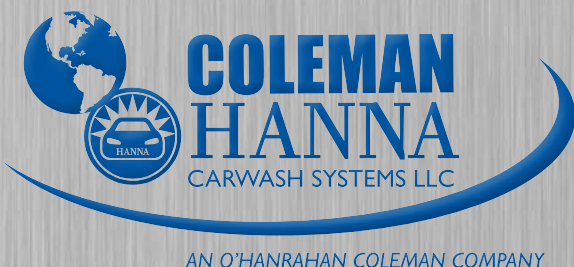


# Undercarriage Applicator

## *Service Manual*



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# HANNA UNDERCARRIAGE AND TREATMENT APPLICATOR ASSEMBLY FOR HHSC, RCV, AND AUTOSTAR SYSTEMS

Includes Instructions for Part Numbers  
424374, 424375, 424376, and 424377

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1. Remove the applicator from the box and inspect for damage.  
2. If the applicator is damaged, do not use it. Contact your distributor for a replacement.  
3. If the applicator is not damaged, proceed to the next step.

4. Connect the applicator to the hose and ensure it is properly secured.  
5. Turn on the water supply and adjust the pressure to the recommended level.

6. Apply the wash solution to the undercarriage of the vehicle.

- 1. Remove the applicator from the box and inspect for damage.
- 2. If the applicator is damaged, do not use it. Contact your distributor for a replacement.
- 3. If the applicator is not damaged, proceed to the next step.
- 4. Connect the applicator to the hose and ensure it is properly secured.
- 5. Turn on the water supply and adjust the pressure to the recommended level.
- 6. Apply the wash solution to the undercarriage of the vehicle.
- 7. Rinse the undercarriage with clean water.
- 8. Turn off the water supply and disconnect the applicator.
- 9. Store the applicator in a safe place.



### DESIGN FEATURES

#### UNDERCARRIAGE APPLICATOR

- STAINLESS NON-CORROSIVE CONSTRUCTION
- STAINLESS STEEL MANIFOLDS
- MULTIPLE SPRAY JETS
- LESS THAN 3" PROFILE

HANNA'S Stainless Steel Pressure Undercarriage applicators are designed to provide vehicle cleaning where ordinary sprays and brushes won't, by reaching those hard to clean areas.

This Hanna applicator is virtually maintenance free. It has no moving parts, and can handle either fresh water, reclaim water, or pumped chemical solutions. The stainless steel non-corrosive base, cover and manifold offer both beauty and convenience. The applicator comes with a 3/4" solenoid valve and installation accessories. When ordered as a treatment applicator, it also includes a 3/4" chemi-





### OPERATIONAL FEATURES

Each Undercarriage kit consists of a pre-assembled applicator and the appropriate hose and accessories kit.

Field installation and assembly basically consists of determining the desired location, marking the mounting holes, bolting it down and connecting it to the water source. Some of our customers prefer to mark the concrete floor, cutting a hole and inseting the applicator into the cement. It really is this maintenance free!

The computer or controller function turns on the applicator and water is supplied through the hose to the manifold and out the seven spray jets.

This applicator requires an external water source. When used as a treatment applicator, it also requires an external chemical source.



## SAFETY

### Notes, Warnings, and Cautions

**Note:** This symbol is used to clarify a procedure or to point out an operational item that may be significant during the assembly process.

**Warning:** This symbol is used to point out a procedure that if not followed could result in damage to the equipment being assembled. It is followed by the precautions necessary to prevent this damage.

**Caution:** This symbol is used to point out a procedure or process that may be hazardous to personnel who may be assembling the piece of equipment. It is then followed by an explanation of the hazard, and precautions necessary to prevent personal injury.



### INSTALLATION

#### Undercarriage and Treatment Applicator Assembly

Hanna Part Numbers 424374, 424375, 424376 and 424377

**Caution:** Shear cut and plasma cut stainless steel pieces may have sharp edges. To prevent personal injury, it is recommended that protective gloves be worn when handling and assembling these pieces.

- a. Remove the applicator pieces from the packing crate. An accessories kit is provided with the applicator.
- b. Verify that all items on the inventory checklist are included in the items removed from the crate, and inspect each for obvious damage that may have occurred during shipment. (See pages 8 and 9.)
- c. Lay the applicator pieces out on the floor on a tarpaulin or similar protective material to prevent damage.
- d. Loosen the screws and nuts on the four corners of the applicator and remove the cover.
- e. Determine the desired location in the wash system.

**Note:** There are several methods of installing the applicator in the wash package. In a conveyORIZED system, it will usually lay partially over the pit cover. In this case, some installers prefer to place a short nipple and elbow on the applicator and cut a hole in the pit cover and feed the applicator from under the cover. They also bolt the applicator to the cover, and not the concrete for ease of maintenance. Some installers prefer to bolt the applicator to the floor and run the plumbing away from the conveyor. For this purpose, a hose cover is provided with the applicator. As stated previously, some installers prefer to embed the applicator in the cement flooring.

**Note:** The preferred method of installing the applicator is crosswise in the system. It can, however, be placed lengthwise in the system if this is desired.

- f. Using the holes in the applicator base, mark the location of the anchor holes to be drilled in the floor. Move the applicator base out of the way.
- g. Using a 3/8" masonry bit for the cement, or an appropriate bit for the pit cover, drill the four holes needed to anchor the applicator. The preferred concrete anchor bolts are 3/8" x 3-1/2" stainless steel. The length of the anchor bolt determines the depth of the anchor holes.
- h. Install the anchor bolts into the holes, insuring that a minimum of 1" protrudes from the top of the hole.

**Note:** The applicator comes with 30 feet of water hose. Most installers prefer to put the valve assembly in the utility room and use water pipe to plumb to the applicator, with only a short piece of hose to hook up the pipe to the applicator. In this case, it may not be necessary to use the hose cover, but it is still preferred. If the liquid feed to the applicator is to come from the side opposite the conveyor, then the hose cover, then the hose cover





### INSTALLATION – Continued

should be used to prevent damage to the pipe. The cover is to be placed in line with the applicator so that the groove in the cover lies over the hose or pipe. For reference purposes, the closest edge of the cover should be approximately 56 inches from the inner edge of the inside guide rail of the conveyor.

- a. If the applicator is to be used as factory built, determine the length of hose needed and install the hose and a hose clamp over the barb on the applicator manifold. Tighten the clamp into place.
- b. Attach the other end of the hose to the feed line.
- c. Place the applicator base over the anchor bolts and place a washer and nut on each anchor bolt. If anchoring the applicator to the pit cover, insure that the appropriate bolts, washers and nuts are used.
- d. Tighten, but do not over-torque the nuts and bolts.
- e. Re-install the applicator cover and tighten the cover attaching nuts and bolts.
- f. If used, determine the location for the hose cover.
- g. Place the cover in this location and using the holes in the cover, mark the location of the holes for the anchor bolts.
- h. Using a 3/8" masonry bit for the cement, or an appropriate bit for the pit cover, drill the four holes needed to anchor the applicator. The preferred concrete anchor bolts are 3/8" x 3-1/2" stainless steel. The length of the anchor bolt determines the depth of the anchor holes.
- i. Install the anchor bolts into the holes, insuring that a minimum of 1" protrudes from the top of the hole.
- j. Place the cover over the hose and anchor bolts, insuring that the hose is enclosed in the groove in the cover.
- k. Install the washers and nuts on the anchor bolts and tighten into place.
- l. With a hack saw or similar cutting tool, remove the excess of the anchor bolts that protrude over the tops of the nuts

**Caution:** Electrical installation and permanent plumbing should be accomplished by certified technicians.

- u. Determine the location for the included valve assembly and install where desired.

## Hanna Undercarriage Wash & Treatment Applicator Assembly



### PACKING LIST

RVC Undercarriage and Treatment Applicators

Hanna part numbers: 424374 and 424375

<u>Item #</u>	<u>Part #</u>	<u>Description</u>	<u>Qty.</u>
1	806572	Undercarriage Applicator Assembly	1
2	758706	RCV Undercarriage Cover	1
3	758698	RCV Undercarriage Base	1
4	806574	Floor Clamp Assembly	2
5	362049	Screw Hex Cap SS 1/4"NC x 3/4"	4
6	623042	Washer Flat SS 1/4" SAE	6
7	363283	Washer Fender SS 1/4"x 1-1/4"	2
8	622708	Nut ESNA Hex SS 1/4" NC	6
9	084236	Hose 3/4" Water	30'
10	024356	Hose Clamp Ideal #16	2
11	806573	Manifold Assembly	1
12	806577	Undercarriage Manifold	1
13	620953	Cross Stainless Steel 3/4"	1
14	330985	Hose Barb, Nylon 3/4" x 3/4"	1
15	620949	Tee Stainless Steel 3/4"	1
16	621041	Bushing Brass Reducing 3/4" x 1/4"	4
17	621081	Elbow Brass 1/4" Street	7
18	363371	Jet V Nylon 65-30	7
19		Valve Assembly for 424374	1
20	325764	Valve Dema Solenoid 3/4" 416-P 24V	1
21	362659	Hose Barb SS 3/4" x 3/4"	1
22	325764	Valve Dema Solenoid 3/4" 416-P 24V	1
23	362659	Hose Barb SS 3/4" x 3/4"	1
24	334259	Nipple Brass 3/4" Close	1
25	012690	Valve Dema Injector 3/4" 206-B	1



## PACKING LIST - Continued

HHSC Undercarriage and Treatment Applicators  
 Hanna part numbers: 424376 and 424377

Item #	Part #	Description	Qty.
26	806583	Undercarriage Applicator Assembly	1
27	758720	HHSC Undercarriage Cover	1
28	758721	HHSC Undercarriage Base	1
29	806574	Floor Clamp Assembly	2
30	362049	Screw Hex Cap SS 1/4"NC x 3/4"	4
31	623042	Washer Flat SS 1/4" SAE	6
32	363283	Washer Fender SS 1/4" x 1-1/4"	2
33	622708	Nut ESNA Hex SS 1/4" NC	6
34	084236	Hose 3/4" Water	30'
35	024356	Hose Clamp Ideal #16	2
36	806576	Manifold Assembly	1
37	806578	Undercarriage Manifold	1
38	620953	Cross Stainless Steel 3/4"	1
39	330985	Hose Barb, Nylon 3/4" x 3/4"	1
40	620949	Tee Stainless Steel 3/4"	1
41	621041	Bushing Brass Reducing 3/4" x 1/4"	4
42	621081	Elbow Brass 1/4" Street	7
43	363371	Jet V Nylon 65-30	7
44		Valve Assembly for 424376	1
45	325764	Valve Dema Solenoid 3/4" 416-P 24V	1
46	362659	Hose Barb SS 3/4" x 3/4"	1
47		Valve Assembly for 424377	1
48	325764	Valve Dema Solenoid 3/4" 416-P 24V	1
49	362659	Hose Barb SS 3/4" x 3/4"	1
50	334259	Nipple Brass 3/4" Close	1
51	012690	Valve Dema Injector 3/4" 206-B	1





## PREVENTATIVE MAINTENANCE

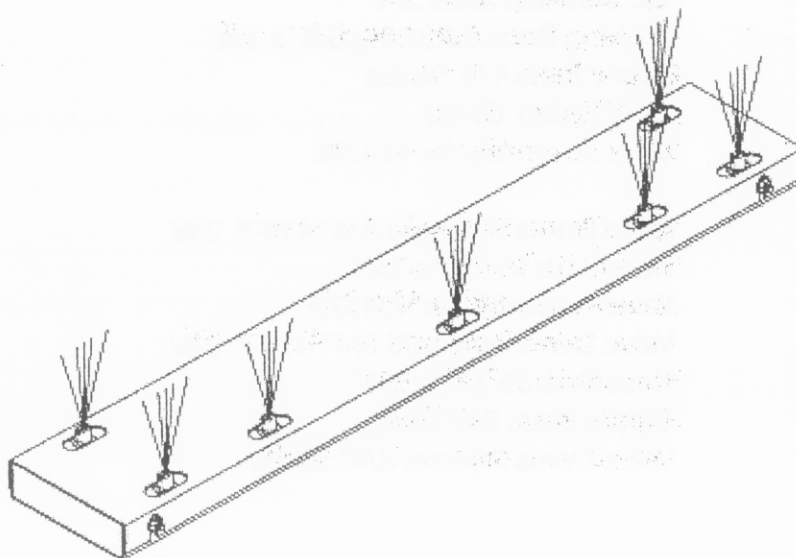
Generally, preventative maintenance consists of routine inspection and cleaning of the arch and components. At least 50% of all system failures are a result of not properly maintaining the applicator.

- a. Inspect the jets to insure they are not leaking and are free of debris. Tighten, or remove and clean as necessary.
- b. Inspect the supply hoses and lines for security and leakage. Tighten as necessary.
- c. Inspect the valve wiring for signs of chafing or deterioration. Repair as necessary.

## TROUBLE SHOOTING

Applicator will not turn on: Check voltage control source or Computer function.  
Check wiring to the valve.  
Check valve for operation.  
Check water supply source.

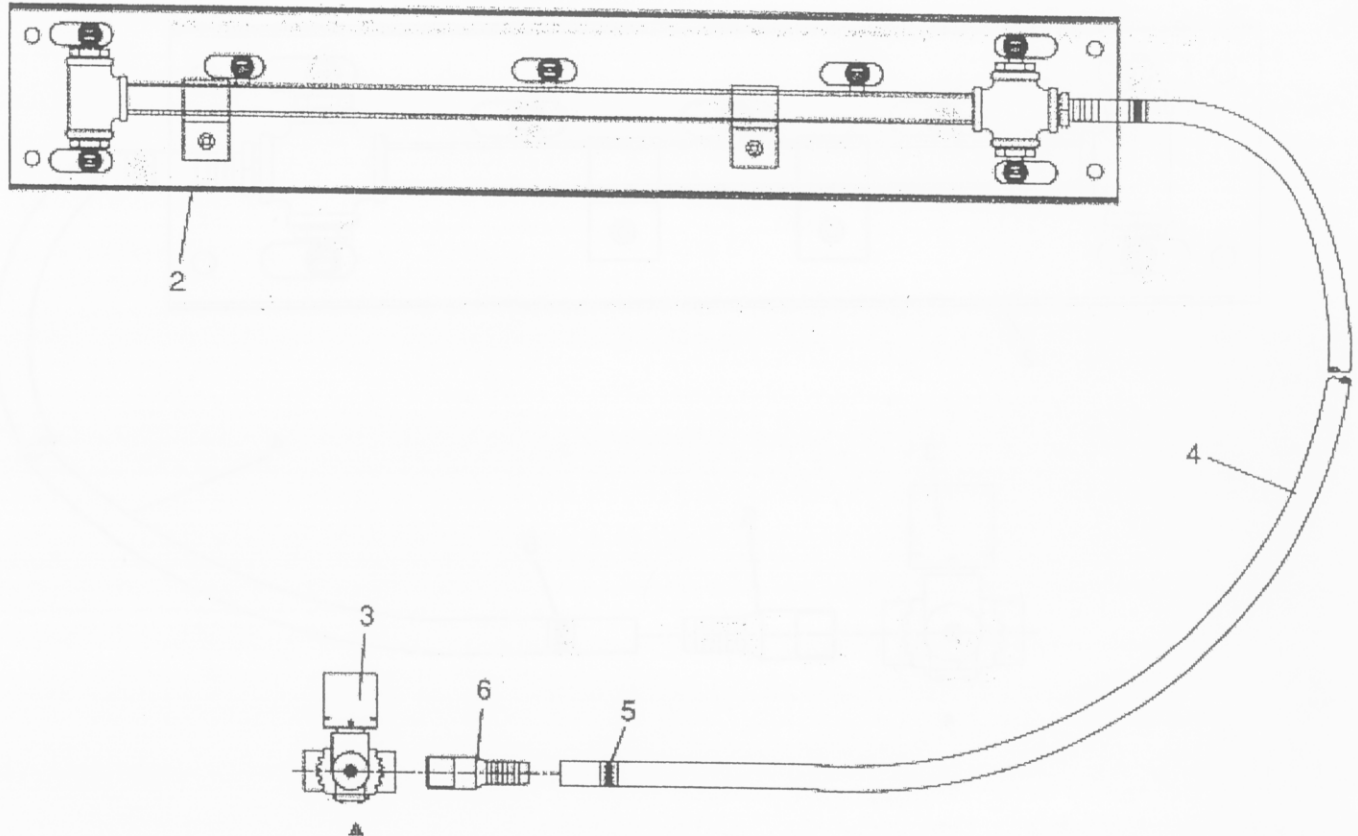
Applicator sprays poorly: Check the jets for debris and remove / clean  
Check the hose and lines for damage or leakage.



# Hanna Undercarriage Wash & Treatment Applicator Assembly



## Undercarriage Appl. Assembly RCV - SS

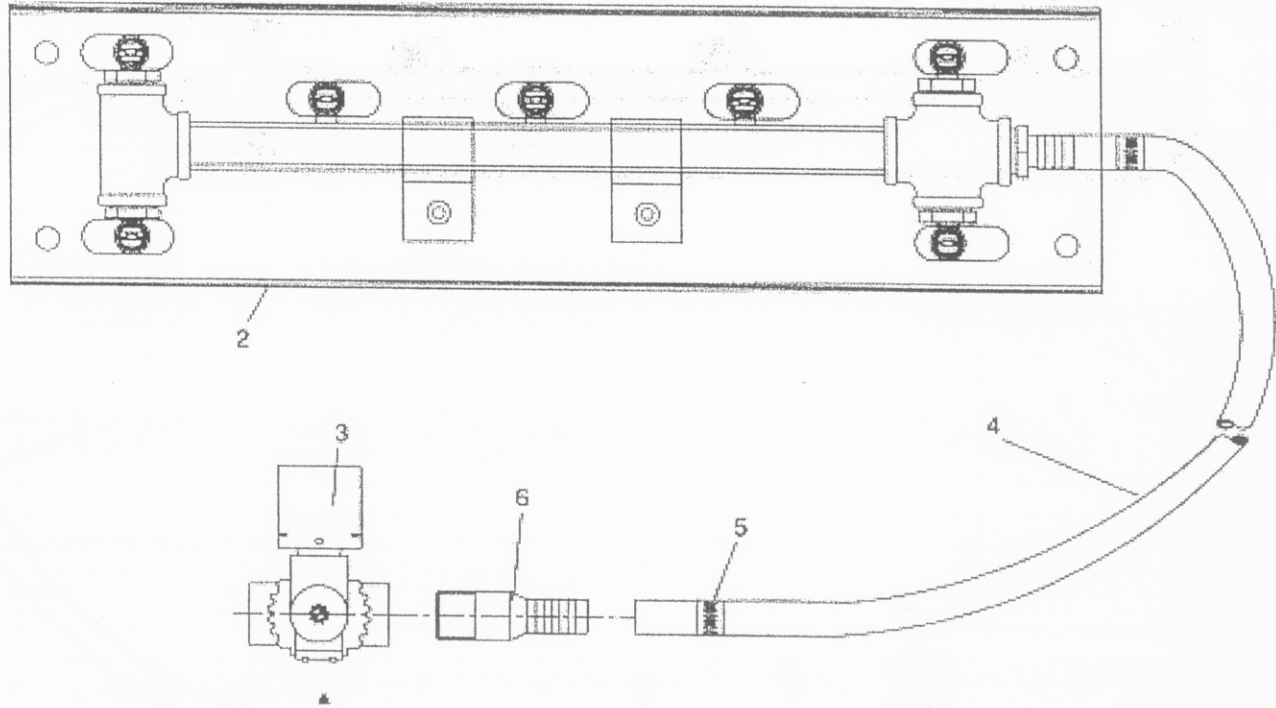


Item	Part No.	Description	REQ'D
1	806584	Cover Plate SS (Not Shown)	1
2	806572	Manifold & Cover ASSY SS RCV	1
3	324764	Valve Dema Solenoid 3/4" 416-P 24V	1
4	084236	Hose 3/4"	30FT
5	024356	Hose Clamp #16	2
6	362659	Hose Barb SS 3/4" x 3/4"	1

# Hanna Undercarriage Wash & Treatment Applicator Assembly



## Undercarriage Appl. Assembly HHSC – SS



Item	Part No.	Description	REQ'D
1	806584	Cover Plate SS (Not Shown)	1
2	806575	Manifold & Cover ASSY SS HHSC	1
3	324764	Valve Dema Solenoid 3/4" 416-P 24V	1
4	084236	Hose 3/4"	30FT
5	024356	Hose Clamp #16	2
6	362659	Hose Barb SS 3/4" x 3/4"	1



**Hanna Undercarriage Wash & Treatment Applicator Assembly**



NOTES

Lined area for handwritten notes, consisting of approximately 30 horizontal lines.



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