

UV-4R Adjustment Procedure

For residential, LULA and low flow applications.

- This information is provided with the understanding that it is only to be used by qualified hydraulic elevator professionals.**
- Optimum oil temperature for adjusting valve is 80°F (27°C) min. to 100°F (38°C) maximum.
- Each new valve is adjusted to a set of standard conditions at the factory. You only need to adjust **DM** and **BP** settings. Other minor adjustments may be required to suit your application. Final adjustments are made 1/8 turn (or less) at a time for optimum performance.
- After valve adjustments are finalized, snug tighten lock nuts. **(DO NOT over tighten).**
- Valve must be mounted with solenoids in vertical position. 5 inches (127mm) minimum clearance is required to remove the valve cover for service.
- When disconnecting solenoids, do it electrically, not physically.
- It is important to keep system oil clean. EECO recommends use of a 5 micron filtration system.
- If **DC** requires further adjusting after **DA** is adjusted, first preset **DA**, adjust **DC** as required, then readjust **DA**.
- DO NOT** adjust valve to suit switches (vanes/magnets). Adjust the switches to suit the valve. Recommended slowdown distance is 2 in. for every 10 fpm of car speed.

U1 - Up Fast solenoid

Up Adjustments (From Preset)

U2 - Up Slow solenoid

- BP Bypass** - Car at lower floor with **no load**. Disconnect **U2**. Register an up call. Turn **BP** CW until car moves, then CCW until car stalls plus 1/2 turn. Stop pump motor and reconnect **U2**.
- UA Up Acceleration** - Car at lower floor with **no load**. Register an up call and observe up acceleration. Turn **UA** a small step at a time CCW for faster or CW for slower up acceleration. **DO NOT** drag out acceleration.
- UL Up Leveling** - Car at lower floor with **no load**. Disconnect **U1**. Register an up call. Turn **UL** CW (faster) or CCW (slower) to set up leveling speed at 9 to 12 fpm (.05 to .06 m/s). Leave **U1** disconnected.
- UT Up Transition** - Car at lower floor with **no load**. Register an up call. Car will move up at leveling speed. Turn **UT** CW until car speeds up, then slowly CCW until car slows down to leveling speed again. Reconnect **U1**. Cycle car and observe up transition. Turn **UT** CW for slower transition or CCW for faster transition. Slowdown switch should be set to give 3 to 4 inches (75 mm to 100 mm) of stabilized leveling.
- US Up Stop** - Car at lower floor with **no load**. Disconnect **U2**. Register an up call. Car should not move. Turn **US** CW until car moves then slowly CCW until car stops again. Reconnect **U2**. Cycle car and observe up stop. Turn **US** CW for softer stop or CCW for firmer stop. **NOTE: Pump motor must run approximately 1 second after car has stopped.**

D1 - Down Fast solenoid

Down Adjustments (From Preset)

D2 - Down Slow solenoid

- DL Down Leveling** - Car at upper floor with **no load**. Disconnect **D1**. Register a down call. If car does not move, turn **DC** CW (1/8" turn at a time) until car moves down. Adjust **DL** to set down leveling speed at 7 to 9 fpm (.04 to .05 m/s). Reconnect **D1**.
- DM Down Main** - Car at upper floor with **no load** and **DSC** on preset. Register a down call. Turn **DM** CW (slower) or CCW (faster). To set down speed at contract (full load) speed.
- DC Down Closing** - Cycle **empty** car and observe down stop. Turn **DC** CW for softer stop or CCW for firmer stop until down stop is satisfactory (see note 8)
- DT Down Transition** - Cycle car and turn **DT** CCW (slower) or CW (faster) until down transition is satisfactory.
- DA Down Acceleration** - Car at upper floor with **no load**. Turn **DA** CW to stop. Register a down call. Car should not move. Turn **DA** slowly CCW until car breaks away from the floor. Turn **DA** CCW (faster) or CW (slower) until down acceleration is satisfactory.
- DSC Down Speed Control** - Car at upper floor with **full load**. Register a down call. Turn **DSC** CW from preset to slow car to down contract speed. Remove the load, cycle car and recheck empty car speed (should be the same as set before).

ML Manual Lowering - Open **ML** CCW to lower car at leveling speed. All electrical power **MUST** be off when using manual lowering!

Relief Valve (RV):	Adjuster Presetting			
	CW = Clockwise (IN)	ADJUSTER	PRESETTING	FUNCTION
1. With fully loaded car and a pressure gauge installed on the pump gauge port, register an up call and record maximum pressure as car nears top landing. 2. With fully loaded car at bottom landing, close main line valve and turn RV and UA out CCW to stop. 3. Register an up call. Turn RV in CW to set relief pressure as required by local code (not to exceed 50% above maximum pressure recorded earlier). 4. Restart pump to check the RV setting. Seal RV as required. Open main line valve to the jack. Readjust UA for proper up acceleration.	Up	BP Bypass	CCW to stop.	(CCW - Delays up start)
		UA Up Acceleration	Flush with locknut then CCW 9 turns.	(CCW - Faster acceleration)
		UL Up Leveling	CW to stop then CCW 5 turns.	(CW - Faster speed)
		UT Up Transition	CCW to stop.	(CW - Slower transition)
		US Up Stop	CCW to stop.	(CW - Softer stop)
		RV Relief Valve	Factory set at 550 psi (38 bar).	(CW - Increase pressure setting)
	Down	DL Down Leveling	CCW to stop then CW 6 turns.	(CW - Slower speed)
		DM Down Main	CW to stop then CCW 6 turns.	(CW - Slower speed)
		DC Down Closing	CCW to stop, then CW * turns.	(CW - Softer Stop)
		DT Down Transition	* Previous to Serial # 1R18N0028, CW 15 turns - Serial # 1R18N0028 or later, 4 CW turns	(CCW - Slower transition)
		DA Down Acceleration	CW to stop.	(CW - Slower acceleration)
		DSC Down Speed Control	CCW to stop.	(CW - Slower down speed with full load)
		ML Manual Lowering	CW to stop.	(CCW - Opens valve)