

NOTE—Before commencing alignment make sure that the dial is set so that with the selector plates in flush, the pointer points to the last division on the dial.

1. INTERMEDIATE FREQUENCY AMPLIFIER.

Set service oscillator at 456 K.C. and with test lead attached to 6L7 (converter tube) grid cap adjust trimmers C2, C3, C4 for maximum reading on the output meter.

CAUTION—Be sure that the selectivity control is set at the position for maximum selectivity (turned to the right).

2. BROADCAST BAND ALIGNMENT.

(a) **OSCILLATOR TRIMMER**—Set service oscillator at 1500 K.C. and connect test lead to yellow antenna lead, adjust trimmer C 9 B until with signal tuned in dial points to 150 on black scale.

(b) **OSCILLATOR PADDER**—Set service oscillator at 600 K.C. and adjust padder C 12 B so that with signal tuned in, dial points to 60 on black scale. (Recheck at 1500 as in section "a" above).

(c) **R. F. TRIMMERS**—With service oscillator set at 1500 K.C. and set tuned to that frequency, adjust trimmers C 7 A and C 5 A for maximum output.

3. NUMBER 2 BAND ALIGNMENT.

(a) **OSCILLATOR TRIMMER**—Set service oscillator at 3000 K.C. and with band switch turned to the green position, adjust trimmer C 10 A until with signal tuned in dial points to 3.0 on the green scale.

(b) **OSCILLATOR PADDER**—Set service oscillator at 1500 K.C. and adjust padder C 12 A so that with signal tuned in dial points to 1.5 on the green scale. (Recheck at 3000 as above).

(c) **R. F. TRIMMERS**—With the service oscillator at 3000 K.C. and set tuned to that frequency, adjust trimmers C 6 A and C 8 A for maximum reading on the output meter.

4. NUMBER 3 BAND ALIGNMENT.

(a) **OSCILLATOR TRIMMER**—Set service oscillator at 7500 K.C. and with band switch turned to the red position, adjust trimmer C 9 A until with signal tuned in, dial points to 7.5 on the red scale.

(b) **OSCILLATOR PADDER**—Set service oscillator at 3750 K.C. and adjust padder C 11 B so that with signal tuned in dial points to 3.75 on the red scale. (Recheck at 7500 as above).

(c) **R. F. TRIMMERS**—With the service oscillator at 7500 K.C. and set tuned to that frequency, adjust trimmers C 5 B and C 7 B for maximum reading on output meter.

5. NUMBER 4 BAND ALIGNMENT.

(a) **OSCILLATOR TRIMMER**—Set service oscillator at 15000 K.C. and with band switch turned to the blue position, adjust trimmer C 10 B until with signal tuned in dial points to 15 on the blue scale.

(b) **OSCILLATOR PADDER**—Set service oscillator at 9000 K.C. and adjust padder C 11 A so that with signal tuned in, dial points to 9. (Recheck at 15000 as above).

(c) **R. F. TRIMMERS**—With the service oscillator at 15000 and set tuned to that frequency, adjust trimmers C 6 B and C 8 B for maximum reading on output meter.

6. LONG WAVE "X" BAND ALIGNMENT.

(a) **OSCILLATOR TRIMMER**—Set service oscillator at 350 K.C. and with band switch turned to the brown position, adjust trimmer C 13 B until with signal tuned in, dial points to 350 on the brown scale.

(b) **OSCILLATOR PADDER**—Set service oscillator at 150 and adjust padder C 13 A so that with signal tuned in, dial points to 150. (Recheck at 350 as above).

(c) **R. F. TRIMMERS**—With service oscillator at 350 K.C. and set tuned to that frequency, adjust trimmers C 14 and C 15 for maximum reading on output meter.

MODEL.
811
1935-36

NOTE—**CHASSIS LAYOUT, TRIMMER LOCATIONS, ETC. ON SPARTON DATA SHEET - 31.**

I.F. =
456
K.C.

DATA SHEET

PRINTED IN CANADA

COURTESY
SPARTON-37
OF CANADA LTD.

ALIGNMENT MODELS. 254-254-355

ALIGNMENT PROCEDURE

NOTE—Before commencing alignment make sure that the dial is set so that with the selector plates in flush, the pointer points to the last division on the broadcast scale.

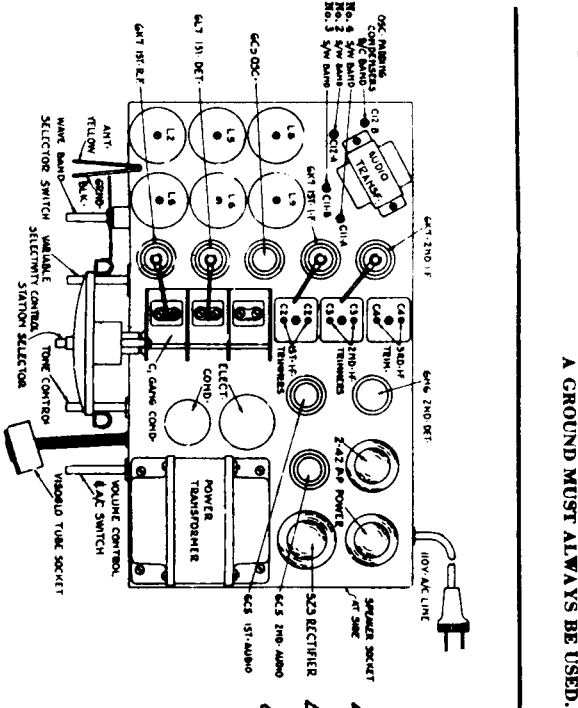
1. **IMMEDIATE FREQUENCY AMPLIFIER**
Set service oscillator at 345 K. C. and with test lead attached to 6A7 (converter) grid cap adjust the six condensers C10 for maximum reading on output meter.
2. **OSCILLATOR TRIMMER**
Set service oscillator at 1500 K. C. and connect test lead to yellow antenna lead, adjust trimmer C7 until with signal tuned in dial points to 150.
3. **OSCILLATOR PADDER**
Set service oscillator at 600K C., and adjust padder (C9) until with signal tuned in dial points to 60.
Re-check at 1500 as in section 2 (above).
4. **R. F. TRIMMERS**
With service oscillator set at 1500 K. C., and set tuned to that frequency, adjust trimmers C4 and C6 for maximum output.

SHORT WAVE ALIGNMENT
1. With the service oscillator set at 15,000 K. C., adjust trimmer C8 until with signal tuned in, dial points to 15 on the red band.
2. Adjust short wave R. F. trimmer C5 to point of greatest output. The trimmer should then be turned a very small amount (about 1/16 turn) to the right to increase capacity slightly. This completes the alignment, there is no adjustment on the green band, this falls in with the other bands.

WARNING—Do not bend the selector plates, this destroys the selector alignment. Note—In some cases better results will be obtained if C4 (the antenna trimmer) is readjusted on a station at 1400 K. C., with the set connected to the aerial with which it is to operate.

CAUTION—With the oscillator set at 15000 K. C. two signals can be heard in the receiver, one at 15000 K. C. and the other at 14310 K. C. Do not mistake the latter signal for the former. In aligning the receiver at 15000 K. C. the signal of highest frequency is the correct one and the receiver is adjusted to it. After the alignment is made check to see if a second signal is heard at 14310 K. C. If so you will have been using the correct signal for the alignment. This secondary image is noticeable on all short wave bands and should be considered before choosing any signal for alignment.

WHAT TO LOOK FOR IN CASE OF TROUBLE:
AUDIO HOWL—Check chassis bolts, these should be loose enough to allow the chassis to "float" on its rubber mounting washers, selector should also be free to float on its rubber cushions; check for microphonic tubes.
POOR SELECTIVITY—Check alignment.
EXCESSIVE NOISE—Check alignment, check aerial, too short an aerial will result in the picking up of too large a percentage of noise.
A GROUND MUST ALWAYS BE USED.



DETAILS OF
MODEL. 811
LEFT - CHASSIS LAYOUT.
TRIMMER LOCATIONS,
CIRCUIT FOR 811 ON DATA SHEET-37

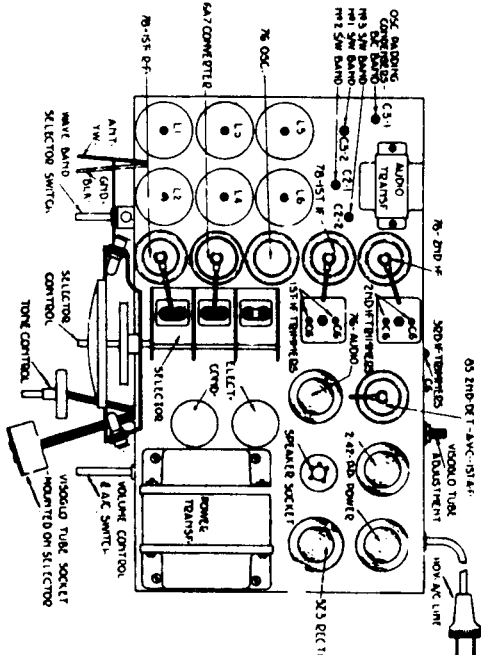
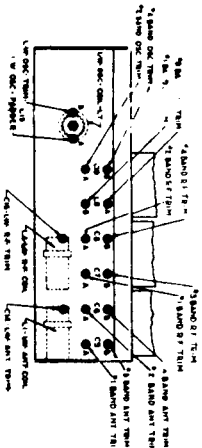


Fig. 1—Top View of Model 604 Chassis.
DETAILS OF
MODEL. 604
SEE CIRCUIT OF 604 ON DATA SHEET-35.

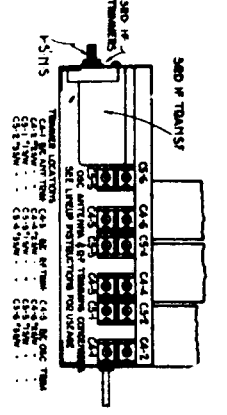


Fig. 2
End View of Chassis (Base Plate Removed) Showing Trimmer Condensers
Model. 604