

The Federal Communications Commission (FCC) has mandated that by January 1, 2013, all licensees and users of radio systems operating in the VHF 150 – 174 MHz and the UHF 450 – 512 MHz portions of the of the radio spectrum, convert their systems and radios so that they are operating on 12.5 kHz rather than the current wideband 25 kHz channels. This mandate has been put into place to bring about spectrum efficiency and as a result, to create additional channels to accommodate the demand of public safety and local government users.

The FCC has mandated that all licensees using wideband, 25 kHz radio systems migrate to narrowband, 12.5 kHz channels by January 1, 2013. Under the current FCC ruling, if you are licensee, operate, or use a system in the affected portion of the spectrum, you must comply with this FCC mandate. Licensees that do not meet that deadline face the loss of their licenses and the loss of communication capabilities.

The ESTeem Model 192 narrowband package contains the following files required to complete the update:

1. Narrowband Package Instructions.pdf (These instruction in PDF format)
2. ESTUtil300 Folder that contains the new ESTeem Utility Program.
3. NewCase300.HEX file for updating the ESTeem Model 192

**Caution:** The attached update files are for use with ESTeem Model 192 series wireless modem in the new case (Figure 1 and serial numbers greater than 12000. If you have a Model 192 wireless modem in a different case or a serial number lower than 12000, **DO NOT USE THE ATTACHED HEX FILE FOR THE UPDATE** and contact ESTeem at 509-735-9092 for update instructions.



Figure 1: Model 192 New Case

Follow steps below to configure your ESTeem Model 192 wireless modem for narrowband operation:

### Step 1 - Install ESTeem Utility Version 3.0

The narrowband package contains a folder (ESTUtil300) with the installation files for the ESTeem Utility version 3.0. This version of ESTeem Utility will allow narrowband configuration and testing of the ESTeem 192 series.

#### Installing ESTeem Utility (Models 192S, 192C, 192CHP, 192F, 192M, 192MHP and 192V) for Windows XP®

*NOTE: The ESTeem Utility was written for Windows XP or older operating systems. If using on a Windows 7 or newer computer, Windows XP Mode (Virtual Machine) must be installed and running to operate the ESTeem Utility program.*

#### New Installation

1. Open the Model 192 Narrowband.zip file and extract the ESTUtil300 folder to your computer's hard drive.
2. Double Click on the Setup.exe file to start the Utility Installation or extract the files to a directory for later installation.

#### Install Updated Software Version

1. Prior to installing the new ESTeem Utility on your computer you will need to remove all old copies of the program. Prior to inserting the ESTeem Software CD in your CD-ROM drive, open My Computer from your Windows desktop and select Control Panel.
2. Once the Control Panel window has opened, double-click on the Add/Remove Programs icon.



Figure 2: Utility Main Menu



3. Find the ESTeem Utility entry in the software listing and press the Add/Remove button.
4. You will be asked if you would like to remove the ESTeem Utility program and all of its components. Select the Yes button to proceed. If you are asked if you would like to remove all shared components, select the Yes button to all files.
5. The program will notify you that the program was removed successfully. Press the OK button on the window and the OK button on the Add/Remove Program window.
6. Follow the New Installation instructions above to complete installation.

### Running the ESTeem Utility Program

1. Press the Start button on your Window desktop and select Programs. Select ESTeem Utility from the list of program folders then click ESTeem Utility from the list of files and the program will start (Figure 2).

### Step 2 – Update ESTeem Model 192 Firmware to Version 3.0

Verify you have saved the NewCase300.HEX file to your computer's hard drive before proceeding.

1. Open the ESTeem Utilities and select Terminal Emulation.
2. Verify that both switches (Bits 1 and 2) are in the down (OFF) position and reset the modem.
3. Select Terminal Setup>Port from the menu items and configure the computer serial port for 19,200,N,8,1.  
*Note: The flash update can not be loaded through the Infrared Dongle or remote programming. You must connect directly to the ESTeem serial port.*
4. Set the modem to factory defaults by entering FA <Enter> at the command prompt (CMD:).
5. Select ESTeem Setup>Update Flash Memory from the menu and the Utility will read information about the connected modem and ask for the location of the flash file (Figure 3). Browse to the location of the flash update file on the computer and select Open.
6. Once the upload has been completed, proceed to Configuring ESTeem 192 for Narrowband.

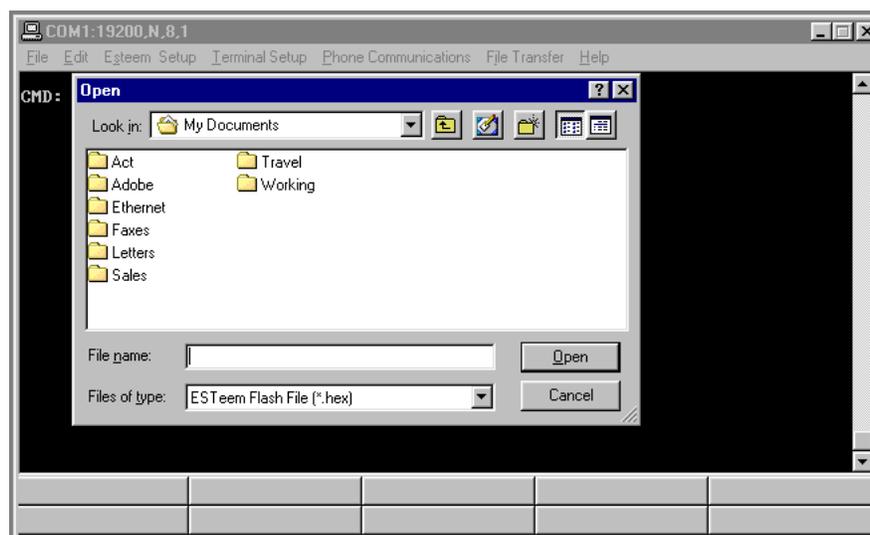


Figure 3: Updating Flash Memory

### Step 3 – Configure the ESTeem 192 for Narrowband Operation

Once you have installed the ESTeem Utility and updated the flash memory, conduct the following steps to configure for Narrowband use:

1. Verify that both switches (Bits 1 and 2) are in the down (OFF) position and reset the modem.
2. Open the ESTeem Utilities and select Terminal Emulation. Figure 4 will be displayed.
3. Select Terminal Setup>Port from the menu items and verify the configuration of the computer serial port is set for 19,200,N,8,1.
4. Place your cursor anywhere in the black area of the Terminal Emulation window and “double click” to launch the Option Table. (Figure 4).
5. Check the box to select “Narrow Band Operation” (Figure 5).
6. Click Set option to complete configuration for Narrow Band Operation.

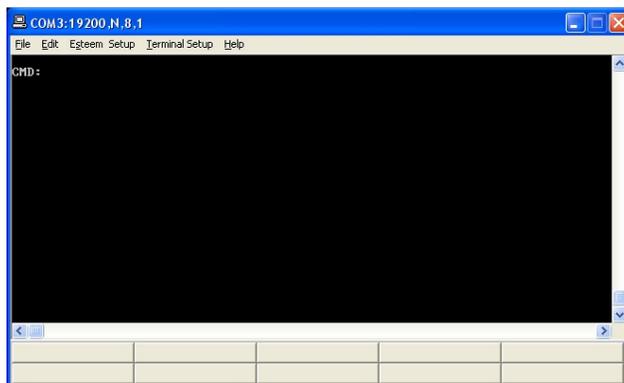


Figure 4: Terminal Emulation

Once all above procedures have been completed, you will need to reconfigure the ESTeem 192 for operation in your wireless network. The above procedure will maintain the ESTeem’s address, frequency and squelch settings but all PLC emulation programming will need to be reprogrammed.

**Note - You will need to configure all ESTeem 192 wireless modems in the network for narrowband operation before wireless communication will resume normally.**

If you have any questions on the above procedure, please contact ESTeem support at 509-735-9092 Monday-Friday, 0800-1200 and 1300-1700 Pacific Time.

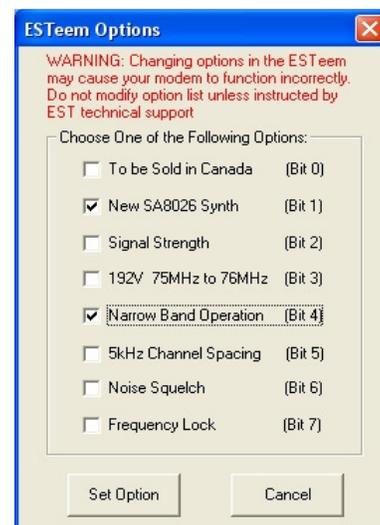


Figure 5: Option Table