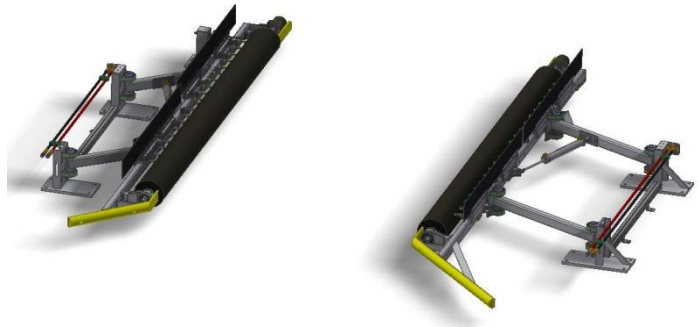




Belanger Conversion to Bristle Tire Seal Machine™



Owner's Manual

Sonny's Enterprises LLC
5605 Hiatus Road
Tamarac, Florida 33321



Owner's Manual Belanger Conversion to Bristle Tire Seal Machine Hydraulic & Electric

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WARNING *SAFETY REQUIREMENTS* WARNING

1. All employees must be thoroughly trained in safe operation and standard maintenance practices. All employees must review this entire manual monthly.
2. Do not enter the wash tunnel when the equipment is operating. Death or dismemberment may occur.
3. Do not wear loose fitting clothing or jewelry around moving equipment. Do not allow any part of your body or other objects (including ladders, hoses, or tools) to come in contact with moving equipment. Entanglement may result causing death or dismemberment.
4. Do not leave a ladder or any other items such as wash down hoses or tools in the wash tunnel while equipment is running. Vehicle damage and injury, including death, can occur.
5. Always exercise caution when walking (never run) through the wash tunnel as there may be slippery conditions. Be careful so you do not bump into or trip over equipment.
6. Only those employees specifically instructed and trained by the location management are permitted to enter the wash tunnel to perform inspections or maintenance. At least two qualified maintenance people must be present when performing equipment repairs or preventive maintenance.
7. Do not perform any maintenance or work on equipment unless you first perform Lock-Out Safety Precautions. All electrically powered equipment must have manually operated disconnects capable of being locked in the "OFF" position. Equipment that has been "locked out" for any reason must be restarted only by the person who performed the "lock out" operation.
8. When working on any equipment that is higher than your shoulders, always use a fiberglass ladder that is in good condition.
9. Do not attempt to repair or adjust any pressurized liquid or pneumatic part, hose, pipe or fitting while that equipment is in operation.
10. Electrical connections and repairs must be performed by a Licensed Electrician Only.
11. Emergency "STOP" buttons must be well marked and their location and proper use reviewed with all personnel. Any activated "STOP" button must be reset only by the person who activated it. Clear the wash tunnel of any people, ladders, hoses, tools, and other loose items before restarting the equipment. An audible device must sound to warn people that the equipment is starting.
12. Do not operate any piece of equipment that requires safety covers with those covers removed or improperly installed. Do not operate any piece of equipment if any component of that piece is suspected to be defective or malfunctioning.



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13. Store all cleaning and washing solutions and oils in a well-ventilated area. Clean up fluid spills immediately to prevent hazardous safety conditions. Be certain to follow all safety procedures on MSDS Sheets for each chemical product used [SDS](#).
14. All hydraulic and electric systems in the wash tunnel equipped with a torque relief or overload should be checked and set at the minimum amount that will allow for proper functionality under normal washing conditions.
15. No unauthorized people should ever be permitted in the wash tunnel or near the equipment at any time.

* * *

!! CAUTION !!

When a piece of equipment must be in operation during inspection or maintenance, one qualified technician must stay at the power disconnect switch while another qualified technician performs the inspection or maintenance.



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INTRODUCTION

This Manual contains information that is vital to the successful installation, operation and maintenance of your SONNY'S vehicle washing equipment.

Please read, and understand, the full contents of this manual before installation and operation of the equipment. Keep this booklet in a location where it may be used for ongoing reference.

Should you have any questions on the operation or servicing of this equipment please contact

TECHNICAL SERVICES DEPT.

SONNY'S ENTERPRISES INC.

5605 Hiatus Road

TAMARAC, FLORIDA 33321

TELEPHONE: 800-327-8723 FAX: 800-495-4049

THANK YOU FOR YOUR CONFIDENCE IN SONNY'S !!!!!





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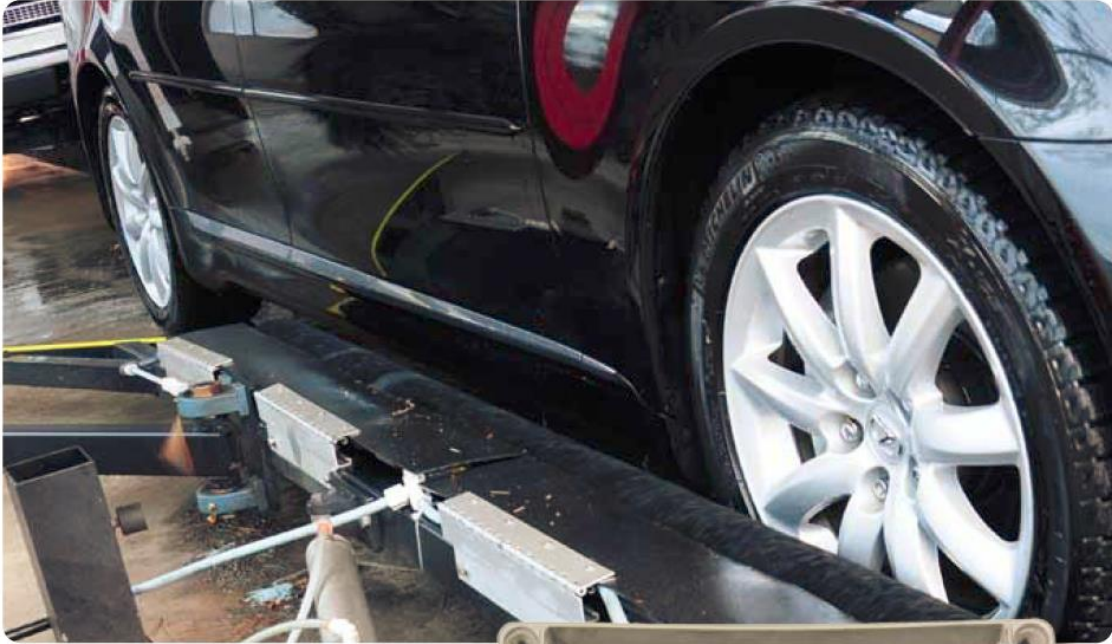
Product Specifications

- Automatic operation triggered by the car wash equipment controller
- Aluminum frame and hangers
- Designed to operate in the drip space of conveyor car washes
- Bristle Brush application with 108" (9') brushes
- Bristle Brush application with 96" (8') brushes
- Control panel complete with 2 air driven solution pumps
- Each side has split solution delivery manifolds for solution delivery savings
- 3 inch half round plastic entrance guides are standard on both sides
- 4 bolt spindle type brush mounting
- Grease-able bearings throughout

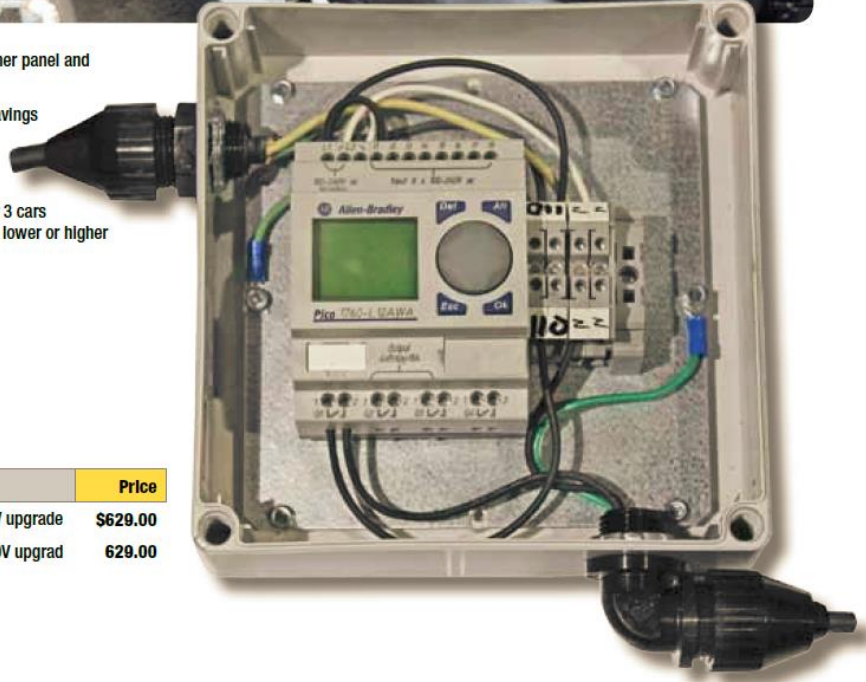


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SONNY'S® PLC (Programmable Logic Control) for Tire Shiner



- PLC replaces timer box on the tire shiner panel and retrofits all SONNY'S® Tire Shiners
- More efficient chemical control and savings
- Better tire dressing
- Less sling and drag out on drive
- G57 pump solenoid is energized every 3 cars (Factory Setting) can be programed to lower or higher car counts



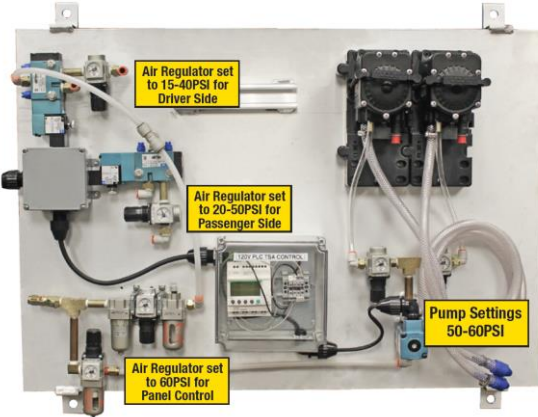
Item #	Description	Price
20010387	Tire Shiner programmable PLC 24V upgrade	\$629.00
20010386	Tire Shiner programmable PLC 120V upgrad	629.00



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Tire Shine Machine Control Panel

1. Available in 24V and 110V, specify when ordering
2. Required for Tire Seal Machine operation
3. Includes Tire Seal retract



New PLC Timer Upgrade

1. More efficient chemical control and savings
2. Better tire dressing application
3. Less sling and drag out on drive
4. G57 pump solenoid is energized every 3 cars (factory setting) and can be programmed to lower or higher car counts





Owner's Manual Belanger Conversion to Bristle Tire Seal Machine Hydraulic & Electric

INSTALLATION **Utilities Requirements**

UTILITIES INTERCONNECTION AND THE MATERIALS REQUIRED FOR INTERCONNECTION TO SONNY'S EQUIPMENT ARE THE RESPONSIBILITY OF THE CUSTOMER !

PERFORM ALL TRADES WORK TO ALL APPLICABLE LOCAL AND NATIONAL CODES !

Electrical

- The Customer's Electrician is to provide and install control wiring from the tunnel equipment controller for one programmable function to the junction box on the tire shiner control panel. See Figure #5 in Dimensions Section. The function is to provide for applicators retract through the four way solenoid valves on the control panel and power to the timer. The timer will power three way solenoid valve on the control panel for solution pumps for the number of seconds set on the timer.
- Where applicable, the Customer's Electrician is to provide materials and install 208VAC or 230VAC or 460VAC, 3-phase, 60Hz power to the electric motor on the hydraulic power pack or VFD panel from a properly sized three pole circuit breaker and motor starter with three thermal overloads.

Be certain that the solenoid coil voltage (24VAC OR 110VAC) on the three solenoid valves as ordered from Sonny's is compatible with the tunnel equipment controller output voltage !!!

Pneumatic

- The Customer's Plumber is to provide and install a ½ inch compressed air line (approximately 6 cfm at maximum load) from the air compressor to the ½ inch FPT inlet port on the main inlet air manifold on the tire shiner control panel. See Figure #3 in Dimensions Section.



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Speed and Torque Adjustment

Speed and Torque Adjustment

1. Hydraulic
 - a. The speed can be adjusted on the flow control for the power pack.
 - b. To increase the speed move the handle on the flow control closer to the number 10.
 - c. To decrease the speed move the handle on the flow control closer to the number 1.
 - d. The torque must be set prior to operation and should be set between 600 and 900 PSI. For information on how to set the torque please refer to the Hydraulic Power Pack Manual.
2. Electric
 - a. The speed can be adjusted on the Variable Frequency Drive (VFD).
 - b. To increase the speed, adjust the Hertz on the VFD to a higher number.
 - c. To decrease the speed, adjust the Hertz on the VFD to a lower number.
 - d. The Overload on the Motor Starter protector(s) must be set at the lowest level to allow for operation. Adjust the amps in accordance with motor(s) name plate.



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Equipment Installation

Belanger Conversion – Mechanical Installation

Tools

1. Safety Glasses and Gloves
2. ½" Drive Ratchet
3. ½" Drive Sockets
4. Combo Wrenches
5. Large Standard Screwdriver
6. 1" Hammer Drill
7. 3 lb. Sledgehammer
8. Tape Measure

Consumables

1. Stainless Shims
2. PTFE Tape
3. PTFE Paste
4. Nylon Cord

Work Force

Two (2) persons

Time (assuming no problems)

2.00 – 3.00 hours

Installation Steps

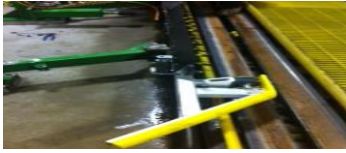
1. Remove the stabilizer shock and air cylinder from the frame but leave them attached to the arms.



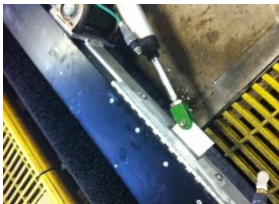
2. Disconnect the air and chemical lines on the Indexing cylinder lines can be removed completely as they are no longer needed.
3. Remove the brush frame from the hanger arms by remove the bolts that hold the bearing to the frame once it's loose move it out of the way.
4. Steps 1 through 3 will need to be repeated on opposite side.
5. Bolt the new Sonny's frame into place using the old bolts.



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6. Once the new frame is in place bolt the brush onto the spindles using the supplied hardware. Adjust the brush so it sits evenly between the bearings then tighten bearing set screws.
7. Steps 5 and 6 will need to be completed on the opposite side.
8. Connect the air cylinder and shock onto the brush Frame on both sides



9. Adjust the hanger heights equally so that the center of the brush is 6.5" from the floor.
10. Adjust the driver side brush height so that the rotating brush will have minimal contact
11. Run and connect the 1/2 inch PRESSURE line from the Hydraulic Power Pack to the 1/2 inch male pipe thread fitting on the BLACK high pressure hose on the bulkhead fitting of the tire shiner.
12. Run and connect the 1/2 inch RETURN line to the Hydraulic Power Pack to the 1/2 inch male pipe thread fitting on the ORANGE high pressure hose on the bulkhead fitting of the tire shiner.
13. If the unit is electric you will need to hire an electrician to wire the new motors in place.
14. Rotation of the Brushes is toward the tire and downward at 50-70 RPM.
15. Remove all the hose and the index Mac valve from the chemical panel.



16. Connect the solution feed lines to the tire shiners on both sides the lines may need to be extended to reattach the new manifolds.
17. Prime brush for operation and apply to 20 consecutive washes.



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GENERAL OPERATION

The Tire Shine applicator system is intended to provide programmable on-line, automatic, delivery of Tire Shine product to the four tires of passenger vehicles.

When the Tire Shiner equipment is at rest with the conveyor stopped or no vehicle has been programmed to accept this service with the conveyor running, the driver side and passenger side units are both retracted away from the center of the wash tunnel and the pumping system is off.

When the Tire Shiner equipment has been programmed to provide the tire shine service the driver side and passenger side units extend to the center of the wash tunnel at the chosen time and Tire Shine solution is delivered to the brush on the units to wipe the product on to the passing tires of the vehicle. If the next vehicle in line has also purchased the Tire Shine service the equipment will remain extended and ready to deliver the application process. If the next vehicle in line has not purchased the Tire Shine service the equipment will retract from the center of the wash tunnel and the solution pumping system will turn off.



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PREVENTIVE MAINTENANCE

DAILY

1. Prep the brush for use, by overriding the solution timer and applying excess chemical to brush.
2. Check all lines and fittings for leaks. Repair, or replace, as needed.
3. Check the brush for tears, damage, grease, oil, or foreign objects and clean the brush if necessary using high pressure water only, no chemicals.
4. Check retract/extend for proper operation, check for smoothness, and correct application pressure.
5. Check for sufficient chemical for the day's use.

WEEKLY

1. Grease all rotational bearings on the brush.
2. Spray lubricant on the clevis pins on both ends of the retract cylinders.
3. Check fluid in reservoir(s) and fill to $\frac{3}{4}$ when retracted, as necessary.

FOR THE FIRST MONTH OF OPERATION CHECK ALL HYDRAULIC FITTINGS FOR TIGHTNESS EACH WEEK. PERFORM THIS INSPECTION TO THE SCHEDULE SHOWN BELOW AFTER THE FIRST MONTH OF OPERATION.

MONTHLY

1. Grease all pivotal bearings on the hanger framework, 16 bearings total.
2. Inspect all hardware and fittings for tightness.

SEMI-ANNUALLY

1. Check nozzles for clogging and brush for wear. Brush may be flipped to extend usable lifespan.
2. If fluid in reservoir(s) is contaminated drain, purge, and refill.

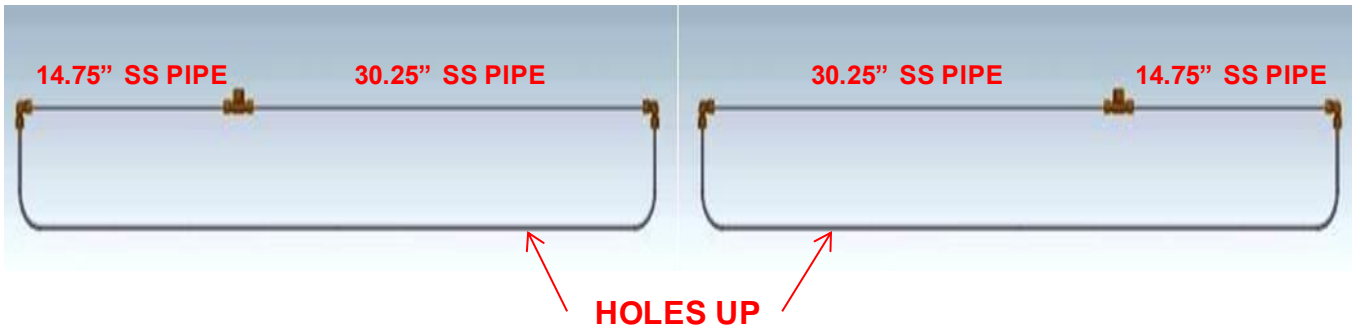


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PARTS

Timer will be set for 1-4 seconds.

Replacement Manifold: TSA SS Manifold Assembly Part # 20013195



PART #	DESCRIPTION	QTY	PICTURE
20012717	Tube, TSA Manifold w/Holes SS	4	
10011642	Tube, 1/4 OD X 0.035 Wall X 30.25 304 SS	4	
10011644	Tube, 1/4 OD X 0.035 Wall X 14.75 304 SS	4	



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10011511	Tee Branch 1/4" Compression x 1/4" FNPT	4	
10011510	Union Elbow 1/4in 90Deg Compression	8	
10011195	Clamp, 1/4in Pipe Stand DIN 3015	8	
20012078	Bracket Small , TSA Manifold w/ Holes SS	5	
20013302	Bracket Large, TSA Manifold w/ Holes SS	1	



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WARRANTY

SONNY'S ENTERPRISES, INC. FACTORY LIMITED LIFETIME WARRANTY

Equipment manufactured by SONNY'S ENTERPRISES, INC. is warranted to be free from defect in material and workmanship. Welded metal framework and other non-moving, non-wearable fabricated metal components manufactured by SONNY'S are warranted for the life of the equipment to the original purchaser. Fabricated metal wearable surface and moving components manufactured by SONNY'S are warranted for a period of one (1) year to the original purchaser of the equipment.

All components assembled to SONNY'S equipment that are manufactured by others are warranted by the appropriate manufacturer and subject to that manufacturer's limited warranty. Contact SONNY'S for the specific information on other component manufacturer's warranty terms. All new cloth shipped with new SONNY'S equipment is warranted for a period of one (1) year or 80,000, whichever occurs first.

This warranty is not assignable or transferable. The warranty period begins the first day following installation or 30 days from the original invoice date, whichever occurs first. The Seller's liability shall be limited to repair or replacement of materials found to be defective within the warranty period. In the event of repair or replacement this limited warranty is noncumulative. The Purchaser must supply the Seller with immediate written notice when any defects are found. The Seller shall have the option of requiring the return of defective material to establish the Purchaser's claim. Neither labor nor transportation charges are included in this warranty. Transportation damage claims are to be submitted to the carrier of the damaged materials.

This warranty is based upon the Purchaser's reasonable care and maintenance of the warranted equipment. It does not apply to any equipment which has been subject to misuse, including neglect, accident or exposure to harsh chemicals or chemicals that react violently with water, organic acids (e.g. acetic acid), inorganic acids (e.g. hydrofluoric acid), oxidizing agents (e.g. peroxides), and metals (e.g. aluminum). Chemicals corrosive to aluminum alloys, carbon steel, and other metals. Nor does it apply to any equipment which has been repaired or altered by anyone not so authorized by SONNY'S. Further, the equipment must be properly installed with proper accuracy of all specified plumbing, electrical, and mechanical requirements. This warranty does not apply to normal wear and tear or routine maintenance components.

EXCEPT AS EXPRESSLY STATED HEREIN, SONNY'S SHALL NOT BE LIABLE FOR DAMAGES OF ANY KIND IN CONNECTION WITH THE PURCHASE, MAINTENANCE, OR USE OF THIS EQUIPMENT INCLUDING LOSS OF PROFITS AND ALL CLAIMS FOR CONSEQUENTIAL DAMAGES. THE LIMITED WARRANTY EXPRESSED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. SONNY'S NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION HEREWITH.



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CUSTOMER SERVICE

Please contact SONNY'S Equipment Department for installation and/or operational questions regarding this piece of equipment.

Please refer to the Parts Catalog and contact SONNY'S Customer Service Order Entry Department for any replacement parts for this piece of equipment.

You can also visit the web at www.SonnysDirect.com.

DEPARTMENT

Toll Free Main Line
Equipment Department

PHONE NUMBERS

800-327-8723
954-720-4100

FAX NUMBERS

800-495-4049
954-720-9292

Or you can email Sales at sales@SonnysDirect.com

Thank you for being a SONNY'S car wash equipment owner!

From all of us here at

