

1980 VALVE

RESTORED



**FACTORY RECONDITIONED VALVES NOW IN STOCK
(MOST MODELS AVAILABLE FOR IMMEDIATE DELIVERY)**

Now you can offer your customers faster service:

- *Economically priced*
- *Minimize down time*
- *Save on field labor costs*
- *Utilize labor time to increase production and profitability*
- *Limited Two-year warranty*

CONTACT OUR SALES DEPARTMENT FOR ADDITIONAL INFORMATION

Maxton Valve Exchange Program Won Buildings Magazine's 2011 Money Savings Product Award



The Valve Exchange Program has been developed to provide our customers with an alternative to sending valves in for repair and return; subsequently experiencing unnecessary down time on the job. This program offers a fast, economical replacement valve that includes our 2 year limited warranty. The program works as follows:

Our customer orders a "reconditioned" valve through the VEP program, and as part of the exchange, they return the valve that needs rebuilding to Maxton within 90 days. The valve that is returned to Maxton becomes the property of Maxton as part of the exchange, and is placed in our stock after evaluation and general overhaul.

Prior to calling in a VEP order, customers should have the serial number for the valve the VEP will be replacing, as well as the size and type of flange(s) required on the valve. (Please note that it is company policy that all valves shipped from Maxton go out with flanges attached). Upon placing the order, the serial number is used to confirm the valve model - we only exchange "like for like" - this means that the valve model returned to Maxton must be the same as the model ordered for it's replacement. Upon confirmation of the serial number, the Customer Service Representative will continue with your order and obtain the usual information including PO number, ship to address, how to ship, as well as the flange information. Please note that VEPs do not come with coil assemblies - if you need coils included with your order they are available for an additional charge, just advise your Customer Service Rep.

The customer is provided with a "Return Authorization Number" - it is important that this number be noted on the outside of the box, as well as included on any documentation inside with the valve. The valve must be returned to Maxton within 90 days to receive credit for the core charge. To avoid any additional charges be sure to return your valve with the appropriate flanges.

In addition, we also offer a Repair and Return Program. Customers who wish to have their present valve repaired and returned should contact the Sales Department for a Return Authorization Number. Once the valve is received in our shop it generally takes 2 weeks for the evaluation, repair, and testing of the valve. If turnaround time is important, it is advisable to consider the VEP program as an alternative.

Please note that UC3 valves are no longer manufactured and cannot be accepted as part of a valve exchange or as a repair and return order. For replacement of a UC3 valve, please call the Sales Department with your job specs to assist us in recommending a suitable replacement valve for you.

(UC4M shown)

CAUTION:

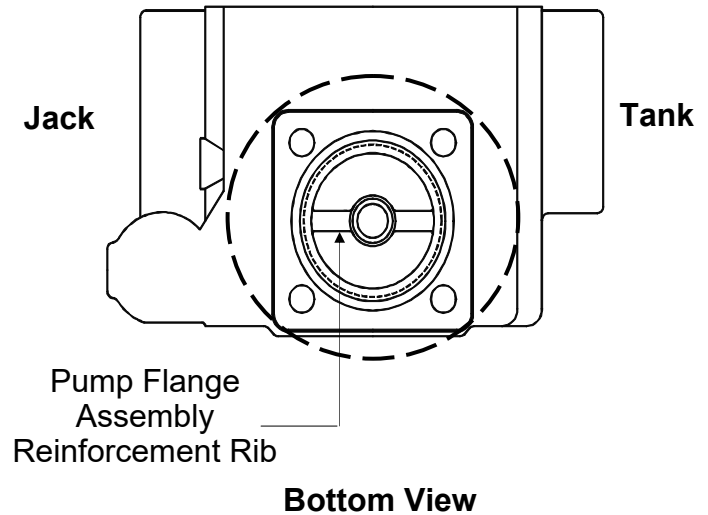
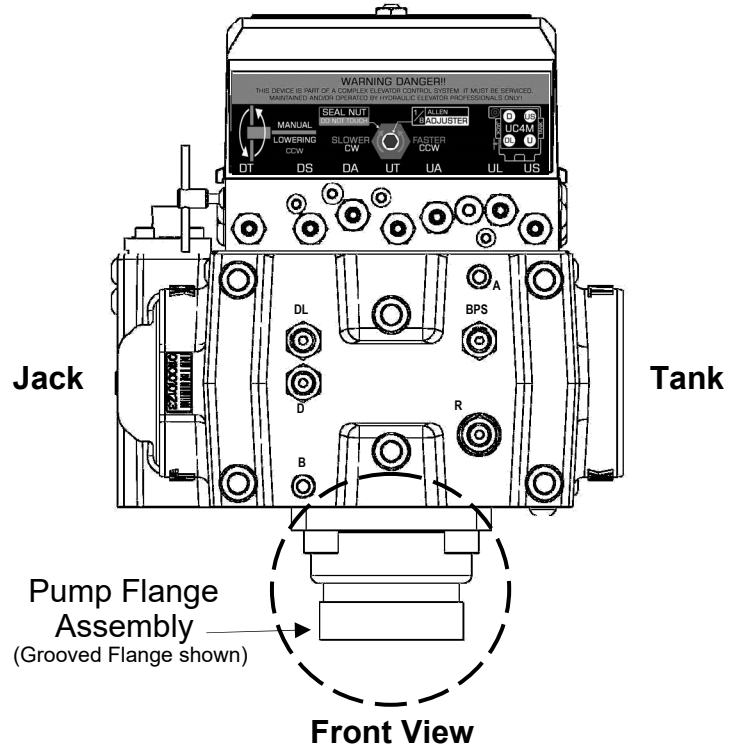
All Maxton valves **MUST** be installed with the solenoids in the upright (vertical) position.

Pump Flange Replacement:

When replacing a Maxton UC3A / UC3AM or UC4 / UC4M / UC4MR series valve, the Pump Flange Assembly must also be replaced.

It is subject to the same wear and tear as the valve. It is important that when installing the flange, the Reinforcement Rib inside the flange be installed in line with the Jack and Tank ports on the valve body.

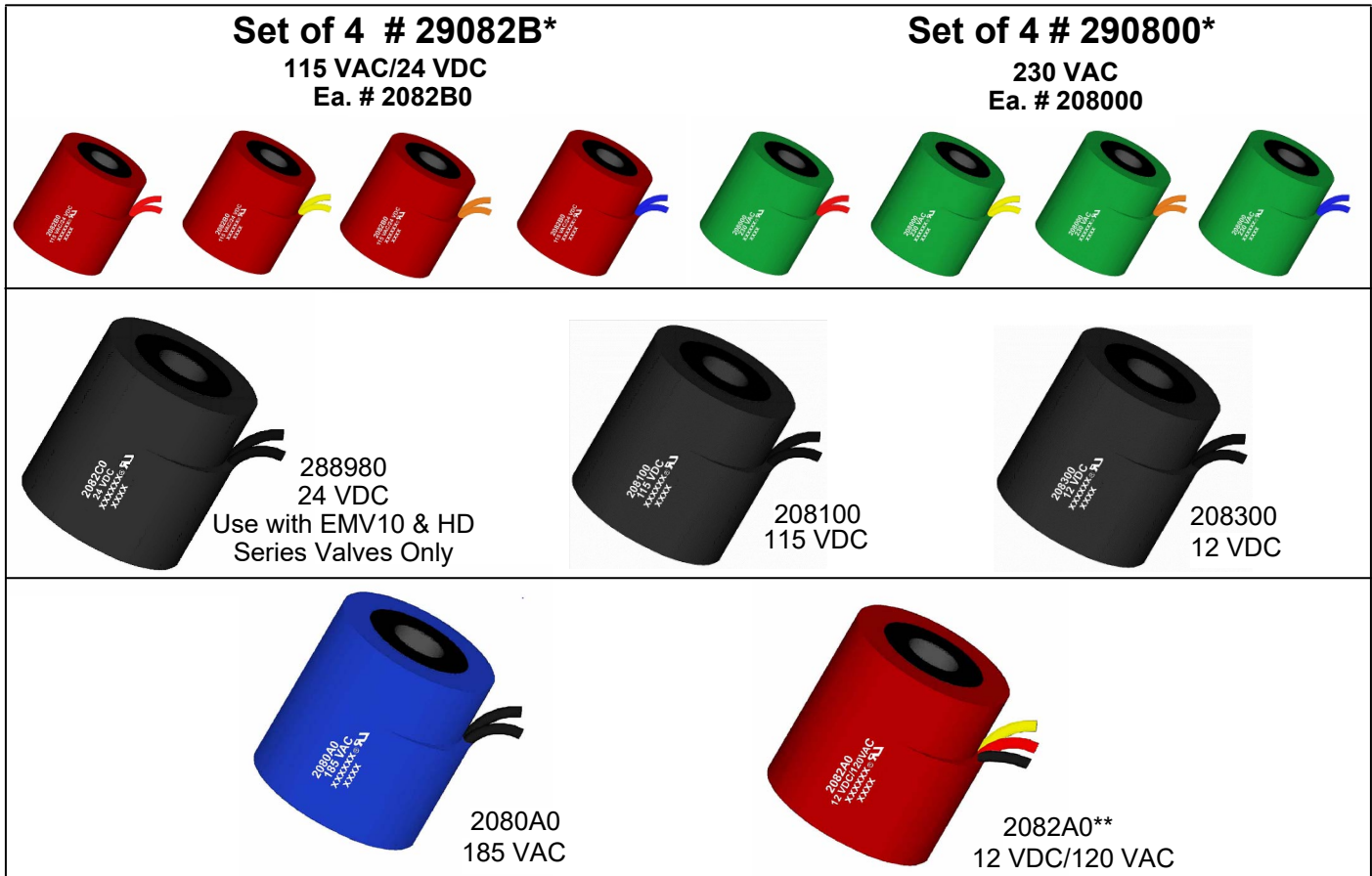
Maxton has not manufactured the UC3 since 1977. We no longer support the UC3 in the form of parts, kits or repairs. The UC4 series valve is the direct piping replacement for the UC3. To determine which of the UC4 valves is best suited for your job, please contact our sales department with your job specs (piston diameter, car speed, capacity, no-load PSI or empty car weight).



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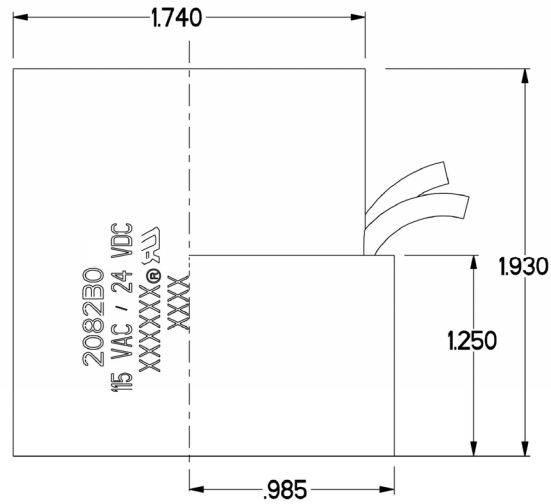
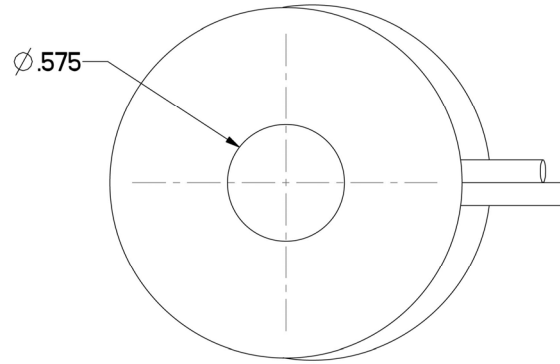
All values shown tested with C-Frame installed on a fully assembled control plate.

Part No.	Coil Color	Lead Wires		Coil Wire Size	Voltage	OHMS ± 10%		Current (AMPS) ± 10%	
		Length (inches) +2", -0"				DC Resistance	AC Impedance	DC	AC
2082B0 (Dual Use)	Red	96		26	115 VAC	24.5	174.24	--	.66
					24 VDC	24.5	--	.9	-
288980 (Dual Use)	Black	5		26	115 VAC	24.5	174.24	--	.66
					24 VDC	24.5	--	.9	-
208000	Green	96		29	230 VAC	116	1000	--	.230
208100	Black	96		32	115 VDC	512	--	.22	--
208300	Black	96		22	12 VDC	5.20	--	2.19	--
2080A0	Blue	96		28	185 VAC	78.2	840	--	.220
2082A0 (Dual Voltage)	Red	96	Yellow	23	12 VDC	4.4	--	2.59	--
			Red	27	120 VAC	24.2	184	--	.650
			Black	N/A	Common	--	--	--	--



* Part # 29082B AND # 290800 COME IN SETS OF 4 WITH MULTI-COLORED LEAD WIRES. COLORS ARE RED, YELLOW, ORANGE AND BLUE. ALL OTHERS ARE BLACK UNLESS OTHERWISE NOTED

** DESIGNED FOR USE WITH THE DOWN LEVELING SOLENOID FOR EMERGENCY (BATTERY BACKUP) LOWERING. 3-WIRE COLOR CODED



The normal mechanical life of a Maxton valve is in excess of two million cycles. Valve operating life can be affected by many variables, i.e. the operating temperature, the usage frequency, the pressure ratio, and the presence of contaminants in the oil, their size, type and amount, etc. With the presence of at least some adverse conditions in most installations, serious consideration should be given to overhaul or replacement of a control valve on a five year cycle.

Rebuild of a control valve requires proper tools, detailed knowledge of critical areas in the valve, and full testing of the completed assembly. Machining and component replacement may be necessary to meet current design specifications. Few facilities have the knowledge and capability. For this reason, Maxton no longer offers a valve service kit. Valve seal kits, seat kits, and solenoid kits are available, but are neither designed nor intended for field rebuild of a valve unit.

A more cost effective and lower liability option to repairing control valves in the field is the Maxton Valve Exchange Program. The exchange program provides you with a fully reconditioned, tested replacement valve and includes a 2 year limited warranty, the same as our new valves.

Seat kits, seal kits, and solenoid kits are intended for use by professionals trained in the manufacture, installation and maintenance of hydraulic elevator systems. Before disassembly or replacement of a control valve, the main line power switch should be disconnected and locked out and the car landed on the buffers (zero system pressure).

Manual lowering is used to lower a car for service, and to depressurize the oil system. This control should be fully closed after use. If a car is stuck in the hoist way, manual lowering must be shut to ensure the car remains supported by a column of oil.

There are neither parts nor kits available for the UC3 control valve. This valve model is no longer manufactured nor supported in the form of kits, parts, and repairs. For replacement of a UC3 valve, contact our sales department with the job specifications to determine the correct valve for replacement. Job specifications needed would include car speed, jack piston diameter, capacity, no-load system pressure or empty car weight, the coil voltage and the pump flange type.

Note that the UC3 valve should not be confused with the UC3A OR UC3AM valve. The arrangement of the control blocks, determine the valve type. The obsolete UC3 valve has separate up and down control blocks on top of a control plate. The newer UC3A style valve has a common or single plate which holds the rate adjusters and the four solenoid stems. The valve solenoid number may also be used to identify a valve – contact Maxton sales. Although Maxton no longer manufactures new UC3A or UC3AM valves, repair service and the Valve Exchange Program stock are both available.

It is recommended that solenoid seats and ball cage assemblies be replaced every 2,000,000 cycles. For a valve that was manufactured or last repaired before May 1995, the solenoid seat and solenoid tube assembly must be changed together (use the appropriate solenoid kit).

Seal kit # 291510 (for UC1/1A/2/2A valves) contains field replaceable seals and piston rings for these model valves. The check piston, and the piston seat assemblies are not considered removable, and seal parts for these assemblies are not provided.

Seal kit # 291540 (for UC3A/3AM/4/4M/4MR valves) contains field replaceable seals as well as a BPS adjuster (#283330). Due to the presence of an internal seal, and the nature of the problems should the seal fail, it is recommended that the BPS adjuster be replaced during periodic maintenance (3-5 years), and whenever valve seals must otherwise be replaced. Seals for the piston seat assemblies in these valves are not provided as the seats vary between valve years, are not easily removed and can be improperly re-installed in the field.

Seal kit # 291500 is used to replace the seals in the OSV (seismic safety or pipe rupture) valve.

UC1/UC1A/UC2/UC2A valves manufactured prior to 1980 have solenoid stems that are held in place with a snap ring. There are no longer parts, seats or seals available for this style solenoid assembly. The valve can be returned to Maxton for repair and return including an upgrade to the current style blocks (re-porting of the valve body) or may be replaced through the purchase of a new valve or valve exchange program

Solenoid kit # 29292A (UC1/1A/2/2A valves) Each kit contains matched solenoid seats, ball cages and solenoid tube assemblies sufficient for one valve.

Solenoid kit # 292920 (UC4/4M/4MR/UC3A/UC3AM valves) Each kit contains matched solenoid seats, ball cages and solenoid tube assemblies sufficient for one valve.

For valves manufactured since May 1995, Seat kit # 29298A-2 (UC1/1A/2/2A/UC4/4M/4MR valves) is used to replace the solenoid seats only.

When replacing a UC3A or UC4 series valve, it is strongly recommended that the pump flange assembly also be replaced. This pump flange assembly has moving parts with a service life.

To provide trouble free startup and operation, the oil system should be purged and the oil filtered or replaced when a valve replacement takes place.

**FACTORY RECONDITIONED VALVES ARE AVAILABLE ON AN EXCHANGE BASIS
V. E. P.
Valve Exchange Program**

**2-YEAR Limited factory warranty – most models available for immediate shipment
CONTACT MAXTON SALES DEPARTMENT FOR ADDITIONAL INFORMATION**

Disconnect power and land car on the buffers (zero system pressure) before installation. Do not save and reuse parts.

291510 KIT FOR UC1 / UC1A / UC2 / UC2A VALVES					
Quantity	Part No.	Description	Quantity	Part No.	Description
3	2057A0	Seal Ring (BPS / Down / Check piston)	3	210600	Seal Ring (Adjuster; down leveling, BPS)
2	210000	Seal Ring (BPS / Down closure sleeve)	5	210700	Seal Ring (LS adjuster, Up/Dn strainer)
1	237200	Seal Ring (Up Block)	29	210800	Seal Ring (1/4-28 Button head screw)
5	210200	Seal Ring (BPS / Down / Check piston rod)	1	210900	Seal Cup (Down adjuster)
1	210300	Seal Ring (Restrictor closure)	1	211000	Seal Ring (Relief block bore)
1	210370	Seal Ring (Check Closure with groove)	9	227000	Adjuster Seal (Teflon ring)
3	210400	Seal Ring (Flanges, Pump, Tank & Jack)	2	28098A	Piston Ring & Expander (BPS / Down)
23	210500	Seal Ring (Seal plug, Relief push rod, Face Seal)	8	263900	Seal Ring (10-32 button head screw)

Disconnect power and land car on the buffers (zero system pressure) before installation. Do not save and reuse parts.

291500 KIT FOR OSV VALVE					
Quantity	Part No.	Description	Quantity	Part No.	Description
1	2057A0	Seal Ring (Down piston)	1	210900	Seal Cup (Down adjuster)
1	210000	Seal Ring (Closure sleeve)	1	217400	Seal Ring (Lower control block)
2	210200	Seal Ring (Piston rod)	2	227000	Adjuster Seal (Teflon ring)
2	210400	Seal Ring (Flanges, Pump & Jack)	1	28098A	Piston Ring & Expander (Down piston)
13	210500	Seal Ring (Seal plug, Face Seal)	2	238500	Seal Ring (Spring guide)
1	210600	Seal Ring (Tripping speed adjuster)	1	210190	Seal Ring (Spring guide, new style)
2	210700	Seal Ring (Control block, Valve Body)	4	210800	Seal Ring (1/4-28 Button head screw)

IMPORTANT NOTICE

In order to ensure the retrofit of the 1/2" diameter piston assembly rod, the above kits **do not contain** parts to replace the main rubber seals on the pistons for valves manufactured prior to January 1992. Additionally, no replacement seals are included for the down speed regulator portion of the UC2/2A. Contact our sales department for replacement parts or reasonably priced factory reconditioned valves on an exchange basis. O-ring# 210300 has been discontinued from the kit below – it is recommended that a new pump flange be installed to replace older flange requiring that seal.

291540 KIT FOR UC-3A/3AM/4/4M/4MR VALVES					
Quantity	Part No.	Description	Quantity	Part No.	Description
1	204500	Seal Ring (Down guide retainer)	2	211300	Seal Ring (Ball check seat)
15	237200	Seal Ring (Face seal, B44, Relief cart. up/down strainer, DSR)	8	227000	Adjuster Seal (Teflon ring)
2	210190	Seal Ring (Face seal, B44)	3	232100	Seal Ring (Flange, piston sleeves)
4	210200	Seal Ring (Closure adj., transfer line)	2	233600	Seal Ring (Manual Lowering / DSR)
31	210500	Seal Ring (Closure adj., Seal Plug, Face Seal)	4	238500	Seal Ring (Face Seal)
13	210700	Seal Ring (LS adjuster, Face Seal)	1	283330	BPS Adjuster Assembly
28	210800	Seal Ring (1/4-28 Button head screw)	2	28371C*	Piston Ring & Expander (Up / Down)
2	211000	Seal Ring (Face seal)	15	263900	Seal Ring (10-32 Button head screw)

* Warning: When replacing Teflon Ring (2371C0) the Expander Ring (2378A0) must be replaced as well.

Disconnect power and land car on the buffers (zero system pressure) before installation. Do not save and reuse parts.

292920 SOLENOID KIT FOR UC4 / UC4M / UC4MR / UC3A / UC3AM

Quantity	Part No.	Description	Quantity	Part No.	Description
1	29298A-2	Solenoid Seat Kit	4	282920	Solenoid Tube Assembly
1	292950	Ball Cage Kit	4	238500	Seal Ring (Solenoid Tube)

29292A SOLENOID KIT FOR UC1A / UC1 / UC2A / UC2

Quantity	Part No.	Description	Quantity	Part No.	Description
1	29298A-2	Solenoid Seat Kit	1	28292A	Solenoid Tube Assembly
1	292950	Ball Cage Kit	3	282920	Solenoid Tube Assembly
4	238500	Seal Ring (Solenoid Tube)			

29292M SOLENOID KIT FOR MINIMAX

Quantity	Part No.	Description	Quantity	Part No.	Description
1	29298M-2	Solenoid Seat Kit	1	28292A	Solenoid Tube Assembly
1	29295M	Ball Cage Kit	2	282920	Solenoid Tube Assembly
3	238500	Seal Ring (Solenoid Tube)			

29298A-2 SOLENOID SEAT KIT FOR UC4 / UC4M / UC4MR / UC3A / UC3AM / UC1A / UC1 / UC2A / UC2

Quantity	Part No.	Description	Quantity	Part No.	Description
4	2298A0-2	Solenoid Seat	4	236000	Seal Ring
4	210800	Seal Ring			

29298M-2 SOLENOID SEAT KIT FOR MINIMAX

Quantity	Part No.	Description	Quantity	Part No.	Description
3	2298A0-2	Solenoid Seat	3	236000	Seal Ring
3	210800	Seal Ring			

292950 BALL CAGE KIT UC4 / UC4M / UC4MR / UC3A / UC3AM / UC1A / UC1 / UC2A / UC2

Quantity	Part No.	Description	Quantity	Part No.	Description
4	282950	Ball Cage Assembly	4	229400	Spring

29295M BALL CAGE KIT FOR MINIMAX

Quantity	Part No.	Description	Quantity	Part No.	Description
3	282950	Ball Cage Assembly	3	229400	Spring

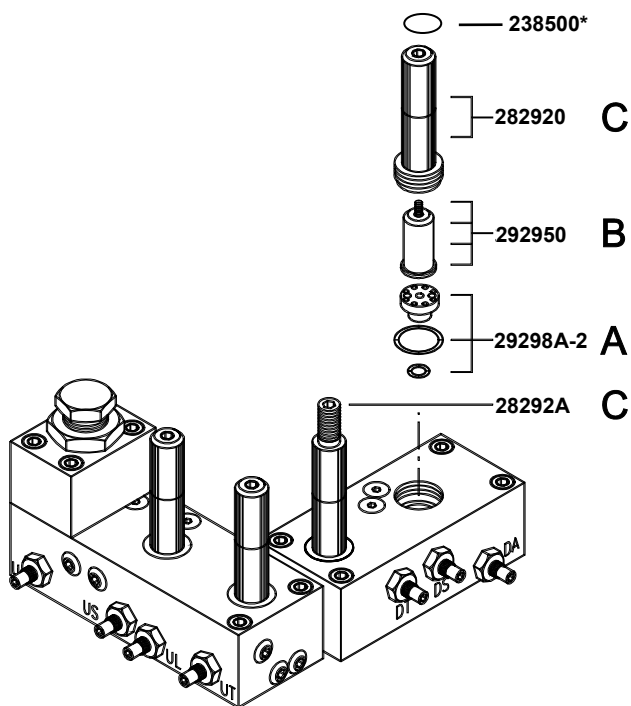
29298EMV SOLENOID SEAT KIT FOR EMV10 / EMV10T

Quantity	Part No.	Description	Quantity	Part No.	Description
2	2298EMV	Solenoid Seat	2	236000	Seal Ring
2	210800	Seal Ring			

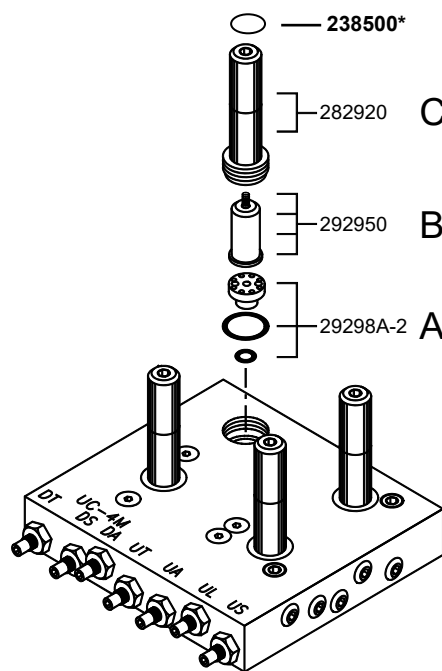
29896EMV SOLENOID KIT FOR EMV10 / EMV10T

Quantity	Part No.	Description	Quantity	Part No.	Description
1	2298EMV	Solenoid Seat	1	288960	Solenoid Tube Assembly
1	236000	Seal Ring	1	238500	Seal Ring (Solenoid Tube)
1	210800	Seal Ring	1	282950	Ball Cage
1	229400	Spring			

SOLENOID KIT PART No.: 29292A UC1A / UC1 / UC2A / UC2			SOLENOID KIT PART No.: 292920 UC4 / UC4M / UC4MR / UC3A / UC3AM			
QTY.	DESCRIPTION	ASSY NO.	SYMBOL	QTY.	DESCRIPTION	ASSY NO.
1	Solenoid Seat Kit	29298A-2	A	1	Solenoid Seat Kit	29298A-2
1	Ball Cage Kit	292950	B	1	Ball Cage Kit	292950
3	Solenoid Tube Assembly	282920	C	4	Solenoid Tube Assembly	282920
1	Solenoid Tube Assembly	28292A		4	Seal Ring	238500
4	Seal Ring	238500				
Replacement Recommendation			A & B	Replace every 2,000,000 cycles		
			A & C	Retrofit valves produced prior to July 1995.		



UC1A / UC2A CONTROL BLOCKS SHOWN



UC4M CONTROL PLATE SHOWN

REPLACEMENT PROCEDURE

1. Turn power off at main disconnect switch.
2. Land car on buffers (zero system pressure).
3. Use caution when handling seats. Tools should be used on the outer holes only to avoid damaging the sealing edge of the center hole.
4. Dip seal rings in oil and install new parts as depicted above.* **238500 should be installed dry.**
5. Make sure the solenoid seats are centered and all the way down before installing remaining parts.
6. Tighten solenoid tubes to 156 in lbs. (13 ft lbs).
The solenoid tubes should be checked periodically for proper torque.

