

## Adjust Description and specifications

Use programmer or PC software to program XT-500/600 , or by manual program , eg . To program XT-500/600 by manual as follows:

### 一、Instrument::

Synthesized test instrument	1 set
Scanner	1 set
3A/10V power	1 set
Digital Voltmeter	1 set
3A DC Ammeter	1 set

### 二、Adjust:

1、Initialization: It is necessary to initialize the transceiver because there is useless data in EEPROM. So make initialization before adjust. After set the Initialization data on PC, connect the radio by program line, then turn on the radio power, you can write in Initialization data.

2、Adjustment: The adjustment of XT-500/600, some are conducted in PC communication mode, some are in manual program mode. Turn on the power and enter the manual program mode.,

### VCO SECTION:

ITEM	CONDITION	measurement		Adjustment		Specifications/Remarks
		Test equip	terminal	part	Method	
1、.Setting	1、 power 7.5V					
2、 Transmit VCO1.CH: lock voltage	1、 TX high frequency, enter the manual program mode and press the PTT	Digital Voltmeter	CV	CV321	4.0V±0.1V	
	2、 TX low frequency, enter the manual program mode and press the PTT				>0.7V	
3、 Receive VCO1.CH: lock voltage	1、 RX high frequency, enter the manual program mode and press the MONI			CV331	3.8V±0.1V	
	2、 RX low frequency, enter the manual program mode and press the MONI				>0.7V	

### Adjust the Transmitter section:

Item	Condition	Measurement		Adjustment		Specifications /Remarks
		Test equip	Terminal	parts	Method	
7、Transmit frequency	1、TX center Turn to manual mode and press the PTT	Synthetical test	ANT	RV361	Adjust to the center frequency	the error $\leq$ $\pm 250\text{Hz}$
8、MAX DEV 最大频偏	1、TX center frequency Turn to manual mode and press the PTT	Synthetical test LPF: 15kHz AF: 1kHz 120mV	ANT MIC-Jack	RV422	Adjust the frequency error to: $4.2\text{kHz} \pm 100\text{Hz}$	
9、FM Sensitivity	1、TX center Turn to manual mode and press the PTT	Synthetical test FILTER: 0.3-3.4kHz AF: 1kHz 15mV	ANT MIC-Jack		Check frequency error : $2.2\text{kHz}-3.6\text{kHz}$	
10、CTCSS balance	1、TX center and with 67.0Hz CTCSS, turn to manual mode	Synthetical test LPF: 300Hz	ANT		Adjust VR3, the test value of on condition 1 & condition 2 is consistent, the difference value $\leq 200\text{Hz}$	67.0Hz CTCSS
	2、TX center and with 250.3Hz CTCSS, turn to manual mode and press the PTT					250.3Hz CTCSS
11、CTCSS frequency error	1、TX center frequency CTCSS: 67.0Hz turn to manual mode	Synthetical test LPF: 300Hz	ANT		Adjust the frequency error to: $0.65\text{kHz} \pm 100\text{Hz}$	
12、CDCSS frequency error	1、TX center frequency CDCSS: 023 turn to manual mode				Adjust the frequency error to: $0.65\text{kHz} \pm 100\text{Hz}$	
13、.Low Battery alarm level	Turn to manual mode, Adjust the battery to 5.7V	Digital voltmeter			Adjust so that the LED flashes	

**Adjust the receiver section:** (enter manual mode first)

Item	Condition	Measurement		Adjustment		Specifications /Remarks
		Test equip	Terminal	parts	Method	
4、Band-pass filter	1、RX center turn to channel 4 in manual mode	Spectrum analyz	ANT .		Adjust the undee to the top, the bandwidth is about 20MHz, the sign of central frequency is in the middle of the undee	
5、Sensitivity	1、RX center Turn to manual mode	Synthetical test SSG output: -118dBm MOD:1KHz DEV:±3kHz FILTER: 0.3-3.4kHz	ANT MIC-Jack		check	SINAD: 12dB or higher
	2、RX low Turn to manual mode					
	3、RX high Turn to manual mode					
6、Squelch	1、RX center Turn to manual mode	Synthetical test SSG output: -117dBm	ANT MIC-Jack	RV266	Level 9 Adjust to close the squelch.	Adjust the Level 9 squelch.
	2、RX center Turn to manual mode	Synthetical test SSG output: -125dBm			Level 3 Adjust to close the squelch.	Adjust the Level 3 squelch.