

*Go Direct*

**SONNY'S<sup>®</sup>**

**THE CAR WASH FACTORY**

**SonnysDirect.com/go-direct/**

# Front Grill Washer



## Owners Manual

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

## \*Table of Contents\*

<b>*INTRODUCTION*</b> .....	<b>3</b>
Product Specifications.....	4
Optional Related Equipment .....	5
<b>SAFETY REQUIREMENTS*</b> .....	<b>7</b>
<b>*INSTALLATION*</b> .....	<b>8</b>
Utilities Requirements .....	8
Dimensions .....	9
Insert Patterns 36 Slot Hub 10" Diameter .....	14
Sonny's NeoGlide Installation .....	16
Equipment Installation .....	17
Front Grill Washer Installation.....	17
<b>*GENERAL OPERATION*</b> .....	<b>20</b>
<b>*CUSTOMER SERVICE*</b> .....	<b>21</b>

## **\*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

- Frame and legs constructed from aluminum or stainless steel.
- Includes NEOGLIDE material.
- Brush angled for smooth operation around large trucks and SUVs.
- Double Roller Bearings.
- Unique three Hub design 12" 10" 6".
- Hydraulic brush drive motors use 4GPM @ 800PSI.
- Shock absorber and air control.
- 133" of tunnel length required.
- 90" vehicle clearance.

## Optional Related Equipment

### SONNY'S Light Touch Front Grill Brush



You need to eliminate the expense and time to pre-wash grills, license plates, and headlights to remove bugs and other caked on road grime.



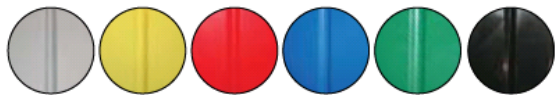
SONNY'S Grill Washer is like two washers in one. It follows and cleans the complete front of the vehicle safely, before washing side surfaces like a standard 50in brush. The grill washers are gentle and cannot bend license plates since they rotate "at" the vehicle in the opposite rotation of the available Wrap-Around Washers. They provide the necessary strength to clean with absolutely no prepping.



SF50GRILL with optional SF50CROSS plumbing bridge

#### Features

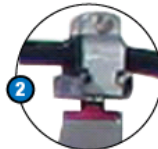
- Simple counter-balance design ensures damage free operation
- Includes NEOGLIDE foam material
- 4in x 6in QuadX Aluminum construction for stability and durability
- Brush angled for smooth operation around large trucks and SUVs
- Pivoting hose mounting bracket eliminates hose chafing and extends life
- Optional retract kit available



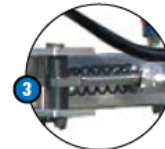
Protect & beautify your equipment with optional powder coating. Call for pricing.



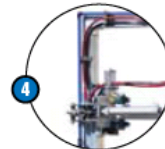
Adjustable bearing and arm mount.



Pivoting hose mounting bracket.



Adjustable shock assembly with stainless steel pin and cotter.



Optional plumbing bridge with 90in vehicle clearance cleanly routes all water and hydraulic lines between brushes for faster installation.

## Ordering Information

Description	Item #	Includes	Price
SONNY'S Hydraulic Light Touch Grill Washer	SF50GRILL	Retractable arms, NEOGLIDE foam material	\$8600.00
SONNY'S Electric Light Touch Grill Washer	SF50GRILLE	Retractable arms, NEOGLIDE foam material	9700.00
Crossover Arch, Pre-Plumbed for SF50	SF50CROSS	Aluminum arch with plumbing for hydraulics	745.00
Retract Kit only, SF1, SF50, SF63, 24V	RETRACT-SF1-63/24V	Complete kit 24V	695.00
Retract Kit only, SF1, SF50, SF63, 120V	RETRACT-SF1-63/110V	Complete kit 110V	695.00

## Specifications

	Inch	Metric
Tunnel Length (Driver)	89in	2.260m
Tunnel Length (Passenger)	125in	3.175m
Bottom Hub Diameter	12in	305mm
Top Hub Diameter	10in	152mm
Bottom Slots	44 slots	
Top Slots	36 slots	
Vehicle Clearance	90in	2.304m
Hydraulic	4gpm	.25ltr/s
Water Inlet	1/2in	13mm
Optimal Electric	1HP per side	

## Related Support Equipment

### 5 HP Power Packs

- 5HP / 208V / 230V / 460V
- 25-gallon reservoir
- 3-Phase / 60 Hz with "C" face coupling & adapter
- Vickers vane pump



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

## Permacolor Cloth Retrofit Kit

This Permacolor retrofit kit, offers more aggressive cleaning to front grills, bumpers, headlights and painted surfaces, by alternating rows of cloth and Neoglides on the bottom hub. Ideal for bug season when a more robust cleaning is required.



Item #	Description	Price
CLSF50GRILLRF	Cloth, Grill Brush Retro-Fit Cloth Set	\$376.86

## Grill Brush Retrofit Kit

This conversion kit comes with four double roller bearings and redesigned primary arms and legs to update your existing Grill Brush to SONNY'S latest design for more effective and gentler cleaning on the front of vehicles.



Item #	Description	Price
SF50GRILLBACONV	Grill Brush, Bearing Arm Conversion Kit	\$2059.00

## Quick Replacement Reference



Item #	Description	Price
BFL100	Shock and Spring	\$34.99
BFL100PC	Pin & Cotter, SS 2 1/2in x 5/8in	9.50
A350	Cylinder, 1 1/2in Bore x 8in Stroke	110.00
BF4100	Bearing, 4-Bolt Flange 1in	15.25
BTB24C	Bearing, 2-Bolt Tapped 1 1/2in	34.25
MF120910AAAC	Motor, Hydraulic TRW Ross Parker	250.43
SSFBX62	Shaft, 62in SFB63 SF50 Side Washer	112.00
BAH2812	Hub, 28in x 12in Spider Mount 44 Slots	184.40
BAH1010	Hub, 10in x 10in Spider Mount	81.40
T1085SW	Torque Channel w/Plastic Knobs SF-Series	31.00
BB251C	Collar, 2pc Clamp 1 3/8in Zinc Plated	6.75
HS14193	Key, Woodruff 1in Half Moon	1.05
NUT1LKSAE	Nut, Lock Pivot Bolt 1in	1.95

## **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 110VAC 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 programmer to the supplied air solenoid valve on the Air Distribution Manifold for retract of both washers upon selective signal (See Figure #6 in Dimensions Section).

#### **Compressed Air**

- The Customer's Plumber is to provide and install a 1/2 inch compressed air line from the Air Compressor to the Air Distribution Manifold for the Retract functions.

# Dimensions

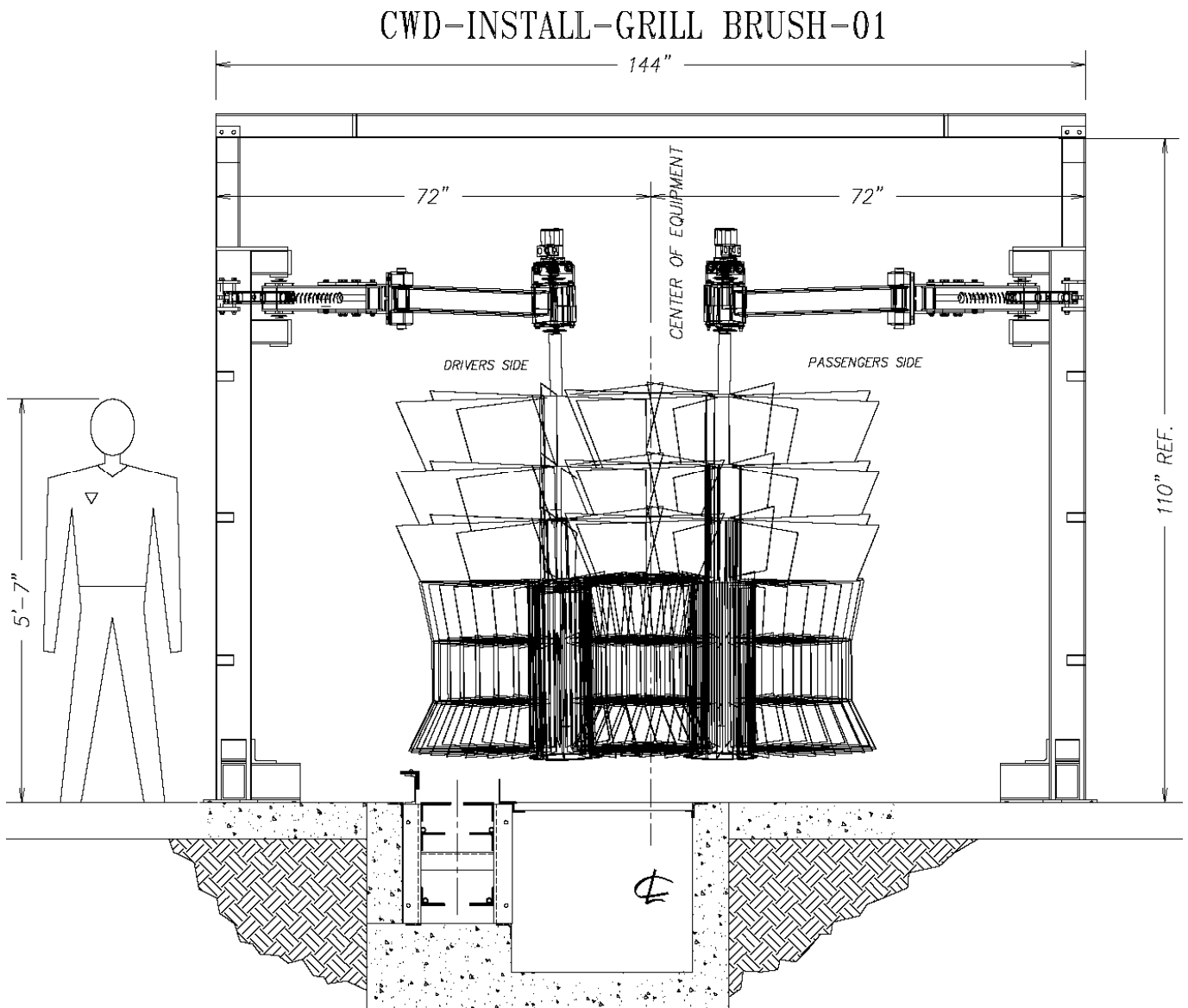
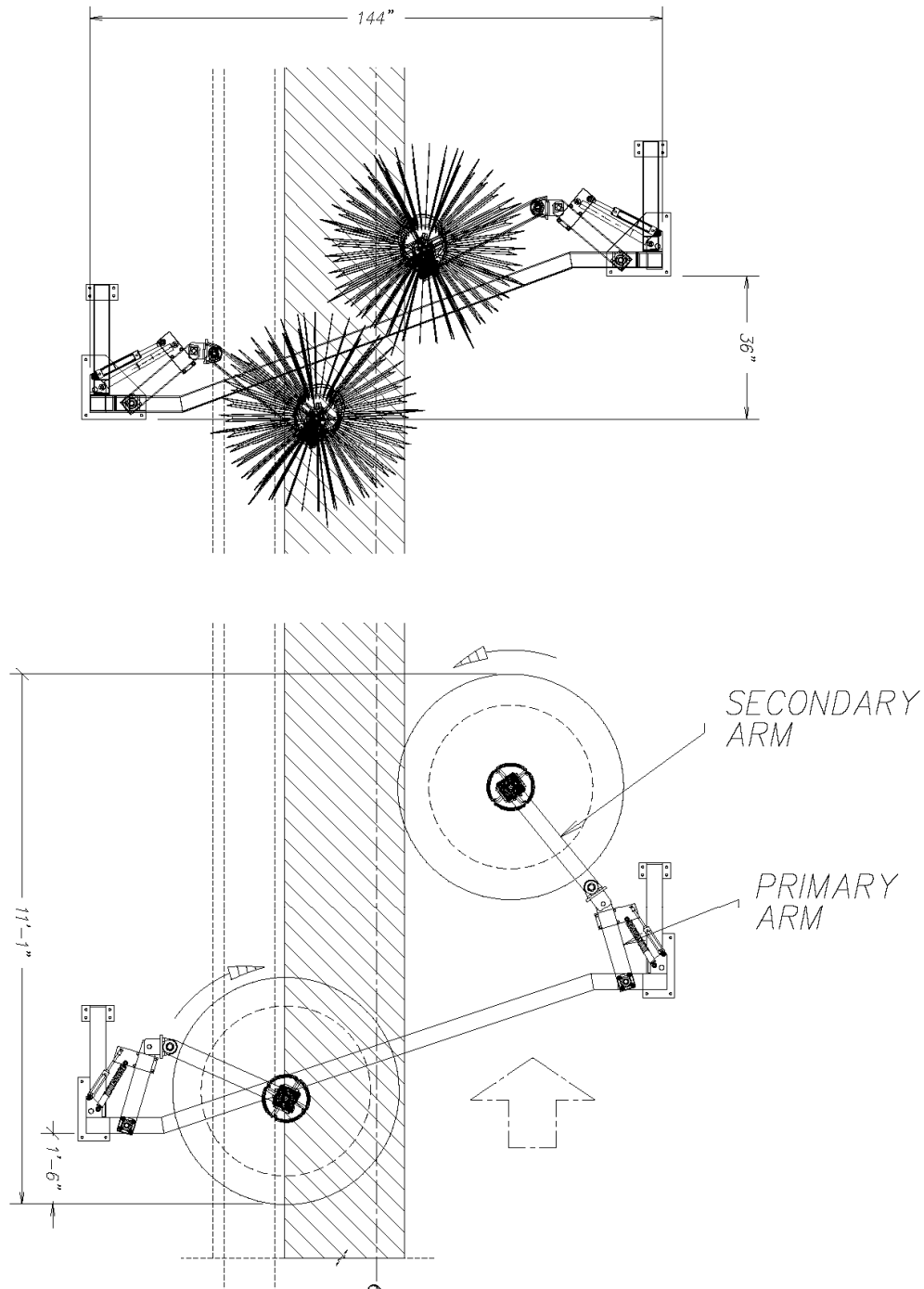
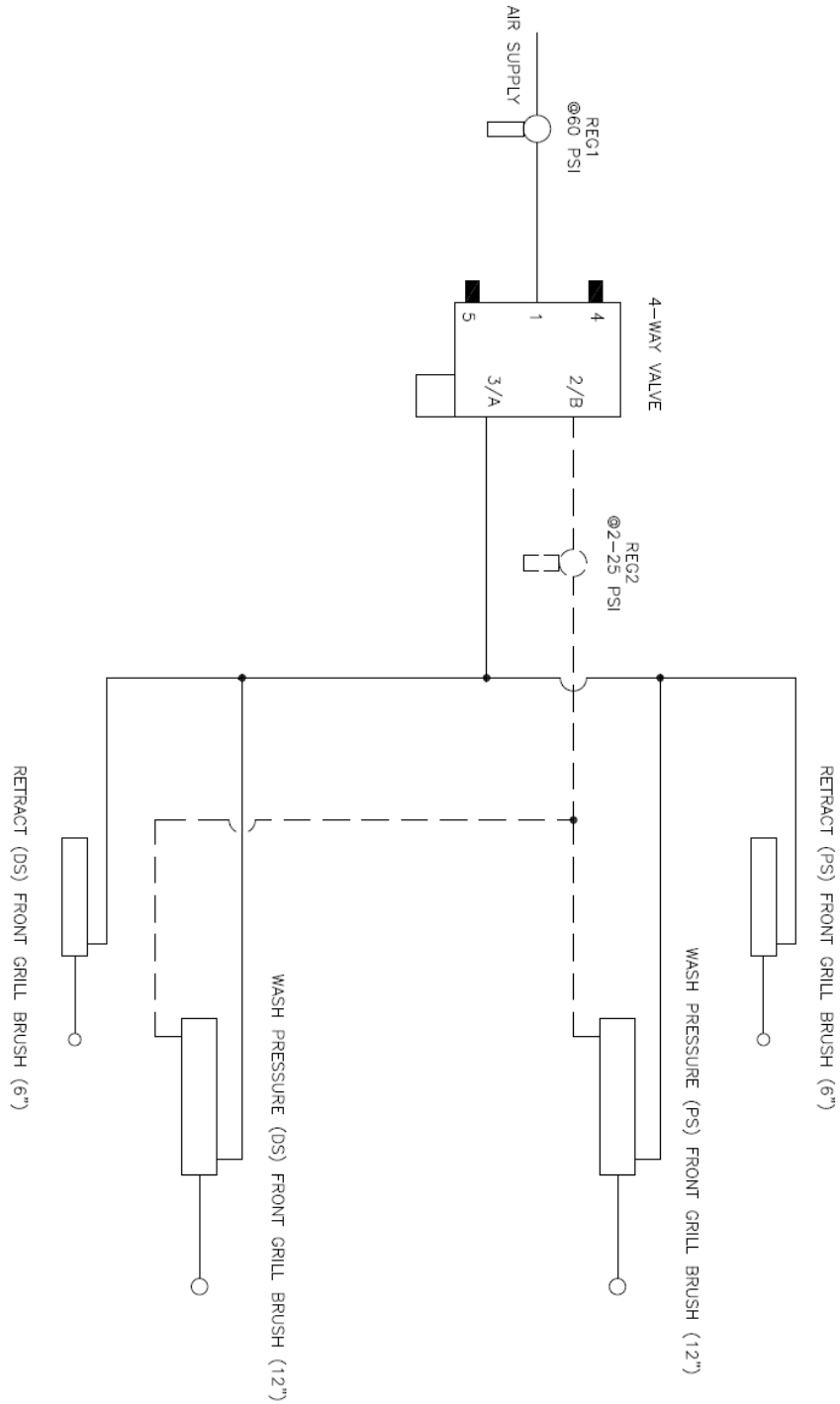


Figure # 1

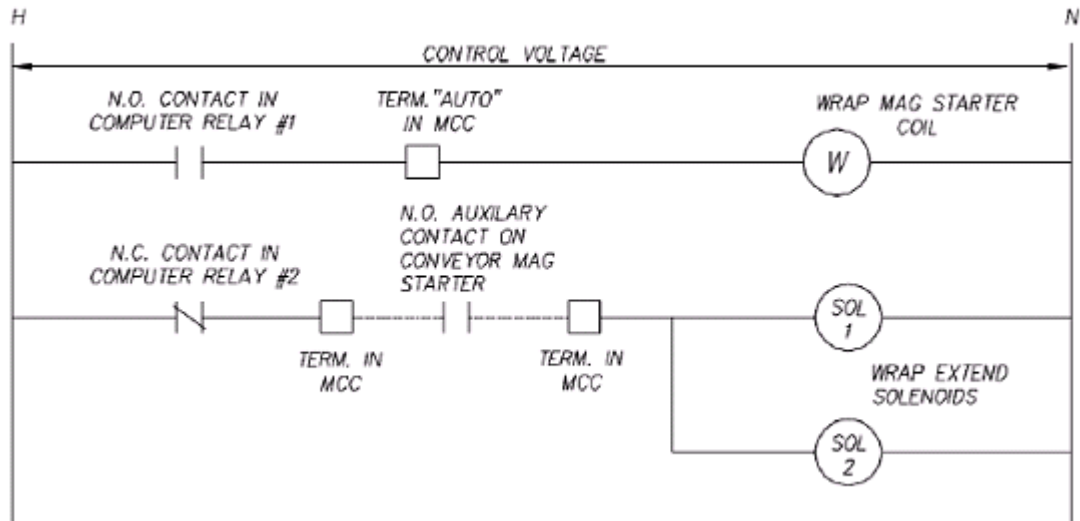


CWD-INSTALL-GRILL BRUSH-02

**Figure # 2**



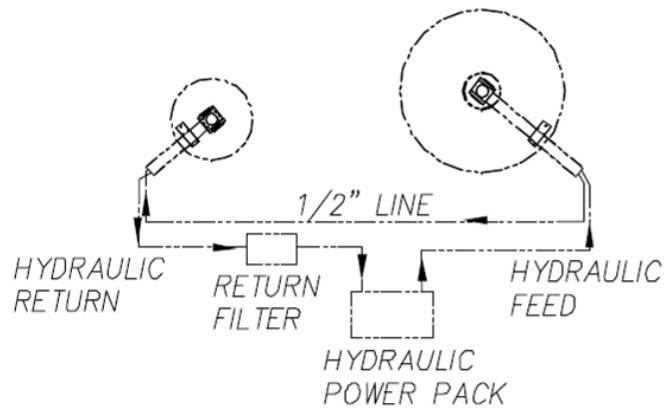
**Figure # 3**



**Figure # 4**

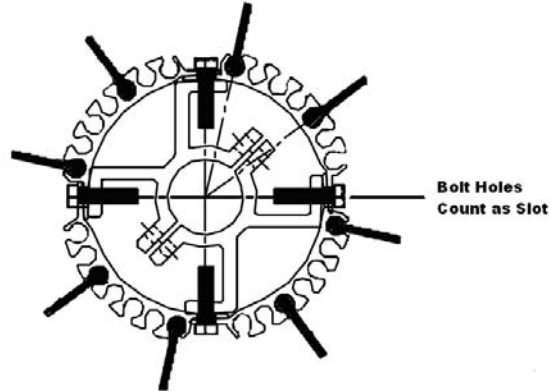
SONNY'S MODEL #SF50 & SFB50  
"SUV" SIDE WASHERS

HYDRAULIC INTERCONNECTION



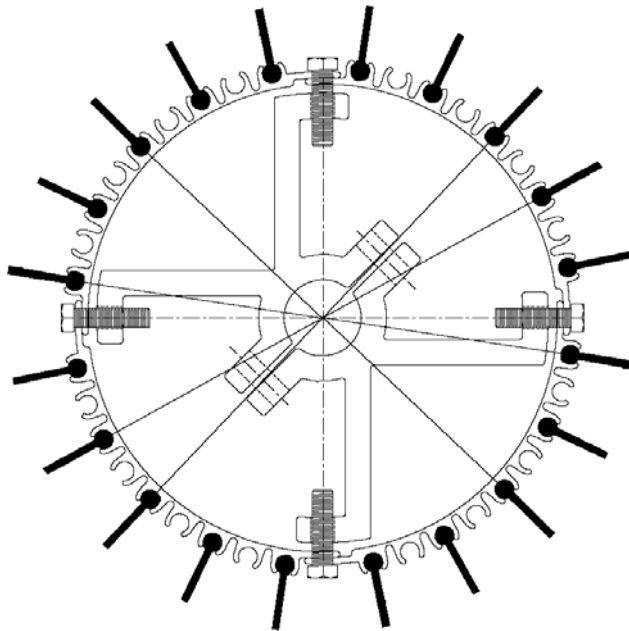
**Figure # 5**

## Insert Patterns 28 Slot Hub 6" Diameter



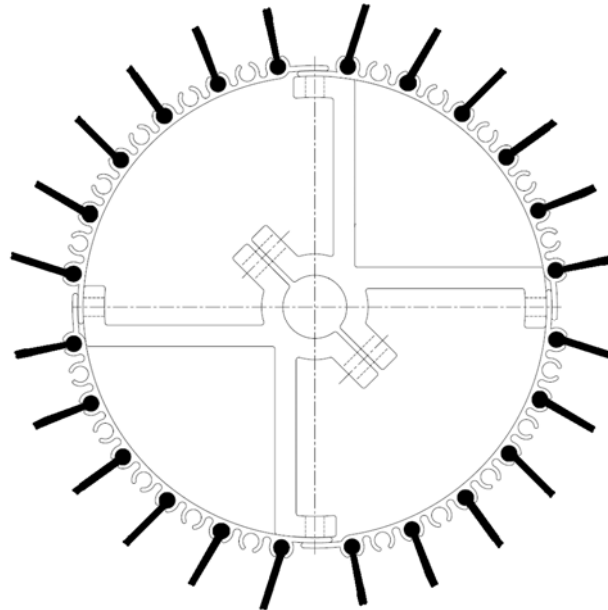
8 Position Material

## Insert Patterns 36 Slot Hub 10" Diameter



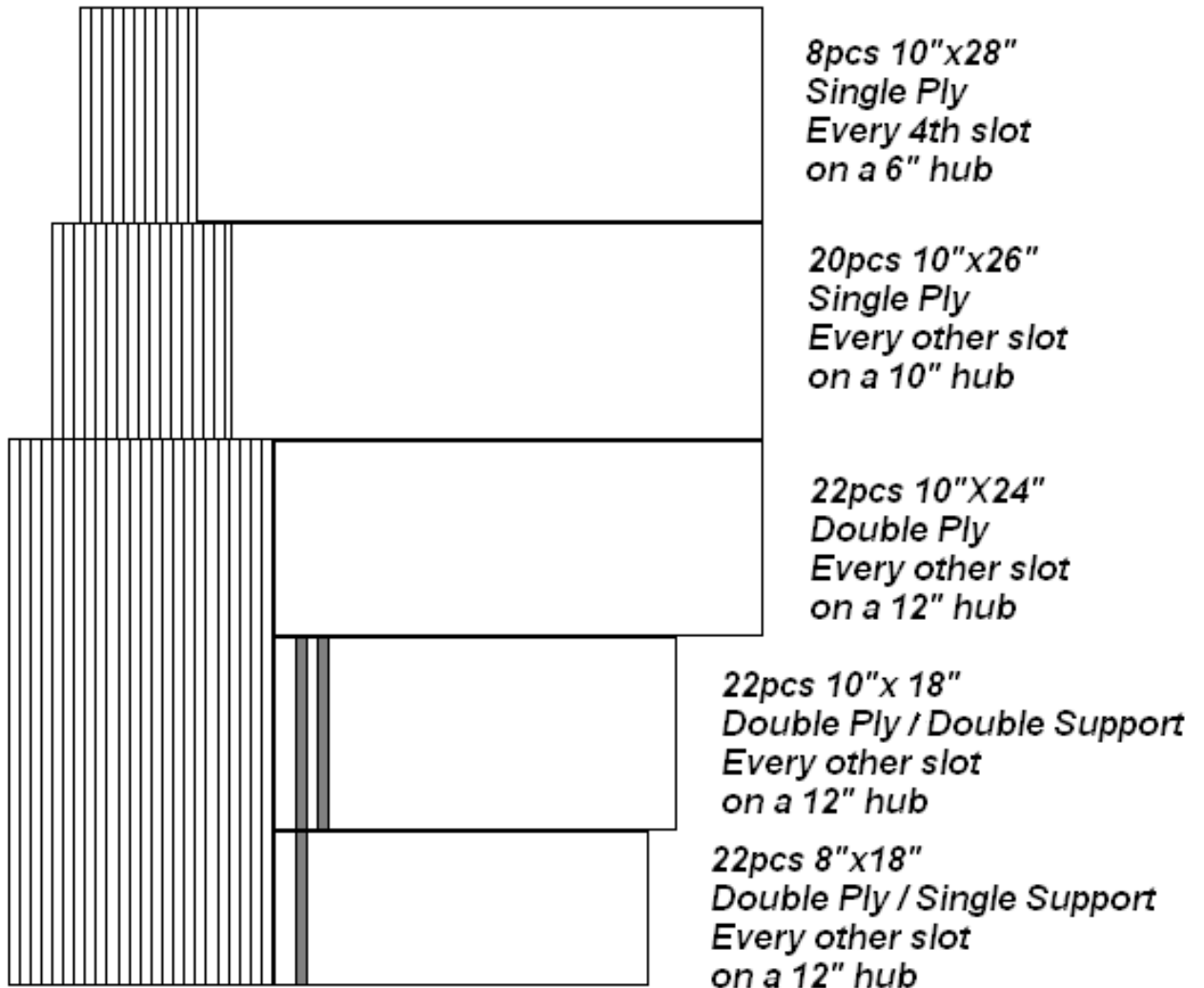
20 Position Material

## Insert Patterns 44 Slot Hub 12" Diameter



24 Position Material

## Sonny's NeoGlide Installation



# Equipment Installation

## Front Grill Washer Installation

### Installation Tools

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

### Consumables

1. Teflon Paste
2. Teflon Tape

### Manpower

One (1) man

### Time (assuming no problems)

1.00 - 2.00 hours

### Installation Steps

1. Determine where the Washer Frame is to be installed. Refer to tunnel layout diagram.
2. Sweep any debris from where the Washer will stand.

**Note:** Ensure the Washer Frame is correctly located before installing any lag bolts. 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.

3. Bring the driver side leg into the building using the lift-a-ma-jig. Do not cut the brush arms free.
4. Place 46" from the inside of the passenger guide rail and the correct distance from the entrance for your tunnel layout.
5. Square the Washer Frame to the conveyor. Plumb the legs and level the hanger arms. Shim the base as needed.
6. Lag one corner of the driver's side base and recheck all measurements. Once confirmed, lag the opposite corner on the passenger's side then finish lagging the brush in place.
7. Check that the shock on each brush hanger does 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. Attach the primary arms to the unit.

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

9. 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 Washer.
10. 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 leg of the Washer.
11. Run and connect the chemical lines from the Chemical Distribution Manifold to the chemical line on the Wrap frame for the application nozzles.
12. 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.
13. Run and connect the air lines from the Air Distribution Manifold to the air cylinder for each retract (See Figure #3 in the Dimensions Section).
14. Install cloth on the Brush Cores according to the type of material being used.

## Adjustments and Testing

### **Adjust the Cleaning Pressure of the Washer**

To adjust the pressure applied to the vehicle the mounting position and the spring position of the shocks can be changed. Cloth penetration should be about three to four inches.

### **Adjust for smooth retracts operation**

To adjust the retract operation the air pressure regulator should be adjusted for approximately 30PSI in the retract position and in the range of 0-15PSI in the extended position.

## \*GENERAL OPERATION\*

### Grill 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 grill contacts the washers at the center of the grill and travels across the grill of the vehicle maintaining steady contact while cleaning the front of the vehicle.

After passing beyond the front of the vehicle the brush will travel down the side of the vehicle continuing to clean the vehicle as a side brush.

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.

### Optional 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.

## **\*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/manual](http://www.sonnysdirect.com/manual).

**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](mailto:sales@sonnysdirect.com)

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

*From all of us here at*

