



PERISTALTIC METERING PUMP

RC-0021-0001

RC-0021-0002

RC-0021-0120

OPERATING INSTRUCTIONS



**CAUTION
RISK OF INJURY!**


READ MANUAL *BEFORE* OPERATING!

**This manual is an important part of the peristaltic metering pump
and must remain with this unit!**


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WARNING

 **WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

WARNING

 **WARNING:** This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

INTRODUCTION

Congratulations on the purchase of your peristaltic metering pump! You can be assured your peristaltic metering pump was constructed and designed with quality and performance in mind. Each component has been rigorously tested to ensure the highest level of acceptance.

This operator's manual was compiled for your benefit. The contents of this manual are based on the latest product information available at the time of publication. The manufacturer reserves the right to make changes in price, color, materials, equipment, specifications or models at any time without notice.

! IMPORTANT !

THESE PARAGRAPHS ARE SURROUNDED BY A "SAFETY ALERT BOX". THIS BOX IS USED TO DESIGNATE AND EMPHASIZE SAFETY WARNINGS THAT MUST BE FOLLOWED WHEN OPERATING THIS PRESSURE WASHER. ACCOMPANYING THE SAFETY WARNINGS ARE "SIGNAL WORDS" WHICH DESIGNATE THE DEGREE OR LEVEL OF HAZARD SERIOUSNESS. THE "SIGNAL WORDS" USED IN THIS MANUAL ARE AS FOLLOWS:

DANGER: INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

WARNING: INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.

CAUTION: INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED MAY RESULT IN MINOR OR MODERATE INJURY.

THE SYMBOLS SET BELOW THIS PARAGRAPH ARE "SAFETY ALERT SYMBOLS". THESE SYMBOLS ARE USED TO CALL ATTENTION TO ITEMS OR PROCEDURES THAT COULD BE DANGEROUS TO YOU OR OTHER PERSONS USING THIS EQUIPMENT.



ALWAYS PROVIDE A COPY OF THIS MANUAL TO ANYONE USING THIS EQUIPMENT. READ ALL INSTRUCTIONS BEFORE OPERATING THIS PRESSURE WASHER AND ESPECIALLY POINT OUT THE "SAFETY WARNINGS" TO PREVENT THE POSSIBILITY OF PERSONAL INJURY TO THE OPERATOR.

Once the unit has been removed from the box, immediately write in the serial number of your unit in the space provided below.

SERIAL NUMBER _____

Inspect for signs of obvious or concealed freight damage. If damage does exist, file a claim with the transportation company immediately. Be sure that all damaged parts are replaced and that the mechanical problems are corrected prior to operation of the unit. If you require service, contact Customer Service at 800-553-9053.

Please have the following information available for all service calls:

1. Model Number
2. Serial Number
3. Date and Place of Purchase

Mi-T-M Corporation
50 Mi-T-M Drive
Peosta, IA 52068

INSTALLATION INSTRUCTIONS

SUMMARY:

The Peristaltic Metering Pump is designed to feed bacteria, de-foamer or other chemicals into a biological treatment system, tanks, drains, and pits. All programming is done by a set of DIP switches on a circuit board inside the pump housing.

Part Number	Description	Unit
RC-0021-0001	Single Metering Pump, mounted and wired into biological unit control box.	Standard on Bio-15, WTA-300SA, WTA-600SA models. Optional on Bio-20, 25, 35 units.
RC-0021-0002	Double metering pumps, mounted and wired into biological unit control box.	Optional on Bio-20, 25, 35 units.
RC-0021-0120	Single Stand-alone Metering pump, with 120V wall adapter.	Add to any water treatment system.



PLEASE READ ALL INSTRUCTIONS BEFORE PROCEEDING WITH THE PERISTALTIC METERING PUMP INSTALLATION.

SURVEY LOCATION:

The Peristaltic Metering Pump will usually come mounted to a Biological treatment tank or tank stand, in which case the pump is mounted, wired, and ready to use. If the pump comes as stand-alone, find a suitable place on a wall or above the water line on a tank to mount the pump. The pump will need to be within about 8' of the chemical to be dispensed. Use the bracket that comes with the pump to attach the pump and anchor to wall. Stand-alone pumps should also be mounted near a 120V electrical outlet in order to plug them in.

ELECTRICAL HOOKUP:



WARNING: ALL INSTALLATIONS MUST BE IN ACCORDANCE WITH CITY, COUNTY, STATE OR PROVINCIAL ELECTRICAL CODES AND BE PERFORMED BY A CERTIFIED ELECTRICIAN. FOR QUESTIONS, PLEASE CONTACT LOCAL LICENSED ELECTRICAL CONTRACTOR.



WARNING: BEFORE GOING ANY FURTHER, ALL ELECTRICAL POWER MUST BE TURNED OFF TO THE CIRCUIT THAT IS TO BE USED FOR THIS INSTALLATION. LOCKOUT AND TAG PROCEDURES SHOULD BE OBSERVED WHEN INSTALLING THIS DEVICE. NEVER OPEN THE PERISTALTIC METERING PUMP UNLESS POWER HAS BEEN TURNED OFF. ONLY USE ELECTRICAL CODE APPROVED INSULATED WIRING AND ELECTRICAL FIXTURES WITH THIS INSTALLATION.

The stand-alone pump comes with a 120V wall adapter to plug into a 120V outlet and connect power jack end of cord on to provided port on circuit board. On pumps that come with a biological treatment system- this wall adapter is removed and the pump is wired directly into a 12VDC power supply within the system's control box.

INSTALLATION INSTRUCTIONS

If wiring a new replacement pump onto the 12VDC power supply within a control panel- cut off wall adapter plug, and strip the wires back. Place the red wire on the + terminal and the black wire on the – terminal of the power supply. Place the power jack end on to the provided port on the circuit board inside the pump housing.

TUBING CONNECTIONS:

The pump comes with a set of quick connects, 10' of LDPE tubing, and pick up tube to go inside the chemical container. Connect the quick connects to the inlet and outlet ends of the metering pump tube on the pump head. Cut length of LDPE tubing to run from outlet (right side) of pump to tank or drain connection. Cut length of LDPE tubing to run to the bottom of the chemical container to inlet of pump (left side). Install the pick-up tube on the end to be placed in the chemical container. This should be done by slipping the LDPE tubing through the compression nut and sleeve and into the threaded end of the pickup tube until LDPE tubing is about ¼" from the bottom of the pickup tube. The pickup tube will be placed in the chemical container to draw in chemical.

OPERATING INSTRUCTIONS

PROGRAMMING:

The pump may come pre-programmed already at two 6oz. doses per day. Power the pump on and open the cover on the peristaltic metering pump to verify or change programming. A DIP switch in the right position is OFF and in the left position is ON. Leave pump powered on at all times for proper dosing.

NOTE: When the pump is powered off, the Time Set is erased. When the pump is powered back on the pump, as long as there are time switches set to on, it will reset its' clock to 12 P.M. (noon), and dose accordingly based off of that time. Turn all switches to off and follow instructions below for resetting the clock if desired. A 9V battery can be installed to keep the time set during power off if needed but this is usually not necessary as the time of day of dose is not usually important.

Time Set: Find the DIP switch that corresponds to the closest hour of the current time. There are 12 DIP switches for AM and 12 for PM. After finding the correct switch flip it to the "on" position. The "time set" LED will go out.

Feed Time: Using the same switches set the hours in which the Peristaltic Metering Pump should operate by switching the appropriate switch to the "on" position.

Note: If the DIP switch that was set for the "time set" is not a desirable "feed time", simply turn that switch to the "off" position. But not until at least one feed time has been selected. This will insure that the "time set" will not be lost.

Dosage: There are a series of 6 DIP switches that are labeled "dosage". The number labeled next to each switch indicates the number of ounces to be dispensed.

Example: Switch 2 will dispense 2 ounces of product. These may be added together for higher doses.

Example: Switches 5 and 6 in the "on" position will dispense 11 ounces of product. The maximum is 21 ounces at each "feed time" that has been set.

Reprogram: Flip all the DIP switches to "off" position.

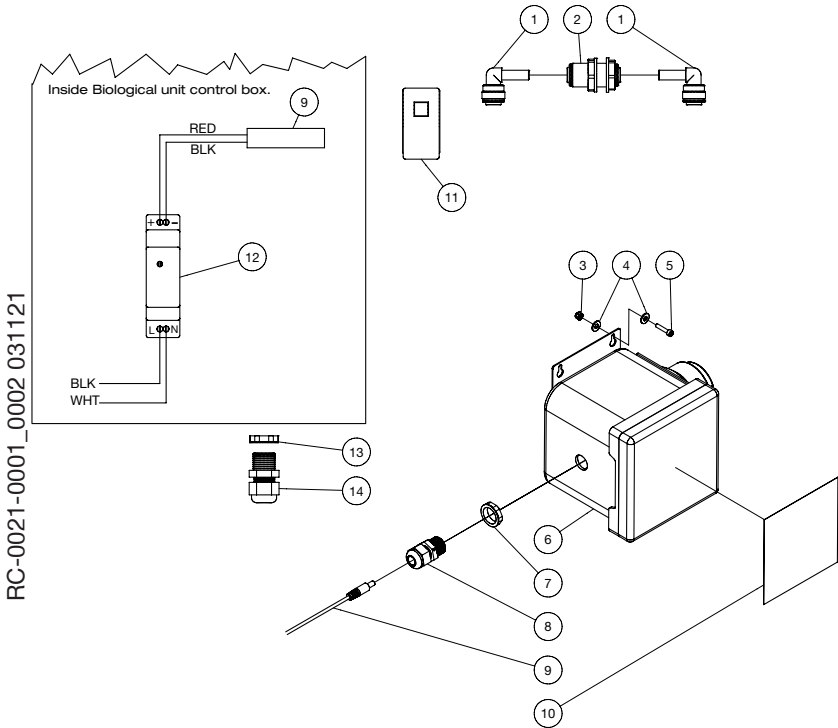
PRIMING:

After installation is complete the pump and tubing will need to be primed so that chemical product will be delivered when the Peristaltic Metering Pump is running. This is simply done by pressing and releasing the prime button on the front of the Peristaltic Metering Pump; the pump should begin to run. The pump will run for the amount of dose that has been set.

Note: At any time the Peristaltic Metering Pump pump can be shut off by simply pushing the prime button again.

PARTS LISTING

RC-0021-0001/0002

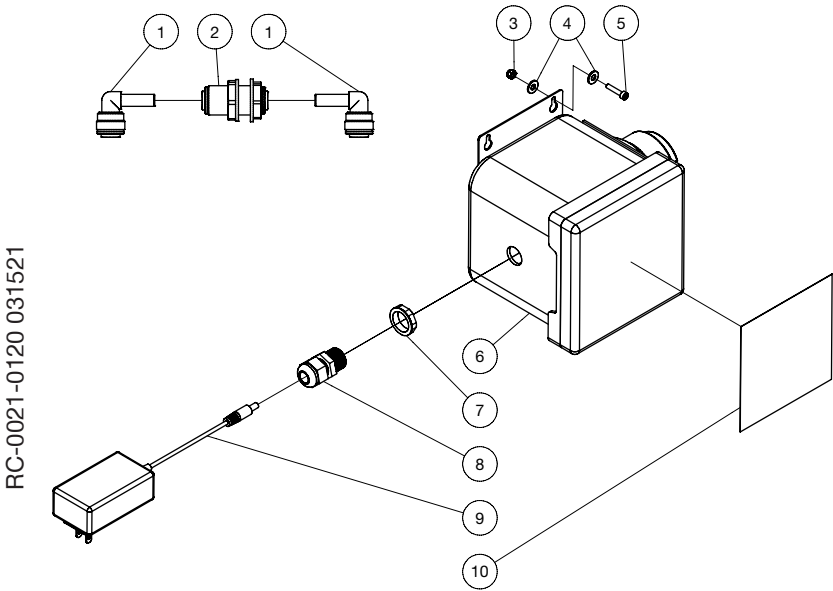


RC-0021-0001_0002 031121

RC-0021-0001_0002 031121			
UNIT ASSEMBLY			
ITEM	TITLE	PART #	QTY
1	ELBOW	55-0114	2
2	BULKHEAD	55-0115	1
3	LOCKNUT	30-8152	2
4	WASHER	28-0120	4
5	BOLT	27-8930	2
6	PUMP	3-0458	1
7	ELECTRICAL LOCKNUT	32-0108	1
8	STRAIN RELIEF	32-0437	1
9	CORD	32-1314	1
10	DECAL PERISTALTIC PUMP	34-2289	1
11	SWITCH	32-0669	1
12	POWER SUPPLY	32-0951	1
13	STRAIN RELIEF	32-0587	1
14	LOCKNUT	32-0586	1
-	INSTALLATION KIT	70-0522	1

PARTS LISTING

RC-0021-0120



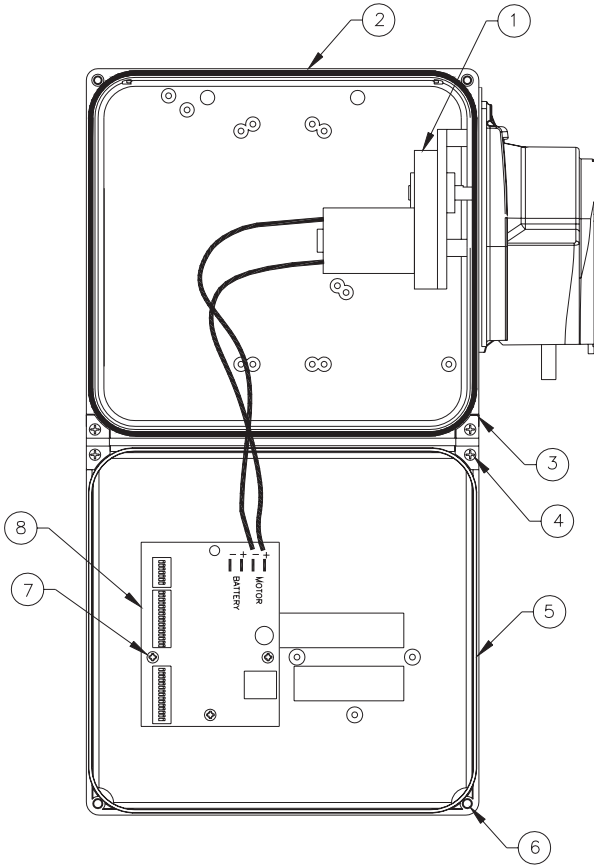
RC-0021-0120 031521

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UNIT ASSEMBLY			
ITEM	TITLE	PART #	QTY
1	ELBOW	55-0114	2
2	BULKHEAD	55-0115	1
3	LOCKNUT	30-8152	2
4	WASHER	28-0120	4
5	BOLT	27-8930	2
6	PUMP	3-0458	1
7	ELECTRICAL LOCKNUT	32-0108	1
8	STRAIN RELIEF	32-0437	1
9	CORD	32-1314	1
10	DECAL PERISTALTIC PUMP	34-2289	1
-	INSTALLATION KIT	70-0522	1

PARTS LISTING

CONTROL BOX ASSEMBLY (3-0458)

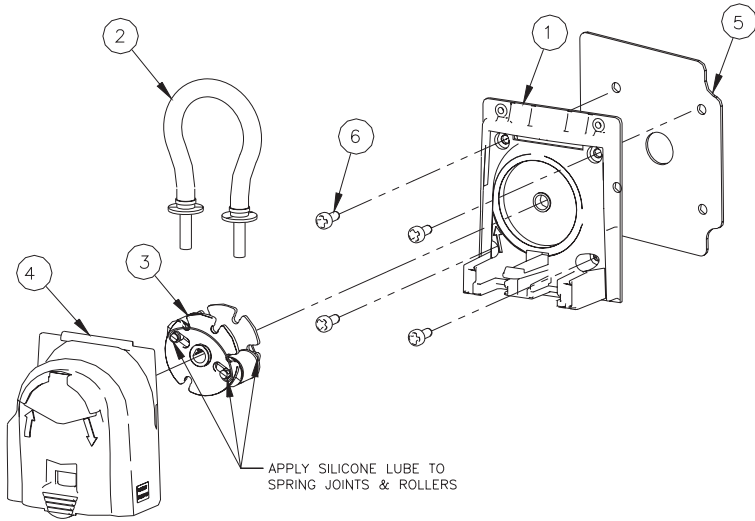
RC-0021 control box assembly 032321



RC-0021 CONTROL BOX 031521			
CONTROL BOX ASSEMBLY			
ITEM	TITLE	PART #	QTY
1	GEAR MOTOR ASSEMBLY	N/A	1
2	ELECTRICAL ENCLOSURE ASSEMBLY	N/A	1
3	ELECTRICAL ENCLOSURE HINGE	N/A	2
4	HINGE SCREW	N/A	2
5	ELECTRICAL ENCLOSURE LID (SEE 46-1861)	N/A	1
6	CAPTIVE SCREW FOR ELECTRICAL ENDOSURE COVER	N/A	2
7	CONTROL BOARD SCREW	N/A	3
8	DRAIN MASTER ELECTRONIC CONTROL BOARD	32-1313	1
-	PUMP ENCLOSURE LID KIT (MACHINED LID, SCREWS)	46-1861	1

PARTS LISTING

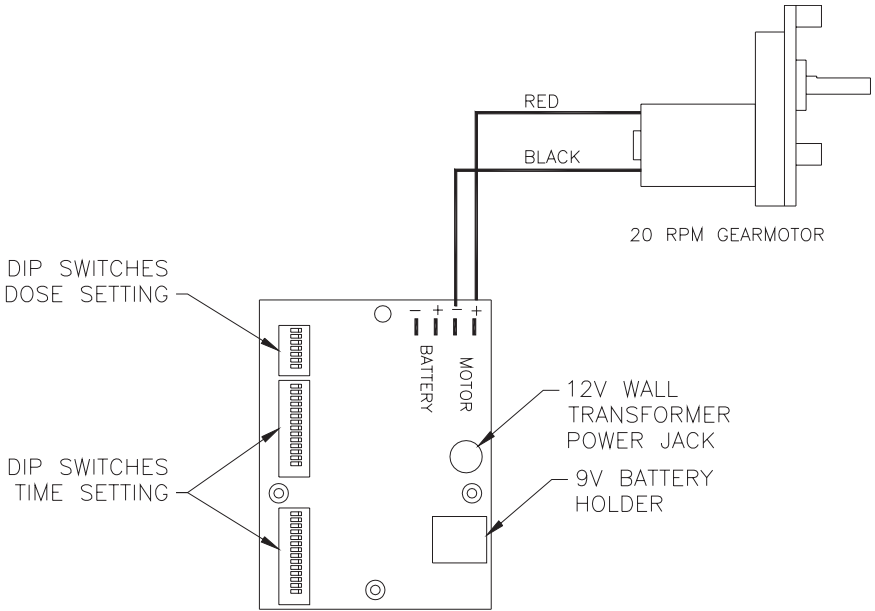
PUMP ASSEMBLY (3-0458)



RC-0021 pump assembly 031521			
PUMP ASSEMBLY			
ITEM	TITLE	PART #	QTY
1	PUMP BASE	N/A	1
2	SQUEEZE TUBE WITH PLASTIC CONNECTORS	46-1173	1
3	ROLLER ASSEMBLY	46-1799	2
4	PUMP COVER	46-1860	2
5	MOUNTING PLATE	N/A	1
6	SCREW	N/A	2
7	SILICONE LUBE (1oz.)	N/A	3
-	AC TO DC PLUG ADAPTER (120V 60hz - 12V DC) (NOT SHOWN)	32-1314	1
KIT	INSTALLATION KIT (INCLUDES ITEMS BELOW)	70-0522	1
-	TIE WRAP (EIGHT INCHES REQUIRED) (SEE KIT 70-0522)	N/A	4
-	TUBE QUICK CONNECTS (SEE KIT 70-0522)	N/A	2
-	TUBING (TWENTY FEET REQUIRED) (SEE KIT 70-0522)	N/A	1
-	PICK UP TUBE (TEN INCHES REQUIRED) (SEE KIT 70-0522)	N/A	1
-	WALL BRACKET KIT (SEE KIT 70-0522)	N/A	1
-	SCREW AND ANCHOR KIT (EIGHT INCHES REQUIRED) (SEE KIT 70-0522)	N/A	1

PARTS LISTING

WIRING DIAGRAM (3-0458)



NOTES



STATEMENT OF WARRANTY

Mi-T-M Corporation products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacturer. This limited warranty does not apply to any products, which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as “O” rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of Mi-T-M Corporation products. If products are altered or repaired without prior approval of Mi-T-M Corporation, this warranty is void.

For Service or Warranty Consideration,
contact Customer Service.
563-556-7484 / 800-553-9053 / Fax 563-556-1235
Monday - Friday 8:00 a.m. - 5:00 p.m. CST

