TABLE OF CONTENTS

Equipment Utilities ................................................................. Page: 1
Equipment Specifications ......................................................... Page: 1
List of Contents ............................................................................. Page: 1
Suggested Tools and Installation Materials ................................ Page: 1
TUNNEL Applicators Installation ............................................... Page: 2
IN-BAY Applicators Installation ................................................ Page: 5
Start-Up Procedures ..................................................................... Page: 13
Operation .................................................................................. Page: 14
Preventive Maintenance ............................................................. Page: 16

Equipment Specifications

<table>
<thead>
<tr>
<th>TUNNEL APPLICATORS</th>
<th>IN-BAY APPLICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTRICAL</strong></td>
<td></td>
</tr>
<tr>
<td>POWER:</td>
<td>120 VAC UL ® CERTIFIED</td>
</tr>
<tr>
<td>SIGNAL:</td>
<td>24 to 250 Volt AC or DC From Car Wash</td>
</tr>
<tr>
<td></td>
<td>Or Point-Of-Sales</td>
</tr>
<tr>
<td></td>
<td>100 WATTS</td>
</tr>
<tr>
<td>POWER:</td>
<td></td>
</tr>
<tr>
<td>SIGNAL:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>24 VDC, 24 VAC or 120 VAC Available</td>
</tr>
<tr>
<td></td>
<td>30 WATTS</td>
</tr>
<tr>
<td><strong>PNEUMATICS</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 SCFM @ 100 PSI (max)</td>
</tr>
<tr>
<td></td>
<td>10 SCFM @ 100 PSI (max)</td>
</tr>
</tbody>
</table>

Equipment Features

☐ Two Super Shiner Applicators (D-S and P-S)
☐ Two Volumetric Pump Assemblies
☐ Unique “On-Demand” Applicator Brush
☐ Corrosion Resistant Bearings throughout equipment
☐ 12” Replaceable Applicator Brush sections
☐ Compact Solution Delivery Station
☐ Pneumatic Control (No electrical to the Applicators)
☐ 144” Tunnel Space Required for the Driver Side Applicator
☐ 169” Tunnel Space Required for the Passenger Side Applicator
☐ 24VDC, 24VAC or 120VAC Control Panel available

List of Contents

<table>
<thead>
<tr>
<th>TUNNEL APPLICATORS</th>
<th>IN-BAY APPLICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPERSHINER0001</td>
<td>SUPERSHINER0002</td>
</tr>
</tbody>
</table>

☐ 1 - Super Shiner II Solution Delivery Station  Pic #1
☐ 2 - Super Shiner Applicators (D-S & P-S)  Pic #2
☐ 2 - Super Shiner II Volumetric Pumps Assy  Pic #3
☐ 1 - In Bay Control Box  No Pic
☐ 1 - Photo-Eye Set  Pic #4
☐ 1 - 48” Tape Switch  Pic #5
Suggested Installation Tools and Materials

- Hammer Drill with 5/8" Drill bit
- Sledge Hammer
- Set of Standard Combo Wrenches
- Measuring Tape
- Standard Screw Drivers
- 3/8" OD Polyflow Tubing
- (8) Wedge Anchor Bolts 5/8" x 6"
- Fasteners (to secure panel to wall)
- Screw Gun
- Safety Goggles
- Torpedo Level
- 1/2" ID Clear Braided Hose

Installation Instructions for "TUNNEL" Applicators

Open all boxes and crates and verify that you have all the required components and all your installation materials.

Locate the area where the Super Shiner Applicators will be installed and make sure there is enough room for both units when they are retracted and fully extended. Remove each Applicator from the shipping pallet. Position each Applicator in the wash bay according to the respective OPERATION ENVELOPE shown below (Pic #6).
Position the Passenger’s Side Applicator 105” from the inside edge of the inside guide rail to the back of the Applicator base plate as shown below. Using a marker, mark the location of both base plates to the floor.

Position the Driver’s Side Applicator 151” from the back of the Driver’s Side Applicator base plate to the back of the Passenger’s Side Applicator base plate. With the Driver’s Side Applicator FULLY RETRACTED make sure that the OUTSIDE EDGE of the plastic rail of the Applicator is LINED UP WITH THE INSIDE EDGE OF THE OUTSIDE GUIDE RAIL. If the plastic rail of the Applicator is not perfectly aligned with the guide rail, move the applicator base plate and relocate it. Using a marker, mark the location of both base plates to the floor.

Pic #7: Distance from Conveyor

STOP!
MAKE SURE THAT THE OUTSIDE EDGE OF THE PLASTIC RAIL OF THE DRIVER’S SIDE APPLICATOR IS ALIGNED WITH THE INSIDE EDGE OF THE CONVEYOR OUTSIDE GUIDE RAIL

Open and close each applicator and check for any interference with any existing equipment in your wash bay.

Extend the Driver’s Side Applicator completely and mark the conveyor outside guide rail on the Entrance End of the Applicator where the guide rail will have to be cut off in order to clear the Applicator push bar when fully extended.

Retract the Applicator and mark the conveyor outside guide rail on the Exit END of the Applicator when fully retracted. Verify also that the back plastic edge of the Applicator Brush is aligned with the inside edge of the outside conveyor guide rail when the applicator is fully retracted (see Picture #6 below).

Cut the inside guide rail between the two marks.
- **Fasten** each Applicator to the floor using 5/8" X 5 or 6” L WEDGE ANCHOR BOLTS. Level both Applicator base plates.

- **Adjust** the bottom edge of the PASSENGER’S SIDE brush ABOUT 4” OFF THE FLOOR. Loosen the fasteners securing the bearings in each base plate and raise or drop the bearings according to the required height.

- **Adjust** the height of the DRIVER’S SIDE brush ABOUT 4” OFF THE FLOOR or SLIGHTLY HIGHER than the height of one CONVEYOR ROLLER. Loosen the fasteners securing the bearings in each base plate and raise or drop the bearings according to the required height.

- **Weld** some support to secure the guide rail properly if needed (see Picture #9 below). You may want to add a support weldment from the entrance guide rail to the base of the conveyor for added safety.
Install one VOLUMETRIC PUMP ASSEMBLY on the DRIVER SIDE entrance side applicator mount base. You may mount the VOLUMETRIC PUMP ASSEMBLY HOUSING directly on top of the base plate (see Picture #10). If you want to use the base plate to mount a sign post or a post, you may want to mount the housing "OFFSET" from the base plate, using the supplied mounting extension brackets (see Picture #11). Repeat for the PASSENGER SIDE.

Remove the covers from both applicators and connect the 1/2" tubing between the INLET side of the block and the OUTLET of the VOLUMETRIC PUMP ASSY (see picture #13). Repeat for the other side.
Mount the SUPERSHINER II CONTROL PANEL to the wall in a CLEAN AND DRY AREA. Secure the panel with the bottom 40” off the floor. This measurement will allow sufficient room for a 55 Gallon drum to be stored under the panel.

Pull 2 new 3/8” OD airlines ONE BLUE to the DRIVER SIDE APPLICATOR and ONE RED to the PASSENGER SIDE APPLICATOR from the pumping station (see Picture#14 below).

Pull 6 additional 3/8” OD airlines TWO BLACK, ONE PURPLE, ONE GREY, ONE ORANGE AND ONE YELLOW) from the pumping station to the applicators and then split with a tee fitting to each applicators and volumetric pump assembly like shown on Picture #14 below.

Finally, pull a supply 1/2” NYLON BRAIDED HOSE line from the pumping station to the applicators and then split with a tee fitting and connect to each volumetric pump assembly (see Picture 14, 15A and 15B). The supply line HAS TO COME FROM ABOVE THE VOLUMETRIC PUMP ASSY. If the supply line cannot come from above and has to be routed from below the volumetric pump assembly, route the line above and then LOOP BACK INTO THE VOLUMETRIC PUMP ASSEMBLY like shown on picture #15B.

Secure all the tubing properly with plastic ties. Ensure that none of the air lines interfere with the motion of each Applicator.
Installation Instructions for “IN-BAY” Applicators

- Open all boxes and crates and verify that you have all the required components and all your installation materials.

- Locate the area where the Super Shiner Applicators will be installed and make sure there is enough room for both units when they are retracted or fully extended. Remove each Applicator from the shipping pallet. Position each Applicator in the wash bay according to the respective OPERATION ENVELOPE shown below (Pic #16).
Position the Passenger’s Side Applicator 81 1/2” from the WASH BAY CENTER LINE to the back of the Applicator base plate as shown on Picture #17. Using 5/8” anchor bolt, secure the applicator to the floor. Level as needed both bases to the floor using shims or washers.

Position the Driver’s Side Applicator 163” from the back of the Passenger’s Side Applicator base plate to the back of the Driver’s Side Applicator Base Plate as shown in Picture #9. Using 5/8” anchor bolt, secure the applicator to the floor. Level as needed both bases to the floor using shims or washers.

Assemble both Photo-Eye assemblies and mount (facing each other) on the exit side Base Plate Top Mount as shown in Picture #18.

Secure the tape switch to the floor as shown in Picture #18.
Finally, install the two volumetric pumps assemblies on the entrance side bases using the supplied mounting brackets (see Picture #19).
**Control Panel Electrical:**

☑️ The Super Shiner II Control Panel requires **ONE ELECTRICAL CIRCUIT (CHANNEL)** coming from the Car Wash Controller (or coming from the Super Shiner In-Bay Control Box). The circuit voltage may be **24 VAC, 24VDC or 120VAC**.

---

**STOP!**

CONFIRM THE VOLTAGE OF YOUR UNIT BY CHECKING THE VOLTAGE SPECS OF THE "MAC" VALVES AND BOTH TIMERS LOCATED IN THE ELECTRICAL ENCLOSURE.

---

**Pic #20: Delivery Panel Utilities**

COMING FROM CAR WASH CONTROLLER

24VDC, 24VAC OR 120VAC, 30 WATTS

SUPPLY WITH COMPRESSED AIR, 100 PSI
10 SCFM
Connect ONE OUTPUT FUNCTION from the car wash controller to the electrical box as is:

<table>
<thead>
<tr>
<th>BLACK (HOT)</th>
<th>TERMINAL 1 - 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHITE (NEUTRAL)</td>
<td>TERMINAL 3 - 6</td>
</tr>
<tr>
<td>GREEN (GROUND)</td>
<td>LUG CONNECTOR</td>
</tr>
</tbody>
</table>

Pic #20: Electrical Box

Electrical Connections for In-Bay Unit:

Pic #21: In-Bay Electrical Connections
The Duration Timer in the In-Bay Control Box has been preset for ONE MINUTE (see Picture # 22 and 23 below). This value is the maximum time allowed for a customer to use the Super Shiner before both applicators retract. If a different time is needed, increase or decrease the value by turning the Duration Timer knob to the desired value.

Control Panel Compressed Air Supply:

Connect the main air supply to the MAIN AIR REGULATOR. The air supply has to be capable of at least: 10 SCFM @ 100 PSI and no more than 150 PSI (See Picture #24).

NOTE:
IT IS IMPERATIVE TO SUPPLY THE DELIVERY PANEL WITH “CLEAN DRY COMPRESSED AIR”. ANY AMOUNT OF MOISTURE, VAPORIZED OIL OR ANY OTHER IMPURITIES WITHIN THE MAIN AIR SUPPLY MAY AFFECT THE PERFORMANCE OF THE EQUIPMENT AND LEAD TO PREMATURE WEAR OR MAJOR DAMAGE TO THE DELIVERY UNIT OR ITS COMPONENTS.
Super Shiner Fundamentals:

Your Super Shiner Applicators and Pumping Station have been designed for years of operation and trouble-free service. The unique GUIDE-RAIL/APPLICATOR brush design allows for the application only when called upon: no more half application on non-selected vehicle tires!

The SUPER SHINER II uses two pumps for the chemical delivery: The first pump is a Flo-Jet pump positioned in the back room on the Shiner control panel. This pump delivers chemical to the volumetric pumps located in the tunnel on the applicator stand. There is a volumetric pump for each applicator. The volumetric pump operates like a syringe. The chemical is sucked up into the pump and then is pushed out onto the applicators.

A ready signal from one carwash controller function is required to operate any of the functions. There is no power to the panel until this signal is present. Once this signal is present the unit will complete one cycle and extend the applicator brushes until the signal is removed.

A complete cycle is as follows:
1. After a ready signal received, the 1st timer starts counting, energizing the air valve to the volumetric pump.
2. After the first timer times out, energizing the 2nd timer and then energizing the air valve operating the N/C two way valve on the volumetric pump assembly in the tunnel allowing the chemical to squirt onto the cloth brushes.
3. After the 2nd timer times out, the brushes flip out and extend, ready to apply chemical to the tire. The Flojet® pump is now energized to replenish the volumetric pump.
4. When the ready signal is then removed from the system, the air valves turned OFF, the brushes retract to its original position and the NO two way “Dump” valve is now open, releasing the pressure in the feed line.

Initial Soaking of your Super Shiner Brushes:

☐ Remove the BRUSH SECTIONS from one side applicator and lined them in the supplied MIXING TUB. Filled the bottom of the tub with MCWW SUPERSHINER TIRE DRESSING CHEMICAL. Ensure that all pads material is soaked in the chemical. Let it sit in the tub for one to two hours. Remove the pads from the tub and reinstall on the applicator. Repeat with the other side applicator.

Pic #24B: Soaking Tub
Manual Operation:

There are three buttons on the **SUPER SHINER II** control box (see Picture #25)

![Control Box Diagram](image1)

- **VOLUMETRIC PUMP TIMERS**
- **TWO WAY VALVE (SQUIRT) TIMER**
- **READY SIGNAL LIGHT “ON”**
- **PRIME PUSH BUTTON**
- **“SQUIRT” PUSH BUTTON**
- **SELECTOR SWITCH**
  - NORMAL POSITION
  - PUMP ADJUST POSITION
  - SQUIRT POSITION

☑️ In order to initially prime the system, remove the covers from both applicators, set the **FLOJET PUMP** air pressure at **70PSI** and all other pressure like shown on Picture #26 and then turn the **READY SIGNAL ON** and wait for the brushes to extend.

![Air Panel Diagram](image2)

- **70PSI**

☐ Drop the **PUMP SUCTION LINE** and the **DUMP VALVE RETURN LINE** in the chemical drum. Go to the **PASSENGER SIDE VOLUMETRIC PUMP ASSEMBLY** and shut the ball valve like shown on Picture #27A below. Now press and hold the **PRIME BUTTON** (see Picture #25) and have someone monitors the **DRIVER SIDE** applicator until a **SOLID COLUMN OF FLUID IS SEEN IN EACH 1/2” LINES** feeding each manifold and is coming out of each applicators nozzle. Shut the **DRIVER SIDE BALL VALVE** and open the passenger’s side. Repeat the same process by pressing and holding the **PRIME BUTTON** until fluid is coming out of the applicator nozzles. When done, open the driver side ball valve and set the **FLOJET AIR PRESSURE BACK TO 40PSI**.
Turn the SELECTOR from NORMAL to ADJUST, and adjust the rod on the volumetric pump for the desired quantity pumped at the brushes. 1" of the rod equals about one once.

Turn the SELECTOR from ADJUST to SQUIRT position and press and RELEASE the SQUIRT BUTTON. Observe the fluid being “squirited” out of the nozzles and onto the back of the brushes. Repeat until each nozzle squirts properly.

1" = 1 ONCE
Finally, turn **OFF** the Ready signal and test again by turning **ON** the READY signal and observe the Applicators operation: The volumetric pumps will inject chemical into the brushes and then the applicators will **EXTEND** and the brushes will **ROTATE OUT** ("FLIP OUT"). Adjust each flow control fitting located at each extend cylinder for proper operation: For a quicker operation, **OPEN** the FLOW CONTROL. For a slower operation, **CLOSE** the FLOW CONTROL.

Program the Car wash Controller Output to turn **ON** your Super Shiner II at the beginning of the front tire for each vehicle. Test with a vehicle and adjust the brush pressure against the tire by **INCREASING** or **DECREASING** the air pressure of the DRIVER'S SIDE or PASSENGER'S SIDE AIR REGULATOR.

**Driver Side Positive Stop Installation:**

**After** start up, verify the positive stop adjustment on the applicator when fully retracted. Make sure the exit end of the applicator is **FLUSH WITH THE INSIDE EDGE OF THE OUTSIDE GUIDE RAIL** (see Pic #29). Adjust the positive stop (mounted on the applicator) as needed.

**Locate** the **FLOOR MOUNTED POSITIVE STOP** and position it behind the main beam on the exit end of the driver side applicator (see Pic 30 below).

**Secure** the floor mounted positive stop to the floor using wedge anchor bolts (see Picture #31). You may insert shims behind the bumper stop for adjustment or relocate the bumper stop like shown on Picture #34 for height adjustment.
Daily Maintenance Procedures:

☑ Inspect DAILY each applicator and Delivery Panel for proper operation. Check the MAIN AIR FILTER/REGULATOR for presence of water.

☐ Inspect DAILY each brush for wear and/or visible damages. Replace damaged brush section. To replace any brush section, follow the procedures below:

Step 1: Push the override button for the EXTEND valve and then shut the main air supply and drain the air from the system.
Step 2: Remove the plastic guide rail from the exit end of the applicator.
Step 3: Remove the end cap.
Step 4: Remove the grease fitting.
Step 5: Slide out the brush section and replace the used section.
Step 6: Reinstall the grease fitting, the end cap and the guide rail. Open the air supply and release the extend valve override button.
☐ Inspect DAILY each applicator and Delivery Panel for proper operation. Check the MAIN AIR FILTER for presence of water.

### Monthly Maintenance Procedures:

☐ Clean Delivery Station MAIN AIR FILTER ONCE A MONTH.

☐ Grease all applicator bearings ONCE A MONTH. See below for greasing points.

*Entrance End Brush Bearing (1 Fitting)*

*Exit Brush End Bearing (1 fitting)*

*Applicator Arm Bearings (8 Fittings)*
Pneumatic Schematic:
Air Lines Schematic:

- **CHEMICAL** - 2" BRAIDED HOSE
  - NOTE: THIS HOSE MUST BE ROUTED FROM OVER HEAD TO FEED THE VOLUME TRIC PUMPS

- **3/8" BLACK AIRLINE**
  - DRIVER SIDE CYLINDER
  - PASS - SIDE CYLINDER

- **3/8" BLUE AIRLINE**
  - DRIVER SIDE CYLINDER
  - PASS - SIDE CYLINDER

- **3/8" RED AIRLINE**
  - DRIVER SIDE CYLINDER
  - PASS - SIDE CYLINDER

- **3/8" ORANGE AIRLINE**
  - DRIVER SIDE CYLINDER
  - PASS - SIDE CYLINDER

- **3/8" GRAY AIRLINE**
  - DRIVER SIDE CYLINDER
  - PASS - SIDE CYLINDER

- **DRIVER SIDE VOLUMETRIC PUMP**
- **PASS - SIDE VOLUMETRIC PUMP**

- **DUMP VALVE**
  - GOES BACK TO CHEMICAL DRUM

- **BACK ROOM CONTROL PANEL**
- **BACK ROOM PANEL**
In-Bay Control Box Electrical Schematic:

**READY SIGNAL:**
- "ON" LIGHT. THIS LIGHT IS ON ONLY WHEN THE SUPERSHINER HAS POWER.

**NORMAL:**
- THIS POSITION IS FOR NORMAL OPERATING.

**PUMP ADJUST:**
- WHEN IN THIS POSITION YOU CAN ADJUST THE VOLUMETRIC PUMP VOLUMES FOR DRIVER OR PASSENGER SIDE (SEE MANUAL FOR ADJUSTMENT PROCEDURES).
- NOTE: 1" OF VOLUMETRIC PUMP ADJUSTMENT IS APPROXIMATELY 1 OUNCE.

**SQUIRT:**
- WHEN IN THIS POSITION YOU CAN CYCLE THE PUMP SEQUENCE FOR ONE APPLICATION AT A TIME.
- BY PRESSING THE BUTTON, YOU CAN VIEW THE NOZZLE SQUIRTING.

**NOTES:**
- THE READY SIGNAL MUST BE ON AND THE COVER MUST BE REMOVED BEFORE THE PUMP SEQUENCE CAN BE INITIATED.
- ONLY WHEN THE SUPERSHINER HAS POWER CAN YOU PRESS THE SQUIRT BUTTON TO ACTIVATE THE PUMP SEQUENCE.

**PRIME:**
- THIS FUNCTION ALLOWS YOU TO PRIME THE CHEMICAL LINES FROM THE FLOJET PUMP TO THE NOZZLES.
- NOTES: THE READY SIGNAL MUST BE ON TO HAVE THIS FUNCTION WORKING.

**TIMER #1:**
- THIS TIMER OPERATES THE TIME THE VOLUMETRIC PUMP WILL BE ON.
- TIMER SET: 1 SECOND.
- AFTER A READY SIGNAL IS RECEIVED, THE 1ST TIMER STARTS COUNTING, ENERGYING THE VOLUMETRIC PUMP.
- AFTER THE 1ST TIMER TIMES OUT, THE 2ND TIMER TURNS ON, OPENING THE 2-WAY VALVE LOCATED AT THE OUTLET OF THE VOLUMETRIC PUMP ASSEMBLY IN THE TUNNEL ALLOWING THE CHEMICAL TO SQUIRT ONTO THE CLOTH BRUSHES.
- AFTER THE SECOND TIMER TIMES OUT, THE APPLICATOR BRUSHES FLIPS OUT AND EXTENDS TO THE TIRE. THE FLOJET PUMP IS ALSO ENERGIZED TO FEED THE VOLUMETRIC PUMP.

**TIMER #2:**
- THIS TIMER OPERATES THE TWO-WAY VALVE, LOCATED AT THE OUTLET OF THE VOLUMETRIC PUMP.
- TIMER SET: 1 SECOND.

**OPERATING:**
- THIS FUNCTION IS FOR ADJUSTING THE VOLUMETRIC PUMP ADJUSTMENT.

**NOTES:**
- THE READY SIGNAL HAS TO BE REMOVED TO OPERATE THE VOLUMETRIC PUMP.
- A COMPLETE CYCLE IS AS FOLLOWS: A READY SIGNAL (A MAINTAINED SIGNAL) FROM THE CAR WASH CONTROLLER IS REQUIRED TO OPERATE ANY OF THE FUNCTIONS.

A COMPLETE CYCLE IS AS FOLLOWS: A READY SIGNAL (A MAINTAINED SIGNAL) FROM THE CAR WASH CONTROLLER IS REQUIRED TO OPERATE ANY OF THE FUNCTIONS.

A COMPLETE CYCLE IS AS FOLLOWS: A READY SIGNAL (A MAINTAINED SIGNAL) FROM THE CAR WASH CONTROLLER IS REQUIRED TO OPERATE ANY OF THE FUNCTIONS.
**In-Bay Control Box Electrical Schematic:**

Warranty and Return Procedure:

Motor City Wash Works warrants this product to be free of defect in material and/or workmanship for a period of **one year**. During the warranty period MCWW will at its discretion, at no charge to the customer, repair or replace this product if found defective, with a new or refurbished unit, not to include costs of removal or installation. Any product returned to MCWW for warranty has to have a **Return Material Authorization Number**. All shipping costs to MCWW are assumed by the customer. This is only a summary of **MCWW’s Limited Warranty**. Please, communicate with MCWW for our complete warranty.

**Prior** to returning any product to MCWW, the customer must call in for a **Return Material Authorization Number** and a copy of our **Return Material Authorization** Form must be completed. The **RMA** number must be written clearly on the outside of the shipping package and a copy of the form must be included in the package.