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ELEVATOR CONCEPTS LTD

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HYDRAULIC & LEVELING SYSTEM SETUP
BLAIN KV-1P VALVE

This system is designed to provide a leveling tolerance of 1/2" at 32 FPM. Optimum performance at about 25 FPM, and is designed around a coasting distance of 1/2" to 1".

I. Pre-set Relief Valve:

1. With full load on the car, check pressure in up direction. If the cab is not installed yet, add 200#. After noting pressure, turn Adjustment screw S counter clockwise until loose.
2. Place an up call and close main oil line valve.
3. Turn in Adjustment screw S until pressure is between 110% and 125% of full load pressure. Clockwise increases pressure; counterclockwise lowers pressure.
4. Tighten locking setscrew, recheck adjustment.

II. Set Up Bypass (Adjustment screw #1) so that car begins to move about 1 second after the pump starts with empty car. Clockwise shortens time; counterclockwise lengthens. After bypass is set, recheck relief setting. Adjust relief valve if necessary. Do not re-adjust bypass valve without checking relief setting afterward.

III. Set Down Acceleration (Adjustment screw #6 - inside down solenoid stem) so car accelerates smoothly. Initial adjustment: screw #6 in full clockwise, energize down solenoid, screw out counterclockwise until car starts to move. Final adjustment: Clockwise for softer acceleration, counterclockwise for quicker acceleration.

IV. Set Down Speed (Adjustment screw #9) so that down speed full load is about the same as up speed. If you cannot attain correct speed with adjustment screw, check the following:

1. Check rails & guide shoes for binding
2. If pipe run is long and/or has many bends, 3/4" pipe may be required
3. Check down pilot stem for dirt or binding
4. Check down spool for dirt or binding
5. If none of these items solve problem, a different down insert may be required. Check no load pressure and contact us for further instructions.

With valve set properly, proceed with hatch and leveling switch setup:

V. Preliminary set up for leveling unit:

1. Set any terminal hatch limit for floor level; set any final limit for 2” beyond floor level
2. Set landing system magnets per the instructions for the unit

VI. Set terminal floor stops:

1. Disconnect wires from LU and LD, disabling leveling
2. Make a terminal UP call.
3. Adjust terminal landing system magnet or hatch switch so car stops floor level.
4. Repeat for bottom landing.

SB-009 Blain valve setup

VII. Set intermediate floor stops:

1. Reconnect LU and LD
2. With car level at landing, set magnet per landing system instructions.
3. Lower the car at least 3', then call it up to landing. If not level:
4. Car stops HIGH - raise LU sensor
5. Car stops LOW - lower LU sensor
6. Raise the car at least 3', then call down to landing. If not level:
7. Make sure the down solenoid is not hanging up, and down speed is correct.
8. Car stops HIGH - raise LD sensor
9. Car stops LOW - lower LD sensor
10. Repeat at other intermediate floors.

NOTE: Before adjusting sensors, be absolutely certain the valve is adjusted and functioning properly. The factory sensor spacing is designed for a valve that is functioning properly. If you need to change the spacing, it usually means the valve is not functioning properly.

VIII. If car overshoots and relevels in opposite direction, or oscillates:

1. Check speed; reduce if too high.
2. Increase distance between LU & LD sensors
3. Check stopping distance; if car coasts more than about 1" after solenoid is de-engergized, check solenoid needle valve and down spool for binding.

IX. If car stops and then coasts into leveling zone at intermediate floors:

1. In UP direction - increase distance between DZ & LU
2. In DN direction - increase distance between DZ & LD
3. Alternate method - shorten car magnet in 1/4" increments; terminal switches will need to be adjusted.