

Setting up the Assembled Transverter WITH RF SENSE PTT Attenuator Board

This transverter contains our known Transverter and Attenuator boards. Description and circuit diagrams of both boards you find in this package. Basically the Transverter is ready to use. You need to connect it to your base HF radio and it works. Below some tips how to do this right.

1. To read the descriptions of the transverter and attenuator boards. There you find a pinouts of the boards and their circuit diagrams. Closely take your attention on the description of the attenuator board. To read how the Attenuator board works.
2. **Set your HF radio on 28 MHz (10m) band. Before connecting the transverter to your base HF radio REDUCE output power of your base radio to 5 - 10 Watts. No more! And be careful. Hi output power would kill the Attenuator and Transverter boards.**
3. **This Transverter contains the Attenuator Board with RF SENSE PTT Switch so it will work fine without PTT line connected to your radio. RF SENSE is detecting RF signal on the Attenuator Board input and instantly switches the transverter to the TX mode.**

Even though RF SENSE PTT SWITCH works fine using it in SSB or slow speed CW modes might cause its relay clicking so in such modes I recommend to use the PTT line connected to your HF Base Radio.

IF YOU ARE NOT GOING TO USE the PTT LINE then go to the p.5

4. To find PTT output pin or PTT connector on your base radio. It might be the ACC , PTT, Output, Remote or some other connectors. To check it in the manual of your radio. Some radios have the PTT setting in its menu. Then as you had found it to check the PTT chain of your radio. Switching your base radio to the transmit mode (TX) should ground the PTT line. Connect PTT output of your radio to the "PTT" connector on the back panel of the transverter. To use double wire cable. One wire to the PTT line and the other one to the ground.
5. Check that the "POWER" switch on the front panel of the transverter is in OFF position. Connect the transverter to your power supply using a power cord included with the transverter. The power connector is on the back panel of the transverter. The red wire is +12V and the black wire is the ground -12V.
6. Using good quality coax cable connect the ANTENNA connector of your base HF radio and the "RADIO" connector on the back panel of the transverter.
7. Connect your VHF antenna to the "VHF ANT" connector on the back panel of the transverter.
8. You can connect your HF antenna to the "HF ANT" connector on the back panel of the transverter and use it on HF bands. This transverter has the bypass relays connecting your HF antenna to your base HF radio. To read the description of the Attenuator board and you find there how it works.

Although the bypass chain of the Attenuator board works very well and you could use full 100 Watts output power of your HF radio on the HF bands, I recommend DO NOT DO this through the Transverter bypass chain! Some day you might forget to reduce output power of your HF radio and full 100 watts would instantly kill your transverter.

9. Push ON the power switch of the transverter. The +12V LED is lighting now. You should hear an increasing of the noise of your HF radio at least on about 6-10 dB. It means the RX stages are working. Try to find someone on the band.

10. Pushing your HF radio to the TX transmitting mode brings the transverter to the TX mode. The PTT LED on its front panel is lighting now. It means the transverter is in the TX mode. You can use any modes such SSB, CW, AM, FM or digital that your base HF radio had.

11. Transmit some more time and you could see that the transverter getting heated. It is normal operating process. Its box serves it as the heat sink.

12. You can adjust output power of the transverter slightly adjusting output power of your base radio or the best way do this is to open the transverter box and adjust the pots on the transverter and ATT boards.

13. Do not overdrive the transverter by your base radio and it would work good and have a clear output signal.

14. Pushing the "POWER" switch OFF brings the Transverter into the HF Radio operation mode so as I described it in the note 8 you can work on any HF bands now using your base radio already hooked up to the transverter.

If you have any questions you can e-mail me and ask them.

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