

BCD-10/BCD-14 Automatic Band Decoder Frequently Asked Questions

Q. I hooked up my BCD-10/14 on the bench to test it. I know the inputs are correct, but I am not measuring the proper voltages with my voltmeter on the outputs.

A. The BCD-xx have open collector outputs. They need loads to operate properly. Put a resistor (1K or larger, value is not critical) between the output and 12V or whatever voltage you will be running the relays at. Measured at the BCD-10 output, the voltmeter will read 12V if the output is not selected, and near 0 volts when it is selected.

Q. The BCD-10/14 grounds the selected relay. The schematic for my remote antenna switch shows the relays grounded, and +12V applied to the selected relay. How do I make the two units work together?

A. The BCD-xx band decoders provides low side switching. Your remote antenna switch expects high side switches. There are advantages and disadvantages to both methods. You will need to use a converter between the BCD and your switch.

You can use the BCD to drive small relays and then use the relay contacts to provide voltage to the selected antenna switch relays. It is also possible to use PNP power transistors to perform the same function. The Unified Microsystems HSD-9 is a module that is designed for such applications.

