



Bottom Motor Side Washer



Owners Manual

Sonny's Enterprises, Inc.
5605 Hiatus Road
Tamarac, Florida 33321

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INTRODUCTION

This Owner's 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 !!!!!



Product Specifications

- Constructed from aluminum or stainless steel.
- Available in five cleaning heights: 18, 21, 28, 35, or 63 inch.
- Positive motor to brush shaft coupling.
- Simple mechanical brush pressure adjustment.
- Soap solution spray bar for each brush.
- 1/2 inch soap solution inlet fitting on each brush.
- Hydraulic drive motors require 3GPM when plumbed in series.
- Staggered or opposed placement.
- 66 inches of tunnel length required in opposed configuration.
- Properly contoured cloth included.

Optional Related Equipment

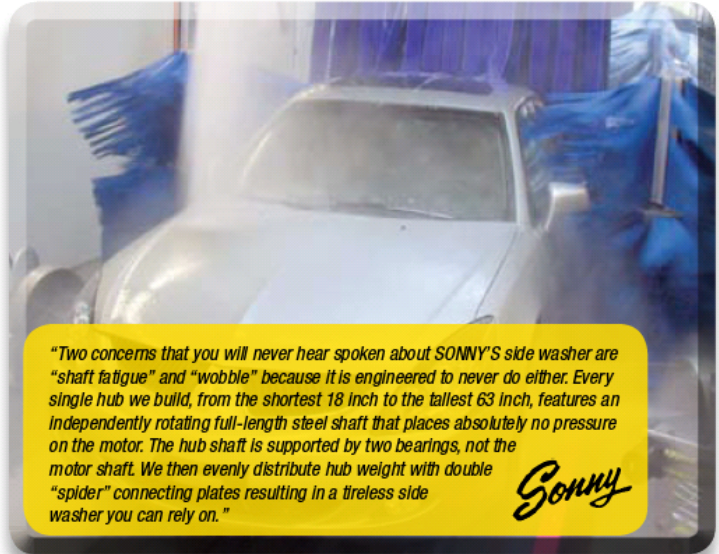
SONNY'S Bottom Motor Side Washers



You need a side washer that occupies an extremely small tunnel space and can be installed underneath a mitt or top brush for a near zero foot print.



SONNY'S Bottom Motor Side Washers can be free-standing and operate independently or mounted to a SONNY'S Foundation Frame™. The motor placement does not inhibit cloth movement, permitting installation directly under a mitt or top brush for increased wash performance without taking up additional tunnel space.



"Two concerns that you will never hear spoken about SONNY'S side washer are "shaft fatigue" and "wobble" because it is engineered to never do either. Every single hub we build, from the shortest 18 inch to the tallest 63 inch, features an independently rotating full-length steel shaft that places absolutely no pressure on the motor. The hub shaft is supported by two bearings, not the motor shaft. We then evenly distribute hub weight with double "spider" connecting plates resulting in a tireless side washer you can rely on."



Nozzles feed water to cloth from side.



Shock absorbers provide accurate pressure and cloth penetration.



6 hub heights available 18in, 21in, 28in, 35in, 50in, and 63in.



Includes PermaColor cloth with 3 colors to choose from. Also available in NEOGLIDE™ or MicroClean Cloth.

Features

- Hub heights – 18in (457mm), 21in (533mm), 28in (711mm), 35in (889mm), 50in (1,280mm) and 63in (1,600mm)
- Torque-channel design provides precise motor positioning and increases motor life
- Hollow steel shaft end provides solid motor coupling
- Double hub "spiders" hold hub firmly in place and distribute pressure more evenly
- Includes PermaColor Cloth available in red / black / blue that is in stock for immediate delivery
- Also available with NEOGLIDE™ on all sizes and MicroClean Cloth on 35, 50, and 63 inch hubs
- Durable 4in x 4in QuadX Aluminum frame construction



Protect & beautify your equipment with optional powder coating. Call for pricing.

Ordering Information

Foundation Frame™ Attachments: Mount to a Mitter or Top Brush Tire Brush Attachments: Mount to one or both arms of a TBG200, Poodle, or Ninja Brush. Up to two brushes can be mounted per side.

Description	Included Wash Material	Hydraulic Free Standing Side Washers		Electric Free Standing Side Washers		Hydraulic Foundation Frame™ Attachments		Electric Foundation Frame™ Attachments	
		Item #	Price	Item #	Price	Item #	Price	Item #	Price
18in Side Washers, Set	PermaColor	SFB18	\$3440.00	SFB18E	\$4540.00	SFB18A	\$3440.00	SFB18AE	\$4540.00
21in Side Washers, Set	PermaColor	SFB21	3555.00	SFB21E	4540.00	SFB21A	3555.00	SFB21AE	4650.00
28in Side Washers, Set	PermaColor	SFB28	4015.00	SFB28E	5095.00	SFB28A	4015.00	SFB28AE	5095.00
35in Side Washers, Set	PermaColor	SFB35	4465.00	SFB35E	5535.00	SFB35A	4465.00	SFB35AE	5535.00
50in Side Washers, Set	Top NeoGlide / Bottom PermaColor	SFB50	6305.00	SFB50E	7320.00	SFB50A	6305.00	SFB50AE	7320.00
63in Side Washers, Set	PermaColor	SFB63	6305.00	SFB63E	7405.00	SFB63A	6305.00	SFB63AE	7405.00

Specifications

	SFB18/21/28/35		SFB50/63	
	Inch	Metric	Inch	Metric
Tunnel Length	74in	1.879m	74in	1.879m
Bottom Hub Diam	12in	305mm	12in	305mm
Top Hub Diameter	-	-	6in	152mm
Hub Slots	44 slots		28/44 slots	
Vehicle Clearance	90in	2.304m	90in	2.304m
Hydraulic/ series	3gpm	.19ltr/s	3gpm	.19ltr/s
Hydraulic/ parallel	6gpm	.38ltr/s	6gpm	.38ltr/s
Water Inlet	1/2in	13mm	1/2in	13mm
Optional Electric	1HP per side			

Quick Replacement Reference



CL103-1003-010



BPB150



H151M

Item #	Description	Price
CL101-1003-009	Motor, Char-Lynn H-Plus, 1/2in Ring	\$192.65
CL103-1003-012	Motor, Char-Lynn S-Plus, 1/2in Ring	256.45
CL103-1005-012	Motor, Char-Lynn S-Plus, 1in Ring	279.35
B1085SWD	Torque Channel, SFB-Series Drivers Side	31.00
B1085SWP	Torque Channel SFB-Series Passenger Side	31.00
BPB150	Bearing, 2-Bolt Pillow Block 1 1/2in	29.10
BF4150	Bearing, 4-Bolt Flange 1 1/2in	26.30
H151M	Rubber Stop, 1 1/2in x 1 1/4in	7.25
BFL100	Shock and Spring	34.99
BFL100PC	Pin & Cotter, SS 2 1/2in x 5/8in	9.50
BB251C	Collar, 2pc Clamp 1 3/8in Zinc Plated	6.75

Related Support Equipment

5 HP Hydraulic Power Packs

Item #	Description	Price
HY575	Power Pack, 5HP 7.5GPM 1 Flow	\$1640.00

Recommended Upgrades

NeoGlide Upgrades

- Replaces Included PermaColor with NEOGLIDE Cloth on new SFB18, 21, 28, 35, and 63 Orders.
- Replaces Included BOTTOM PermaColor with NEOGLIDE Cloth on new SFB50 Side Washer Orders.

NEOGLIDE



Closed Cell Foam Wash Material.

Item #	Description	Price
NGSFBTBG18UG	Neoglide, C Channel SFBTBG18, Upgrade	\$400.00
NGSFB21UG	Neoglide, C Channel SFB21 Upgrade	535.00
NGSFB28UG	Neoglide, C Channel SFB28 Upgrade	620.00
NGSFB35UG	Neoglide, C Channel SFB35, Upgrade	825.00
SFB50NG-UG	Neoglide, SFB50 Upgrade Only	671.50
NGSFB63UG	Neoglide, SFB63 Upgrade Only	905.28

PROBLEM

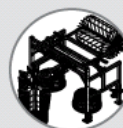
Conveyor space is limited.

SOLVED

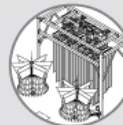
SONNY'S Side Washers are engineered to standalone or attach to another component with a Foundation Frame. This delivers the ability to achieve better cleaning results in a more compact tunnel length.



COMPATIBLE



Side Washer – Top Brush Combinations
See page 78



Side Washer – Side-to-Side Mitter Combinations
See page 82

SAFETY REQUIREMENTS

1. Only those employees specifically instructed by the location manager will be permitted to enter the wash tunnel to perform inspections or maintenance.
2. Do not enter the wash tunnel when the equipment is operating.
3. Always exercise caution when walking through the wash area, may be slippery conditions.
4. Be cautious when walking through the tunnel to avoid running into or tripping over equipment.
5. Do not ever run through the wash area.
6. Do not perform any work on equipment unless you performed Lock-Out Safety Precautions.
7. When maintenance requires that a piece of equipment be in operation, one qualified maintenance person must stay at the power disconnect switch while that equipment is operating.
8. 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 can only be restarted by the person who performed the "lock out" operation.
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. Any "Stop" switch activated must be reset only by the person who initiated the operation.
11. Electrical connections and repairs are to be performed by a Licensed Electrician only.
12. Store all cleaning and washing solutions and oils in a well ventilated area.
13. Clean up fluid spills immediately to prevent hazardous safety conditions.
14. Be certain to follow all safety procedures on MSDS Sheets for each chemical product used.
15. All new employees must be thoroughly trained in safe operating and maintenance practices.
16. All employees must attend periodically scheduled safety procedure sessions.
17. Do not operate any piece of equipment that requires safety covers with those covers removed or improperly installed.
18. Do not allow any part of your body or other object to come in contact with moving machinery.
19. Do not wear loose fitting clothing or jewelry around moving machinery.
20. At least two qualified maintenance people must be present when performing equipment repairs or preventative maintenance.
21. When working on any equipment that is higher than a person's shoulders always use a fiberglass ladder that is in good condition.

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!

Water

- The Customer's Plumber is to provide and install a 1/2 inch city water line @60PSI (nominal) to the solenoid valve on the chemical distribution system for the Washer.

Electrical

- The Customer's Electrician is to provide and install single phase power from the (24 or 110 VAC as determined at time of order) from the Customer's Controller system to the liquid solenoid valve for the brush spray bars and, if required, the motor starter coil for the hydraulic power pack feeding the two brushes and any pump motor for the chemical distribution system.

Optional Retract Kit Requirements

Electrical

- The Customer's Electrician is to provide and install single phase power from the remote push-button station through the tunnel equipment controller to the air solenoid valve for retract of both washers upon selective signal (See Figure #3 in Dimensions Section).

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 Air Distributor for the Retract Functions (See Figure #2 in Dimensions Section).

???? QUESTIONS ????

CALL

TECHNICAL SERVICES DEPT.

SONNY'S ENTERPRISES INC.

TAMARAC, FLORIDA

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

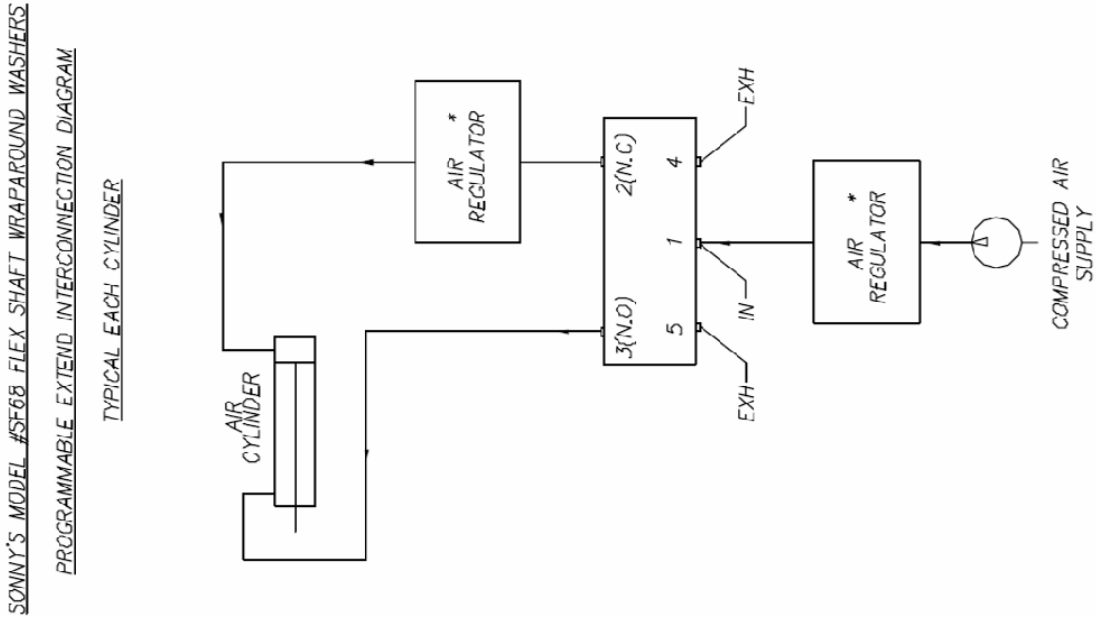


Figure # 2

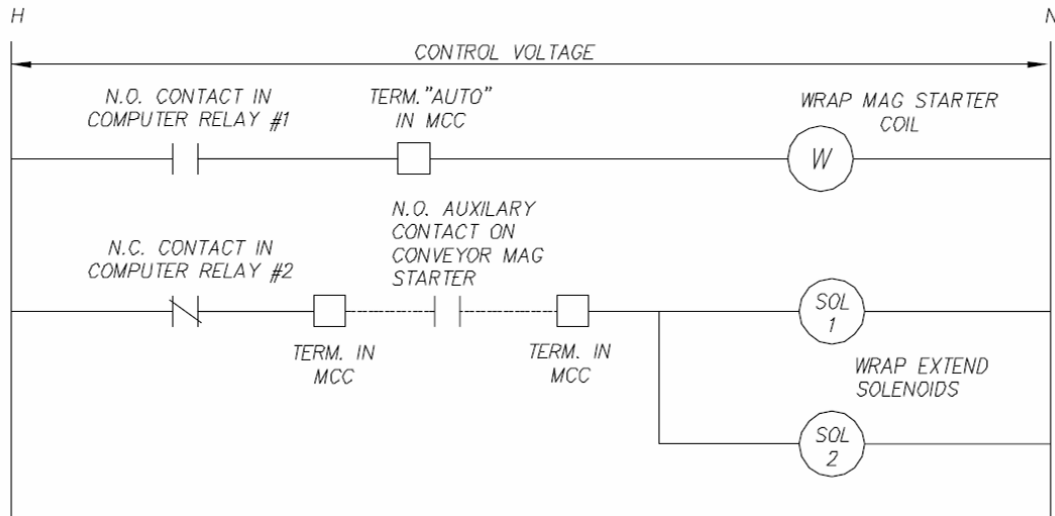


Figure # 3

HYDRAULIC INTERCONNECTION

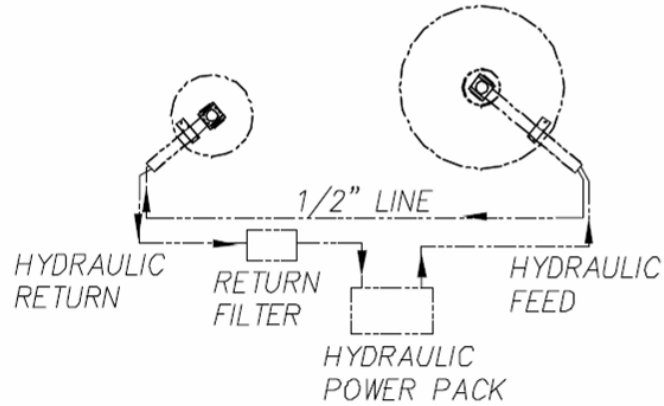
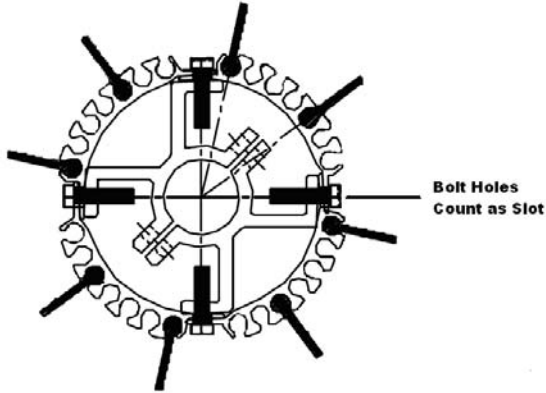
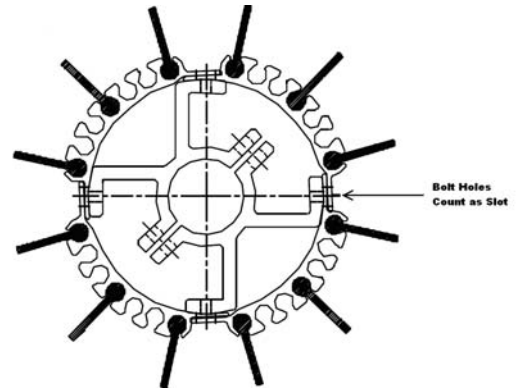


Figure # 4

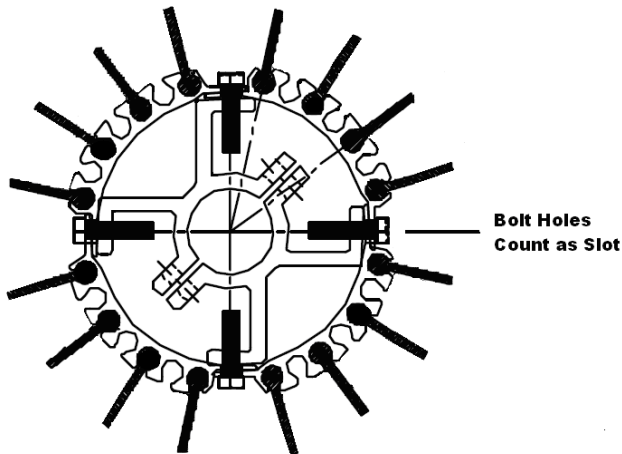
Insert Patterns 28 Slot Hub 6" Diameter



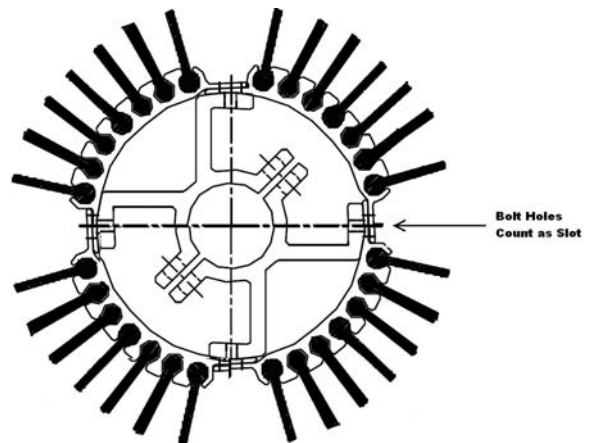
8 Position Material



12 Position Material

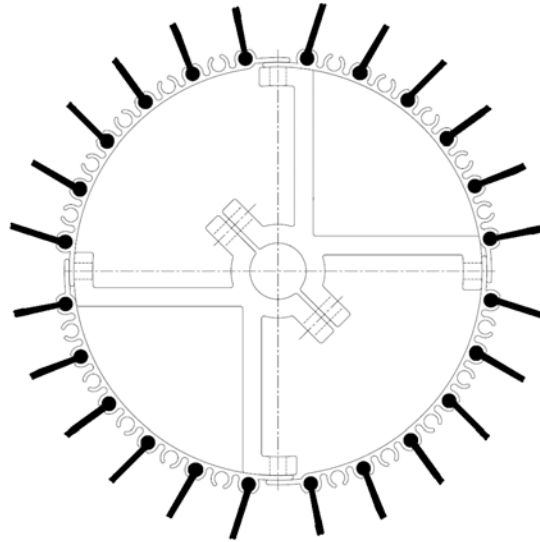


16 Position Material

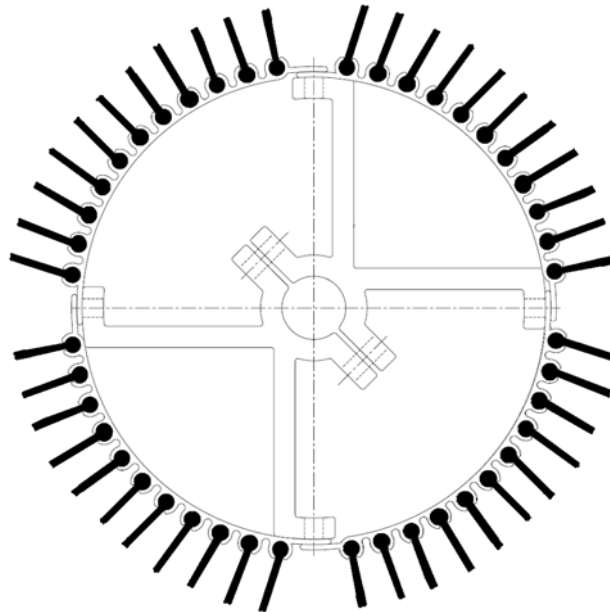


28 Position Material

Insert Patterns 44 Slot Hub 12" Diameter



24 Position Material



44 Position Material

Equipment Installation

Side Washers Installation

Tools

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

Consumables

1. Teflon Paste
2. Teflon Tape

Manpower

One (1) man

Time (assuming no problems)

2.00 - 3.00 hours

Installation Steps

1. Determine where the washer is to be installed. Refer to tunnel layout diagram.
2. Sweep any debris from where the washer will stand.
3. Place the washer mounting posts on the passenger and drivers sides according to the dimensions on the tunnel layout diagram. DO NOT permanently anchor the base plates until the brush hanger arms are level.
4. Level the brush hanger arms by placing shim material under the base plates.

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.

5. Lag one corner of each base plate and recheck all measurements. Once confirmed lag the opposite corner of each base plate and recheck all measurements, then finish lagging the plates into place.
6. Adjust brush hanger extension toward the center of the wash tunnel by adjusting the rubber bumper stop to rest against the brush hanger to the following dimensions:

DRIVER SIDE - 23 inches from the center of the brush core to the passenger side of the conveyor inside guide rail.

PASSENGER SIDE - 73 inches from the center of the brush core to the passenger side of the conveyor inside guide rail.

7. 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.
8. With each brush hanger in its extended position measure the extend tension of the hanger with a fish weigh scale hooked to the underside of the "C" channel brush core and pulling the brush away from it's extended position with the scale. The weigh scale should indicate 10 to 15 pounds of tension for the initial spring tension setting. Tension may be adjusted by moving the spring clamp position on the shock absorber or by moving the shock absorber mounting bracket on the brush hanger arm. The initial tension setting may need to be adjusted when the units are in operation in order to achieve the desired 4 inches to 6 inches of cloth penetration on the vehicle surface.

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

9. Run and connect ½ inch hydraulic lines (minimum rating 2000PSI) for pressure and return from the hydraulic power pack to the brush motors. The driver side and passenger side brushes require 3GPM (plumbed in series) to operate (see Figure # 4 in Dimensions Section).
10. Run and connect 1/2 inch Poly tubing from the chemical distribution system to the 1/2 inch female thread inlet fitting on each washer frame.
11. Rotation of the Brushes is against vehicle travel. As viewed from the top of each Brush the DRIVER side turns CLOCKWISE and the PASSENGER side turns COUNTERCLOCKWISE.
12. Run and connect 3/8 in Poly tubing form the Air Distribution Manifold to the air cylinder for each retract.
13. Install cloth on the Brush Cores according to the type of material being used (See the Dimensions Section).

Adjustments and Testing

Adjust the Cleaning Pressure of the Washer

With each brush hanger in its extended position measure the extend tension of the hanger with a fish weigh scale hooked to the underside of the "C" channel brush core and pulling the brush away from it's extended position with the scale. The weigh scale should indicate 10 to 15 pounds of tension for the initial spring tension setting. Tension may be adjusted by moving the spring clamp position on the shock absorber or by moving the shock absorber mounting bracket on the brush hanger arm. The initial tension setting may need to be adjusted when the units are in operation in order to achieve the desired 3 inches to 4 inches of cloth penetration on the vehicle surface.

Adjust the Angle of the Washer

The angle of the brush as it contacts the vehicle surface may be changed by rotating the round plate attached to the end of the brush hanger. Use prudent caution when adjusting this plate to prevent brush hardware contact with any vehicle surface.

GENERAL OPERATION

Side Washer Operation

Brush rotation starts and stops with a signal from the Customer supplied Controller system to the Customer's hydraulic power pack which drives the hydraulic motors on the brushes. This Controller Start-Stop signal should also control soap solution delivery to the spray bar on each brush.

BE CERTAIN THAT THE BRUSHES ROTATE AGAINST VEHICLE TRAVEL

With the brushes rotating (against the direction of vehicle travel and at proper RPM) the vehicle front fender contacts the washers travel across the side of the vehicle maintaining steady contact while cleaning the sides of the vehicle.

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

Optional Retract Operation

When selected by the Operator's remote Programmer push button station the side washer 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. Grease the brush shaft four bolt flange bearings. Do not allow grease to come in contact with brush cloth.

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

Char-Lynn® Hydraulic Motors

Char-Lynn®



Motor	Equipment
MF040910AAAC	SFBTBG18
CL101-1003-009	SFB18 & SFB21
CL103-1003-010	SFB28 & SFB35
CL103-1005-010	SFB63

Item #	Description	Price
MF040910AAAC	Motor, Hydraulic TRW Ross Parker	\$225.69
CL101-1003-009	Motor, Char-Lynn H-Plus, 1/2in Ring	192.65
CL103-1003-012	Motor, Char-Lynn S-Plus, 1/2in Ring	256.45
CL103-1005-012	Motor, Char-Lynn S-Plus, 1in Ring	279.35



Rubber Stop

For use on:

- All SFB Rocker Panel Brushes
- Includes 2 jam nuts

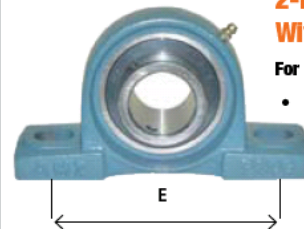
Item #	Description	Price
H151M	Rubber Stop, 1 1/2in x 1 1/4in	\$7.25



SONNY'S

Shaft – Stress-proof Steel

Item #	Description	Price
SSF BX18	Shaft, 18in SFB18 Rocker	\$87.60
SSF BX21	Shaft, 21in SFB21 & SFBTBG18 Rocker	91.70
SSF BX28	Shaft, 28in SFB28 Side Washer	91.70
SSF BX35	Shaft, 35in SFB35 Side Washer	91.70
SSF BX50	Shaft, 50in SFB50 Side Washer	102.00
SSF BX62	Shaft, 62in SFB63 SF50 Side Washer	112.00



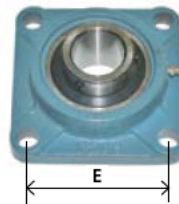
2-Bolt Pillow Block With contact seal

AMI

For use on:

- Brush Arm Mount

Item #	Description	"E"	Price
BPB150	Bearing, 2-Bolt Pillow Block 1 1/2in	5 13/22in	\$29.10



4-Bolt Bearing with Contact Seal

AMI

4-Bolt Bearing – w/Contact Seal

- 4-Bolt Bearing – w/Contact Seal

Item #	Description	"E"	Price
BF4150	Bearing, 4-Bolt Flange 1 1/2in	4 1/64in	\$26.30



1 3/8in Split Collar/ Woodruff Key

For use on:

- Shafts
- Hydraulic motors

Item #	Description	Price
BB251C/S	Collar, 2pc Clamp 1 3/8in w/Set Screw	\$6.95
HS14118	Key, Woodruff 1 1/8in Half Moon	1.25



Torque Channel **SONNY'S**

Item #	Description	Price
B1085SWD	Torque Channel, SFB-Series Drivers Side	\$31.00
B1085SWP	Torque Channel SFB-Series Passenger Side	31.00



Spraying Systems Co.

Nozzle For SFB Series Side Brush

Item #	Description	Price
901/4CM10F40	Nozzle, PVDF 1/4 x 40deg #10 Blue	\$1.44

CUSTOMER SERVICE

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

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

For Equipment Repairs please visit the web at www.sonnysdirect.com/manuals.

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

