



# Chemical Tire Applicators



SHFMR/CTA

## Owners Manual

Sonny's Enterprises, Inc.  
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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

- Solenoid actuation from equipment programmer.
- Applicators with diaphragm check valves.
- Reliable compressed air driven solution pump.
- Plastic solution storage tank.
- Foam generated at each applicator stand.
- Applicator nozzles are height adjustable.
- Design ensures complete coverage of wheel.

# Optional Related Equipment

## SONNY'S CTA Tire And Wheel Applicators



You need to reduce labor, maintenance, and chemical expense, while completely covering tires and wheels of drastically varying sizes with consistent accuracy.



SONNY'S proven manifold designs combine with multiple nozzle positioning systems and accurate hydrominder proportioning to deliver precise chemical application to tires and wheels. Flojet pumps feature Viton seals designed to withstand strong tire cleaning chemicals. Individual regulators and solenoids help control application.



"These applicators apply cleaning solution to tires and wheels, accurately, with less labor, maintenance, and chemical waste. If you're looking for a complete package that produces the clean shiny wheels and tires that keep customers coming back, look to combine your applicator with our Poodle Brush, Tire Shiner, and High Pressure OMNI, Spinner, and Pendulum Blasters. Together, they are the only solution I know of that delivers excellent results without the need for acid based cleaners."

**SONNY**

### SONNY'S SHOWERHEAD CTA

- Our most popular CTA nozzle and tree design delivers precise foamed detergent application deep inside wheels with total tire coverage
- Each tree includes nozzle, mounting bracket, foam generator, and check valves



SHFMRTA24 Shown

#### Controller-Activated - Foaming Tire AND Wheel Application Systems

- Completely covers tires & wheels with foaming cleaning solution online
- Includes mixing tank, pump, hydrominder, applicator trees, and solenoid valves
- Foam increases dwell time for better results



MAG10024 Shown

#### Controller-Activated - Online Wheel Applicator Systems

- Completely covers wheels with cleaning solution online
- Includes mixing tank, pump, hydrominder, applicator trees, and solenoid valves
- Available with 24V or 110V solenoids



MAG200 Shown

#### Manually-Activated - Wand Wheel Applicator Systems

- For applying wheel cleaning solution during prepping
- Includes mixing tank, pump, hydrominder, and applicator wands



CTA1004T2524/SS Shown

#### Controller-Activated - Online Tire Application Systems

- Completely covers tires with cleaning solution online
- Includes mixing tank, pump, hydrominder, applicator trees, and solenoid valves
- Features Dual Flojet G57 pumps ensuring proper coverage



CTA100 Shown

#### Treadle-Activated - Online Tire Application Systems

- Completely covers tires with cleaning solution online
- Includes mixing tank, pump, hydrominder, applicator trees, and (2) treadle switches

# \*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 materials and install a 1/2 inch fresh water line (60PSI nominal), with in-line shutoff, to the inlet fitting on the solution proportioner on the pump and tank assembly.
- The Customer's Plumber is to provide materials and install 3/8 inch line from the 3/8 inch FPT discharge port of the air driven solution pump on the pump and tank assembly to the 3/8 inch FPT liquid solenoid valve and on to the spray applicators.
- The Customer's Plumber is to provide materials and install piping from the customer's air compressor to the 1/4 inch FPT air inlet port on the air driven solution pump (maximum demand 5CFM @ 100PSI).

### **Electrical**

- The Customer's Electrician is to provide materials and install the floor switch wiring to the Customer's equipment programmer. Refer to the Programmer Manufacturer's instructions for the connection terminals for the floor switch wires.
- The Customer's Electrician is to provide materials and install the floor switch wiring to the customer's equipment programmer function.

**NOTE:** Refer to the equipment Programmer Manufacturer's instructions for wiring connection points within the Programmer.

- The Customer's Electrician is to provide materials and install 24VAC 60Hz wiring from the customer's equipment programmer function to the SONNY'S supplied air and liquid solenoid valves for each pair of spray applicators.
- The Customer's Electrician is to provide materials and install wiring from the Customer's equipment programmer function to the SONNY'S supplied 24VAC 60Hz air and liquid solenoid valve coils.

**NOTE:** 110VAC 60Hz or 220VAC 50Hz control voltage may have been specified at the time of order. Prior to energization of these controls be certain that the solenoid valves voltage matches the control supply voltage.

- The Customer's Electrician is to place, and anchor to the concrete, the floor switch in-line with the car wash enter switch.

# Equipment Installation

## CTA Installation

### Tools

1. Safety Glasses
2. 1/2" Drive Ratchet Set
3. Standard Combo Wrenches
4. Standard Screwdriver
5. 1" Hammer Drill
6. Sledge Hammer
7. Tape Measure

### Consumables

1. Teflon Tape

### Manpower

One (1) men

### Time (assuming no problems)

1.00 - 2.00 hours

## Installation Steps

1. Determine where the CTA is to be installed.
2. Sweep any debris from the area the CTA will sit.
3. Place the CTA unit eighteen inches (18") from the inside of the conveyor on the driver side guide rail. Then measure eighty inches (80") from the inside passenger guide rail side CTA unit to determine the placement of the passenger side CTA unit.
4. Using a hammer drill, drill the holes for the anchor bolts.
5. Then, using a hammer, drive the anchor bolts into the concrete.
6. Before tightening the bolts make sure the units are "in-square." Once confirmed that the units are "in-square" tighten the bolts.
7. Find the location in the backroom were the pump station is to be mounted.
8. Attach the pump station to the wall using anchors.
9. Run poly flow out to the applicator.

## Adjustments and Testing

### a) Pump Station Adjustment

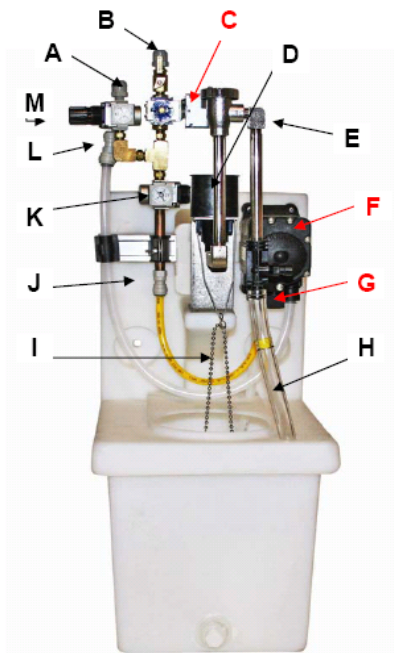
(1) Adjustment is made at the air regulators on the pump station for the applicator.

(2) The air pressure to the pump is set around 40PSI and to the foamers for the CTA is set around 20PSI. The wheel applicator will not have air.

### b) Foamer Adjustment (CTA only)

(1) Fine adjustment to the consistency of the foam can be accomplished at the individual foamers. Each has an air and solution adjustment.

(2) Wet foam is desired so it will hit the tires and start to run, pulling the sand and dirt with it.



A	Connect air hose from CTA to this air port feed	H	Discharge hose
B	Connect hose from air supplies off of compressor. Air supply solenoid.	I	Float and chain assembly
C	Solenoid Item # SA401P24 or optional voltage.	J	Air feed to pump
D	Hydrominder water feed (see proper sizing on Hydrominder)	K	Air regulator for pump feed. Set regulator at 40-60PSI for proper solution discharge.
E	Hydrominder Item #CH511 or optional Hydrominder	L	Feed solution to equipment (see proper sizing on hose assembly) ½ inch may be needed for proper flow if beyond 25 feet.
F	Flow jet pump Item # G-57S (Santoprene) or optional G-57V (Viton)	M	Regulator to air on equipment. Set regulator at 5 to 20PSI for proper flow.
G	Hydrominder part Eductor (see option on this item). Connect suction tube assembly.		
			<b>C, F, &amp; G - Option Item</b>

# \*GENERAL OPERATION\*

1. These applicators apply cleaning solution to tires or wheels to ensure a completely clean vehicle is achieved.
2. Compressed air and cleaning solution are combined at the applicator and may be adjusted by ball or needle valves to fine tune the coverage and strength.

### Activation Methods

1. Manually Activated; is used by an attendant to apply the solution as the vehicle passes.
2. Treadle Activated; will apply the solution as the vehicle passes without the need of an attendant. It is activated by a floor switch/treadle. In most cases a control box must be used.
3. Controller Activated; the vehicles tires pass over a tire switch at the entrance. Once the controller has noted the position of the tires, the CTA may be positioned anywhere in the tunnel. The CTA will be turned on/off by the tunnel controller by passing single phase power to the solenoid coil as the wheel/tire passes the applicator. This reduces labor, chemical waste, and equipment requirements for multiple.

## **\*PREVENTIVE MAINTENANCE\***

### **DAILY**

1. Check for leaks around hoses and fittings. Repair any serious leaks immediately.
2. Perform general examination of operation, listening for any unusual noises.
3. Check spray pattern from nozzles, clean any dirty nozzles.
4. Check solution tank is full and at proper dilution.

### **WEEKLY**

1. Check all nozzles for wear and replace if necessary.
2. Remove, clean and reinsert the tuffy pad(s).

### **MONTHLY**

1. Check all hardware and fittings for tightness and clean thoroughly.

### **ANNUALLY**

1. Replace all nozzles to prevent excessive chemical usage and uneven application.

## \*PARTS LIST\*

### Ordering Information

System	Item #	SA414P Activation Solenoid(s)	Pump Station (6 Gallon Tank)	Included Applicators	Included Hydrominder	Price
Controller-Activated Foaming SHOWERHEAD Tire and Wheel Application System	SHFMRCTASGL24	(1) 24V Solenoid	Flojet G57 Viton	(2) SHFMRCTA Foaming Heads	(1) 515 Hydro	\$740.00
	SHFMRCTASGL110	(1) 110V Solenoid	Flojet G57 Viton	(2) SHFMRCTA Foaming Heads	(1) 515 Hydro	740.00
	SHFMRCTADUAL24	(2) 24V Solenoids	Dual Flojet G57 Viton	(4) SHFMRCTA Foaming Heads	(1) 515 Hydro	1325.00
	SHFMRCTADUAL110	(2) 110V Solenoids	Dual Flojet G57 Viton	(4) SHFMRCTA Foaming Heads	(1) 515 Hydro	1325.00
Controller-Activated - Online Wheel Applicator System	MAG10024	(1) 24V Solenoid	Flojet G57 Viton	(2) HT562 PVC	(1) 515 Hydro	695.00
	MAG100110	(1) 110V Solenoid	Flojet G57 Viton	(2) HT562 PVC	(1) 515 Hydro	695.00
Manually-Activated - Wand Wheel Applicator System	MAG200	---	Flojet G57 Viton	(2) Applicator Wands	(1) 515 Hydro	480.00
Controller-Activated - Online Tire Application System	CTA1004TS24	(2) 24V Solenoids	Dual Flojet G57 Viton	(4) HT563 Galvanized Trees	(1) 515 Hydro	695.00
	CTA1004TS110	(2) 110V Solenoids	Dual Flojet G57 Viton	(4) HT563 Galvanized Trees	(1) 515 Hydro	695.00
	CTA1004T2S24SS	(2) 24V Solenoids	Dual Flojet G57 Viton	(4) HT563 Stainless Steel Trees	(1) 515 Hydro	922.00
	CTA1004T2S110SS	(2) 110V Solenoids	Dual Flojet G57 Viton	(4) HT563 Stainless Steel Trees	(1) 515 Hydro	922.00
Treadle-Activated - Online Tire Application System	CTA100	---	Flojet G57 Viton	(4) HT563 Galvanized Trees (2) Treadles	(1) 515 Hydro	922.00

### Specifications

	Inches	Metric
Tunnel Length: (2) Applicators	12in	307 mm
Tunnel Length: (4) Applicators	48in	1,228 mm
Tunnel Width: All Application Systems	11ft	3,379 mm

Requires available computer function or optional control box

### Quick Replacement Reference



Item #	Description	Price
HT562	Chemical Tree, PVC	\$26.80
HT562SS	Chemical Tree, Stainless Steel	77.30
HT563	Chemical Tree, Galvanized	26.80
HT563SS	Chemical Tree, Stainless Steel	66.95
HT565	Foaming Chemical Tree, (1) Side	99.00
SHFMRCTA	CTA, Shower Foamer Assembly Each	118.50
901/4CM20F80	Nozzle, PVDF 1/4 x 80deg #20 Olive Green	1.44
90A1FP3	Nozzle, PVDF 1/8in .6GPM 40PSI MAG	3.32
901/4CM04F65	Nozzle, PVDF 1/4 x 65deg #04 Light Blue	1.44
G-57	Pump, Santoprene 3/8in Hose Barb 5GPM	83.20
G-57V	Pump, Viton 3/8in Hose Barb 5GPM	114.86

### Related Items

#### Chemical Tire Applicator Control Box

- Operates tire application function without the need for an additional computer function
- Provides more accurate delivery and chemical control than treadle switches
- Activated by optional floor switch



Item #	Description	Price
FMRCTACB	Control Box, w/ Timer for CTA 110v Only	\$340.00

#### Floor Switches

These floor switches (treadle pads) have widespread uses in the carwash industry.

- Turn equipment on and off without touching cars
- Stop employee theft by counting cars
- Heavy duty molded switch designed for auto and truck traffic
- S.P.S.T. normally open switch, 24V AC/DC
- Activation is 10-15lb
- Mounting holes located in the corners of each switch



Item #	Description	Price
626032	Floor Tape Switch, 32in x 5in Blue 24V	\$113.39
726132	Floor Tape Switch, Ramped 32in x 9in 24V	132.80

## \*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](http://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](mailto:sales@sonnysdirect.com)

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

*From all of us here at*

