

## Kenwood TH-F6 as a repeater.

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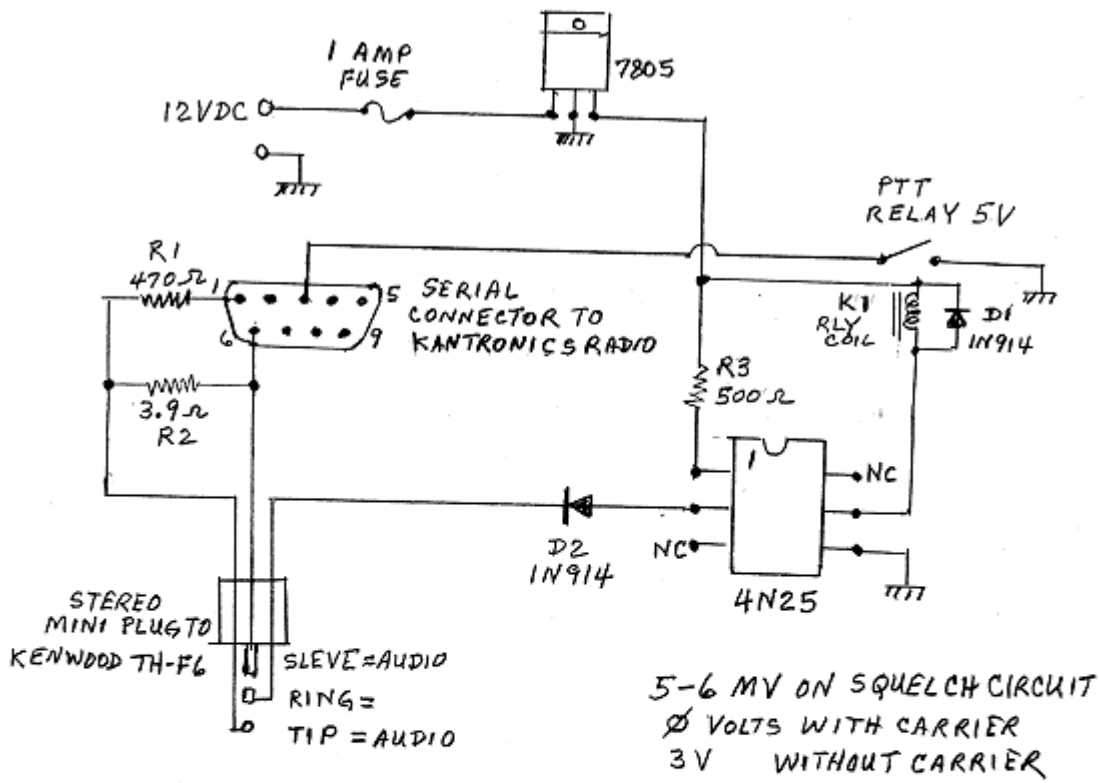
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I found out that the Kwood TH-F6 has a carrier detect circuit built into it. It is the only HT that I know of that has this feature. To set it up you have to go into the SP/MIC menu and turn on the TNC. The thing that makes the F6 into a repeater is the squelch circuit pulls low (neg.) when it senses a carrier. I used an optisolator and keyed a relay used to key another radio's PTT to ground. I put 12v with a 2.2k ohm resistor going to the pos. side of the optocoupler, and let the F6 pull the circuit to ground.

I put a diode across the optisolator input also. I let the optisolator output transistor pull the relay to ground, and put 12v on one side of the relay coil. I also put a diode across the 12v reed relay. The audio, and the squelch and ground circuit all come off the mini (small) plug on the F6. I did use the Kwood 3.9k ohm to ground, and a 470 ohm in line before I put the audio into the other radio's mic circuit.

I don't know for sure how much the current the F6 will take on the squelch circuit, but I tried to keep it below 10ma. If I did my figuring right with 12v and a 2.2k ohm resistor across the optisolator, there's 5ma current draw. I have plans to use 9v batt. with a 4.7k ohm across the optisolator. This will bring the current to the F6 down below 2ma. I also know there are a lot of different ways to build this circuit, but this worked for me.

I wanted to build this for EMgcy situations, rather than go to the trouble of getting an expensive repeater controller.



REPEATER INTERFACE

NEGATIVE KEYING

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AM

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