

MODEL FR-2

ALAMO ELECTRONIC CORP.

LINE OR BATTERY VOLTAGE: Designed to operate on 105-120 volts, 50-60 cycle alternating or direct current (AC/DC) or self contained batteries.

POWER CONSUMPTION: Approximately 20 watts.

BATTERIES USED:

3-1½ volt "A" - standard flashlight cells.

1-67½ volt "B" - Eveready 467, Burgess XX45 or equivalent.

TUNING RANGE: 540-1650 KCS.

TUBES USED AND FUNCTIONS:

1R5 Convertor

1T4 Amplifier

1S5 Detector AVC and Audio Amplifier

3Q4 Power Amplifier

See diagram for tube layout.

RECTIFIER: FEDERAL No. 403D2625.

CAUTION: When prolonged operation in electric position is contemplated, it is advisable to remove the "A" and "B" batteries and store them in a cool, dry place.

DO NOT LEAVE EXHAUSTED BATTERIES IN EITHER THE BATTERY TRAY OR RECEIVER PROPER AS THE CHEMICAL ACTION MAY EXPAND THE BATTERIES AND CAUSE LEAKAGE OF THE ELECTROLYTE.

BE SURE THAT BATTERY-ELECTRIC SWITCH IS IN OFF POSITION (CENTER) WHEN FINISHED WITH RECEPTION, OTHERWISE THE BATTERY WILL BE DISCHARGED AND REQUIRE REPLACEMENT IF LEFT ON FOR A CONSIDERABLE LENGTH OF TIME.

SERVICE DATA

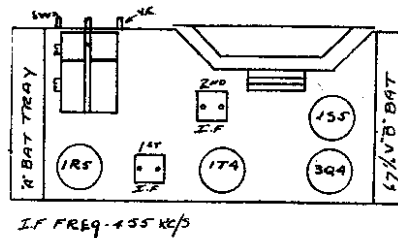
Lack of sensitivity and poor tone quality may be due to any one or a combination of causes such as weak or defective tubes or speaker, open or grounded bias resistor, bypass condenser, etc. Never attempt to realign set until all other possible sources of trouble have been thoroughly investigated and definitely proved not to be the cause.

NOTE: IT IS ABSOLUTELY NECESSARY THAT AN ACCURATELY CALIBRATED OSCILLATOR WITH SOME TYPE OF OUTPUT MEASURING DEVICE BE USED WHEN ALIGNING THE RECEIVER AND THAT THE PROCEDURE BE CAREFULLY FOLLOWED. OTHERWISE THE RECEIVER WILL BE INSENSITIVE AND THE DIAL CALIBRATION WILL BE INCORRECT. THE TRIMMERS WILL BE REFERRED TO BY THEIR FUNCTION AS INDICATED ON THE PARTS DIAGRAM.

ALIGNMENT PROCEDURE

GENERAL DATA. The alignment of this receiver requires the use of a test oscillator that will cover the frequencies of 455, 1400, 1700 KCS and an output meter to be connected across the primary or secondary of the output transformer. For more accuracy a vacuum tube voltmeter should be used. If possible all alignments should be made with the volume control on maximum and the test oscillator output as low as possible.

1. Couple signal generator to loop loosely using one or two turns of wire connected to signal generator output.
2. Set signal generator to 455 KC and adjust the 4 I.F. trimmers on top of I.F. cans. An output meter may be connected across voice coil but we suggest for more accurate alignment that a vacuum tube voltmeter be connected between A-lead and tie lug connecting return lead of loop. With no signal the voltage should be approximately 1½ volt and will become negative as signal increases, adjust to maximum negative voltage.
3. The oscillator trimmer should next be set so that a 1700 KC signal comes in at minimum setting of condenser. (Plates all out.)
4. The R.F. trimmer should be set at 1400 KC. It is suggested that it be adjusted with both batteries in case and chassis as near in the case as possible, and still adjust trimmer; as the chassis affects inductance of loop.



I.F. FREQ. 455 KC/S

Parts No.

R1	1000,000 ohm
R2	5 meg
R3	5 meg
R4	2 meg
R5	1 meg V.C.
R6	8 meg
R7	4 meg
R8	1 meg
R9	5 meg
R10	500 ohm
R11	27 ohm
R12	18,000 ohm
R13	3300 ohm
R14-R15	1200 ohm 5 watt
R16-R17	1500 ohm 1 watt
C1-C2	2 gang condenser
C3-C4	02 Paper
C5-C6	
C18-C11	.005 400 volt
C7	
C8	.0003 Mica
C9	.005 400 volt
C10	70 UUF Mica
C12-C13	.05 Paper
C14-C15	40 MFD-150 volt
C16	20 MFD-150 volt
C17	100 MFD-25 volt
1	Loop-Part of Case
2	1st I.F. Transformer
3	2nd I.F. Transformer
4	Output Transformer
5	4" P.M. Speaker
6	Selenium Rectifier No. Fed. 403D2625
7	4 pole 3 position switch

ALL RESISTORS ½ WATT AND ALL
CONDENSERS 200 VOLT UNLESS
OTHERWISE MARKED.