

Instructions for Adding Ham MDX Translator Adapter to GE 900 MDX Radio.
V2.0 1-18-04

The operational intent of this board is to replace the jumper header on the bottom of the MDX 900 radio with this adapter, which will interrupt and translate the PLL programming and thus allow selective 902-928 amateur radio programming. Instructions are as follows.

1. Verify normal operations of the radio programmed in conventional mode using the appropriate software.. Dos or Programmer versions should be fine.
2. Remove bottom cover of the radio using a Torx T-15 driver.
3. Carefully lift off the bottom RF shield.
4. Using a nibbling tool or eq. (now are available at many computer stores like MicroCenter etc), Nibble an area above the 12x2 header connector to allow the adapter board to pass through the shield without shorting into the shield. See enclosed photocopy of mine, and use as template if you wish..
5. Remove 12x2 header and store for future reinstall if you choose, we do not need it now.
6. Carefully remove the protective caps from the pins of the adapter board.. If they are OK, they should slide down into the logic/audio board easily.. Test fit before installing the shield.. If it fits fine, great, if not tweak pins VERY carefully not as to over bend or worse..
7. Re-install the shield and install the adapter board with the PTT pad towards the rear of the radio. Press down flush against the shield. Double make sure the pins are not shorting into the shield!!!
8. Add a wire soldered to the PTT pad on the adapter to J905-7 (pin 7 from the back) . This is physical PTT to the adapter board and absolutely necessary for proper TX operation.
9. Reinstall foam pads over the board assy and shields, and replace bottom cover and tighten. That is the hard part!!!!!!
10. Programming is done in the normal sw. and by using specific 935-941, and 896-902 frequencies, the desired ham freq's will function..
11. Last thing, if you need to have rx sensitivity on 921 part of band, (basically anything else besides 926-927 rx) you will need to change the Murata filters in the RX assy to versions centered on 915 mhz.
12. See programming details for proper selection of ham results.. All tags and tones, scan etc are set up in the commercial personality, and my board ONLY processes the PLL data.. You are responsible for the rest... When you are satisfied with the personality, write it in the normal manner... Verify proper ops on all freq's as needed

If you need more info, please email me at dbade@clecom.com.
Thanks for your assistance in Testing these modules.

Douglas Bade, KB8GVQ

The following is for both TX T/A and RX ARRL and SERA Plans

940.0000 will become 926.0000 up to 940.9875 will become 926.9875,
939.0000 will become 927.0000 up to 939.9875 will become 927.9875,
938.0000 will become 921.0000 up to 938.9875 will become 921.9875
937.0000 will become 920.0000 up to 937.9875 will become 920.9875
936.0000 will become 919.0000 up to 936.9875 will become 919.9875
935.0000 will become 918.0000 up to 935.9875 will become 918.9875

The following is for RPT low side input PTT ARRL and SERA Plans

901.0000 will become 903.0000 up to 901.9875 will become 903.9875,
900.0000 will become 902.0000 up to 900.9875 will become 902.9875,
899.0000 will become 909.0000 up to 899.9875 will become 909.9875
898.0000 will become 908.0000 up to 898.9875 will become 908.9875
897.0000 will become 907.0000 up to 897.9875 will become 907.9875
896.0000 will become 906.0000 up to 896.9875 will become 906.9875

The normal programming SW is used and the commercial values are put in with the proper amateur tags, and tones, scan etc, and the translations will be done on the fly in the radio. I have made allowances for a 25/23 24/24 mhz band plan which would pair 927/902 and 926/903 or 927/903 and 926/902 The data entry person needs to watch this. If it is to much of a problem, I may make 2 different versions. Exercise care in entry to get the desired result....