EASY CW INTERFACE FOR COLLINS

After installing the UA9OSV CW TYPE computer program for Morse code generation I found that most of the keying circuits for the UA9OSV CW TYPE program were for keying the positive bias keyed transmitters of Japanese design. No simple circuits for keying the negative bias Collins were to be found until I ran across an article in the January 1974 issue of QST called "KEYING A TRANSMITTER WITH A TAPE RECORDER." The interface circuit works quite well, is easy to build, has no ground loops and only two connections to the computers sound card loudspeaker is necessary and eliminates the use series or parallel ports.The two mods are as follows:

1. I installed a Radio Shack reed relay RL1 in place of R5 and the 2N5400 transistor. RL1 is a 5vdc relay with a 250 ohm coil and is part # 275-232.

2. Two solder connections to computers loudspeaker voice coil are required required, one goes to diode CR4 (1N270) and the other lead to ground. The diode has to be connected correct polarity and to correct side of loud-speaker for it to work. Be careful when soldering to the loudspeaker terminals so that there are no shorts to loudspeaker metal frame. Two ferrite beads are each lead to reduce RF getting into the input.
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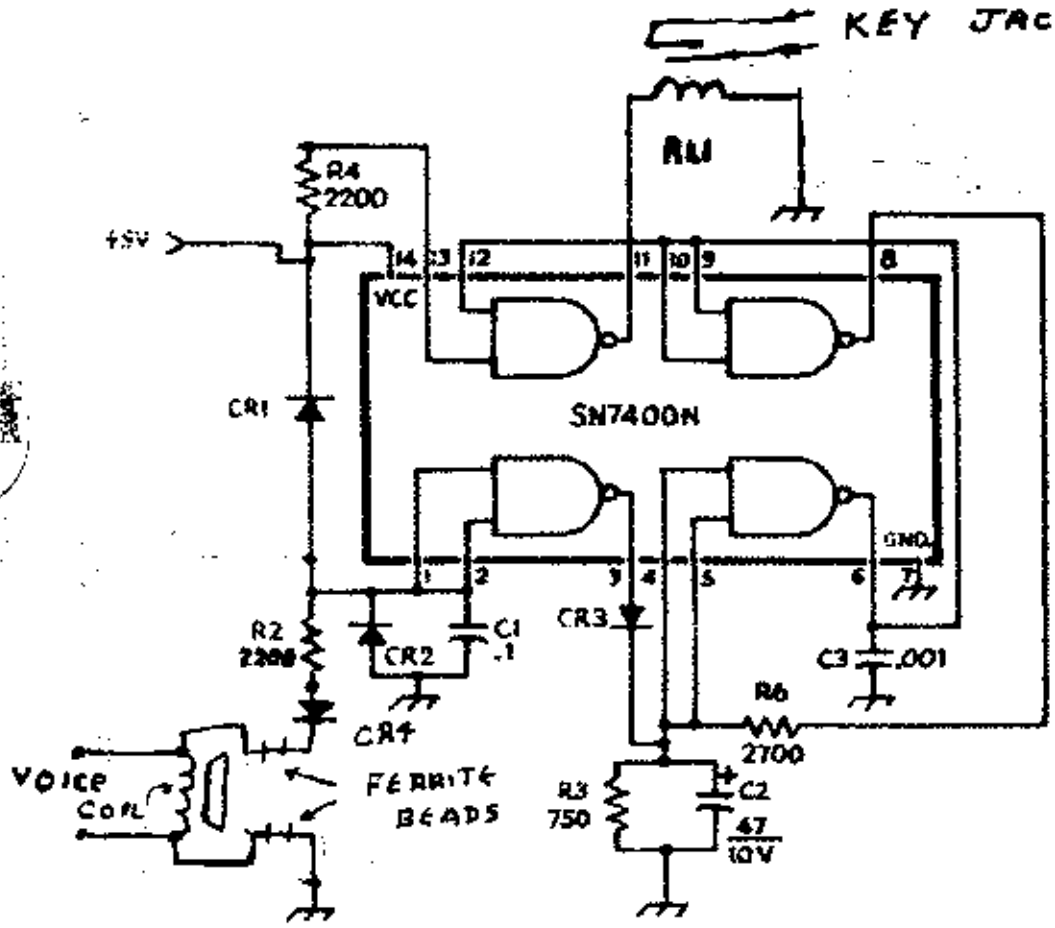

KEYING A TRANSMITTER WITH A TAPE RECORDER

This simple envelope detector and wave-shaping circuit uses a low-cost quad-NAND gate module to enable "instant replay" of recorded cw transmissions. Diodes CR1 and CR2 protect the gate from excesssive input voltage swings. (Type 1N270 diodes were used, although any small-signal switching or general-purposes diode should be suitable.) R3, C2 and CR3 provide envelope detection of the amplified and clipped audio input. R6 provides positive feedback to suppress output oscillations which can occur when TTL gates are subjeced to slow rise and fall-time signals. R1 is used to lower the "floating" input threshold to the gate and increase circuit sensitivity.

For low-impedance recorder outputs or high-level audio outputs, the low side of R1 should be disconnected from ground and used as the audio input point; the value of R2 should be increased if hum or background noise is sufficient to trigger the circuit falsely. Of course, an audio-filtered and impedance matched input to the tape recorder greatly assists in generating a perfect noise-free output replica of the original signal.

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