ADDING TONE ENCODE AND DECODE TO A MASTR EXEC II
by Stewart Rabinowitz, KE5UT

I wanted to add PL encode and decode to a GE Mastr Exec II UHF repeater which I had just completed and put on the air. To do this, (and with input from several much more knowledgeable people than I*), I purchased a Communications Specialists TS-64DS and mounted it with the provided double stick tape adjacent to the J907 Channel Guard multi-pin plug on the SAS board near where the Channel Guard would otherwise be on the under side of the mobile version of this radio.

My controller is homebrew consisting of a Hamtronics COR-2 and a VHF Engineering CWID board. Neither has a decoder input. I wired the TS-64DS jumpering JP-7 for pull to ground to open the receiver. Then I replaced the COR output from the Mastr Exec II which is an active high (10V) connection to the controller, with receiver audio mute output (white, pin 5) configured to pull to ground when active. I bypassed the conversion circuitry added to the controller which had converted COS active high to COS active low. Active low keys the COR-2.

Connections are all done (except 1) to the SAS Board CG J907, as follows:

TS-64   GE Mastr Exec II

Pin 1 (Red)   J907-2 10V regulated
Pin 2 (Grey)   Unused
Pin 3 (Black)   Ground
Pin 4 (Green)   J-907-8 (Vol/Hi)
Pin 5 (White)   To controller pull to ground to key
Pin 6 (Yellow)   J907-6 (Encode to exciter)
Pin 7 (Blue)   Unused
Pin 8 (Orange)   Ground
Pin 9 (Violet)   Ground

Performance is identical to carrier squelch, and the controller sounds and operates as it previously.

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73

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