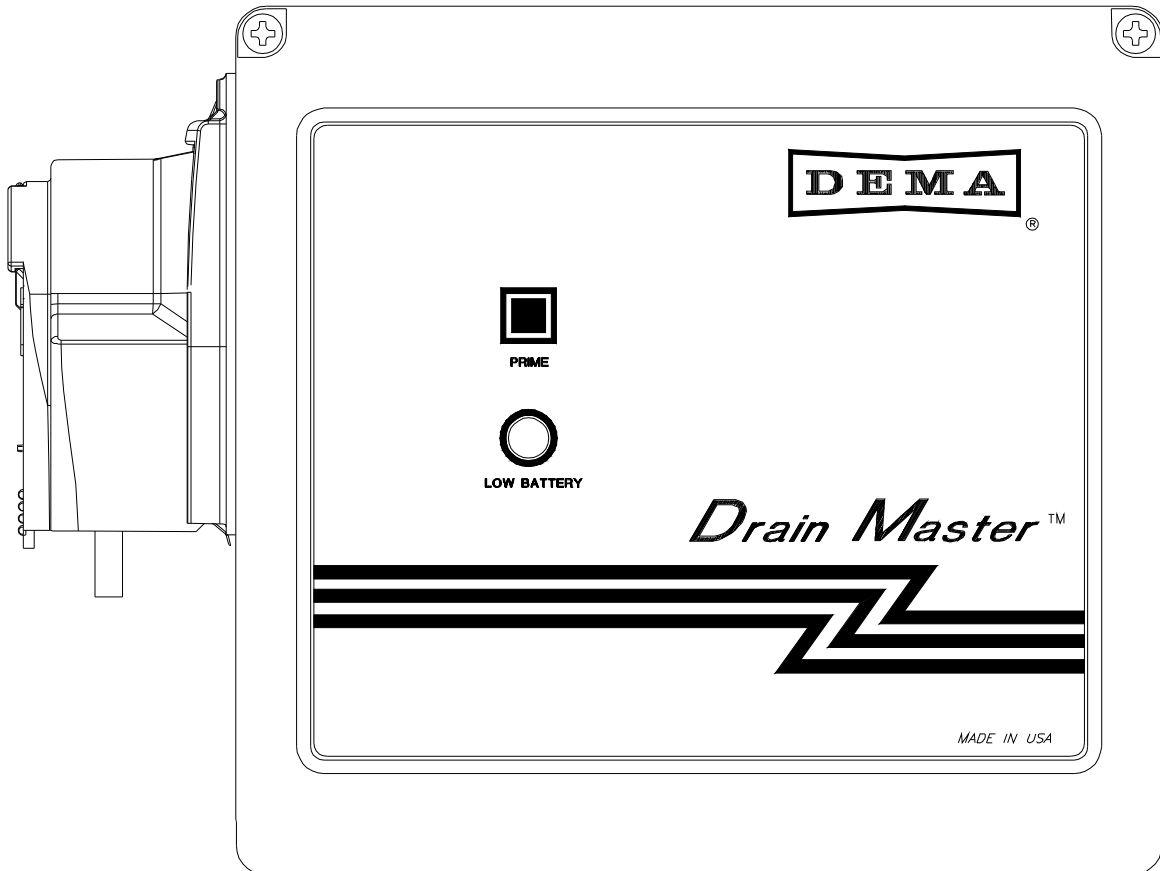


# DEMA 257BE AND 257BVE DRAIN MASTER INSTALLATION INSTRUCTION SHEET



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## Summary

The 257BE Drain Master is designed to feed chemicals into drains and grease traps to break up grease, detergent build up and eliminate odors. The Drain Master can be operated by use of a wall outlet or with two 6 volt alkaline lantern batteries. An additional 9 volt alkaline battery is utilized to maintain the clock in the event of a power failure. All programming is done by use of a set of DIP switches that determine the various times and amount of chemical to be dispensed. The squeeze tube for peristaltic pump comes in either EPDM (257BE) or Viton (257BVE).

**Please read all instructions before proceeding with Drain Master installation.**

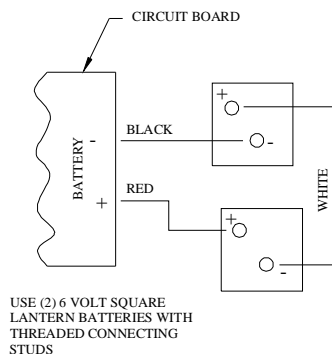
## Survey Location

Determine a location to hang the Drain Master on a wall near the drain or grease trap to be supplied with the chemical product. When using the power adapter, the location should be near an AC wall outlet. The Drain Master can be hung on the wall by use of the supplied wall bracket kit.

## Electrical Hookup:

**AC power adapter:** Open the cover on the Drain Master and find the female power jack on the control board. Feed the male jack on the power cord through the split bushing on at the bottom of enclosure. Connect the power cord jack to the jack on control board. Connect the 9V battery to the control board and place battery in battery holder. At this point the "LED" on control board should be "on". Plug power cord into a 120V 60Hz wall outlet.

**6 Volt Batteries:** Inside the Drain Master there is a wiring diagram of the battery hookup. With the use of supplied cable assembly hook up the 2 batteries as indicated on the diagram. Batteries should be placed into the stainless steel retaining bracket to hold them securely. Only use 6 volt alkaline batteries with screw type terminals (not spring terminals). See wiring battery hook-up diagram below.



USE (2) 6 VOLT SQUARE  
LANTERN BATTERIES WITH  
THREADED CONNECTING  
STUDS

***BATTERY HOOK-UP***

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## Tubing Connections

Cut off the proper lengths of LDPE tubing that will reach from the container of product to the inlet of the Drain Master pump and the outlet of the pump to the drain or grease trap.

Insert the chemical supply tubing into the end of the ¼” ID JG fitting located on the left side of the pump. The JG fitting must be inserted completely in order to ensure a good seal. The other end of the chemical supply tubing can be connected to the 10” PVC pickup tube that has been supplied. 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 can be placed in gallon containers of chemical products. If the pickup tube is not used, the supply tube should be properly secured to the supply container to assure that chemical product is delivered.

Insert the outlet tubing into the end of the ¼” ID JG fitting located on the right side of the pump. The JG fitting must be inserted completely in order to ensure a good seal. The other end of the outlet tubing must be secured into drain or grease trap to assure that chemical product is properly delivered. It is suggested to use a 1/8” NPT male x ¼” compression fitting when fitting discharge into the side of a drainpipe.

## Low Battery Indicator Light

The “Low Battery” light is illuminated by the **9V “clock battery**. The “Low Battery” light will come on anytime there is insufficient voltage from the lantern batteries or the AC to DC adapter. The “Low Battery” light on the front cover of the unit means the following:

- If the “Low Battery” light is off **when power is applied to the unit**, by either the lantern batteries or the AC to DC adapter, then everything is good.
- If the “Low Battery” light is on whenever the lantern batteries or the AC to DC adapter are connected, then the lantern batteries need to be replaced or the AC to DC adapter needs to be checked to see if its connections to the board and to the wall outlet are good.

PUMP RATES vs. POWER OPTIONS			
BATTERY		AC-DC ADAPTER	
0.85 oz/min.	25 mL/min.	2 oz/min.	60 mL/min.

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## **Programming:**

Open the cover on the Drain Master. All of the DIP switches should be visible on the control board on the backside of the cover. **All of these switches must be in the “off” position to begin programming.**

**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 Drain Master 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.

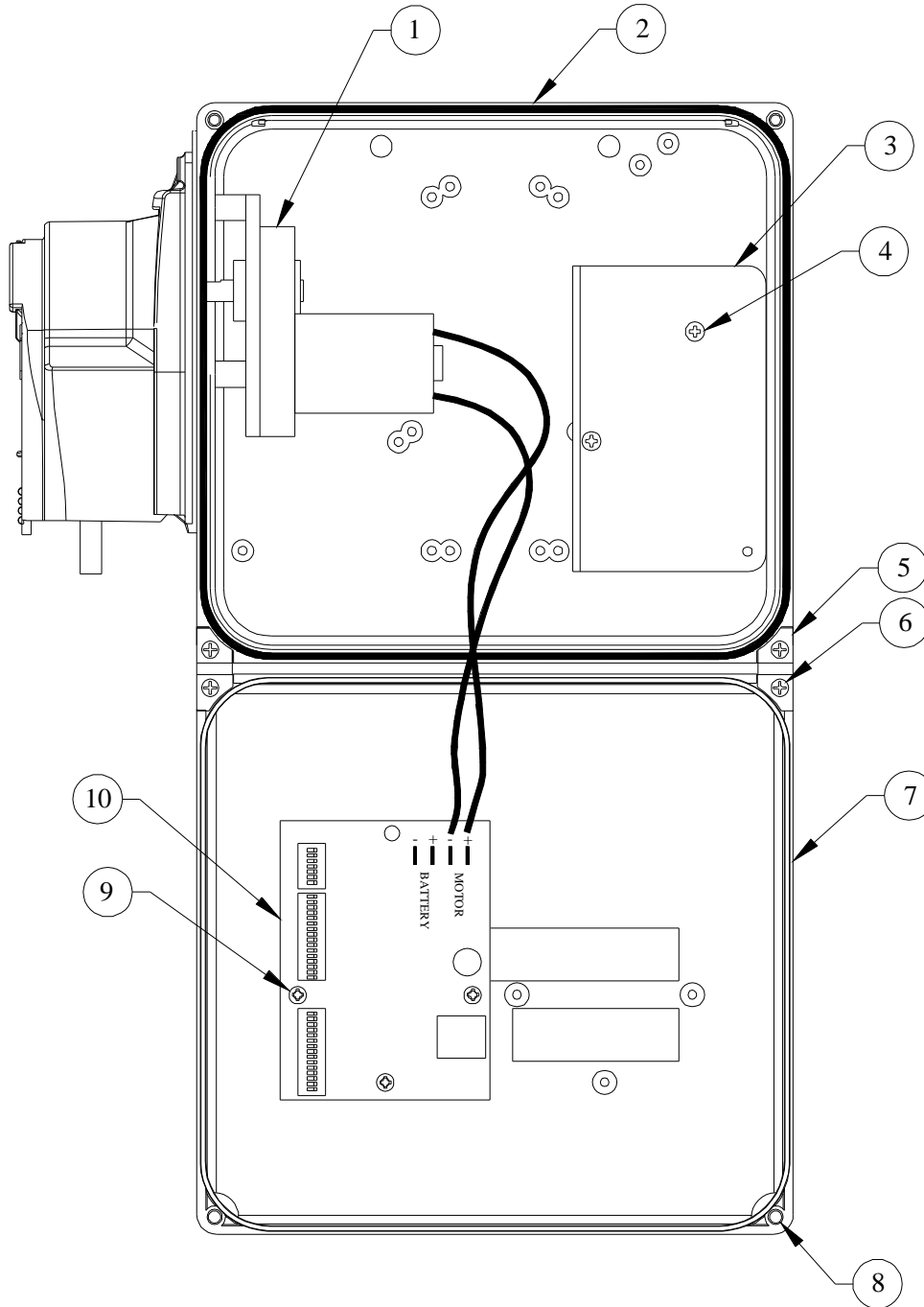
**Reprogram:** Flip all the DIP switches to “off” position.

## **Priming**

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

**NOTE:** At any time, the unit can be shut off simply by pushing the prime button again.

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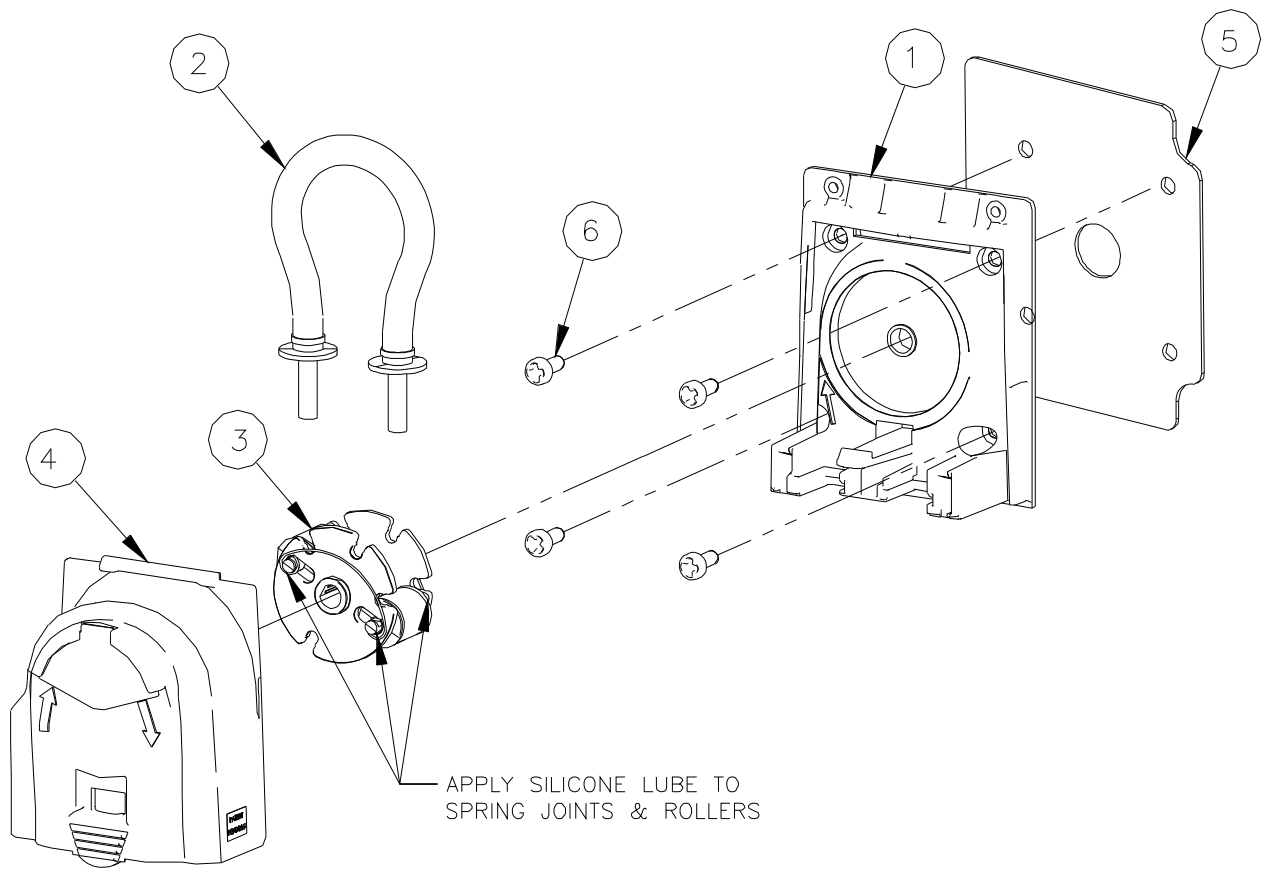


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<b>REPLACEMENT PARTS</b>			
<b>NO.</b>	<b>DEMA PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	25-66C	Gear Motor Assembly	1
2	81-61-1	Electrical Enclosure Assembly	1
3	25-123-1	Battery Retainer Bracket	1
4	44-116-1	Battery Retainer Screws	3
5	81-23	Electrical Enclosure Hinge	2
6	81-19-1	Hinge Screw	2
7	85-31	Electrical Enclosure Cover	1
8	81-29-2	Captive Screw for Electrical Enclosure Cover	2
9	81-20-2	Control Board Screw	3
10	25-122-1	Drain Master Electronic Control Board	1

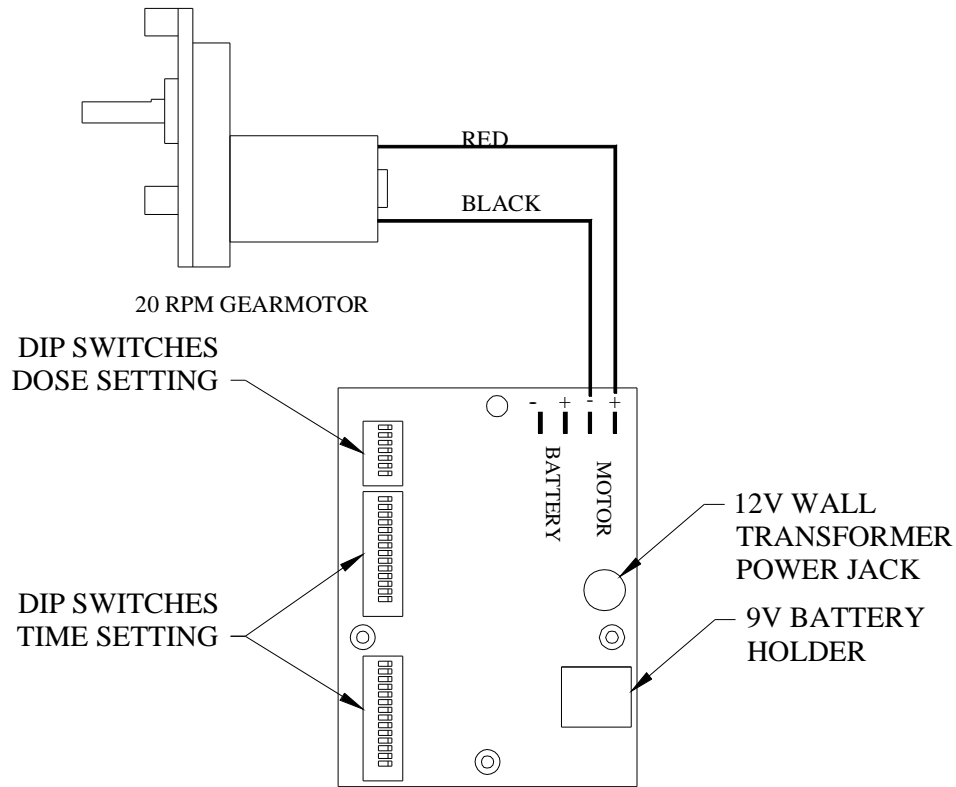
<b>INSTALLATION KIT PARTS (NOT SHOWN ON DRAWING)</b>		
<b>DEMA PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
81-16-1	Tie Wrap 8" lg.	4
81-182-1	¼" x ¼" JG Union	2
25-68-20	20 Ft of ¼" LDPE Tubing (white)	1
80-66	10" Pick Up Tube Assembly	1
81-1	Wall Bracket Kit	1
25-125-1	Battery Cable Assembly	1
25-69-2	AC to DC Adapter (European., 220V 50Hz – 12VDC)	1

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<b>REPLACEMENT PARTS</b>			
<b>NO.</b>	<b>DEMA PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	81-128-1	Pump Base	1
2	81-177-1	Squeeze Tube	1
3	81-172-1	Roller Assembly	1
4	81-199-1	Pump Bore and Label Assembly	1
5	81-63-1	Mounting Plate	1
6	44-124-2	Screw	4
1oz.	81-17-1	Silicone Lube	

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***WIRING SCHEMATIC***

**RETURNS:** NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.

**WARRANTY:** DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. 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 DEMA products. If products are altered or repaired without prior approval of DEMA, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number, to return units for repair or replacement, must be granted in advance of return.