

UV973 Adjusting Instruction

Using PC programming software or two way radio manually adjust mode can to debug PX-UV9R. The programming software as an example to illustrate the debug method of PX-UV9R.

Instrument:

Integrated Tester	1pcs
Sweeper	1pcs
3A/10V Power Supply	1pcs
Digital Voltmeter	1pcs
3A Ampere meter	1pcs

一、Adjust:

1. Program: The new assemble radio; EEPROM doesn't have useful information so need to program before adjusting.
2. Adjust: UV9R adjusting, some item are in regular communication mode, some item are in channel mode after programming. Direct connect to the power supply enter regular communication mode. Press EMTER key to switch frequency mode and channel mode.

● Transmit Adjust

Item	Condition	Measure		Specification/Mark	
		Test Equipment	Terminal	Method	
1. Transmit Frequency	Adjust to center frequency debugging	Integrated Tester	ANT	Adjust to Center frequency	Deviation $\leq \pm 250\text{Hz}$
2. Max Deviation	Adjust to center frequency debugging	Integrated Tester LPF: 15kHz AF:1kHz 120mV	ANT MIC Socket	Deviation adjust to: $\leq 2.5\text{KHz}$	
3. Modulation Sensitivity	Adjust to center frequency debugging		ANT MIC Socket	Change AFGen1 Lv1	8-12mV
4. CTCSS Frequency Deviation	Adjust to center frequency debugging	Integrated Tester	ANT	HPF: $<20\text{Hz}$ LPF:300Hz	narrowband d: 0.3-0.8 (KHz)
5. CDCSS Frequency Deviation	Adjust to center frequency debugging				narrowband d: 0.3-0.8 (KHz)
6. DTMF Frequency Deviation	Adjust to center frequency debugging	Digital Voltmeter		Press side key3 input 1、2、3、4、5 then press PTT key, transmit and see what deviation display on the instrument	narrowband d: 1.5K-3KH
7. adjust	Low/High	power meter		When the radio is off, press PTT key	z 1-5W

power	power			and number key 5, turn on the radio at the same time to enter the adjustable mode. The display will show "low", it means to adjust the low power, rotate the encoder knob to switch between high/low power. Press the number key "1, 2, 3" to adjust the 136-174MHz frequency band; press the number key "4, 5, 6" to adjust the 400-470 MHz frequency band.	
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● Receive Adjust

Item	Condition	Measure		Specification/Mark	
		Test Equipment	Terminal	Method	
1.Sensitivity	Adjust to low/middle/High frequency debugging		ANT Speaker Socket	-120dBm more than 12dB	
2.Squelch	Adjust to center frequency debugging	Integrated Tester	ANT Speaker Socket	SQL=4 level, -130dBm can turn off	Adjust to level 4 Squelch
			ANT Speaker Socket	SQL=4 level, -120dBm can turn on	Adjust to level 4 Squelch
3.Audio distortion	Adjust to center frequency debugging		ANT、Speaker、Socket	Check	≤5%
4.MSK decode	Adjust to center frequency debugging	Integrated Tester	ANT	0.3KHz-2.8KHz Frequency 1KHz Frequency deviation is square wave	
5. Five Tone Decode	Adjust to center frequency debugging			narrowband: 2.5KHz Decode available	