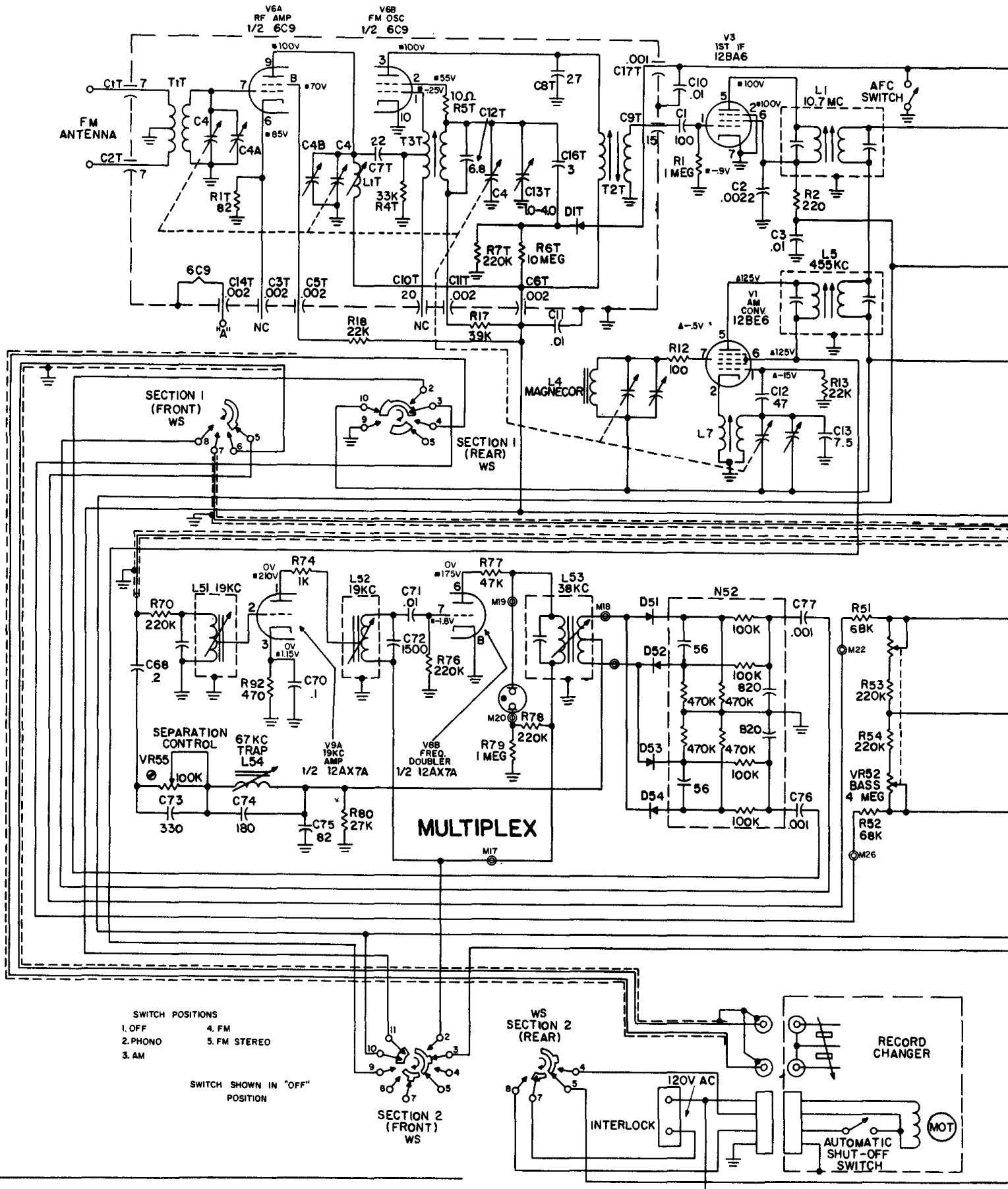


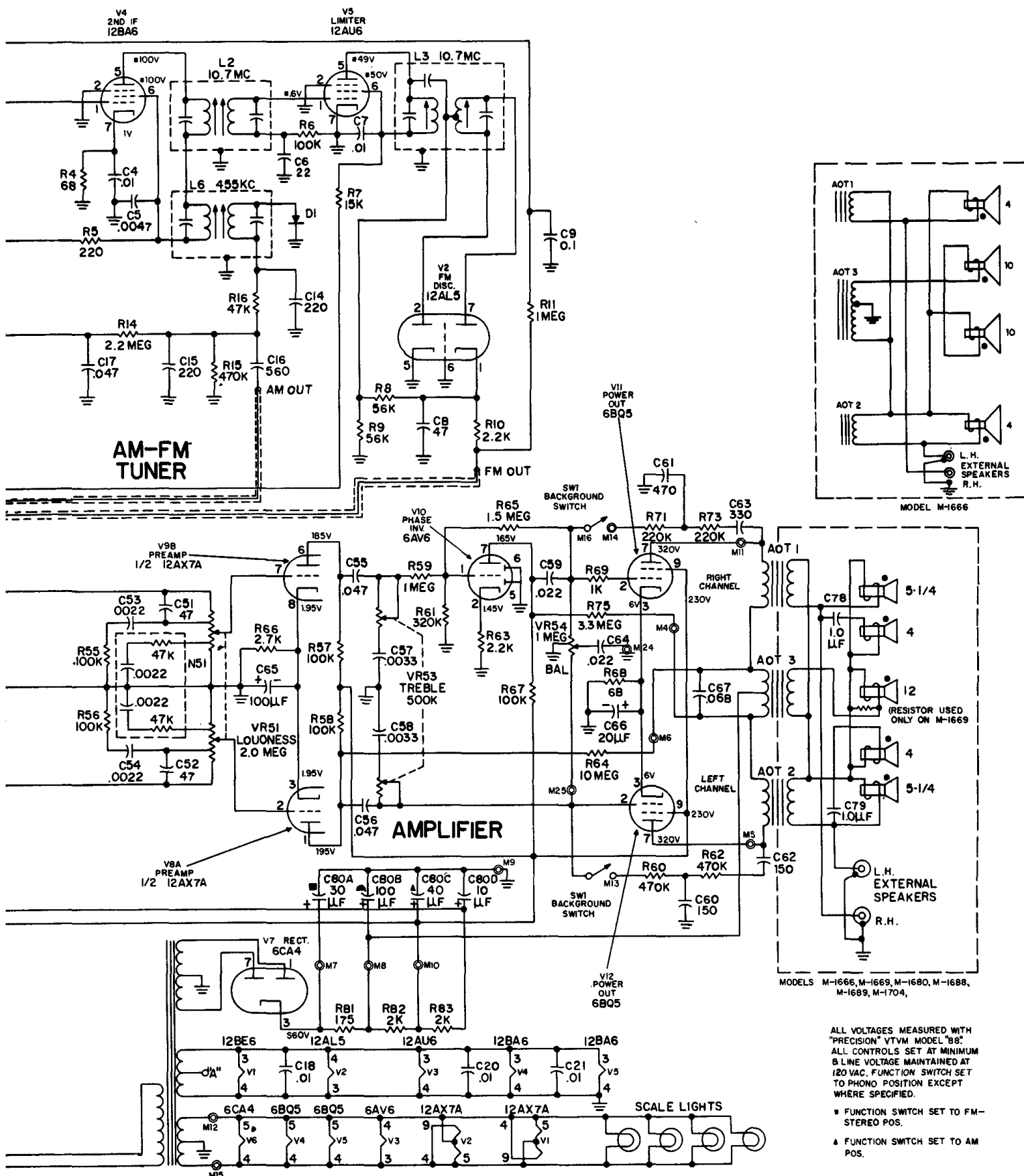
# PHILCO

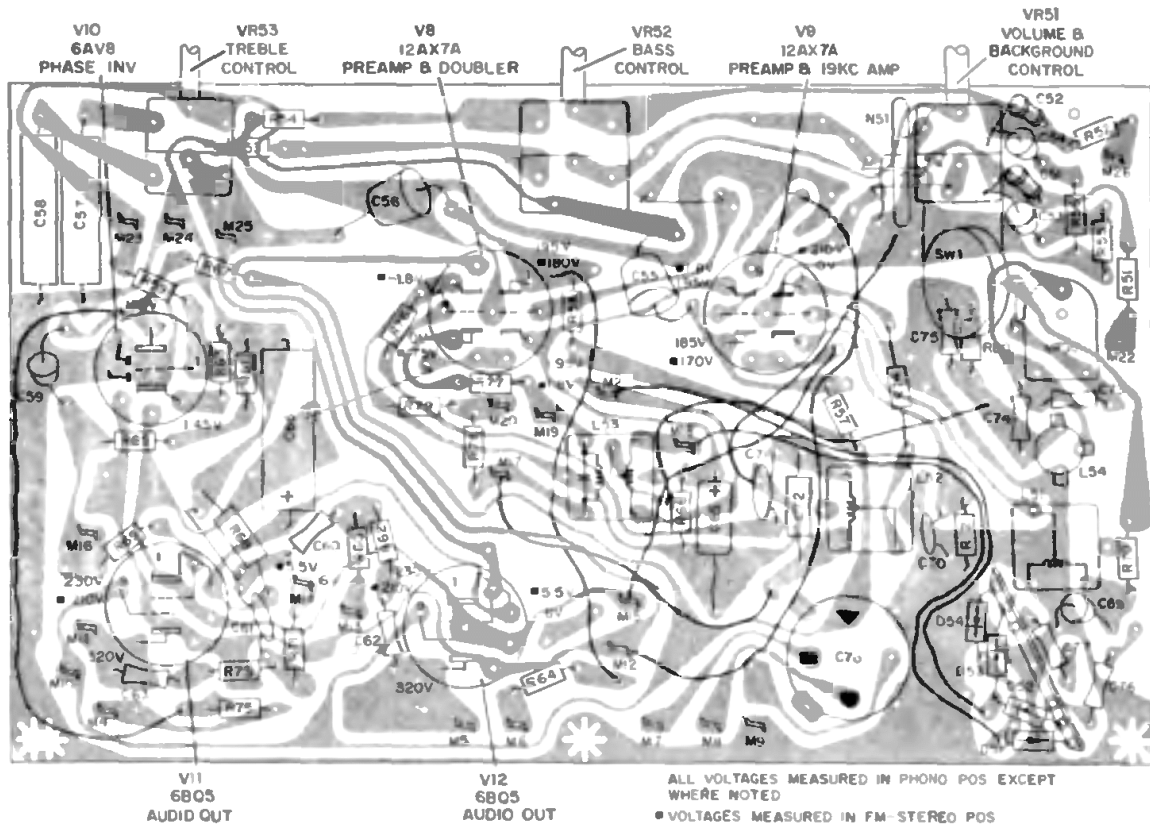
MODELS M-1666, M-1669, M-1680,  
M-1688, M-1689, & M-1704  
AMPLIFIER & TUNER



Amplifier and Tuner Schematic Diagram

**MODELS M-1666, M-1669, M-1680,  
M-1688, M-1689, M-1704, & M-1741  
AMPLIFIER & TUNER**

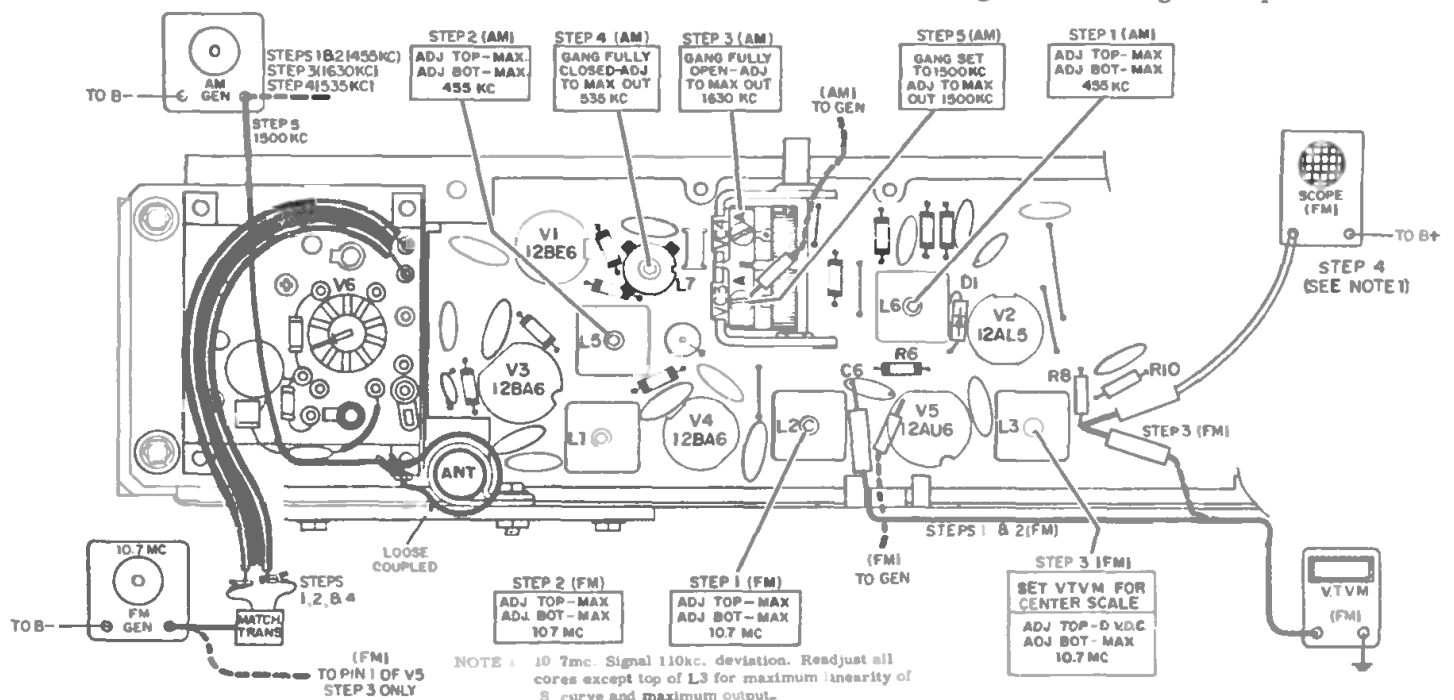




Bottom Perma-Circuit View, Parts Location

### PRELIMINARY ALIGNMENT INFORMATION

1. Connect amplifier through isolation transformer to eliminate dangerous shock hazard.
2. Allow receiver and test equipment 15 minutes to warm up and stabilize.
3. For AM Alignment -
  - A. Connect VTVM across center output transformer.
  - B. Use 30% modulation on generator for AM alignment.
  - C. Proceed with alignment steps as illustrated in alignment chart.
4. For FM Alignment -
  - A. Connect FM generator, through a 72 ohm to 300 ohm matching network, to antenna terminals.
  - B. Alignment is to be made in FM position. DO NOT USE FM/AFC position.
  - C. Use  $\pm 75$  kc sweep deviation for FM alignment.
  - D. Keep generator output as low as possible throughout FM alignment procedure.



Alignment Procedure Chart AM-FM Tuner