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## Icom 756Pro2 – PW-1 Synch Procedures

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Operation of the Icom 756Pro2 with the Icom PW-1 amplifier is excellent. However, after a couple of years of experience in running this combination, I have learned a few things that are worthy of passing onto others. It is possible to make mistakes in the hook up and operation of the PW-1 that can lead to problems. Synchronizing the 756Pro2 to the PW-1 can be tricky in the sense that if the procedures outlined in the PW-1 manual are not followed exactly, the PW-1 will not automatically follow band changing on the 756Pro2. What follows are suggestions and recommendations regarding the set up and use of these units.

- 1.) Connect all cables between the 756Pro2 and the PW-1 as shown on p.7 of the PW-1 manual. It is critical that the ACC cable be connected from the 756Pro2 ACC(2) jack to the PW-1 ACC-1 jack. If the 756Pro2 ACC(1) jack is used by mistake — a very easy mistake to make —, no ALC will be available, and the amp will be driven to 1600 watts, which it is not designed to handle. **The 756Pro2's ACC(2) jack must be used.**
- 2.) When first applying power to the PW-1, its CPU must be reset. (This is described on p.11 of PW-1 manual.) Here are the steps:
  - a. If the PW-1 is on, push POWER to turn the PW-1 off.
  - b. On the PW-1, push POWER while holding the DOWN and UP buttons. Use the thumb and little finger on the right hand to simultaneously hold the DOWN and UP buttons while pushing POWER with a finger on your left hand.
  - c. The PW-1's CPU will now be reset.
- 3.) Set the PW-1's ALC level as described on p.11 of PW-1 manual. Do not set it higher than the "ALC (adj.)" point on the METER-2. Doing so will provide little more power and will probably cause the amp to fault off.
- 4.) The PW-1 uses CI-V frequency data for automatic tracking of band changes in the 756Pro2. To set up this automatic tracking capability, the CI-V address of the PW-1 must be programmed to be in synch with the CI-V address of the 756Pro2. (This is described on p.12 of the PW-1 manual.)

First of all, make sure the following conditions are set in the 756Pro2's EXIT/SET OTHER menu:

- a. CI-V Baud Rate = 9600 or 4800
- b. CI-V Address = 64h or 5ch<sup>1</sup>
- c. CI-V Transceive = ON

Now, perform the following steps:

- d. Power off the 756Pro2
- e. Power off the PW-1
- f. On the PW-1, while holding down the INPUT button, push the POWER button. This will turn the PW-1 on and the INPUT 1 light will now be flashing.
- g. Power on the 756Pro2. Wait for the transceiver to cycle on and display the Band Scope.
- h. Turn the transceiver's main tuning knob until the INPUT 1 lamp stops flashing on the PW-1. If the INPUT 1 lamp continues to flash, make sure CI-V Transceive=ON in the 756Pro2.
- i. Power off the PW-1.
- j. Power off the 756Pro2.
- k. Power on the PW-1.
- l. Power on the 756Pro2.

The 756Pro2 and the PW-1 will now be in synch. At this point, the AUTO lamp on the PW-1 will be on, and the PW-1 will switch to the same band as the 756Pro2. For example, if the 21 MHz band is displayed on the 756Pro2, the PW-1 will switch to the 21 MHz band, and the 21 lamp will turn on. Switch to a different band on the 756Pro2, and the PW-1 will automatically switch to that band.

If at this point, the PW-1 does not automatically follow band changing in the 756Pro2, the units are not in synch. Recheck all cabling, including the ACC cable and the Remote cable, and repeat steps 2 and 4 above. It is critical that the units are powered off and on in the exact sequence described in the procedure.

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<sup>1</sup> If interfacing the 756Pro2 to WriteLog software, a CI-V address of "5ch" must be used. Otherwise, the 756Pro2's default address of "64h" can be used.

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5.) Press the AMP/PROTECT switch on the PW-1 and you will be ready to transmit. If you press TUNER to activate the PW-1's tuner and hit the key, you may see the SWR meter go to infinity ( $\infty$ ) momentarily until the tuner tunes. I recommend reducing the 756Pro2's power level if this happens to keep from stressing the PW-1 during tuning. Note: Do not use the 756Pro2's tuner when using the PW-1.

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