Adjustment Description

The radio can be adjusted by PC programming software or by manual adjustment. Manual adjustment procedure of **UANB-401** and **UANB-501** is as follows.

Instrument:

(A) Radio Communication Test Set 1 set

(B) Scanner 1 set

(C) 30A/30V Power Supply 1 et

(D) Digital Voltmeter 1 set

(E) Power Meter 1 set

Preparations for tuning the transceiver

Before attempting to tune the transceiver, connect the unit to a suitable power supply. Whenever the transmitter is tuned, the unit must be connected to a suitable dummy load (i.e. power meter).

The speaker output connector must be terminated with a *80.* dummy load and connected to an AC voltmeter and an audio distortion meter or a SINAD measurement meter at all times during tuning.

Adjustment Procedures:

Common Section

Item	Condition	Measurement Test Instrument	Terminal	Adjustment Part	Adjustment Method	Specification / Remarks
1. Power supply	1.Power supply voltage DC 7.2V					
2. VCO lock voltage TX	1.CH: TX HI 2.CH: TX LO	Digital Voltm6t6 r	TPD	R122	ADJ Check	3.7V 1V or more
3. VCO lock voltage RX	1.CH: RX HI 2.CH: RX LO			R122	ADJ Check	3V 1V or more

Receiver Section

Transmitter Section

Item	Condition	Measurement	Terminal	Adjustment		Specification / Remarks
		Test Instrument		Part	Method	
7.TX Frequency	1.CH:TX Center PTT:ON	Radio Communication Test Set	ANT	RV2		Error <100Hz
8.TX Power	1. CH: TX LO PTT: ON 2. CH: TX HI PTT: ON	Radio Communication Test Set Ammeter	ANT	Adjust software settings	Adjust it to : PO :5 W ⩽1.6A Adjust it to : PO: 5W ⩽1.6A	Check power Check power
9.Max.Deviation	1.CH:TX Center PTT:ON 2. CH: TX LO PTT: ON 3. CH: TX HI PTT: ON	Radio Communication Test Set FILTER: 0.3-3.4KHz AF:1KHz 100mV	ANT MIC Jack	Adjust software settings	Adjust to 2.3±0.1KHz Check deviation at 2.3±0.3KHz Check deviation at 2.3±0.3KHz	
10. Modulation Sensitivity 11. Modulation Distortion	1.CH:TX Center PTT:ON	Radio Communication Test Set FILTER: 0.3-3.4KHZ AF:1KHz 8mV	ANT MIC Jack		Check deviation: 1.6KHz-2.0KHz ⩽5%	Check
12.CTCSS Deviation	1.CH:TX Center PTT:ON	Radio Communication Test Set FILTER LPF: 300Hz	ANT	Adjust software settings	Adjust deviation to 0.75KHz±0.10KHz	
13.CDCSS Balance	1.CH:TX Center PTT:ON	Radio Communication Test Set FILTER LPF: 300Hz	ANT		Make the Demodulation wave into square waves	Check waveform
14. CDCSS Deviation	1.CH:TX Center PTT:ON	Radio Communication Test Set FILTER LPF: 300Hz	ANT	Adjust software settings	Adjust deviation to 0.75KHz±0.10KHz	
15.Frequency range	136-174M Hz					
16.Output Power	5W /1W					