

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

PRESETTING CONTROLS

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

METER SCALES

| | | |
|------------------------------------|---|-------------------|
| PLATE selected 0 - 5 Scale | = | 0 - 500 Milliamps |
| SCREEN selected 0 - 5 Scale | = | 0 - 50 Milliamps |

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.