

WES INDUSTRIES

TAR-224 QUALITY CONTROL TEST DATA SHEET

Q.C. TECH: _____

S/N _____

DATE _____

1.0 RECEIVER TEST (I.A.W. WES STANDARD TEST SET-UP.)

1.1 Measure satisfactory sensitivity and image rejection at frequencies indicated and record compliance.

BAND	FREQ. MHZ	AM 7 uV	CW 2uV	IMAGE FREQ.	DB REJ.	OK
1	2.0			2.910	50	
	3.7			4.610	40	
2	3.7			4.610	40	
	6.9			7.810	35	
3	6.9			7.810	40	
	12.9			13.810	30	
4	12.9			13.810	27	
	24.0			24.910	16.5	

1.2 Set dial to 24.00 MHz using internal calibrator. Tone signal generator to 24.00 MHz. Note that signal is present at receiver output with 7 uV input.

OK _____

- 1.3 Set receiver to calibration mark at 15 MHz. Align cursor with dial marking. Rotate dial knob clockwise to end of band and reset visually to 15MHz.

15.0MHz \pm 6 KHz OK _____

Rotate dial knob counterclockwise to end of band and reset visually to 15 MHz.

15.0 MHz \pm 6 KHz OK _____

- 1.4 With receiver tuned as in 1.4 rotate bandswitch knob clockwise and return to band 4.

15.0MHz \pm 6 KHz OK _____

Rotate bandswitch counterclockwise and return to band 4.

15.0 MHz \pm 6 KHz OK _____

- 1.5 Turn receiver function switch to **SPOT** position. With 2.5 MHz XTAL in either the F.P. socket or the CS-224, note spot signal at 22.5 MHz.

OK _____

2.0 TRANSMITTER TEST (I.A.W. WES STANDARD TEST SET-up)

- 2.1 Install modified CS-224 with following XTALS:

2.5 MHz
6.009 MHz
8.012 MHz
9.010 MHz
12.016 MHz

Set CS-224 to 2.5 MHz.

Set transmitter bandswitch to **2/12**

Initiate auto tune cycle

Hand key transmitter and fine tune

Record output power and input current on chart

- 2.2 Install 2.5 MHz XTAL in front panel jack with all transmitter controls set as in 2.1.
Record output power and input current on chart.

- 2.3 Repeat steps 2.1 and 2.2 for the XTAL frequencies and bandswitch settings indicated on chart.

CS-224 XTAL MHZ	F.P. XTAL MHZ	BAND	OUTPUT FREQ. MHZ	OUTPUT PWR (W)	INPUT CURRENT
2.5		2/12	2.5		
	2.5	2/12	2.5		
6.009		2/12	6.009		
	6.009	2/12	6.009		
6.009		12/24	12.018		
	6.009	12/24	12.018		
8.012		2/12	8.012		
	8.012	2/12	8.012		
8.012		12/24	16.024		
	8.012	12/24	16.024		
9.010		2/12	9.010		
	9.010	2/12	9.010		
9.010		12/24	18.020		
	9.010	12/24	18.020		
12.016		2/12	12.016		
	12.016	2/12	12.016		
12.016		12/24	24.032		
	12.016	12/24	24.032		

2.4 Install 7.005 MHz XTAL in front panel jack. Set bandswitch to 12/24

Auto and fine tune transmitter using front panel key.
 Note unmodulated RF carrier amplitude on oscilloscope display.
 Turn test set key switch to mike key.
 Mike key power output should be approximately one half of hand
 key power output.

OK _____

2.5 Turn key switch to Mike key.

Turn modulation switch to 1 KHz.
 Adjust audio oscillator amplitude to a point just below that at which
 the modulation envelope begins to show clipping.
 Note that peak envelope amplitude is approximately equal to CW amplitude
 noted in step 2.4.

OK _____

2.6 Turn modulation switch to 150 Hz.

Burst amplitude should be equal to CW amplitude noted in step 2.4.

OK _____

2.7 Install 2.5 MHz XTAL in front panel jack.

Set bandswitch to 2/12
 Initiate autotune and fine tune.
 Observe RF waveform to be an undistorted sine wave.

OK _____

2.8 Remove 50Ω dummy load and replace with 1800 pf capacitor.

Initiate autotune.
 Autotune cycles continuously.

OK _____

2.9 Time required for full Autotune cycle (0-10-0)

Less than 30 Sec.

OK _____