

# Manual Tune up for the Signal/One CX-7 Transceiver

## PRESETTING CONTROLS

<b>MANUAL/BROADBAND SWITCH</b>	=	<b>POINTER TO MANUAL</b>
<b>CLIPPING CONTROL</b>	=	<b>0</b>
<b>OUTPUT CONTROL</b>	=	<b>0</b>
<b>PA TUNING</b>	=	<b>Known Presets or 6</b>
<b>LOADING</b>	=	<b>Known Presets or 6</b>
<b>MODE</b>	=	<b>USB or LSB</b>
<b>METER BUTTONS</b>	=	<b>PLATE</b>
<b>CONTROL BUTTONS</b>	=	<b>PTT</b>
<b>TRANSMIT VFO BUTTONS</b>	=	<b>A</b>
<b>MHZ + VFO A</b>	=	<b>Select band and frequency</b>
<b>MIKE</b>	=	<b>Turned off or unplugged (Will modulate on TUNE)</b>
<b>RF GAIN TO 10 ----- AF GAIN TO 3. -----</b>		<b>50 Ohm Dummy Load Connected</b>

## METER SCALES

<b>PLATE</b> selected 0 - 5 Scale	=	<b>0 - 500 Milliamps</b>
<b>SCREEN</b> selected 0 - 5 Scale	=	<b>0 - 50 Milliamps</b>

## PRELIMINARY

- Press **TRANSMIT** control button and verify 100 milliamps **PLATE** current. Push **PTT** to return to to receive.

## TUNEUP

1. Press **TUNE** control button. Turn **OUTPUT** control until **PLATE** current reads slightly less than 2.0 on meter. 5 SECONDS **MAXIMUM IN TUNE**, then back to **PTT**.
2. Press **FWD POWER** meter button and adjust **PA TUNING** control for maximum reading.
3. Press **SCREEN** meter button and turn **OUTPUT** control clockwise. If screen current rises over 1.0 on meter, adjust **LOADING** control to reduce meter reading. Readjust **PA TUNING** control for maximum **SCREEN** meter reading, but not to exceed 1.0 meter reading, if so, reduce **OUTPUT** control and reset **LOADING** control.
4. Continue to advance **OUTPUT** control for higher **SCREEN** current. Reduce reading with **LOADING** control and repeat **PA TUNING** for maximum **SCREEN** current until no increase in **SCREEN** current is possible. Return **OUTPUT** control to "0" each time.
5. Be sure to observe 5 second limit in **TUNE** and wait at least 15 seconds before going

to **TUNE** again.

6. Verify **FWD POWER** meter reading can go to "4.2" or higher. This reading is only important on **CW** operation as a maximum of "4.2" but any power less than this may be used by **OUTPUT** control adjustment. On **SSB**, the meter reading is average power, so 25% of full scale is really maximum peak power.
7. **PLATE** current is not used in tuning tubes with Screen grids and readings up to 3.3 (330 Milliamps) are only important on **CW** operation.

## OPERATION

### SSB

1. Push **CLIPPING** meter button. Speak into microphone and adjust **CLIPPING** control clockwise until meter just barely deflects off zero. Usually at a setting of "2" on the control. This is minimum Clipping & best quality.
2. Push **DRIVE** button and advance **OUTPUT** control until meter just moves off zero. This is maximum output power, typical "2" on control.