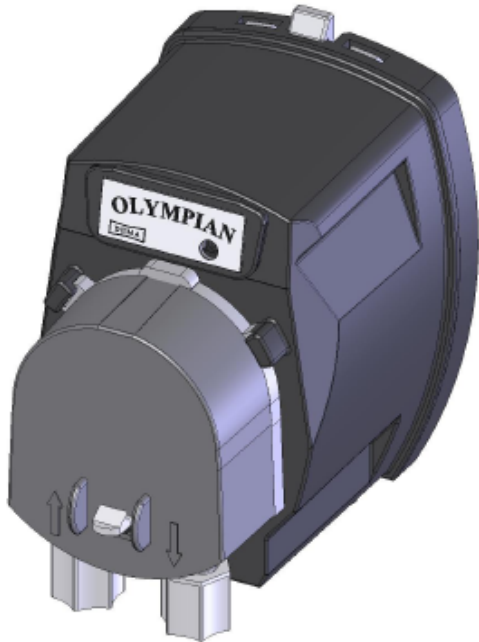


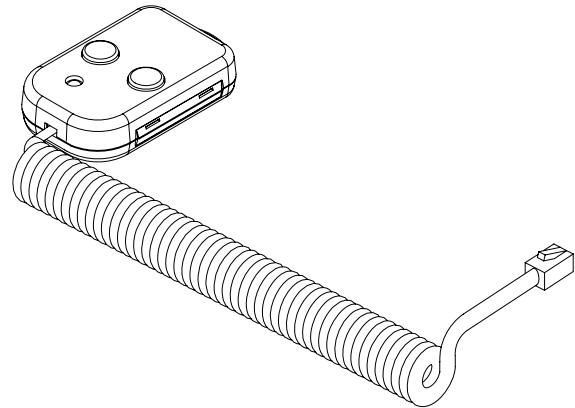
DEMA[®] Olympian
 Concentration Warewash Control
 O-CDV & O-CHV (Red)



Please read all instructions before proceeding with the Olympian installation.

PURPOSE:

The Olympian™ concentration warewash system automatically controls chemical delivery functions for door-type dish machines and similar warewash applications. They require an 81-245-1 Two Button Programmer (see below) to set up the initial programming. Only one Two Button Programmer is required as it can be used to program as many Olympian models as desired.

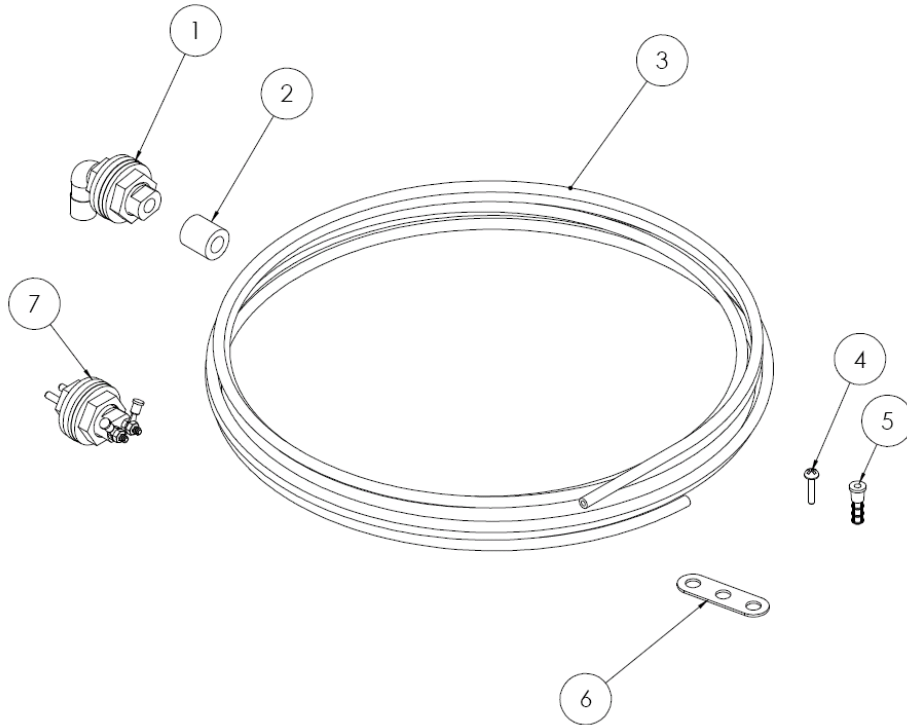


Power Specifications		
Model	Voltage	Current
O-CDV*	115/230V 50/60 HZ	0.5 A
O-CHV	230V 50/60 HZ	0.5 A

81-245-1 TWO BUTTON PROGRAMMER
 (Optional; not included.)

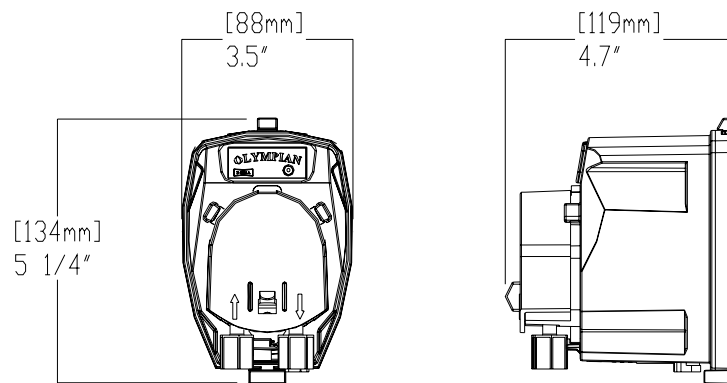
*Factory set at 230V.

DEMA Engineering Company
 10020 Big Bend Blvd.
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PARTS CHECKLIST BY OLYMPIAN MODEL

ITEM	PART NO.	DESCRIPTION	Red	
			O-CHV	O-CDV
Model	81-232-1 81-232-2	Olympian	1 -	- 1
1.	81-55	Injection Elbow	1	1
2.	61-107-4	Ceramic Weight	1	1
3.	24-10-11	Tubing Vinyl 1/4"OD x 1/8"ID	1	1
4.	30-37	Screw	3	3
5.	66-121	Wall Anchor	3	3
6.	81-248-1	Weight Retainer	1	1
7.	C-12B	Probe Assembly	1	1
	81-16	Feed Through (not shown)	1	1



Shipping Weight: 3.3 lb (1.50 kg)

ELECTRICAL INSTALLATION:

All installations must be in accordance with city, county, parish, state, or provincial electrical codes and be performed by a certified electrician. For questions, please contact a local licensed electrical contractor.

1. All electrical power must be turned off to the dish or cleaning machine and any other circuit that is to be used for this installation. Lockout and tag procedures must be observed when installing this device. Never open the Olympian enclosure while power is applied. Signals may be active from the dish or cleaning machine, even with Olympian power turned off. Use appropriately rated insulated wiring, electrical fixtures, and other materials that meet all applicable electrical and building codes.
2. **O-CDV Controls Only:** This control has a switch to select the proper line voltage. The unit is factory set to 230VAC. To change the voltage to 115VAC, remove the back of the control. Move the switch from 230VAC to 115VAC as shown in Figure 1. Reinstall the back cover.

WARNING: This must be done *before connecting power to the unit.*

3. Install the C-12B probe into the wash tank as shown. A 7/8" (22.2mm) may need to be drilled into the wash tank. The probe should be located approximately 2" (50mm) below the water. The probe location should be kept away from the corners of the tank and any pump or heating elements. See instruction sheet I-756 for more information.
4. Attach the probe wires on the control to the supplied C-12B probe as shown. Tighten the nuts on the probe.
5. Connect to the appropriate power source.

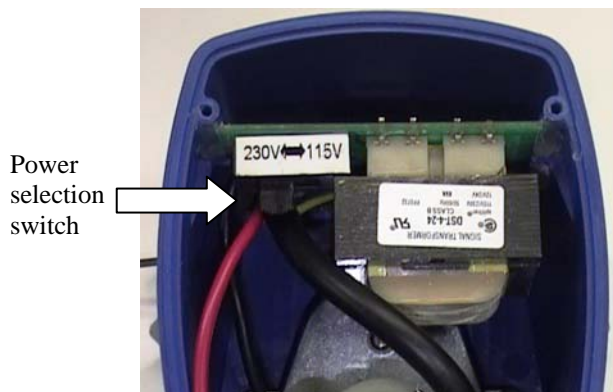


Figure 1. Input Voltage Switch

TUBING INSTALLATION:

1. Install weight and weight retainer as shown in Figure 2.
2. Place weight and retainer in chemical container.
3. Cut tubing to the appropriate length. Attach tubing to pump inlet.
4. Attach outlet tubing to pump outlet and to dish or cleaning machine. A fitting (81-16) is supplied to attach the tubing to the machine.



Figure 2. Tubing, Weight, & Retainer

UNDERSTANDING THE CONTROL

The Olympian concentration control will monitor the amount of chemical in the dish machine. It will add chemical to the machine when it senses a low level of concentrate.

Q: How does the control know when to add chemical?

A: The control measures the conductivity of the water in the dish machine. The conductivity of the water is a good indicator of the pH level of the water. The pH level is a good indicator of the concentration of the water. Detergents typically will alter the pH of the water, and as a result, the conductivity and concentration of the water will change.

Q: What is the set point?

A: The set point is the desired level of chemical in the water. You will program the set point of the conductivity of the water in the programming section of this manual. When the conductivity of the water falls below the set point, the control will add chemical to reach the set point.

PROGRAMMING:

NOTE: Due to the short wash and rinse cycles, the programming of the unit may require **several** wash cycles.

Step 1: Apply power.

Step 2: Remove the cover and connect the Two Button Programmer as shown in Figure 3.



Figure 3. Programmer Installation



Figure 4. Concentration Range Selection

Step 3: Push either button on the programmer and the LED on the front of the control will begin to flash as shown in Figure 4. The faster the LED flashed, the higher the concentration. There are three levels of concentration as shown below.

	LED Color	During Programming	During Operation	
		Concentration Range	Concentration is:	Function
1	Green	Low	Below the set point	Pump will run
2	Yellow	Middle	Above the set point	Pump will not run
3	Red	High	Below the set point and cannot be reached	This is an indicator that the chemical container is empty.

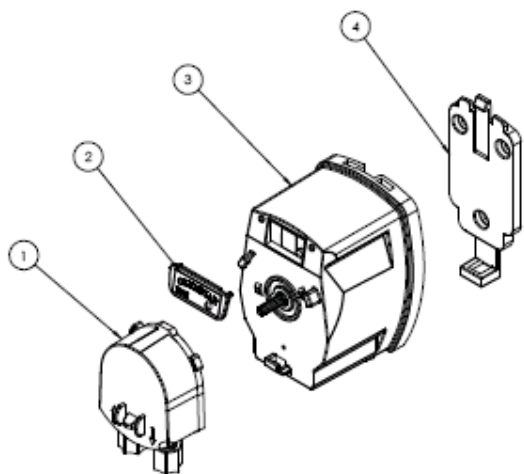
Step 4: Push both buttons to set the concentration point as shown in Figure 5. The LED will stop flashing.

Step 5: Run the dish machine several times and then titrate. Steps 2 through 4 may need to be repeated to attain the proper concentration level.

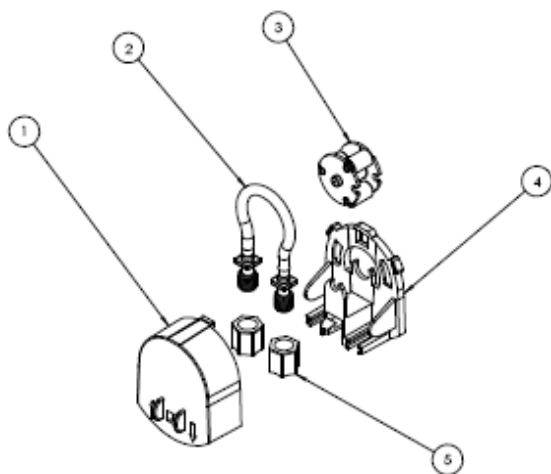


Figure 5. Set Point Selection

Step 6: After the Olympian unit has been programmed with the desired concentration, remove the Two Button Programmer from the Olympian programming jack and replace the Olympian cover as shown in Figure 5.



Replacement Parts			
Item	DEMA [®] P/N	Qty	Description
1	81-226-2	1	Detergent Pump Assembly
2		1	Cover with Label
3		1	Olympian Detergent Control (no pump included)
4	81-223-1	1	Mounting Bracket



Pump Replacement Parts			
Item	DEMA [®] P/N	Qty	Description
1	81-240-1	1	Pump Bore
2	81-231-1	1	Squeeze Tube Assembly
3	81-218-2	1	Roller Block Assembly - Detergent
4	81-240-2	1	Pump Base
5	80-67-13	2	Compression Fittings

Return Policy

No merchandise may be returned for credit without DEMA[®] Engineering Company's written permission. Return Merchandise Authorization (RMA) 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 products that 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 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.