

Adapting the KOSS 3000 Headset for Use  
With an Amateur Radio Transceiver

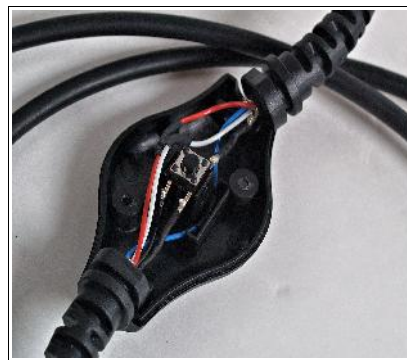
By K8JHR

The Original Set.

The KOSS 3000 headset is a heavy duty, commercial grade headset providing nearly 30 dB passive noise attenuation. It sports a very robust, heavy duty goose neck microphone boom.



The headset cable has a built-in Push-to-Talk (PTT) switch, and terminates in a Kenwood Universal plug, used on Kenwood commercial HTs.



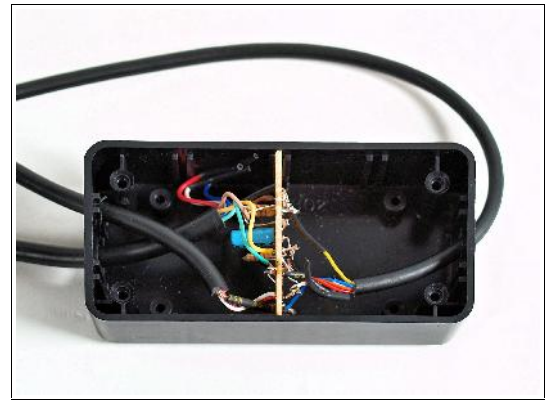
PTT Switch - inside and out.

Matching Network:

The headset employs an electret condenser microphone that requires 2-10 v bias voltage. Typically electret condenser microphones have a very strong open signal voltage (i.e., output signal strength.) Most ham transceivers (ICOM sets to the contrary) are initially set up for the relatively weaker signal strength of a dynamic microphone cartridge. Therefore, I employ a 10-15 dB attenuator pad to reduce the microphone's inherently strong output signal strength. While I was at it, I installed a resistor to reduce the 8 - 10 volts bias voltage supplied by the transceiver, to closer to 5 volts, which allows the microphone capsule slightly greater dynamic range. This is not typically necessary, but I prefer it.

The matching network is built on a perforated circuit board mounted in a plastic project case. This case is RadioShack Part No. 270-1802. (4" x 2" x 1").

The cables were reinforced with shrink tubing, and then secured with cable ties to prevent cable stress from causing fatigue or pulling out of the project box when in use.



Finished Project:

Photo depicts the KOSS 3000 headset with noise reducing earphone receivers, original cable with PTT switch, and project box containing the matching network and microphone and earphone cables running to the transceiver.



Below is a schematic diagram of the matching network, including notes on internal wire assignments for both the original cable and the MFJ-5082 8-pin microphone connector with 8-conductor microphone cable that connects the set to the transceiver microphone input jack.

