

## IC-A110 Adjustment procedures

Adjustment	No	Adjustment Condition & tuning	Value	REF No	CK. POINT
		[Adjustment condition] Power supply voltage 13.75V			
Vdd Voltage Adjustment	1	Q51 Drain is adjusted to $13.5 \pm 0.2V$ with R392 (MAIN) under the receiving condition.	$13.5 \pm 0.2V$	MAIN R392	Q51 Drain
Lock Voltage Adjustment	1	Indication frequency is made 118.000MHz, and a digital tester is put on CP2 (LV).			CP2 (LV)
	2	It is adjusted to the business that a lock voltage becomes $0.5 \pm 0.05V$ with L41 (VCO) at the time of the reception.	$0.5 \pm 0.05V$	L41 (VCO)	
	3	It is adjusted so that a lock voltage may become $0.5 \pm 0.05V$ with L40 (VCO) at the time of the transmission.	$0.5 \pm 0.05V$	L40 (VCO)	
Tune Voltage Adjustment	1	The digital multi meter is put on CP1 (TUNE), and adjusted so that tune voltage may become $0.7 \pm 0.05V$ with R59 (MAIN).	$0.7 \pm 0.05V$	R59 (MAIN)	CP1 (TUNE)
Frequency Adjustment	1	The power meter, an irregular occasion meter, a frequency counter are connected at the end of the antenna.			
	2	Indication frequency is made 136.975MHz, and a message is transmitted.			
	3	It is adjusted so that frequency may be $136.975MHz \pm 400Hz$ with X1 (MAIN) with seeing a frequency counter.	$136.975MHz \pm 400Hz$	X1 (MAIN)	Antenna terminal
RF Power Adjustment	1	made 127.525MHz.			
	2	A message is transmitted with 127.525MHz without irregularity.			
	3	It is adjusted so that transmitting output may become $9 \pm 0.5W$ with R150 (MAIN) with seeing the power meter.	$9 \pm 0.5W$	R150 (MAIN)	Antenna terminal
RF Power balance Adjustment	1	A message is transmitted over and under the band, and it confirms that transmitting output is within the range of 7 - 10W. Re-adjustment is done if it is not within the range.	7~10W		Antenna terminal
Deviation Adjustment		[Adjustment condition] Adjustment frequency : Moduration Analyzer MOD : P- HPF/LPF : DE-EMP : OFF			
	1	R110, R121 (MAIN) are fitted to the center.			
	2	1kHz inputs the proper string wave of $V_{rms}$ 10m from the microphone terminal, and it is made transmitting condition. It is R121 (MAIN), and it is adjusted so that a degree of irregularity may be 90%.	90%	R121 (MAIN)	Antenna terminal
	3	20dB going down (1m $V_{rms}$ ) makes it do the level of the microphone terminal, and it is R110 (MAIN), and it is adjusted so that a degree of irregularity may be 30%.	30%	R110 (MAIN)	Antenna terminal

Head set adjustment		1kHz inputs the signal of Vrms 25m with AG from EXTMIC (J6 : MAIN), and it is set so that irregularity may be 30% with 36 (MAIN) in the center frequency.	30%	R336 (MAIN)	Antenna terminal
RF BPF adjustment		[Adjustment condition]			
		SG level 0dBu (1kHz 30% MOD)			
		*) A level is made to change if necessary.			
	1	The outside SP, multimeter are connected with SG, the SP terminal in the antenna terminal, and the core position of L9, L49, L10, L11 is preset with in the bottom.			
	2	Frequency is moved around 118MHz, and L9, L49, L10, L11 (MAIN) are adjusted so that AF output may become the biggest.	AF MAX.	L9,L49, L10,L11 (MAIN)	EXT.SP
3	Frequency is made 136.975MHz, and R59 (MAIN) is adjusted so that AF output may become the biggest.	AF MAX.	R59 (MAIN)	EXT.SP	
Squelch adjustment	1	The neighborhood of 118MHz is inputted to either memory.			
	2	The power is turned on, and made the adjustment mode with pushing SQL, TS, SCAN key.			
	3	It is fitted to the memory ch which wrote frequency for the SQL adjustment that it was written first.			
	4	It confirms that indication is "sqADJ02", and a signal without the irregularity of -15dBu is inputted in the same frequency than SG.	-15dBu		DS1
	5	SCAN key is pushed, and close level is set.		SCAN	
	6	It confirms that indication is "sqADJ25", and the signal of the 15dBu irregular-less is inputted from SG.	15dBu		DS1
	7	SCAN key is pushed, and a open level is set.		SCAN	
	8	A power supply is turned off, and it gets out of the adjustment mode.			
	*) 4 - 5 are repeated unless a power supply is turned off.				