

Blank Board Initialization Procedure

General notes before starting.

Be Very careful in handling the blank board as it is sensitive to electrostatic damage. A wrist strap is recommended. You only get "ONE" chance at the initialization process so be sure the original model and serial number of the radio you desire, or the one being serviced prior to starting. If you are making an upgrade to 32 channels make a COPY of the ORIGINAL CODEPLUG BEFORE MAKING ANY CHANGES AND PUT IT INTO A SAFE PLACE.

Also you will need a few torx wrenches (70808 Vaco for the Audio Heat sink screws and 70809 Vaco for the PC Board Screws.)

Pay close attention as to "Reinstalling" the board, as I have seen many persons bend pins by accident. If you are careful you should be able to slide the logic board into the RF board. If it does not go easily, remove (or loosen) the RF board. That will allow enough play for the Logic board and RF Board to be mated together.

It is assumed you have general knowledge in the Service and Maintaining of Motorola Maxtracs and Radius Mobiles. A Motorola Service Manual is also a strong recommendation.

The use of a 386-486-25 PC and a Motorola RLN4008B along with the Factory Programming cable with the Test Box (for Audio Alignment) is requirement.

Use of a Pentium computer, clone RIB Box and Cable is at YOUR OWN RISK!!

If your radio is still working start at (STEP 1) as this step is used to make a "PRINT" of each step when the logic or RF board replacement window. It is used (again) later after the new model number or upgrade has been installed.

These instructions are deemed to be very close, but due to software upgrades there maybe minor differences so be aware of this.

Step 1

If your radio is in its original condition and working at all, from the main menu Push F2 and go to the Service Alignment-Service Aids-Board replacement. Then Push F6 which will direct you to the Board Replacement Menu. You then will be given several options and you want to Push F2 which is the Logic Board or RF Board Board.

Note:

This is the ONLY area which is a little tough to address, but once you have done this a few times the rest is easy, and it will save you hours of time and make the job of board replacement easier than the factory instructions.

Be prepared to "Print" each window as it is entered with the exception of F2 which is the Reference Crystal Data. This Data can be found on the RF Board under the shield where the VCO is located. (Not the Logic Board)

One will find the 8 Digits on the Crystal and there also be a 7 digit Board number located on a white strip.

This is very important information. You will not be able to print this information out so write it down for later use.

The only other part is to "Measure" the voltage at Pine 1 of the Interconnect Board as this is where the (Approx. 9.6 VDC) measurement is made. This too is a very as it has a direct effect on the VCO stability. It is recommended the use of a DVM be used as the differences can be 0.1 volt. This is done after the new Logic Board is installed.

The next is pretty simple as it goes to each step in the Logic or RF Board Procedure window. (F3, F4, F5, F6, F7, F8, F10) And when in each window just make a print then hit F10 to exit each step after you have printed the screen. (It is not necessary to program each step F8). After making a Printed page you can hit F10 to get to the next step.

You have now saved yourself about 1 and a half hours of alignment time, and you will be able to take the data from the prints and enter the screen after the board initialization has been made.

Step 2

These steps are real simple if you have followed the instructions listed above. Or if you are starting from scratch.

From the main menu push F2 which is the Service Radios Alignment window.

Next push F6 which is the Board Replacement: Logic, RF, PA, Display or Switch.
Next push F2 which is the Logic Board or RF board.

With a blank Board on the first (and ONLY) time, you can select the Product Line (Standard, Radius, Maxtrac, Trucked, Voice Reporter, or Max High Sig) There are several models options be sure you select the one you want. The power level of you radio MUST be the same otherwise all the soft pot values will be incorrect.

Most use the Max High Sig as it has the most options and has the Signalling and accessories, Scan and 32 Channel Options. Or you can use your old model number if you are just making a repair.

You may hit F10 at anytime if you are not sure, but if you hit F8 (Program Radio) you now have the personality you have chosen, and there is no returning to this window after it has been programmed. Old Boards can be fixed but it is a hassle.

You have to choose the model name, range desired, model number, panel number (Always 001) unless you have a 2 channel radio, and finally the Serial Number.

After you are satisfied and take a second look, go ahead and push F8. This will start the programming of the Codeplug which is 320 Blocks and will take a few moments and this is where you DO NOT WANT TO INTERRUPT THE PROGRAMMING PROCESS!! A couple of beeps will be heard and then after the programming process is complete it will return to the Service Menu where you will be able to push F6 again and then F2 which will direct you to the Board Replacement Menu and this is where you take all that valuable tuning data (that you saved earlier) and just replaces the data into each screen as you copied it. (You will have to do this manually.

If you have a service monitor and you wish a Detailed Alignment of the radio then you can "touch up" the Original Factory Alignment to have a Superior Operating Radio.

You are all finished except for programming your frequencies and tones.