RadioShack is pleased to offer this free upgrade to enhance the functionality and performance of your PRO-106/PRO-197 (20-106/20-197) Radio Scanner. Please take a moment to review these instructions before proceeding with the upgrade.

IMPORTANT NOTICE: You must upgrade your RadioShack scanner with a firmware upgrade obtained from RadioShack. Please note that firmware upgrades for RadioShack scanners are not compatible with scanning receivers sold by other manufacturers.

New in this version

CPU firmware version 1.7 provides the following enhancement to your 20-106/20-197 Radio Scanner:

New features:

- Change S-E GLOB "138-174 5kHz:" item to "Bandplan:" with a choice between USA and Canada

- Change step size to 12.500kHz in 405.987500-512.000000MHz range when the "Bandplan: Canada" option is selected in the FUNC-GLOB menu.

- Change step size from 12.500kHz to 6.250kHz between 470.000000MHz and 512.000000MHz to handle the new UHF bandplan

Fixes / Enhancements:

- Further qualify EDACS "Individual" call grants to address a problem where the radio sometimes tunes to MDT transmissions as radio-to-radio calls.

- Fixed EDACS "channel number" in CCDump messages.

Other:

- New DSP Boot code V1.1 to handle a different Flash IC version. There is no user-noticeable performance change.

What you will need to upgrade your radio scanner

You will need the following items to perform the firmware upgrade:

- The upgrade package file is available as a self-extracting ZIP file on the Product Support Page for the PRO-106 or PRO-197 at www.RadioShack.com. The upgrade package contains the executable file: **CPU106197BootF12_U17.exe.**

- A RadioShack USB scanner programming cable, Catalog #20-047

- A personal computer running one of the following Windows operating systems: Windows 98SE, Windows ME, Windows 2000, Windows XP, Windows 2003 Server (standard or x64), Windows Vista (standard or x64).

  o Depending on which version of Windows you are running, you may have to right click the file, select **Properties,** and click the **UNBLOCK** button.

- Your scanner should be at DSP version 1.2 or higher before installing this upgrade to CPU version 1.7. Some features may not work properly if an earlier DSP version is used.

  o To check which firmware is installed, power on the scanner and press the **3** key during the welcome message. The CPU version is indicated on the line **"uP App(I) Ver,"** and the DSP version is indicated on the line **"DSP App Ver."**

  o There is no difference between the "F" and "U" versions of the firmware (for example "Ver:RF1.7" and "Ver:RU1.7" are identical). The "F" and "U" indicate where the firmware was loaded into the radio, at the Factory or a customer Upgrade.

Upgrading your 20-106 or 20-197

Upgrading your scanner is a quick, simple, and safe process. If an error in loading the CPU firmware occurs, the radio is designed to automatically recover and then force a new CPU load without having to press the **PGM/PROG** key. If an error in loading the DSP firmware occurs, the radio is designed to restore the previous DSP firmware automatically.

Before upgrading

Prepare for the upgrade by completing the following:

1. Download the 20-106/20-197 firmware upgrade package.

2. Install the drivers for the RadioShack Catalog #20-047 USB cable on your personal computer.

3. Connect the USB cable to an available USB port on your personal computer.

4. Know the COM port number that Windows has assigned to the USB cable. You can find the COM port number from Device Manager in Control Panel.

5. Use fresh batteries or an AC adapter to power your scanner.

Step by step upgrade procedure

1. Double click on the **CPU106197BootF12_U17.exe** file to start the upgrade process.

2. Follow the on-screen instructions exactly. Carefully read the instructions presented within each step before proceeding to the next step of the upgrade process.

     o Note that the key presses for a CPU upgrade are different than for a DSP upgrade.

3. When the upgrade is complete, disconnect the USB cable from the scanner.

4. Turn the scanner off, hold down the **PGM** key, then turn the scanner on again. Confirm that the radio now reports the CPU version as 1.7.

5. Turn the radio off then on again to reset it.

Troubleshooting

- Ensure that the USB cable drivers are installed and that Windows recognizes the cable and has assigned a COM port number.

- Ensure that the correct COM port is set in the upgrader.

- Ensure that no other applications are running that access the same COM port.

- Repeat the upgrade process, making certain that the on-screen instructions of the upgrader are followed <u>exactly.</u>

If the above suggestions do not work, try running the upgrade utility on a different computer. In some cases hidden applications can cause port conflicts. It is not always possible to see these hidden applications and disable them to eliminate the conflict.

Support

Visit your local RadioShack store for support for this firmware upgrade and any other product issues.