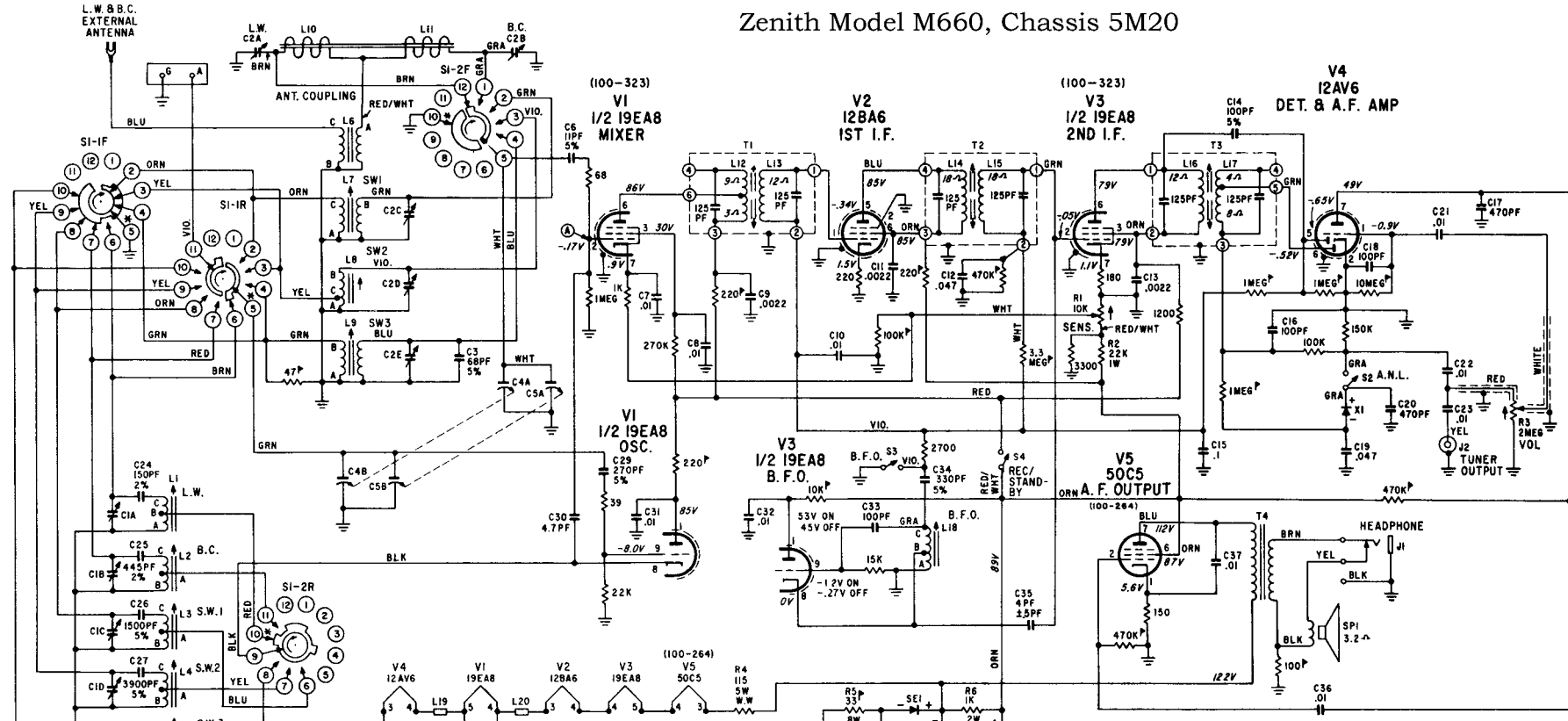
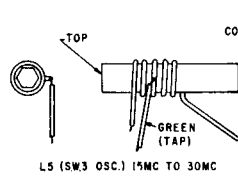
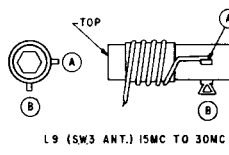
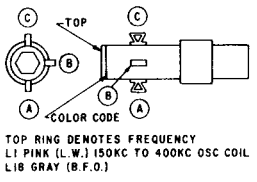
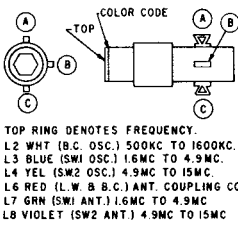


Zenith Model M660, Chassis 5M20



| A.C. VOLTS | 120 | 230 |
|---------------|------|------|
| 50-60 ~ INPUT | | |
| WATTS | 55 | 55 |
| AMPS | 0.80 | 0.42 |

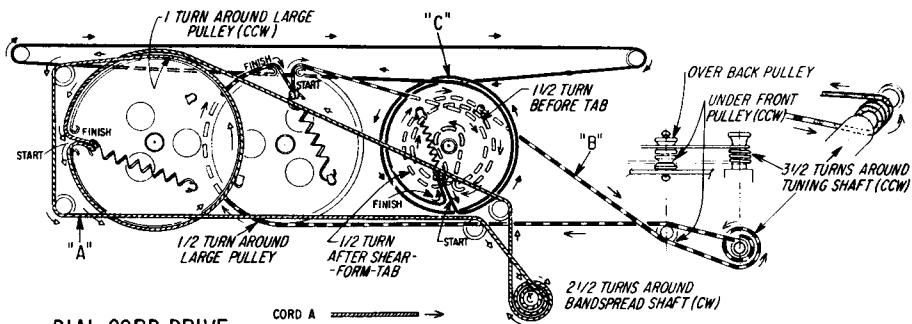


COLOR CODE

| | |
|----|------|
| T1 | 20 |
| D1 | 30 |
| D2 | 40 |
| D3 | 40 |
| D4 | 50 |
| D5 | 100 |
| D6 | 200 |
| D7 | 300 |
| D8 | 400 |
| D9 | 500 |
| D0 | 1000 |

COLOR CODE

NOTES:
 FOR CAPACITOR TOLERANCES SEE LEGEND.
 ALL RESISTORS ARE IN OHMS, $\pm 10\%$, $1/2$ WATT, CARBON, UNLESS OTHERWISE SPECIFIED.
 ALL CAPACITORS ARE IN MFD UNLESS OTHERWISE SPECIFIED.
 ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
 D.C. VOLTAGES SHOWN ARE MEASURED FROM CHASSIS TO POINTS INDICATED WITH NO SIGNAL USING A VACUUM TUBE VOLTMETER WITH SENSITIVITY CONTROL IN MAX. CW POSITION AND RECEIVE/STANDBY SWITCH IN RECEIVE POSITION.
 \perp INDICATES CHASSIS GROUND. \odot INDICATES TEST POINTS
 BANDSWITCH SHOWN IN EXTREME COUNTER CLOCKWISE POSITION (L.W.)
 * CONTACT NO.5 ON SI-1F IS INSULATED FROM NO.5 ON SI-1R. CONTACT NO.10 ON SI-2F IS INSULATED FROM NO.10 ON SI-2R.
 I.F. FREQUENCY IS 455KC.
 TUNING RANGE:
 L.W. 150-400KC
 B.C. 500-1600KC
 S.W. 1.6-4.9MC
 S.W.2 4.9-15.0MC
 S.W.3 15.0-30.0MC
 \blacktriangleright INDICATES 20% RESISTOR TOLERANCE.
 123-3055
 ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION.



DIAL CORD DRIVE
 SHOWN WITH TUNING & BANDSPREAD CAPACITORS IN FULL CLOSED POSITION

CORD A
 CORD B
 CORD C
 (CCW) COUNTERCLOCKWISE
 (CW) CLOCKWISE

S-4, RECEIVE-STANDBY SWITCH
 UP - RECEIVE
 DOWN - STANDBY

S-3, BEAT FREQUENCY OSC. SWITCH
 UP - B.F.O.
 DOWN - OFF

S-2 AUTOMATIC NOISE LIMITER SWITCH
 UP - A.N.L.
 DOWN - OFF

TUNING SHAFT

T4, OUTPUT TRANSFORMER
 (MOUNTED UNDER CHASSIS)

T5, 50-60C.P.S. POWER TRANSFORMER

A.C. CORD

L18, BEAT FREQUENCY OSC. COIL

T3, 3RD I.F. TRANSFORMER
 L16, PRIMARY (TOP)
 L17, SECONDARY (BOTTOM)

J1, HEADPHONES

S-5, SLIDE SWITCH in 120V.A.C. Position
 LOCK SCREW

J2, TUNER OUTPUT

TUBE POSITIONING GUIDE
 (KEY-WAY)

BANDSPREAD SHAFT

R3, OFF ON VOLUME CONTROL

PL2, PILOT LAMP

S1, BANDSWITCH

V5
50C5

V4
12AV6

V3
19EA8

V2
12BA6

V1
19EA8

A TEST POINT

L5, SHORTWAVE #3 OSC. COIL

L4, SHORTWAVE #2 OSC. COIL

PL1, PILOT LAMP

R-1, SENSITIVITY CONTROL

C4B, OSC. TUNING

C4A, ANT. TUNING

C5B, OSC. BANDSPREAD

C5A, ANT. BANDSPREAD

L9, SHORTWAVE #3 ANT. COIL

L8, SHORTWAVE #2 ANT. COIL

C2E, SHORTWAVE #3 ANT. TRIMMER (4-40PF)

C2D, SHORTWAVE #2 ANT. TRIMMER (4-40PF)

C2C, SHORTWAVE #1 ANT. TRIMMER (4-40PF)

C2B, BROADCAST ANT. TRIMMER (1-12PF)

C2A, LONGWAVE ANT. TRIMMER (7-100PF)

L7, SHORTWAVE #1 ANT. COIL

L6, L.W. and B.C. ANT. COUPLING COIL

L3, SHORTWAVE #1 OSC. COIL

L2, BROADCAST OSC. COIL

L1, L.W. OSC. COIL

L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

L1, L.W. OSC. COIL

L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

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L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

L10, L.W. and L11, B.C. ANT. ASSEMBLY (ON CABINET BACK)

ANTENNA TERMINAL

L.W. and B.C. EXTERNAL ANTENNA CONNECTION

A G

ALIGNMENT CHART

| OPERATION | SIGNAL GENERATOR CONNECTED TO | INPUT SIGNAL FREQUENCY | BAND | SET DIAL AT | ADJUST | PURPOSE |
|-----------|--|------------------------|------|-------------|--------------------------|--|
| 1 | Test Point "A" | 455KC | LW | 150KC | L12, 13, 14, 15, 16 & 17 | Align if stages for maximum output |
| 2 | Same as 1 | 455KC | LW | 150KC | L18 | Align BFO for zero beat |
| 3 | To blue lead on rear of receiver | 375KC | LW | 375KC | C1A, & C2A | Adjust osc. to scale and ant. stage for max. output |
| 4 | Same as 3 | 170KC | LW | 170KC | L1 | For maximum output |
| 5 | Repeat 3 & 4 until maximum output is obtained at both ends | | | | | |
| 6 | Same as 3 | 1400KC | BC | 1400KC | C1B & C2B | Adjust osc. to scale and ant. stage for maximum output |
| 7 | Same as 3 | 570KC | BC | 570KC | L2 | For maximum output |
| 8 | Repeat 6 & 7 until maximum output is obtained at both ends | | | | | |
| 9 | Terminal "A" on rear of chassis | 4.4 MC | SW1 | 4.4 MC | C1C & C2C | Adjust osc. to scale and antenna coil for maximum output |
| 10 | Same as 9 | 1.9 MC | SW1 | 1.9 MC | L3 & L7 | Adjust for maximum output |
| 11 | Repeat 9 & 10 until maximum output is obtained at both ends | | | | | |
| 12 | Same as 9 | 13.5 MC | SW2 | 13.5 MC | C1D & C2D | Adjust osc. to scale and ant. coil for maximum output |
| 13 | Same as 9 | 6.MC | SW2 | 6.MC | L4 & L8 | Adjust for maximum output |
| 14 | Repeat 12 & 13 until maximum output is obtained at both ends | | | | | |
| 15 | Same as 9 | 28.MC | SW3 | 28.MC | C1E & C2E | Adjust osc. to scale and ant. coil for maximum output |
| 16 | Same as 9 | 17.MC | SW3 | 17.MC | L5 & L9 | Adjust for maximum output |
| 17 | Repeat 15 & 16 until maximum output is obtained at both ends | | | | | |