

EQUIPMENT



MANUAL

SUPER SHINER™ 2





SUPER SHINER II INSTALLATION MANUAL

Revision: 1.2

Part # SUPERSHINER02XX

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Equipment Specifications

	TUNNEL APPLICATORS	IN-BAY APPLICATORS
ELECTRICAL	POWER: 120 VAC UL ® CERTIFIED SIGNAL: 24VDC, 24VAC or 120VAC Available 30 WATTS	POWER: 120 VAC UL ® CERTIFIED SIGNAL: 24 to 250Volt AC or DC From Car Wash Or Point-Of-Sales 100 WATTS
PNEUMATICS	10 SCFM @ 100 PSI (max)	10 SCFM @ 100 PSI (max)

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

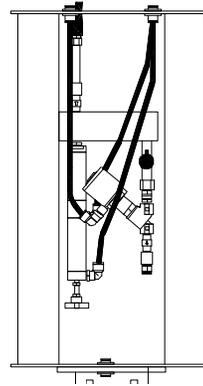
TUNNEL APPLICATORS SUPERSHINER0001		IN-BAY APPLICATORS SUPERSHINER0002	
<input checked="" type="checkbox"/>	1 - Super Shiner II Solution Delivery Station		Pic #1
<input type="checkbox"/>	2 - Super Shiner Applicators (DS & PS)		Pic #2
<input type="checkbox"/>	2 - Super Shiner II Volumetric Pumps Assy		Pic #3
		<input type="checkbox"/>	1 - In Bay Control Box
		<input type="checkbox"/>	1 - Photo-Eye Set
		<input type="checkbox"/>	1 - 48" Tape Switch



Pic #1: Dltm Station

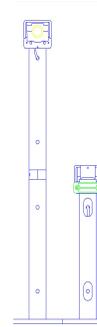


Pic #2: DS & PS Applicator



Pic #3: Volumetric Pump Assy

Pic #4: Photo Eye Set



Pic #5: 48" Tape SW

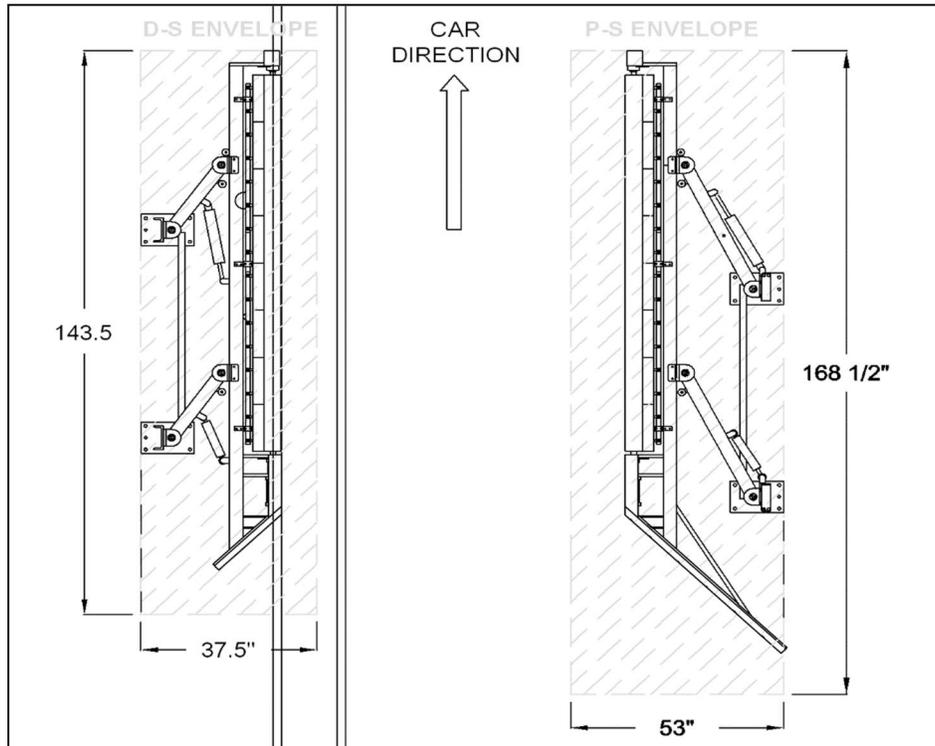


Suggested Installation Tools and Materials

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

Installation Instructions for "TUNNEL" Applicators

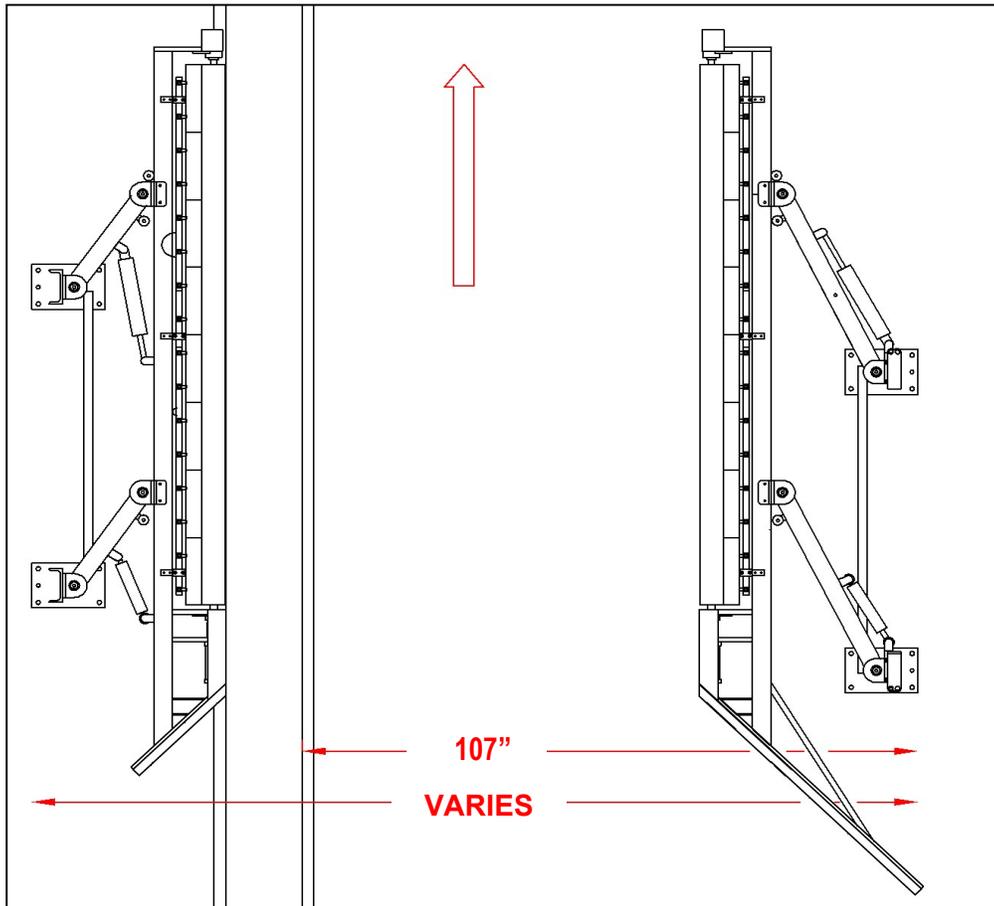
-  **Open** all boxes and crates and verify that you have all the required components and all your installation materials.
- Locate** the area where the Super Shiner Applicators will be installed and make sure there is enough room for both units when they are retracted and fully extended. Remove each Applicator from the shipping pallet. Position each Applicator in the wash bay according to the respective **OPERATION ENVELOPE** shown below (Pic #6).



Pic #6: Applicators Envelope

- Position** the Passenger Side Applicator **107"** 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 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.



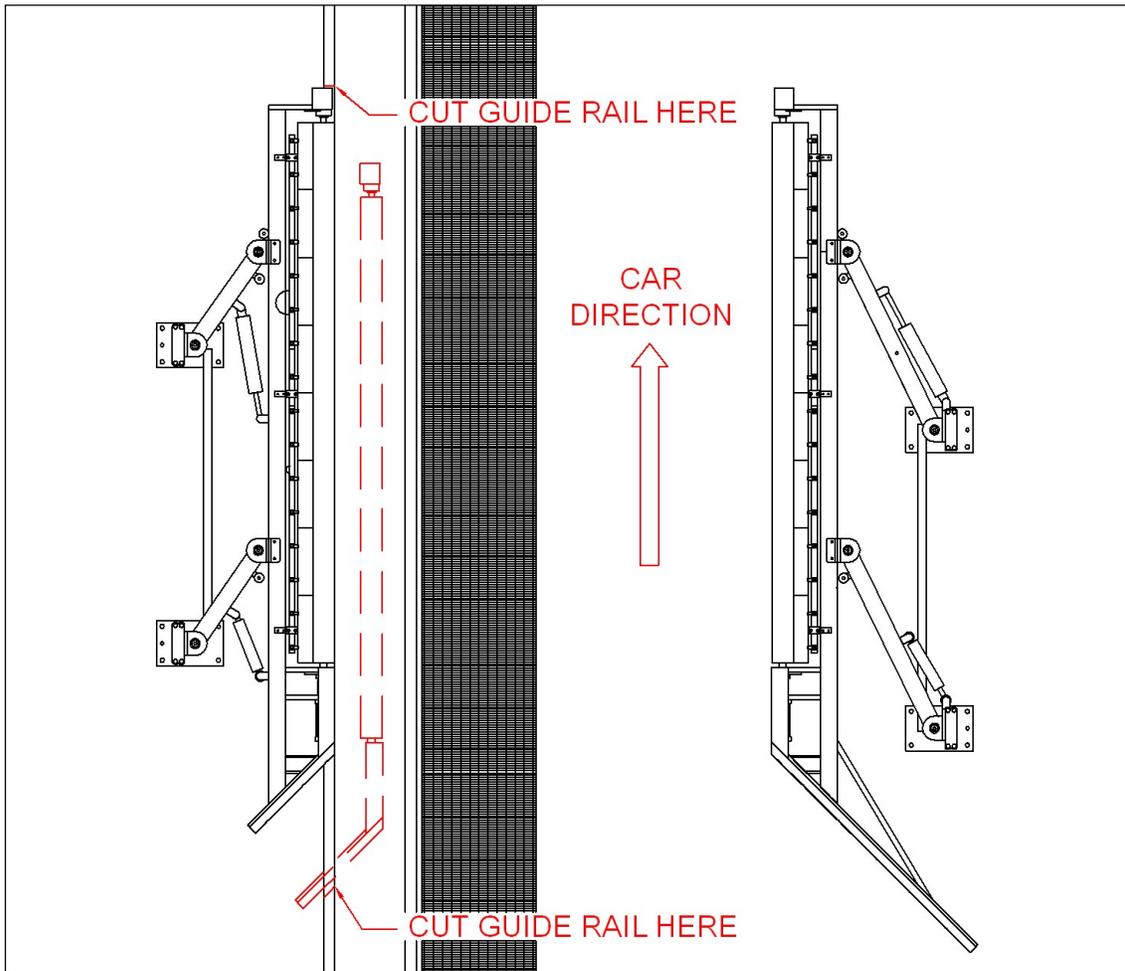
Pic #7: Distance from Conveyor



STOP!

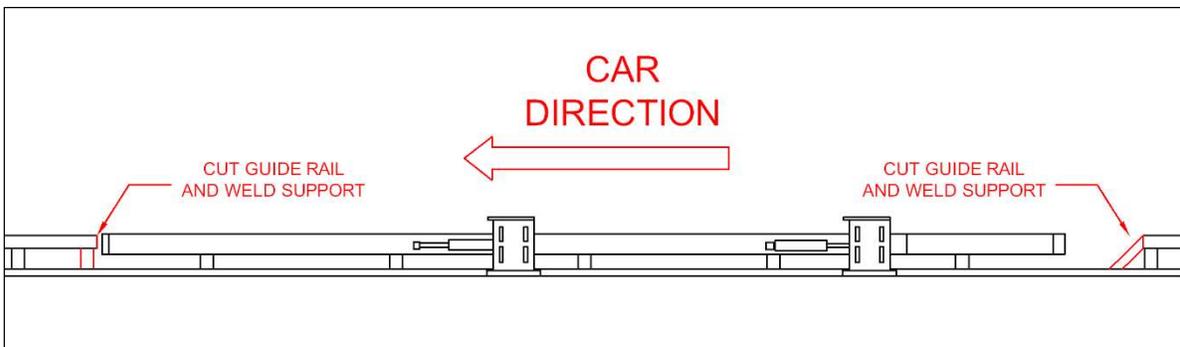
MAKE SURE THAT THE OUTSIDE EDGE OF THE PLASTIC RAIL OF THE DRIVER'S SIDE APPLICATOR IS ALIGNED WITH THE INSIDE EDGE OF THE CONVEYOR OUTSIDE GUIDE RAIL

- 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's 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 Pic #6 below).
- Cut** the **outside** guide rail between the two marks (**11'7" to 11'8" approx..**).
- 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 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.



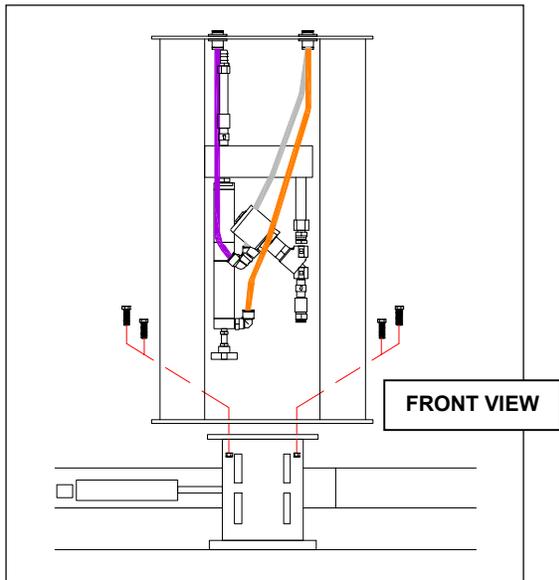
Pic #8: Cut the Guide Rail

- Weld** some support to secure the guide rail properly if needed (see Pic #9 below). You may want to add a support weldment from the entrance guide rail to the base of the conveyor for added safety.

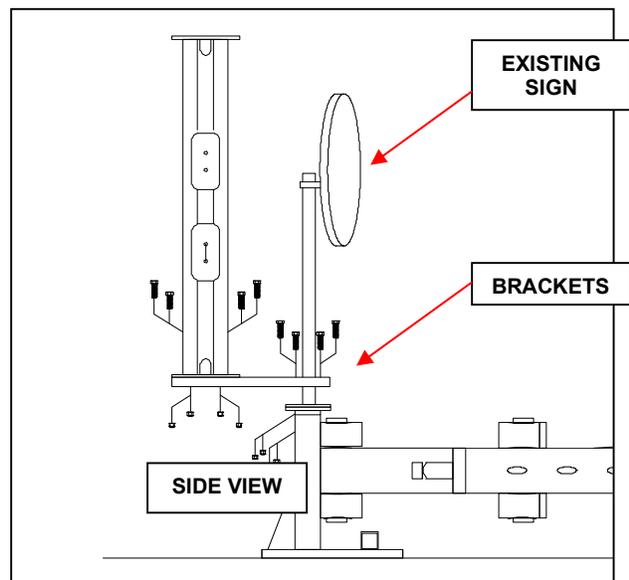


Pic #9: Weld Support

- 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 Pic #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 Pic #11). Repeat for the **PASSENGER SIDE**.



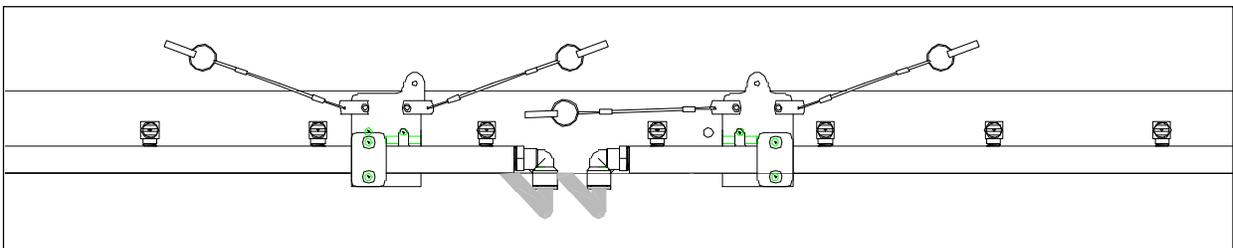
Pic #10: Volumetric Pump Assy w/o Brackets



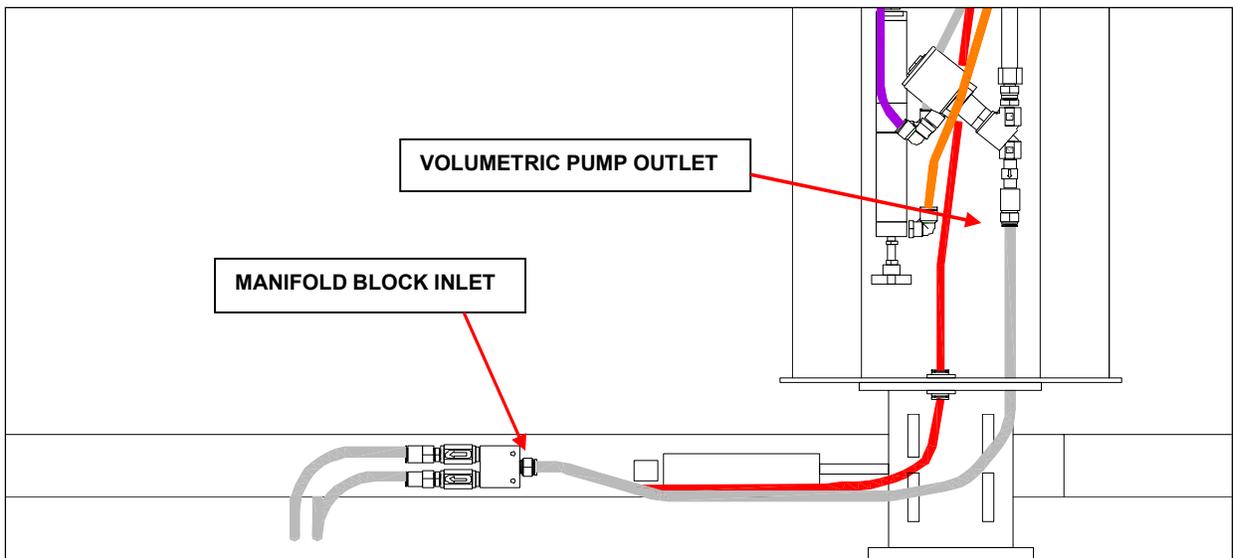
Pic #11: Volumetric Pump Assy w/Brackets



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 Pic #13). Repeat for the other side.



Pic #12: Manifolds Exposed



Pic #13: Install 1/2" Tubing from Block to Volumetric Pump

PRIMING AND ADJUSTMENT PROCEDURE

PRIMING/PURGING LINES:

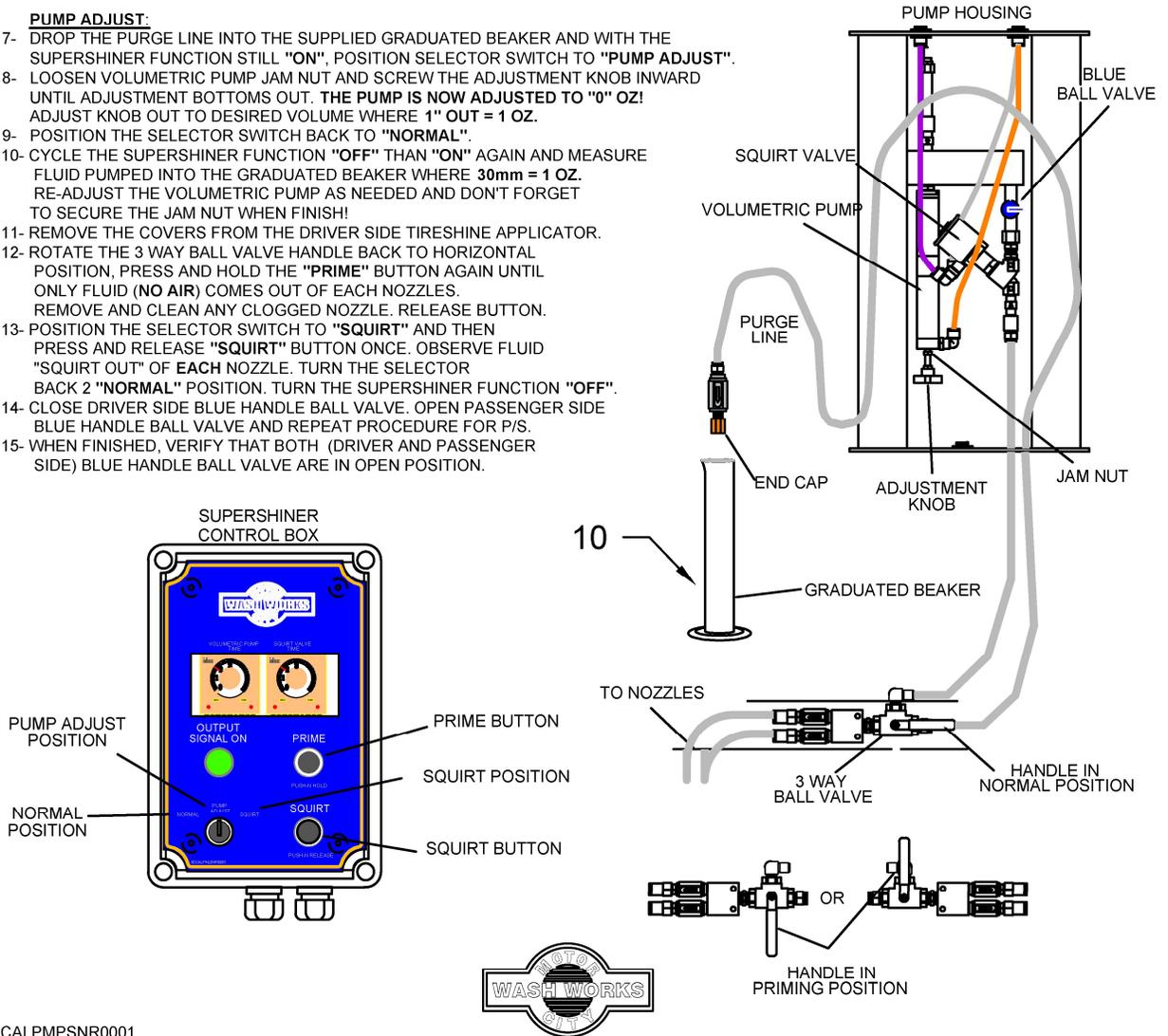
- 1- VERIFY THAT AIR REGULATORS ARE SET ACCORDING TO MANUFACTURER START-UP SETTINGS: MAIN 90-100PSI; VOLUMETRIC PUMP 70-80PSI; FLOWJET PUMP 60-70PSI; DRIVER SIDE EXTEND 20-30PSI; PASSENGER SIDE EXTEND 30-40PSI.
- 2- TURN SUPERSHINER II FUNCTION "ON" AND WAIT FOR CYCLE TO COMPLETE. LEAVE FUNCTION "ON".

PRIMING DRIVER SIDE APPLICATOR:

- 3- CLOSE PASSENGER SIDE BLUE HANDLE BALL VALVE AND VERIFY DRIVER SIDE BALL VALVE IS OPEN.
- 4- REMOVE PURGE LINE FROM PUMP HOUSING, REMOVE END CAP AND DROP IN A CLEAN BUCKET.
- 5- ROTATE 3 WAY VALVE HANDLE TO VERTICAL POSITION.
- 6- PUSH THE "PRIME" BUTTON ON THE SHINER CONTROL BOX AND PURGE THE LINE TO REMOVE ALL AIR (YOU MAY HAVE TO PUMP UP TO TWO GALLONS OF FLUID).

PUMP ADJUST:

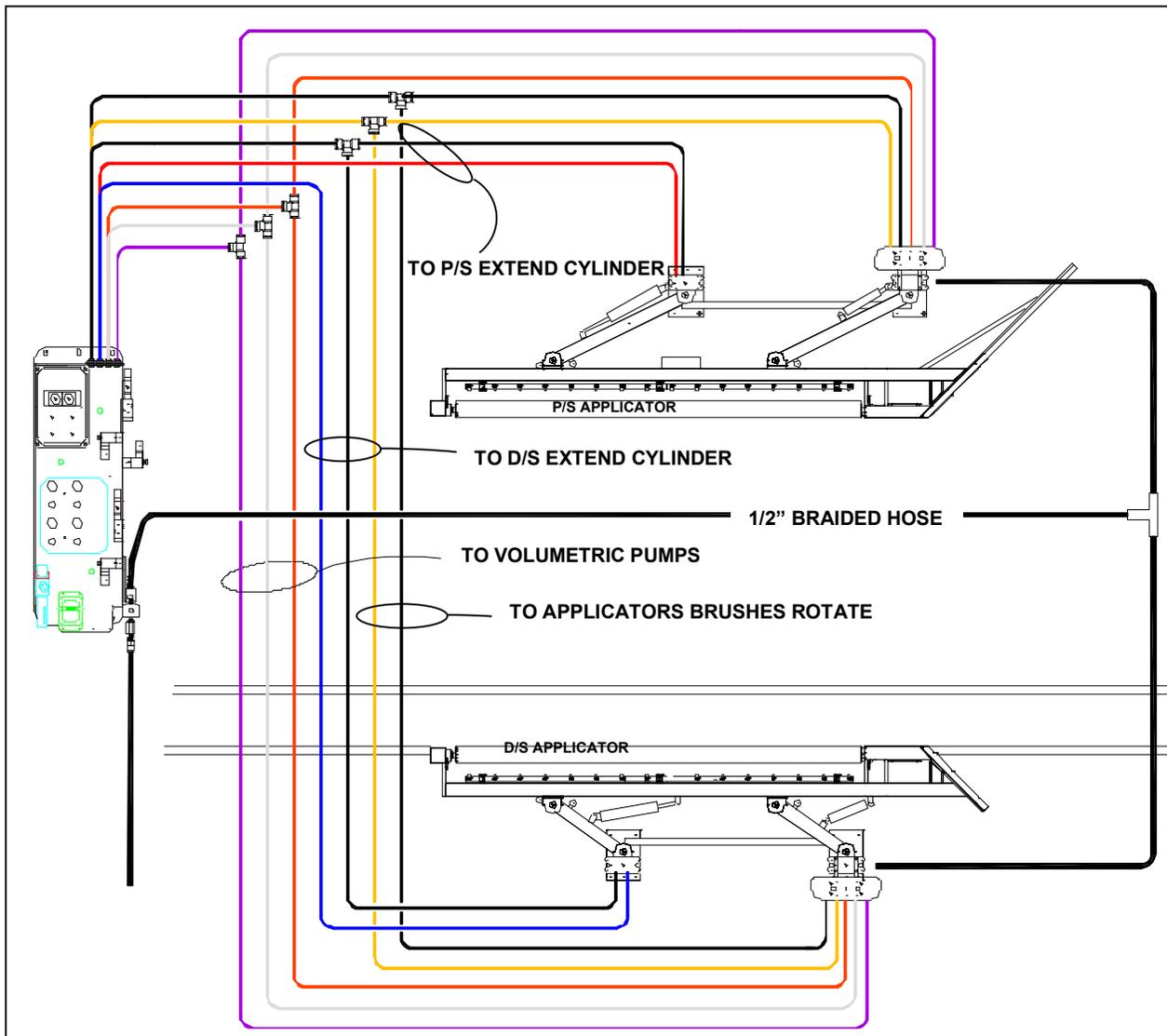
- 7- DROP THE PURGE LINE INTO THE SUPPLIED GRADUATED BEAKER AND WITH THE SUPERSHINER FUNCTION STILL "ON", POSITION SELECTOR SWITCH TO "PUMP ADJUST".
- 8- LOOSEN VOLUMETRIC PUMP JAM NUT AND SCREW THE ADJUSTMENT KNOB INWARD UNTIL ADJUSTMENT BOTTOMS OUT. **THE PUMP IS NOW ADJUSTED TO "0" OZ!** ADJUST KNOB OUT TO DESIRED VOLUME WHERE 1" OUT = 1 OZ.
- 9- POSITION THE SELECTOR SWITCH BACK TO "NORMAL".
- 10- CYCLE THE SUPERSHINER FUNCTION "OFF" THAN "ON" AGAIN AND MEASURE FLUID PUMPED INTO THE GRADUATED BEAKER WHERE 30mm = 1 OZ. RE-ADJUST THE VOLUMETRIC PUMP AS NEEDED AND DON'T FORGET TO SECURE THE JAM NUT WHEN FINISH!
- 11- REMOVE THE COVERS FROM THE DRIVER SIDE TIRESHINE APPLICATOR.
- 12- ROTATE THE 3 WAY BALL VALVE HANDLE BACK TO HORIZONTAL POSITION, PRESS AND HOLD THE "PRIME" BUTTON AGAIN UNTIL ONLY FLUID (NO AIR) COMES OUT OF EACH NOZZLES. REMOVE AND CLEAN ANY CLOGGED NOZZLE. RELEASE BUTTON.
- 13- POSITION THE SELECTOR SWITCH TO "SQUIRT" AND THEN PRESS AND RELEASE "SQUIRT" BUTTON ONCE. OBSERVE FLUID "SQUIRT OUT" OF EACH NOZZLE. TURN THE SELECTOR BACK 2 "NORMAL" POSITION. TURN THE SUPERSHINER FUNCTION "OFF".
- 14- CLOSE DRIVER SIDE BLUE HANDLE BALL VALVE. OPEN PASSENGER SIDE BLUE HANDLE BALL VALVE AND REPEAT PROCEDURE FOR P/S.
- 15- WHEN FINISHED, VERIFY THAT BOTH (DRIVER AND PASSENGER SIDE) BLUE HANDLE BALL VALVE ARE IN OPEN POSITION.



8DCALPMPNSR0001

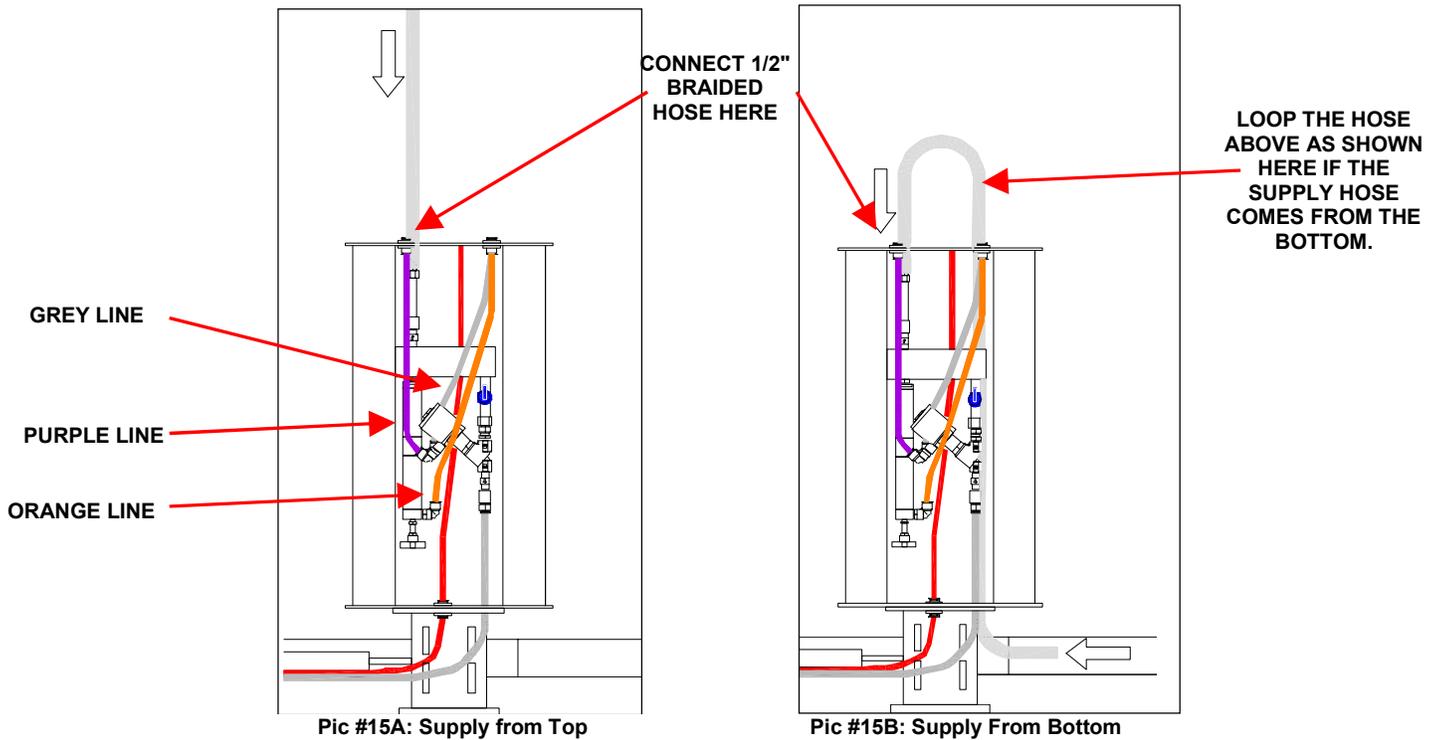
- Mount the **SUPERSHINER II CONTROL PANEL** to the wall in a **CLEAN AND DRY AREA**. Secure the panel with the bottom 40" off of the floor. This measurement will allow sufficient room for a 55 Gallon drum to be stored under the panel.
- Pull 2 new 3/8" OD airlines, **ONE BLUE** to the **DRIVER'S SIDE APPLICATOR**, and **ONE RED** to the **PASSENGER SIDE APPLICATOR** from the pumping station (see Pic #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 applicator and volumetric pump assembly like shown on Pic #14 below.



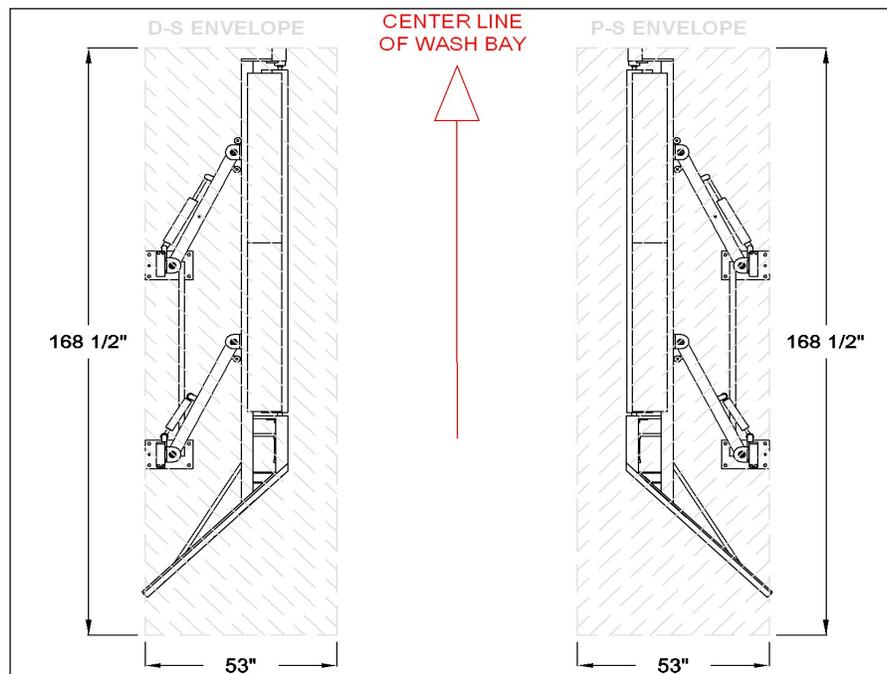
Pic #14: Air Lines Layout

- **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 Pic #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.



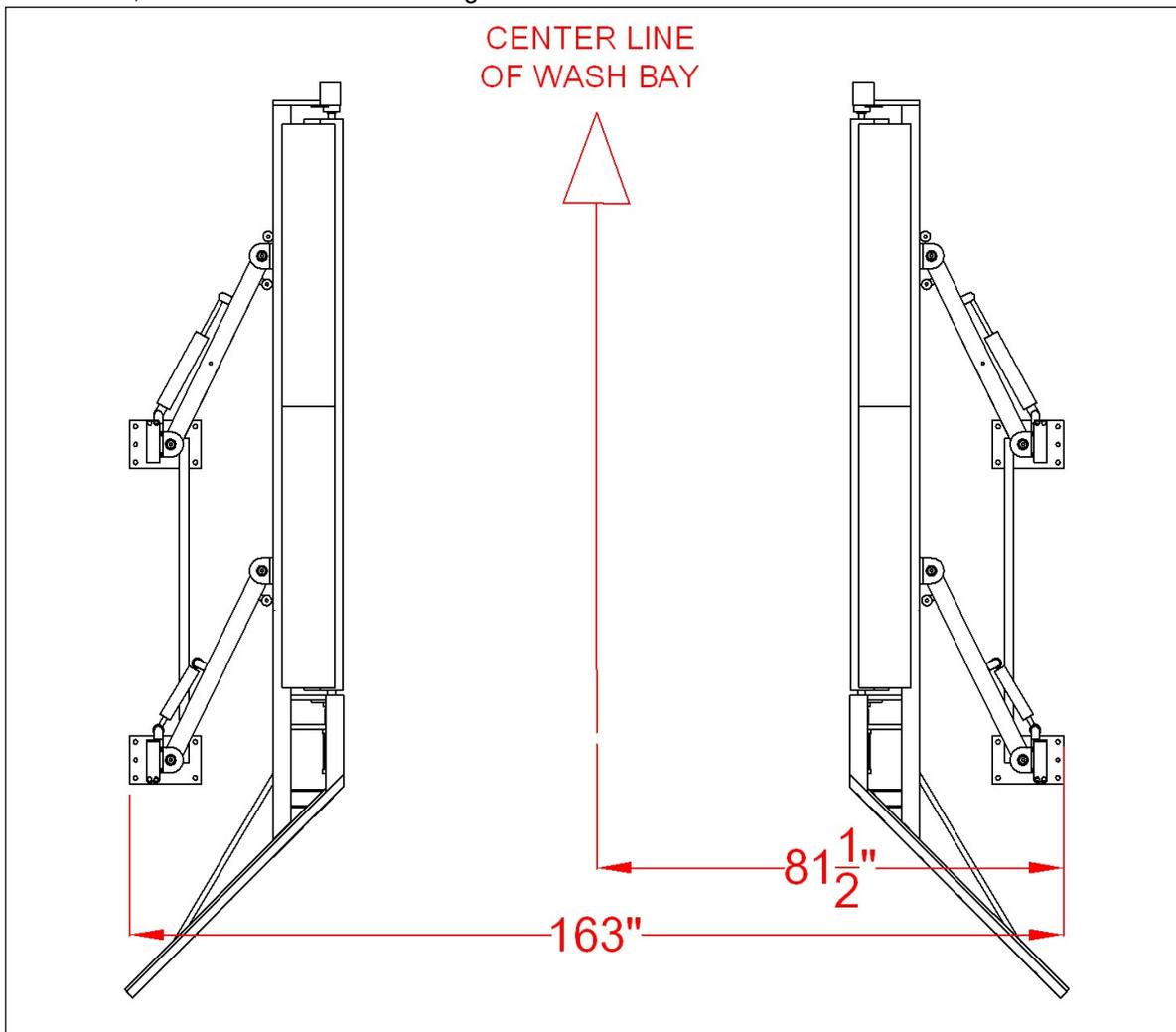
Installation Instructions for "IN-BAY" Applicators

-  **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).



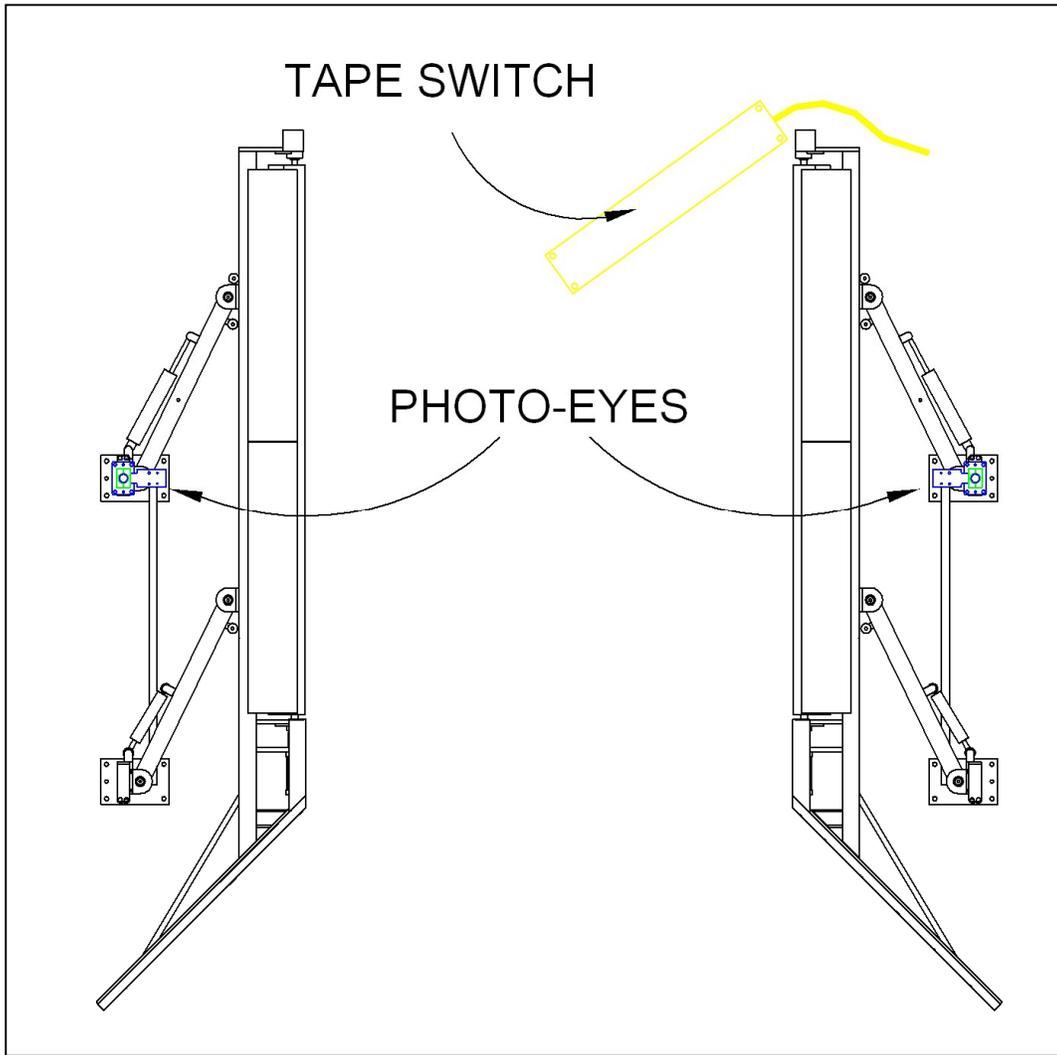
Pic #16: Applicator Envelope

- **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 Pic #17. Using 5/8" anchor bolt, secure the applicator to the floor. Level, as needed, both bases to the floor using shims or washers.



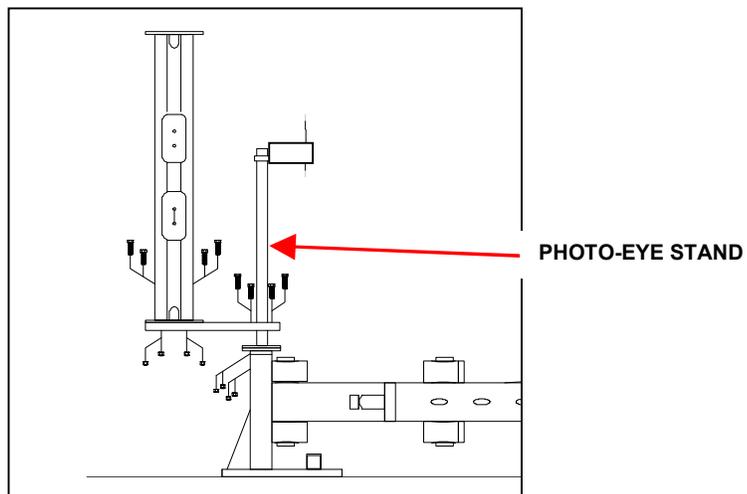
Pic #17: Installation Measurements for both Applicators

- **Position** the Driver 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 Pic #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 Pic #18.
- **Secure** the tape switch to the floor as shown in Pic #18.



Pic #18: In Bay Photo-Eyes and Tape Switch

- **Finally**, install the two volumetric pump assemblies on the entrance side bases using the supplied mounting brackets (see Pic #19).



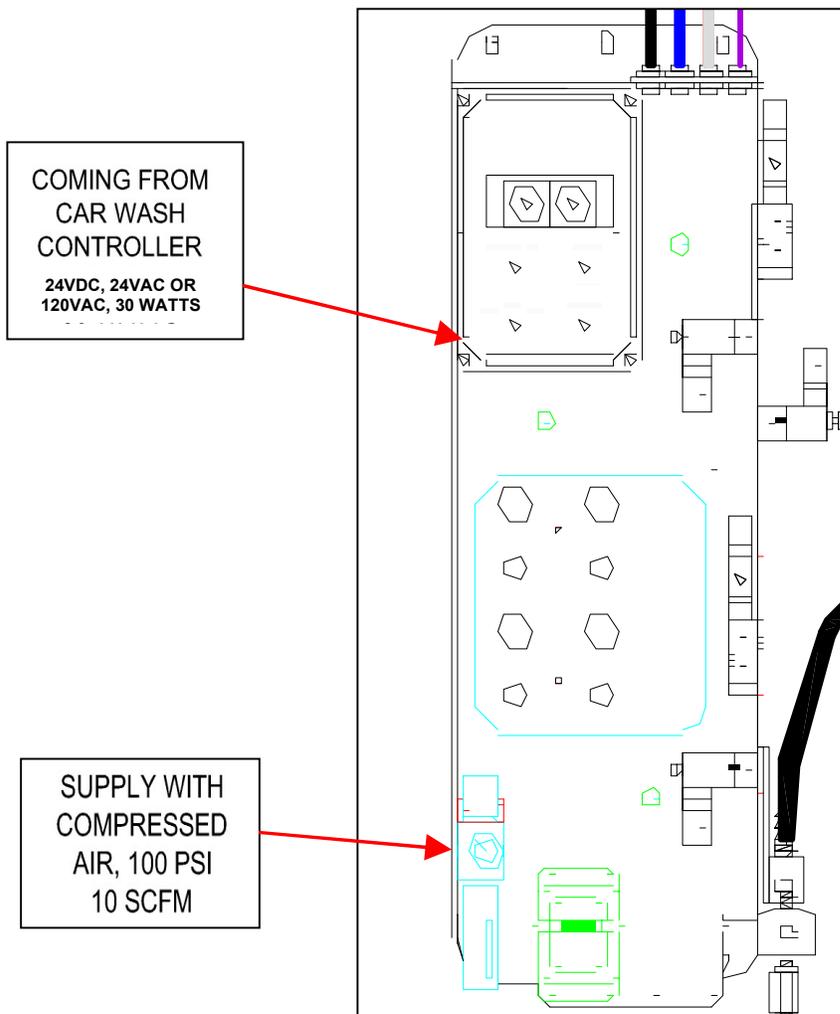
Pic #19: In Bay Photo-Eyes and Volumetric Pump Assy.

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**.



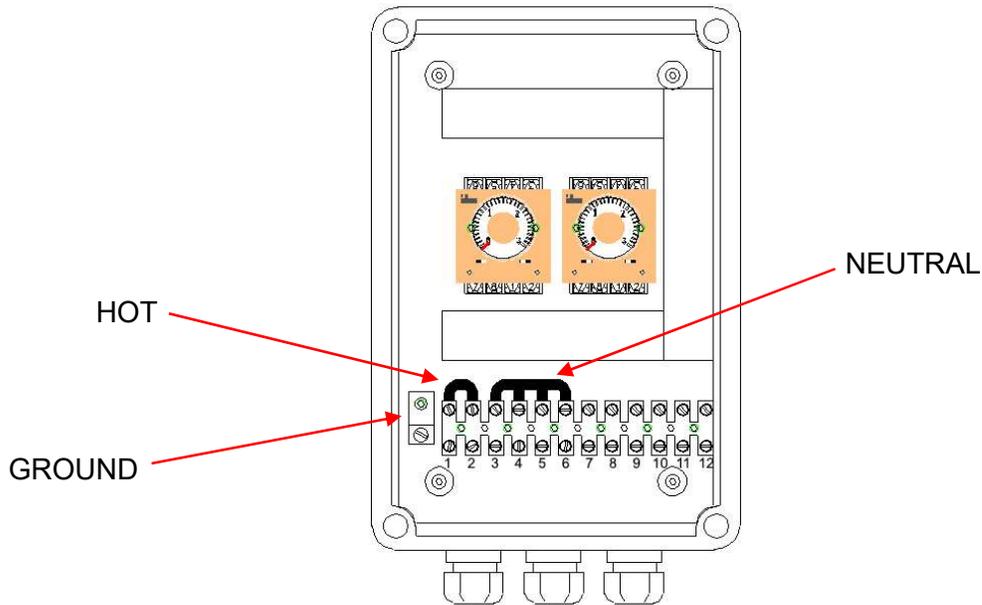
STOP!
CONFIRM THE VOLTAGE OF YOUR UNIT BY CHECKING THE VOLTAGE SPECS OF THE "MAC" VALVES AND BOTH TIMERS LOCATED IN THE ELECTRICAL ENCLOSURE.



Pic #20: Delivery Panel Utilities

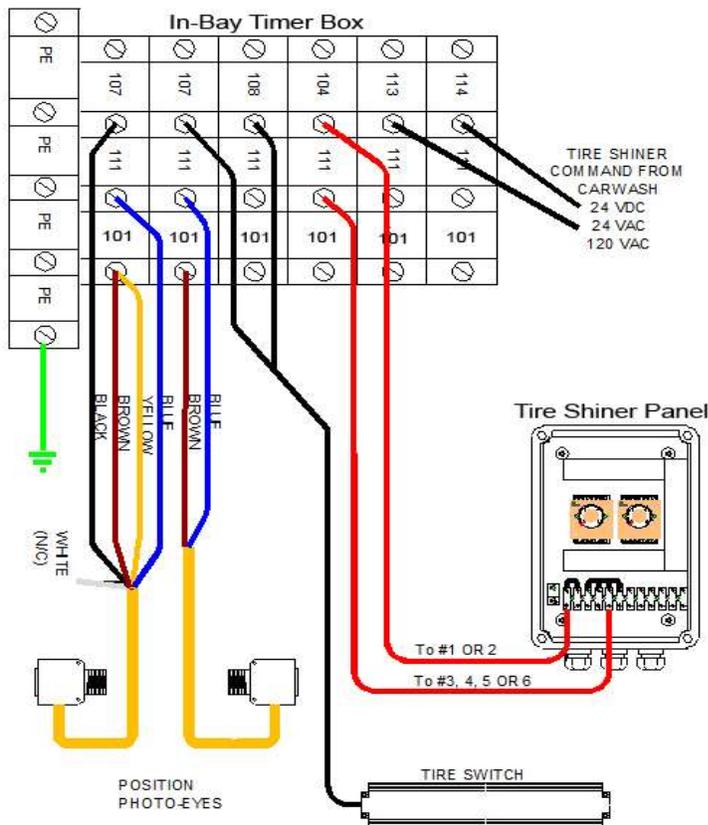
- Connect ONE OUTPUT FUNCTION from the car wash controller to the electrical box as is:

BLACK (HOT) **TERMINAL 1 - 2**
WHITE (NEUTRAL) **TERMINAL 3 - 6**
GREEN (GROUND) **LUG CONNECTOR**

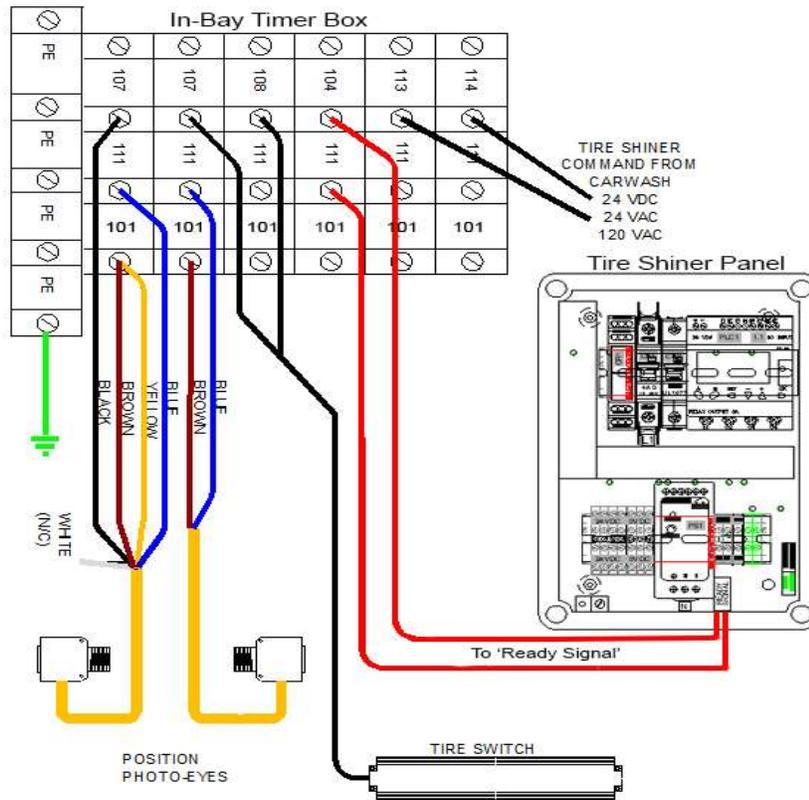


Pic #20: Electrical Box

Electrical Connections for In-Bay Unit:

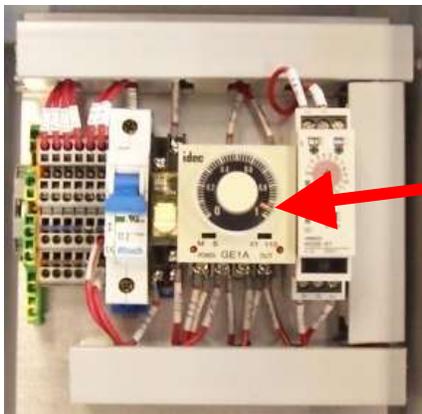


Pic #21-A: In-Bay Electrical Connections (Timer)



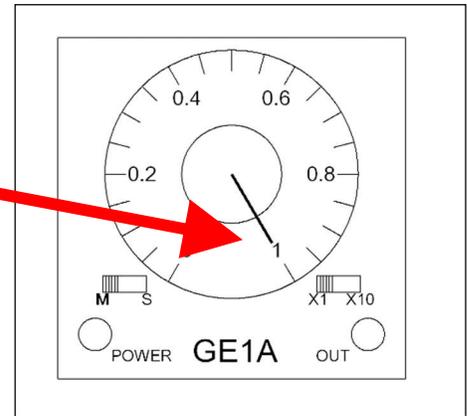
Pic #21-B: In-Bay Electrical Connections (PLC)

- 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.



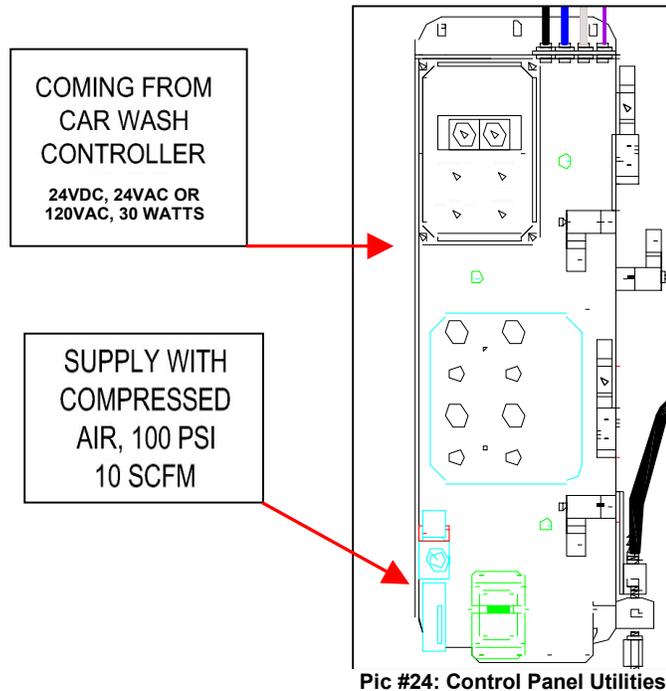
Pic #22: In Control Box

OPERATION TIME IS PRESET AT 1 MINUTE. ROTATE KNOB TO CHANGE



Pic #23: Operation Timer

Control Panel Compressed Air Supply:



Pic #24: Control Panel Utilities

- 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. 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 N/O two way "Dump" valve is now open, releasing the pressure in the feed line.

Initial Soaking of your Super Shiner Brushes:

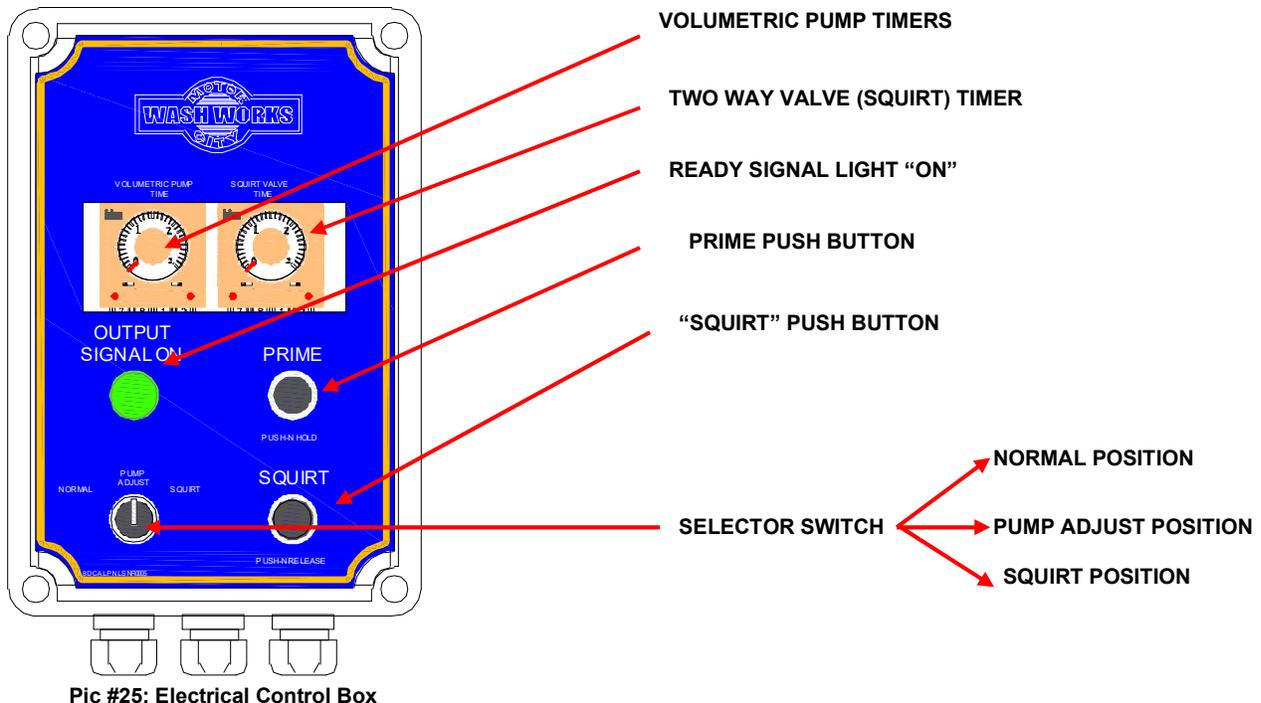
- **Remove the BRUSH SECTIONS** from one side applicator and line them in the supplied **MIXING TUB**. Fill the bottom of the tub with **MCWW SUPERSHINER TIRE DRESSING CHEMICAL**. Ensure that all pad material is soaked in the chemical. Let it sit in the tub for one to two hours. Remove the pads from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



Pic #24B: Soaking Tub

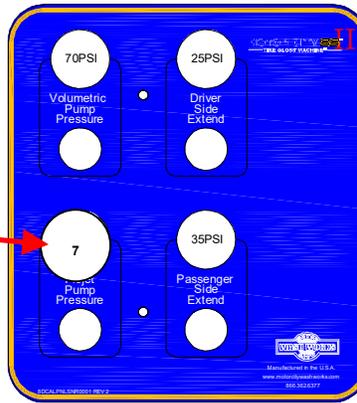
Manual Operation:

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



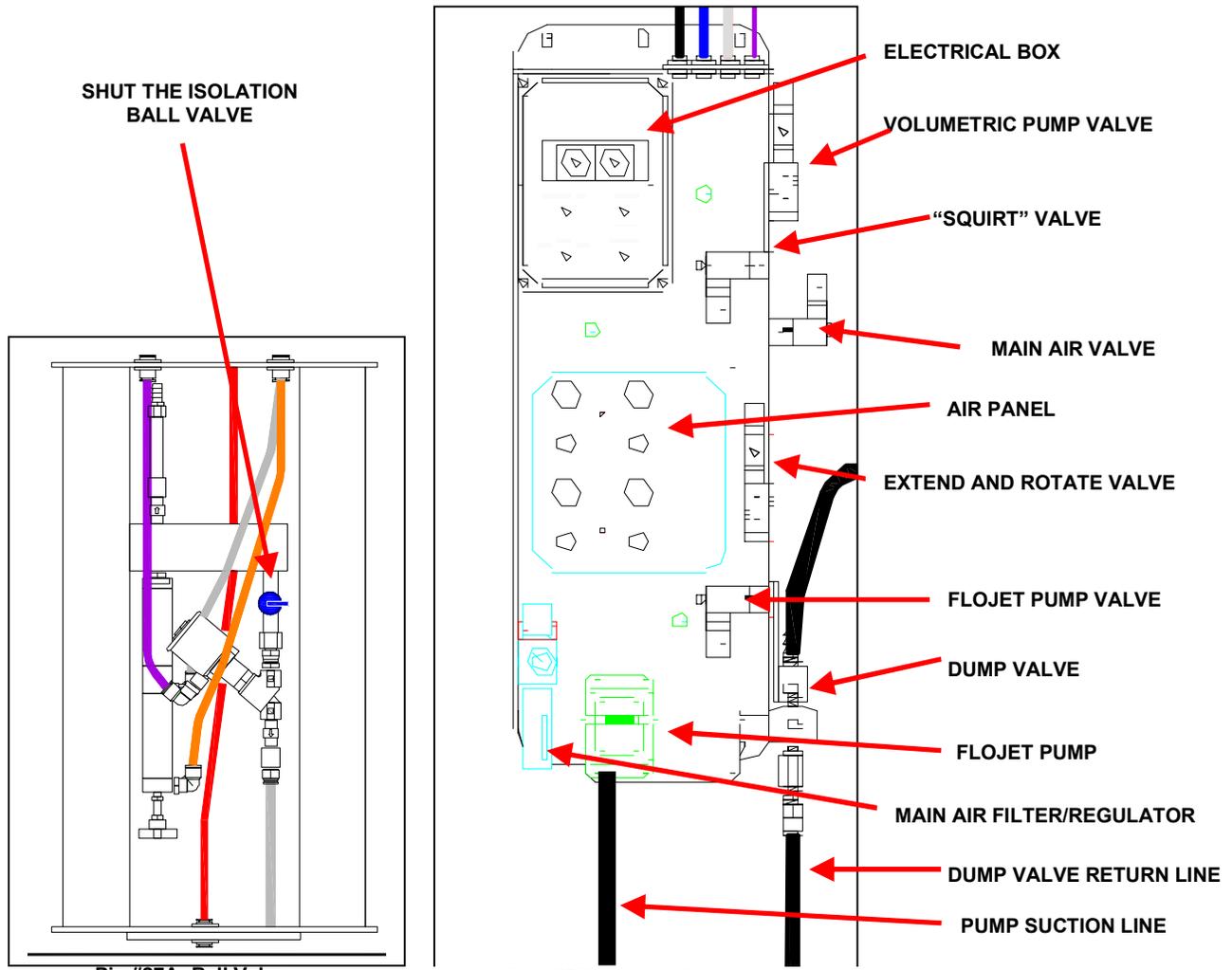
- ✎ In order to initially prime the system, remove the covers from both applicators, set the **FLOJET PUMP** air pressure at **70PSI** and all other pressures like shown in Picture #26. Then turn the **READY SIGNAL ON** and wait for the brushes to extend.

70PSI FOR INITIAL PRIMING ONLY. SET TO 30PSI FOR REGULAR USE.



Pic #26: Air panel

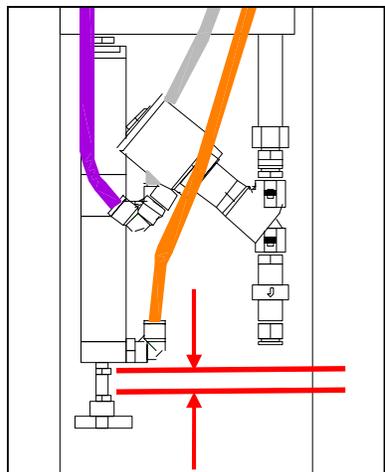
- Drop the PUMP SUCTION LINE and the DUMP VALVE RETURN LINE into the chemical drum. Go to the PASSENGER'S SIDE VOLUMETRIC PUMP ASSEMBLY and shut the ball valve as shown below in Picture #27A. Press and hold the PRIME BUTTON (see Picture #25) and have someone monitor the DRIVER'S SIDE applicator until a SOLID COLUMN OF FLUID IS SEEN IN EACH OF THE 1/2" LINES feeding each manifold, and is coming out of each applicator's nozzle. Shut the DRIVER'S 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's side ball valve and set the FLOJET AIR PRESSURE BACK TO 30PSI.**



Pic #27A: Ball Valve

Pic #27B: Control Panel

- Turn the **SELECTOR** from **NORMAL** to **ADJUST**, and adjust the rod on the volumetric pump for the desired quantity pumped at the brushes. **One inch of the rod equals about one ounce.**
- Turn the **SELECTOR** from **ADJUST** to **SQUIRT** position and **PRESS AND RELEASE** the **SQUIRT BUTTON**. Observe the fluid being “squirted” out of the nozzles and onto the back of the brushes. Repeat until each nozzle squirts properly.



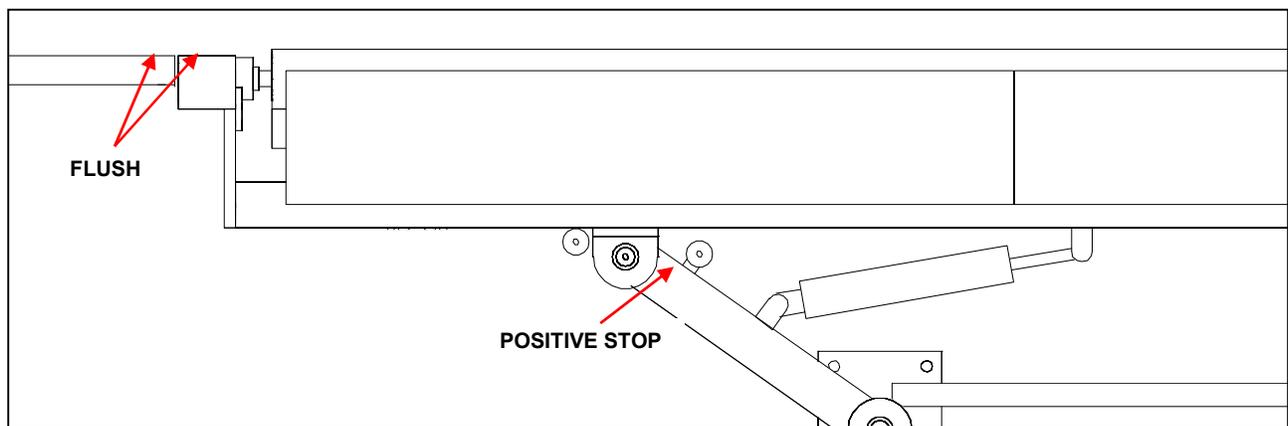
1" = 1 OUNCE

Pic #28: Pump Adjustment

- 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**.

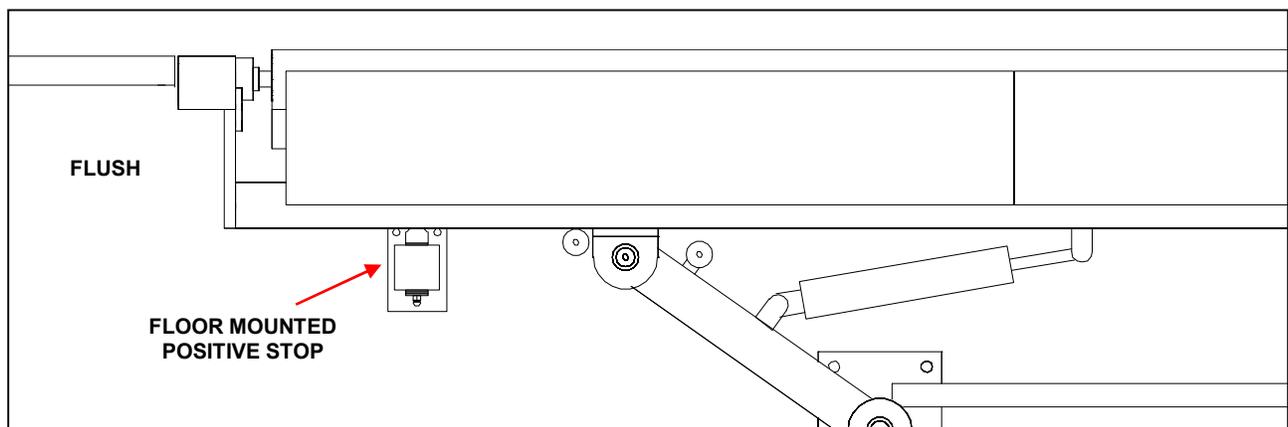
Driver’s Side Positive Stop Installation:

- **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.



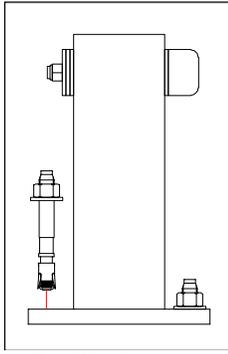
Pic #29: Guide Rail

- **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).

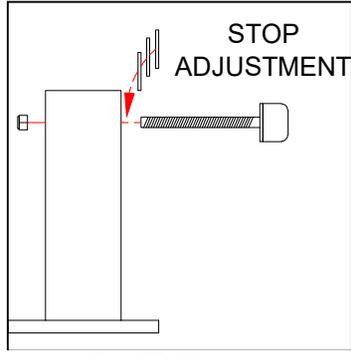


Pic #30: Floor Mounted Positive Stop

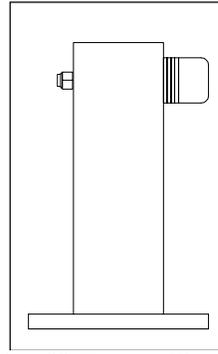
- **Secure** the floor mounted positive stop to the floor using wedge anchor bolts (see Picture #31). You may insert shims behind the bumper stop for adjustment or relocate the bumper stop like shown in Picture #34 for height adjustment.



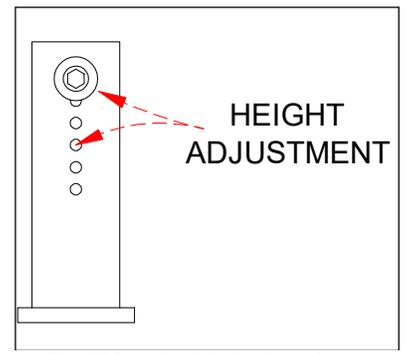
Pic #31: Anchors



Pic #32: Shims



Pic #33: Bumper Stop



Pic #34: 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.

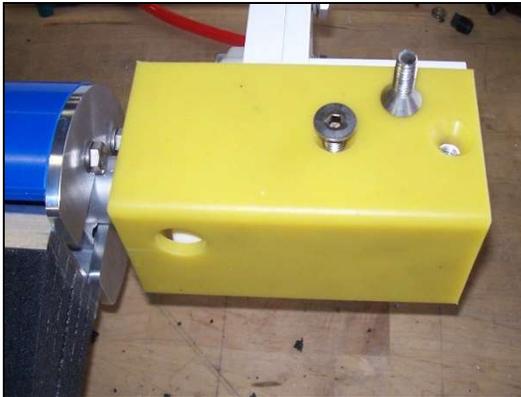
Step 2: Remove the plastic guide rail from the exit end of the applicator.

Step 3: Remove the end cap.

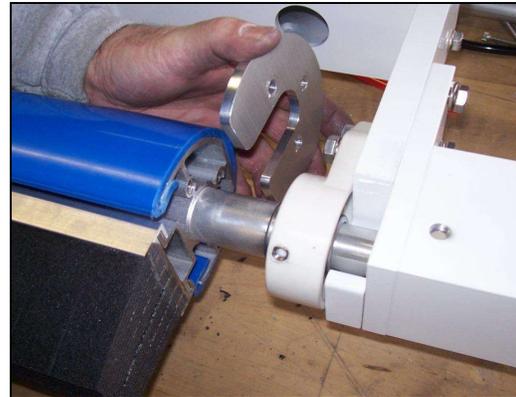
Step 4: Remove the grease fitting.

Step 5: Slide out the brush section and replace the used section.

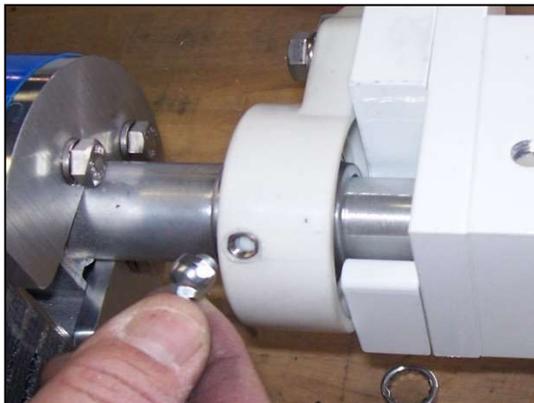
Step 6: Reinstall the grease fitting, the end cap and the guide rail. Open the air supply and release the extend valve override button.



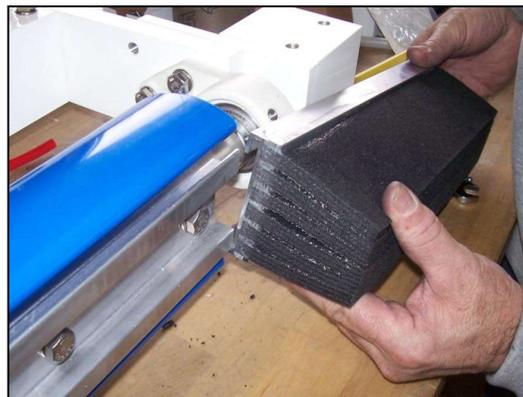
1. Exit Guide Rail



2. End Cap



3. Grease Fitting

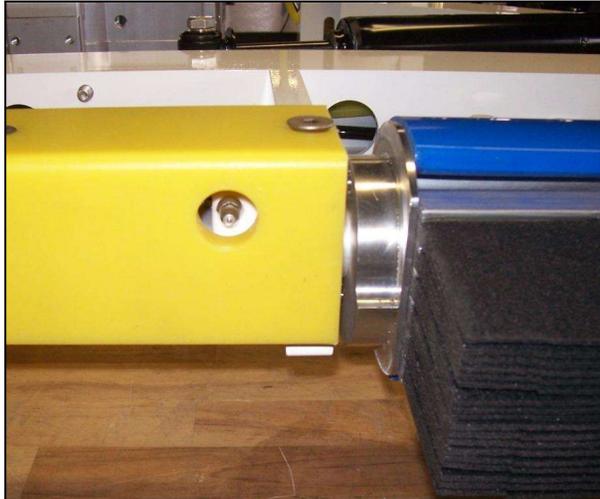


4. Brush Section

- 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)

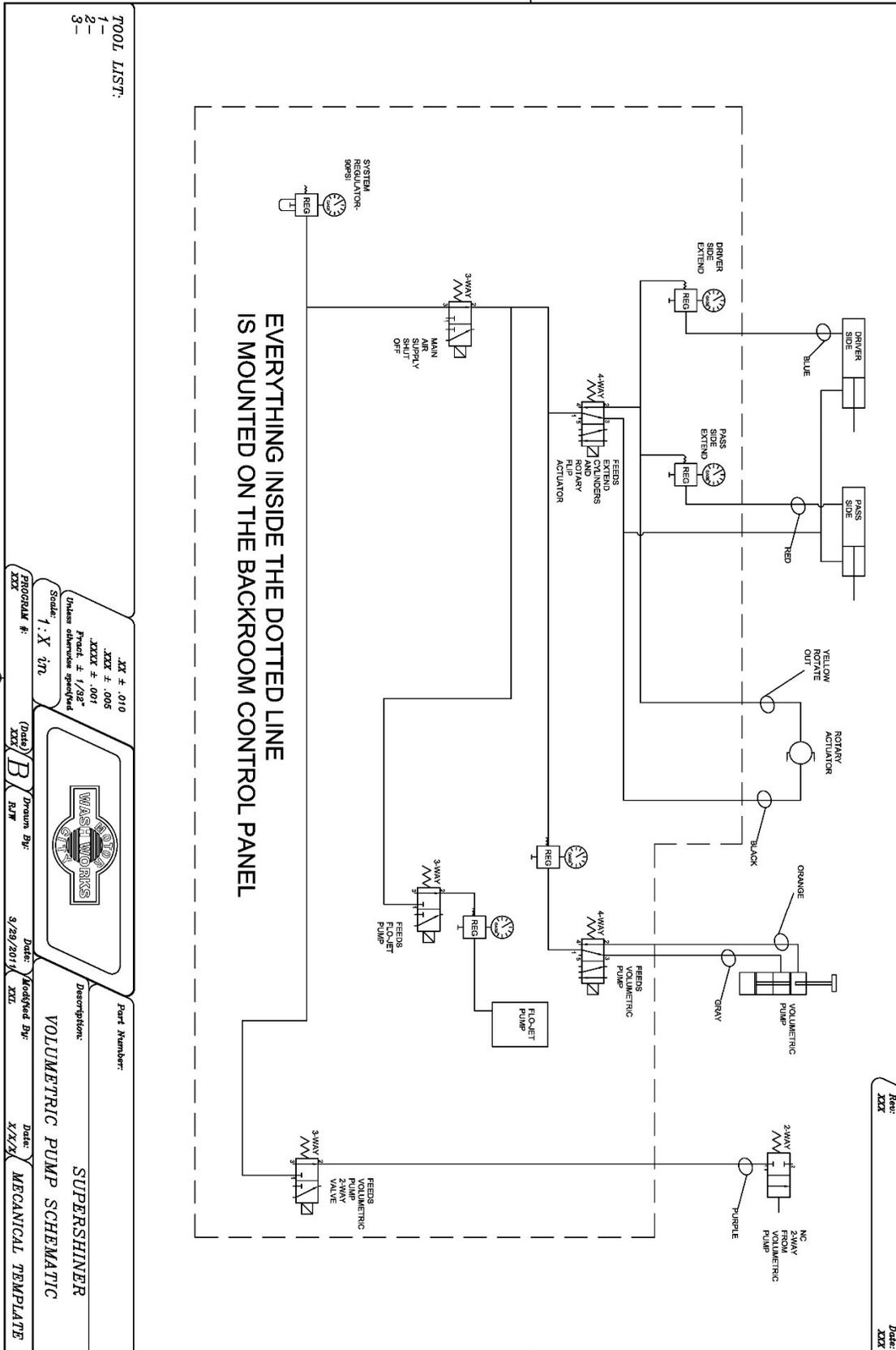


Exit Brush End Bearing (1 Fitting)



Applicator Arm Bearings (8 Fittings)

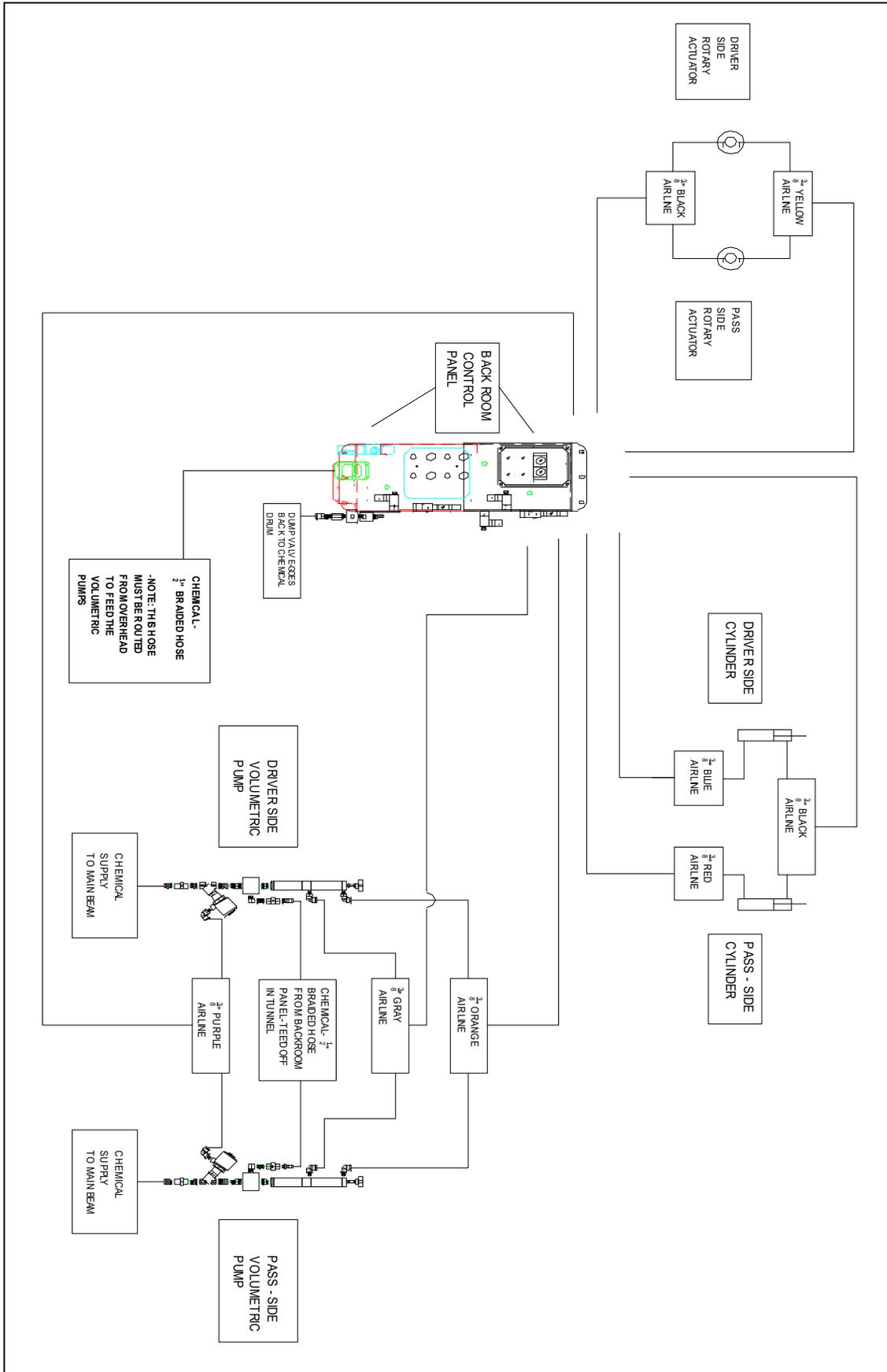
Pneumatic Schematic:



TOOL LIST:
 1-
 2-
 3-

<p>Scale: 1" X 1/2"</p> <p>Includes dimensions specified.</p>	<p>JXX ± .010 JXX ± .005 JXX ± .005 JXX ± .005 JXX ± .005</p>	<p>Part Number: VOLUMETRIC PUMP SCHEMATIC</p>
<p>PROGRAM #: XXX</p>	<p>Date: XXX</p>	<p>Drawn By: RLM</p>
<p>Date: 3/29/2014</p>	<p>Modified By: XXX</p>	<p>Date: XXX</p>
<p>DESCRIPTION: VOLUMETRIC PUMP SCHEMATIC</p>	<p>DATE: XXX</p>	<p>MECHANICAL TEMPLATE</p>

Pneumatic Schematic:



In-Bay Control Box Electrical Schematic:

A READY SIGNAL (A MAINTAINED SIGNAL) FROM THE CAR WASH CONTROLLER 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 CYCLE ONE COMPLETE CYCLE AND EXTEND THE APPLICATOR BRUSHES UNTIL THE SIGNAL IS REMOVED. TO OPERATE THE FUNCTIONS BELOW LEAVE THE READY SIGNAL "ON". A COMPLETE CYCLE IS AS FOLLOWS:

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

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

TIMER #1:
THIS TIMER OPERATES THE TIME VOLUMETRIC PUMP WILL BE ON
TIMER SET: 1 SECOND

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

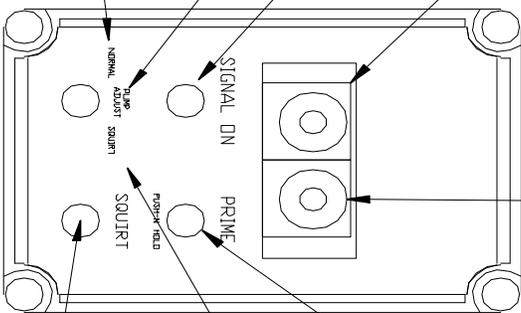
PRIME:
THIS FUNCTION ALLOWS YOU TO PRIME THE CHEMICAL LINES FROM THE FLOJET PUMP TO THE NOZZLES.

NOTES:
THE READY SIGNAL HAS TO BE ON TO HAVE THIS FUNCTION WORKING

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 OF CHEMICAL

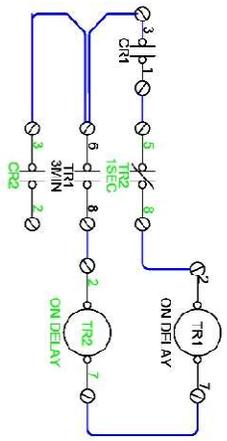
NORMAL:
THIS POSITION IS FOR NORMAL OPERATING



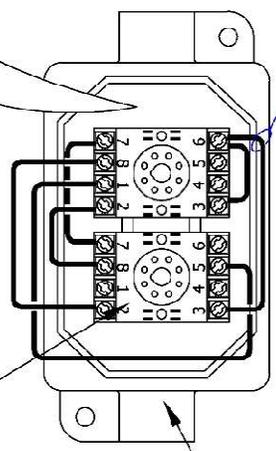
SQUIRT:
WHEN IN THIS POSITION YOU CAN CYCLE THE PUMP SEQUENCE FOR ONE APPLICATION AT A TIME. BY PRESSING THE BUTTON, YOU CAN VIEW THE NOZZLE SQUIRTING

NOTES:
THE READY SIGNAL HAS TO BE ON AND THE COVERS HAVE TO BE REMOVED BEFORE PRESSES THE SQUIRT BUTTON

Date: XXX
Rev: XXX



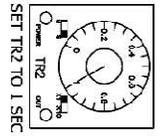
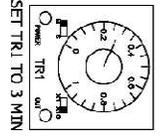
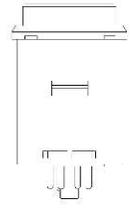
BELECMWIR18G0005 WIRE STRAND COP-#19AWG BLU



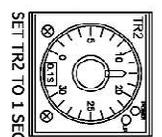
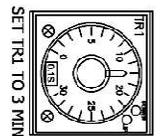
8P1 FCFNCP1 SMD0

2 X BELECRLYTMR0001

2 X BELECRLYTMR0005 24VOLT ONLY



OLD STYLE TIMER

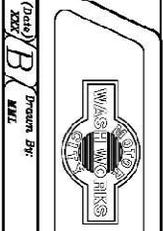


NEW STYLE TIMER

MATERIAL USED:

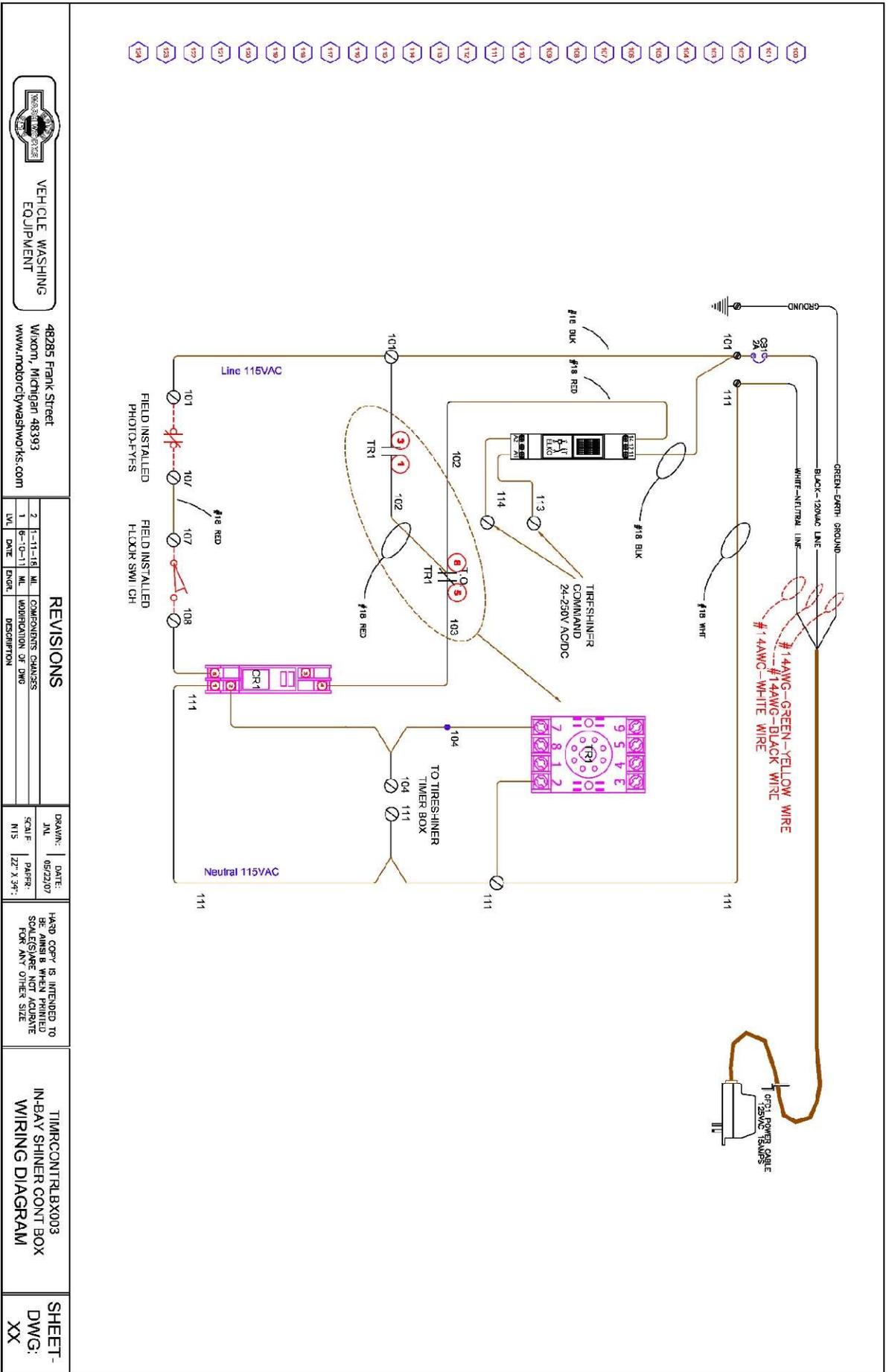
- TOOL LIST:**
- 1-
 - 2-
 - 3-

Scale: NTS
Units: Dimensions specified
XXX ± .010
XXX ± .005
XXX ± .001
Print: ± 1/32"

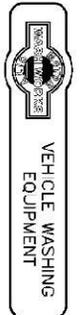


Part Number: TIMRCNTRLEK005
Description: IN-BAY SHINER
DELAY SIGNAL MODULE 24V AC-DC
ENC-121-500

Date: 08-28-10
Drawn By: MNL
Date: 04-16-83
Modified By: MNS
Date: MECHANICAL TEMPLATE



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VEHICLE WASHING
EQUIPMENT

48285 Frank Street
Wixom, Michigan 48393
www.motorcitywashworks.com

REVISIONS			
NO.	DATE	BY	DESCRIPTION
2	1-11-18	ML	COMPONENT CHANGES
1	6-10-11	ML	MODIFICATION OF DWG
1	5-10-11	ML	DATE

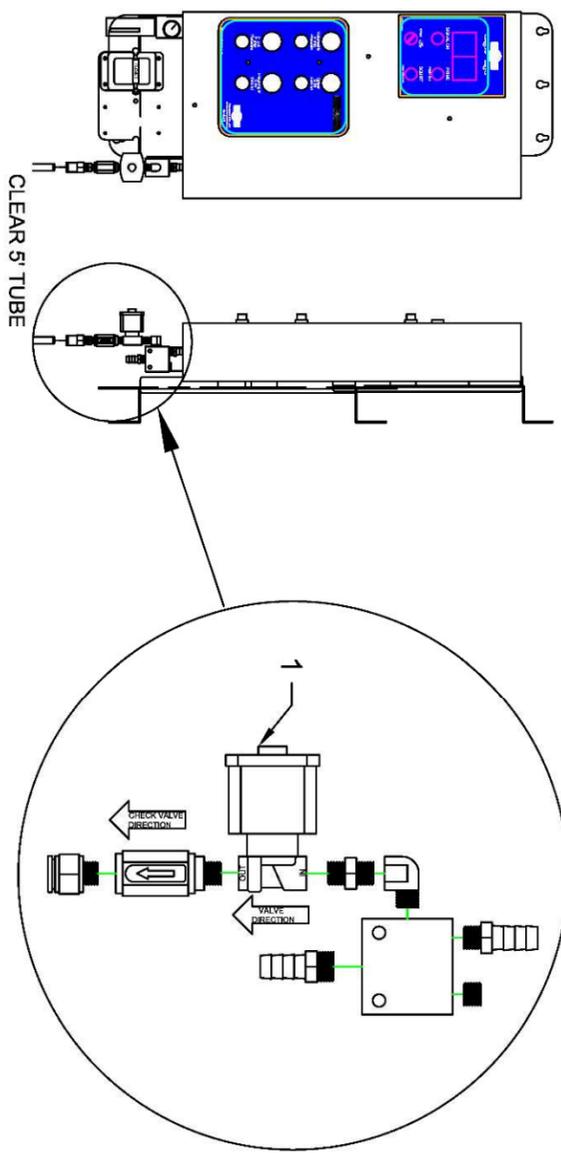
DRAWN:	DATE:
JAL	05/22/07
SCALE:	PAPER:
N.T.S.	ZZ" X 34"

HARD COPY IS INTENDED TO BE ASSEMBLED WHEN PRINTED. SO PLEASE PRINT AND ASSEMBLE FOR ANY OTHER SIZE.

TIMRCNTLRBX003
IN-BAY SHINER CONT BOX
WIRING DIAGRAM

SHEET-
DWG:
XX

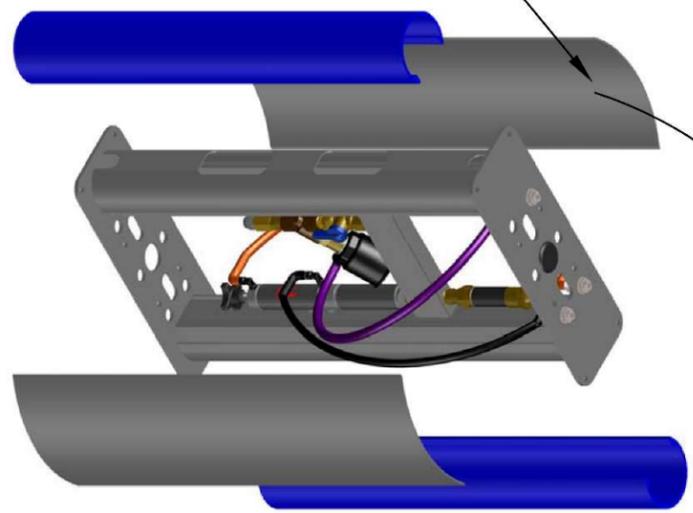
PRIMING AND ADJUSTMENT PROCEDURE



1/2" CLEAR TUBE FACTORY SUPPLIED FROM DUMP VALVE TO CHEMICAL DRUM

PLACE DECAL HERE ON INSIDE OF PUMP COVER

PART NUMBER	DESCRIPTION	QTY	
1	8VALVH20SOL0010	110VAC ASCO VALVE	1
2	8VALVH20SOL0013	24VAC ASCO VALVE	1
3	8VALVH20SOL0014	24VDC ASCO VALVE	1
4	8TUBECHMCL R0003	CLEAR TUBE	(25) FEET
5	8VALVCHKF2M0001	1/4" CHECK VALVE	2
6	8FTNGCAPBRS0001	1/4" HEX PIPE CAP BRASS	2
7	8FTNGINIPBRS0003	3/8" CLOSE NIPPLE BRASS	2
8	8VALVBALBRS0003	3/8" BALL VALVE BRASS	2
9	8FTNGAIRELB0008	3/8" ELBOW AIR FITTING	2
10	8FTNGAIRSRT0003	1/4" STRAIGHT AIR FITTING	2
11	8DCALPMPSPNRR0001	VOLUMETRIC PUMP DECAL	2
12	8BEAKCHMPLS0001	100ML PLASTIC BEAKER	1



9

PRIMING/PURGING LINES:

- VERIFY THAT AIR REGULATORS ARE SET ACCORDING TO MANUFACTURER START-UP SETTINGS: MAIN 90-100PSI; VOLUMETRIC PUMP 70-80PSI; FLOWJET PUMP 80-70PSI; DRIVER SIDE EXTEND 20-30PSI; PASSENGER SIDE EXTEND 30-40PSI.
- TURN SUPERSHINER II FUNCTION "ON" AND WAIT FOR CYCLE TO COMPLETE. LEAVE FUNCTION "ON".

PRIMING DRIVER SIDE APPLICATOR:

- CLOSE PASSENGER SIDE BLUE HANDLE BALL VALVE AND VERIFY DRIVER SIDE BALL VALVE IS OPEN.
- REMOVE PURGE LINE FROM PUMP HOUSING. REMOVE END CAP AND DROP IN A CLEAN BUCKET.
- ROTATE 3 WAY VALVE HANDLE TO VERTICAL POSITION.
- PUSH THE "PRIME" BUTTON ON THE SHINER CONTROL BOX AND PURGE THE LINE TO REMOVE ALL AIR (YOU MAY HAVE TO PUMP UP TO TWO GALLONS OF FLUID).

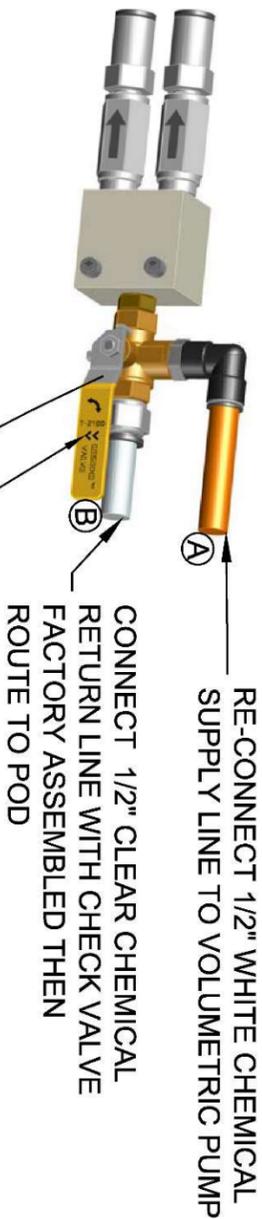
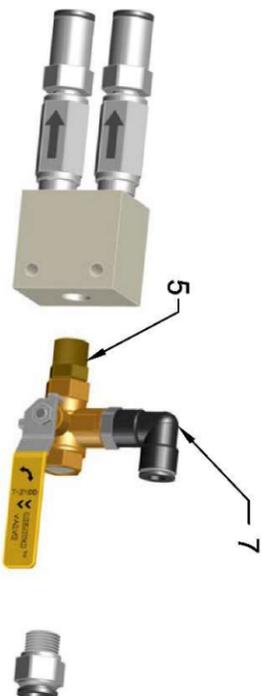
PUMP ADJUST:

- DROP THE PURGE LINE INTO THE SUPPLIED GRADUATED BEAKER AND WITH THE SUPERSHINER FUNCTION STILL "ON", POSITION SELECTOR SWITCH TO "PUMP ADJUST".
- LOOSEN VOLUMETRIC PUMP JAM NUT AND SCREW THE ADJUSTMENT KNOB INWARD UNTIL ADJUSTMENT BOTTOMS OUT. **THE PUMP IS NOW ADJUSTED TO "0" OZ.**
- ADJUST KNOB OUT TO DESIRED VOLUME WHERE "1" OUT = 1 OZ.
- POSITION THE SELECTOR SWITCH BACK TO "NORMAL".
- CYCLE THE SUPERSHINER FUNCTION "OFF" THEN "ON" AGAIN AND MEASURE FLUID PUMPED INTO THE GRADUATED BEAKER WHERE 30mm = 1 OZ.
- RE-ADJUST THE VOLUMETRIC PUMP AS NEEDED AND DON'T FORGET TO SECURE THE JAM NUT WHEN FINISH.
- REMOVE THE COVERS FROM THE DRIVER SIDE TRESHINE APPLICATOR.
- ROTATE THE 3 WAY BALL VALVE HANDLE BACK TO HORIZONTAL POSITION, PRESS AND HOLD THE "PRIME" BUTTON AGAIN UNTIL ONLY FLUID (NO AIR) COMES OUT OF EACH NOZZLES.
- REMOVE AND CLEAN ANY CLOGGED NOZZLE. RELEASE BUTTON.
- POSITION THE SELECTOR SWITCH TO "SQUIRT" AND THEN PRESS AND RELEASE "SQUIRT" BUTTON ONCE. OBSERVE FLUID "SQUIRT" OUT OF EACH NOZZLE. TURN THE SELECTOR BACK 2 "NORMAL" POSITION. TURN THE SUPERSHINER FUNCTION "OFF".
- CLOSE DRIVER SIDE BLUE HANDLE BALL VALVE. OPEN PASSENGER SIDE BLUE HANDLE BALL VALVE AND REPEAT PROCEDURE FOR PIS.
- WHEN FINISHED, VERIFY THAT BOTH (DRIVER AND PASSENGER SIDE) BLUE HANDLE BALL VALVE ARE IN OPEN POSITION.

BDCALPMPSPNRR0001

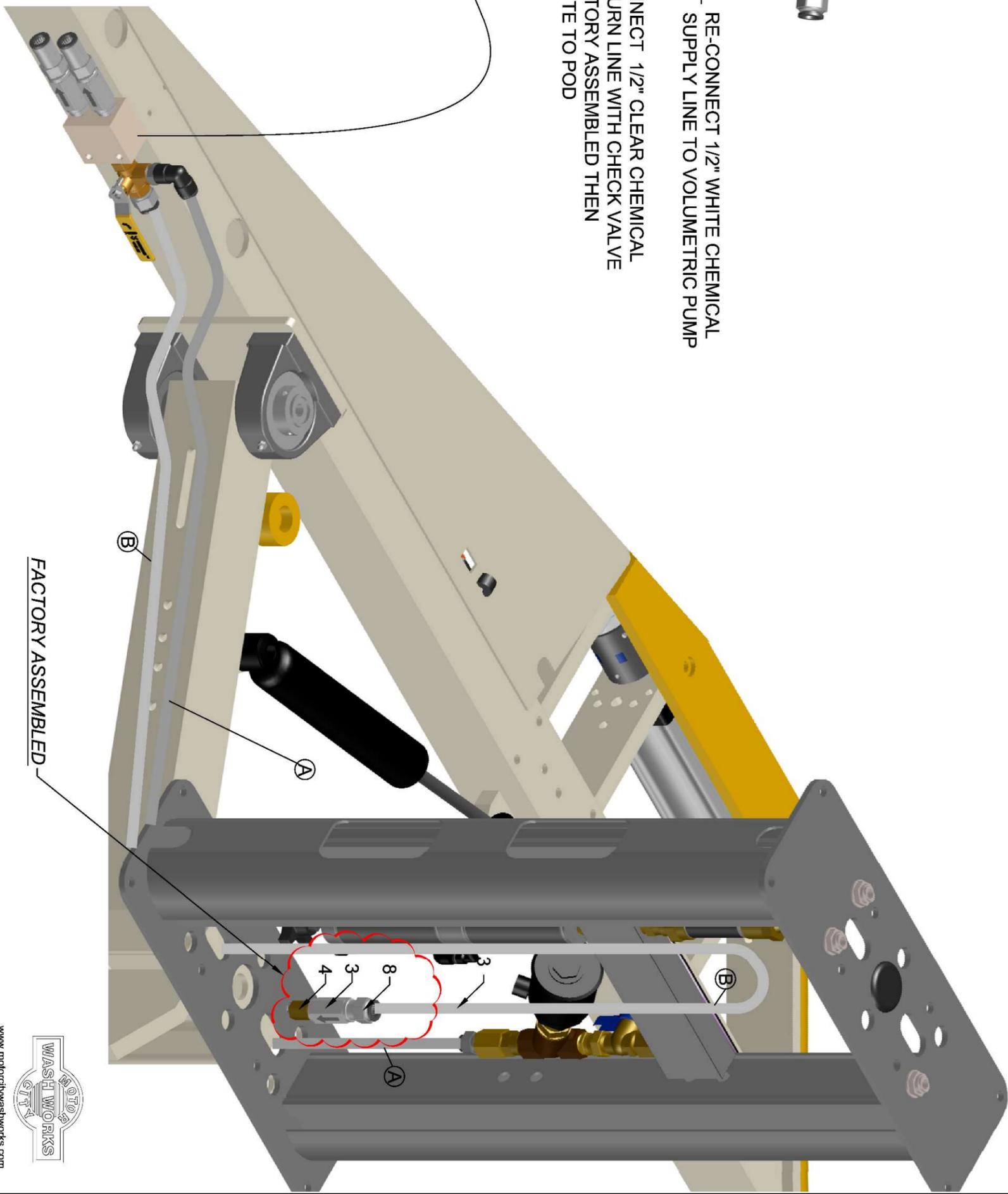

 www.motorcitywashworks.com
 (866) 362-6377 OR (248) 313-0272
 48285 FRANK STREET,
 WIXOM MI, 48393

REFER TO PRIMING AND ADJUSTMENT PROCEDURES



RE-CONNECT 1/2" WHITE CHEMICAL SUPPLY LINE TO VOLUMETRIC PUMP

CONNECT 1/2" CLEAR CHEMICAL RETURN LINE WITH CHECK VALVE FACTORY ASSEMBLED THEN ROUTE TO POD



FACTORY ASSEMBLED



www.motorcitywashworks.com
 (866) 362-6377 OR (248) 313-0272
 48285 FRANK STREET,
 WIXOM MI, 48393

Super Shiner II – PLC Upgrade Kit:

7SHNRPNLELC0011 – 120VAC CONTROL

7SHNRPNLELC0012 – 24VDC CONTROL

7SHNRPNLELC0013 – 24VAC CONTROL

INSTALLATION TOOLS AND MATERIALS NEEDED

- 1: 5/32 ALLEN WRENCH
- 2: PHILLIPS SCREWDRIVER (STUBBY)

EQUIPMENT REQUIREMENTS AND SPECIFICATIONS

ELECTRICAL	120VAC Supply from Outlet
CAR WASH CONTROLLER (24 VDC)	(1) Ready Signal HOT (Universal Voltage) (1) Ready Signal COMMON
CAR WASH CONTROLLER (24 VAC)	(1) Ready Signal HOT (24 VAC) (1) Ready Signal COMMON
CAR WASH CONTROLLER (120 VAC)	(1) Ready Signal HOT (120 VAC) (1) Ready Signal COMMON

UNLOADING & UNCRATING



Upon receiving your MCWW Equipment, open all boxes and crates; verify that you have all of the required components and that there is no damage to the equipment. Also, verify that you have all of your installation materials.



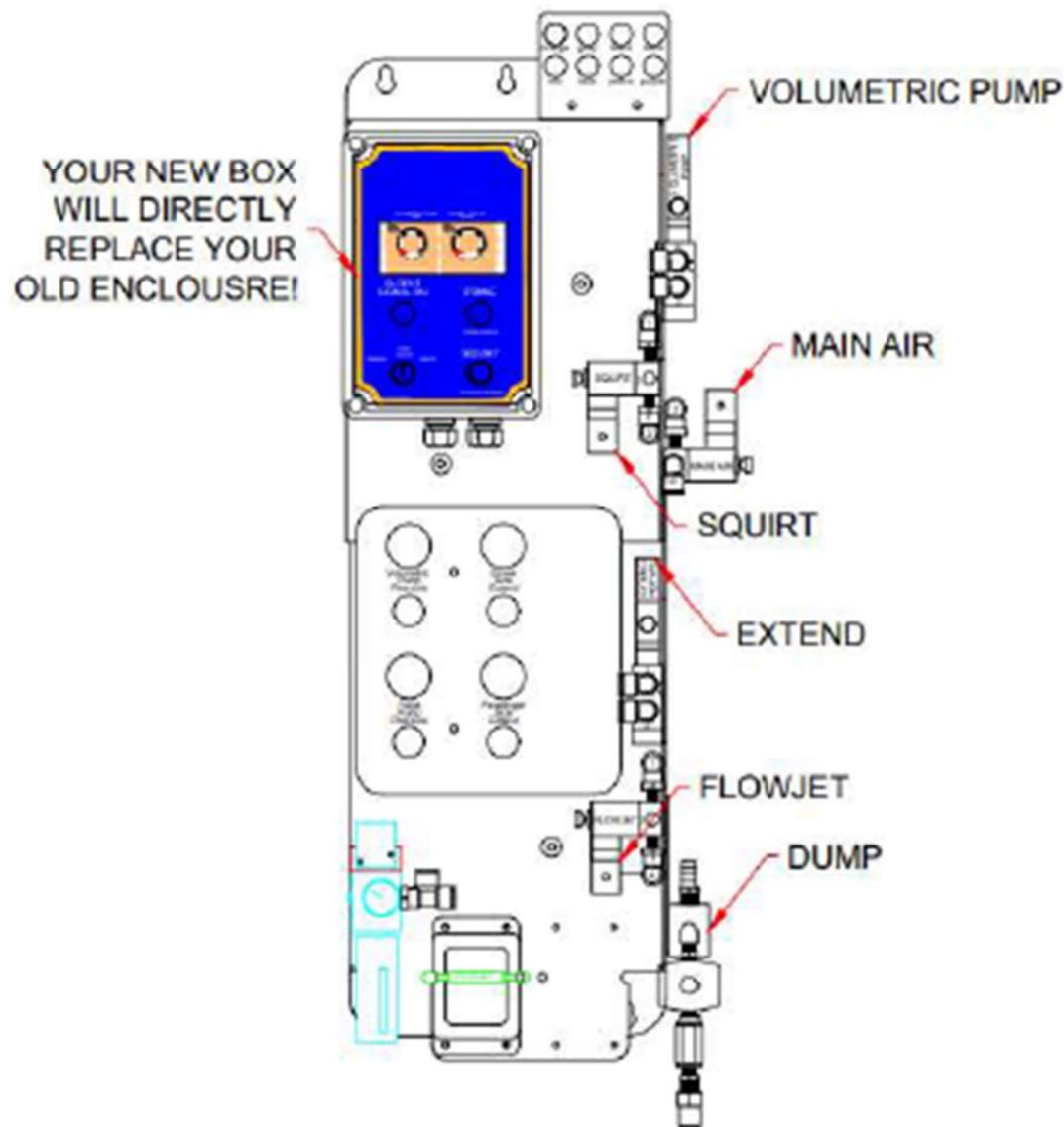
NOTE: Please communicate to your Motor City Wash Works representative for any damage to your equipment.

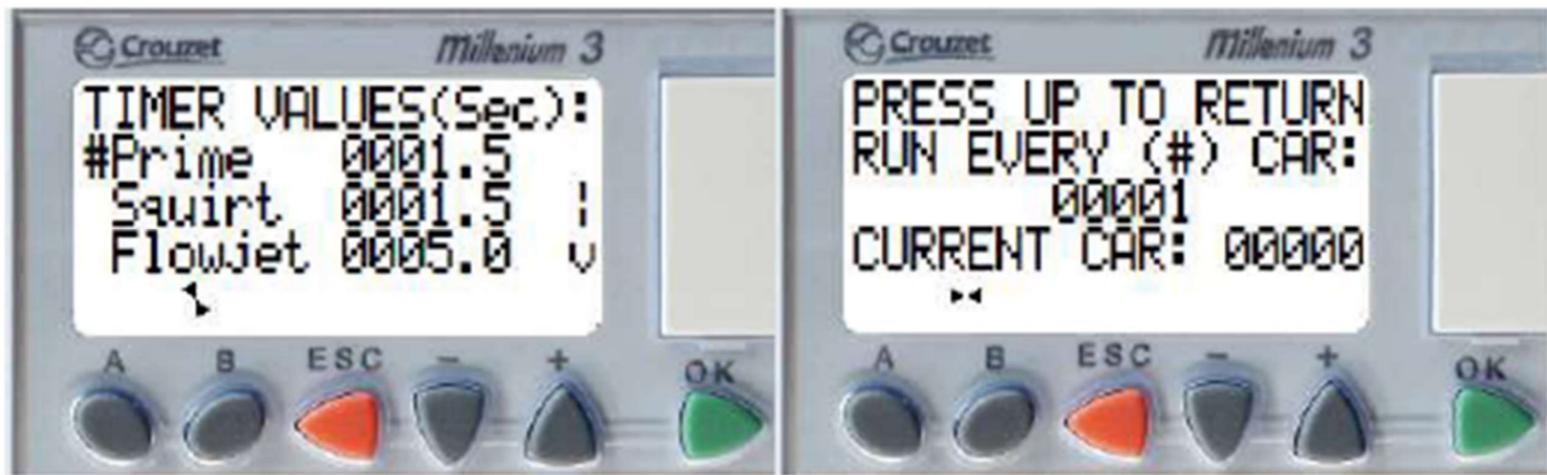
INSTALLATION PROCEDURES

Installation of your Super Shiner II upgrade kit yields a hassle-free experience. The new enclosure will utilize the same mounting location on the Air Panel Chassis and comes with the same DIN Connectors for the Solenoids. We have provided a handy legend to help you connect the DIN connectors in the proper places.

INSTALL

- Using the 5/32 Allen Wrench, remove the fascia of the Air Panel Chassis of the Super Shiner II.
- Use a Phillips Screwdriver to disconnect all six (6) DIN Connectors (SEE THE DIAGRAM BELOW) and let the connectors free hang.
- Disconnect the wiring for your Ready Signal and set aside to tie into the new box when you reach that step.
- From the back side of the control panel; Use a Phillips Screwdriver to unbolt the fasteners that keep the Electrical Enclosure fastened to the Air Panel Chassis.
- Mount the new Super Shiner II Enclosure in the same location and fasten using the same bolts.
- Replace all of the DIN connectors using the Legend (SEE THE DIAGRAM BELOW)
- Open your new Enclosure and tie in the Ready Signal HOT and COMMON to the appropriate locations (A1 and A2, labeled as "READY SIGNAL") Your READY HOT will tie to A1 and READY COMMON will tie to A2.
- The new box comes pre-set for 1.5 Seconds for Priming and Squirting and 5 Seconds of Flowjet operation. This would be the time if you wish to adjust the durations (See PLC instructions Page 4).
- Replace the cover on your new Super Shiner II Enclosure and replace the fascia using the Allen Wrench.
- You're all set! See the next page for PLC operating instructions!





SCREEN 1

SCREEN 2

COMMAND CONTROL:

#: CURRENT SELECTION

(A): VALUE UP **(B):** VALUE DOWN **(-):** SCROLL DOWN **(+):** SCROLL UP

There are two screens accessible as a list, to get to Screen 2 scroll down using the - and go beyond "Flowjet". To return, use + key to scroll back up. Using the "SKIP A CAR" pushbutton on the front will always screen hop to Screen 2 to show you the current application cycle. As stated, before PRIME, SQUIRT and FLOWJET have been preset for optimum performance, but to edit any of these times you simply just need to use A or B to increase or decrease durations.

PRIME: Duration of the Volumetric Pump (Sequence 1)

SQUIRT: Duration of the Squirt Valve and Volumetric Pump (Sequence 2)

FLOWJET: Duration of the Flowjet (Sequence 3)

In relation to Screen 2 and the "Skip A Car" feature, you have the ability to designate between 1 and 5 vehicles for when fresh chemical is applied to the sponges. The external push button on the face of the enclosure allows you to cycle through 1 (One) to 5 (Five) and back to 1 (One). Pressing this button will also force Screen 2 to appear. With "RUN EVERY (#) CAR:" set to 00001 will apply chemical every time a Ready Signal is received. Setting this to 00005 (Five) will apply the 5th time a Ready Signal is received. Current Car is a real time display of how many ready signals have been received and resets once the "Run Every (#) Car:" is achieved. If you are running every car you will only see "Current Car: 00001" for a split second before the count resets.

We hope you enjoy your Super Shiner II upgrade kit! Never hesitate to contact us!



Troubleshooting Guide: Shiner II



NOTE: PROVIDES FURTHER INFORMATION!



STOP! PRECAUTION TO TAKE TO AVOID EQUIPMENT MALFUNCTION OR ERROR! MAKE SURE ALL LOCKOUT/TAGOUT PRODEDURES HAVE BEEN MET TO ENSURE A SAFE WORK ENVIRONMENT WHEN SERVICING ANY AND ALL MOTOR CITY WASH WORKS EQUIPMENT!



WARNING! DANGEROUS SITUATION WHICH MAY CAUSE EQUIPMENT DAMAGES, PERSONAL INJURIES OR FATALITIES!

Troubleshooting is a form of problem solving, often applied to repair failed products or processes on a machine or a system. It is a logical, systematic search for the source of a problem in order to solve it, and make the product or process operational again. It is imperative to understand that all problems have a cause and solution.

Many times, you may not have an actual fault, and just a simple adjustment may resolve your issue. Please click on the below link for 'How To' videos.

<https://store.motorcitywashworks.com/Team360/TireShiner/Documents/Media%20Links%20TireShiner.pdf>

For all of MCWW current manuals, videos, bulletins and information click the below link.

[MCWW Documentation Hub](#)

Possible Problems/Remedies

Equipment:	Problem:	Remedy:
Shiner II	Arm(s) do not extend.	<p>Ensure ready signal is present.</p> <p>Ensure air supply is present.</p> <p>Inspect air cylinder and needle valves.</p> <p>Check for no mechanical binding.</p>
Shiner II	Arm(s) do not retract.	<p>Ensure ready signal is not present.</p> <p>Ensure Mac valve manual extend knob is not engaged.</p> <p>Inspect air cylinder and needle valves.</p> <p>Check for mechanical binding.</p>
Shiner II	Pad(s) do not extend out or slow to extend.	<p>Ensure ready signal is present.</p> <p>Ensure air supply is present minimum 100PSI.</p> <p>Inspect rotatory valve and needle valves.</p> <p>Check for no mechanical binding.</p>
Shiner II	Pad(s) do not retract or slow to retract.	<p>Ensure ready signal is not present.</p> <p>Ensure MAC valve manual extend knob is not engaged.</p> <p>Inspect rotatory actuator and needle valves.</p> <p>Check for mechanical binding.</p>
Shiner II	Chemical dripping from nozzle tips.	<p>Inspect check valves. Total 6ea.</p> <p>Ensure all air is purged from chemical supply lines.</p>

		Inspect for debris in squirt valve or damaged seal seat. (Seal seat can be flipped if needed.)
Shiner II	No chemical or uneven chemical being applied to pads.	<p>Purge air from chemical supply line.</p> <p>Inspect foot valve in chemical tank.</p> <p>Clean chemical nozzles and supply line.</p> <p>Inspect check valves. Total 6ea.</p> <p>Ensure air supply is present to Volumetric pump minimum 80psi.</p> <p>Ensure squirt valve timer is not set too low.</p>

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.



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