

UV-4R ADJUSTMENT PRODECURE

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. 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 0.5139 inturn. 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):

- 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.
- With fully loaded car at bottom landing, close main line valve and turn **RV** and **UA** out CCW to stop.
- 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).
- Restart pump to check the RV setting. Seal RV as required. Open main line valve to the jack. Readjust **UA** for proper up acceleration.

		CW = Clockwise (IN)	Adjuster Presetting	CCW = Counter Clockwise (OUT)
		ADJUSTER	PRESETTING	FUNCTION
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 15 turns.	(CW - Softer Stop)
	DT Down Transition		CW to stop.	(CCW - Slower transition)
	DA Down Acceleration		CCW 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)