



DWG. NO. 3 SCHEMATIC DIAGRAM

NOTE TOP VIEW ALL PLUGS AND SOCKETS

## SECTION 6.

## PARTS LIST

Symbol	Function	Type	Rating
<b>CAPACITORS</b>			
C <sub>1A</sub>	R.F. Amplifier Tuning	Air	225 mmf. max.
C <sub>1B</sub>	First Detector Tuning	Air	225 mmf. max.
C <sub>1C</sub>	H.F. Oscillator Tuning	Air	225 mmf. max.
C <sub>2</sub>	R.F. Grid Filter	Mica	.005 mfd., 300 v. d.c. w.
C <sub>3</sub>	R.F. Cathode By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>4</sub>	R.F. Screen By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>5</sub>	R.F. B+ By-pass	Paper	.1 mfd., 600 v. d.c. w.
C <sub>6</sub>	First Det. Cathode By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>7</sub>	First Det. Screen By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>8</sub>	First Det. B+ By-pass	Paper	.1 mfd., 600 v. d.c. w.
C <sub>9</sub>	First I.F. Grid Filter	Paper	.01 mfd., 600 v. d.c. w.
C <sub>10</sub>	First I.F. Cathode By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>11</sub>	First I.F. B+ By-pass	Paper	.1 mfd., 600 v. d.c. w.
C <sub>12</sub>	Sec. I.F. Grid Filter	Paper	.01 mfd., 600 v. d.c. w.
C <sub>13</sub>	Sec. I.F. Cathode By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>14</sub>	Sec. I.F. Screen By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>15</sub>	Sec. I.F. B+ By-pass	Paper	.1 mfd., 600 v. d.c. w.
C <sub>16</sub>	Sec. Det. Plate By-pass	Paper	.01 mfd., 600 v. d.c. w.
C <sub>17</sub>	Sec. Det. to Limiter Audio Coupling	Paper	1. mfd., 200 v. d.c. w.
C <sub>18</sub>	Sec. Det. Cathode By-pass	Ceramic	.00025 mfd., 1,000 v. d.c. w.
C <sub>19</sub>	Sec. Det. I.F. By-pass	Mica	.001 mfd., 500 v. d.c. w.
C <sub>20</sub>	Limiter Output By-pass	Ceramic	.00025 mfd., 1,000 v. d.c. w.
C <sub>21</sub>	Tone Control	Paper	.01 mfd., 600 v. d.c. w.
C <sub>22</sub>	Limiter to Inverter-Audio Coupling	Paper	.01 mfd., 600 v. d.c. w.
C <sub>23</sub>	Tone Control	Mica	.001 mfd., 500 v. d.c. w.
C <sub>24</sub>	Inverter-Audio Cathode By-pass	Elec.	10 mfd., 50 v. d.c. w.
C <sub>25</sub>	Inverter-Audio to Output Coupling	Paper	.1 mfd., 400 v. d.c. w.
C <sub>26</sub>	Inverter-Audio to Output Coupling	Paper	.1 mfd., 400 v. d.c. w.
C <sub>27</sub>	Inverter Feedback Coupling	Paper	.1 mfd., 400 v. d.c. w.
C <sub>28</sub>	H.F. Oscillator Grid	Ceramic	.0001 mfd., 1,000 v. d.c. w.
C <sub>29</sub>	Beat Oscillator Grid	Mica	.001 mfd., 500 v. d.c. w.
C <sub>30</sub>	Beat Oscillator Screen By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>31</sub>	Beat Osc. to Sec. Det. Coupling	Bakelite	1 mmf., 400 v. d.c. w.
C <sub>32</sub>	AVC Output By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>33</sub>	AVC Plate By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>34</sub>	AVC Cathode By-pass	Paper	.1 mfd., 400 v. d.c. w.
C <sub>35</sub>	B Minus By-pass	Elec.	8 mfd., 200 v. d.c. w.
C <sub>36</sub>	AVC to Sec. Det. Coupling	Ceramic	.00005 mfd., 1,000 v. d.c. w.
C <sub>37</sub>	Power Supply Filter	Paper	.1 mfd., 600 v. d.c. w.
C <sub>38</sub>	Power Supply Filter	Elec.	8 and 8 mfd., 475 v. d.c. w.
C <sub>39</sub>	Crystal Filter Input Tuning	Air	6 to 85 mmf.
C <sub>40</sub>	Crystal Filter Phasing Control	Air	5 and 5 mmf.
C <sub>41</sub>	Crystal Filter Compensating	Ceramic	2 to 6 mmf.
C <sub>42</sub>	Crystal Filter Output Tuning	Air	6 to 85 mmf.
C <sub>43</sub>	T-2 Primary Tuning	Air	6 to 85 mmf.
C <sub>44</sub>	T-2 Secondary Tuning	Air	6 to 85 mmf.
C <sub>45</sub>	T-3 Primary Tuning	Air	6 to 85 mmf.

## SECTION 6.

## PARTS LIST (Continued)

Symbol	Function	Type	Rating
<b>CAPACITORS (Continued)</b>			
C <sub>16</sub>	T-3 Secondary Tuning	Air	6 to 85 mmf.
C <sub>17</sub>	T-4 Tuning	Air	6 to 85 mmf.
C <sub>18</sub>	C.W. Osc. Control	Air	1 to 10 mmf.
C <sub>19</sub>	Gen. Cov. R.F. Amplifier Trimmer	Air	See Note No. 1
C <sub>20</sub>	Gen. Cov. 1st Det. Trimmer	Air	See Note No. 1
C <sub>21</sub>	Gen. Cov. H.F. Osc. Trimmer	Air	See Note No. 1
C <sub>22</sub>	Gen. Cov. H.F. Osc. Padder	Air	See Note No. 1
C <sub>23</sub>	Gen. Cov. H.F. Osc. Padder	Mica	See Note No. 1
C <sub>24</sub>	Band-Spread R.F. Amplifier Trimmer	Air	See Note No. 1
C <sub>25</sub>	Band-Spread 1st Det. Trimmer	Air	See Note No. 1
C <sub>26</sub>	Band-Spread H.F. Osc. Trimmer	Air	See Note No. 1
C <sub>27</sub>	Band-Spread R.F. Amp. Padder	Ceramic	See Note No. 1
C <sub>28</sub>	Band-Spread 1st Det. Padder	Ceramic	See Note No. 1
C <sub>29</sub>	Band-Spread H.F. Osc. Padder	Ceramic	See Note No. 1
C <sub>30</sub>	Band-Spread H.F. Osc. Padder	Ceramic	2 to 6 mmf.
<b>RESISTORS</b>			
R <sub>1</sub>	R.F. Grid Filter	Fixed	500,000 Ohm, 1/2 w.
R <sub>2</sub>	R.F. Cathode Bias	Fixed	500 Ohm, 1/2 w.
R <sub>3</sub>	First Det. Cathode Bias	Fixed	250 Ohm, 1/2 w.
R <sub>4</sub>	First Det. Screen Bleeder	Fixed	100,000 Ohm, 1/2 w.
R <sub>5</sub>	First Det. Screen Dropping	Fixed	50,000 Ohm, 1/2 w.
R <sub>6</sub>	First Det. Plate Filter	Fixed	2,000 Ohm, 1/2 w.
R <sub>7</sub>	First I.F. Grid Filter	Fixed	20,000 Ohm, 1/2 w.
R <sub>8</sub>	First I.F. Cathode Bias	Fixed	See Note No. 2, 1/2 w.
R <sub>9</sub>	First I.F. Plate Filter	Fixed	2,000 Ohm, 1/2 w.
R <sub>10</sub>	Sec. I.F. Grid Filter	Fixed	500,000 Ohm, 1/2 w.
R <sub>11</sub>	Sec. I.F. Cathode Bias	Fixed	See Note No. 2, 1/2 w.
R <sub>12</sub>	Sec. I.F. Screen Bleeder	Fixed	100,000 Ohm, 1/2 w.
R <sub>13</sub>	Sec. I.F. Screen Dropping	Fixed	70,000 Ohm, 1/2 w.
R <sub>14</sub>	Sec. Det. Plate Filter	Fixed	2,000 Ohm, 1/2 w.
R <sub>15</sub>	Sec. Det. I.F. Filter	Fixed	5,000 Ohm, 1/2 w.
R <sub>16</sub>	Sec. Det. Load	Fixed	25,000 Ohm, 1/2 w.
R <sub>17</sub>	Limiter Input	Fixed	50,000 Ohm, 1/2 w.
R <sub>18</sub>	Limiter Output	Fixed	50,000 Ohm, 1/2 w.
R <sub>19</sub>	Tone Control	Comp. Var.	500,000 Ohm, 1 w.
R <sub>20</sub>	A.F. Gain Control	Comp. Var.	500,000 Ohm, 1 w.
R <sub>21</sub>	Inverter-Audio Cathode Bias	Fixed	1,000 Ohm, 1/2 w.
R <sub>22</sub>	Inverter Grid	Fixed	500,000 Ohm, 1/2 w.
R <sub>23</sub>	First Audio Plate	Fixed	50,000 Ohm, 1/2 w.
R <sub>24</sub>	First Audio Plate	Fixed	50,000 Ohm, 1/2 w.
R <sub>25</sub>	Output Grid	Fixed	250,000 Ohm, 1/2 w.
R <sub>26</sub>	Output Grid	Fixed	250,000 Ohm, 1/2 w.
R <sub>27</sub>	Inverter Feedback Coupling	Fixed	250,000 Ohm, 1/2 w.
R <sub>28</sub>	Output Cathode Bias	Fixed	200 Ohm, 2 w.
R <sub>29</sub>	R.F. Gain Control With Switch	W. W. Var.	10,000 Ohm, 1 1/2 w.
R <sub>30</sub>	R.F. Gain Bleeder	Fixed	50,000 Ohm, 1/2 w.

**SECTION 6.**

**PARTS LIST (Continued)**

Symbol	Function	Type	Rating
<b>RESISTORS (Continued)</b>			
R <sub>31</sub>	H.F. Osc. B+ Dropping	Fixed	50,000 Ohm, 1 w.
R <sub>32</sub>	H.F. Osc. Grid	Fixed	50,000 Ohm, 1/2 w.
R <sub>33</sub>	Beat Osc. Plate Filter	Fixed	250,000 Ohm, 1/2 w.
R <sub>34</sub>	Beat Osc. Grid	Fixed	50,000 Ohm, 1/2 w.
R <sub>35</sub>	Beat Osc. Screen Bleeder	Fixed	100,000 Ohm, 1/2 w.
R <sub>36</sub>	Beat Osc. Screen Dropping	Fixed	100,000 Ohm, 1/2 w.
R <sub>37</sub>	B+ Voltage Divider	Fixed	20,000 Ohm, 2 w.
R <sub>38</sub>	B+ Voltage Divider	Fixed	20,000 Ohm, 2 w.
R <sub>39</sub>	S-Meter Adjustment	W. W. Var.	1,000 Ohm, 1 w.
R <sub>40</sub>	S-Meter Bridge	Fixed	1,000 Ohm, 1/2 w.
R <sub>11</sub>	AVC Plate Filter	Fixed	500,000 Ohm, 1/2 w.
R <sub>42</sub>	AVC Plate	Fixed	500,000 Ohm, 1/2 w.
R <sub>43</sub>	AVC Voltage Divider	Fixed	1,500 Ohm, 2 w.
R <sub>44</sub>	AVC Cathode Bias	Fixed	500 Ohm, 2 w.
R <sub>45</sub>	AVC Grid	Fixed	5,000,000 Ohm, 1/2 w.
R <sub>46</sub>	Limiter Control	W. W. Var.	10,000 Ohm, 1 1/2 w.
<b>MISCELLANEOUS</b>			
F <sub>1</sub>	AC Line Fuse	Glass Encl.	2 Amp.
I <sub>1</sub>	S-Meter Lamp	No. 40	6 v., .15 a.
I <sub>2</sub>	Dial Lamp	No. 47	6 v., .15 a.
I <sub>3</sub>	Dial Lamp	No. 47	6 v., .15 a.
L <sub>1</sub>	Power Supply Filter Choke	Potted	17 h., 100 ma.
L <sub>2</sub>	Power Supply Filter Choke	Potted	17 h., 100 ma.
M <sub>1</sub>	Signal Strength Meter	"S" Scale	0 to 1 ma.
P <sub>1</sub>	Loud Speaker Connector Plug	Molded	5 Prong
P <sub>2</sub>	Dummy Plug for AC Operation	Molded	7 Prong
P <sub>3</sub>	Battery Connector Plug	Molded	7 Prong
S <sub>1</sub> } S <sub>2</sub> }	Control Switch	Two Gang	SPST 250 v., 1 a.
S <sub>3</sub> } S <sub>4</sub> }	Power Supply Switch	Two Gang	SPST 250 v., 1 a.
S <sub>5</sub>	Tone Control Switch	Part of R-19	SPST
S <sub>6</sub>	S-Meter Switch	Part of R-29	SPST
S <sub>7</sub>	Selectivity Control Switch	Rotary	2 Section, Ganged
T <sub>1</sub>	Power Transformer	150 Watt	115 Volt, 60 Cycle
T <sub>2</sub>	I.F. Transformer	Air Tuned	455 kc.
T <sub>3</sub>	I.F. Transformer	Air Tuned	455 kc.
T <sub>4</sub>	Beat Osc. Transformer	Air Tuned	455 kc.
X <sub>1</sub>	Audio Output Socket	Bakelite	5 Prong
X <sub>2</sub>	Battery Connector Socket	Bakelite	7 Prong
Y <sub>1</sub>	Crystal Resonator	Quartz	455 kc.
<p>Note No. 1. Capacitor rating is different in each coil range and is individually adjusted as circuit conditions may require. Definite rating cannot be listed. C-52 used in E and F ranges only. C-54 to C-60, inclusive, used in A, B, C and D ranges only.</p> <p>Note No. 2. Resistors R-8 and R-11 may have values between 300 and 5,000 ohms since they are chosen to meet the circuit requirements of the particular receiver. The resistance values are determined after careful laboratory test and cannot be changed without impairing performance.</p> <p><b>NOTICE:</b>—Due to the exigencies of the War Program, the manufacturer may have found it necessary to employ substitute, interchangeable parts in certain receivers. Such parts do not impair performance in any way, but should replacement become necessary it is suggested that the type indicated in the Parts List be obtained, if possible.</p>			