Interfacing the Kenwood TK-760G / TK-762G / TK-860G / TK-862G Mobile Radio: Adding a valid CTCSS/DCS tone-detect (ANDed with COR) logic output.

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The Kenwood KCT-19 accessory options cable and connector harness, if available, is installed in to the radio per the instructions provided in the radio's service manual. Remove the gray wire of the KCT-19 CN4. Jumper this wire to the side of R103 that is connected to pin 7 of IC-9. See the service manual for details on part location. This is an active high logic signal, so configure the COR polarity to high in the repeater controller or other direct connected external device. If you are not using CTCSS/DCS decode on the mobile, you would not normally perform this modification.

Without the optional KCT-19 interface cable assembly, a carefully added/soldered direct connection to the side of R103 that is connected to pin 7 of IC-9 is possible, with the caveat of understanding a fault being any incorrectly connected path to ground or an applied incompatible external voltage potential could possibly damage the radio beyond practical repair. A direct wire/interface connection to pin 7 of IC-9 is not recommended. However, a recommended and improved IC-9 pin 7 interface using one added enhancement-mode FET provides a low cost active low buffer for easily less than $2 in total parts.

Typical candidate device part numbers include VN-10. VN-10KM, VN-10LP, 2N7000, 2N7002, ECG-490 and ECG-491 (also know as NTE/ECG) as commonly available, easily obtained choices. The ECG-490 and ECG-491 are similar devices with opposite drain and source lead locations, which by user selection, may facilitate a possible more vibration resistant “face down” mounting with the source lead connection routed and soldered to an available nearby ground plane.

The drain lead becomes an active low CTCSS/DCS logic interface to external devices using a simple wire connection. Additional max. drain current protection for the FET can be obtained with the series addition of a ECG-16001, ECG-16002, ECG-16003 or ECG-16004 Polymeric “resettable fuse”.