

# EXTRACTOMAT™

## OPERATIONAL MANUAL



**DETAIL PLUS**®  
Car Appearance **Systems**™

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# ***EXTRACTOMAT***

## **Mat Washer & Dryer**

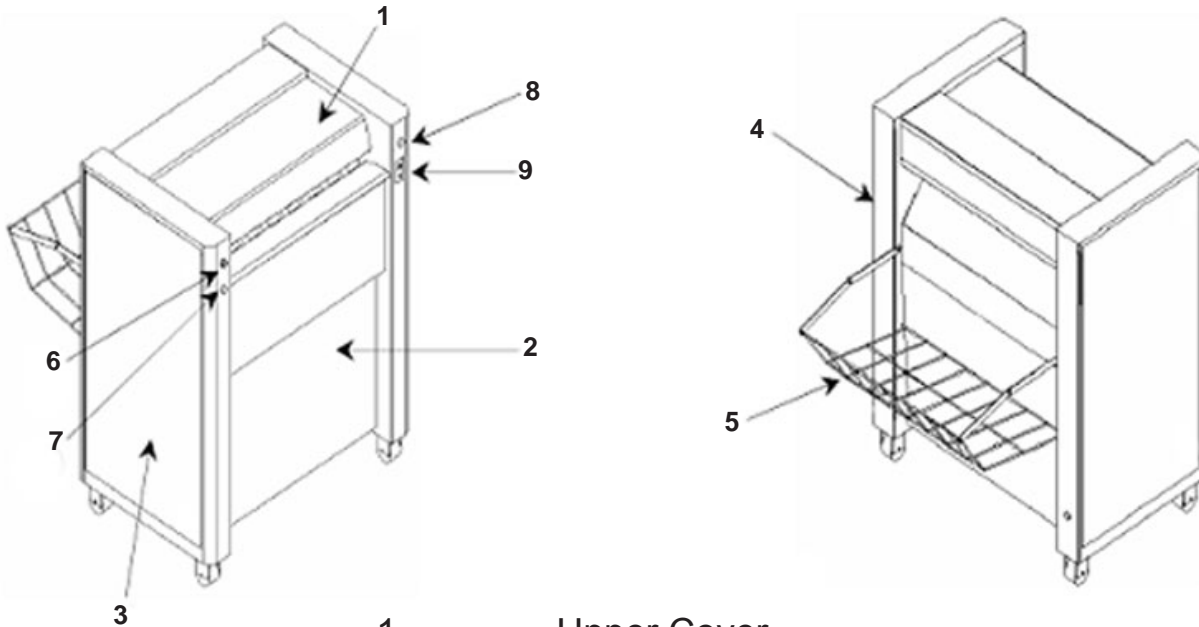
### **Introduction**

Section 1	Specifications
Section 2	Parts names
Section 3	Install & Set-up
Section 4	Operation
Section 5	Daily Inspection
Section 6	Troubleshooting
Section 7	Maintenance
Section 8	Coin-Op Instructions
Section 9	Bill Acceptor Instructions

# 1. Specifications

Voltage, Frequency	110 Volt AC
Electric Power	2500W
Electric Heater (Optional)	80W
Water Consumption	7L/min. = 1.6Gal./min.
Water Pressure	0.05 - 0.10Mpa = 14.5 PSI
Machine Weight	210 Kg = 462 Lbs.
Max. width of mat	800mm = 31.5 inches
Max. thickness of mat	25mm = 1.0 inch
Running speed of mat	17mm/sec = 40inch/min.

# 2. Parts Names



- 1..... Upper Cover
- 2..... Front Cover
- 3..... Left Panel
- 4..... Right Panel
- 5..... Mat Receiver
- 8..... Water Selection Switch
- 9..... Coin or Bill Acceptor (optional)

## **3. Install & Set-Up of Machine**

### **Installation**

Please install on a flat area with access to sanitary sewer hook-up for drainage. For the most stable mounting of the unit, remove the wheels and attach the screw-leveling feet.

If you want to use the machine with wheels, ensure that wheels are locked once the unit is in place.

Plug the unit into a 30 AMP 110V/AC dedicated outlet.

### **Water supply**

Connect water supply line to outlet connection on the back of the unit.

Ensure water supply pressure is less than 28.5 PSI.

### **Water drain**

Connect drainage line to outlet on machine and run it to the sanitary sewer connection.

## **4. Operation**

### **Electric power supply**

Open the door on the right & turn the circuit breaker inside the box to the “ON” position.

### **Starting**

Select the function you wish to use.

Water: Wet cleaning w/extraction

No water (Dry): Dry brush cleaning w/extraction

Shampoo: Wet cleaning w/shampoo & extraction

Push the start button

## **Insertion of Mat**

Insert car floor mat into the machine with the dirty surface down.

Once the mat is inserted, it will move through the unit and discharge automatically. During operation - NEVER insert hands into the machine and DO NOT open the cover.

## **Stop**

Press the red “stop” button to stop the unit at any time; or when finished using the machine.

## **Water drain & Electric power off**

When finished using the unit for the day, turn off the electrical power to the unit, or unplug the unit.

Ensure that the water is drained from the unit before disconnecting power for the day.

To Drain the Water:

1. Find the water supply valve & close it.
2. Select the water “on” position & run the machine without a mat inserted, until no more water comes out of the drain.
3. Stop the machine with the “off” switch and disconnect the unit from the power outlet.

## **Upper cover open**

For cleaning brush roller & spray nozzle, open the upper cover.

1. Put both hands in small space under the upper cover (palms up)
2. Pull the bar with hands & lift the upper cover
3. Clean the inside of cover and reclose it

## **5. Daily Inspection**

### **Brush inspection & cleaning**

Open the upper cover and check brush roller condition.

Remove foreign materials in the roller and clean the dust with a cloth.  
If there is damage, contact the manufacturer.

### **Vacuum box cleaning**

Open the door of vacuum box & remove dirt. Replace the top.

### **Drain cleaning**

Open the cover of the drain, remove debris.  
Take out check valve in drain hole, remove dust & clean the valve surface.

### **Checking the operation by sound**

Check the operating sound of the unit.  
If there is grinding or odd sounds, check inside of right & left panel for damage to the bearings, chain, or motor. Also check the drain hose for clogs.  
Please contact manufacturer if problem remains.

### **Water supply check**

Inspect ball valve for proper operation & inspect water supply hose for damage.

### **Water drainage check**

Check connection of drain hole & hose for obstructions or damage.

## **6. Troubleshooting**

### **Unit not starting**

Check the electric power supply.  
Check the circuit breaker in electrical box of right side panel.

## **Circuit breaker down**

If the circuit breaker is down in the main distribution board, it's possible that the unit overloaded or experienced a surge. Check inside of the left & right side panel for binding, damage, and loose wiring.

Once checked - reset the breaker & test the unit for proper operation.

If problems persist - contact the manufacturer.

## **Mat is stuck in unit**

Check to see if the mat is inserted properly.

Then open the right side panel and turn off the circuit breaker of the electric box and open the upper cover and remove the mat manually (open the left side panel, turning the belt wheel to reverse the direction).

## **Is the mat too rugged or are there cracks in it?**

Too thick of a mat or damaged mats can cause a stoppage.

Do not use too thick (above 20mm = 3/4inch) of a mat.

Damaged mats can get caught on the rollers and cause further damage to the mat and the machine.

## **No water supply**

Check the water selection switch.

Check the water supply valve.

Check the water supply hose.

Check the electrical connection to the solenoid valves.

Please contact manufacturer if problem remains.

## **7. Maintenance**

**Regular/Periodic cleaning is required to keep the unit in good working order. Additionally, bearings, brushes, belts, rollers, and motors should be inspected quarterly for excess wear & damage.**

## Consumable parts, Periodic change parts, Options

Consumable parts: Roller, Brush, Bearings, Switches, Motors, and Belts.

## 8. Coin-Op Instructions

Put 4 coins in the EXTRACTOMAT and then start the machine (suggested running time: 4 min.)

To get an additional minute: add another coin before it stops automatically. If EXTRACTOMAT stops automatically you have to run complete cycle again by adding 4 coins

**STOP** Button: for emergency stopping of the EXTRACTOMAT

**3-WAY SWITCH:** Selection of 3 functions - Dry, Water Only, Chemical/ Shampoo

**BUZZER:** Buzzer will sound before EXTRACTOMAT stops automatically (Buzzer start time is set by a timer in the control box)

**PASS:** If the EXTRACTOMAT stops automatically and floor mat is inside of the machine, push the "PASS BUTTON" and remove the mat manually





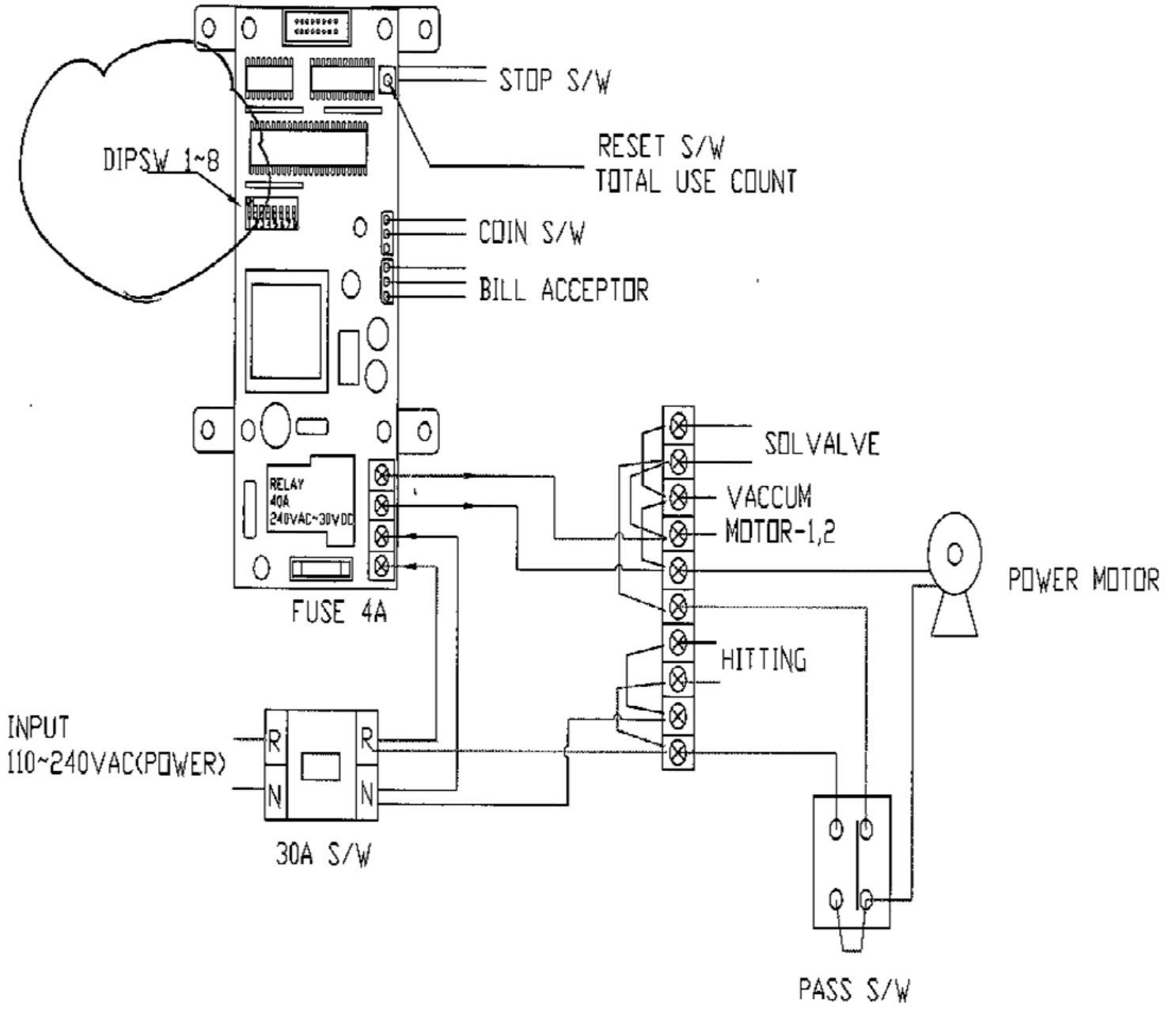
# HOW TO SET COIN MECHANISM IN CONTROL BOX

1. Number of Switch : 8 pcs
2. Operation time setting : SW1~ SW5
3. Number of coin setting for machine start : SW7~SW8
4. Memory of time left when sudden electric power off : SW6

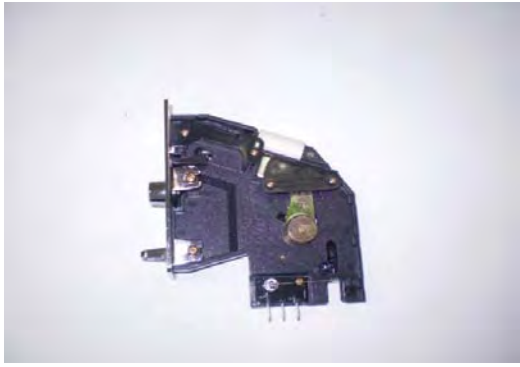
OPERATION TIME ( SECONDS )	SW1	SW2	SW3	SW4	SW5
30	UP	DOWN	UP	UP	UP
40	DOWN	UP	UP	UP	UP
50	UP	UP	UP	UP	UP
60	DOWN	DOWN	DOWN	DOWN	DOWN
90	UP	DOWN	DOWN	DOWN	DOWN
120	DOWN	UP	DOWN	DOWN	DOWN
150	UP	UP	DOWN	DOWN	DOWN
180	DOWN	DOWN	UP	DOWN	DOWN
210	UP	DOWN	UP	DOWN	DOWN
240	DOWN	UP	UP	DOWN	DOWN
270	UP	UP	UP	DOWN	DOWN
300	DOWN	DOWN	DOWN	UP	DOWN
330	UP	DOWN	DOWN	UP	DOWN
360	DOWN	UP	DOWN	UP	DOWN

NUMBER OF COINS FOR MACHINE START	SW7	SW8
1 COIN	DOWN	DOWN
2 COINS	UP	DOWN
3 COINS	DOWN	UP
4 COINS	UP	UP

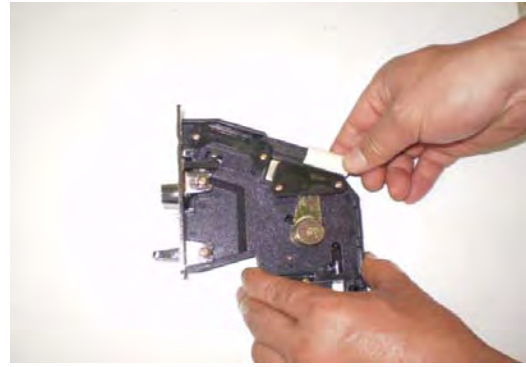
MEMORY	SW6
MEMORY OF TIME LEFT	UP
NO MEMORY OF TIME LEFT	DOWN



# SETTING METHOD FOR COIN & TOKEN



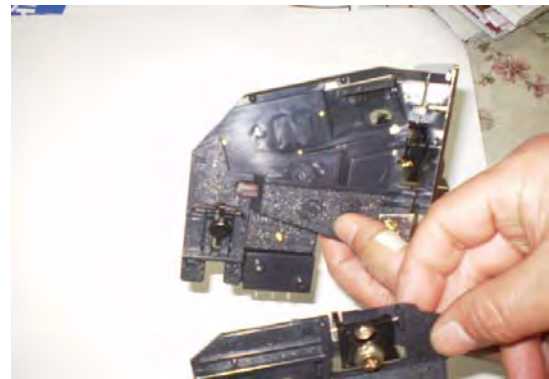
1. PHOTO OF COIN ACCEPTOR



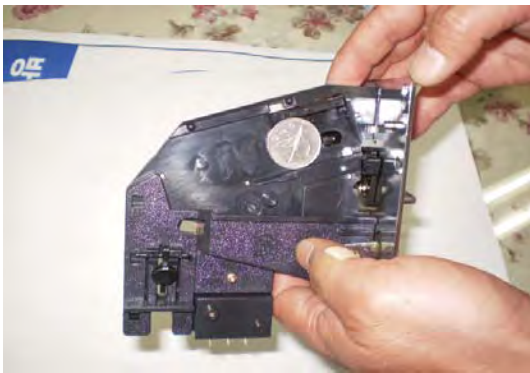
2. TAKE OUT LOCKING CLIP ( WHITE COLOR )



3. AFTER TAKE OUT OF CLIP



4. SEPARATE 2 PARTS



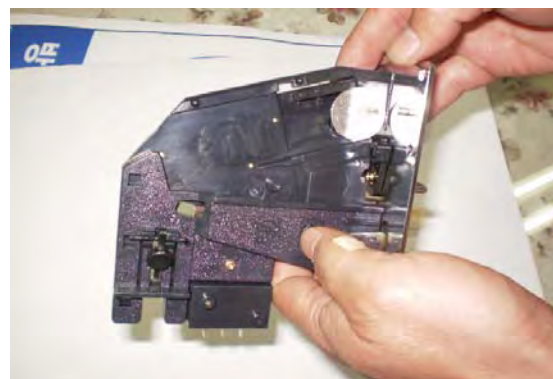
5. CHECK SIZE OF COIN



6. ADJUST SIZE WITH SCREW DRIVER



7. ADJUST SIZE WITH SCREW DRIVER



8. SET OF COIN FOR SIZE CHECK

## 9. Bill Acceptor Instructions

Put 1 Dollar in the EXTRACTOMAT and then start the machine (suggested running time: 4 min.)

To get an additional 4 minutes: add another dollar before it stops automatically.

**STOP** Button: for emergency stopping of the EXTRACTOMAT

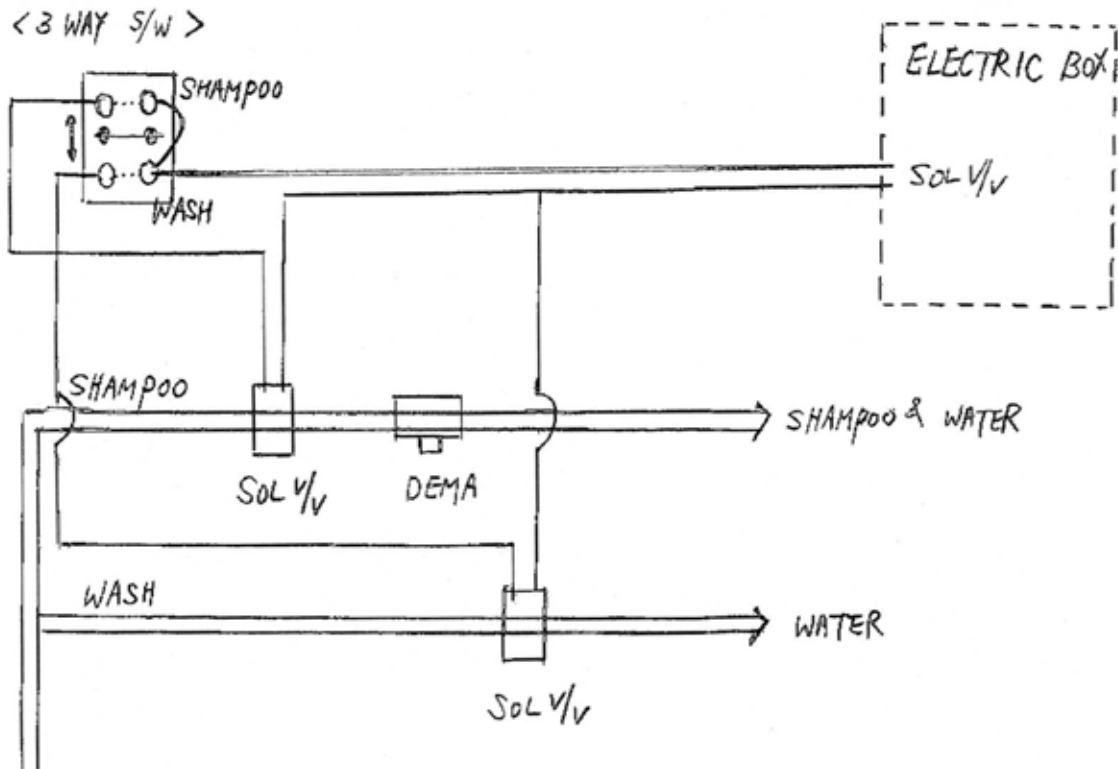
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## Electrical Schematic of Machine ( EXTRACTOMAT )



### < WASH PROBLEM >

1. PLEASE CHECK SOLENOID VALVE OPERATION IN WASH LINE
2. PLEASE CHECK 3 WAY SWITCH FOR WASH POSITION

## **CERTIFICATE OF WARRANTY**

### **WE, THE MANUFACTURER, DETAIL PLUS Car Appearance Systems HEREBY CERTIFY THAT:**

1. The goods shall be guaranteed for 12 months from date of delivery to Buyer.

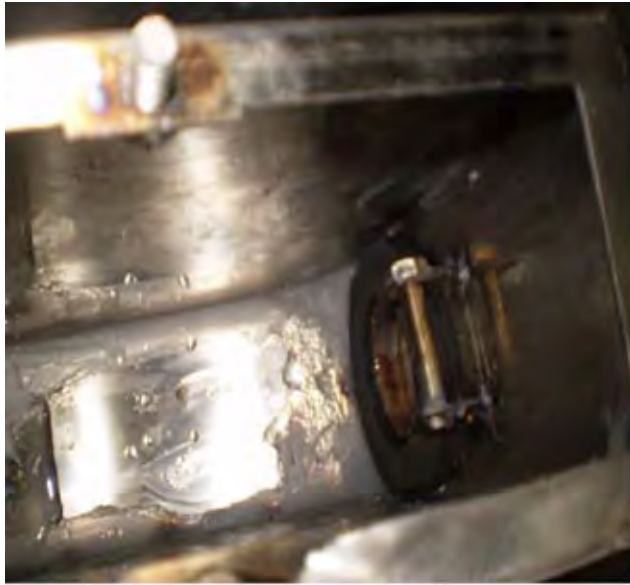
The 1 year limited warranty is for main frames, motor, chain, coin operating systems, main body and heating systems. Warranty is void if Buyer causes damages through misuse, neglect or failure to follow maintenance procedures as outlined in owner manual.

Excluded under this warranty are the following wearable parts: No. 111 brush shaft, No. 126 R/T rubber belt, No. 103 44" V-belt, No. 107 37" V-belt, No. 313 mat guide bar and etc.

2. The warranty covers manufacturer's defects in material or poor workmanship only, and shall not be applied for damages caused by negligence or misuse.

3. In case of warranty claim, the Buyer must inform the Seller of the problem by fax or email and may be required, at Sellers discretion, to return the part to the Seller freight prepaid. This part will be evaluated and the Buyer informed if it is warrantied. The Seller shall confirm and settle the claim as soon as possible after the claim date.

4. When returning parts to Seller for the purpose of repair or replacement under the warranty, Buyer will ship them freight prepaid and Seller will ship back, freight prepaid after being repaired or replace. Otherwise Seller charges for the cost of repair or replacement and dispatch freight collect.



INSIDE OF DRAIN



CHECK VALVE OF DRAIN HOLE



SELECT SWITCH



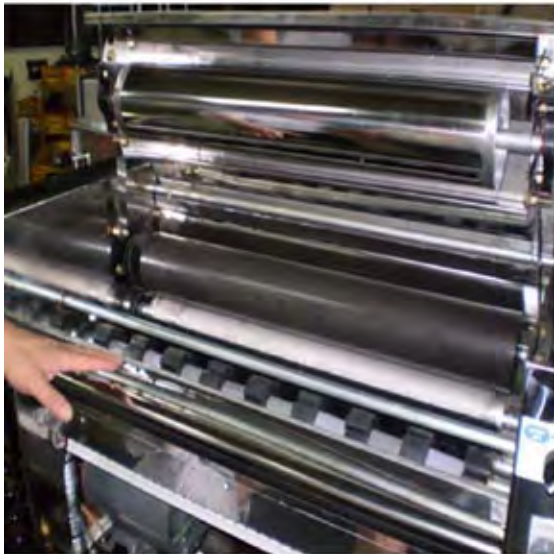
INSERTION OF MAT



FRONT VIEW



REAR VIEW



UPPER COVER OPEN



VACUUM BOX COVER



DRAINAGE & 4-LITER TANK



WATER SUPPLY VALVE



# DEMA ADJUSTABLE SINGLE STAGE INJECTORS

## MODELS 202B, 202BP, 202 BT, 203B, 203BP, 203 BT, 204B, 204BP, 204 BT, 206B, 206BP, 206BT INSTALLATION INSTRUCTIONS

### 1. PARTS

- A. Injector
- B. Ceramic Weight.
- C. Plastic tubing 8' long with foot strainer.

### 2. INSTALLATION

The injector may be installed in any position in the water line with the arrow in the direction of flow. Drop end of plastic tubing with strainer into fluid product container. Cut tubing to convenient length, and slip open end over injector fitting.

### 3. OPERATION

**Warning: Use care when handling hazardous chemicals.**

See Fig. 1 for location of water bypass screw and fine metering adjustment screw. Turn on water supply valve. The injector may draw momentarily as the system is filling but normally will stop as the system builds up to full pressure. To actuate injector, turn the bypass screw clockwise until product begins to be drawn from the container. After the fluid reaches the injector, the feed rate may be adjusted to the desired rate by turning the bypass screw. The maximum injection rates are shown in Table 2. For low injection rates, it is advisable to set the bypass screw for more injection than required; then turn the fine metering screw clockwise to reduce injection to the desired rate. Table 1 shows the operation range of the injector. If the injector will not draw with the bypass screw full in, then the water flow is below the range of the injector. If the injector draws with the screw full out but pressure loss is excessive, then flow is above the range of the injector. Table 3 shows the injection rates for models 202 BT, 203 BT, 204 BT, and 206 BT using metering tips at various viscosities. Table 4 shows the appropriate pipe size used for each injector.

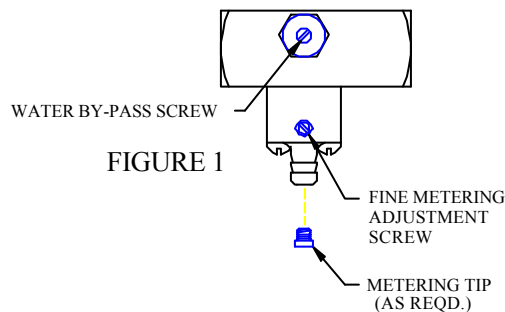


TABLE 1

Water Pressure (psi)	Operating Range - Gallons Per Minute			
	Model 202 B	Model 203 B	Model 204 B	Model 206 B
10	0.25 - 2.00	0.50 - 3.50	2.00 - 6.40	3.60 - 11.00
20	0.30 - 2.30	0.55 - 4.40	2.30 - 7.50	4.20 - 13.00
40	0.37 - 2.90	0.70 - 5.40	2.90 - 9.50	5.30 - 17.00
60	0.43 - 3.40	0.80 - 6.40	3.40 - 11.00	6.20 - 19.00
100	0.54 - 4.20	1.00 - 8.00	4.20 - 14.00	7.70 - 24.00
200	0.73 - 5.70	1.40 - 11.00	5.70 - 19.00	11.00 - 33.00
400	1.00 - 7.90	1.90 - 15.00	7.90 - 26.00	15.00 - 46.00
500	1.20 - 8.90	2.10 - 17.00	8.90 - 29.00	17.00 - 51.00
* 700	1.40 - 11.00	2.50 - 20.00	11.00 - 35.00	20.00 - 60.00
* 1000	1.60 - 13.00	3.00 - 23.00	13.00 - 41.00	23.00 - 70.00
* 1500	2.00 - 16.00	3.50 - 28.00	16.00 - 50.00	28.00 - 87.00
* 2000	2.20 - 18.00	4.70 - 37.00	18.00 - 58.00	33.00 - 100.00
* 3000	2.70 - 20.00	5.00 - 45.00	20.00 - 70.00	40.00 - 100.00

\* SPECIFY – S Stainless Steel Knob – Part No. 24-32S or Part No. 24-32ST (for tips) for pressure exceeding 700 PSI.

# DEMA ADJUSTABLE SINGLE STAGE INJECTORS

## MODELS 202B, 202BP, 202 BT, 203B, 203BP, 203 BT, 204B, 204BP, 204 BT, 206B, 206BP, 206BT INSTALLATION INSTRUCTIONS

**TABLE 2**

Fluid Viscosity (cps)	Maximum Injection (Oz/Min)			
	Model 202 B	Model 203 B	Model 204 B	Model 206 B
1	8	20	40	48
75	5	8	8	9
200	3	4	4	4

**TABLE 3**

Metering Tip Color	202BT			203BT			204BT			206BT		
	Injection Rates (Oz/Min)											
	Viscosity (cps)			Viscosity (cps)			Viscosity (cps)			Viscosity (cps)		
	1	75	200	1	75	200	1	75	200	1	75	200
Tan	1.0	1.0	0.6	1.1	0.8	0.5	1.1	0.8	0.5	1.0	0.7	0.6
Orange	1.5	1.2	0.7	1.4	1.0	0.7	1.4	0.9	0.6	1.4	1.0	0.8
Turquoise	1.8	1.4	1.2	2.0	1.4	1.0	1.9	1.2	0.9	1.9	1.3	1.0
Pink	2.5	2.0	1.4	2.7	1.8	1.3	2.6	1.7	1.3	2.6	1.8	1.3
Clear	3.3	2.7	1.7	3.5	2.4	1.6	3.4	2.4	1.6	3.5	2.3	1.7
Brown	3.2	2.9	1.9	4.0	2.7	1.7	4.0	2.4	1.9	4.0	2.6	1.8
Red	4.2	3.0	2.1	4.9	3.3	2.0	4.9	2.9	2.2	5.0	3.1	2.0
White	4.8	3.5	2.1	6.0	3.9	2.3	6.0	3.4	2.4	6.2	3.7	2.4
Green	5.2	3.7	2.3	6.8	4.4	2.5	6.8	3.8	2.5	7.1	4.1	2.6
Blue	6.2	4.0	2.4	7.8	4.9	2.7	8.4	4.3	3.1	8.9	4.8	2.9
Yellow	7.1	4.3	2.7	10.3	5.9	2.9	13.1	5.2	3.4	13.5	5.9	3.2
Black	7.0	4.4	2.8	13.2	6.7	3.0	18.2	6.1	3.5	20.1	6.7	3.5
Purple	7.4	4.6	2.9	17.1	6.7	3.1	27.5	6.8	3.5	31.3	7.5	3.6
Gray	7.8	4.7	3.1	19.0	7.1	3.3	32.9	7.0	3.5	38.3	8.0	3.8
No Tip	7.9	4.7	3.3	20.0	8.0	3.7	39.8	7.9	3.7	48.1	9.2	4.4

All induction rates are based on a water inlet pressure of 40psi and operating at a full vacuum.

# DEMA ADJUSTABLE SINGLE STAGE INJECTORS

MODELS 202B, 202BP, 202 BT, 203B, 203BP, 203 BT, 204B, 204BP, 204 BT, 206B, 206BP, 206BT  
INSTALLATION INSTRUCTIONS

TABLE 4

Model	Pipe Size
202 B	3/8 NPT
203 B	3/8 NPT
204 B	1/2 NPT
206 B	3/4 NPT

#### 4. SERVICING

**CAUTION: Turn off water supply before servicing.**

The check valve parts are in the metering knob and can be cleaned by removing the four screws. The knob may be rotated if it is more convenient to have the adjusting screw on another side of the injector. As with any injector, if spray jets become clogged or downstream restriction increases in any manner, the injector will stop drawing fluid. If it is inconvenient to remove the restriction immediately, the injector may be put back into operation by turning the water bypass screw further clockwise; this adjusts the injector to the lower flow rate. The bypass screw should be reset once the restriction is removed.

**CAUTION: When servicing, make sure that replacement parts have been installed according to drawing. Be certain to check valve parts are in place.**

#### RETURNS:

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

#### WARRANTY:

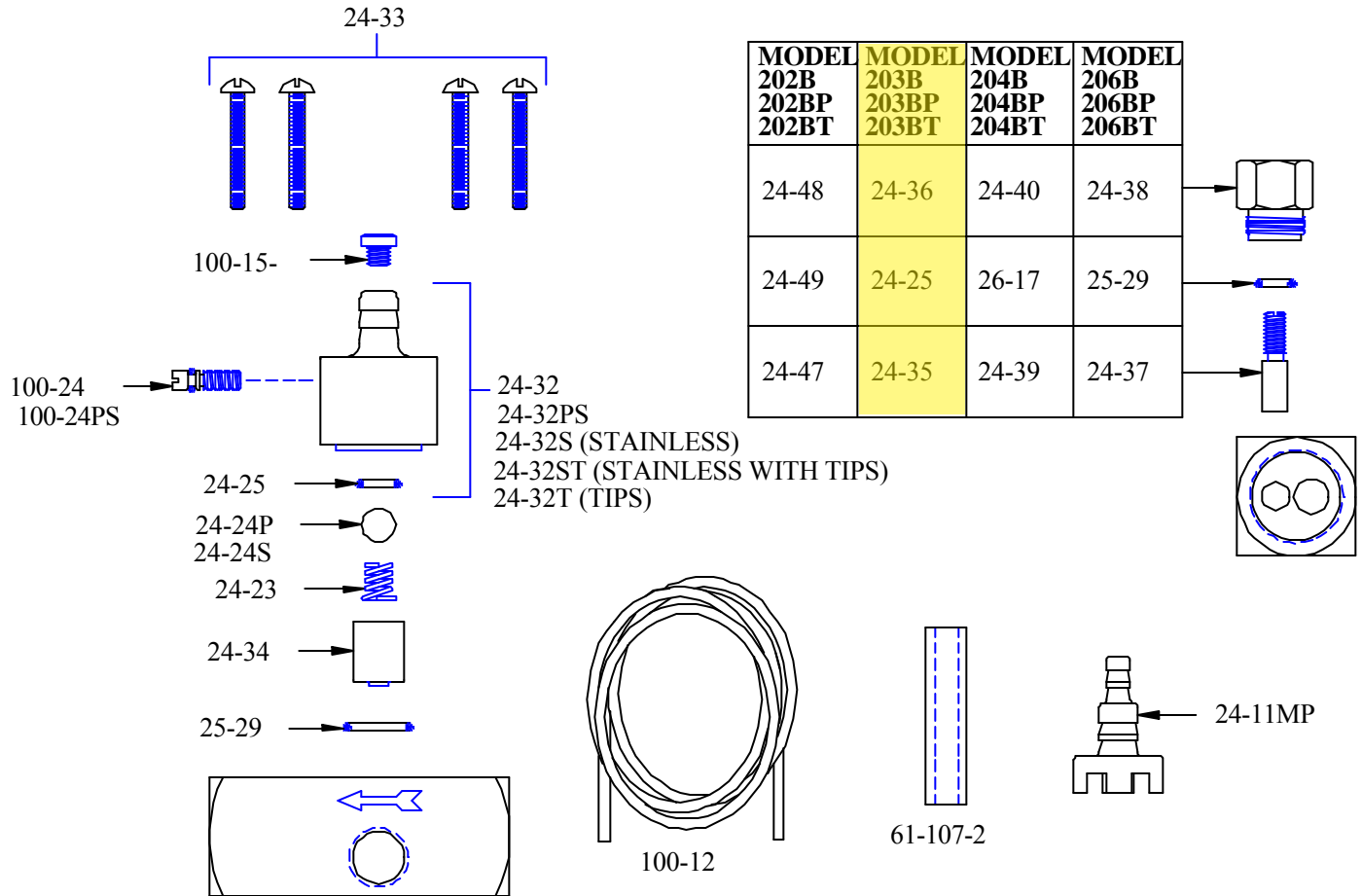
DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper 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.

# ADJUSTABLE SINGLE-STAGE INJECTORS

MODELS: 202B, 202BP, 202BT, 203B, 203BP, 203BT, 204B, 204BP, 204BT, 206B, 206BP, 206BT

MODEL #'S MAY ALSO INCLUDE S, E, C AND/OR -2.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
24-11MP	FOOT STRAINER	24-39	BY-PASS SCREW
24-23	CHECK VALVE SPRING	24-40	BY-PASS SCREW RETAINER
24-24P	CHECK VALVE BALL (TEFLON)	24-47	BY-PASS SCREW
24-24S	CHECK VALVE BALL (STAINLESS)	24-48	BY-PASS SCREW RETAINER
24-25	CHECK VALVE O-RING	24-49	O-RING
24-32	METERING KNOB ASSY.	25-29	O-RING
24-32PS	METERING KNOB ASSY. (BP INJECTORS)	26-17	O-RING
24-32S	METERING KNOB ASSY.	61-107-2	CERAMIC WEIGHT
24-32ST	METERING KNOB ASSY.	100-12	VINYL TUBING (3/8" O.D. X 8' LG)
24-32T	METERING KNOB ASSY.	100-15-	METERING TIP (SPECIFY COLOR)
24-33	SCREW #8-32 X 7/8 LG. (4-REQD.)	100-15K	METERING TIP KIT (14 PCS.)
24-34-	CHECK VALVE CORE (SPECIFY MODEL NO.)	100-24	METERING SCREW
24-35	BY-PASS SCREW	100-24PS	METERING SCREW (-BP INJECTORS)
24-36	BY-PASS SCREW RETAINER		
24-37	BY-PASS SCREW		
24-38	BY-PASS SCREW RETAINER		