

V-M Corporation

Model: 800

Chassis:

Year: Pre 1949

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

[Riders Volume 17 - V-M 17-RCD CH 1](#)

[Riders Volume 17 - V-M 17-RCD CH 2](#)

[Riders Volume 17 - V-M 17-RCD CH 3](#)

[Riders Volume 17 - V-M 17-RCD CH 4](#)

V-M CORPORATION

MODEL 800

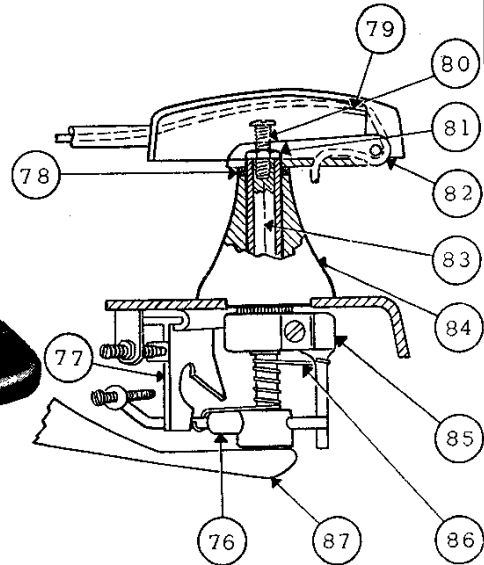
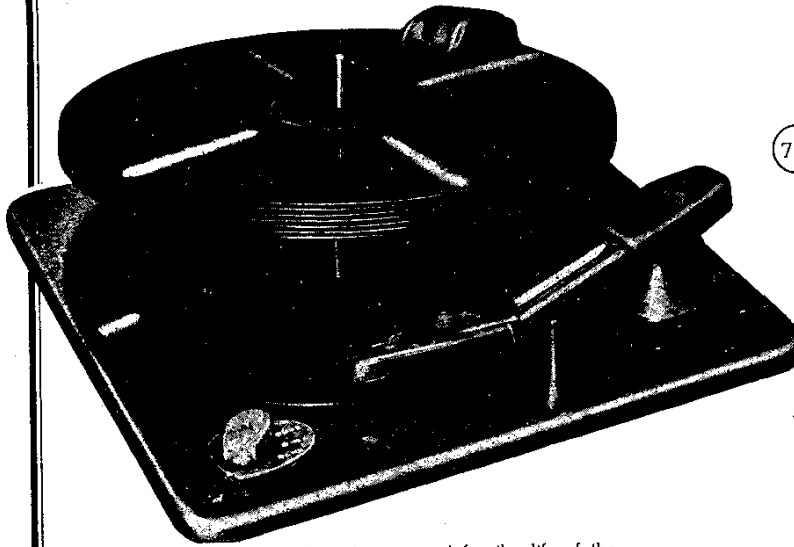


Figure No. 1

Additional lubrication should not be required for the life of the changer, but in cases of unusual use or high operating temperature, the changer should be lubricated as follows:

APPLY LUBRIPLATE TO:

1. Worm threads (106).
2. Lift shaft (83).
3. Contact point between pickup crank (85) and trip crank (76).
4. Follower arm (30, 87).
 - a. At pivot of fulcrum (51).
 - b. At contact point of trip crank (76).
 - c. At contact point of sub-frame (63).
5. Ejector Arm (55).
 - a. At contact point with trigger (95).
 - b. At contact point of follower arm (30) and screw head (53).
6. Index (77) on surfaces of slide for trip crank arm (76).
7. Follower guide (65) where follower (64) bears.

APPLY A SMALL QUANTITY OF LIGHT OIL TO:

1. Between turntable shaft (102) and storage shaft (100).
2. Follower (64) at pivot with follower arm (30).
3. Ejector arm (55) at pivot with ejector fulcrum (59).
4. Index (40) at bearing with slide bracket (48).
5. Trip link (52).
 - a. At bearing in fulcrum (51).
 - b. At bearing in trip bracket (60).
6. Trip plate (50) at bearing in fulcrum (51).

ADJUSTMENTS

NEEDLE SET-DOWN: Set-down of needle is adjusted by index screw (36). If needle sets down too far out, turn screw clockwise. Conversely, if needle sets down too far in, screw must be turned counter-clockwise. If set-down has been disturbed from holding tone arm during cycle or other willful damage, tone arm crank (44) must first be properly aligned with tone arm. Loosen crank screw (43) slightly, turn tone arm crank (44) until it is stopped by screw (42) in base place, push tone arm (10) until it is approximately $\frac{1}{4}$ " from storage shaft (3); lock tone arm crank into this alignment with tone arm by tightening crank screw (43) securely. Proceed to adjust set-down as above described.

CENTER TRIP: Center trip is adjusted by turning the trip screw (35) until changer trips when the needle reaches a point $\frac{1}{8}$ " from the center of the record.

EJECTOR SLIDE POSITION: Tabs on ejector slide (93) should be approximately $\frac{1}{8}$ " from the edge of a record. This is adjusted by screw (97).

TIMING: Timing of record drop is adjusted by screw (53) on end of ejector arm (55). Adjustment should be such to just release the bottom record of a stack of ten 12" records during cycle.

tone arm height: The tone arm height is adjusted by the screw (80) located on top of the tone arm lift rod. Turn the screw out or in until the top of the tone arm clears the records on the storage shaft by $\frac{1}{8}$ " to $\frac{1}{4}$ " during cycle.

Caution: All adjustments must be locked into position by means of lock nuts provided for each adjusting screw.

SERVICE INFORMATION**TURNTABLE DOES NOT REVOLVE WHEN CONTROL KNOB IS TURNED TO "ON" POSITION:**

1. Machine stalled in cycle:
Turn turntable carefully by hand until it starts rotating under its own power.
2. No current at motor:
 - a. Check to determine if current is reaching A. C. leads of changer.
 - b. Check switch to determine if it is closing the electrical circuit.
 - c. Check wiring and soldered terminals in changer.
3. Motor defective:
Remove turntable to allow motor to operate without load. If current is reaching motor and pulley does not rotate, the motor is defective. Repair or replace.
4. Motor idler wheel not engaging turntable rim:
If motor pulley is turning but turntable is not;
 - a. Check motor idler assembly to determine if it is free to contact the motor pulley and the turntable.
 - b. Wipe off the inside rim of the turntable to remove flock or if oily, clean turntable rim and rubber tire of idler wheel with carbon tetrachloride.
5. Turntable bearing tight:
Hold idler wheel away from turntable or remove idler wheel and rotate turntable by hand to see if it is free. If binding occurs, remove turntable and lubricate the oilite turntable shaft bearing with light oil.

CHANGER DOES NOT CYCLE WHEN CONTROL KNOB IS TURNED TO "REJ" POSITION:

1. Changer stalled or motor not driving turntable. (See "TURNTABLE DOES NOT REVOLVE WHEN CONTROL KNOB IS TURNED TO "ON" POSITION"-1, 2, 3, 4 and 5.
2. Manual reject not actuating trip:
Turn control knob to "REJ" position, hold and see if hook on end of trip link (52) is pulled back sufficiently to allow worm follower (64) to drop and engage in worm threads (106).
 - a. If trip link does not release follower, check control link rod (28). If rod is bent, carefully straighten and check for trip again.
 - b. If trip link is not restricting follower, but follower still does not engage in worm, the follower must be removed from the follower arm (30) and dirt or other foreign particles cleaned from the pivot point and from between the line of contact between the two parts.

To remove follower:

- (1) Be sure changer is not in cycle.
 - (2) Remove turntable.
 - (3) Remove two screws (62) from base plate and sub-frame (63).
 - (4) Carefully work sub-frame assembly (63) out of base plate and revolve assembly counter-clockwise to work off of follower and follower arm.
 - (5) Remove follower.
- c. If follower drops but does not engage in worm:
- (1) Check for excessive wear in pivot of follower and follower arm.
 - (2) Check to see if spring (29) has become unhooked.
 - (3) Check for dirt in follower—follower arm pivot as per paragraph 2-b, above.
3. Turntable not engaging turntable lock:
If turntable has become unseated from the turntable lock, re-seat per first paragraph, (PREPARING FOR OPERATION).
4. Turntable lock loose on turntable shaft:
Replace with new lock (103) or with new turntable shaft assembly (102).

RECORD DOES NOT DROP WHEN CHANGER CYCLES:

1. Check for bent storage shaft (3).
2. Check for under or over size record or enlarged center hole.
3. Check position of ejector slide (93) per third paragraph under "ADJUSTMENTS."
4. Check screw in ejector arm (53) to see if it hits follower arm (30) when follower (64) is at bottom of worm (106). If lock nut on this screw has worked loose, reset screw per fourth paragraph under "ADJUSTMENTS."
5. Check to see if ejector slide (93) is properly seated with its pushing mechanism on the trigger (95).
6. Check for defective trigger (95) by slowly pulling ejector arm (55) down by hand and checking if record drops. If record does not drop, trigger (95) must be repaired or replaced. To remove trigger:
 - a. Unhook index spring (49) from ejector link (56).
 - b. Remove 4 screws (57) from base plate and housing assembly.
 - c. Lift trigger from housing and check for broken weld on strengthening brace.

TWO RECORDS DROP AT ONCE:

1. Hole in record too large or records undersized.
2. Slide (101) in storage shaft (100) not fully down.
 - a. Check slide to be sure it is free and does not bind at any point. Clean out foreign matter or straighten if necessary. **DO NOT OIL.**
 - b. When records are placed on storage shaft, be sure the slide is all the way down.
3. Check for position of ejector slide (93) per third paragraph under "ADJUSTMENTS."

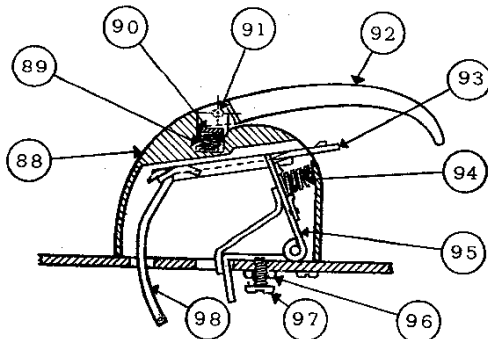


Figure No. 2

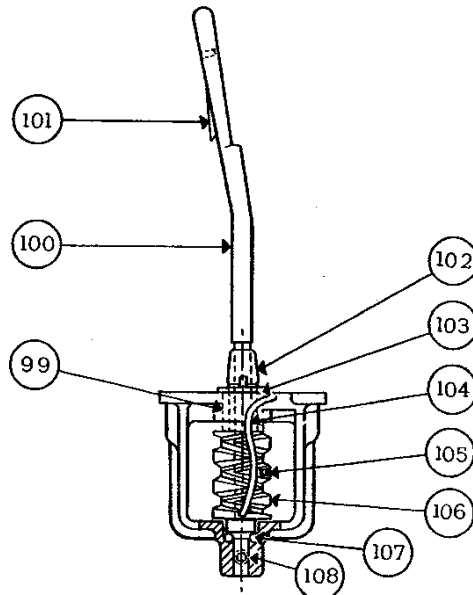


Figure No. 3

RECORD HITS PICKUP ARM:

1. Check timing of changer cycle per fourth paragraph under "ADJUSTMENTS."
2. Check for a creeping index (40). Index "creeps" if it moves when changer goes through cycle. To correct this condition:
 - a. Be sure that the pickup (10) and pickup crank (44) are aligned with each other as described in first paragraph under "ADJUSTMENTS."
 - b. Place ejector slide (5) in 12" position, cycle changer until follower (64) is at bottom of worm (106). Index spring (49) should be **just barely slack**. Ejector link (56) may be bent forward or back to give the index spring this required slack.
3. Check for too much gap between follower arm (87) and trip crank (76). This gap should be about the thickness of a sheet of paper (.005 to .016). To reduce gap, do **one** of the following:
 - a. Bend follower arm up.
 - b. Replace follower arm.

NEEDLE DOES NOT SET ON BOTH 10" AND 12" RECORDS:

1. Check needle set-down for 10" position by holding the index (40) in with the fingers as far as it will go and cycle changer.
2. Check needle set-down for 12" position by holding the index out with the fingers as far as it will go and cycle changer.
3. If 1 and 2 above are all right, when index is held in either position, check for "creeping index" per paragraph "RECORD HITS PICKUP ARM"-2.
4. Check for bind between guide tabs on index (40) and index screw (36).
5. Check for bind between index (40) and index slide bracket (48).

NEEDLE DOES NOT TRACK ACROSS RECORD PROPERLY:

1. Check for gap between follower arm (87) and trip crank (76). This gap should be about the thickness of a sheet of paper (.005 to .016). To increase gap do **one** of the following:
 - a. Bend follower arm down.
 - b. Place an appropriate thickness washer over the lift shaft (83) and under the lift nut (81).
2. Check for lack of vertical play of pickup shaft in the pickup post (84). There should be .003 to .010 play here. To correct, loosen screw in pickup crank (85), place shim between pickup hinge washer and pickup post and re-set pickup and pickup crank per first paragraph under "ADJUSTMENTS," and remove shim.
3. Check for lack of lubrication between pickup shaft and pickup post.

CENTER TRIP DEFECTIVE:

1. Check to be sure control knob is in "AUT" position.
2. If changer trips too soon or too late, re-adjust per second paragraph under "ADJUSTMENTS."
3. If changer does not center trip, push trip plate (50) back by hand and see if hook on trip link (52) is pulled back sufficiently to release worm follower (64) "CHANGER DOES NOT CYCLE WHEN CONTROL KNOB IS TURNED TO "REJ" POSITION". 2. If trip link hook does not release the follower, check for the following:
 - a. Weak or damaged spring (61).
 - b. Bind between trip bracket (60) and trip link (52).
 - c. Binding due to burrs between die-cast fulcrum (51) and trip link.
 - d. If none of the above show trouble, bend the tail of the trip link (52) in toward the side of the fulcrum (51). This will allow the hook on the other end of the trip link to pull back farther.
4. If changer continues to trip, check for the following:
 - a. Spring (33) weak or unhooked.
 - b. Binding between trip plate rod (50) and the die-cast fulcrum (51).
 - c. Too much clearance between hook on trip link (52) and follower (64). Correct by bending tail on trip link away from side of fulcrum casting (51). This will cause the hook end of the trip link to engage the follower more closely.
5. If needle jumps out of eccentric groove in record:
 - a. Check trip pressure. This should not exceed 12 grams. If trip pressure is too high, check:
 - (1) For binding as in 4-b above.
 - (2) Spring (33) too strong. May be weakened by carefully stretching one of the center loops.
 - b. Record may be defective. The trip grooves are often too shallow. Check with a record known to be good.
 - c. Needle point may be worn.

TURNTABLE SPEED TOO SLOW:

1. Binding in turntable bearing. See "TURNTABLE DOES NOT REVOLVE WHEN CONTROL KNOB IS TURNED TO "ON" POSITION"-5, this section.
2. Motor pulley too small in diameter. Replace with motor pulley of greater diameter.
3. Line voltage too low. Voltage in a 115 Volt changer should not be less than 100 Volts.
4. Operating temperature too low. Surrounding temperature should not be less than 60° F.

TURNTABLE SPEED TOO FAST:

Motor pulley too large in diameter. Replace with motor pulley of smaller diameter.

TURNTABLE STALLS IN CYCLE:

1. Motor idler not engaging turntable. See "TURNTABLE DOES NOT REVOLVE WHEN CONTROL KNOB IS TURNED TO "ON" POSITION"-4.
2. Turntable bearing tight. See "TURNTABLE DOES NOT REVOLVE WHEN CONTROL KNOB IS TURNED TO "ON" POSITION"-5.
3. Operating temperature to low. See "TURNTABLE SPEED TOO SLOW"-4.
4. Line voltage too low. See "TURNTABLE SPEED TOO SLOW"-3.
5. Binding between follower (64) and worm (106).
 - a. Check lubrication of follower arm (30) at point of bearing with sub-frame (63).
 - b. Check lubrication of worm threads.
 - c. File some metal from follower arm (30) at point of bearing with sub-frame (63) to allow more clearance between worm (106) and follower (64). To remove follower arm (30):
 - (1) See "CHANGER DOES NOT CYCLE WHEN CONTROL KNOB IS TURNED TO "REJ" POSITION."
 - (2) Remove spring (29).
 - (3) Remove cotter pin (31).
 - (4) Remove follower arm.
5. Trip crank (76) jams on index (77):
 - a. Check for lubrication on index at point of bearing with trip crank.

- b. Check for burrs on index (77) incline surface. Surface must be very smooth. Polish with crocus cloth.
- c. Check for grooves worn into trip crank arm at contact point with index. File smooth with fine file, if necessary.

NOISE DURING PLAYING OF RECORD:

1. Rumble:
 - a. **From Motor:** If a low pitched rumbling sound comes from the loud speaker while a record is being played, check the motor grommets (22) to be sure the motor is freely suspended on them. The motor lead wires should have slack to allow the motor to float. Motor rumble may also come from an out of balance motor rotor. In this case, the motor should be replaced.
 - b. **From Bearings:** Defective turntable shaft bearings can cause rumble. Check for foreign matter. Lubricate with lubriplate or light oil.
2. Defective Motor Idler Wheel:

A rapid thumping sound while the motor is running may indicate a flat spot on the motor idler wheel (21). Remove the turntable and check the rubber tire on the idler. If the surface of the rubber tire is not smooth and even, replace the idler.
3. Defective Needle:

A bad needle will cause loud needle scratch or hiss through both the speaker and the air directly from the needle. For reduced needle scratch and "needle talk," use a needle with high vertical compliance such as an off-set "dog leg" type needle.
4. Defective Record:

Worn or defective records cause needle scratch and distortion of the recorded sound. If the record is warped, it may slip on the other records causing "wow," a waver in the recorded sound. An enlarged hole in the record can also cause "wow."
5. Turntable scrapes:

If a scraping sound occurs as the turntable revolves, check:

 - a. Turntable warped, causing outer rim to rise and fall.
 - b. Motor idler bent.
6. Squeaks:

Squeaking sound as changer operates, indicates lack of lubricant. Lubricate points indicated under LUBRICATION.

NOISE DURING CYCLING:

1. There is normally an audible snap when the follower (64) engages with the hook end of the trip link (52) at the end of the cycle.
2. Squeaks: See LUBRICATION.
3. Grinding sound indicates lack of lubrication or worn parts.

DISTORTION OF RECORDED SOUND:

1. Defective needle. See "NOISE DURING PLAYING OF RECORD"-3.
2. Defective record. See "NOISE DURING PLAYING OF RECORD"-4.
3. Defective pickup cartridge:

When the cartridge is defective, the recorded sound may be distorted, weak or stop entirely.
4. Defective amplifier:

Check phonograph amplifier and speaker.

NO SOUND DURING PLAYING

1. Defective cartridge. See "DISTORTION OF RECORDED SOUND"-3.
2. Defective wiring.

Check pickup leads for a shorted or open lead.
3. Defective amplifier. See "DISTORTION OF RECORDED SOUND"-4.

EXCESSIVE RECORD WEAR:

1. Binding in pickup arm. See "NEEDLE DOES NOT TRACK ACROSS RECORD PROPERLY"-1 & 2.
2. Defective needle. See "NOISE DURING PLAYING OF RECORD"-3.
3. Excessive needle pressure:

The pickup arm is designed to give the proper needle pressure when an aluminum cased cartridge is used. If a cartridge with a die-cast housing is used, a compensating spring must be used to bring the needle pressure down to the usual standard of 1 oz. to 1½ oz. If the needle pressure is too great on a pickup arm using a compensating spring, bend the long end of the spring.

TURNTABLE CONTINUES TO ROTATE AFTER CONTROL KNOB IS TURNED TO "OFF" POSITION:

Switch defective, check for defects and replace if necessary.

