

KENWOOD

ASB-986

Service Bulletin

Amateur Radio Division

**Subject: TS-440S SERVICE MANUAL ALIGNMENT PROCEDURE
UPDATES**

Date: May 6, 1991

Use the following information to update the alignment procedure in your TS-440s Service Manual. Note that only the blocks marked with an asterisk, have been updated.

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ITEM	CONDITION	MEASUREMENT			ADJUSTMENT			SPECIFICATION REMARKS
		TEST EQUIPMENT	UNIT	TERMINAL	UNIT	PART	METHOD	
1. VOLTAGE	1) POWER, ON RF GAIN: MAX MODE, USB STBY, REC	DC V.M.	IF	19 - 3			CHECK	13.1 - 14.3V *
				19 - 9				4.5 - 5.5V
				19 - 18				7.2 - 7.8V *
				9 - 1	SW "A"	VR-4	B.8V	+/- 0.05V *
				27 - 4	IF	VR-5	B.8V	+/- 0.1V *

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4. VCO4	1) FREQ: 14.0000MHZ MODE, AM DISCONNECT PLL-8 CONN WHEN PLL UNLOCKED	DC V.M.	PLL	TP1 (L2)	PLL	T1	3.8V	+/- 0.1V
	2) MODE, USB							
	3) MODE, LSB							
	4) MODE, USB IF SHIFT POT, CENTER	FREQ COUNTER	PLL	3 - 2	SW "A"	VR7	456.500KHZ *	+/- 25HZ *
	5) IF SHIFT POT, FULL CW							457.500KHZ OR MORE *
	6) IF SHIFT POT, FULL CCW							455.500KHZ OR LESS *
	7) IF SHIFT POT, CENTER						456.500KHZ *	+/- 25HZ *
5. VCO3	1) FREQ: 13.9999MHZ MODE, AM	DC V.M.	PLL	TP2 (L13)	PLL	T2	6.2V	+/- 0.1V
	2) FREQ: 14.0000MHZ MODE, AM							2.8 - 3.8V *

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9. S-METER (SSB)	1) NO SIGNAL (SSB OUTPUT: OFF)	S-METER			IF	VR-2	SET TO STARTING POINT METER ZERO	
	2) FREQ: 14.1750MHZ MODE, USB SSB OUTPUT: 0000	SSB S-METER	REAR PANEL	ANT	IF	L3	51 TURN CCW FROM PEAK	
	3) SSB OUTPUT: 40000					VR1 *	50	4000 +/- 500