MOTOROLA

FLASHport™ Software
User Guide

For:

MTS/MCS2000 Products
ASTRO™ Spectra, SABER & XTS3000 Products

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User's Guide

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Introduction

Introduction to FLASHport™

Congratulations! You have just purchased a software upgrade that will use FLASHport technology from Motorola! FLASHport is a revolutionary new method that makes it possible to add software capabilities to your radios both at the time of purchase and later on. Previously, changing radio features and capabilities meant costly hardware modifications or buying a new radio. But now, similar to how a computer can be loaded with different software, your radio's features and capabilities can be upgraded with FLASHport software. This gives your Motorola radio the ability to meet your needs both today and in the future.
• System software packages provide basic radio control operations
• Enhancement packages build on systems packages and permit specific features to be installed in your radio.

Introduction

How to Use This Manual

This manual is designed to help you upgrade your radios with
your new FLASHport software package.
The radio software included in the upgrade package must be
installed with the help of the Customer Programming Software (CPS).
This application, must be purchased and installed on
your computer prior to beginning the radio upgrade.

Important!
The CPS is the latest *Windows*-based software that was first released in 2000.
**Enhanced FLASHport keys are required for FLASHport upgrades or
FLASHport refresh using ASTRO Saber & XTS 3000 CPS R05.00.02 or
greater and ASTRO Spectra CPS R05.00.02 and greater.**

**Enhanced FLASHport keys are required for FLASHport upgrades or
FLASHport refresh using MCS2000 / MTS2000 radios CPS R02.00.01 or greater.**

The following sections of this guide apply to all upgrades:

• Getting Started
• Equipment Setup

Be sure to read through these sections before installing the radio
upgrade software. Then, when you are ready to install the new radio
upgrade software into the radio, you will proceed to
"Upgrading Your Radio Using CPS"

Introduction

FLASHport Upgrade Package

Your FLASHport upgrade package contains the following
major items:

• FLASHport User's Guide (this guide).

• CD-ROM disk(s) containing the FLASHport software files.

• New iButton® FLASHkey™ which has been programmed with the aftermarket order information.

• "I've Been FLASHED" stickers which allow you to mark each radio that has been upgraded.

• New radio labels to add and/or replace the existing labels on the back of the radios. These labels identify the system package purchased and the radios'

• Model upgrade kits will also come with labels for the radio indicating the new model name.

Getting Started

Items You Will Need to Get Started

Most of the items needed to perform a FLASHport upgrade are standard items required for any radio programming using Customer Programming Software (CPS).

• Computer (For use with CPS)

Processor: 400 MHz (or higher) Pentium grade processor

Memory: 128 MB RAM (Win 98/ 98SE/ME / Win NT 4.0 SP6+ / Win2000); 256 MB RAM or higher for Windows XP (Home or Professional SP2)

Hard Disk Space: 1 Gigabyte drive with 450 MB minimum free space

Peripherals:
— Microsoft Windows supported mouse or trackball
— Microsoft Windows supported serial port for radio communication
— Microsoft Windows supported printer port for report printing
— CD-ROM for software installation

Getting Started

• **Smart Radio Interface Box (SRIB)**
Motorola Part Number RLN1015*
This Smart Radio Interface Box (SRIB) contains 1 megabyte* of memory, enabling upgrade software to be stored locally. This decreases subsequent radio programming time for FLASHport upgrades.

* For ASTRO XTS 3000, ASTRO Saber, and ASTRO Spectra radios, the **2 megabyte SRIB (RLN1015D)** is required for any FLASHport upgrades involving radios with the Q361/G361 option (System Release 5.x capable radios).

• **SRIB Power Supply**
01-80302E27 (120 Vac) Power Supply
or
25-80373E86 (220 Vac) Power Supply
or
RLN4488 Battery Pack

• **Smart Radio Interface Box (SRIB) to Computer Cable**
30-80390B49 Cable (25-pin to 9-pin)
or
30-80390B48 Cable (9-pin to 9-pin)

Getting Started

• Enhanced FLASHkeys Included with the upgrade package.

Connects to either the
Parallel port or the USB port on the computer.

**• FLASHport Software
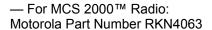CD(s)**
Included with the upgrade
package.

Getting Started

**• SRIB to Radio
Cable**

— For ASTRO™ Digital SABER
Radio: Motorola Part Number RKN4046

— For ASTRO™ Digital
Spectra® Radio: Motorola Part Number
RKN4047

— For MCS 2000™ Radio:
Motorola Part Number RKN4063

— For MTS 2000™, and XTS 3000™,
Radios: Motorola Part Number RKN4035

Getting Started

• Radio

ASTRO Digital SABER, ASTRO Digital Spectra, MCS 2000,
MTS 2000, XTS 3000.

• Customer Programming Software (CPS)

— For ASTRO Digital SABER:
- CPS — RVN4182

— For XTS 3000:
- CPS — RVN4182

— For ASTRO Digital Spectra:
- CPS — RVN4183

— For MCS 2000:
- CPS — RVN4175

— For MTS 2000:
- CPS — RVN4176

Getting Started

Equipment Setup

To begin your FLASHport upgrade, connect the
equipment as shown below.

Note: *Make sure the Enhanced FLASHKey
is attached to the Parallel Port (USB Port if
USB Dongle is being used) of the Computer.*

A complete description of the equipment is provided in
"Items
You Will Need to Get Started" on page 5**.**

Upgrading Your Radio (CPS)

Upgrading Your Radio Using CPS

This section provides instructions on how to upgrade or "FLASH" your radio with new features using the Customer Programming Software (CPS).

"FLASHing" Procedure CPS

"FLASHing" or upgrading your radio requires the Customer Programming Software (CPS) which is used during normal radio programming and servicing procedures. Refer to the "Getting Started" section for your radio's specific CPS part number. The following steps describe the best method to upgrade your radio.

NOTE
To save time, perform upgrades of the same model type consecutively. (Example: MTS 2000 Model 1 radio followed by an MTS 2000 Model 1 radio.)

Preparing for an Upgrade of the Same Model Type

1. Your FLASHport software upgrade package includes one piece of software (FLASHport upgrade software) on CDROM. Before starting the upgrade procedure, copy the software to the Upgrade File of the CPS being used.
Example:
C:\Program Files\Motorola\MCSMTS 2000 Products\MTS2000 CPS\Upgrade

2. Connect the Radio to be FLASHed to the equipment shown on page **5** of this guide. Make sure the radio is equipped with a charged battery (portables) or an external power supply (mobiles). Also, disable the Screen Saver on the computer, if using a Lap Top set the Sleep Mode to OFF.

3. Apply power to the radio and SRIB. The radio should turn on and go through its power-up sequence. The LED on the SRIB should also turn on.

NOTE: Do not disconnect your radio until the FLASHport upgrade process is completely finished.

Upgrading Your Radio (CPS)

4. Launch the CPS program by selecting:
Start ✍ **Programs** ✍ **Motorola** ✍ *<MCS Radio>* ✍
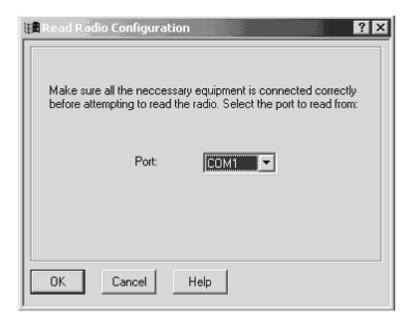*<MCS2000 Radio CPS Rxx.xx.xx>*.
(Note that the items listed in italics between < > will vary depending on the type of radio you are upgrading; make the selections appropriate to the radio type (e.g., MTS2000 Radio, XTS3000 Radio, etc.).

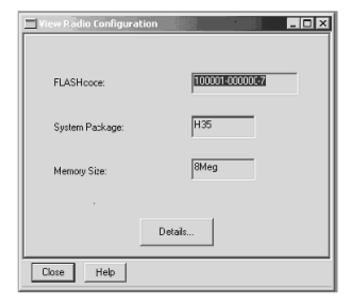**5.** From the menu bar in the CPS main window, select:
Tools ✍ **FLASHport** ✍ **Read Radio Configuration**
The following *Read Radio Configuration* screen will appear.
Make sure the *Port* setting is correct (for the serial port on the PC you are using to connect to the SRIB) and click on **OK**.

Upgrading Your Radio

6. The following *View Radio Configuration* screen will appear.
Make a note of the *FLASHcode* and *System Package* fields
currently set for the radio. After the upgrade, you'll reexamine
this screen to make sure the upgrade was successful.
(Note that you can click on the **Details** button to
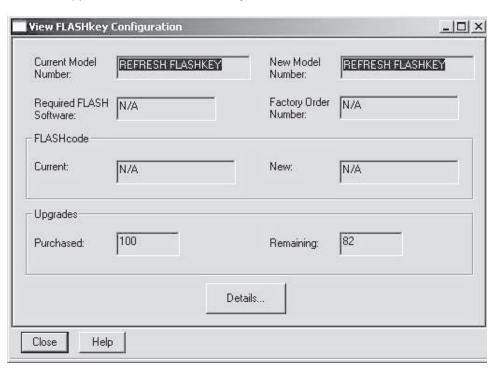view the features currently enabled on this radio.)

7. Close the *View Radio Configuration* screen. From the menu
bar in the CPS main window, select:
Tools → FLASHport → Read FlashKey Configuration
The following *Read FLASHkey Configuration* screen will
appear. Read the notice and click **OK**.
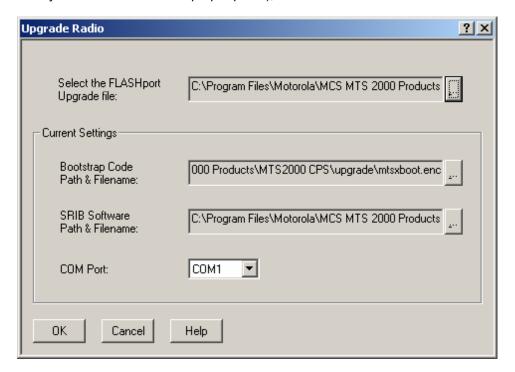
Upgrading Your Radio

8. The FLASHkey Configuration will be read and the *View FLASHkey Configuration* screen will appear.
More data is displayed if a full upgrade FLASHkey is read; less data appears if a refresh FLASHkey is read.

9. From the menu bar in the CPS main window, select
Tools → FLASHport → Upgrade Radio
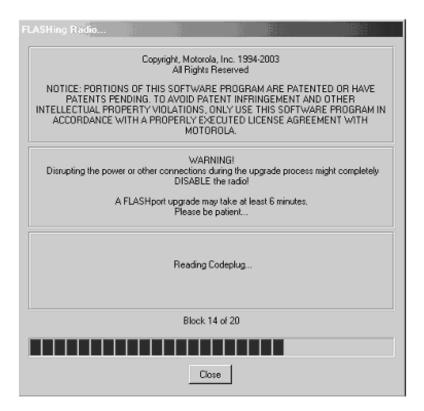
Upgrading Your Radio

10. The *Upgrade Radio* screen will appear. Using the Browse button at the end of the edit control, navigate to the location of the new radio software file (copied to your PC in Step **1**), verify that the directory paths in the *Current Settings* area are correct (typically valid unless you have moved files, in which case you'll have to select the proper paths), then click **OK**.

Note: Make sure the CVN or TVN file supplied on the CD with your FLASH Kit
Is located in the UPGRADE file of the CPS being used,
Example: C:\Program Files\Motorola\MCSMTS 2000 Products\MTS2000 CPS\Upgrade

Upgrading Your Radio

11. 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.

**NOTE: Please be Patient………A FLASH upgrade may
take 20 – 30 minutes depending on the size of the codeplug.**

Upgrading Your Radio

12. When the software has completed loading into the radio, the following screen will appear.

13. Repeat Step 5 to verify that the new software version appears in the *FLASHcode* and *System Package* fields. You may also click on the **Details** button to verify that any new features have been enabled.

14. Once your radio has been successfully "FLASHed," you are free to use the CPS to enter any customer-specific information normally contained within the CPS. After CPS programming is complete, save the codeplug data to an archive file. You may upgrade another radio by repeating Steps 2 through 9.

After completing the upgrade, disconnect the radio. Replace and/or add the radio label with the new radio label provided. **It is very important that the new labels are placed on each "FLASHed" radio so that the radios can be identified for future service and programming.**
To help identify the radios that have already been upgraded, place an "I've been FLASHED" sticker on the outside of the radio. These stickers can be easily removed by the end-user.
A FLASHcard should be given to the end-user with each radio upgraded. This FLASHcard provides the end-user with a quick reference of the new features that the radio now contains due to the upgrade.
Ensure that the new model number kits have been applied to each radio that has been subject to a model upgrade.