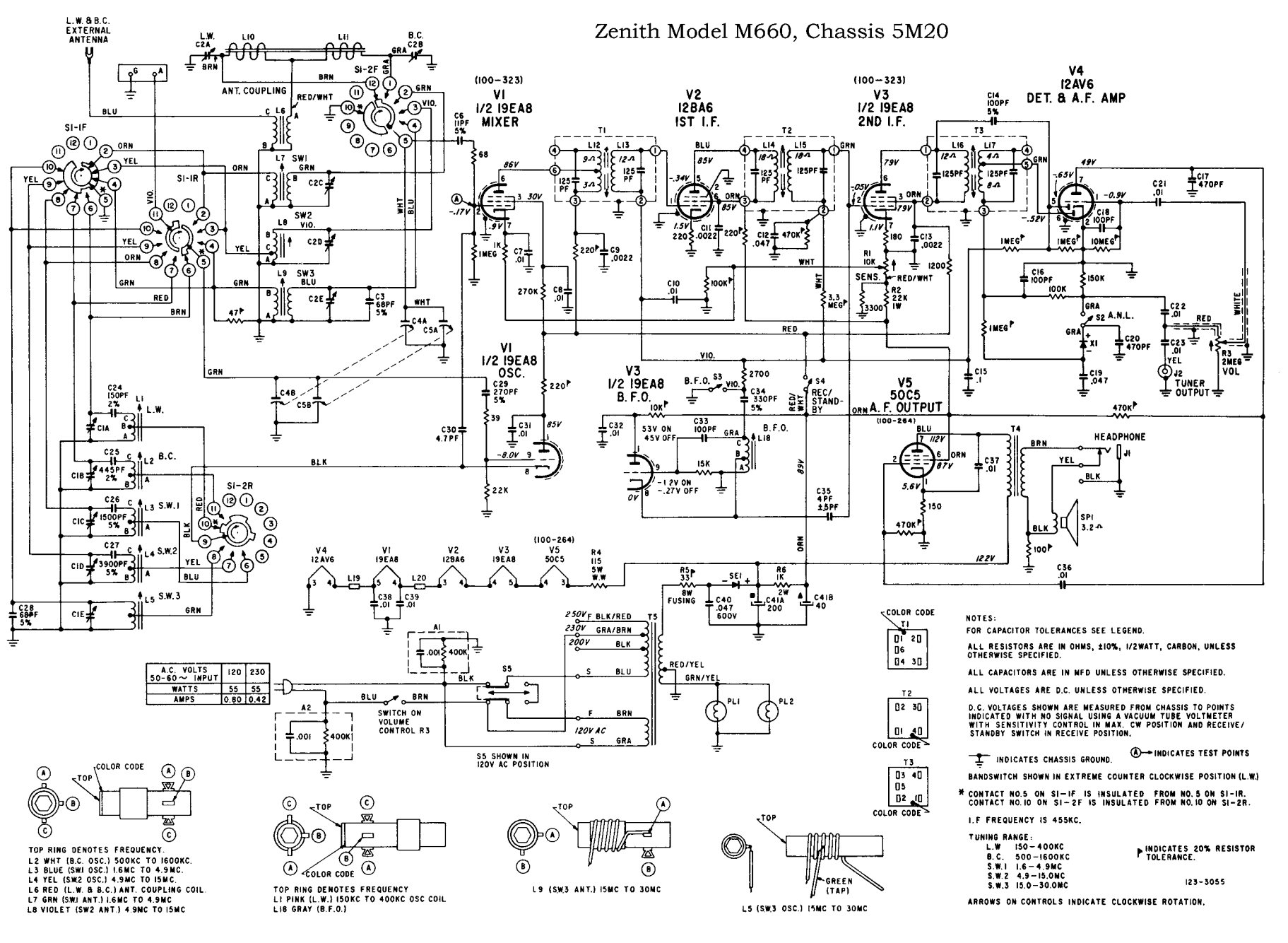
Zenith Model M660, Chassis 5M20



NOTES:

FOR CAPACITOR TOLERANCES SEE LEGEND.

ALL RESISTORS ARE IN OHMS, ±10%, 1/2WATT, 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.

⏚ INDICATES CHASSIS GROUND. Ⓐ INDICATES TEST POINTS

BANDSWITCH SHOWN IN EXTREME COUNTER CLOCKWISE POSITION (L.W.)

* CONTACT NO.5 ON SI-IF IS INSULATED FROM NO. 5 ON SI-IR. CONTACT NO.10 ON SI-2F IS INSULATED FROM NO.10 ON SI-2R.

I.F FREQUENCY IS 455KC.

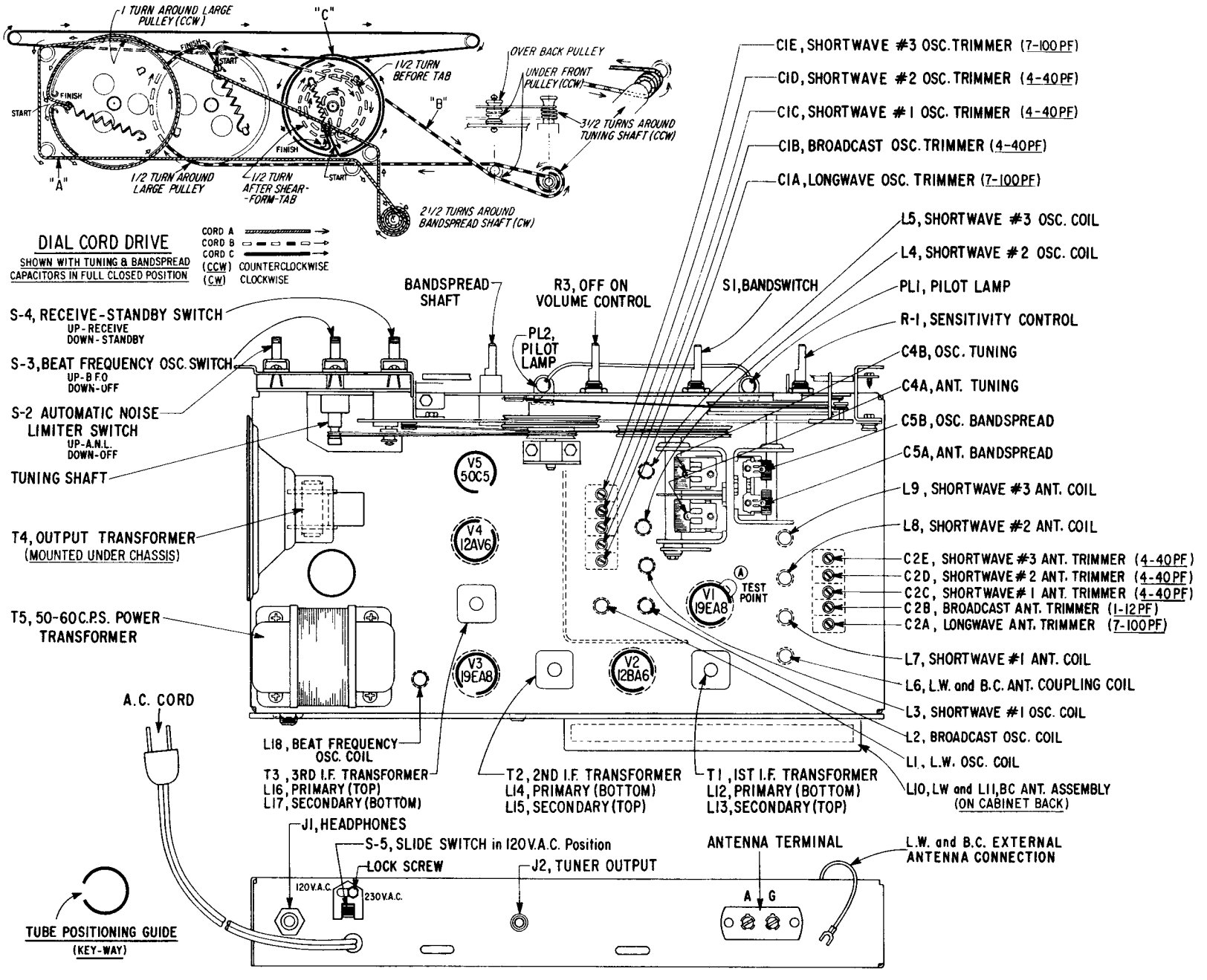
TUNING RANGE:

L.W	150-400KC
B.C.	500-1600KC
S.W.1	1.6-4.9MC
S.W.2	4.9-15.0MC
S.W.3	15.0-30.0MC

▶ INDICATES 20% RESISTOR TOLERANCE.

123-3055

ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION.


1 TURN AROUND LARGE PULLEY (CCW)
"C"
1 1/2 TURN BEFORE TAB
OVER BACK PULLEY
UNDER FRONT PULLEY (CCW)
3 1/2 TURNS AROUND TUNING SHAFT (CCW)
"B"
START
FINISH
"A"
1/2 TURN AROUND LARGE PULLEY
1/2 TURN AFTER SHEAR-FORM-TAB
2 1/2 TURNS AROUND BANDSPREAD SHAFT (CW)
DIAL CORD DRIVE
SHOWN WITH TUNING & BANDSPREAD CAPACITORS IN FULL CLOSED POSITION
CORD A
CORD B
CORD C
(CCW) COUNTERCLOCKWISE
(CW) CLOCKWISE
CIE, SHORTWAVE #3 OSC. TRIMMER (7-100 PF)
CID, SHORTWAVE #2 OSC. TRIMMER (4-40 PF)
CIC, SHORTWAVE #1 OSC. TRIMMER (4-40 PF)
CIB, BROADCAST OSC. TRIMMER (4-40 PF)
CIA, LONGWAVE OSC. TRIMMER (7-100 PF)
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 (4-40 PF)
C2D, SHORTWAVE #2 ANT. TRIMMER (4-40 PF)
C2C, SHORTWAVE #1 ANT. TRIMMER (4-40 PF)
C2B, BROADCAST ANT. TRIMMER (1-12 PF)
C2A, LONGWAVE ANT. TRIMMER (7-100 PF)
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, LW and L11, BC ANT. ASSEMBLY (ON CABINET BACK)
S1, BANDSWITCH
R3, OFF ON VOLUME CONTROL
BANDSPREAD SHAFT
PL2, PILOT LAMP
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, 50-60 C.P.S. POWER TRANSFORMER
V5 50C5
V4 12AV6
V1 19EA8
TEST POINT
V3 19EA8
V2 12BA6
A.C. CORD
L18, BEAT FREQUENCY OSC. COIL
T3, 3RD I.F. TRANSFORMER
L16, PRIMARY (TOP)
L17, SECONDARY (BOTTOM)
T2, 2ND I.F. TRANSFORMER
L14, PRIMARY (BOTTOM)
L15, SECONDARY (TOP)
T1, 1ST I.F. TRANSFORMER
L12, PRIMARY (BOTTOM)
L13, SECONDARY (TOP)
J1, HEADPHONES
S-5, SLIDE SWITCH in 120 V.A.C. Position
LOCK SCREW
J2, TUNER OUTPUT
ANTENNA TERMINAL
L.W. and B.C. EXTERNAL ANTENNA CONNECTION
120 V.A.C.
230 V.A.C.
A
G
TUBE POSITIONING GUIDE (KEY-WAY)

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					