Elevator Equipment Corporation

Your One Source For Quality Hydraulic Elevator Products & Systems

4035 Goodwin Avenue, P.O. Box 39714,
Los Angeles, California 90039
Telephone: (323) 245-0147 ◆ Fax: (323) 245-9771
Customer Service: (888) 577-EECO
e-mail: sales@eeco-mail.com
Web Site: www.elevatorequipment.com

UV-5A Adjustment Procedure

NOTES:

- **It is not necessary to preset the adjusters on a new valve.** Each new valve is adjusted to a set of standard conditions at the factory. You will need to set DM and BP and may need to make some other minor adjustments to suit your application.
- Final adjustments are made 1/8th of a turn at a time. **Please do NOT over tighten lock nuts.**
- Valve must be mounted with solenoids in vertical position. Five (5) inches minimum clearance is required to remove the valve cover.
- When the "Adjustment Procedure" calls for coils to be disconnected, do it electrically, not physically.
- **NOTE:** Both **UA** and **DC** adjusters have strainers and must be kept clean. EECO recommends use of a 5-10 micron filtration system.
- **DO NOT** adjust the valve to suit the switch. Adjust the switch (or vane) to suit the valve.
- **CW** = Clockwise (IN) **CCW** = Counter Clockwise (OUT)

Up Adjustments

BP **ENERGIZE ULS ONLY**
Car at lower floor with no load on car. Disconnect UDS. Start pump. Turn **BP** CW until car moves, then CCW until car stalls plus 1/2 turn. Stop pump and reconnect UDS.

UA **ENERGIZE ULS AND UDS**
Car at lower floor with no load on car. Start pump. Turn **UA** CCW for fast up acceleration, CW for slower. Car should reach full speed in 2 1/2 feet (.8m) for high speed installations, proportionately less for lower speed installations. DO NOT DRAG OUT ACCELERATION. Tighten lock nut.

UL **ENERGIZE UDS ONLY**
Car at lower floor with no load. Disconnect ULS. With pump running, turn **UL** CCW until a leveling speed of 12 to 15 fpm (.06 to .08 m/sec) is obtained. Reconnect ULS. (5 feet in 20 seconds = 15 fpm) (1.5m in 20 seconds = .08m/sec)

UT **ENERGIZE ULS AND UDS**
Car at lower floor with no load. Send car up. Turn **UT** CW for slower transition (slow down), CCW for faster transition. Tighten lock nut. Slowdown switch should be set to give 3 to 4 inches (76.5mm to 102mm) of stabilized leveling. Slow down distance should be 2 inches (.05m) per 10 fpm (.05m/sec) car speed.

UD **ENERGIZE ULS AND UDS**
Car at lower floor with no load. Send car up. Turn **UD** CCW for firm stop, CW for softer stop. Tighten lock nut.

MANUAL LOWERING - Open ML CCW to lower car at leveling speed. All electrical power **MUST** be off when using manual lowering! **CAUTION** If persons are riding in car during manual lowering, warn them to stay clear of car doors.

Down Adjustments

DL **ENERGIZE DLS ONLY**
With car at upper floor or down leveling zone. Turn **DC** CW until car moves down. Adjust **DL** for 9 - 12 fpm (.05 to .06m/sec). Recycle car several times to determine down start and stop (in leveling speed). If stop is too firm, turn **DC** CW. Be sure stop is correct as all further adjustments are affected.

DM **ENERGIZE DMS AND DLS**
With car at upper floor. Car should lower. Turn **DM** CCW to obtain contract speed.

DT **ENERGIZE DMS AND DLS**
Recycle car and observe down transition. If too abrupt, loosen locknut and turn **DT** CCW approximately 2 1/2 turns until smooth. Recycle car and continue to adjust **DT** for proper transition (slow down). Tighten lock nut. Slow down distance should be 2 inches (.05m) per 10 fpm (.05m/sec) car speed. **Note:** A minor re-adjustment of **DL** may be necessary to maintain down leveling speed at 9-12 fpm (.05 to .06m/sec)

DA **ENERGIZE DMS AND DLS**
Car at upper floor. Turn **DA** CW until it stops. Car should not move. Turn **DA** slowly CCW until valve opens. Turn **DA** CW to slow the acceleration rate. Tighten lock nut.

DC See **DL** above for final adjustment. Tighten lock nut.

RELIEF VALVE - Fully adjustable pressure relief valve is located on front of valve body and is set at 450 psi (31 bar) at the factory. Code requires that final pressure relief be set in the field. Turn CW for higher pressure, CCW for lower pressure. Please be sure that pressure relief valve and bypass are sealed after final adjustments are made.

Valve Presetting Procedures

BP ***Bypass***	CCW to stop then CW 2 turns	(CCW -	Delays up start)
UA ***Up Acceleration***	CW to stop.	(CW -	Slower rate)
UL ***Up Leveling***	CW to stop.	(CW -	Slower speed)
UT ***Up Transition***	CCW to stop.	(CCW -	Faster rate)
UD ***Up Dump (Stop)***	CCW to stop.	(CCW -	Faster rate)

DC ***Down Closing***	CCW to stop.	(CCW -	Faster rate)
DT ***Down Transition***	CW to stop (flush with lock nut).	(CW -	Faster rate)
DL ***Down Leveling***	CW to stop then CCW 5 1/2 turns.	(CW -	Slower speed)
DA ***Down Acceleration***	CCW to stop.	(CCW -	Faster rate)
DM ***Down Main***	CW to stop then CCW 5 1/2 turns.	(CCW -	Faster speed)

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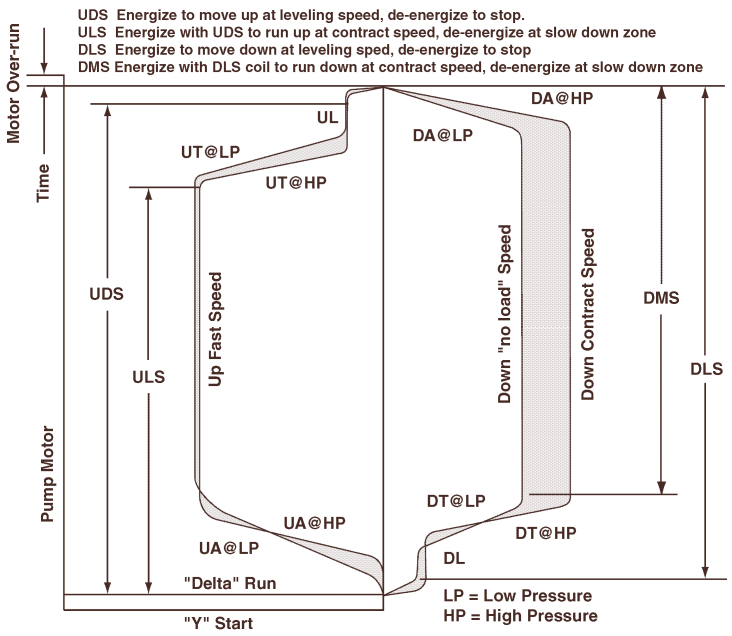
UV-5A Operational Data

PERFORMANCE CHART FOR UNCOMPENSATED VALVES



PRESSURE:

CSA-B44/UL Minimum/Maximum: 90 - 800 PSI (6.2 - 55.2 bar)

FLOW RATE:

Minimum 10 gpm to maximum 200 gpm (38 -760 l/min)

OPERATING TEMPERATURE:

80° F (27° C) minimum to 150° F (65° C) maximum

GAGE PORTS:

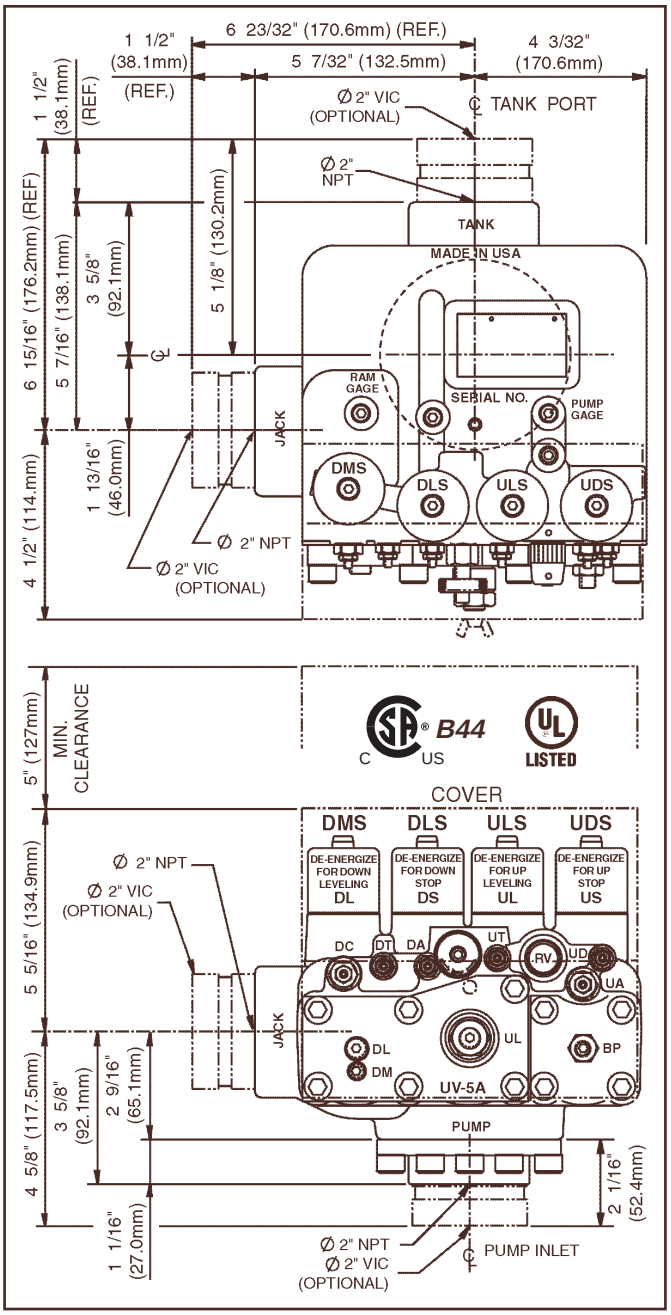
Gage ports are 1/8" NPT and are provided at the locations labeled Ram Gage and Pump Gage on top of the valve. Optional quick connect/disconnect fittings as well as 0-1000 psi liquid filled pressure gages can be supplied with the valve upon request.

OIL SPECIFICATIONS:

Recommended oil: A good grade of turbine oil with a viscosity of 150 ssu at 100° F (38° C). **Other oils:** The UV-5A is also compatible with biodegradable (vegetable) oil.

STANDARD CSA/UL APPROVED SOLENOID COIL OPTIONS:

208 VAC
110 VAC
110 VDC/220 VDC (Dual voltage coil)
220 VAC/440 VDC (Dual volatage coil)
(For other coil options, please contact EECO)



SEQUENCE OF COIL OPERATION

Up Start:

A) "ATL" (Across The Line) start: pump motor "ON".
Energize both UDS and ULS solenoids to run up at contract speed.

B) "Y" start: Pump motor "ON" (reduced voltage).
"Delta" run: Pump motor "ON" full voltage.
Energize both UDS and ULS solenoids.
De-energize ULS at slow down zone.
De-energize UDS at floor stop zone.

CAUTION: Never energize UDS during "Y" start, only after "Delta" run!

Down Start:

Energize DMS and DLS to lower car at contract speed.
De-energize DMS at slow down zone.
De-energize DLS at floor stop zone.

Note 1: For additional clarification on the sequence of operation please refer to the above Perfomance Chart.

Note 2: Pump motor must be timed to run approximately 1 to 1.5 seconds after car has stopped.