

Master unit of "Phone-Radio," left, consists of radio chassis, control switches. "Slave," or remote speaker is at the right.

# Radio-Intercom Combo

*At the flip of a switch, the "Phone-Radio" is a step-saving two-station intercom.*

**W**HY it hasn't been done before no one knows. That is, build a small radio receiver with an intercommunication feature, so that the single instrument can do double duty in a house or apartment. Every radio set includes a powerful audio amplifying system of two and sometimes more stages, and an "intercom" is merely an amplifier with a loudspeaker at each end also acting as a microphone.

Sylvania Electric now offers such a unit under the name "Phone-Radio." The "master" is a more or less conventional AC-DC radio in an attractive plastic case, measuring about 10½ by 5½ by 6½ inches. It has a tuning knob and a volume control. In addition, on the left side of the cabinet are two switches in a recessed plate. One is marked "Radio-Phone," the other "Listen-Speak." The "slave" or remote speaker, which has no controls, is in a case of similar appearance.

With the first switch at "Radio," the instrument functions as a straightforward radio. Suppose the slave speaker is in a child's room. If mother is in her usual place in the kitchen, she can check on baby at any time by flipping the

switch to "Phone." This automatically puts the remote speaker into operation as a microphone and any sound in the baby's room is reproduced in the set in the kitchen. If mother wants to reassure the child with a few words, she presses the "Listen-Speak" switch to "Speak," talks into the kitchen set, and her words come out of the speaker in the bedroom. When she releases this switch, it returns by itself to the "Listen" position.

As a security measure, the intercom speaker at the front door is almost as good as a cop at the curb. Without moving a foot out of the kitchen, a woman alone in a house can dispel unwelcome salesmen and still do business with welcome tradesmen and greet friends.

Of course, the master and remote units are not limited to the home, but are useful in a variety of other applications. They offer a tremendous saving in time, tempers, steps and effort.

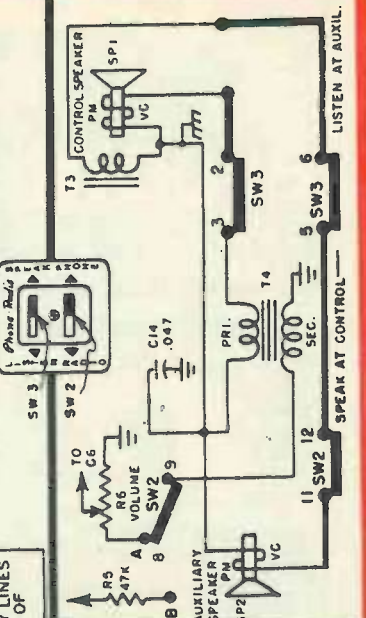
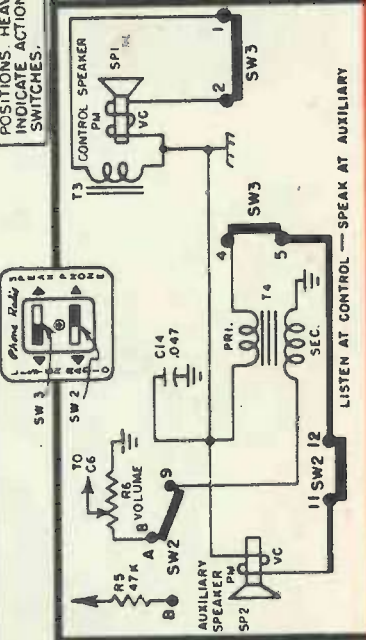
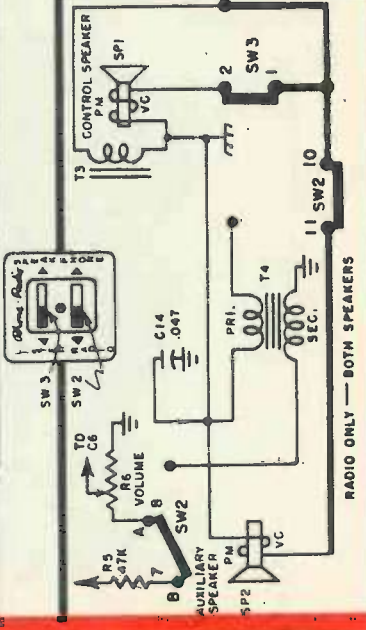
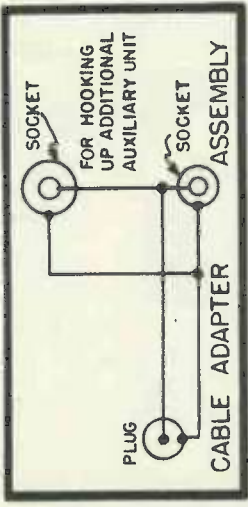
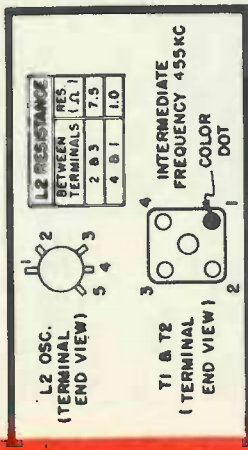
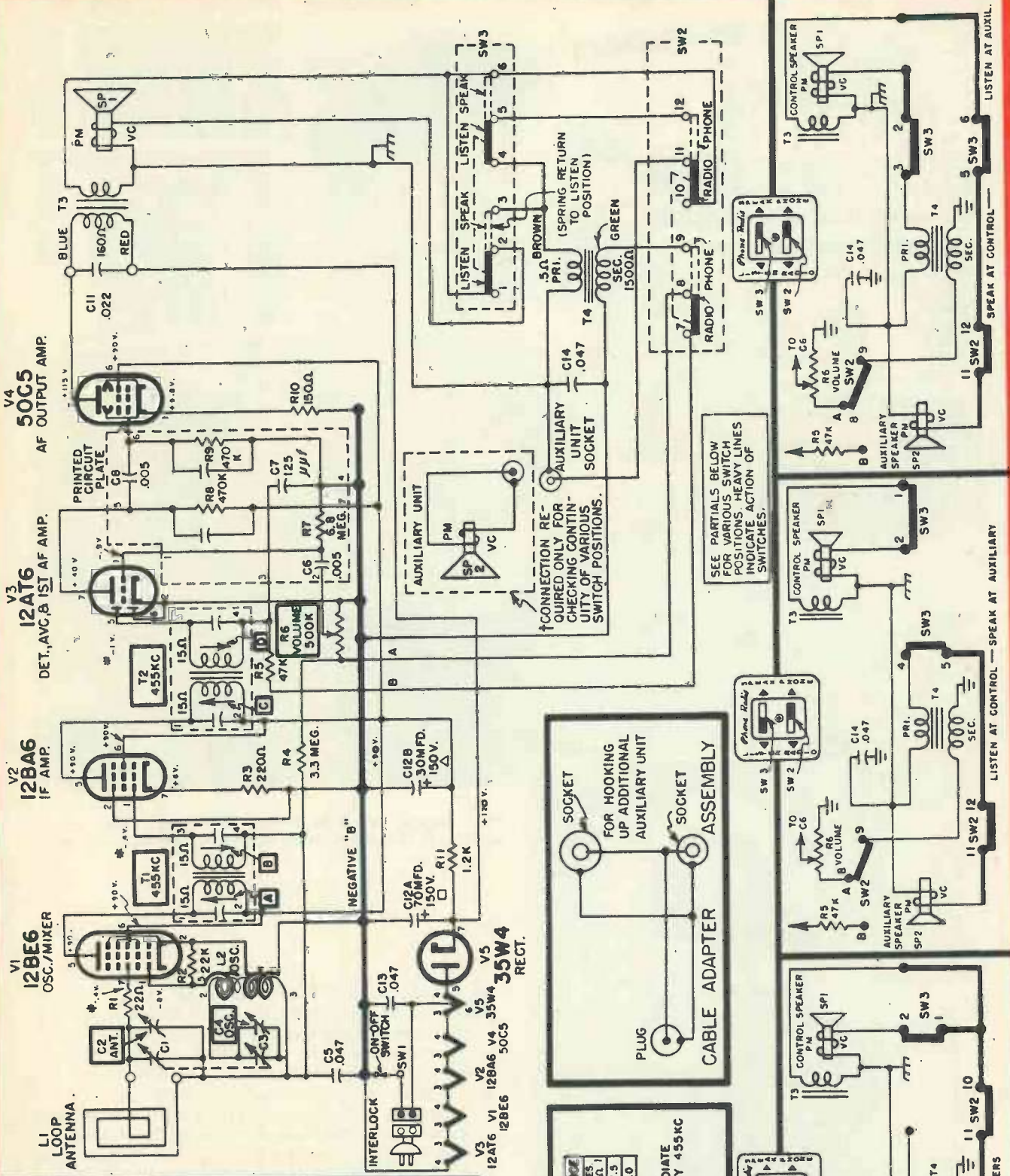
As a matter of technical interest, the complete wiring diagram of the "Phone-Radio" is reproduced here, through the courtesy of the manufacturer. The control switches are essentially of the double pole, double throw type. •—R. H.

## SUGGESTED USES



**SCHEMATIC DIAGRAM - SYLVANIA RADIO CHASSIS 1-607-4**

- REFER TO "PRINTED CIRCUIT SERVICE INFORMATION" IN THIS BULLETIN FOR TECHNIQUES USED IN VOLTAGE MEASUREMENTS AND COMPONENT REPLACEMENT ON PRINTED CIRCUIT CHASSIS.
- CONNECT ISOLATION TRANSFORMER BETWEEN POWER AND RADIO CHASSIS DURING ALL ELECTRICAL TESTS.
- VOLTAGE AND RESISTANCE MEASUREMENT CONDITIONS UNLESS OTHERWISE SPECIFIED:
  - 1. VOLTAGES MEASURED TO NEGATIVE "B"
  - ALL VOLTAGE AND RESISTANCE READINGS TAKEN WITH A SYLVANIA VACUUM TUBE VOLTMETER.
- POWER SOURCE 117 VOLTS 60 CYCLE A.C.
- LOOP-ANTENNA AND SPEAKER CONNECTED TO CHASSIS - SEE AUXILIARY UNIT.
- TUNING CAPACITOR PLATES SET TO FULLY CLOSED POSITION. VOLUME CONTROL SET TO MINIMUM. SWITCHES SET TO RADIO AND LISTEN POSITION.
- VOLTAGE AND RESISTANCE VALUES SHOWN ARE AVERAGE READINGS. VARIATIONS MAY BE TOLERABLE DUE TO NORMAL PRODUCTION TOLERANCES.
- VOLTAGE AND RESISTANCE READINGS ARE NOT SHOWN WHERE TOO SMALL.
- VOLTAGE READINGS MARKED "M" ARE WIDELY VARYING. READINGS DEPENDENT UPON SIGNAL CONDITIONS.



SEE PARTIALS BELOW FOR VARIOUS SWITCH POSITIONS. HEAVY LINES INDICATE ACTION OF SWITCHES.

CONNECTION REQUIRED ONLY FOR CHECKING CONTINUITY OF VARIOUS SWITCH POSITIONS.

Complete wiring diagram of the Sylvania Model 1102 "Phone-Radio."