

method described in *e* above but remove the avc interconnection; do not use avc or bfo. To obtain the output, connect to one of the three interconnected jumper terminals of the DIODE OUTPUT.

## 5. Technical Characteristics

### Frequency range:

Band 1.....	.54 mc to 1.35 mc.
Band 2.....	1.35 mc to 3.45 mc.
Band 3.....	3.45 mc to 7.4 mc.
Band 4.....	7.4 mc to 14.8 mc.
Band 5.....	14.8 mc to 29.7 mc.
Band 6.....	29.7 mc to 54 mc.
Crystal controlled (Radio Receivers R-274A/FRR and R-274C/FRR only) (bands 2 through 5).	1.35 mc to 29.7 mc.

Receiver type..... Superheterodyne, single and double conversion.

I-f (bands 1, 2, and 3) (single conversion)..... 455 kc.

I-f (bands 4, 5, and 6) (double conversion)..... 3,955 kc; then 455 kc.

Types of signals that can be received..... A-m.  
A1—cw.  
A2—cw.  
A3—Voice.  
F1-FSK Keying.

### Number of tubes:

Radio Receivers R-320A/FRC, R-483/FRR, and R-483A/FRR..... 19 each.

Radio Receivers R-274A/FRR and R-274C/FRR..... 20 each.

### A-c supply requirements:

Source rating..... 90- to 270-volt ac.

Radio Receivers R-483/FRR and R-483A/FRR..... 25 to 60 cps.

Radio Receivers R-274A/FRR, R-274C/FRR, and R-320A/FRC..... 50 to 60 cps.

Power consumption..... 130 watts.

Sensitivity..... Mew, 2  $\mu$ v or better; cw, .75  $\mu$ v or better; a signal-plus-noise to noise power ratio of 10 to 1 at a 3-ke bandwidth.

### Selectivity:

Crystal, 6 db down..... 2-ke, .5-ke, and 1.3-ke bandwidths.

Noncrystal, 6 db down..... 3-ke, 8-ke, and 13-ke bandwidths.

### Fuses:

Line fuse..... 1.6-ampere or 3-ampere.

B+ fuse.....  $\frac{3}{8}$ -ampere.

### Crystals:

3,500 kc (all models)..... 3.5-mc crystal oscillator (double conversion).

455 kc (all models)..... I-f filter circuit.

1.805 mc to 11.218333 mc (Radio Receivers R-274A/FRR and R-274C/FRR only)..... H-f crystal oscillator (bands 2 through 5) (Crystal Unit CR-18/U not supplied).

Permissible ambient temperature..... 32° F. to 140° F.

Relative humidity..... 95 percent.

### Output matching load impedances:

600 OHMS balanced..... 600 ohms, resistive.

PHONES..... 8,000 ohms, resistive. (This circuit will operate satisfactorily with headsets ranging from 600- to 8,000-ohm impedance.)

I-F OUTPUT..... 70 ohms, resistive.

Maximum undistorted power output..... 2 watts.

### Antennas:

Dipole..... Consists of Wire W-152, two Insulators IN-124, Rope RP-3, and six Insulators IN-125.

Straight wire (simple)..... Consists of Wire W-152.

Lead-in..... Wire W-151.

### Weight:

Radio Receiver R-274A/FRR.....

Table-cabinet type.. 87.5 pounds.

Rack-mounting type.. 66 pounds.

Radio Receiver R-320A/FRC..... 67.5 pounds.

Radio Receiver R-483/FRR or R-483A/FRR..... 96 pounds.

Radio Receiver R-274C/FRR..... 97.5 pounds.