

#### GENERAL FUNCTION:

The Hydro-Force Revolution injection sprayer is used to quickly, and evenly apply pre-spray, protector and other chemicals over large areas. The Hydro-Force Revolution injection sprayer is unique because you can adjust dilution ratios on the fly by simply turning a knob. The Hydro-Force Revolution injection sprayer can be used at pressures as low as 50 PSI or as high as 1,000 PSI. All Hydro-Force Revolution sprayers are set at the factory to be used at water pressures of 400 P.S.I. but can easily be configured to work at lower pressures by simply changing the knob to a low pressure knob (NA0868). See 'Low Pressure Instructions' below. Water flow is automatically reduced as it passes through the injector valve, thus reducing the pressure approximately 64%. To obtain the actual working pressure of your Hydro-Force Revolution injection sprayer, multiply your incoming pressure by 36%.

#### PRE-SPRAY AND TRAFFIC LANE APPLICATIONS:

Hydro-Force injection sprayers eliminate the hassles of measuring and mixing. We recommend you keep an extra 5-quart container or two on your truck to make sure you never run out and to facilitate quick changes of your chemical containers. Remember that Hydro-Force sprayers automatically mix at a 1 to 8 ratio. If your 5-quart container is full then that is the same as holding an 11 gallon pump sprayer of regular, ready to use pre-spray.

Hydro-Force injection sprayers offer better penetration and overall coverage than other sprayers. It is therefore possible to pre-spray your jobs up to 45 minutes before that area needs to be cleaned. An effective way to use the Hydro-Force sprayer for pre-conditioning is to start at the door coming into the house; spraying all the traffic areas, and work your way to the farthest point back in your job. You have then completed your pre-conditioning in just seconds and are prepared to hook up your wand and start cleaning your way out.

On larger jobs, or jobs involving more than an hour of cleaning time, it is recommended that you pre-spray an area that will take no longer than 45 minutes to clean. You can then hook up your Hydro-Force again and pre-spray another large area.

#### APPLICATION OF CARPET PROTECTORS:

This highly profitable procedure is often passed up on many jobs because it is too big of a 'hassle'. Operators will not mention the availability of protectors because they are running short on time and must hurry to their next job, or they don't want to take the time to rinse tanks then measure, mix and pump.

Hydro-Force injection sprayers bypass these hassles and encourage you to apply carpet protectors. Go to your machine, shut off the chemical and, if you prefer, your heat. You should then take a 5 quart container with clean water (adding an ounce or two of acid or vinegar will help) to your Hydro-Force injection sprayer unit. Take off your traffic lane bottle and put on clean water. Run your Hydro-Force injection sprayer for approximately 20 seconds or until all soap is out of your lines. You may then put on your 5 quart container with carpet protector in it. Your product should be concentrated and diluted at 1 to 8 for application on damp carpet. If this is a difficult dilution to reach you may remove the metering tip to obtain a 1 to 4 ratio. If you are using Scotchgard® or a Teflon® product on dry carpet you should dilute them 1 to 1 with water before you use them with a Hydro-Force injection sprayer. Whether you use Maxim™ or another product, you will find that a 5 qt. container will go a long way. 5 qts. diluted 1 to 8, gives you 11 gallons of ready to apply protector. With a coverage rate of 300 square. ft. per gallon, 5 qts. of protector will cover 3,000 square ft.

Keep in mind that your Hydro-Force injection sprayer is spraying 3 to 4 times the amount of product your normal pump sprayer is putting out. This means you must move quickly to avoid over-applying. Protector should be applied in even, slightly overlapping strokes. You should proceed from the entrance again working your way toward the farthest point.

#### LOW PRESSURE INSTRUCTIONS

Your solution hose pressure affects how much chemical is drawn from the Hydro-Force injection sprayer. Higher pressures decrease the ratio of chemical to water and lower pressures increase the ratio of chemical to water. If you are using pressures ranging from 50 to 200 PSI, you'll want to install the low pressure knob (NA0868) so your dilution ratios are more properly calibrated. We recommend using 100 PSI when using the low pressure knob for the most accurate dilution ratios.

# HYDRO-FORCE™ REVOLUTION®

## Injection Sprayer



Part Number: AS08R

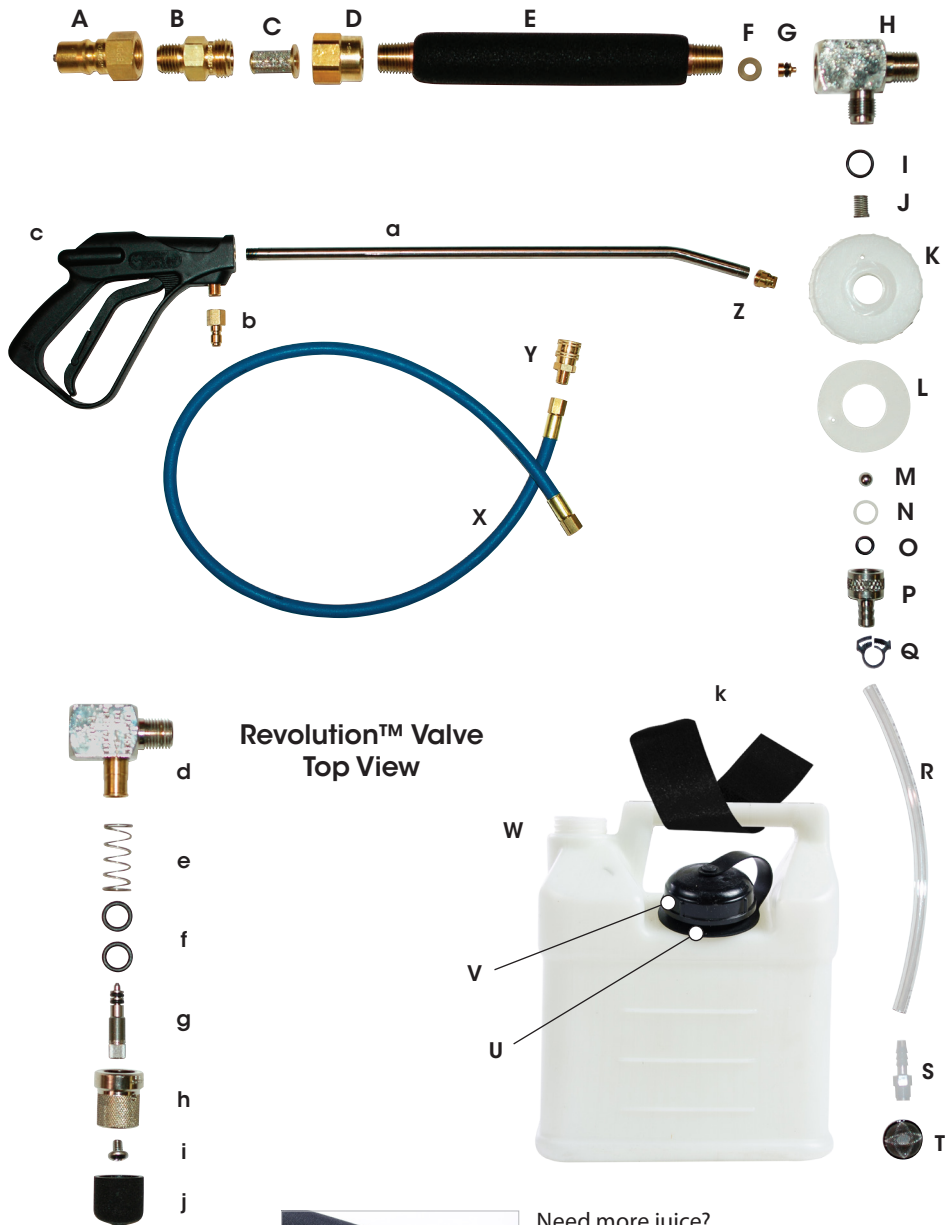
Patent Number: 6,182,911 B1

For those that want to Revolutionize how their spraying is done, the Revolution takes efficiency to a new level by allowing cleaners to dial in the exact concentration of chemical needed. Cut your spray time in half! Quickly apply presprays, deodorizers, tile and grout cleaning solutions, sanitizers, protectors and more.

To learn how you can save time  
and money using a Hydro-Force sprayer  
call 800-637-3789 or visit [www.hydroforce.com](http://www.hydroforce.com)

 **HYDRO-FORCE™**  
Innovating since 1974

## PARTS BREAKDOWN



Need more juice? Instantly change the **dilution ratio** to blast away greasy stains.

## PARTS LIST

PART DESCRIPTION			PART #		
A	1/4" Male Quick Connect	AH102B	T	Acorn Strainer	NA0840
B	Strainer Body	NA0802	U	Retainer Side Cap	AS69A
C	Strainer	NA0803	V	Cap Sideport	AS68L
D	Strainer Adapter	NA0804	W	5 Quart Container	AS70
E	Insulated Handle	NA0806A	X	Hose Assembly (HP)	NA0828
F	Backup Washer	NA0807	Y	1/4" Female Flow Thru	BR337
G	Water Nozzle with O-Ring	NA0808	Z	Veejet Brass 1/4" Female	B280
H	Injector Valve Complete	NA0809A	a	18" Extension	NA0833
I	Viton O-Ring	NA0837	b	1/4" Male Flow Thru	BR335
J	Check Valve Spring	NA0810	c	Spray Gun	100010
K	Formed Bottle Cap	NA0812	d	Valve Body	NA0865
L	Cap Liner	NA0838	e	Meter Stem Spring	NA0857
M	Steel Ball	NA0811	f	Viton O-Ring	NA0874
N	Spacer	NA0813	g	Stem Assembly	NA0869
O	Viton O-Ring	NA0814	h	Metering Knob - HP	NA0867
P	Suction Nut	NA0815	i	Pan Screw	NA0871
Q	Clamp HF Draw Tube	NA0818	j	Knob Cover	NA0859
R	Tubing	NA0817	k	Velcro Strap	NA0836
S	1/4" x 1/8" Hose Barb	NA0839			

## TROUBLE SHOOTING GUIDE

### PROBLEM: Will Not Draw Chemical

CAUSES	PART	SOLUTIONS
Inlet Strainer Clogged	NA0803	Clean or Replace
Wrong Teejet Size	B280	Replace
Acorn Strainer Clogged	NA0840	Clean or Replace
Metering Tip Clogged	NA0816	Clean or Replace
Water Nozzle Clogged or Worn	NA0808	Clean or Replace
Injector Valve Needs Major Rebuild	NA0849R	Install Kit
Bad Injector Valve	NA0850A	Replace
Chemical Build-up Inside of Valve	NA0850A	Clean w/ Vinegar

### PROBLEM: Container Backfills

Injector Valve Needs Rebuild	NA0841	Install Backflow Kit
Bad Injector Valve	NA0850A	Replace

### PROBLEM: Does Not Shut Off or Leaks From Gun

Worn Gun	100010	Replace
Valve Needs Rebuild	NA031A	Replace
Worn Valve in Gun	NA031	Replace