# USER MANUAL HydroMinder (Car Wash)



## index

1.00	introduction	page
	age contents y precautions	2
2.00	installation	۲. ۲
instal	lation/operation	3
3.00	tip/ULD chart	3
4.00	ULD identification	4
<b>5.00</b> parts	<b>parts list</b> s list / diagrams	5
600	troubleshooting	6

## introduction

#### package contents:

- 1. Proportioner with U-clamp for mounting
- 2. Float with chain
- 3. Inlet tube, 1/4" x 7' with weight and footvalve
- 4. Discharge tube 2ft.
- 5. Metering tip kit or ULD pack
- 6. Instruction sheet

#### safety precautions

WARNING please read precautions thoroughly before operation. Unit must be installed in accordance with local regulations.

For Units installed in Australia:

THIS APPARATUS <u>MUST</u> BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLUMBING CODE OF AUSTRALIA (PCA)

AS/NZS 3500.1

#### THANK YOU FOR YOUR INTEREST IN OUR PRODUCTS

Please use this equipment carefully and observe all warnings and cautions.

WEAR	protective clothing and eyewear when dispensing chemicals or other materials or when working in the vicinity of all chemicals, filling or emptying equipment, or changing metering tips.
ALWAYS	observe safety and handling instructions of the chemical manufacturer. direct discharge away from you or other persons or into approved containers. dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise CAUTION when maintaining your equipment. reassemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position.
KEEP	equipment clean to maintain proper operation.
ATTACH	only to water tap outlets (20 PSI dynamic Min., 80 PSI Maxi. and Max. water temperature 120° F).
NOTE	if the unit is used to fill a sink, or the discharge hose can be placed into a sink. The unit must be mounted so that the bottom of the cabinet is above the overflow rim of the sink.

## installation / maintenance

- 1. Mount the unit in a level position on the side of a reservoir. The U-clamp may be repositioned or removed as necessary.
- 2. Install a minimum 3/8" ID water hose between the inlet threads and the water spigot. Minimum water pressure required to properly operate the proportioner is 20 PSI dynamic.
- 3. Attach the end of the discharge tube with the clamp and flooding ring to the discharge barb on the eductor.
- 4. Insert the foot valve end of the suction tube into the concentrate container. (The level of the concentrate must be below the level of the eductor, or the proportioner will continue to siphon concentrate after it is turned "off".)
- REMEMBER TO CHECK FOOT STRAINERS PERIODICALLY FOR CLOGGING: CLEAN IF NECESSARY
  5. Select a push-in metering tip or ULD. Install push-in metering tip it into the suction stub on the eductor body. Install ULD into inlet of eductor body.
- 6. Slide the open end of the suction tube over the suction stub.
- 7. Adjust the bead chain length to position the float at the desired level of solution. To prevent foaming, be certain that the solution level will always be above the point of discharge. Be sure float mechanism is not hampered by water turbulence caused by discharging solution. It may be necessary to baffle the float from the discharge in order for the unit to work properly.

## operation

- 1. Connect opposite end of water inlet hose to water supply. Turn on water supply.
- 2. Prime the system by activating the water valve by pulling down on the yoke.
- NOTE: In order to fully prime a ULD system, continue activating the water valve for 30 seconds after chemical has reached the ULD inlet. There may be some water discharge from the eductor vents until the air is purged.

# tip/uld chart

#### Metering Tip Selection:

The final concentration of the dispensed solution is related to both the size of the metering tip opening and the viscosity of the liquid being siphoned. For water-thin products, the chart at right can be used as a guideline. If product is noticeably thicker than water, consult the Measurement of Concentration Procedure below to achieve your desired water-to-product ratio. Because dilution can vary with water temperature and pressure, actual dilution achieved can only be ascertained by using the Measurement of Concentration Procedure. The clear, undrilled tip is provided to permit drilling to size not listed should you need a dilution ratio that falls between standard tip sizes.

### NOTE: A 5 GPM eductor is blue. Refer to parts diagram if unfamiliar with names of system components.

Measurement of Concentration:

You can determine the dispensed water-to-product ratio for any metering tip size and product viscosity. All that is required is to operate the primed dispenser for a minute or so and note two things: the amount of dispensed solution, and the amount of concentrate used in preparation of the solution dispensed. The water-to-product ratio is then calculated as follows:

Dilution Ratio (X:1) where X =

Amount of Mixed Solution — Amount Concentrate Drawn Amount of Concentrate Drawn

Dilution Ratio, then, equals X parts water to one part concentrate (X:1). If the test

does not yield the desired ratio, choose a different tip and repeat the test. Alternative

methods to this test are 1) pH (using litmus paper), and 2) titration. Contact your

concentrate supplier for further information on these alternative methods and the materials required to perform them.

at 40 psi           Tip/ULD Color         Tip or ULD         Pollution Ratio (5 GPM Eductor with 10 or bicsosity chemical (water-thin)         Dilution Ratio (5 GPM Eductor with 100 or bicsosity viscosity chemical)         Dilution Ratio (5 GPM Eductor with 20 or bicsosity viscosity chemical)           Grey         Tip         7:1         35:1         34:1           Black         Tip         8:1         35:1         35:1           Beige         Tip         12:1         37:1         38:1           Red         Tip         13:1         42:1         45:1           White         Tip         36:1         58:1         64:1           Tan         Tip         35:1         88:1         62:1           Lime         Tip         70:1         97:1         110:1           Orange         Tip         70:1         97:1         110:1           Orange         Tip         120:1         160:1         200:1           Aqua         Tip         120:1         160:1         200:1           Vellow         Tip         120:1         180:1         210:1           Aqua         Tip         120:1         180:1         210:1           Aqua         Tip         250:1 <t< th=""><th></th><th></th><th>Approximate D</th><th>oilutions</th><th></th></t<>			Approximate D	oilutions	
Tip/ULD Color         Tip or ULD?         Eductor with 1 cP viscosity chemical (water-thin)         Eductor with 100 cP viscosity chemical)         Eductor with 200 cP viscosity chemical)           Grey         Tip         7:1         35:1         34:1           Black         Tip         8:1         35:1         35:1           Beige         Tip         12:1         37:1         38:1           Red         Tip         38:1         42:1         45:1           White         Tip         33:1         53:1         62:1           Lime         Tip         36:1         58:1         64:1           Tan         Tip         70:1         97:1         110:1           Orange         Tip         70:1         97:1         110:1           Orange         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Yellow         Tip         225:1         285:1         350:1           New Red         Tip         225:1         285:1         350:1           New Red         Tip         380:1         650:1         840:1           Purple         Tip         380:1         6			at 40 ps	i	
Crew         Chemical (water-thin)         viscosity chemical)         viscosity chemical)           Grey         Tip         7:1         35:1         34:1           Black         Tip         8:1         35:1         34:1           Beige         Tip         12:1         37:1         38:1           Red         Tip         12:1         37:1         38:1           White         Tip         30:1         49:1         55:1           Blue         Tip         33:1         53:1         62:1           Lime         Tip         36:1         58:1         64:1           Tan         Tip         70:1         97:1         110:1           Orange         Tip         70:1         97:1         100:1           Orange         Tip         10:1         136:1         188:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Aqua         Tip         225:1         285:1         350:1           Purple         Tip         230:1         510:1         590:1           New Red         Tip         350			Dilution Ratio (5 GPM	Dilution Ratio (5 GPM	Dilution Ratio (5 GPM
Grey         Tip         7:1         35:1         34:1           Black         Tip         8:1         35:1         35:1         35:1           Beige         Tip         12:1         37:1         38:1           Red         Tip         18:1         42:1         45:1           White         Tip         33:1         53:1         64:1           Lime         Tip         33:1         53:1         64:1           Lime         Tip         36:1         58:1         64:1           Lime         Tip         36:1         58:1         64:1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         10:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Aqua         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Pink         Tip         350:1	Tip/ULD Color	Tip or ULD?	Eductor with 1 cP viscosity	Eductor with 100 cP	Eductor with 200 cP
Black         Tip         8:1         35:1         35:1           Beige         Tip         12:1         37:1         38:1           Red         Tip         18:1         42:1         45:1           White         Tip         30:1         49:1         55:1           Blue         Tip         33:1         53:1         62:1           Lime         Tip         36:1         58:1         64:1           Tan         Tip         45:1         64:1         77.1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97.1         110:1           Orange         Tip         85:1         118:1         134:1           Brown         Tip         120:1         160:1         200:1           Vellow         Tip         175:1         220:1         260:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         250:1         350:1         510:1         590:1           Purple         Tip         280:1         650:1         840:1         100:1           Pink			chemical (water-thin)	viscosity chemical)	viscosity chemical)
Beige         Tip         12:1         37:1         38:1           Red         Tip         18:1         42:1         45:1           White         Tip         33:1         53:1         62:1           Blue         Tip         33:1         53:1         62:1           Lime         Tip         36:1         58:1         64:1           Tan         Tip         45:1         64:1         77:1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         10:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         250:1         350:1         650:1           Purple         Tip         230:1         510:1         590:1           New Red         Tip         380:1         650:1         840:1           Pink         Tip         550:1	Grey	Tip	7:1	35:1	34:1
Red         Tip         18:1         42:1         45:1           White         Tip         30:1         49:1         55:1           Blue         Tip         33:1         53:1         62:1           Lime         Tip         36:1         58:1         64:1           Tan         Tip         45:1         64:1         77:1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         85:1         118:1         134:1           Brown         Tip         120:1         160:1         200:1           Yellow         Tip         125:1         180:1         210:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         255:1         285:1         350:1           Purple         Tip         250:1         350:1         460:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         380:1         210:1         2200:1           Red One         ULD         300:1	Black	Tip	8:1	35:1	35:1
White         Tip         30:1         49:1         55:1           Blue         Tip         33:1         53:1         62:1           Lime         Tip         36:1         58:1         64:1           Tan         Tip         45:1         64:1         77:1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         85:1         118:1         134:1           Brown         Tip         100:1         100:1         200:1           Yellow         Tip         155:1         180:1         210:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         255:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         350:1         650:1         840:1           Pink         Tip         350:1         210:1         220:1           Dark Blue One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD	Beige	Tip	12:1	37:1	38:1
Blue         Tip         33:1         53:1         62:1           Lime         Tip         36:1         58:1         64:1           Tan         Tip         45:1         64:1         77:1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         110:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Aqua         Tip         225:1         285:1         350:1           Purple         Tip         250:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           Purple         Tip         360:1         840:1         2200:1           New Back         Tip         380:1         650:1         840:1           Pink         Tip         360:1         240:1         2400:1           Pink Dree         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD	Red	Tip	18:1	42:1	45:1
Lime         Tip         36:1         58:1         64:1           Tan         Tip         45:1         64:1         77:1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         85:1         118:1         134:1           Brown         Tip         110:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         225:1         285:1         350:1           Upt Fery         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Pink         Tip         550:1         780:1         960:1           Bar Blue One         ULD         500:1         4400:1         4700:1           Vellow One         ULD<	White	Tip	30:1	49:1	55:1
Tan         Tip         45:1         64:1         77:1           Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         85:1         118:1         134:1           Brown         Tip         110:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         155:1         180:1         210:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4700:1         4700:1           White Two         ULD         500:1         780:1         960:1           Purple One	Blue	Tip	33:1	53:1	62:1
Light Blue         Tip         55:1         88:1         95:1           Green         Tip         70:1         97:1         110:1           Orange         Tip         85:1         118:1         134:1           Brown         Tip         110:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Aqua         Tip         225:1         285:1         350:1           Purple         Tip         225:1         285:1         350:1           Purple         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         500:1         780:1         960:1           Urb Sto:1         Orange One         ULD         500:1         780:1         4400:1           Vellow Tow         ULD         500:1         780:1         960:1         <	Lime	Tip	36:1	58:1	64:1
Green         Tip         70:1         97:1         110:1           Orange         Tip         85:1         118:1         134:1           Brown         Tip         110:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         175:1         220:1         260:1           Aqua         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         350:1         510:1         590:1           New Black         Tip         350:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         500:1         4400:1         4700:1           White Two         ULD         500:1         2150:1         220:1           Dark Blue One         ULD         500:1         2150:1         220:1           Orange One         ULD         800:1         4400:1         4700:1	Tan	Tip	45:1	64:1	77:1
Orange         Tip         85:1         118:1         134:1           Brown         Tip         110:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         155:1         180:1         210:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         225:1         285:1         350:1           Purple         Tip         250:1         350:1         460:1           Light Grey         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         300:1         2150:1         2200:1           White Two         ULD         500:1         4400:1         4700:1           White Two         ULD         500:1         240:1         4700:1           Purple One         ULD         800:1         240:1         4700:1           Purple One         ULD         1000:1         240:1         4700:1	Light Blue	Tip	55:1	88:1	95:1
Brown         Tip         110:1         136:1         168:1           Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         155:1         180:1         210:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         500:1         4400:1         4700:1           White Two         ULD         500:1         780:1         960:1           Orange One         ULD         500:1         780:1         4400:1         4700:1           Yellow One         ULD         600:1         780:1         4400:1         4700:1           Purple One         ULD         1000:1         780:1 <td>Green</td> <td>Tip</td> <td>70:1</td> <td>97:1</td> <td>110:1</td>	Green	Tip	70:1	97:1	110:1
Dark Blue         Tip         120:1         160:1         200:1           Yellow         Tip         155:1         180:1         210:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4700:1         4700:1           White Two         ULD         500:1         2150:1         2200:1           Uright Blue One         ULD         500:1         4400:1         4700:1           Yellow One         ULD         500:1         100:1         100:1           Yellow One         ULD         1000:1         100:1         100:1           Yellow Two         ULD         1000:1         100:1         100:1	Orange	Tip	85:1	118:1	134:1
Yellow         Tip         155:1         180:1         210:1           Aqua         Tip         175:1         220:1         260:1           New Red         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         500:1         780:1         960:1           Light Blue One         ULD         500:1         4400:1         4700:1           White Two         ULD         500:1         780:1         4400:1         4700:1           White Two         ULD         600:1         90:1         90:1         90:1         90:1           Pink One         ULD         1000:1         90:1         90:1         90:1         90:1           Pink Gneen One	Brown	Tip	110:1	136:1	168:1
Aqua         Tip         175:1         220:1         260:1           New Red         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         500:1         780:1         960:1           Dark Blue One         ULD         500:1         4400:1         4700:1           White Two         ULD         500:1         4400:1         4700:1           Urple One         ULD         600:1         90:1         90:1         90:1           Pink One         ULD         1000:1         90:1         90:1         90:1         90:1           Pink Green One         ULD         1100:1         120:1         90:1         90:1         90:1           Yellow T	Dark Blue	Tip	120:1	160:1	200:1
New Red         Tip         225:1         285:1         350:1           Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         300:1         4400:1         4700:1           White Two         ULD         550:1         780:1         960:1           Orange One         ULD         500:1         4400:1         4700:1           White Two         ULD         500:1         960:1         960:1           Orange One         ULD         500:1         4400:1         4700:1           Purple One         ULD         800:1         900:1         90:1           Pink One         ULD         1000:1         90:1         90:1           Perlow Two         ULD         1200:1         90:1         90:1           Yellow Two         ULD         1500:1         100:1         90:1	Yellow	Tip	155:1	180:1	210:1
Purple         Tip         260:1         350:1         460:1           Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         550:1         780:1         960:1           Orange One         ULD         500:1         4400:1         4700:1           Yellow One         ULD         600:1         780:1         960:1           Purple One         ULD         800:1         780:1         960:1           Purple One         ULD         900:1         90:1         90:1           Pink One         ULD         1000:1         90:1         90:1         90:1           Purple One         ULD         1200:1         120:1         90:1         90:1           Purple Two         ULD         1500:1         120:1         90:1         90:1           Yellow Four         ULD	Aqua	Tip	175:1	220:1	260:1
Light Grey         Tip         350:1         510:1         590:1           New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         500:1         1         4700:1           Light Blue One         ULD         550:1         07ange One         ULD         600:1           Yellow One         ULD         800:1         900:1         1         1           Purple One         ULD         900:1         1         1         1           Park Green One         ULD         1000:1         1 <td< td=""><td>New Red</td><td>Tip</td><td>225:1</td><td>285:1</td><td>350:1</td></td<>	New Red	Tip	225:1	285:1	350:1
New Black         Tip         380:1         650:1         840:1           Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         500:1         1         4400:1         4700:1           White Two         ULD         500:1         1         4400:1         4700:1           White Two         ULD         500:1         1	Purple	Tip	260:1	350:1	460:1
Pink         Tip         550:1         780:1         960:1           Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         500:1         4400:1         4700:1           Light Blue One         ULD         500:1         550:1         07ange One         ULD         600:1           Yellow One         ULD         800:1         900:1         1000:1         1000:1         1000:1         1000:1         1000:1         100:1	Light Grey	Tip	350:1	510:1	590:1
Red One         ULD         300:1         2150:1         2200:1           Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         500:1         4400:1         4700:1           Light Blue One         ULD         550:1         0range One         ULD         600:1           Yellow One         ULD         800:1         900:1         1000:1         1000:1         1000:1           Park Green One         ULD         1000:1         1200:1         100	New Black	Tip	380:1	650:1	840:1
Dark Blue One         ULD         400:1         4400:1         4700:1           White Two         ULD         500:1         1 <td>Pink</td> <td>Tip</td> <td>550:1</td> <td>780:1</td> <td>960:1</td>	Pink	Tip	550:1	780:1	960:1
White Two         ULD         500:1           Light Blue One         ULD         550:1           Orange One         ULD         600:1           Yellow One         ULD         800:1           Purple One         ULD         900:1           Pink One         ULD         1000:1           Dark Green One         ULD         1100:1           Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Red One	ULD	300:1	2150:1	2200:1
Light Blue One         ULD         550:1           Orange One         ULD         600:1           Yellow One         ULD         800:1           Purple One         ULD         900:1           Pink One         ULD         1000:1           Dark Green One         ULD         1100:1           Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Dark Blue One	ULD	400:1	4400:1	4700:1
Orange One         ULD         600:1           Yellow One         ULD         800:1           Purple One         ULD         900:1           Pink One         ULD         1000:1           Dark Green One         ULD         1100:1           Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	White Two	ULD	500:1		
Yellow One         ULD         800:1           Purple One         ULD         900:1           Pink One         ULD         1000:1           Dark Green One         ULD         1100:1           Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Light Blue One	ULD	550:1		
Purple One         ULD         900:1           Pink One         ULD         1000:1           Dark Green One         ULD         1100:1           Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Orange One	ULD	600:1		
Pink One         ULD         1000:1           Dark Green One         ULD         1100:1           Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Yellow One	ULD	800:1		
Dark Green One         ULD         1100:1           Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Purple One	ULD	900:1		
Yellow Two         ULD         1200:1           Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Pink One	ULD	1000:1		
Purple Two         ULD         1500:1           Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Dark Green One	ULD	1100:1		
Light Blue Five         ULD         1800:1           Yellow Four         ULD         1900:1	Yellow Two	ULD	1200:1		
Yellow Four ULD 1900:1	Purple Two	ULD	1500:1		
	Light Blue Five	ULD	1800:1		
Durada Estura III D. 3400:1	Yellow Four	ULD	1900:1		
Purple Four OLD 2400:1	Purple Four	ULD	2400:1		
Purple Five ULD 2500:1	Purple Five	ULD	2500:1		

. . . . .

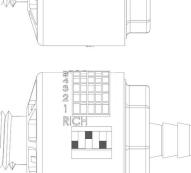
# **ULD identification**

Active disc chart on the side of ULD.

**1 ACTIVE** 

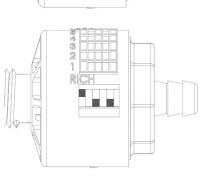
2 ACTIVE

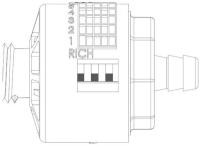
**3 ACTIVE** 



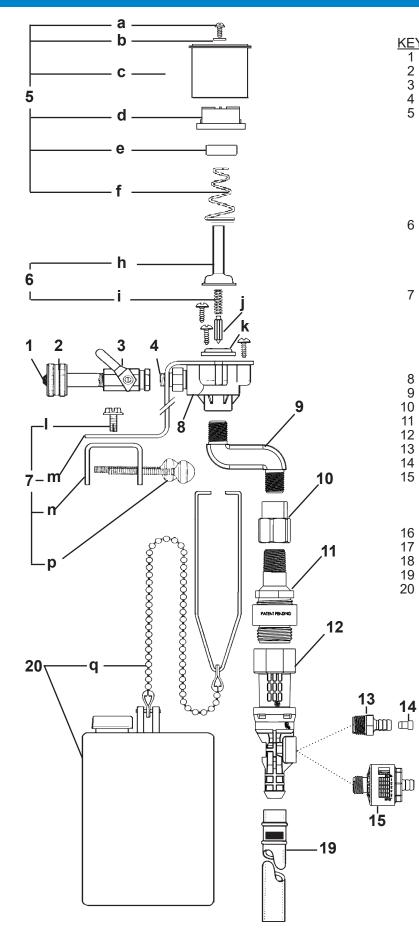


**5 ACTIVE** 

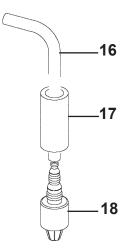




# parts list / diagrams



KEY 1 2 3 4 5	HYD360900 HYD10080500 a. b. c. d. e. f.	DESCRIPTION strainer washer hose swivel ball valve nipple magnet parts kit screw washer magnet cover magnet cap magnet magnet spring magnet vako
6	HYD665520 h. i. j.	magnet yoke valve parts kit valve guide ("bonnet") armature spring armature
7	l. m. n. o.	diaphram mounting bracket kit screw Z bracket U clamp lockwasher (not shown)
8 9 10 11 12 13 14 15	HYD520000 HYD10092506 HYD622900 HYD10091989 HYD10099885 HYD3401-R HYD690014	coupling
16 17 18 19 20	HYD10099871 HYD10099872 HYD500870 509900 HYD10076301 HYD5057-A HYD5043-A	Kit, ULD 600-1000 Kit, ULD 1100-1700 Kit, ULD 1800-2500 tubing, 1/4" x 7' weight Foot valve, Viton discharge tube assembly float & chain assembly q. bead chain only



囗

# troubleshooting

Problem	Ca	use	S	olution
1. No discharge	a.	No water	a.	Open water supply
	b.	Excessive water pressure	b.	Install regulator if water pressure (with water running) exceeds 80 PSI
	C.	Clogged water inlet strainer	C.	Disconnect inlet water line and clean strainer
	d.	Magnetic valve not functioning	d.	Install valve parts kit
	e.	Eductor clogged	e.	Clean* or replace
2. No concentrate draw	a.	Metering tip or eductor has scale build-up	a.	Clean (descale)* or replace
	b.	Low water pressure	b.	Minimum 20 PSI (with water running) required to operate unit properly
	C.	Discharge tube not in place	с.	Push tube firmly onto eductor discharge hose barb, or replace tube
	d.	Concentrate container empty	d.	Replace with full container
	e.	Clogged water inlet strainer	e.	Disconnect inlet water line and clean strainer
	f.	Incorrect check valve installation	f.	See diagram page 3
	g.	Air leak in pick-up tube	g.	Put clamp on tube or replace tube if brittle
	h.	Selector out of position	h.	Assure selector is in position desired
3. Excess concentrate draw	a.	Metering tip not in place	a.	Press correct tip firmly into barb on eductor
4. Failure of unit to turn off	a.	Push button stuck	a.	Remove button and clean cabinet/button to remove excess dirt lodged in slide recess
	b.	Magnet doesn't fully return	b.	Make sure magnet moves freely Replace spring if short of weak
	с.	Water valve parts dirty or defective	C.	Clean or replace with valve parts kit
5. Excess foaming in discharge	a.	Air leak in pick-up tube	a.	Put clamp on tube or replace tube if brittle

\* In hard water areas, scale may form inside the discharge end of the eductor, as well as in other areas of the unit that are exposed to water. This scale may be removed by soaking the eductor in a descaling solution (deliming solution). To remove an eductor located in the cabinet, firmly grasp water valve and unthread eductor. Replace in same manner. Alternatively, a scaled eductor can be cleaned (or kept from scaling) by drawing the descaling solution through the unit. Operate the unit with the suction tube in the descaling solution. Operate the unit until solution is drawn consistently, then flush the unit by drawing clear water through it for a minute. Replace concentrate container and put suction tube into concentrate.



Hydro Systems Company 3798 Round Bottom Road Cincinnati, OH 45244 U.S.A. Phone 513-271-8800 Fax 513-271-0160 Web hydrosystemsco.com