



Wrap Around Washer



Owner's Manual

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For Warranty Go To: <https://sonnydirect.com/warranty>

THANK YOU FOR BEING A SONNY'S CAR WASH EQUIPMENT OWNER!



READ ALL INSTRUCTIONS PRIOR TO OPERATING

- This manual is a comprehensive step-by-step user instruction guide for the **Wrap Around Washer** and components. To review other manuals go online to SonnysDirect.com under Support Tab.
- Make sure to read, understand and follow all these instructions.
- To address any questions relating to ordering parts, operating the **Wrap Around Washer**, installation, troubleshooting, maintenance, service or anything else, contact **Sonny's Technical Support Team at 1-800-327-8723**.
- All deviations and alterations from these instructions **MUST** be reported to Sonny's The CarWash Factory®. **Keep this manual in a location where it may be used for ongoing reference.**



IMPORTANT SAFEGUARDS AND WARNINGS

- **WARNING: 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. These procedures MUST be followed to avoid personal injury, death and/or dismemberment.**
- All parts and components **MUST** be installed by experienced and trained technicians.
- **No** unauthorized personnel should ever be permitted in the wash tunnel or near the equipment at any time.
- Hardhat, safety glasses with side shields, closed steel toe shoes, anti-impact and cut resistant gloves, dust mask, and earplugs if operating power tools, **MUST** be worn.
- When cutting or grinding any metal, safety glasses, earplugs, and dust mask **MUST** be worn.
- **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.**
- **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 injury, death, or dismemberment.**
- 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.



IMPORTANT SAFEGUARDS AND WARNINGS

- **Electrical connections and repairs MUST ONLY be performed by a Licensed Electrician.**
- **Plumbing connections and repairs MUST ONLY be performed by a Licensed Plumber.**
- When working on any equipment that is higher than your shoulders, always use a fiberglass ladder that is in good condition.
- Use proper lifting technique. Team lifts are required for items over 50 lbs.
- Do **NOT** alter or modify parts in any way and do **NOT** interchange or substitute any components without the authorization of your supervisor and Sonny's The CarWash Factory.
- Do **NOT** install any parts or components into faulty materials.
- All damages and defects **MUST** be reported to both your supervisor and Sonny's The CarWash Factory.
- If there are any malfunctions with the **Wrap Around Washer**; or if any questions arise regarding the equipment operations, immediately contact your supervisor or Sonny's The CarWash Factory.
- **Only** use approved hardware, parts, and components with the **Wrap Around Washer** or any other equipment.
- Protect your body parts against sharp corners and edges at all times.
- Keep loose articles of clothing and jewelry away from the removal, installation, or operation of all equipment.
- The personnel installing the **Wrap Around Washer** are responsible for making sure it works according to the instructions in this manual.
- Always remove ladders, tools, parts, etc, from the wash tunnel when finished.
- All personnel **MUST** be trained in the safe operation of all equipment, wash tunnel operations, safety regulations, emergency shutdown and maintenance practices to avoid any accidents.
- **Only** personnel specifically instructed and trained are permitted to enter the wash tunnel to perform inspections or maintenance. At least two qualified maintenance personnel **MUST** be present when performing equipment repairs or preventive maintenance.
- **IMPORTANT:** Call Technical Support to adjust wash cycle when new equipment is installed.
- **WARNING:** All hydraulic and electrical systems in the wash tunnel equipped with a torque relief or overload should be checked and set to the minimum amount that will allow for proper functionality under normal washing conditions.



IMPORTANT SAFEGUARDS AND WARNINGS

- **WARNING:** Possible wet floors and slippery conditions! To avoid an accident that might result in personal injury, death or dismemberment, all personnel **MUST** proceed with Caution.
- **WARNING:** Do **NOT** enter the wash tunnel when the equipment is operating. Personal injury, death and/or dismemberment may occur.
- **WARNING:** Make sure the proper Chemistry (Brush Lubrication) is being used in the Car Wash Tunnel to prevent vehicle and/or equipment damage.
- **WARNING:** If the Equipment Installation Dimensions at the time of installation are **NOT** measured correctly, it may result in equipment damage and/or failure. Dimensions **MUST** be verified if equipment is already installed. Contact Sonny's Technical Support Team at 1-800-327-8723 for any Installation questions.
- **WARNING:** All connections and repairs **MUST ONLY** be performed by Licensed Professionals. Perform all trade work in compliance with all applicable local and national codes.
- **WARNING:** Although building codes have been considered in developing all drawings, verification of site-specific conditions and compliance with federal, state, and local building codes is the exclusive responsibility of the customer and/or architect and engineer to verify compliance.
- **WARNING:** Do **NOT** attempt to repair or adjust any pressurized liquid or pneumatic part, hose, pipe, or fitting while that equipment is in operation.
- **WARNING:** Do **NOT** operate any equipment that requires safety covers with those covers removed or improperly installed. Do **NOT** operate any equipment if any component of that equipment is suspected to be defective or malfunctioning.
- **WARNING:** Store all cleaning, 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 SDS Sheets for each chemical product used.
- **WARNING:** 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.
- **WARNING:** All Equipment **MUST** be given regular maintenance to prevent equipment damage and/or failure that will **VOID** the warranty.

SAVE THESE INSTRUCTIONS

INTRODUCTION

Make CarWashing Easy

<p>Sonny's CarWash Consulting</p> <p>Consulting</p> <p>INVEST WITH CONFIDENCE</p>	<p>Sonny's CarWash College</p> <p>College</p> <p>MASTER YOUR TRADE</p>	<p>Sonny's CarWash Equipment</p> <p>Equipment</p> <p>WASH MORE CARS</p>	<p>Sonny's CarWash Vacuums</p> <p>Vacuums</p> <p>MAXIMIZE CUSTOMER EXPERIENCE</p>
<p>Sonny's CarWash Controls</p> <p>Controls</p> <p>DRIVE BUSINESS FORWARD</p>	<p>Sonny's CarWash Services</p> <p>Services</p> <p>LEVERAGE LOCAL SUPPORT</p>	<p>Sonny's CarWash Marketing</p> <p>Marketing</p> <p>WIN EVERY CUSTOMER</p>	<p>Sonny's CarWash Signage</p> <p>Signage</p> <p>INCREASE YOUR TICKET</p>
<p>Sonny's CarWash Chemistry <small>by Diamond Shine</small></p> <p>Chemistry</p> <p>MAKE CARS SHINE</p>	<p>Sonny's CarWash Water <small>by Velocity</small></p> <p>Water</p> <p>OPTIMIZE EVERY DROP</p>	<p>Sonny's CarWash Parts</p> <p>Parts</p> <p>KEEP ON WASHING</p>	



Join Sonny's
OneWash ✓
and Save

Learn More at:
www.SonnysDirect.com/onewash



EQUIPMENT SPECIFICATIONS

- Aluminum frame and legs. Also available in stainless steel.
- Double roller bearings.
- New 6" Uni-Hubs with spindle.
- 45 degree flex coupling standard.
- Stainless steel brush hangers.
- Hydraulic brush drive motors use 4GPM @ 800PSI.
- Electric drive available.
- Shock absorber control.
- Pneumatic retract controls standard.
- Vehicle contour brush tracking.
- 134 inches of tunnel length required. (Straight Frame)
- 152 inches of tunnel length required. (Jog Frame)
- 158 inches of tunnel width required.
- 117 inches of unobstructed tunnel height required.
- 1/2-inch city water connection.

COMPLEMENTARY EQUIPMENT



SONNY'S Wrap-Around Washers

Problem You need to reduce the labor expense involved with folding in side mirrors, prepping the front and back of the vehicle, and taping rear wiper blades to achieve safe all-around cleaning.

Solved Increase your capability to wash tall vehicles and reduce striping with SONNY'S Big Man Wrap-Around Washer. Tall 72 inch hubs provide better coverage and cleaning on a broader range of vehicles and our unique 6 inch diameter hub combined with the SONNY'S custom cut cloth provides a gentler, more even cleaning that helps eliminate manual prepping at conveyor speeds approaching 200 cars per hour. For slower chain speeds, SONNY'S straight arm SF68 Wrap-Around Washers are available in both standard, and reverse configurations.

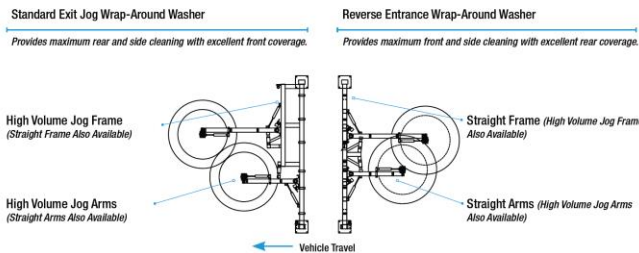


Features

- Long lasting double roller bearings and wider bearing mounts - for ease of motion
- Narrow 6in hubs decrease weight to provide even gentler cleaning
- Spring loaded soft stop bumpers for safer, smoother operation
- Pre-plumbed water manifold
- Exclusive restricted solid stainless steel pivoting coupler design
- Pneumatic retract controls and stabilizer shocks standard
- Permacolor cloth and Neoglide™ options available

Double Jog Reverse Wrap

Shown with hydraulic motor, C-channel hubs, BigMan Fill NeoGlide, and optional powder coating.



COMPLEMENTARY EQUIPMENT

System		Description		
Straight Wrap-Around Washers	Choose Wrap Top Frame	Straight Standard Exit	For Hydraulic	Wrap, Straight Hydraulic Attachment
			For Electric	Wrap Straight Electric Attachment
		Straight Reverse Entrance	For Hydraulic	Wrap, Straight Reverse Hydraulic Attach
			For Electric	Wrap, Straight Reverse Electric Attach
		Mini Standard Exit	For Hydraulic	Wrap Mini Straight Hydraulic Attachment
			For Electric	Wrap Mini Straight Elec Attach No Hub
	Mini Reverse Entrance	For Hydraulic	Wrap Mini Reverse Hydraulic Attachment	
		For Electric	Wrap Mini Reverse Electric Attachment	
	Choose Motor & Hub	Hydraulic	C-Channel Hub NO Material	Wrap Brushes 68" Hyd C-Channel Set DS/PS
			Permasoft Hub NO Material	Permasoft Cloth Wrap 70in Hyd DS/PS Set
		Electric Winsmith	C-Channel Hub NO Material	Wrap Brushes 68" WS C-Channel Set DS/PS
			Permasoft Hub NO Material	Permasoft Cloth Wrap 70in WS DS/PS Set
		Electric Flender	C-Channel Hub NO Material	Wrap Brushes 68" Flen C-Channel Set DS/PS
			Permasoft Hub NO Material	Wrap, Brushes 70" Flen Dsoft Set DS/PS
	For C-Channel Hub	PermaColor Cloth: SF68 Standard Fill		Cloth, SF68 Wraps, Set For 2 Hubs
NeoGlide: SF68 Standard Fill		Neoglide, SF68 Complete Set of 2 Hubs		
NeoGlide: SF68 Big Man Fill		Neoglide, SF68 Big Man Set of 2 Hubs		
NeoGlide Hush Series: SF68 Standard Fill		NG Hush SF68 68in Driver/Passenger Set		
For PermaSoft Hub		Permasoft Material	Permasoft, 70in Wrap, Driver/Pass Set, Material Only	
Big Man Double Jog Wrap-Around Washers	Choose Wrap Top Frame	Dbi Jog Standard Exit	For Hydraulic	Wrap, Double Jog HYD Attachment
			For Electric	Wrap Dbi Jog Electric Attachment
		Dbi Jog Reverse Entrance	For Hydraulic	Wrap, Double Jog Reverse HYD Attachment
			For Electric	Wrap Dbi Jog Reverse Electric Attachment
	Choose Motor & Hub	Hydraulic	C-Channel Hub NO Material	Wrap Brushes 72" Hyd C-Channel Set BM
			Permasoft Hub NO Material	Permasoft Cloth Wrap 70in Hyd DS/PS Set
		Electric Winsmith	C-Channel Hub NO Material	Wrap Brushes 72" WS C-Channel Set DS/PS
			Permasoft Hub NO Material	Permasoft Cloth Wrap 70in WS DS/PS Set
		Electric Flender	C-Channel Hub NO Material	Wrap Brushes 72" Flen C-Channel Set DS/PS
			Permasoft Hub NO Material	Wrap, Brushes 70" Flen Dsoft Set DS/PS
	For C-Channel Hub	PermaColor Cloth: SF07 Standard Fill		Cloth, SF07, BM Wraps, Set for 2 Hubs
		NeoGlide: SF07 BigMan Fill		Neoglide, SF07BM Complete Set of 2 Hubs
		NeoGlide Hush Series: SF07 BigMan Fill		NG Hush SF07 72in BM Driver/Pass Set
	For PermaSoft Hub		Permasoft Material	Permasoft, 70in Wrap, Driver/Pass Set, Material Only
	Free-Standing Wrap Frame: Required if not attaching to Mitter or Top Brush Foundation Frame		Wrap, Legs Set	
Retract Kit 2 Retracts Required for DS&PS	24V	20010234	EQ AIR KIT 24V WRAP, GB, TBG RET & WP	
	110V	20010235	EQ AIR KIT 110V WRAP, GB, TBG RET & WP	
Water Solenoid 1 Required per Wrap-Around	24V	10006168	Dema, 414P3 Val Sol 1/2in N/C JB24V	
	110V	10006169	Dema, 414P6 Val Sol 1/2in N/C JB120V	

Specifications

	Straight Wrap	
	Inch	Metric
Footprint Length	117in	2.972m
Footprint Width	144in	3.658m
Unit Height	117in	2.972m
Vehicle Clearance	90in	2.286m
Hub Diameter	6in	152mm
Water Inlet	1/2in	13mm
Cloth-Bottom	Full Density 2-Ply	
Cloth-Top	1/2 Density Staggered 1-Ply	
Hydraulic	8GPM	
Optional Electric	1HP per side	

	Big Man Wrap	
	Inch	Metric
Footprint Length	135in	3.429m
Footprint Width	144in	3.658m
Unit Height	125in	3.175m
Vehicle Clearance	90in	2.286m
Hub Diameter	6in	152mm
Water Inlet	1/2in	13mm
Cloth-Bottom	Full Density 2-Ply	
Cloth-Top	1/2 Density Staggered 1-Ply	
Hydraulic	8GPM	
Optional Electric	1HP per side	

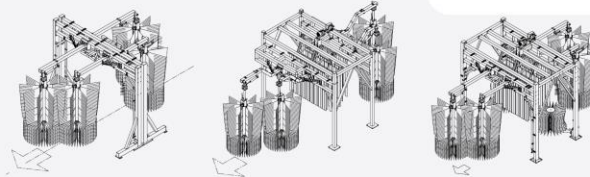


For Optional Chemical Pump Stations, see our G57 Foaming 3Gal 1 Pump Station in the Support section. (24V)
#20003124 (110V) #20000148

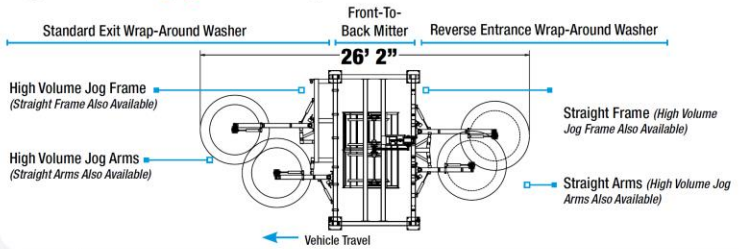
COMPLEMENTARY EQUIPMENT



SONNY'S Foundation Frame™ provides the ability to mount additional items to maximize tunnel space and more importantly – lets you easily and affordably increase wash performance as your business grows. Configure and price at www.SonnysDirect.com.



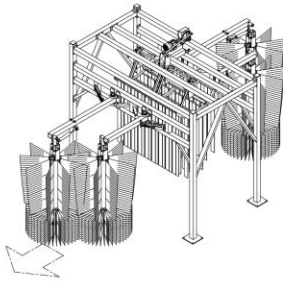
Light Touch **Spider** Wrap-Around



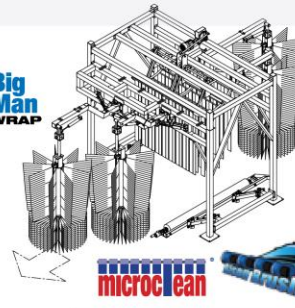
Create Your Perfect Spider

SONNY'S Spider delivers the flexibility to meet the wash demands of any climate, equipment package, and operational requirements. With hundreds of available configurations, visit www.SonnysDirect.com to configure and price your perfect Spider.

Popular SPYDER Combinations



Dimensions	Inch	Metric
Footprint Length	300in	7.680m
Footprint Width	144in	3.658m
Unit Height	142in	3.635m
Vehicle Clearance	90in	2.286m




Dimensions	Inch	Metric
Footprint Length	334in	8.484m
Footprint Width	144in	3.658m
Unit Height	142in	3.635m
Vehicle Clearance	90in	2.286m

	Description
SFM 901 Mitter with Cloth	Mitter 901 Top Frame
	Mitter 901 Spider Legs (pair)
	Cloth, SFM901, 1 Basket Complete Set
	Dema, 414P3 Val Sol 1/2in N/C JB24V
Straight Ent Wrap with Cloth	Wrap, Straight Reverse Hydraulic Attach
	Wrap Brushes 68" Hyd C-Channel Set DS/PS
	Cloth, SF68 Wraps, Set For 2 Hubs
	EQ AIR KIT 24V WRAP, GB, TBG RET & WP
	Dema, 414P3 Val Sol 1/2in N/C JB24V
Straight Exit Wrap with Cloth	Wrap, Straight Hydraulic Attachment
	Wrap Brushes 68" Hyd C-Channel Set DS/PS
	Cloth, SF68 Wraps, Set For 2 Hubs
	EQ AIR KIT 24V WRAP, GB, TBG RET & WP
	Dema, 414P3 Val Sol 1/2in N/C JB24V

	Description
SFM 901 Mitter w/MicroClean	Mitter 901 Top Frame
	Mitter 901 Spider Legs With Tire Attach
	Microclean, SFM901, Complete Set, Blue Dema, 414P3 Val Sol 1/2in N/C JB24V
Straight Entrance Wrap with Cloth	Wrap, Straight Reverse Hydraulic Attach
	Wrap Brushes 68" Hyd C-Channel Set DS/PS
	Cloth, SF68 Wraps, Set For 2 Hubs
	EQ AIR KIT 24V WRAP, GB, TBG RET & WP
	Dema, 414P3 Val Sol 1/2in N/C JB24V
Bison Brush	Tire Brush, Brushless Sub Assembly Hyd.
	Bison Brush Only 96 x 12in 4Bolt Attach
	EQ AIR KIT 24V WRAP, GB, TBG RET & WP
	EQ AIR KIT 24V WRAP, GB, TBG RET & WP
Double Jog Exit Wrap with BigMan NeoGlide	Wrap, Double Jog HYD Attachment
	Wrap Brushes 72" Hyd C-Channel Set BM
	Neoglide, SF07BM Complete Set of 2 Hubs
	EQ AIR KIT 24V WRAP, GB, TBG RET & WP
	Dema, 414P3 Val Sol 1/2in N/C JB24V

UTILITIES REQUIREMENTS

Utilities interconnection and the materials required for interconnection to Sonny's equipment are the responsibility of the customer.

 **IMPORTANT:** All connections and repairs **MUST ONLY** be performed by Licensed Professionals. Perform all trade work in compliance with all applicable local and national codes.

Water

- The Customer's Plumber is to provide and install a 3/4 inch city water line @60PSI (nominal) to the solenoid valve on the chemical distribution system for the Wrap.

Electrical

- The Customer's Electrician is to provide and install single phase power from the Customer's remote push-button station through the tunnel equipment controller to the supplied air solenoid valve for retract of both wraparound brushes upon selective signal (see Figure #5 in Dimensions Section).
- 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.

Compressed Air

- The Customer's Plumber is to provide and install a 3/8 inch compressed air line (1.5CFM @ 100PSI) from the Air Compressor to the supplied Air Distribution Manifold for Retract functions.
- The Customer's Plumber is to provide and install a 3/8 inch compressed air line (1.5CFM @ 100PSI) from the Air Compressor to the supplied Air-Driven Pump Station for Foamer Chemical Application functions.

Technical Disclaimer

Although building codes have been considered in developing all drawings, verification of site-specific conditions and compliance with federal, state, and local building codes, it is the exclusive responsibility of the customer and/or architect and engineer to verify compliance.

SAFETY WEAR REQUIRED FOR INSTALLATION

⚠ WARNING: Make sure to follow Local and State Safety Wear Required Regulations to ensure the safety of all personnel. Failure to follow Safety Regulations may result in personal injury, death and/or dismemberment.

WRAP AROUND WASHER DIMENSIONS

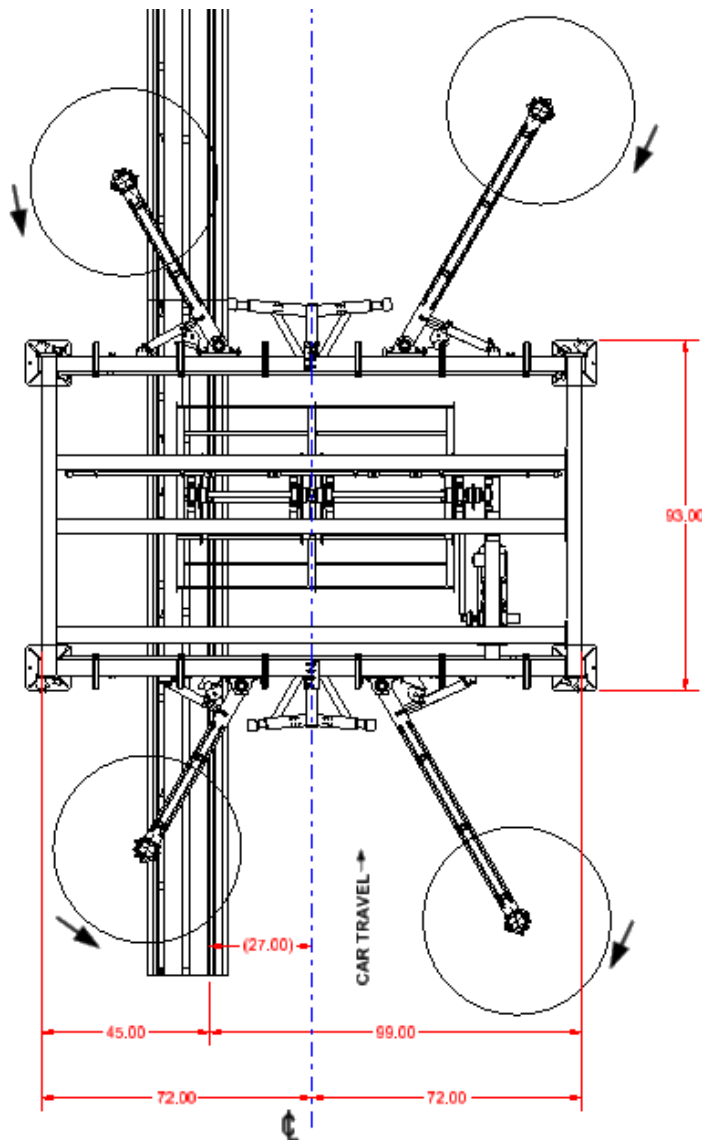


Figure # 1

CYLINDER CONFIGURATIONS

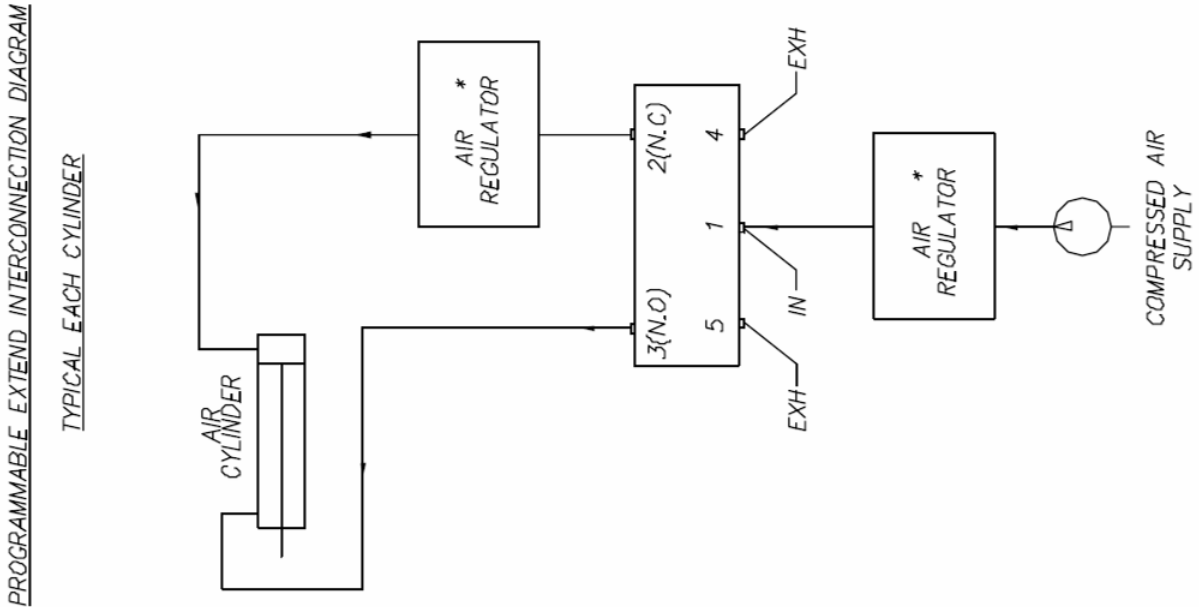


Figure # 4

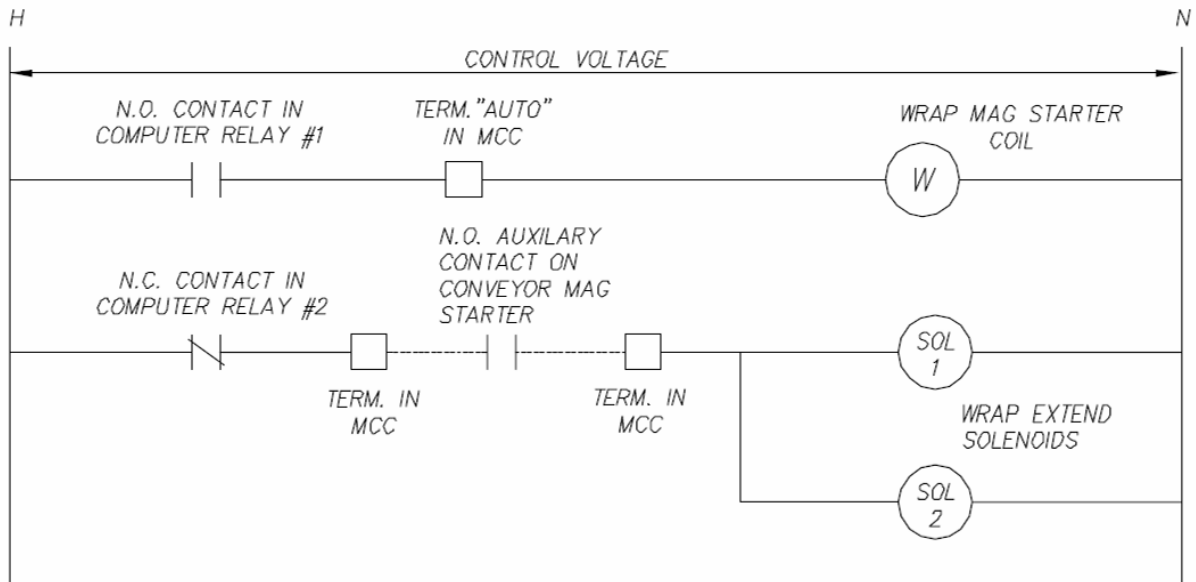
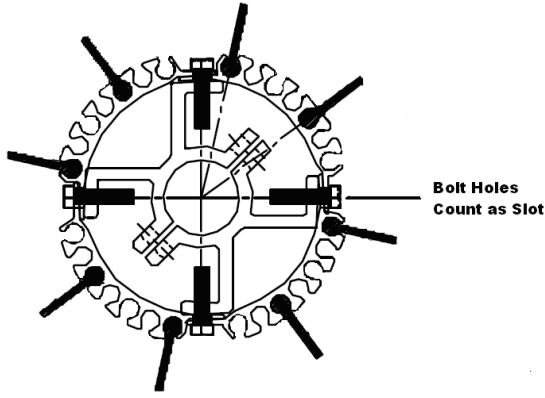
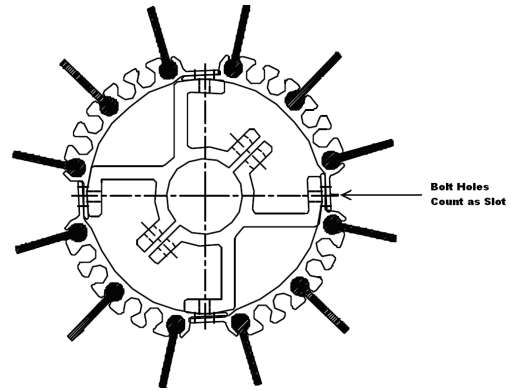


Figure # 5

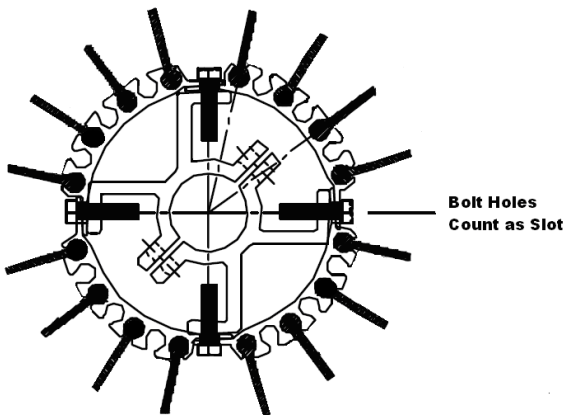
STANDARD INSERT PATTERNS FOR A 28 SLOT HUB



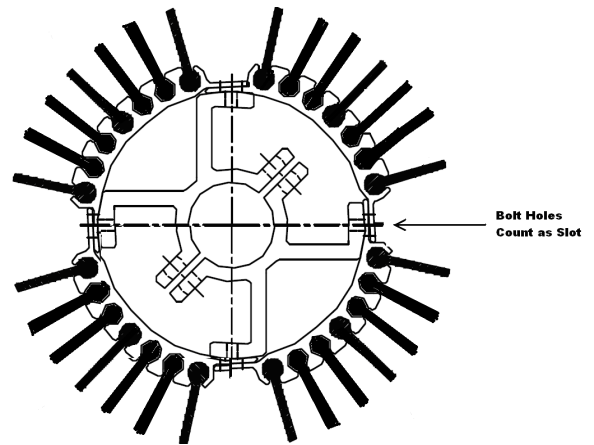
8 Position Material



12 Position Material



16 Position Material



28 Position Material

Figure # 6

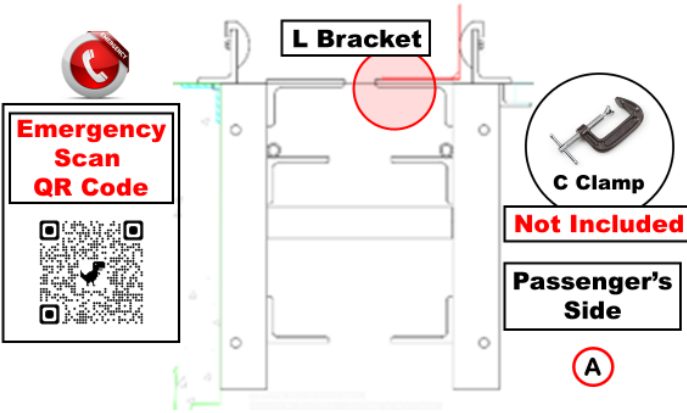
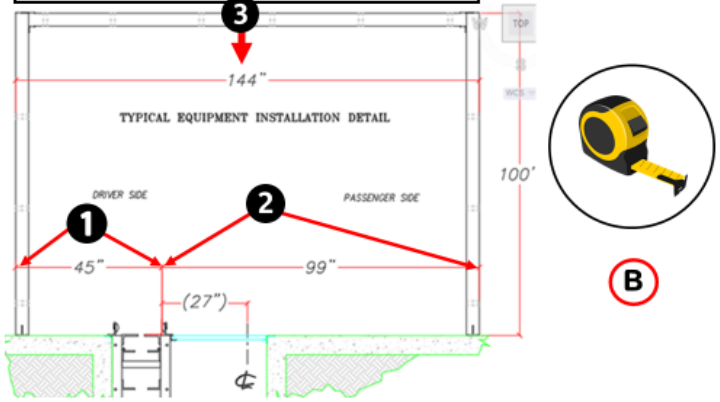
WRAP AROUND WASHER



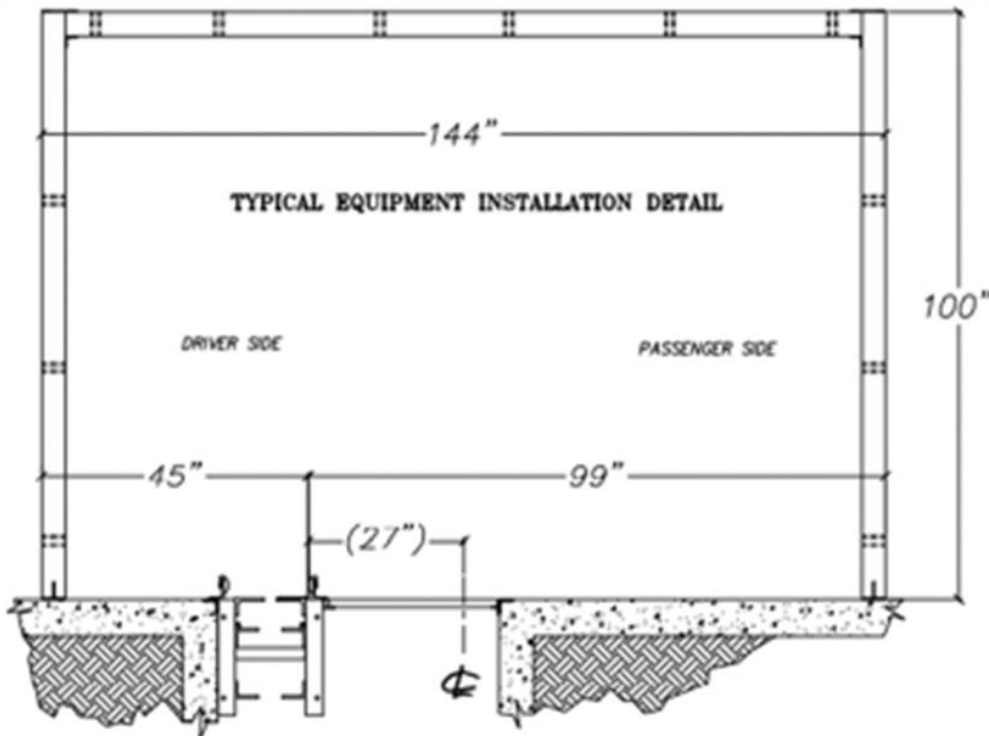
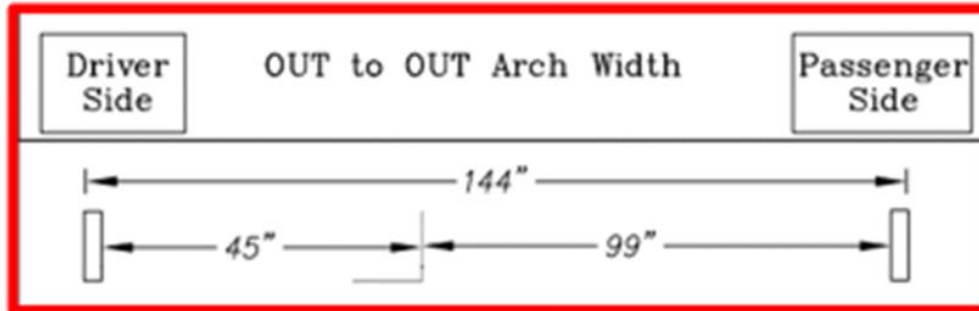
Figure # 7

EQUIPMENT INSTALLATION DIMENSIONS

 **L Bracket NOT included, order Kit # 20019396**

	<ol style="list-style-type: none"> 1. Attach L Bracket to Conveyor Passenger's Side using a C Clamp (not included). Make sure L Bracket is against the Banana Peel before clamping it (A). 2. Measure overall width of Equipment Arch from outside of Leg to outside of Leg (B3). 3. Use Drawing (C) on the following page which Represents the Equipment Width being installed.
<p>Measure: From L Bracket to Outside of Arch Leg Driver's Side 1</p> <p>Overall Width of Equipment 3</p>  <p>Measure: From L Bracket to Outside of Arch Leg Passenger's Side 2</p> <p>IMPORTANT: Keep C Clamp and L Bracket for next installation.</p>	<ol style="list-style-type: none"> 4. Measure from the installed L Bracket to the outside of the Arch Leg Driver's Side (B1). 5. Position Arch to the measurement on Drawing (C) selected (B1). 6. Anchor Leg in location. 7. Measure from the installed L Bracket to the outside of Arch Leg Passenger's Side (B2). 8. Position Passenger's Side Leg to the measurement on Drawing (C) selected (B2). 9. Anchor Leg in location. 10. When all equipment is installed, remove C Clamp and L Bracket.

EQUIPMENT INSTALLATION DIMENSIONS



C



WARNING: If the Equipment Installation Dimensions at the time of installation are NOT measured correctly, it may result in equipment damage and/or failure. Dimensions MUST be verified if equipment is already installed. Contact Sonny's Technical Support Team at 1-800-327-8723 for any Installation questions.

EQUIPMENT INSTALLATION

Wrap Around Washers Installation (Single Frame)

Tools

1. Safety Glasses
2. ½" Drive Ratchet Set
3. Standard Combo Wrenches
4. Electric Impact Wrench
5. Permanent Marker
6. Tape Measure
7. 4' Level
8. C Clamps
9. Pry Bar
10. 1" Hammer Drill
11. Sledgehammer

Work Force

Three (3) persons

Consumables

1. Anti-Seize Compound
2. Marine Grease

Time (assuming no problems)

1.50 - 3.00 hours

Installation Steps

1. Determine where the frame for the wrap is to be installed. Ensure the bottom gussets and feet of the frame face the same direction the brush hanger arms will face, normally the exit of the tunnel (see Figure #1 in the Dimensions Section and the tunnel layout drawings for your location).
2. Sweep any debris from where the frame will stand.
3. Check all hardware and place a small amount of Anti-Seize Compound on each bolt.
4. Place the Sonny's lift-a-ma-jig onto the frame of the Wrap and bolt into place. Bring the forklift into the lift-a-ma-jig.
5. Bring the frame into the building as close to its final position as is practical. Lift the frame into place.
6. Check that the Passenger Side Brush hanger arm is longer than the Driver Side, if not the frame is not positioned correctly.
7. Level and square the frame with the centerline of the equipment. (see Figure #1 in the Dimensions Section and the tunnel layout drawings for your location).

EQUIPMENT INSTALLATION

Note: Before lagging the frame into position have a second person double check all measurements against your tunnel equipment layout drawings to ensure all measurements were performed correctly.

8. Place an Anchor Bolt in each corner. Tighten all hardware.
9. Check that the shock absorbers on each Brush Hanger do not "bottom out" in their fully extended position. If this occurs move the shock mounting position to a different hole on the mounting bracket to prevent a fully extended condition.
10. Move each brush hanger from the center of the wash tunnel so that it is parallel to vehicle travel. With each brush hanger in this position check that the hanger is level. Up or down adjustment of the brush hanger can be achieved by placing shim material under the brush hanger pillow block bearings.
11. Double check that the bottom pillow block bearing for each brush hanger is EXACTLY below the top pillow block bearing. This is necessary to provide light brush pressure against the side of the vehicle.
12. Mount the Brush Head, Shaft and Core assembly to each Hanger Arm. Connect the pre-plumbed hydraulic lines.

Note: The SONNY'S supplied BLACK high pressure hose on the wraparound unit is for the hydraulic PRESSURE connection...The SONNY'S supplied ORANGE or RED high pressure hose on the wraparound unit is for the hydraulic RETURN connection.

13. 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 leg of the Wrap Around Washer.
14. 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 or RED high pressure hose on the leg of the Wrap Around Washer.
15. Run and connect the chemical lines from the Chemical Distribution Manifold to the chemical line on the Wrap frame for the application nozzles.
16. Rotation of the Brushes is with vehicle travel. As viewed from the top of each Brush the DRIVER side turns COUNTERCLOCKWISE and the PASSENGER side turns CLOCKWISE. Rotation speed of each Brush should be according to the Operating Speeds Chart in the Adjustments and Testing Section.
17. Run and connect the air lines from the Air Distribution Manifold to the air cylinder for each retract.
18. Install cloth on the Brush Cores according to the type of material being used. (See Figure #6 thru #9 in the Dimensions Section)

WRAP AROUND WASHER INSTALLATION – SPYDER FRAME

Tools

1. Safety Glasses
2. 1/2" Drive Ratchet Set
3. Standard Combo Wrenches
4. Electric Impact Wrench
5. Permanent Marker
6. Tape Measure
7. 4' Level
8. C Clamps
9. Pry Bar
10. 1" Hammer Drill
11. Sledgehammer

Work Force

Three (3) persons

Consumables

1. Anti-Seize Compound
2. Marine Grease

Time (assuming no problems)

3.00 - 6.00 hours

Installation Steps

1. Determine where the Spyder is to be installed (see Figure #1 in the Dimensions Section and the tunnel layout drawings for your location).
2. Sweep any debris from where the Spyder will stand.
3. Check all hardware and place a small amount of Anti-Seize Compound on each bolt.
4. Place the Sonny's lift-a-ma-jig onto the passenger's side of the Entrance end of the Spyder on the Frame of the Mitter and bolt into place. Bring the forklift into the lift-a-ma-jig.

Note: Place the Mitter legs as closely as possible to their final placement.

5. Bring the Mitter into the building as close to its final position as is practical. Lift the Mitter into place.
6. Place the Driver's and Passenger's side sections into position and bolt to the top. Do not over tighten—snug only. Note the Driver's Side Section has a bolt for a stop on the tire brush frame.
7. Back the Mitter out and unclamp the Lift-a-ma-jig.
8. Clamp the Exit End Wrap to the forklift, using the Lift-a-ma-jig. Bring the Exit End Wrap into the exit end of the building.

WRAP AROUND WASHERS INSTALLATION – SPYDER FRAME

Note: Use a long pry bar to adjust location prior to adding the wraps into place.

9. Place the Wrap into the Mitter frame. Bolt the frame into place. Do not over tighten—snug only.
10. Clamp the Entrance End Wrap to the forklift using a 2 x 4 to offset the slope of the floor. Bring the Entrance End Wrap into the entrance end of the building.
11. Place the Wrap into the Mitter frame. Bolt the frame into place. Do not over tighten—snug only.
12. Level and square the frame with the centerline of the equipment (see Figure #1 in the Dimensions Section and the tunnel layout drawings for your location).

Note: Before lagging the frame into position have a second person double check all measurements against your tunnel equipment layout drawings to ensure all measurements were performed correctly.

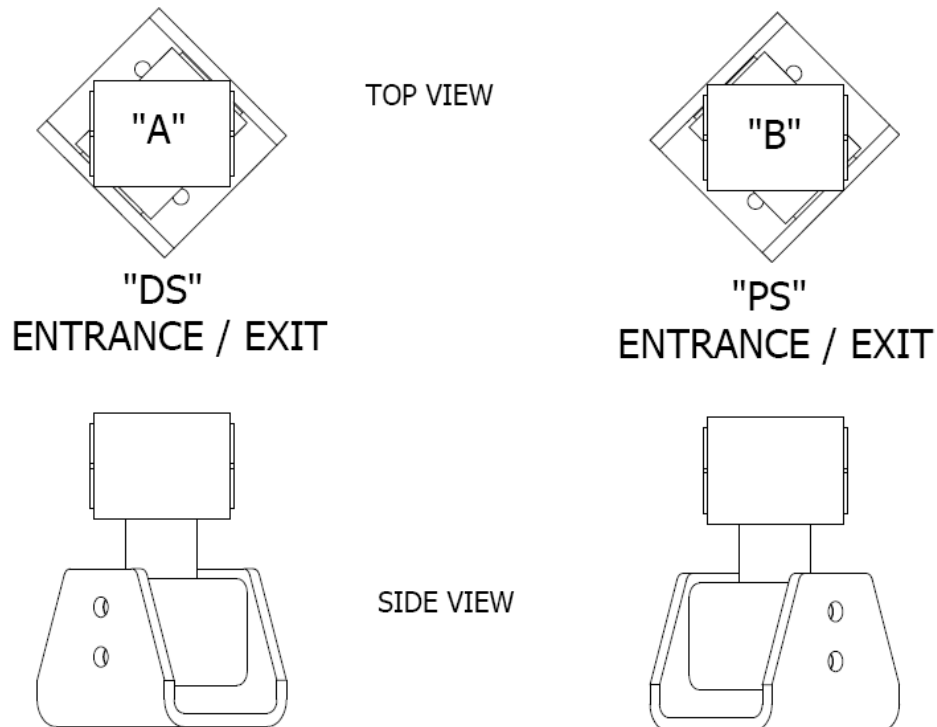
Note: Before lagging the Mitter legs in place, loosen the tire brush support bracket this will allow you to move it later.

13. Place an Anchor Bolt in each corner. Tighten all hardware.
14. Move each Brush Hanger from the center of the wash tunnel so that it is parallel to vehicle travel. With each Brush Hanger in this position, check that the hanger is level. Up or down adjustment of the Brush Hanger can be achieved by placing shim material under the Brush Hanger Pillow Block Bearings.
15. Double check that the bottom Pillow Block Bearing for each Brush Hanger is EXACTLY below the top Pillow Block Bearing. This is necessary to provide light brush pressure against the side of the vehicle.
16. Check that the shock absorbers on each Brush Hanger do not "bottom out" in their fully extended position. If this occurs move the shock mounting position to a different hole on the mounting bracket to prevent a fully extended condition.
17. Mount the Brush Head, Shaft and Core assembly to each Hanger Arm. Connect the pre-plumbed hydraulic lines.
18. For the Entrance, Exit End Wraps run and connect a 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 leg of the Wraparound Brush.
19. For the Entrance, Exit End Wraps 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 or RED high pressure hose on the leg of the Wraparound Brush.

WRAP AROUND WASHERS INSTALLATION – SPYDER FRAME

- 20. Run and connect the chemical lines from the Chemical Distribution Manifold to the chemical line on the Wrap frame for the application nozzles.
- 21. Rotation of the Brushes is with vehicle travel. As viewed from the top of each Brush the DRIVER side turns COUNTERCLOCKWISE and the PASSENGER side turns CLOCKWISE. Rotation speed of each Brush should be according to the Operating Speeds Chart in the Adjustments and Testing Section.
- 22. Run and connect the air lines from the Air Distribution Manifold to the air cylinder for each retract.
- 23. Install cloth on the Brush Cores according to the type of material being used.

RESTRICT-O-FLEX COUPLER MOUNTING



ADJUSTMENTS AND TESTING

Mechanical Adjustment of the Hanger Arms

1. Install the unit so that the legs are plumb, the hanger arms are level when at the rest position and the mounting bearings are positioned perpendicular to floor (No pitch).
2. The rest position will vary with operator preference and region. If front license plates are present the brushes should be open slightly to clear the plate, approximately one inch between when spinning. If there are no front plates then when spinning the tips of the cloth should be penetrating about one inch.
3. The two brushes should return to the rest position (middle of the tunnel) with no air pressure and no pitch to the bearings.

Speed and Torque Adjustment

1. Hydraulic
 - a. The speed of the brush 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 of the brush 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

Operating Speeds Chart

Chain Speed	Brush Speed	Air Pressure Pass	Air Pressure Driver
50-70 CPH	70-80 RPM	0 PSI	0 PSI
70-80 CPH	80-85 RPM	0-5 PSI	0-5 PSI
80-90 CPH	85-90 RPM	5-15 PSI	5-10 PSI
90-125 CPH	90-95 RPM	15-25 PSI	10-15 PSI

ADJUSTMENTS AND TESTING

Two Solenoid valves, one for each retract, are recommended for 80 or more cars per hour.

To adjust the operation of the brushes without air pressure you may adjust the position of the pillow block bearings.

1. TO INCREASE THE PRESSURE ON THE SIDE AND BACK OF THE VEHICLE: Adjust the bottom pillow block bearing away from the center of the tunnel. Move in 1/8 inch increments at a time.
2. TO DECREASE THE PRESSURE ON THE SIDE AND BACK OF THE VEHICLE: Adjust the bottom pillow block bearing towards the center of the tunnel. Move in 1/8 inch increments at a time.

Cloth penetration should be about three to four inches on the flat surface of the car. Each of the brushes should cover about two thirds of the back of the vehicle, overlapping in the center.

GENERAL OPERATION

Wrap Around Washer Operation

With the brushes rotating (with the direction of vehicle travel and at proper RPM) the vehicle front bumper contacts the driver side brush first and then the passenger side brush. The brushes move evenly across the front of the vehicle, each washing one half of the front, and gear around the front fenders to maintain steady contact while cleaning the sides of the vehicle.

As the rear of the vehicle approaches the brushes they individually gear themselves around the rear fenders so that each brush washes one half of the vehicle rear vertical surfaces. As the vehicle departs the wraparound brush area the brushes are fully extended toward the center of the wash tunnel ready to accept another vehicle for washing.

NOTE: Proper cloth penetration on flat vehicle surfaces should be 3 to 4 inches. As the wraparounds gear around corners, such as fenders, cloth penetration may be greater, but not deeper than half the distance to the aluminum brush core.

Wrap Retract Operation

When selected by the Operator's remote Programmer push button station the wraparound brushes will retract from the center of the wash tunnel toward the tunnel outer walls. This can be done individually if one solenoid is used for each arm.

This is accomplished, when the push button is pressed, by completing an electrical circuit through the equipment Programmer to pass single phase power at the preset pulse count of the Programmer to the retract air solenoid valve. The air solenoid valve now opens and allows compressed air to pass through to the rod end port of each air cylinder causing the brush hangers to retract.

PREVENTIVE MAINTENANCE

DAILY

1. Check all hydraulic, air and chemical lines and fittings for leaks. Repair, or replace, as needed.
2. Check both brush units for proper operation and retract operation, listening for any unusual noises from the equipment.
3. Inspect brush cloth for cuts, grease, or oil. Remove and repair, or replace, any cloth panel if any of these conditions are found.
4. Check for proper chemical solution delivery.

WEEKLY

1. Inspect the Spring Flex couplings for secure mounting and freedom of movement and grease the Spring Flex couplings universal joints as required.
2. Grease the brush shaft four bolt flange bearings. Do not allow grease to come in contact with brush cloth.

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

MONTHLY

1. Inspecting all hardware and fittings for tightness.
2. Grease the brush hanger pillow block bearings. Do not allow grease to come in contact with brush cloth.
3. Inspect soap solution spray nozzles for wear. Replace, as necessary.
4. Thoroughly clean the equipment and framework.

SEMI-ANNUALLY

1. Carefully inspect brush equipment cloth for wear and damage. Replace, as necessary.

PARTS LIST

Hydraulic Motor for Wrap-Arounds



Item #	Description
10008079	Parker Hyd Motor TE0195FS100AAC MF1209
10001775	Elbow, 45deg 1/2 M JIC X 5/8 M O-Ring
10006558	Woodruff Key Half Moon 1 1/8in HS14118
10003765	37C125HCS5Z Hex Bolt 3/8-16 x 1 1/4 Zc
10001487	37NLOC0Z Washer 3/8in Split Lock Stl Zc

Hydraulic Shaft & Collar



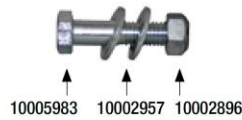
Item #	Description
20005286	Shaft 72in SF35/SF63 & Wraps
10003530	Collar, 2pc Clamp 1 3/8in w/Set Screw Zc

Torque Channel



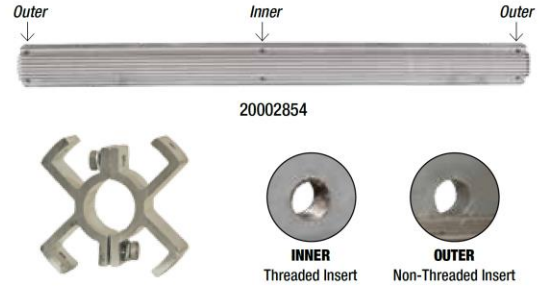
Item #	Description
20001868	Torque Channel W/Plastic Wrap Around

4-Bolt Bearing for Wrap-Around Shaft



Item #	Description	Need	"E"
10005077	Bearing, 4Bolt Flange 1 1/2in AMI	2	4 1/8in
10005983	50C225HCSS Hex Bolt 1/2-13 x 2 1/4 SS	4	-
10002957	50NWUSS Washer 1/2in Flat USS Zc	8	-
10002896	50CNLS0Z 1/2-13 Gr 5 Stover Lock Nut Zc	4	-

Wrap-Around Hubs

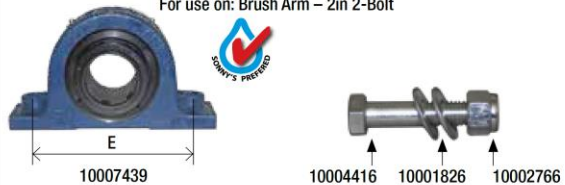


Item #	Description
20002854	Hub, 68in x 6in Spider Mount 28 Slots
20007080	Hub, 72in x 6in Spider Mount 28 Slots
20001214	Spider, Kit 6in Inner Threaded
20001188	Spider, Kit 6in Outer Non-Threaded

Double Roller Bearing for SONNY'S Wrap-Around



For use on: Brush Arm – 2in 2-Bolt



Item #	Description	"E"
10007439	Bearing, 2Bolt Pillow Block 2in Timken	6 23/32in
10004416	62C300HCS5Z Hex Bolt 5/8-11 x 3 Gr 5 Zc	-
10001826	62NWSA0Z Washer 5/8in Flat SAE Stl Zc	-
10002766	62CNNES Hex Nut Nylon 5/8-11 SS	-

Normal Duty Bearing for SONNY'S Wrap-Around



For use on: Brush Arm – 2in 2-Bolt

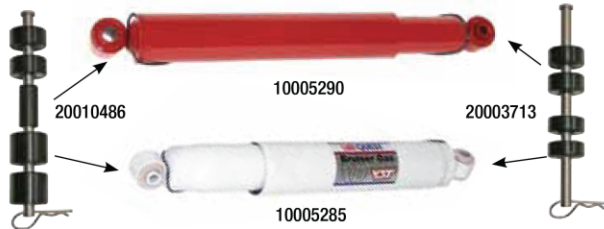


Item #	Description	"E"
10005911	Bearing, 2Bolt Pillow Block 2in MD AMI	6 23/32in
10004008	62C250HCS5Z Hex Bolt 5/8-11 x 2 1/2 Gr 5	-
10001826	62NWSA0Z Washer 5/8in Flat SAE Stl Zc	-
10002766	62CNNES Hex Nut Nylon 5/8-11 SS	-

PARTS LIST

Shocks For SONNY'S Wrap-Arounds

For SONNY'S SF68, SF77 and SF07 Wrap-Around Washers.



Item #	Description
10005290	Shock, Lite Touch Wrap DS Red
10005285	Shock, Lite Touch Wrap PS White
20010486	Pin & Cotter w/Spacers, DS/PS Arm
20003713	Pin & Cotter, DS/PS Shock Mount

Air Cylinder For Wraps Driver & Passenger Sides



- Cylinder, 2in bore x 8in stroke
- Stainless steel rod with bolt-on rod wiper, improves cylinder life



Item #	Description
10006949	Cylinder, A350-2 2in Bore x 8in Stk SMC
20001638	Rear Clevis, 3/8in x 6 3/4in w/Hardware
20010106	Rod Eye, 3/8in x 6 3/4in w/Hardware
10002001	Elbow, Swivel 3/8in Tube x 1/4in MPT

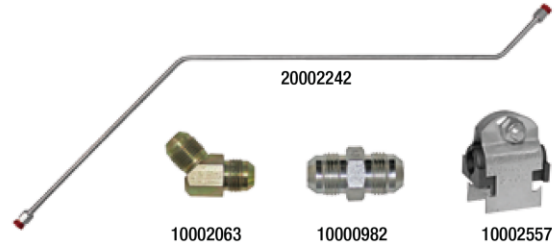
Rubber Stops

Wrap-Around Washers



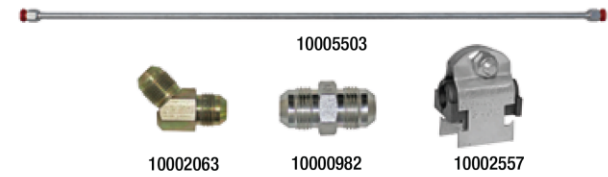
Item #	Description
10003431	SF77RS Rubber Stop 3inDia x 2.25in Lgth
20001787	Spring, Stop & Tensioning, 2 1/4 x 6in
20001286	Rod, Threaded 12in for Stop w/Nuts
20000562	Rod, Threaded 13 1/2in for Stop w/Nuts
20004537	Wipe-O-Matic, Cap UHMW .565 ID x 2.5 OD

Tubing for Wrap-Around Z Arms



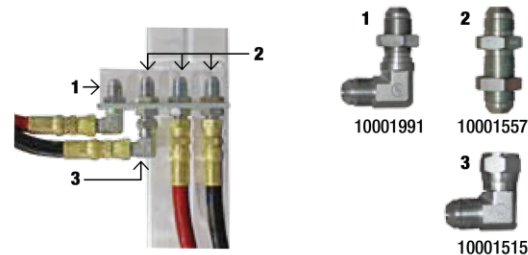
Item #	Description	Side
20002242	Tubing, Bent Hyd 304SS 1/2 x 49in	Driver
20002322	Tubing, Bent Hyd 304SS 1/2 x 70 1/2in	Passenger
10002063	Elbow, 45deg 1/2in Male JIC	-
10000982	Union, Tube 37deg 1/2in M JIC	-
10002557	Zsi, Cush-A-Clamp 008NS12 1/2in ID SS	-

Tubing for Wrap-Around Straight Arms



Item #	Description	Side
10005503	Tubing, 1/2in SS Hyd 42in	Driver
10005691	Tubing, 1/2in SS Hyd 64in	Passenger
10002063	Elbow, 45deg 1/2in Male JIC	-
10000982	Union, Tube 37deg 1/2in M JIC	-
10002557	Zsi, Cush-A-Clamp 008NS12 1/2in ID SS	-

Wrap-Around Hydraulic Connection Manifold



Item #	Description
1 10001991	90deg, Bulkhead JIC M 1/2 x M 1/2
2 10001557	Union, Bulkhead JIC M 1/2 x M 1/2
3 10001515	Elbow, Swivel 1/2in M JIC x 1/2in F JIC

PARTS LIST

Winsmith Gearbox & Sterling Motor for Electric Wrap-Arounds



10008539
Specify Ratio



10008069

Item #	Description	Use with
10008538	Gearbox, Winsmith 20:1 Ratio	Neoglide
10008539	Gearbox, Winsmith 25:1 Ratio	Cloth
10008069	Sterling Motor 1.5HP 1800RPM 56C 230/460	-
10009566	Gearbox, Gasket C-Face 920 Series	-



Electric Housing for Winsmith Gearbox

Item #	Description
20004513	Housing, Gearbox Weldment



Shaft for Electric Wrap-Around

Used with C-channel hubs.



20002424



10007690



10003529

Item #	Description
20002424	Shaft, Wrap/15 Elect Winsmith 79in L
10007690	37R625RKS0 Key Stock 3/8 x 6.25in Stl
10003529	Collar, 2pc Clamp 1 3/8in Zinc Plated



Electric Wrap-Around Arm

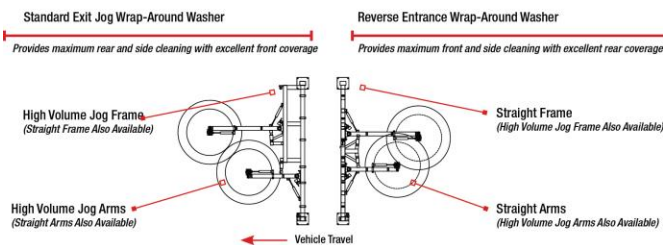
WINSMITH: The Maximizer Plus



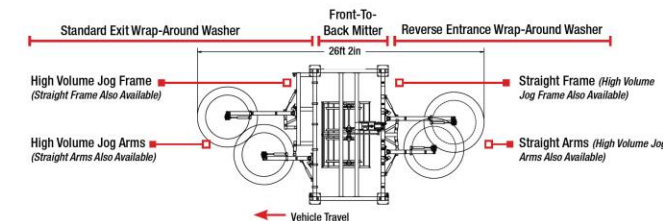
- Stainless steel output shaft
- All hollow output shafts are symmetric
- Button plugs for unused mounting holes
- S EQUALIZER® ventless option to allow for a complete isolation of unit interior from the external atmosphere
- Oil: Mobil Glycole 460 (PAG)

Wrap Around Washer Operating Speeds Chart

Light Touch Wrap-Around Washers



Light Touch Spyder Wrap-Around Washers



CHAIN SPEED	BRUSH SPEED	AIR PRESSURE PASSENGER	AIR PRESSURE DRIVER
50-70 CPH	70-75RPM	0PSI	0PSI
70-80 CPH	80-85RPM	0-5PSI	0-5PSI
80-90 CPH	85-90RPM	5-15PSI	5-10PSI
90-125 CPH	90-95RPM	15-25PSI	10-15PSI
125-150 CPH	95-100RPM	25-30PSI	15-20PSI
150-175 CPH	100-110RPM	30-40PSI	20-25PSI

TWO SOLENOID VALVES, ONE FOR EACH RETRACT, ARE RECOMMENDED FOR 80 OR MORE CARS PER HOUR.

TO ADJUST THE OPERATION OF THE BRUSHES WITHOUT AIR PRESSURE YOU MAY ADJUST THE POSITION OF THE PILLOW BLOCK BEARINGS.

- 1. TO INCREASE THE PRESSURE ON THE SIDE AND BACK OF THE VEHICLE:** Adjust the bottom pillow block bearing away from the center of the tunnel. Move in 1/8 inch increments at a time.
- 2. TO DECREASE THE PRESSURE ON THE SIDE AND BACK OF THE VEHICLE:** Adjust the bottom pillow block bearing towards the center of the tunnel. Move in 1/8 inch increments at a time.

CLOTH PENETRATION SHOULD BE ABOUT THREE TO FOUR INCHES. EACH OF THE BRUSHES SHOULD COVER ABOUT TWO THIRDS OF THE BACK OF THE VEHICLE, OVERLAPPING IN THE CENTER.

CONTACT US

TECHNICAL SUPPORT

For questions regarding installation, operational issues, settings, or servicing of this equipment, please contact Sonny's Technical Support Team:

Email: Sonnys-Support@SonnysDirect.com

SMS Text: 954-406-4363

Phone: 800-327-8723 Option #5

REPLACEMENT PARTS

Shop Online: <https://sonnysdirect.com/shop/>

Email: CustomerService@SonnysDirect.com

Phone: 800-327-8723 Option #3

SCHEDULE ON-SITE SERVICE AND SUPPORT

Online: <https://sonnysdirect.com/services>

Florida	407-770-1000	Email: SCWSFLservice@sonnysdirect.com
Southeast	770-995-5989	Email: CWSseservice@sonnysdirect.com
Mid-Atlantic	800-448-4735	Email: Service-ma@sonnysdirect.com
Northeast	866-343-6680	Email: SCWSNEservice@sonnysdirect.com
Midwest	800-274-2777	Email: Service-indy@sonnysdirect.com
Texas	800-826-0829	Email: SCWSStxservice@sonnysdirect.com
West	833-725-6353	Email: SCWSservice@sonnysdirect.com
All Others	800-327-8723	

EMERGENCY CELL PHONE CONTACTS



<https://sonnysdirect.com/emergency>