



To Replace Tubes: In Models 4D18D and 4D28D Portable Phonograph, the speaker compartment cover and the record changer and mounting board must be removed to make the tubes accessible. In Model 4G22D Table Phonograph the bottom cover must be removed to service tubes.

To service tubes in either of the models, remove the line cord plug from the wall outlet; then follow specific instructions as follows:

Remove the mounting screws from the speaker compartment cover and lift the cover from cabinet.

The record changer and its mounting board come out as a unit. Fasten the **Tone Arm** to the tone arm rest. Remove the mounting board screws. Tilt the right edge of the mounting board until the record changer and mounting board clear the cabinet lid stay-arm mounting bracket. It should not be necessary to remove this bracket. If, however, it is ever necessary to remove this bracket, care must be taken to avoid damaging the cabinet lid hinges. Carefully lift the record changer and mounting board from the cabinet.

Model 4G22D:

Tie the **Tone Arm** to the tone arm rest or to the centerpost. Turn the set upside-down on a padded surface and remove the screws which mount the cabinet bottom.

To Remove the Chassis From the Cabinet: Follow the procedure outlined for “Replacing Tubes” then proceed as follows:

For Models 4D18D and 4D28D the chassis may be removed while the record changer is out of the cabinet by removing the nuts that mount the chassis to the cabinet and the nuts mounting the speaker to the cabinet. The output transformer leads are soldered to the speakers; speakers and chassis should be removed as a unit.

For Model 4G22D the screws mounting the baffle board assembly to the cabinet must be removed. The entire assembly including speakers, amplifier and baffle board will then come out of the cabinet.

Remove the speakers and amplifier by removing the nuts which fasten them to the baffle board.

Voltages shown on schematic diagram

- All readings made between tube socket terminals and common ground.
- Loudness control set at minimum.
- Measured on 117 Volts AC, 60 cycle line.
- All voltages measured with vacuum-tube voltmeter.
- Tone control set at mid-rotation.

Service Note: The "REJ-ON-OFF" pointer (S1) on the record changer is used to turn both amplifier and record changer motor on and off. To turn the amplifier on and measure voltages with the record changer disconnected, a short, temporary jumper wire must be connected from common ground (2) to the single lead from the AC line cord (3) on "M5". See schematic.

CHASSIS 4G2, 4G2A
MODELS 4G22D (TABLE TOP)
4D18D, 4D28D