

Victor Model 12-1 (Cromwell)

CROMWELL ELECTROLA

The Cromwell is an electrical instrument, from the motor which runs the turntable to the electrical pick-up method of sound reproduction which through the rectifier power amplifier unit and the cone type loud speaker produces sound perfect in every detail. The volume of sound supply to the amplifier unit is varied by means of the volume control without sacrifice in quality.

The Cromwell is also a power amplifier and loud speaker for use on any radio receiver. This is accomplished by connecting wires from the 1st stage audio jack of the receiver to the input jack of the Cromwell located in the rear on the base of the machine. It is not recommended that the Cromwell be plugged into the second stage jack of the radio receiver as this will cause overloading of volume with a sacrifice of tone quality and a possibility that a howl will develop in the instrument. When the radio set is plugged into the Cromwell it automatically disconnects the Electrola from the speaker unit.

This instrument, due to its rugged construction and the rigorous tests through which its mechanical parts are put will require very little service.

In the event of damage to the instrument from shipment or other causes, below is the proper method of procedure for servicing:

Assuming that you have placed the tubes in their proper sockets, placed the electric pick-up (reproducer) on the tone arm, turned the toggle switch to the on position, the volume control to number five and that everything lights including the monitor lamp in turntable compartment, ready for operation.

1. Tap the needle lightly with your finger, first on one side and then on the other. Each time you touch the needle there should be a loud click through the speaker.

(A) If the click is louder when striking the needle on one side than it is on the other, the electric pick-up is out of adjustment. To determine this, remove the metal case from the pick-up and note whether the vibrating armature which is operated by the needle is directly in the center between the two pole pieces of the magnet. If the vibrating armature is off center remove the holding clamp from the magnet allowing further accessibility to the working parts. You will then see two knurled nuts locked in place by ordinary nuts. By loosening the lock nuts you can adjust the knurled nuts until the vibrating armature is again in the center of the pole pieces.

(B) If there is no click at all in the loud speaker, put a record on the turntable, start the motor, put the electric pick-up in place and let the record play.

(a) Take a pair of earphones, place the tips across the two connections of the volume control to which the leads run from the pick-up. You should hear the record playing with very low volume.

(b) If there isn't sound at this point, remove the pick-up wires from the volume control and check for open circuit from this point through the pick-up. (NOTE: Occasionally the contacts in the tone arm are not springing into position properly.)

(c) If there is sound at this point, repeat the operation on the two output connections of the volume control. If there isn't sound at this point, check the control arm of the volume control to insure proper contact. If this is O. K. and still there is an open circuit, replace the volume control.

(d) If sound comes through the above points, use the same check on the input terminals of the tomcat (metal power unit). If open here, look for broken cable between this point and volume control.

(e) If sound is coming through to the above, check output connections on the tomcat. There should be loud speaker volume at this point. If no sound, check phone plug in back of cabinet for proper contact of all connections. If there is still no sound try:

1. A new 216B.
2. A new UX-199.
3. A new UX210.

If there is still no sound, the trouble is in the tomcat. Same should be removed and returned to your distributor for replacement.

(f) If sound is coming through to output connections but no response from loud speaker, remove loud speaker leads from the tomcat and check for broken or loose connections between this point and the loud speaker.

2. Lack of volume can be traced to:

- (A) Defective 216B.
- (B) Defective UX199.
- (C) Defective UX210.

(D) Defective cone loud speaker. This can be determined by disconnecting the cone loud speaker and making volume comparison with external loud speaker.

(E) Defective electric pick-up. (Out of adjustment. See paragraph I sub. "A.")

(F) If there is a maximum volume on number three contact of volume control with diminishing volume when turned toward number five, the trouble can be traced to a grounded pick-up or grounded electric pick-up leads. If pick-up is grounded usually the case is touching some of the internal live parts. An indication of this grounded condition is that the instrument will squeal when touching the hand to the tone arm or any of the metal parts in the turntable compartment.

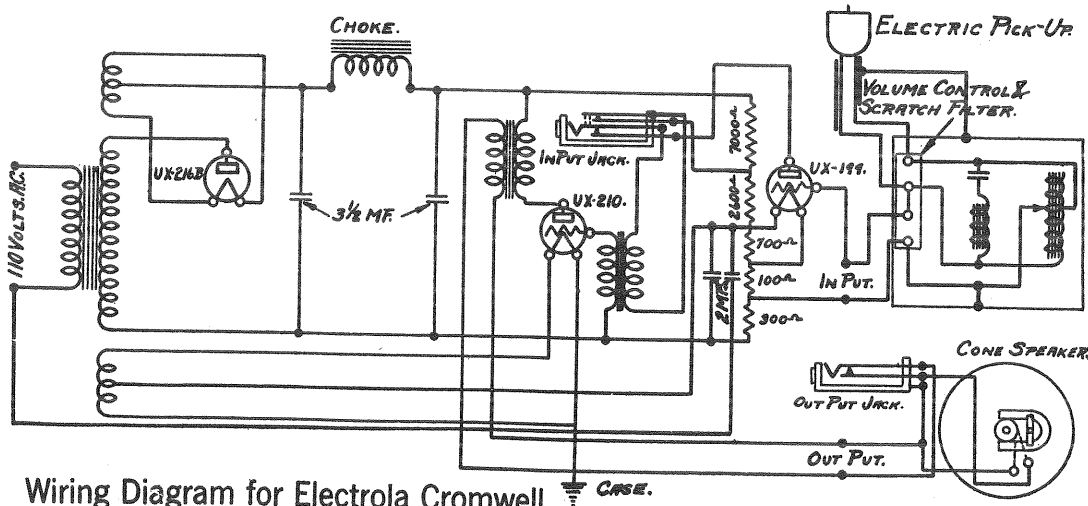
(G) If after trying the above there is still lack of volume, return the tomcat to the distributor for replacement.

3. Failure of monitor lamp to light, motor to run, or tomcat tubes to light.

(A) Check socket in which cable is plugged with either a meter or a test lamp. If there is current at this point check the various alternating current supply cables for an open circuit.

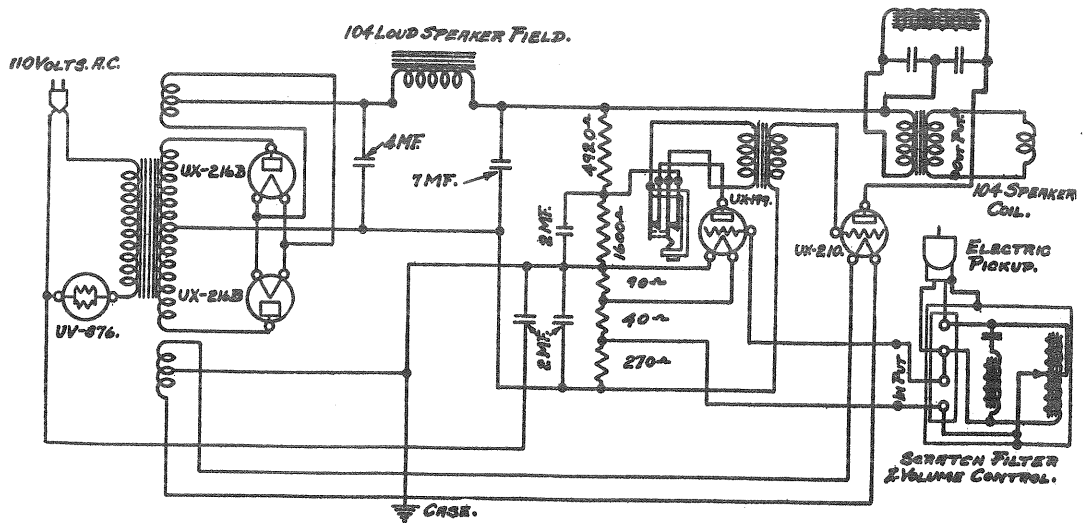
4. Excessive AC hum can often be reduced to a minimum by turning the AC supply plug 180° from the position in which it originally was tried out.

The above points if followed should enable the dealer to intelligently render service on the Cromwell Electrola.

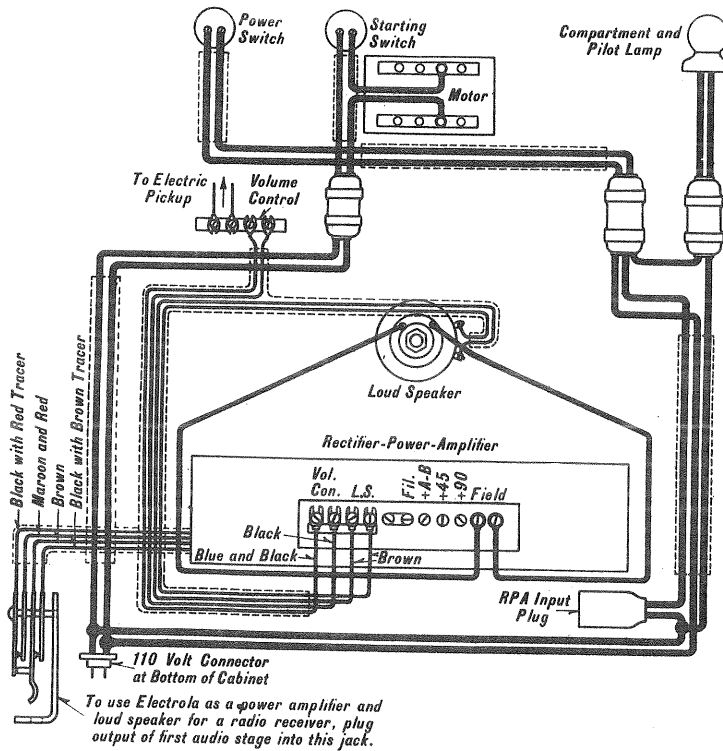


Wiring Diagram for Electrola Cromwell

Victor Model 12-2 (Tuscany)



Wiring Diagram for Electrola Tuscany



Schematic Wiring Diagram of Electrola Tuscany

Showing connections between terminals of the various units. The 110-volt wiring is shown by extra heavy lines.