DENVER VIBRATOR HIGH-CYCLE TROUBLE SHOOTING GUIDE

CONCERN	POSSIBLE CAUSE(S)	POSSIBLE CORRECTIVE ACTION(S)
Motor will not start & has no electrical sound	No output from power supply	Repair power supply as needed
	Faulty switch	Replace the switch
	Broken electrical conductor(s)	Repair open circuits
	Interrupted circuit in motor	Replace the motor section
Motor will not start but has electrical "hum"sound	Single phase condition	Refer to "Single Phasing" section
	Locked bearings	Replace the bearings
	Vibrator mechanically bound up internally due to improper direction of rotation	Correct direction of rotation. See footnote #1
Motor runs but unit does not vibrate	Worn drivers	Check and replace drivers as necessary
	Intermittent single phase condition	Refer to "Single Phasing" section
	Worn bearings	Replace the bearings
	Low power supply output	Correct output to 180Hz
	Voltage discrepancy between vibrator and power supply	Verify vibrator and power supply voltage are the same. See footnote #3
	Incorrect direction of rotation	Correct direction of rotation. See footnote #1
	Faulty rotor	Replace the rotor
Intermittent operation	Loose electrical connection	Inspect unit for loose electrical connections including any sectional connections in handling hose
Excessive mechanical rattling	Worn bearings or drivers	Check and replace worn parts
	Worn bearing bores or journals	Check and replace worn parts
Unit does not reach full speed and draws high amps	Worn or binding bearings	Replace the bearings
	Incorrect direction of rotation	Correct direction of rotation. See footnote #1
Excessive temperature & Abnormal current draw	Worn bearings	Replace the bearings
	Single Phase condition	Refer to "Single Phasing" section
	Motor ground or short	Replace motor section
	Power supply voltage too high	Correct power supply voltage (output)
	Voltage discrepancy between vibrator and power supply	Verify vibrator and power supply voltage are the same. See footnote #3
Single Phasing **See footnote #2**	Broken conductor in extension cord or vibrator assembly	Locate & repair the defect
	Non-contacting / connectivity situation at plug, receptacle or connector	Check, locate defect, repair or replace as necessary
	Burned or broken connection between motor lead and handling hose connector	Locate and repair the defect
	Defective switch	Replace the switch
	Power cable fatigue failure	Repair or replace as necessary
Moisture in Motor (Dry out motor parts prior to re-assembly and re-energizing motor assembly)	Perforated hose	Replace the damaged hose
	Loose handling hose connector union.	Tighten correctly
	Missing or damaged "O" ring(s), loose hose clamp(s), loose switch box cover or gasket.	Replace the "O" rings, hose clamps, switch box gasket or tighten the switch box cover as necessary.
	Head coming loose at joints	See "Head unscrews at joint while in operation"
Head unscrews at joint while in operation	Incorrect direction of rotation	Correct direction of rotation. See footnote #1
	Improper tightening of parts after repair	Inspect and tighten all sections as necessary
	Excessive time with head in tight spot against form or rebar	Keep vibrator head moving
		Use smaller head
Low Vibrator speed Amp draw normal	Faulty rotor (open bar in rotor)	Test rotor, replace if defective
	Power supply output below 180Hz	Correct power supply output

Footnotes:

#1 **Rotation** - if the rotation is wrong, the vibrator will tend to unwind. Rotation is easily checked by turning the vibrator "on" as the head sits on the ground in front of the operator. The vibrator head should move to the right. **If it moves to the left, the rotation is wrong.** The most common cause of incorrect rotation is an incorrectly wired extension cord. Whether the fault is in the extension cord, power supply outlet wiring or unit wiring, by reversing any two power leads you will reverse the direction of rotation.

Refer to wiring diagrams for proper wiring details. See Footnoe #5

It is imperative that every vibrator is checked prior to use for proper direction of rotation.

#2 **Single Phasing** - Indications of single phase conditions include a sudden loss of vibrator performance while in operation or hum noise but no vibrate when unit is energized.

Three phase 180Hz power is required for vibrator operation.

#3 **Voltage** - Voltage provided by the power supply must be the same as the vibrator voltage required. The required voltage is stamped into the vibrator barrel over the serial number.

#4 **Other service information** - for any concern not addressed in this brief guide or for additional help or information please contact the factory service personnel at:

Ph. 303-778-8832 or Toll Free 800-392-6703

or via email at: info@denverconcretevibrator.com

#5 **Parts & Wiring Diagrams** - available on the web at www.denverconcretevibrator.com or contact us at the above factory contact information