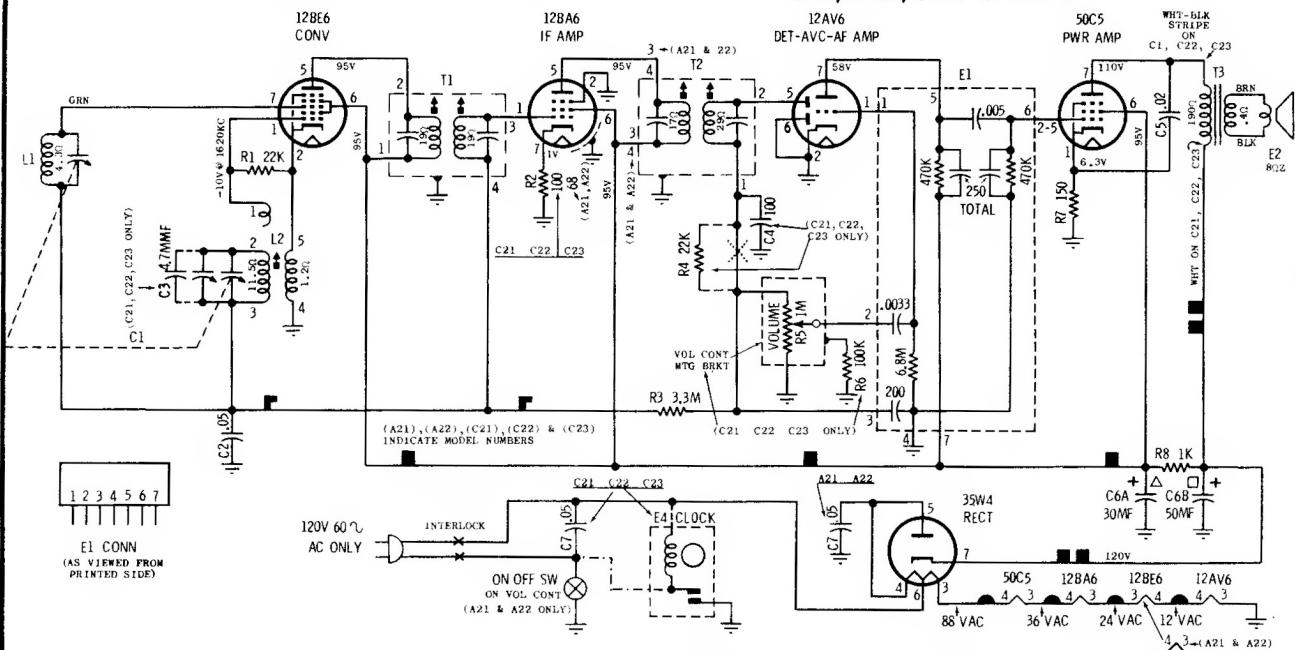


# MOTOROLA

Chassis HS-939, HS-981

## MODELS A21, A22 SERIES C21, C22, C23 SERIES



MODELS A21, A22, C21, C22, C23 SCHEMATIC DIAGRAM

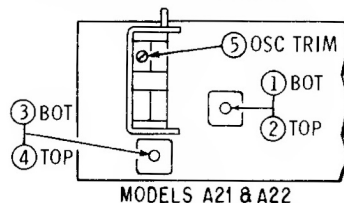
### CHASSIS REMOVAL

#### MODELS A21, A22

1. Remove cabinet back - 4 screws hold it in place.
2. Remove chassis mtg. screw at base of chassis and screw at tuning gang mtg bracket.
3. Pull off volume knob ONLY. (Do not pull captivated tuning knob).
4. From front, unscrew palmnut under volume control knob.
5. Unsolder appropriate leads to slide chassis out of tuning knob and cabinet.

#### MODELS C21, C22, C23

1. Remove cabinet back - 2 screws hold it in place.
2. Pull off volume and tuning knobs.
3. From rear, remove chassis mtg. screw located on volume control mounting bracket.
4. Unsolder appropriate leads to slide chassis from cabinet.



MODELS A21 & A22

#### NOTES:

CAPACITORS - UNLESS OTHERWISE SPECIFIED, DECIMAL VALUES IN MF, ALL OTHERS IN MMF. VOLTAGES - MEASURED FROM POINT INDICATED TO CHASSIS WITH A VTVM.  $\pm 10\%$  NO SIGNAL INPUT

TUNING RANGE - 535KC TO 1620KC (IF - 455KC)

PLATED BOARD WIRING LEGEND

■ - B+    ▢ - AVC    ▲ - FIL

3 - SHIELD

2 - 100T

1 - 100T

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2 - 100T

### ALIGNMENT DETAILS

### ALIGNMENT

Use an isolation transformer between the power line and the receiver. If not available, connect low side of generator to B- through a .1 mf capacitor. Connect a low range output meter across speaker voice coil and set volume control to maximum. Attenuate generator output to maintain 50 milliwatts on output meter to prevent overloading (50 milliwatts is .64 volts across 8 ohm load).

| STEP         | GENERATOR CONNECTION                        | GENERATOR FREQUENCY (400 cycle mod) | GANG SETTING | ADJUST      | REMARKS             |
|--------------|---------------------------------------------|-------------------------------------|--------------|-------------|---------------------|
| IF ALIGNMENT |                                             |                                     |              |             |                     |
| 1.           | Grid of conv (pin 7, 12BE6) thru .1 mf & B- | 455 Kc                              | Fully open   | 1, 2, 3 & 4 | Adjust for maximum. |
| RF ALIGNMENT |                                             |                                     |              |             |                     |
| 2.           | Grid of conv (pin 7, 12BE6) thru .1 mf & B- | 1620 Kc                             | Fully open   | 5           | Adjust for maximum. |