The FreeWave EZ Config is GUI-based setup software that is designed to provide reliable, easy-to-use, repeatable programming for FreeWave wireless data transceivers. This version of EZ config is compatible with FGR level radios which include the Ranger and the Mirrored Bit series radios. The following is a guideline that should be used to successfully program a radio.

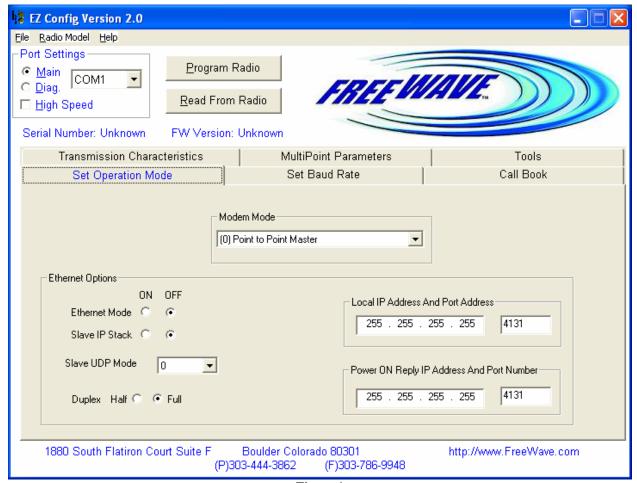


Figure 1

Upon opening the program, a screen similar to the one shown in Figure 1 will appear. To begin setting up a configuration, select the appropriate tab and select the desired settings. The tabs 'Set Operation Mode', 'Set Baud Rate', 'Transmission Characteristics', 'MultiPoint Parameters' and 'Call Book' correspond to the menu structure displayed through Hyper Terminal setup.

Specific setting descriptions and operation explanations are detailed in the FreeWave Users manual which is available by calling **FreeWave Technical support** at **303-444-3862**.

Next, select the appropriate communications port to be used to access the radio. This is done by clicking on the drop down box that is to the right of the "Serial Port" text as shown in Figure 1. This drop down box will display only the serial ports that are present on the specific computer that is being used. Available serial ports may vary from computer to computer.

Next, verify that the correct transceiver access port is selected. The available choices are "Main Port" and "Diag. Port" also known as the Diagnostics Port. The Main Port is usually a standard DB-9 port on XXX-115, XXX-115H, and XXX-115RC model number radios. On board-level transceivers such as the XXXO9-CSU and XXXO9-CS model number transceiver, this port is the white 10 pin header located directly to the right of the 3 LED status lights. The Diagnostics Port is a 20 pin Black connector located directly behind the 3 LED's. Ethernet model radios and enclosed radios have a small 3 pin connector that is labeled "Diag. Port". There is also a "High Speed" option that is only available when programming the radio through the main port. "High Speed" programming is done at a faster baud rate and helps cut down on programming time especially when programming a lot of radios.

Once satisfied that all settings are correct, proceed by clicking on the "Program Radio" button. If connected to the diagnostics port and the appropriate radio button is selected, the user will NOT be prompted for any further interaction. If connected to the main port, the user will be prompted to place the radio into setup by pressing the transceivers setup button. While programming, a dialog displaying the current status and progress will be displayed to the user. This dialog will terminate at the end of transceiver programming.

After successfully programming the transceiver, there will NOT be a successful confirmation dialog. Rather, the program will return to the original screen such as seen in Figure 1. However, if a radio fails verification, the user will be alerted with a "Radio Failed Verification" Error dialog.

If a user wishes to save transceiver configuration files, this may be done by selecting the "Save Radio File" menu item located under the 'File' menu as demonstrated in Figure 2. The saved file will consist of the settings that are currently displayed in the dialog.

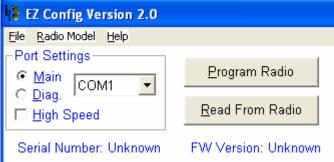


Figure 2

Likewise, a saved configuration file may be opened by selecting the "Open Radio File" menu item located in the 'File' drop down menu. This will update the dialog to represent the settings that are saved in the file. These settings may immediately be programmed into a transceiver by selecting the "Program Radio" button after opening the saved file. Be sure to select the proper communications port and connection method i.e. Main Port or Diag. Port. There is also a "Save to Text File" option under File which allows the user to view all the radio settings in a text file.

Current settings in a transceiver may also be read in to and out of the dialog by selecting the "Read From Radio" button, as seen in Figure 1. This should only be done after selecting the proper communications port and connection method i.e. Main Port or Diag. Port.

When programming Ranger or Mirrored Bit radios, the user can take advantage of the "Radio Model" drop down menu which displays the different settings of those radios. A way of avoiding that is to just do a "Read From Radio" and automatically the different options that are unique to those radios models will show up in EZ config.

If the EZ Config dialog is closed the current settings will NOT be saved and the dialog will revert back to standard factory default settings the next time it is opened.

The Serial Number and Firmware Version (FW Version) text fields will fill in automatically after each successful communication with a transceiver. Firmware Version and Serial Number information is NOT saved into configuration files and therefore is NOT retrievable from saved transceiver files. Figure 3 demonstrates these two text fields after successfully reading from a radio.

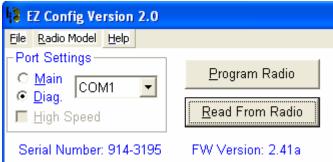


Figure 3

There is a password removal feature that is available in EZ Config. It is located under the "Tools" tab. In order to remove a password that has been set, the user must first press the remove password function before doing a "Read from Radio". If the user first does a "Read from Radio" when there is a password already in the radio, EZ config will prompt an error.

