



SUDZ-A-LOT ARCH INSTALLATION MANUAL

Part # SUDZCURTSIMZRCO

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Equipment Utilities

	BUBBLE ARCH SUDZCRTNARCHXXX
ELECTRICAL	115 VAC, 1 PH, 15AMPS FLA: 10AMPS (INCLUDING SIGN)
HYDRAULIC	N/A
PNEUMATICS	N/A
WATER	FRESH: 10 GPM @ 40 PSI (MAX)
CHEMICALS	2-4 OUNCES PER CAR (AVERAGE) @ 120CPH
OUTPUTS (CAR WASH CONTROLLER)	(2), ONE FOR CONTROL PNL AND ONE FOR DLTN STN

Equipment Specifications and Features

- Convenient 115VAC Single Phase Supply Minimize Installation Cost
- Oversized Back Lit Sign Customizable to your Request
- Compact Design: Utilize only 3-0" of Tunnel Space
- Two Exiting foaming options: Triple Foam and Single Foaming Bubble Arch

Suggested Installation Tools and Materials

- | | |
|--|--|
| <input checked="" type="checkbox"/> MEASURING TAPE | <input type="checkbox"/> HAMMER DRILL WITH 1/2IN WEDGE ANCHORS |
| <input type="checkbox"/> BALL PEN HAMMER | <input type="checkbox"/> LEVEL |
| <input type="checkbox"/> WRENCHES ASSY | <input type="checkbox"/> LADDER |
| <input type="checkbox"/> SCREWDRIVERS ASSY | <input type="checkbox"/> SAFETY GOGGLES |

Notes and safety Symbols

Where necessary, important points will be highlighted in this manual, using the following symbols:


 **NOTES:** PROVIDES FURTHER INFORMATION!

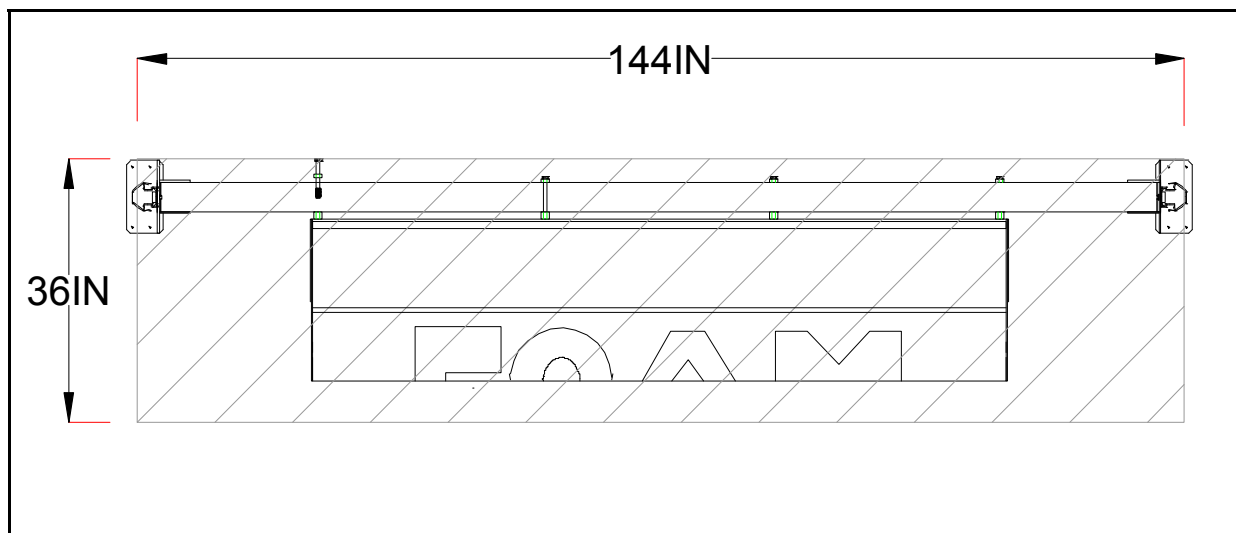
 **STOP!** PRECAUTION TO TAKE TO AVOID EQUIPMENT MALFUNCTION OR ERROR!

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

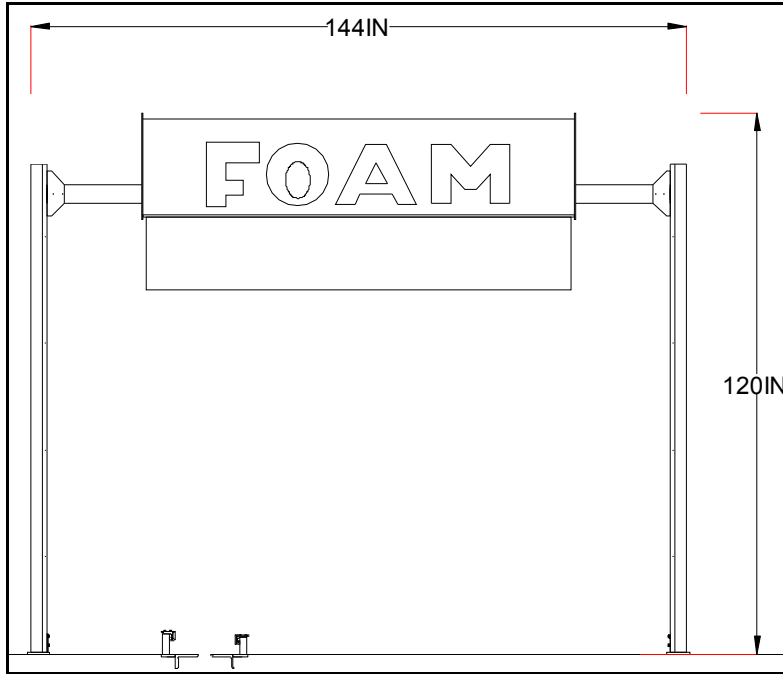
Always follow all “Notes”, “Warning” and instructions. Not doing so may have serious consequences on the overall performance of the washing equipment and/or the safety of the people working on and with the equipment!

Installation Instruction for SUDZ-A-LOT ARCHES :

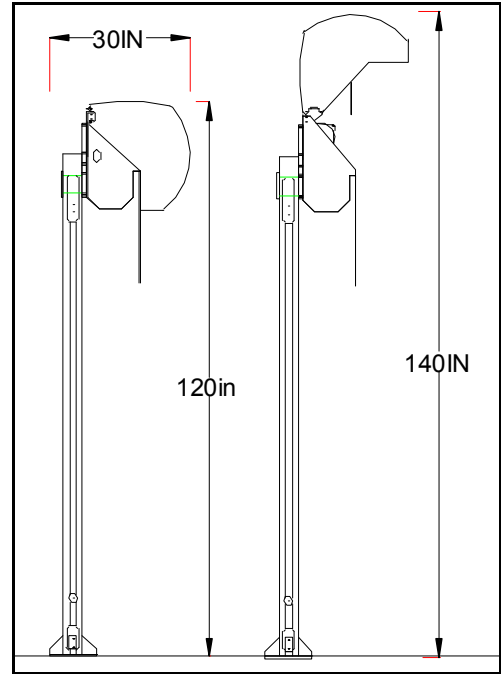
-  **Open** all boxes and crates and verify that you have all the required components as well as all your installation material.
- Locate** where the arch will be installed and, using the picture below, verify that the area is sufficiently large for your new foam arch working envelope (see Picture 1.0).



Picture 1.0: Foam Arch Working Envelope



Picture 2.0: Foam Arch Overall Dimensions



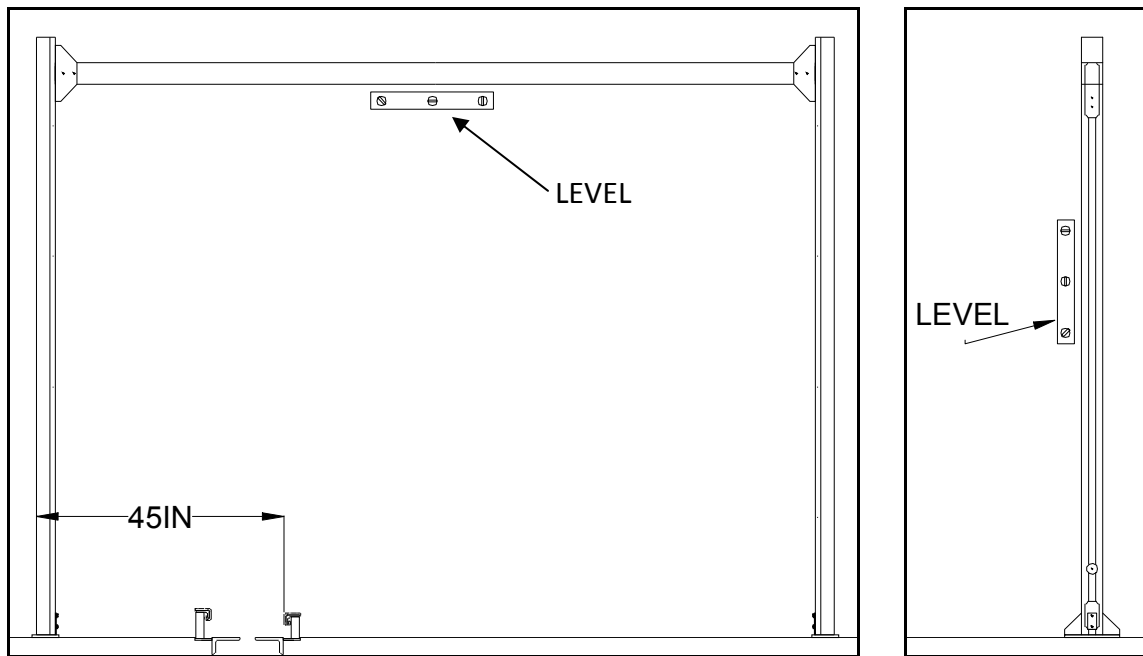
Picture 3.0: Foam Arch Overall Height

- Assemble** the frame (like shown on Picture #4.0 below) in the area where the arch will be installed and stand the frame up. The fasteners are shipped secure to the leg (top of the legs).



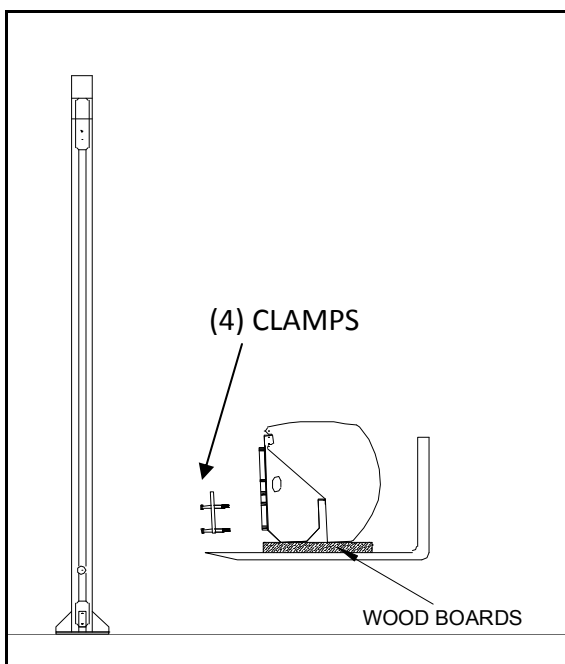
Picture 4.0: Assembles the Frame

- **Position** the frame with the driver side **LEG OUTSIDE EDGE 45IN** away from the **INSIDE EDGE** of the **CONVEYOR INSIDE GUIDE RAIL**.
- **Secure** the frame to the floor using $\frac{1}{2}$ "X4-1/2" wedge anchor bolts. Level the arch as shown below and shim under the base plate if needed.

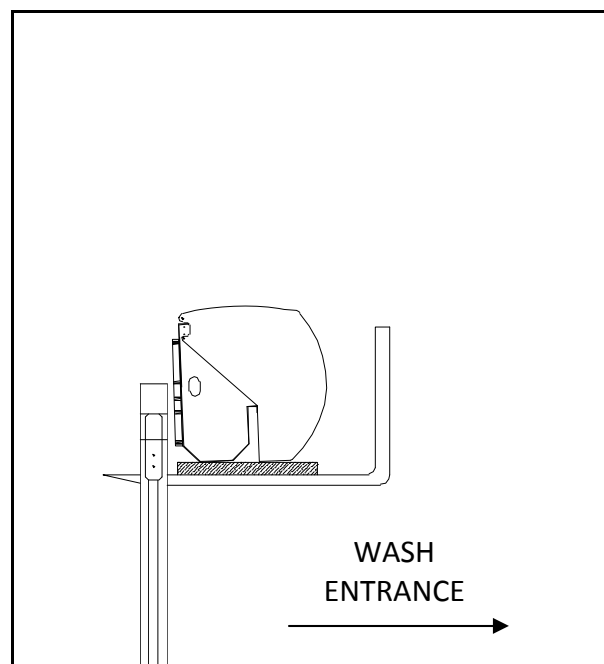


Picture 5.0: Level The Arch

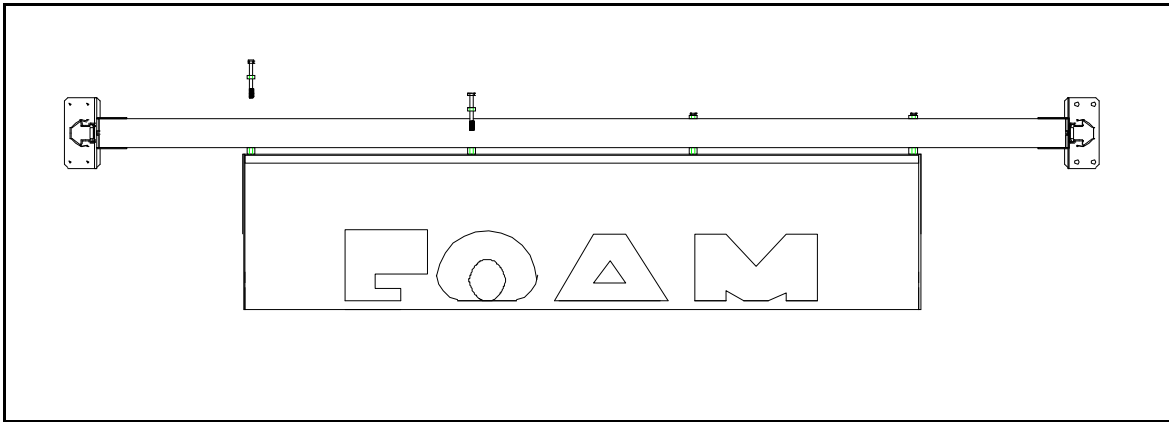
- **Secure** the head assembly on wood boards and removes the four crossbeam clamp (see Picture #6.0). Lift the head assembly toward the entrance side of the arch and, using the four clamps, secure the head assembly to the 4X4 arch crossbeam (see picture #7.0). Do not tighten the clamps to the beam yet.
- **Centers** the head assembly onto the crossbeam, slowly drop the head assembly from the lifting device. This will allow the head to hang from the fasteners insuring that the head will be level when the fasteners are tightened. Then tighten the clamps to the beam. Open the front door and unroll down the vinyl strip.



Picture 6.0: Remove the Clamps



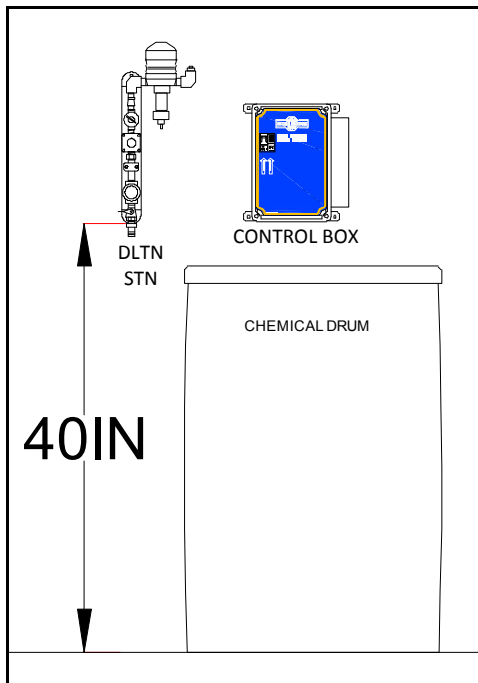
Picture 6.1: Raise the Head Assembly



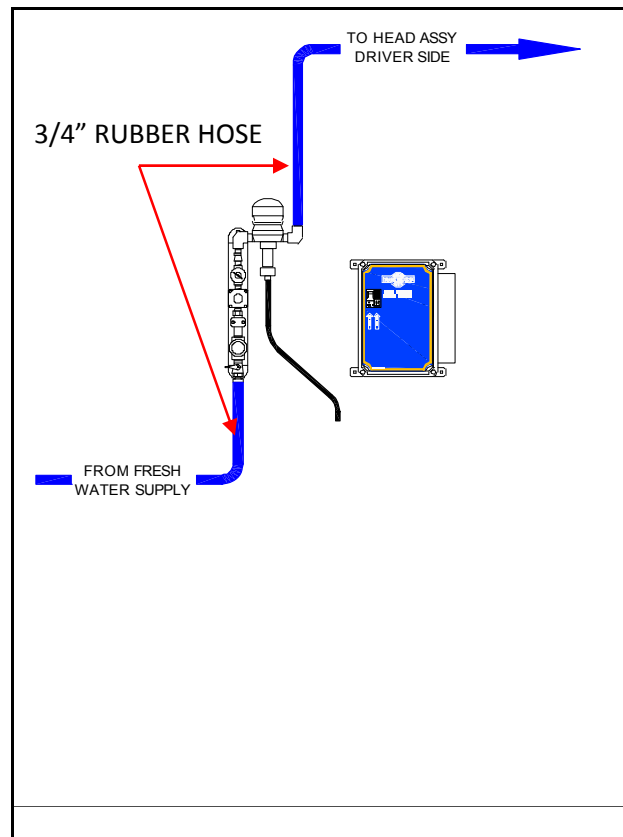
Picture 7.0: Secure the Clamps to the Beam

SUDZ-A-LOT ARCH Utilities Installation :

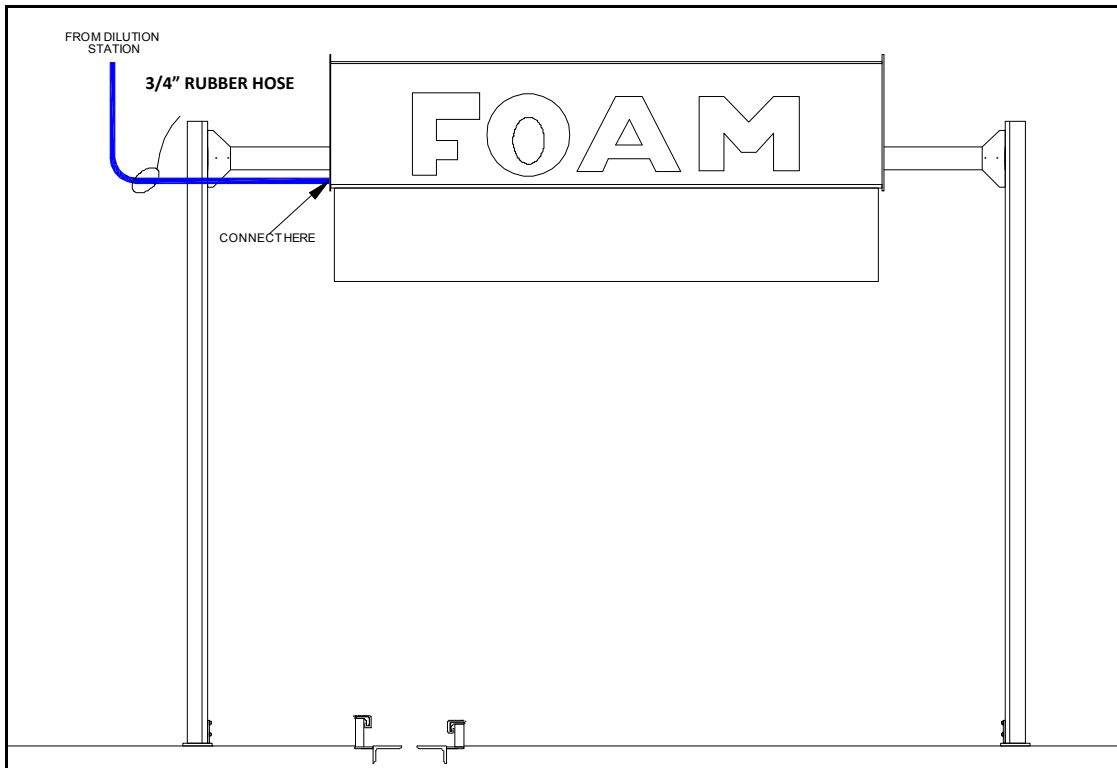
- Locate** the optional dilution station and secure it to a solid wall, at least 40 inches above the floor (see Picture #8.0). This will allow for sufficient room for a 55 gallons chemical drum to be position under the dilution station without interfering with its operation. Secure the optional control box close by.
- Pull** a hose 3/4" from a fresh water supply and connect to the dilution station inlet barb fitting (see Picture #8.1 below). Pull another 3/4" hose from the outlet barb fitting to the head assembly on driver side (see Picture #9.0).



Picture 8.0: Secure 40In from Floor



Picture 8.1: Pull Hoses

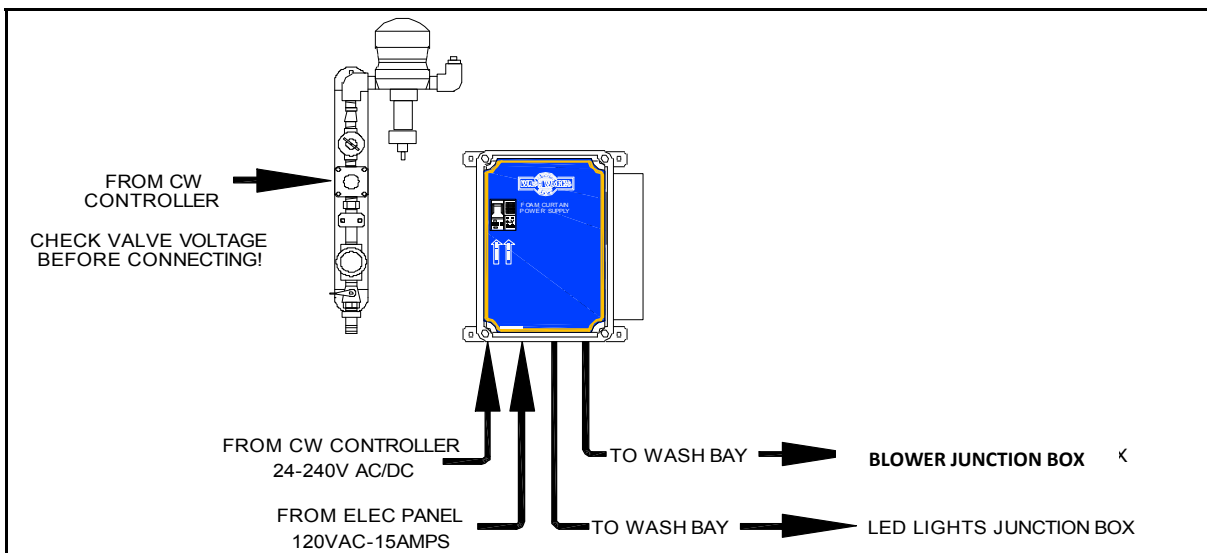


Picture 9.0: Secure Hose to the Head Assembly

- Your Bubble Arch needs **TWO FUNCTION OUTPUTS** signals from your car wash controller: One for the dilution station and one for the control box (see Picture #10.0). The signal for the dilution station **HAS TO BE OF THE SAME VOLTAGE THAN THE DILUTION STATION SOLENOID VALVE**. Verify the voltage of the dilution station before wiring. The signal to the control box can be anything between **24 to 240 VOLTS AC or D**.



WARNING!
**WRONG VOLTAGE APPLIED TO THE DILUTION STATION
 WILL PERMANENTLY DAMAGE THE VALVE COIL AND MAY
 ALSO LEAD TO PERSONAL INJURIES**



Picture 10.0: Electrical Runs



WARNING!
**THE MATERIAL REQUIRED FOR CONNECTING
THE ARCH IS THE CUSTOMER'S RESPONSIBILITY!**
**ALL WORK HAS TO COMPLY WITH
LOCAL AND NATIONAL CODES!**

- Pull** an electrical run from the car wash controller to the dilution station and connect the dilution station to a separate function output. This set up will allow the dilution station to run and refill the arch after the car leaves the arch and the blower turned off.



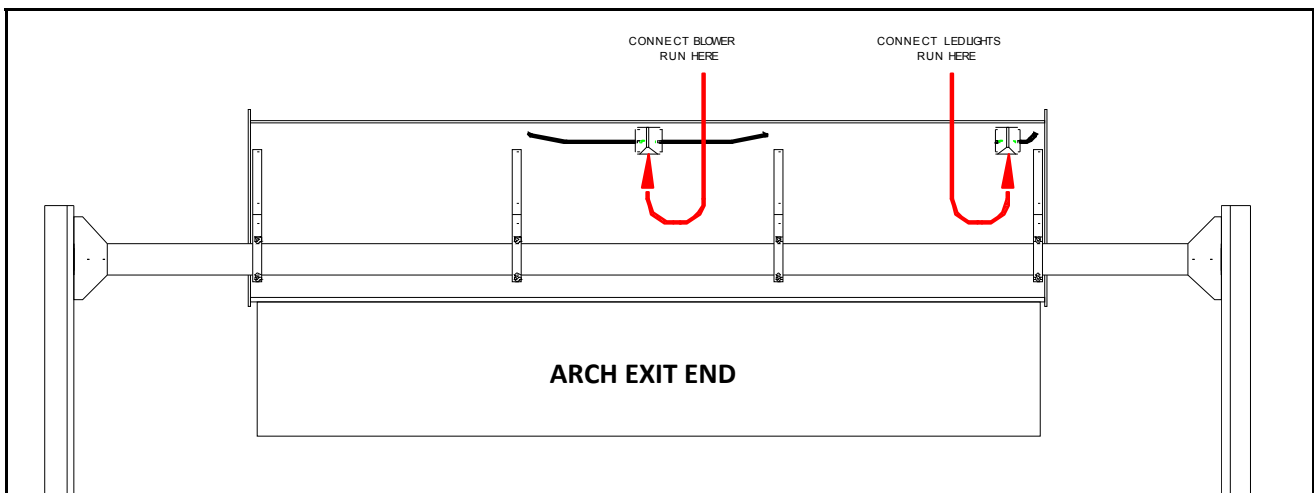
**YOU MAY CONNECT THE DILUTION STATION
ON THE SAME OUTPUT FUNCTION THAN THE CONTROL
BOX IF THE WATER PRESSURE FEEDING THE DILUTION
IS SUFFICIENT TO KEEP UP WITH THE ARCH WHEN RUNNING**

- Pull** a second run from the car wash controller to the **CONTROL BOX**.
- Run** a line from the **120VAC** building sub-panel to the **CONTROL BOX** and connect on a separate **15AMPS** circuit.



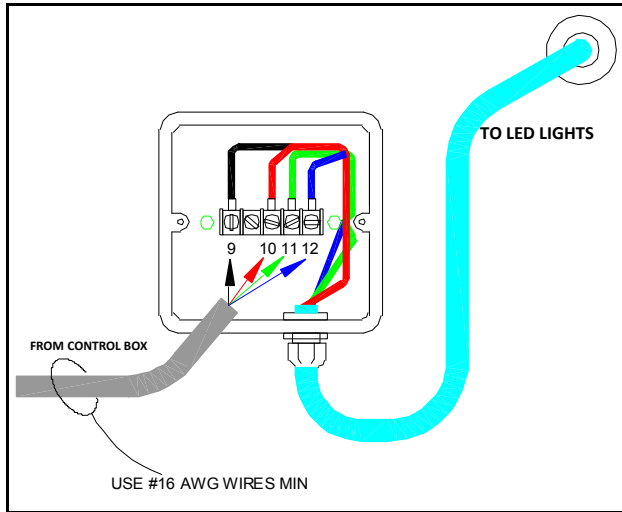
**THE ARCH REQUIRES A SEPARATE
15AMPS, 120VAC, 1PH
ELECTRICAL CIRCUIT**
**TO AVOID EQUIPMENT MALFUNCTION
DO NOT CONNECT ANY OTHER ELECTRICAL DEVICE
ON THE SAME CIRCUIT FEEDING THE ARCH**

- Run** two separate lines from the **CONTROL BOX** to the wash bay: one to the **LED JUNCTION BOX** and one to the **BLOWER JUNCTION BOX** (see picture #11.0).

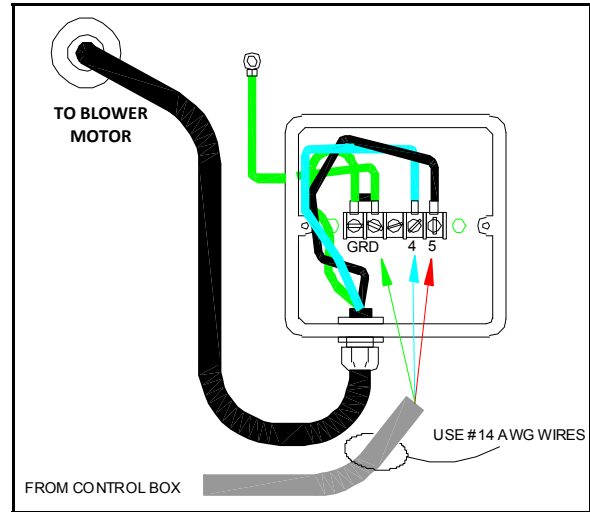


Picture 11.0: Arch Junction Boxes

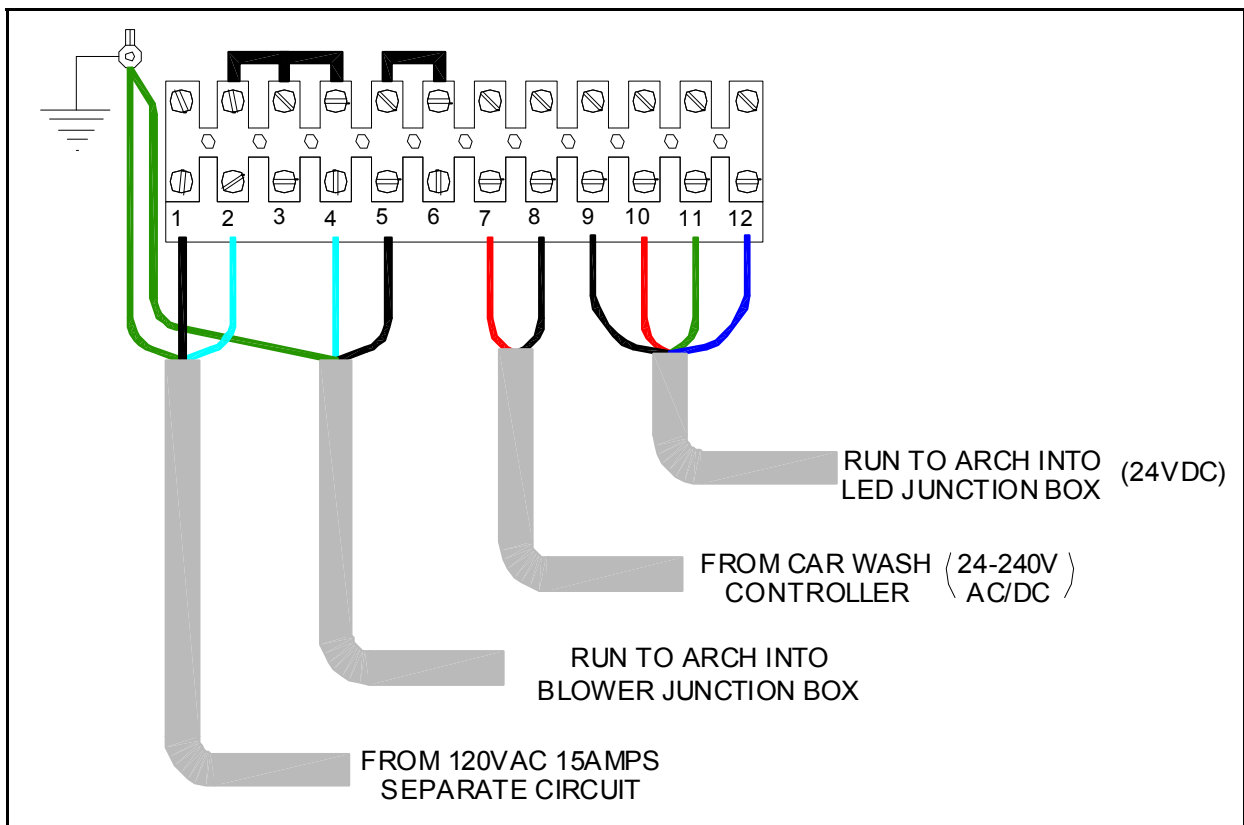
- Connect the **BLOWER** and the **LED** lights runs to each respective junction boxes using the connection diagrams below.



Picture 12.0: LED Junction Box



Picture 12.1: Blower Junction Box



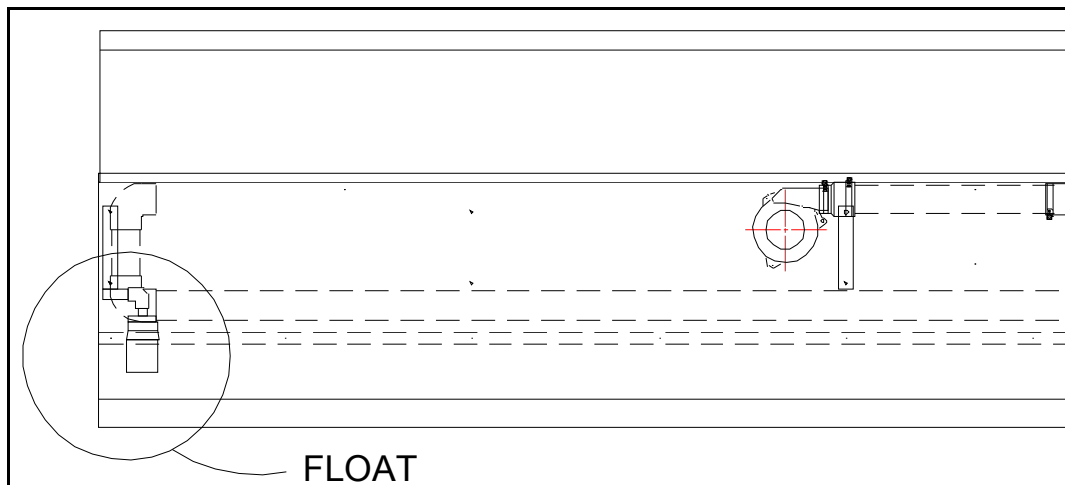
Picture 13.0: Control Box Connection Diagram



WARNING!
RUN TWO SEPARATE LINES FOR BLOWER AND LED LIGHTS
DO NOT RUN THE WIRES IN THE SAME CONDUIT

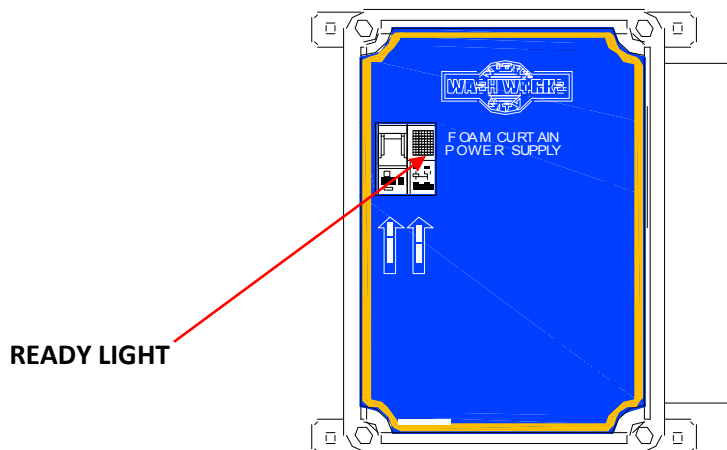
Starting-Up Your SUDZ-A-LOT ARCH:

- Disconnect** the 3/4" rubber feeding hose at the arch and turn the water **ON** to the Dilution Station. Drop the Dilution Station chemical suction line into the chemical drum. Set the **PUMP DILUTION RATIO** to about **300:1** (Follow Instructions on the **CHEMICAL PUMP** user manual).
- Turn** the **DILUTION STATION FUNCTION OUTPUT ON** and let the water run until a solid column of chemical fills the chemical suction line up to the pump. Let it run until the solution feeding the arch is visibly mixed with chemicals. Turn the output function **OFF**.
- Reconnect** the hose to the arch and turn the dilution station **ON** again until the arch trough is filled with solution. Verify that the float stop the flow of solution when reached float level. Adjust the float height to keep the solution level close to the edge. Leave the dilution station **ON**.



Picture 14.0: Head Assembly Float Valve

- Turn** the **CONTROL BOX BREAKERS ON**, close the cover and turn the **ARCH OUTPUT FUNCTION ON** and observe the **READY LIGHT TURN ON** (see Picture #15.0). The blower is now running and the foam generated is flowing over the edge down onto the ground. Observe the bubble generated and change the concentration of the solution by adjusting the chemical pump: For "thicker" foam and bubbles increase the concentration of chemical. For lighter foam, decrease the concentration.
- Finally**, turn both output off and program the ready signal output to turn **ON** slightly before the car reaches the arch while the dilution station output get to be programmed to turn **ON** with the car and turned **OFF** after the car is away, long enough to refill the trough with solution.



Picture 15.0: Control Box Ready Light

Color Skinz™ Wrap Installation

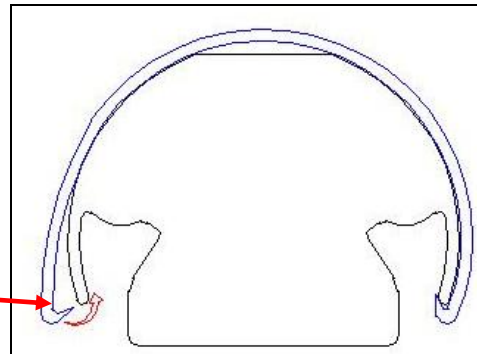
- **Locate** the boxes containing the **COLOR SKINZ™** wraps and install on each legs and frame cross beams.



Picture 26.0 Color Skinz™

SELECT THE PROPER COLOR SKINZ™ COVER. SNAP ONE SIDE OF THE LIPS, SLIDE THE COVER AROUND THE LEG AND FINALLY SNAP THE SECOND LIP PASSED THE EXTRUSION EDGE (see Picture #9-B)

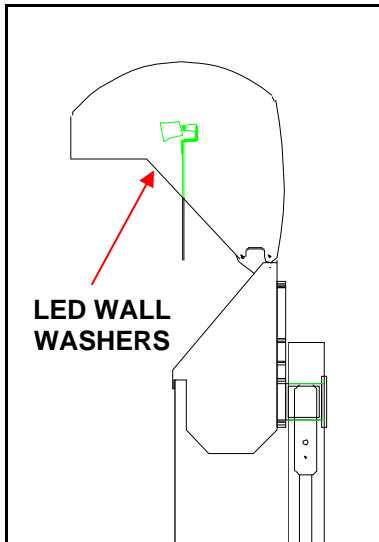
Picture 26.1



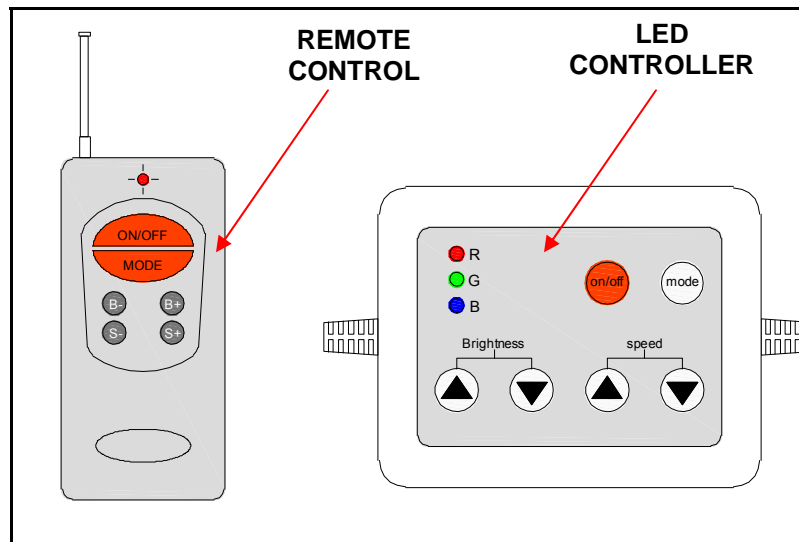
Picture 26.2 Color Skinz™

LED LIGHT REMOTE CONTROL:

- **Your** Sudz arch comes with a set of **LED WALL WASHERS** mounted in the head cover (see picture #27.0). The wall washer LED light patterns are controlled by a LED controller located in the **CONTROL BOX** (see Picture 27.1).
- **Using** the **“MODE”** button (on either the LED controller in the control box or using the hand held remote unit) you may change the pattern and the resulting color in which the three colors (RED, GREEN and BLUE) will be lighting on the sign as well as the vinyl strip. Use the BRIGHTNESS and the SPEED button as needed.



Picture 27.0 LED Wall Washer



Picture 27.1 LED Controller

LED COLOR SELECTION CHART :

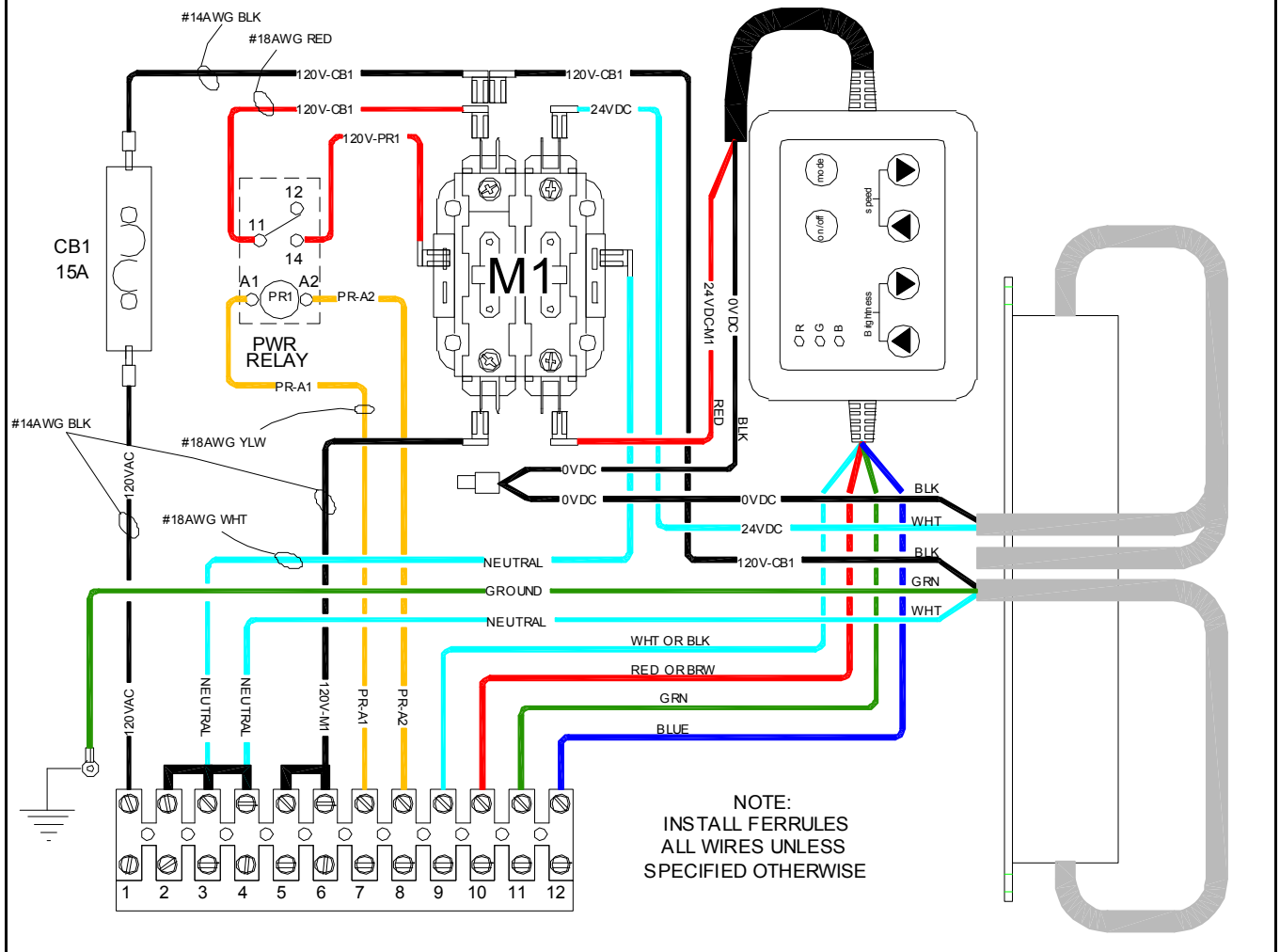
Remote and/or LED Controller buttons.

- MODE: Changes Patterns from 1-11 list below Picture 27.2
- BRIGHTNESS + (B+): Increases LED brightness
- BRIGHTNESS – (B-): Decreases LED brightness
- SPEED + (S+): Increases LED Speed
- SPEED – (S-): Decreases LED Speed

NO	PATTERNS	EXPLANATION
1	Solid Red	Brightness is adjustable. Speed is not available
2	Solid Blue	
3	Solid Purple	
4	Solid Green	
5	Solid Yellow	
6	Solid Cyan	
7	Solid White	
8	Three Color Strobe	Speed and brightness are both adjustable.
9	Seven Color Strobe	
10	Three Color Gradual Change	Speed is adjustable. Brightness is not adjustable.
11	Seven Color Gradual Change	

Picture 27.2 Color Chart

Control Box Electrical Schematic:



Picture 28.0: Control Box Electrical Schematic

Optional Arch LED Light Bars Kit:

Part # ARCHLIGHTKITXXXX


Electrical Specifications:

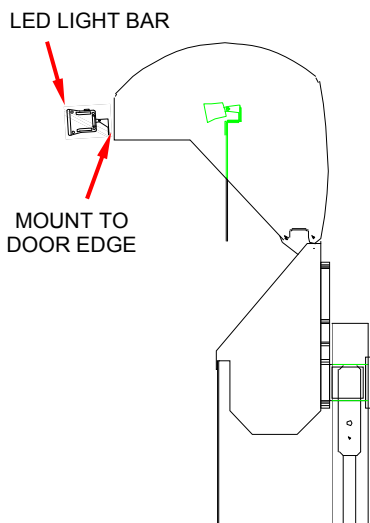
Light Kit.....24VDC
Flasher Unit.....Supply: 120VAC, 4A
Control:24-250V AC/DC

Suggested Installation Tools and Materials

- | | |
|--|---|
| <input checked="" type="checkbox"/>  3/16" Socket Head (Allen) Wrench | <input type="checkbox"/> Wire Stripper and Wire Ties |
| <input type="checkbox"/> 1/8" Socket Head (Allen) Wrench | <input type="checkbox"/> 2 Conductors #14 AWG Low Voltage Cable |
| <input type="checkbox"/> 6' Step Ladder | <input type="checkbox"/> Water Proof Wire Nuts |

Installation Procedures:

-  **Upon** receiving your MCWW Light Kit, open the box and verify that you have all the required components and there is no damage to the equipment. Verify also that you have all your installation material.
- Mount** the two LED Light Bars to the arch door bottom edge (see Picture 30 and 31) and connect power plugs together.

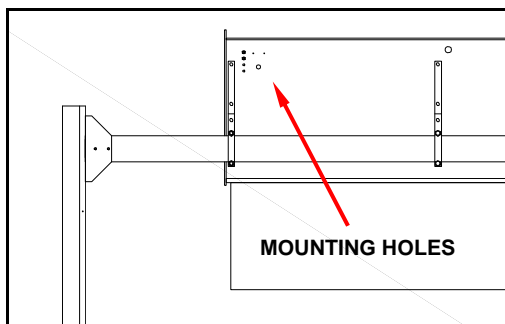


Picture 30.0: Mount LED to Cover Edge



Picture 31: Light Bars Connected Together

- Locate** the Electrical Junction Box mounting holes on the left hand side of the back side of the arch (see Picture #32) and pull the junction box cord through the larger hole, push the grommet through the hole and secure the box to the arch like shown on pictures 32 thru 34.



Picture 32.0: JBox Mounting Holes

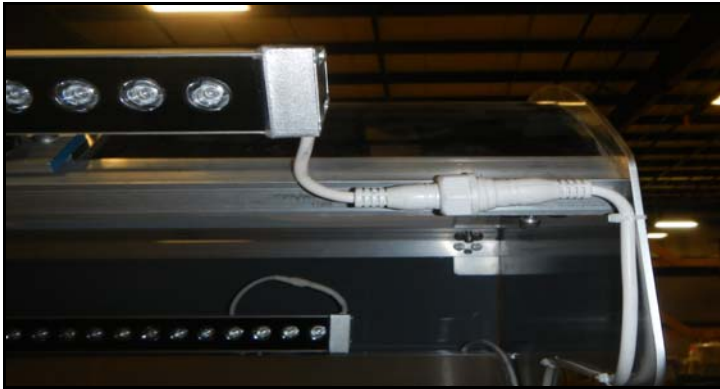


Picture 33.0: Cable and Grommet



Picture 34.0: Junction Box Installed

- Connect** the supplied patch cable to the right hand LED bar power plug like shown on Picture #35 below. Route and secure the cable along the door using the provided plastic ties. Connect the Junction box cable plug to the patch cable pug behind the baffle like shown on Picture #36.



Picture 35.0: Connect Patch cable

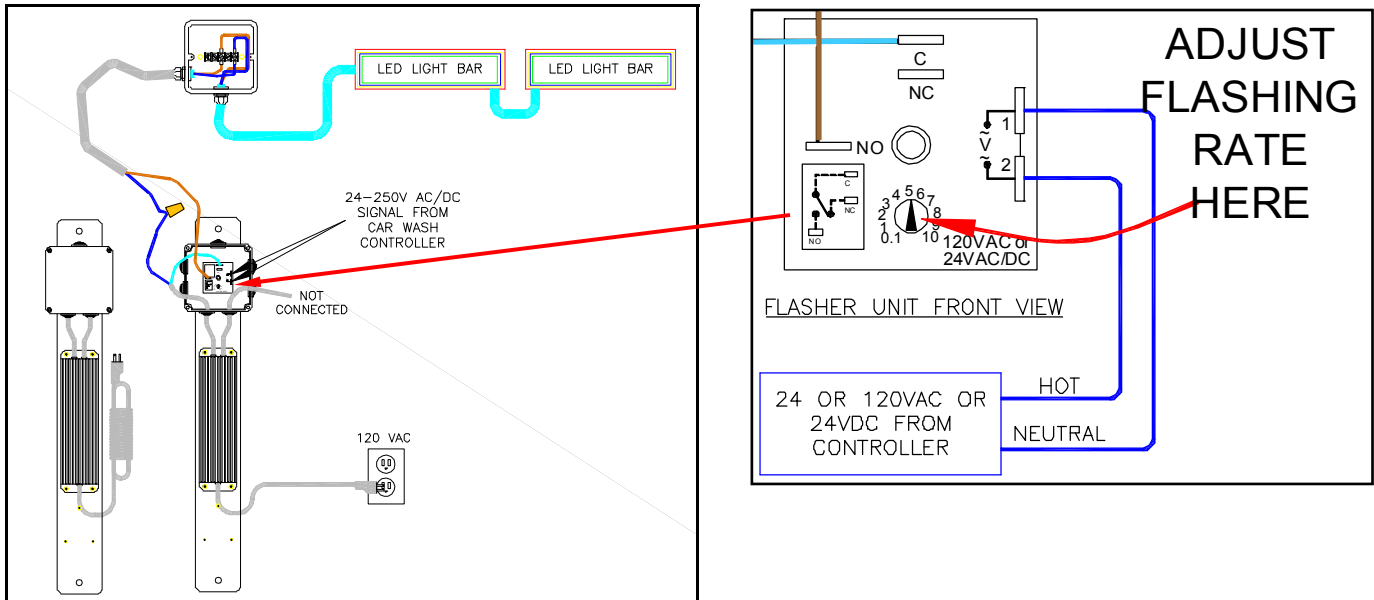


Picture 36.0: Secure Cable

- Connect** the “blind” plug to left LED light bar like shown below.



Electrical Diagrams



Picture 28.0: Connection Diagram of Flasher Unit with Light Always OFF

Warranty and Return Procedure:

Motor City Wash Works warrant this product to be free of defect in material and/or workmanship for a period of **one year** from the date of the purchase by the customer from MCWW. During the warranty period MCWW will at its discretion, at no charge to the customer, repair or replace this product if found defectives, with a new or refurbished unit, but 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 cost to MCWW is assumed by the customer. This is only a summary of **MCWW Limited Warranty**. Please, communicate with MCWW for our complete warranty.

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

(110 VOLT)

HEX 1/4-20 X 3/4 SS18-8
1/4 LOCK WASHER
1/4 FLAT WASHER
BPUMPCMMMTTR0023 DOSATRON (10-100:1)
BFTNGELBPCV0002

ENG-162-100-010
BAPPLFRALM0003
ENG-162-100-011

BFTNGUNIPVC0001
BFTNGNIPVC0008
BVALVH2ODIN0001

BVALVH2OSOL0002 (110 V)
CLEAR 100 MESH STRAINER
BVALVBLF2M0002
BFTNGRBHOS0007 QTY (2)

BCLMPPPPR0001

DOSMATIC SINGLE NON-FOAMING DILUTION STATION

NOTES:
 ① SHCS 1/4-20 X 4 SS18-8
 W/ LOCK WASHER
 ② HEX 1/4-20 X 3/4 SS18-8
 W/ LOCK WASHER

Tool List:	Qty
1 - XXXXX	
2 -	
3 -	
4 -	
5 -	
6 -	
7 -	
8 -	

Material # **XXX** Date: **XX/XX/XXXX**

Scale: **NTS**

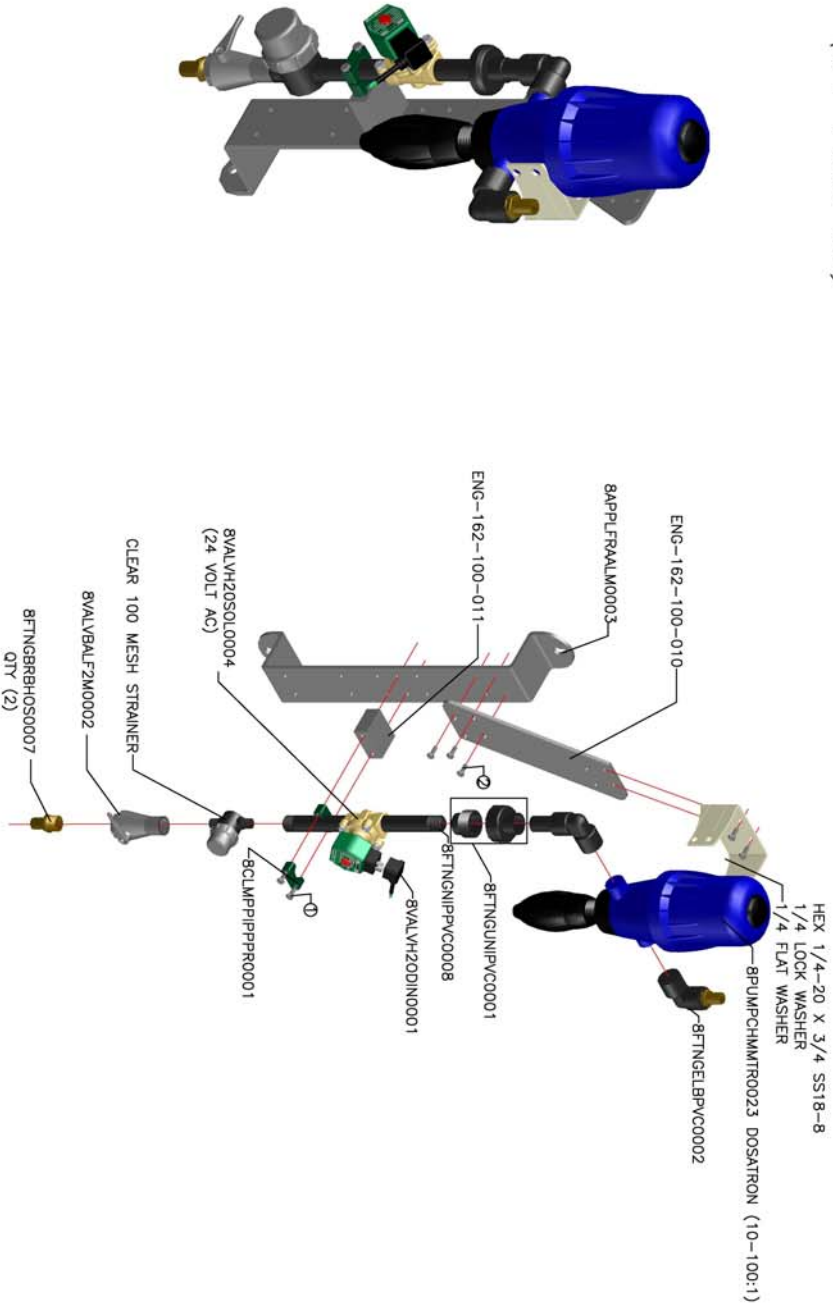
Drawn By: **JTL** Date: **01/12/2016**

Part Number: **APPLDUTNSTN049**

Description: **DOSATRON SNG NON FOAM DLUIN STN 110 VOLT**

Identified By: Date: ASSEMBLY 3D

(24 VOLT AC)



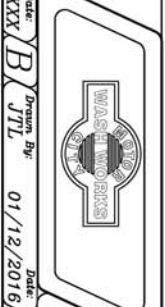
DOSMATIC SINGLE NON-FOAMING DILUTION STATION

NOTES:
 ① SHCS 1/4-20 X 4 SS18-8
 W/ LOCK WASHER
 ② HEX 1/4-20 X 3/4 SS18-8
 W/ LOCK WASHER

Tool List:

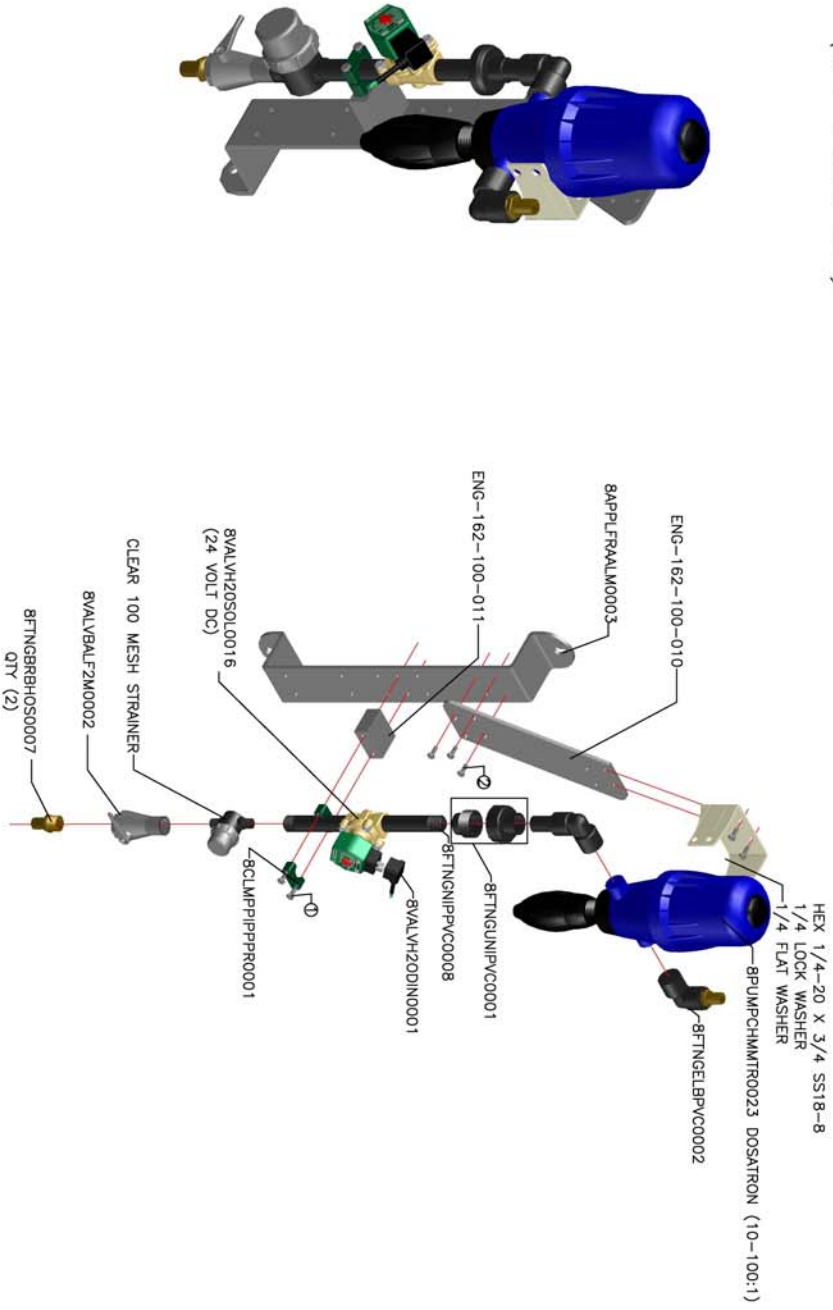
1-XXXXX
2-
3-
4-
5-
6-
7-
8-

Scale: NTS
 Master-CAD # XX/XX/XXXX
 Date: 01/12/2016



Part Number: **APPLDILUTNSTN050**
 Description: **DOSATRON SNG NON FOAM DILUTN STN 24 VOLT AC**
 10-100:1 RATIO
 Date: ASSEMBLY 3D

(24 VOLT DC)



DOSMATTIC SINGLE NON-FOAMING DILUTION STATION

NOTES:
 ① SHCS 1/4-20 X 4 SS18-8
 W/ LOCK WASHER
 ② HEX 1/4-20 X 3/4 SS18-8
 W/ LOCK WASHER

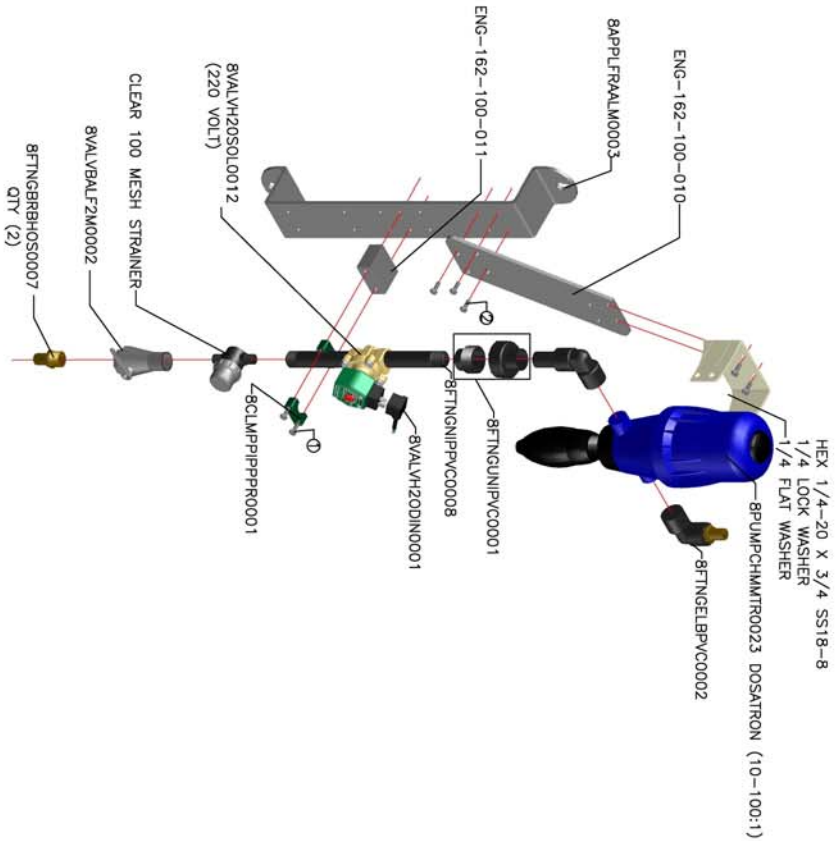
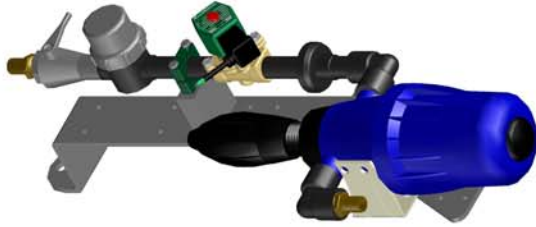
Tool List:

1-XXXXX
2-
3-
4-
5-
6-
7-
8-

Scale: NTS
 Master-CAM # XX/XX/XXXX
 Date: B JTL
 Drawn By: 01/12/2016

Part Number: APPLDUTNSTN051
 Description: DOSATRON SNG NON FOAM DILUTN STN 24 VOLT DC
 10-100:1 RATIO
 Date: ASSEMBLY 3D

(220 VOLT)



DOSMATTIC SINGLE NON-FOAMING DILUTION STATION

- NOTES:
- ① SHCS 1/4-20 X 4 SS18-8
 - ② W/ LOCK WASHER
 - ③ HEX 1/4-20 X 3/4 SS18-8
 - ④ W/ LOCK WASHER

Tool List:

1-XXXXX
2-
3-
4-
5-
6-
7-
8-

.XX ± .010
 .XXX ± .005
 .XXXX ± .001
 .XXXX ± 1/32"
 (Unless otherwise specified)

Scale: NTS

Master-CAM # XX/XX/XXXX

Date: B JTL 01/12/2016

Part Number: APPLDILUTNSTN052
 Description: DOSATRON SNG NON FOAM DILUTN STN 220 VOLT
 10-100:1 RATIO
 ASSEMBLY 3D