# Steps to Upgrade Your Radio

## Introduction

This document provides step-by-step instructions for upgrading the radio. Please perform ***ALL*** of the steps in this document. There are currently three (3) steps:

1. Upgrade the CPS
2. Check Tuning Partition
3. FLASH the Radio

This first section describes the process for upgrading your CPS. The second section describes flashing the radio. The second section provides details for upgrading the radio’s tuning partition.

## Upgrade the CPS

You must use CPS version **R20.01.00** for portable and **R20.01.00** for mobileor higher to perform this upgrade. If you are using an earlier version, perform the following steps to upgrade the CPS on your PC. Please refer to the CPS Programming Installation Guide, which you received with the CPS software for more detailed information.

* 1. With the current installation of the CPS (if any), disable the CPS Password if you have enabled this feature, and close the CPS Launcher if it is running in the system tray.
  2. Uninstall any previous version of the “*XTS 2500 & XTS 5000 CPS*” and *“ASTRO Spectra Plus CPS”* and reboot your machine. When you insert the CPS installation CD into the CD-ROM drive, the installation will start automatically if you have auto start enabled for your PC. Follow the on-screen instructions to install the software.

## Check Tuning Partition

The tuning partition (a.k.a., the tuning codeplug), must be upgraded when changing host firmware. For CPS version **R20.01.00** for portable and **R20.01.00** for mobile, upgrade of the tuning partition is done through FLASHport upgrade (step 3 on this document). No extra step or file is needed to do the tuning partition upgrade. The FLASHport upgrade file contains the latest tuning partition needed for each band of each radio product. Table 1 shows the latest version of the tuning codeplug for each radio and band.

|  |  |  |
| --- | --- | --- |
| **Radio** | **Band** | **Tuning Partition** |
| XTS2500 | 7/800 MHz | R01.08.05 |
| VHF | R01.09.14 |
|  | UHF R1 | R01.08.14 |
|  | UHF R2 | R01.00.0**6** |
|  | 900 MHz | R01.00.07 |
| MT1500 | 7/800 MHz | R01.08.05 |
| VHF | R01.09.14 |
|  | UHF R1 | R01.08.14 |
|  | UHF R2 | R01.00.06 |
| XTS1500 | 7/800 MHz | R01.08.05 |
| VHF | R01.09.14 |
|  | UHF R1 | R01.08.14 |
|  | UHF R2 | R01.00.06 |
|  | 900 MHz | R01.00.0**7** |
| XTS5000 | 7/800 MHz | R01.08.05 |
| VHF | R01.09.07 |
| UHF R1 | R01.09.04 |
| UHF R2 | R01.09.13 |
| ASTRO Spectra Plus | All Bands | R01.09.00 |
| PR1500 | VHF | R01.09.14 |
|  | UHF R1 | R01.08.14 |
|  | UHF R2 | R01.00.06 |
| XTL1500 | 7/800 | R01.08.02 |
|  | VHF | R01.00.04 |
|  | UHF R1 | R01.00.0**3** |
|  | UHF R2 | R01.00.0**5** |
|  | 900 MHz | R01.00.0**3** |
| XTL5000 | 7/800 MHz | R01.08.02 |
| UHF R1 | R01.00.0**3** |
| VHF | R01.00.04 |
| UHF 100W | R01.00.0**9** |
|  | VHF 100W | R01.00.05 |
|  | 900 MHz | R01.00.0**3** |
|  | UHF R2 | R01.00.0**5** |
| XTL2500 | 7/800 MHz | R01.08.03 |
|  | VHF | R01.00.04 |
|  | UHF R1 | R01.00.0**3** |
|  | UHF R2 | R01.00.0**5** |
|  | 900 MHz | R01.00.0**3** |
| NYPD SSE5000 | UHF | R01.01.06 |
| PM1500 | VHF | R01.00.02 |
|  | UHF R1 | R01.00.0**3** |
|  | UHF R2 | R01.00.0**5** |

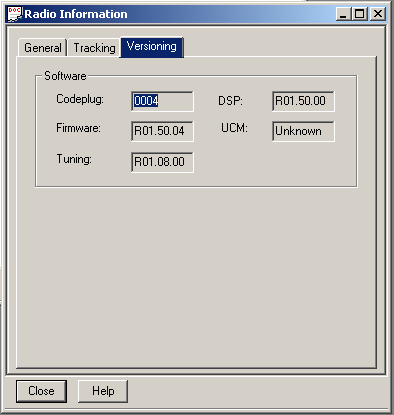
Table . Upgrade Requirements for Tuning Partition Based on Radio and Host

### Determine the Version of Tuning Partition You Have

1. Read your radio with the latest version of the CPS.
2. In the tree view, double-click the “Radio Information” node. This will cause a window containing three tabs to appear (“General”, “Tracking”, and “Versioning”).
3. Click the “Versioning” tab. Compare the version of the tuning partition to Table 1 in order to determine if an upgrade is necessary.
4. Verify after step 3 that your radio has the expected tuning partition version.

Figure . The Radio Information Dialog with Versioning Shown

This is the version of the tuning partition



## FLASH the Radio

Flashing your radio upgrades the host, DSP, and UCM firmware (when secure equipped).  For this release, the radios will be upgraded to version **R20.00.01** Host, and **R19.50.00** for the DSP, and **R05.07.15** for the UCM (if applicable) **EXCEPT** for SSE 5000 radios, ASTRO Spectra Plus radios and XTS 2500, XTS 1500, MT 1500 and PR 1500 radios which model numbers end with ‘AN’. These radios will be upgraded to version **R09.00.41** for the host, **R16.00.01** for the DSP, and **R05.07.15** for the UCM (if applicable). ASTRO Spectra Plus radios which model numbers end with ‘BN’ will be upgraded to version **R20.00.01** for the host, **R19.50.00** for the DSP, and **R05.07.15** for the UCM .Please note going forward, any R09.xx.yy version will only contain defect fixes, no new radio functionality will be added in these releases.

Follow these steps to FLASH the radio:

1. Copy *ALL* the files on the CD-ROM containing the FLASHport software to a folder on your PC. This disk should be labeled “FLASHport™ Software” with **R20.00.01** Host, and **R19.50.00** for the DSP. Remember the location of these files for later.
2. Connect the radio to your PC as shown in Figure 2.

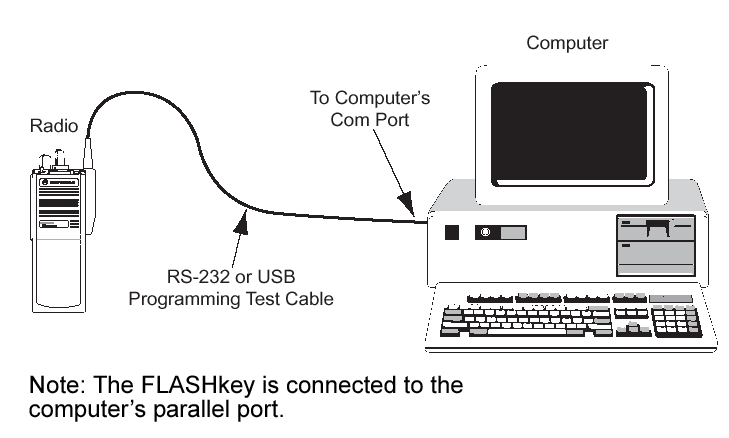
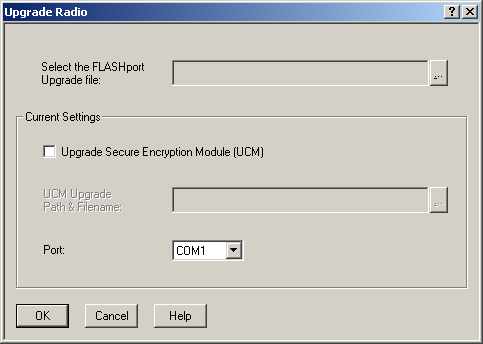


Figure . Connection of Equipment for Upgrade Process

1. Turn the radio on. The radio should turn on and go through the normal power-up sequence. Do not disconnect the radio until the FLASHport upgrade process is completely finished.
2. Launch the CPS program by selecting: **Start→Programs→Motorola→ASTRO 25 Products→XTS 2500 & XTS 5000 CPS** for portable, or **Start→Programs→Motorola→ASTRO 25 Products→ASTRO Spectra Plus CPS** for mobile.
3. From the menu bar in the CPS main window select:

#### Tools→FLASHport→Upgrade Radio

The *Upgrade Radio* screen will appear. Please refer to Figure 3 for the remaining steps.



The communication port to use

Browse button to set the path to the UCM upgrade file.

Check when radio is secure equipped.

Browse button to set the path to the FLASHport upgrade file.

Contains the path to the FLASHport upgrade file

Figure . The Upgrade Radio screen

1. Select the *Browse…* button next to the field labeled *“Select the FLASHport Upgrade file:”* and locate the appropriate file based on Table 2.

|  |  |
| --- | --- |
| Radio | File Name |
| ASTRO Spectra Plus | ASP\_SW000069A01.cvn |
| XTL5000 | XTL5000\_SW000077A01.cvn |
| XTL1500 | XTL1500\_SW000074A01.cvn |
| XTL2500 | XTL2500\_SW000076A01.cvn |
| XTS1500 | XTS1500\_SW000078A01.cvn |
| MT1500 | MT1500\_SW000071A01.cvn |
| PR1500 | PR1500\_SW000073A01.cvn |
| XTS2500 | XTS2500\_SW000079A01.cvn |
| XTS5000 | XTS5000\_SW000081A01.cvn |
| PM1500 | PM1500\_ SW000072A01.cvn |
| XTS4000 | XTS4000\_SW000083A01.cvn |

Table File Names of FLASHport Software Upgrade Files

*Note: This file was copied from the FLASHport™ Software CD-ROM in Step #.*

1. If your radio is a secure radio, check the *Upgrade Secure Encryption Module (UCM)* check box, use the *Browse…* button next to field labeled “*UCM Upgrade Path & Filename”* to locate the UCM upgrade file. The file was copied from the FLASHport™ CD-ROM in step #1.
2. Verify the *Port* setting is correct.
3. Press the *OK* button. The *FLASHing Radio…* screen will appear. The new software will begin loading into the radio, as indicated by a progress bar at the bottom of the screen. When the software has completed loading a message indicating success will be shown on your screen.
4. After completing the upgrade, disconnect the radio.