

## Kenwood TKR-820 Repeater

### Modification to Allow DTMF Controlled Repeater Turn-Off and Turn-On

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Here is a method of controlling repeater turn-off and turn-on. The TKR-820 accessory jack does not have an interlock that might lend itself to control of the repeater via an external source. This seemed to be a simple method.

This method uses an Omron G3VM-352C MOSFET analog switch to allow the KEY signal from the Signaling Unit to be interrupted. (See Figure 1) The analog switch is available from <http://www.mouser.com/omron>.

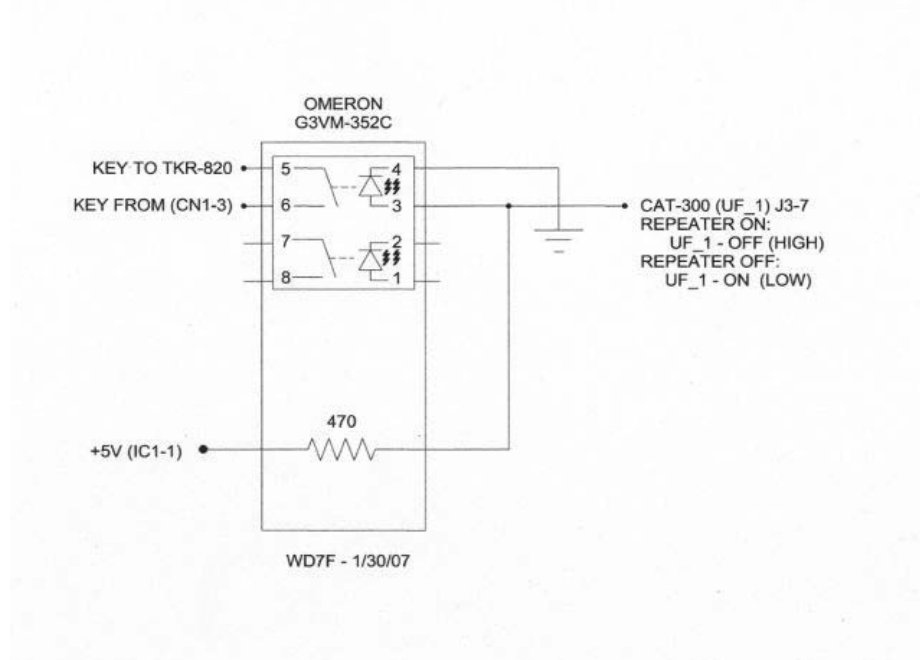


Figure 1

The MOSFET Analog Switch is mounted on a small Radio Shack project board along with a 470 ohm resistor to provide turn-on source.

Note that the Omron G3VM-352C is a dual switch and the other analog switch was used to control the DPL as a function of COR. (See Modification to Allow Digital PL Encoding Control to Facilitate Linking). Figure 2 shows the position of the DPL/KEY control circuit in the vicinity of the Signaling Unit.

A neat thing about this MOSFET unit is that it needs no separate voltage supply. It has a low current drain and the 0.3 msec turn-on and 0.1 msec turn-off is more than adequate.

The +5 VDC and ground is picked up from the Signaling Unit. The KEY is picked up on the underside of the printed circuit board. Note the two connector wires that have been cut and heat shrink applied to facilitate returning the Signaling Unit wiring to its original state if required. (Figure 2)

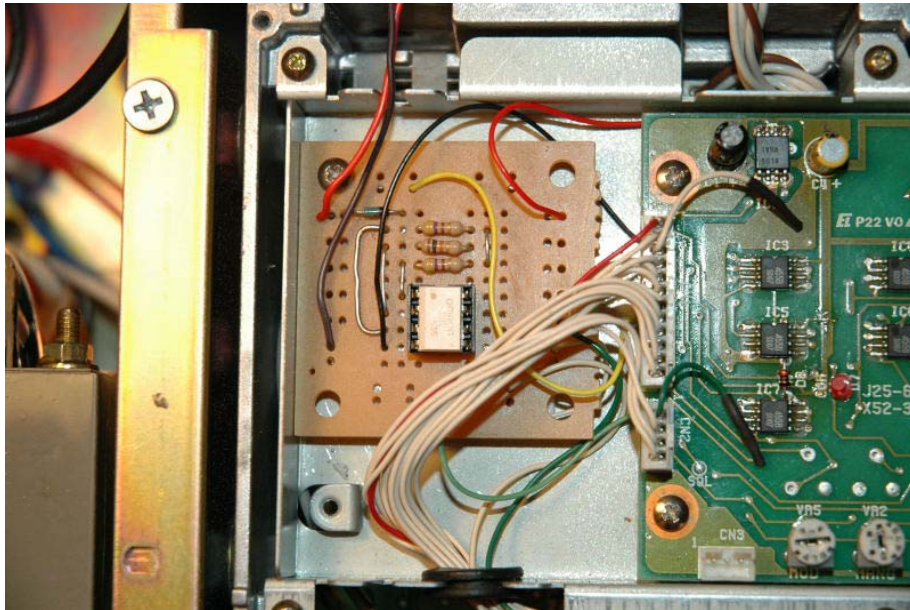


Figure 2