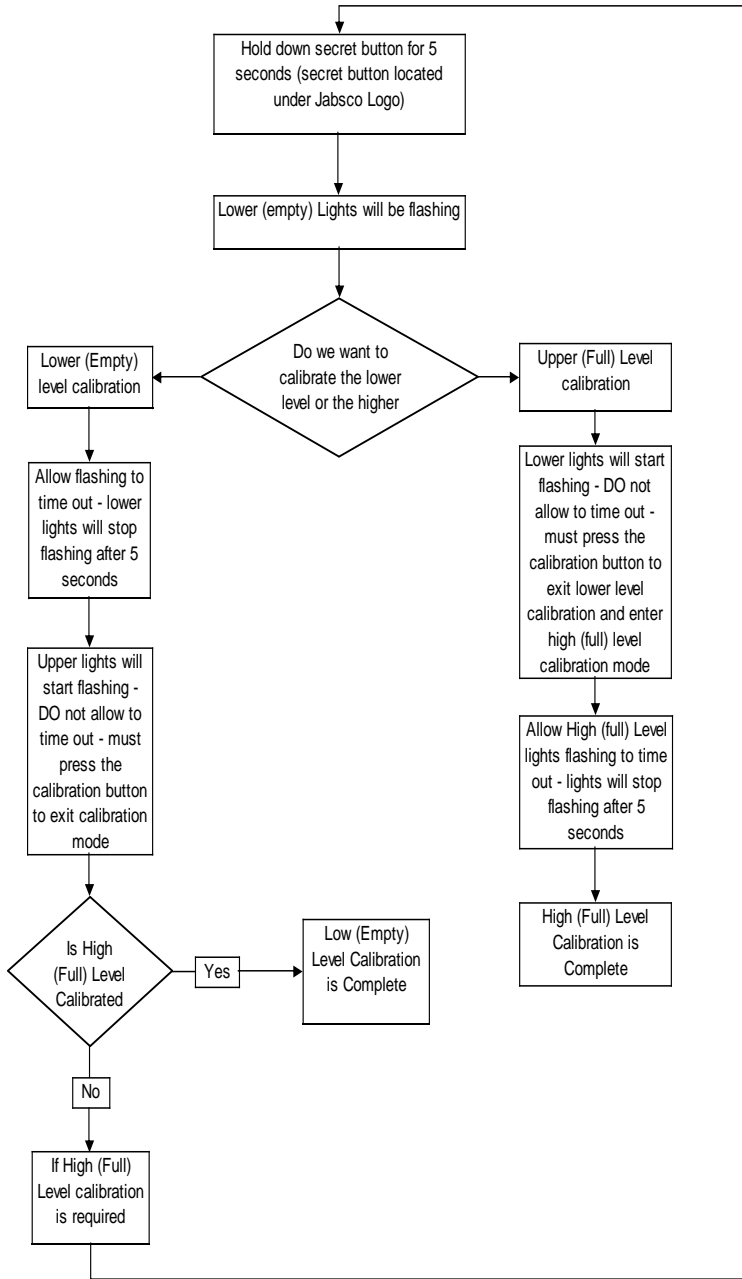
The drawings show the following dimensions:

- Top view: 1" (25mm) OUTLET, 3/4" (19mm) VENT, 3" (76mm) CLEAN-OUT, 1-1/2" (38mm) PUMP-OUT, 1-1/2" (38mm) INLET, 1-1/2" (38mm) PUMP-OUT.
- Side view: 9 (23) height, 10-7/8 (28) width, 12-7/8 (28) width.
- Front view: 11-1/2 (29) width, 10-3/8 (26) height, 10-3/8 (26) height.
- Bottom view: 17-3/8 (43.9) height, 14 (35.6) width.

PARTS LIST			
Key	Description	Qty.	Part Number
1	1-1/2" Barbed Elbow Pick-up Tube	2	38112-6000
2	Macerator Motor-12Volt CE	1	18590-1090
	Macerator Motor-24Volt CE	1	18590-1001
3	10 Foot Control Cable	1	47010-6000
	15 Foot Control Cable	1	47015-6000
	20 Foot Control Cable	1	47020-6000
	30 Foot Control Cable	1	47030-6000
4	Control Panel-12Volt	1	38111-6012
	Control Panel-12Volt	1	38111-6024

Calibration Process

Calibration: The level sensing equipment is calibrated during manufacture. Re-Calibration is possible however if the unit falls out of calibration or if the user wants to alter the full and empty levels. The chart opposite shows the Calibration procedure.



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
Cape Ann Industrial Park
Gloucester, MA 01930

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**. **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**

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

Jabsco



ITT Industries
Engineered for life

U.S.A.
Jabsco
Cape Ann Industrial Park
Gloucester, MA 01930
Tel: 978.281.0440
Fax: 978.283.2619

UNITED KINGDOM
Jabsco
Bingley Road, Hoddesdon
Hertfordshire EN11 0BU
Tel: +44 (0) 1992 450145
Fax: +44 (0) 1992 467132

CANADA
Fluid Products Canada
55 Royal Road
Guelph, Ontario N1H 1T1
Tel: (519) 821.1900
Fax: (519) 821.2569

JAPAN
NHK Jabsco Company Ltd.
3-21-10, Shin-Yokohama
Kohoku-Ku, Yokohama, 222
Tel: 045.475.8906
Fax: 045.475.8908

GERMANY
Jabsco GmbH
Oststrasse 28
22840 Norderstedt
Tel: +49-40-53 53 73 -0
Fax: +49-40-53 53 73 -11