

UV-5(A/B)T & UV-5(A/B)TC Adjustment Procedure

- This information is to be used only by qualified hydraulic elevator professionals.**
- The optimum oil temperature to adjust the valve is between 80° to 100°F (27° to 38°C). If oil temperature exceeds 100°F (38°C), make down stop firmer.
- The following instructions are for adjusting the valve starting with adjusters on preset. However, each new valve is adjusted to a set of standard conditions at the factory and **you do not have to preset adjusters**. You only need to adjust **DM** and **BP**. Other adjusters may require fine-tuning to suit your application.
- Hand tighten the seal nuts on the adjusters - **DO NOT** over tighten.
- Valve must be mounted with solenoids in vertical position. Five (5) inches (127mm) min. clearance is required to remove valve cover for service.
- When disconnecting solenoids, do it electrically, not physically.
- Both **UA** and **DC** adjusters have screened inputs and must be kept clean. EECO recommends use of a 5-micron filtration system.
- If **DC** requires further fine-tuning after **DA** is adjusted, first open **DA** 3 turns, fine-tune **DC** and then readjust **DA**.
- Down contract speed is full down speed with rated load on the car for standard UV-5AT control valves, down speed with empty car is less than contract speed depending on the ration of full-load to no-load pressures, approximately 25% less for a 2 to 1 pressure ratio (i.e., empty car down speed = full load (contract) down speed x .75). If constant down speed is required between no-load and full-load conditions, use UV-5A(B)TC valve.
- DO NOT** adjust the valve to suit switches. Adjust the switches (vanes / magnets) to suit the valve. Recommended slowdown distance is 2 in. for every 10 fpm of car speed. (not to exceed 2.5 in. per 10 fpm)

U1 - Up Fast solenoid	Up Adjustments (From Preset)	U2 - Up Slow solenoid
1. BP	Bypass - Car at lower floor with no load . Disconnect U2 . Register an up call. Car should not move. Turn BP CW until car moves, then CCW until car stalls plus a minimum of 1/2 turn. Stop pump motor. Reconnect U2 .	
2. UA	Up Acceleration - Car at lower floor with no load . Turn UA CCW 2 1/2 turns from fully closed position. Register an up call and observe up acceleration. Turn UA CCW for faster or CW for slower up acceleration. Car should reach full speed in no more than 2 1/2 feet (.8m). DO NOT drag out acceleration.	
3. UL	Up Leveling - Car at lower floor with no load . Disconnect U1 . Register an up call. Turn UL CCW (faster) or CW (slower) to set up leveling speed at 10 to 13 fpm (.05 to .07 m/sec). Leave U1 disconnected.	
4. UT	Up Transition - Car at lower floor with no load . Register an up call with U2 energized only. Car will move up at leveling speed. Turn UT CW until car speeds up, then slowly CCW until car slows down again. Reconnect U1 . Register an up call and observe up transition. Turn UT CW (slower) or CCW (faster) until up transition is satisfactory. Slowdown switch should be located to give 3 to 4 inches (75 to 100mm) of stabilized leveling (see note 10 above).	
5. 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 CCW until car stops again. Reconnect U2 . Register an up call 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
1. 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/sec). Reconnect D1 .	
2. DM	Down Main - For UV-5AT valves, car at upper floor with no load . Register a down call. Turn DM CW (slower) or CCW (faster) to set down speed at 25% less than contract (full load) speed (see note 9 above). For UV-5(A/B)TC valves DSC should be on preset and set down speed at full contract speed.	
3. DSC	Down Speed Control - Put full load on car and check speed in down direction. If speed is more than 5% different from contract speed turn DSC (CW) to decrease or (CCW) to increase speed within 5% of contract speed. Final DSC adjustment should be in 1/8 turn increments	
4. DC	Down Closing - Cycle empty car and observe down stop. Turn DC CW (softer stop and slower transition) or CCW (firmer stop and faster transition) until down stop is satisfactory (see note 8). For most applications, there is no need to adjust DT since down transition is satisfactory when DC is set. However, if DT requires further adjustment, go to step 4, otherwise go to step 5.	
5. DT	Down Transition - Car at upper floor with no load . Disconnect D1 . Register a down call. Car should come down at leveling speed. Turn DT CCW until car speeds up, then slowly CW until car slows down again. Reconnect D1 . Cycle car and turn DT CCW (slower) or CW (faster) until down transition is satisfactory. Readjust DL to maintain down leveling at 7 to 9 fpm (.04 to .05 m/sec). Slowdown switch should be located to give 3 to 4 inches (75 to 100mm) of stabilized leveling (see note 10 above).	
6. 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 CW (slower) or CCW (faster) until down acceleration is satisfactory.	

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

RV Relief Valve

- 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.
- Close main line valve and turn **RV** and **UA** out CCW to stop.
- Register an up call. Turn **RV** CW to set relief pressure as required by local code (not to exceed 50% above maximum pressure recorded earlier).
- Restart pump to check pressure relief 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)		
	PRESETTING	FUNCTION		PRESETTING	FUNCTION	
UP	BP	CCW to stop, CW 2 turns.	(CCW - Delays up start)	DL	CW to stop, CCW 5 1/2 turns.	(CW - Slower speed)
	UA	CW to stop.	(CCW - Faster acceleration)	DM	CW to stop, CCW 5 1/2 turns.	(CW - Slower speed)
	UL	CW to stop.	(CCW - Faster speed)	DSC	CW to snap ring, CCW 6 turns.	(CW - Slower speed)
	UT	CCW to stop, CW 7 1/2 turns.	(CW - Slower transition)	DC	CCW to stop, CW 8 1/2 turns.	(CCW - Firmer stop)
	US	CCW to stop, CW 7 1/2 turns.	(CW - Softer stop)	DT	Closed flush with lock nut.	(CCW - Slower transition)
	RV	Factory set at 550 psi (38 bar).	(CW - Increase pressure)	DA	CCW to stop.	(CCW - Faster acceleration)
Down						