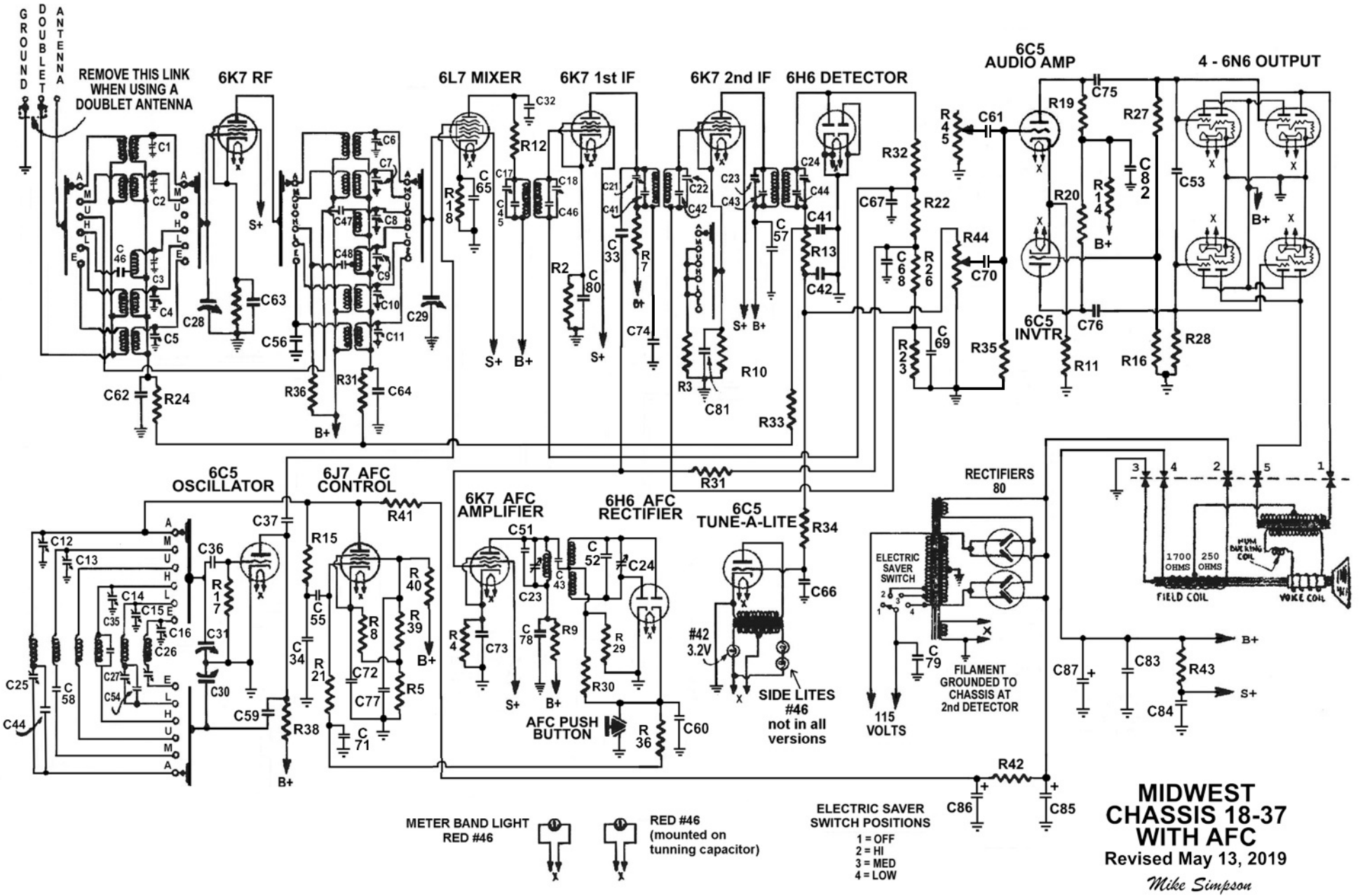
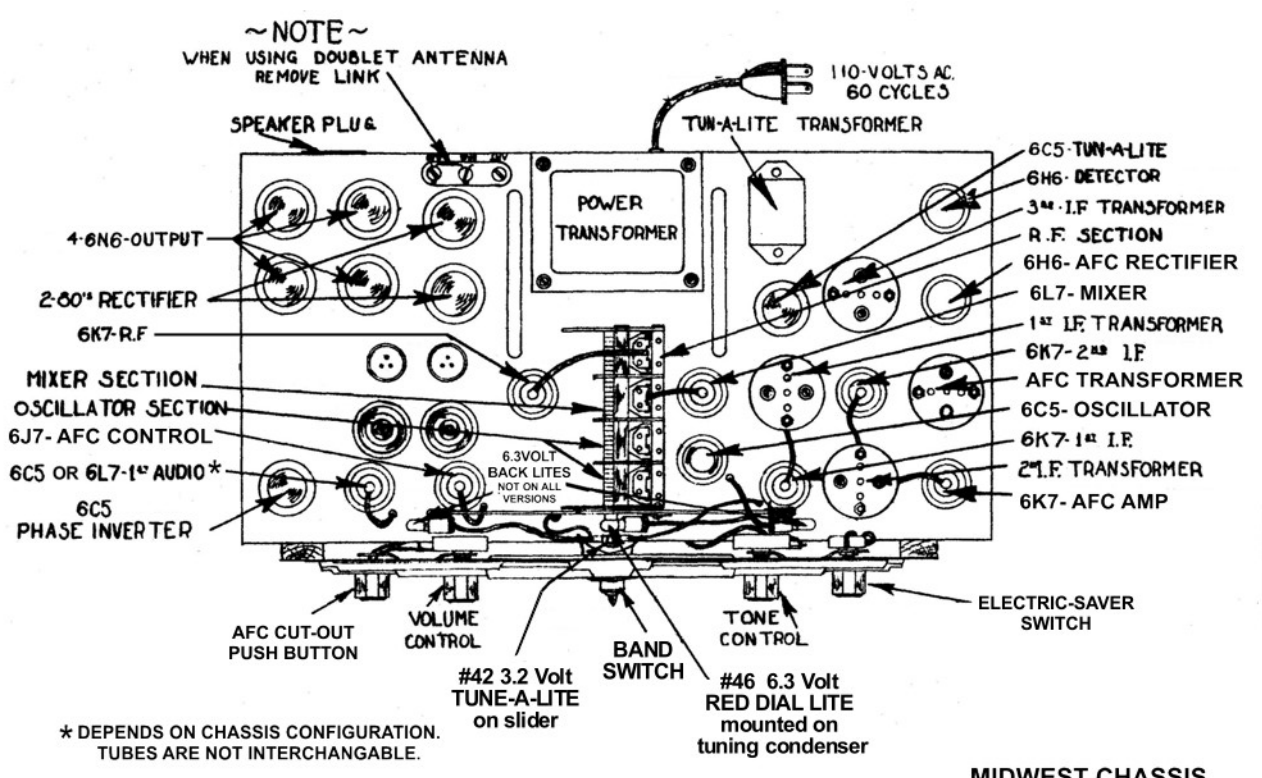

GROUND
DOUBLET
ANTENNA
REMOVE THIS LINK WHEN USING A DOUBLET ANTENNA
6K7 RF
6L7 MIXER
6K7 1st IF
6K7 2nd IF
6H6 DETECTOR
6C5 AUDIO AMP
4 - 6N6 OUTPUT
6C5 OSCILLATOR
6J7 AFC CONTROL
6K7 AFC AMPLIFIER
6H6 AFC RECTIFIER
6C5 TUNE-A-LITE
6C5 INVTR
RECTIFIERS 80
ELECTRIC SAVER SWITCH
FIELD COIL
VOICE COIL
1700 OHMS
250 OHMS
HUM BUCKING COIL
AFC PUSH BUTTON
SIDE LITES #46 not in all versions
#42 3.2V
115 VOLTS
FILAMENT GROUNDED TO CHASSIS AT 2nd DETECTOR
METER BAND LIGHT RED #46
RED #46 (mounted on tunning capacitor)
ELECTRIC SAVER SWITCH POSITIONS
1 = OFF
2 = HI
3 = MED
4 = LOW
MIDWEST CHASSIS 18-37 WITH AFC
Revised May 13, 2019
Mike Simpson



* DEPENDS ON CHASSIS CONFIGURATION.
TUBES ARE NOT INTERCHANGABLE.

MIDWEST CHASSIS
18-37 with AFC

January 20, 2012
Mike Simpson

CONDENSERS

C1	35MMFD TRIMMER	C19	IF TRIMMER	C37	50 MMF MICA
C2	" "	C20	" "	C38	100MMF "
C3	" "	C21	" "	C39	" "
C4	" "	C22	" "	C40	" "
C5	" "	C23	" "	C41	" "
C6	" "	C24	" "	C42	" "
C7	" "	C25	70 MMF PADDER	C43	" "
C8	" "	C26	" "	C44	150MMF "
C9	" "	C27	350MMF PADDER	C45	200MMF "
C10	" "	C28	365 MMF TUNING COND.	C46	" "
C11	" "	C29	" "	C47	" "
C12	" "	C30	" "	C48	" "
C13	" "	C31	" "	C49	" "
C14	" "	C32	10 MMFD MICA	C50	" "
C15	" "	C33	" "	C51	" "
C16	" "	C34	" "	C52	" "
C17	IF TRIMMER	C35	25 MMFD "	C53	230MMF "
C18	"	C36	50MMFD "	C54	100MMF "

C55	500 MMF MICA	C73	.05MFD-200VOLT		
C56	" "	C74	" 400 VOLT		
C57	2000 MMF "	C75	" "		
C58	" "	C76	" "		
C59	" "	C77	" "		
C60	3000MMF "	C78	" "		
C61	.02MFD 200VOLT	C79	" "		
C62	.05MFD "	C80	.25MFD-200VOLT		
C63	" "	C81	" "		
C64	" "	C82	" 400VOLT		
C65	" "	C83	" "		
C66	" "	C84	" "		
C67	" "	C85	24MFD 450W.V.		
C68	" "	C86	40MFD 350 W.V.		
C69	" "	C87	" "		
C70	" "				
C71	" "				
C72	" "				

RESISTORS

R1	560 OHM WIREWOUND	R19	100000 OHM .25 WATT	R37	25,000 OHM .5 WATT
R2	" "	R20	" "	R38	50,000 OHM .5 WATT
R3	" "	R21	" "	R39	15,000 OHM 1 WATT
R4	" "	R22	200,000 OHM "	R40	15,000 OHM 1 WATT
R5	390 OHM ±3% .25WATT	R23	" "	R41	50,000 OHM "
R6	500 OHM .25 WATT	R24	500,000 OHM "	R42	" "
R7	" "	R25	" "	R43	" "
R8	" "	R26	" "	R44	500,000 OHM VOLUME CONT
R9	" "	R27	" "	R45	500,000 OHM TONE CONT
R10	1000 OHM "	R28	" "		
R11	" "	R29	" "		
R12	5000 OHM "	R30	" "		
R13	25,000 OHM "	R31	1 MEGOHM "		
R14	" "	R32	" "		
R15	" "	R33	3 MEGOHM "		
R16	40,000 OHM "	R34	" "		
R17	50,000 OHM "	R35	" "		
R18	100,000 OHM "	R36	" "		

ALL TESTS MADE WITH NO SIGNAL INPUT

TYPE	POSITION	PLATE VOLTS	SCREEN VOLTS	SUPP. VOLTS	CATHODE VOLTS	FIL. VOLTS
6K7	R.F.	210	40	0.8	0.8	6.5
6L7	Mixer	210	40	1.0	1.0	6.5
6C5	Osc.	95	--	---	0	6.5
6K7	1st I.F.	210	40	1.2	1.2	6.5
6K7	2nd I.F.s	210	40	1.0 to 2.0	1.0 to 2.0	6.5
6K7	AFC Amp.	210	40	1.0	1.0	6.5
6H6	2nd Det.	0	--	---	---	6.5
6H6	A.F.C. Rect.	0	--	---	---	6.5
6C5	Tunalite	AC	--	---	0	6.5
6J7	Control	160	90	4.0	4.0	6.5
6C5	1st Audio	60	--	---	2.5	6.5
6C5	Invertor	60	--	---	2.5	6.5
6N6	Output	300	210	---	0	6.5
6N6	Output	300	210	---	0	6.5
6N6	Output	300	210	---	0	6.5
6N6	Output	300	210	---	0	6.5
80	Rectifier	280AC	---	---	---	5.0
80	Rectifier	280AC	---	---	---	5.0

* 1.0 Volt Bias When On "M"-"U" and "H" bands.

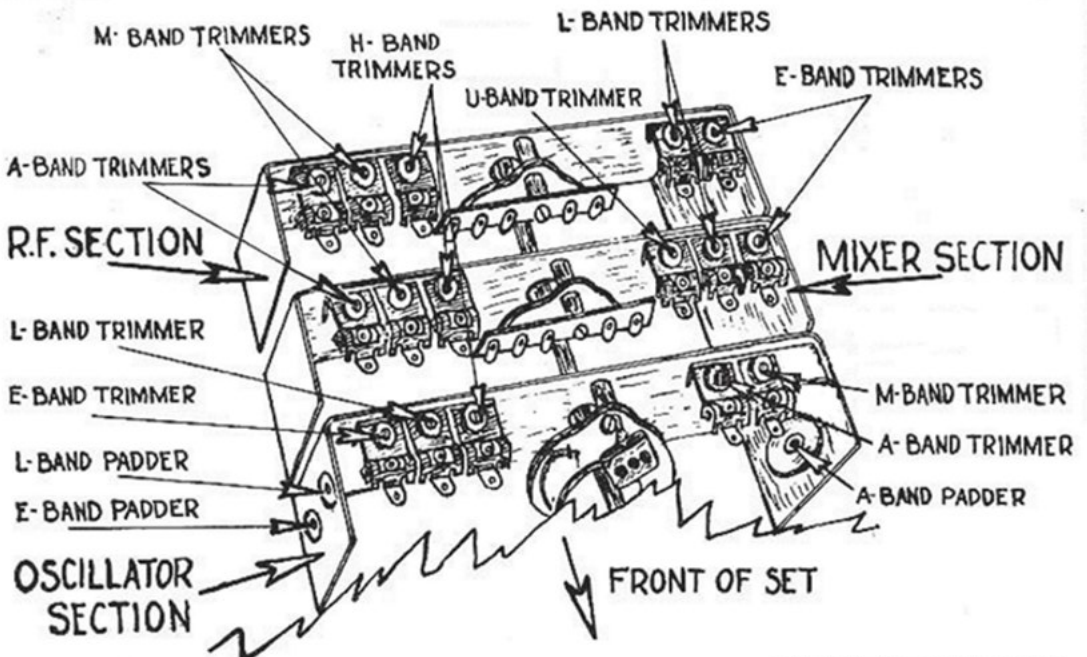
LINE VOLTAGE 115 VOLTS A.C. 60 CYCLES

1000 ohm per volt meter used on all D.C. measurements from ground. Voltage plus or minus 15% depending upon line voltage.

MIDWEST CHASSIS
18-37 with AFC
PARTS LIST AND VOLTAGES

January 20, 2012

Mike Simpson



MIDWEST CHASSIS
18-37 with AFC

January 20, 2012

Mike Simpson

INSTRUCTIONS FOR ALIGNING THE MIDWEST 18-37 A.F.C.
RECEIVER AND A.F.C. REGAL (1937)

A good signal generator with accurate frequency calibration, and output meter, and a 0-10 DC milliameter are required. An intermediate frequency of 456 kc is used.
(1) Remove grid cap from mixer tube. Set the signal generator to 456 kc and connect it from the mixer grid to ground
(2) Remove the oscillator tube from the receiver.
(3) Connect the output meter from the plate of the output tube to Positive B, or from the plates of one pair of tubes to the plates of the other pair of tubes.
(4) Using as weak a signal as will give a definite reading on the output meter, align the I.F. transformer for maximum output.
(5) Decrease the input signal and realign.
(6) Connect the 0-10 milliameter in series with the cathode of the 6J7 A.F.C. control tube.
(7) Turn off A.F.C. by pressing push button. If meter kicks up or down adjust plate trimmer for maximum deflection, either up or down, from the false zero. If no kick is noted turn diode trimmer slightly (about 1/8 turn) and proceed as above.
(9) Adjust diode trimmer for false zero.
(10)Flip A.F.C. off and on noting reading of milliameter. If meter kicks up or down the diode trimmer is not properly aligned. This adjustment is very critical and must be done very carefully if the A.F.C. is to function properly.
This completes the alignment of the I.F. Amplifier.

Insert the oscillator tube. Connect the signal generator between antenna and ground. Connect the mixer lead to grid of mixer tube. Turn off A.F.C. by depressing push button.
(1) Set the wave change switch to the "E" band.
(2) Set signal generator and dial to 340 kc.
(3) Adjust "E" oscillator trimmer to peak and adjust R.F. and mixer trimmers for maximum gain.
(4) Reset signal generator and dial to 135 kc.
(5) Adjust "E" padder for peak.
(6) Repeat adjustment of oscillator trimmer and padder until one does not effect the other.
This completes the alignment on the "E" band.
(1) Set wave change switch to "A" band.
(2) Set signal generator and dial to 1490 kc.
(3) Adjust "A" oscillator trimmer for peak and adjust R.F. and mixer trimmers for maximum gain.
(4) Reset signal generator and dial to 550 kc.
(5) Adjust "A" padder for peak.
(6) Repeat adjustment of oscillator trimmer and padder until one does not effect the other.
This completes alignment of the "A" band.
(1) Set wave change switch to "L" band.
(2) Set signal generator and dial to 4 mc.
(3) Adjust "L" oscillator trimmer for peak and adjust R.F. and mixer trimmers for maximum gain.
(4) Reset signal generator and dial to 1.8 mc.
(5) Adjust "L" padder for peak.
(6) Repeat adjustment of "L" oscillator trimmer and padder until one does not effect the other.
This completes the alignment of the "L" band.
(1) Set wave change switch to "M" band.
(2) Set signal generator and dial to 11.5 mc.
(3) Adjust "M" oscillator trimmers for maximum gain.
This completes the alignment of the "M" band.
(1) Set wave change switch to "H" band.
(2) Set signal generator and dial to 26 mc.
(3) Adjust "H" oscillator trimmer to fundamental peak and adjust R.F. and mixer trimmers for maximum gain.
This completes the alignment of the "H" band.
(1) Set wave change switch to "U" band.
(2) Set signal generator switch to "U" band.
(3) Turn dial generator to 60 mc.
(4) Adjust "U" mixer trimmer for maximum gain.
This completes the alignment of the receiver.

MIDWEST CHASSIS
18-37 with AFC
Alignment Instructions

January 20, 2012

Mike Simpson