

**INSTALLATION**  
**INSTRUCTIONS**  
**FOR**  
**PHILCO**  
**HOME RECORDER UNIT**  
**MODEL HR-1**



**FOR USE WITH**  
**PHILCO 1941 RADIO-PHONOGRAPHS**

# INSTALLATION OF THE HOME RECORDING KIT MODEL HR-1

Included in HR Kit Model 1 are:

- 1 Microphone
- 1 Switch Box and Switch Box Cable and Plug Assembly
- 1 Knob
- 1 Escutcheon Plate
- 1 Washer
- 2 Escutcheon Plate Mounting Screws
- 1 Switch Box Mounting Nut
- 1 Cutting Head complete with drive mechanism
- 1 Cutting Arm Rest and Mounting Screw
- 1 Operating Instructions
- 1 Installation Instructions
- 1 Recording Brush

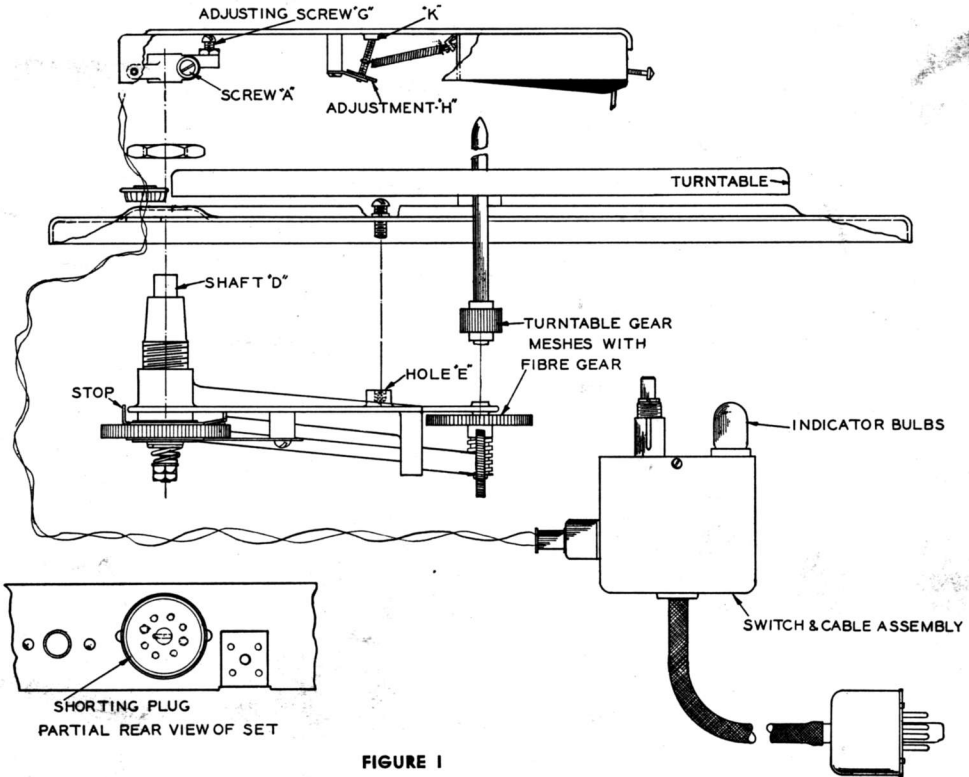


FIGURE 1

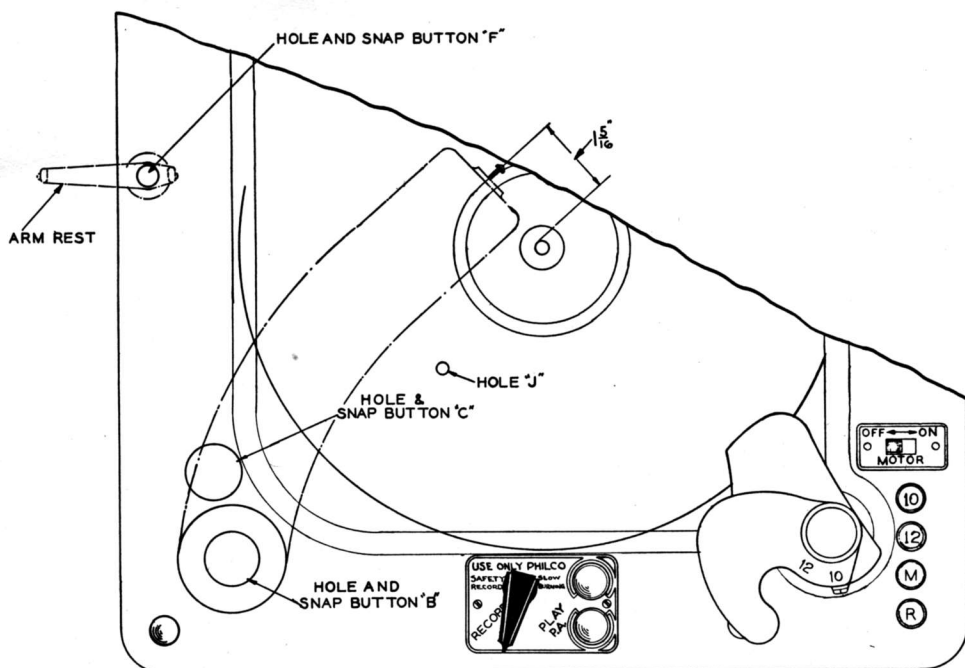
## INSTALLATION

### Installation of Switch Box Cable Plug Assembly

1. Remove escutcheon plate, labeled "Built for Home Recording" from changer.
2. Substitute home recording escutcheon plate, found in home recording kit, for escutcheon plate found on record changer, labeled "For Philco Home Recording", with the two mounting screws found in Home Recording Kit.
3. Insert Switch Box Assembly so that two indicator bulbs and switch shaft bushing protrude through the three holes found in record changer and home recording escutcheon plate. Key-way in shaft bushing should line up with key in home recording escutcheon plate.

## INSTALLATION OF THE HOME RECORDING KIT MODEL HR-1

- Place nut on shaft bushing and tighten to hold this unit firmly in place, making sure that indicator bulbs have clearance and do not jam up tight against record changer plate or escutcheon.
- Install knob on shaft by pressing on firmly.
- Dress and fasten cable from switch box assembly so that it will not foul record changer mechanism operation, loop operation, or tilt front operation.
- Remove shorting plug from rear of set and install the plug on the end of the switch and cable assembly.



FOR MODELS 41-608 — 609 — 610

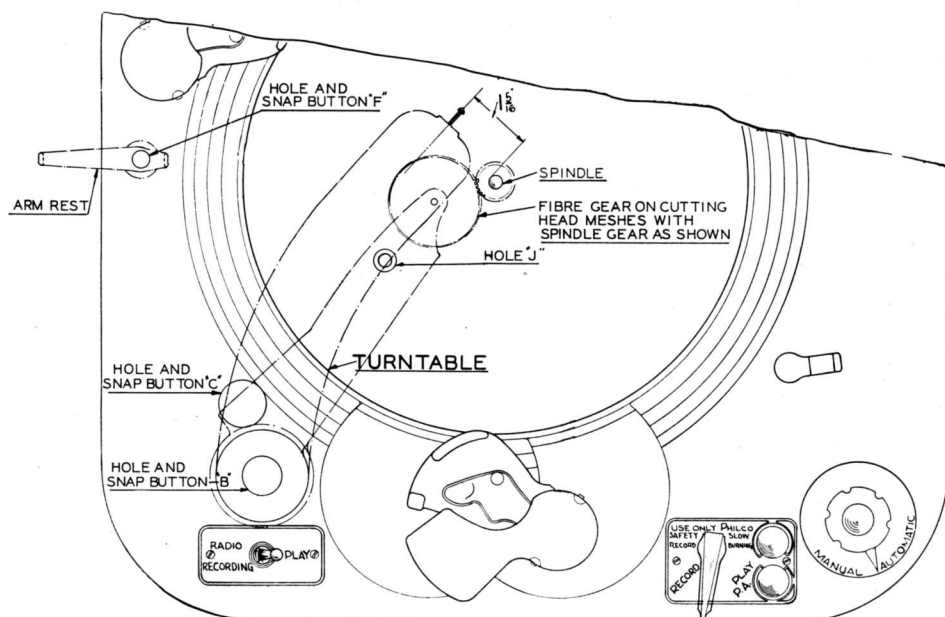
FIGURE 2

### Installation of Cutting Arm

- Loosen screw A and remove cutting arm assembly from driving mechanism, as shown in FIGURE 1.
- Remove screw found in hole E in drive mechanism and remove large nut and washers found on shaft D (see FIGURE 1).
- Remove snap plugs B and C (FIGURE 2).
- Insert shaft D of driving mechanism up through hole B in record changer where snap plug B was removed.
- Mesh the fibre gear and the gear found on the turntable spindle.
- Install large nut on shaft D protruding through hole B and tighten thumb tight.
- Remove turntable and insert screw through hole J in record changer base plate (see FIGURE 2).
- Mount the screw through hole J into hole E found on driving mechanism.
- Turn motor on and while motor is running tighten screw through hole J.

**SPECIAL FOR RIM DRIVE CHANGER** — The rim drive changer is recognized by two rubber wheels which drive on the inside of the turntable rim.

# INSTALLATION OF THE HOME RECORDING KIT MODEL HR-1



FOR PHILCO DELUXE RECORD CHANGER INSTALLATION  
MODELS 41-611 AND 41-616

FIGURE 3

Under "Installation of Cutting Arm" proceed as per items 1 to 8 inclusive.

Then: Turn spindle with the fingers making sure the fibre gear engages with the gear on the turntable spindle and does not bind. This may be adjusted by moving the driving mechanism slightly. Hole J is large enough to provide this adjustment. Tighten screw through Hole J.

Then: Proceed as per items 10 to 23 inclusive.

10. Then tighten the large nut on shaft D.
11. Replace turntable on turntable spindle and turn motor off.
12. Upon observation you will find the shaft that protrudes through hole B has a stop (see FIGURE 1). This stop is so designed to limit the motion of the cutting arm towards the spindle. The reason for this limitation is to prevent the cutting needle from hitting the turntable record drive pin or the needle dropping into the record drive hole.
13. Mount the cutting arm assembly on shaft D.
14. Tighten set screw A.
15. With cutting arm vertical, twist cutting arm in the clockwise direction until the stop is felt.
16. Loosen screw A.
17. Insert needle in crystal cutter and tighten with needle set screw.
18. Place home recording blank on turntable.
19. Now lower cutting arm and place the cutting needle 1-5/16 inches from edge of turntable spindle. During normal operation the stop (see item 11 installation of cutting arm) should prevent needle from going closer than 1-5/16 inches from turntable spindle.

20. Retighten set screw A securely.
21. Thread the cutter wires and plug through hole C in record changer base plate.
22. This plug should then be inserted in socket on side of switch box (note polarity of prongs on plug) making sure these wires do not foul gears or any part of the record changer mechanism.
23. Place snap plug found on cutter table in hole where snap button C was removed.

### *Adjustment of Height of Cutting Arm*

For proper operation, the cutting arm should clear the turntable by approximately 1/4 inch. If after mounting it is found to require adjustment, this is accomplished by means of screw G. After positioning this screw, it should be locked in place by tightening lock nut.

### *Adjustment of Cutting-Needle Pressure*

With Philco Safety Home Recording Blanks, a needle pressure of 1 to 1-1/2 oz. will give the best results. More pressure may cause over cutting of grooves and less pressure than 1 oz. will cause poor tracking or pickup will slide across record.

Adjustment of needle pressure is provided by screw adjustment H, which changes the point where the spring is hooked around adjustment screw. Moving this point toward boss K will increase needle pressure — moving it away from boss K will decrease needle pressure. To make this adjustment lift cutter vertically — turn knurled nut counter-clockwise to increase needle pressure, and clockwise to reduce this pressure.

### *To Connect Microphone*

The microphone is connected by pushing the plug found on the end of its cable into socket found on top of input transformer mounted to the cabinet and twisting to the right, which locks the plug in.

### *General*

It is important that the fibre gear of the driving mechanism is meshing with the gear on the spindle without binding. If the motor shows any signs of laboring, stalls altogether, or if recordings show variations of speed, flutter and rumble, screw in hole E should be loosened and, with the motor running, a slight amount of clearance given to the gears before retightening.

