MOTOTRBO CPS, Tuner, AirTracer, and RDAC Applications Installation Guide

JULY 2017

6880309T10-RD

Foreword

Computer Software Copyrights

The Motorola Solutions products described in this manual may include copyrighted Motorola Solutions computer programs stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola Solutions certain exclusive rights for copyrighted computer programs, including, but not limited to, the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Motorola Solutions computer programs contained in the Motorola Solutions products described in this manual may not be copied, reproduced, modified, reverse-engineered, or distributed in any manner without the express written permission of Motorola Solutions. Furthermore, the purchase of Motorola Solutions products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Motorola Solutions, except for the normal non-exclusive license to use that arises by operation of law in the sale of a product.

Document Copyrights

No duplication or distribution of this document or any portion thereof shall take place without the express written permission of Motorola Solutions. No part of this manual may be reproduced, distributed, or transmitted in any form or by any means, electronic or mechanical, for any purpose without the express written permission of Motorola Solutions.

Disclaimer

The information in this document is carefully examined, and is believed to be entirely reliable. However, no responsibility is assumed for inaccuracies. Furthermore, Motorola Solutions reserves the right to make changes to any products herein to improve readability, function, or design. Motorola Solutions does not assume any liability arising out of the applications or use of any product or circuit described herein; nor does it cover any license under its patent rights nor the rights of others.

Trademarks

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners.

© 2006 and 2017 by Motorola Solutions, Inc.

This page intentionally left blank.

Document History

Version	Description	Date
6880309T10-RC	Changes made for this revision are as follows: • New layout. • System Release 2.7 of the *MOTOTRBO CPS, Tuner, AirTracer, and RDAC Applications Installation Guide*.	November 2016
6880309T10-RD	System Release 2.8 of the *MOTOTRBO CPS, Tuner, AirTracer, and RDAC Applications Installation Guide*	July 2017

This page intentionally left blank.

Chapter 1

Introduction

The following information is important before proceeding with the installation package. Read all the instructions carefully during the installation.

1.1
System Installation Requirements

All computer systems must adhere to the following minimum requirements before proceeding with the installation.

Operating Systems Requirements for installing MOTOTRBO Customer Programming Software (CPS), Tuner, AirTracer, or Repeater Diagnostics and Control (RDAC) without Radio Management Server or Radio Management Device Programmer:

- Windows 10, 32-bit or 64-bit
- Windows 8, Windows 8.1, 32-bit or 64-bit
- Windows 7 Home Premium or Professional (Service Pack er1 or higher), 32-bit or 64-bit

Operating Systems Requirements for installing MOTOTRBO CPS with Radio Management Server and Radio Management Device Programmer:

- Windows 10, 32-bit or 64-bit
- Windows 8, Windows 8.1, 32-bit or 64-bit
- Windows 7 Home Premium or Professional (Service Pack 1 or higher), 32-bit or 64-bit
- Windows Server 2008 R2 (Service Pack 1), 32-bit or 64-bit
- Windows Server 2012, 64-bit

Recommended Hardware Requirements

- 2 GHz dual core or higher Pentium grade processor
- 4 GB RAM
- Aero-capable graphics card with 128 MB graphics memory
- 50 GB free hard disk space on a 5400 RPM hard disk drive
- USB port for radio communication
- DVD-ROM for software installation

> 📝 **NOTICE:** This configuration is required when working with large codeplugs.

Minimum Hardware Requirements

- 1.6 GHz Pentium grade processor
- 2 GB RAM free memory, excluding onboard graphics card memory usage
- DirectX 9-class graphics
- 35 GB free hard disk space on a 5400 RPM hard disk drive
- USB port for radio communication
- DVD-ROM for software installation

> 📝 **NOTICE:** If the PC does not meet the recommended configuration, the CPS performance may be degraded.

Minimum Software Requirements

- Windows Internet Explorer 7 or later

> 📝 **NOTICE:** Refer to *RM Deployment Guide* for more information on the recommended hardware requirement for Radio Management applications.

1.2
Programming Cables Description

The following table shows the programming cables used to connect a radio to a USB port.

Table 1: Cables for Radio Programming, Data Applications, Testing or Alignment

Motorola Solutions Part Number	Cable Name	Description
PMKN4012_	Portable Programming Cable	This cable connects the radio to a USB port for radio programming and data applications.
PMKN4013_	Portable Programming, Testing and Alignment Cable	This cable connects the radio to a USB port for radio programming, data applications, testing and alignment.
HKN6184_	Mobile Front Programming Cable	This cable connects the radio front connector to a USB port for radio programming and data applications.
PMKN4010_	Mobile and Repeater Rear Programming Cable	This cable connects the radio rear connector to a USB port for radio programming and data applications.
PMKN4016_	Mobile and Repeater Rear Programming, Testing and Alignment Cable	This cable connects the radio rear connector to a USB port for radio programming, data applications, testing and alignment.

1.3
Access Rights

You need to have Administrator rights on the target computer in order to proceed with any of the installations.

Chapter 2

Operations

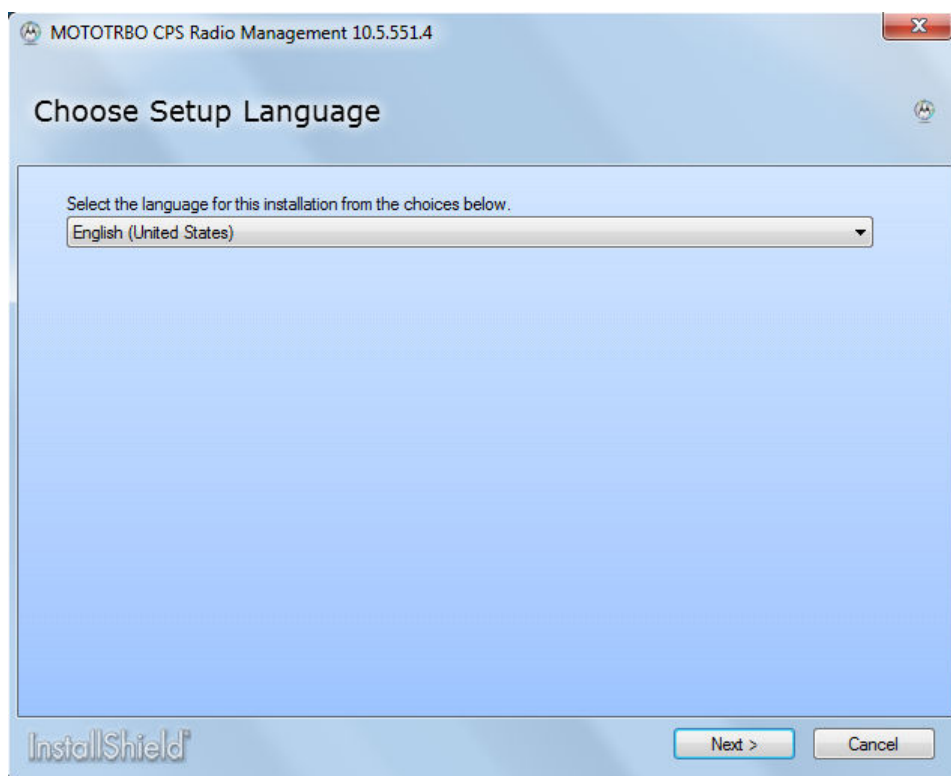The following operations are required for installation to be successful.

Installing Customer Programming Software Application

Follow the procedure to install Customer Programming Software (CPS) application on a computer.

Prerequisites: You have to be logged on as a user with local administration rights to the computer, or enable User Account Control.
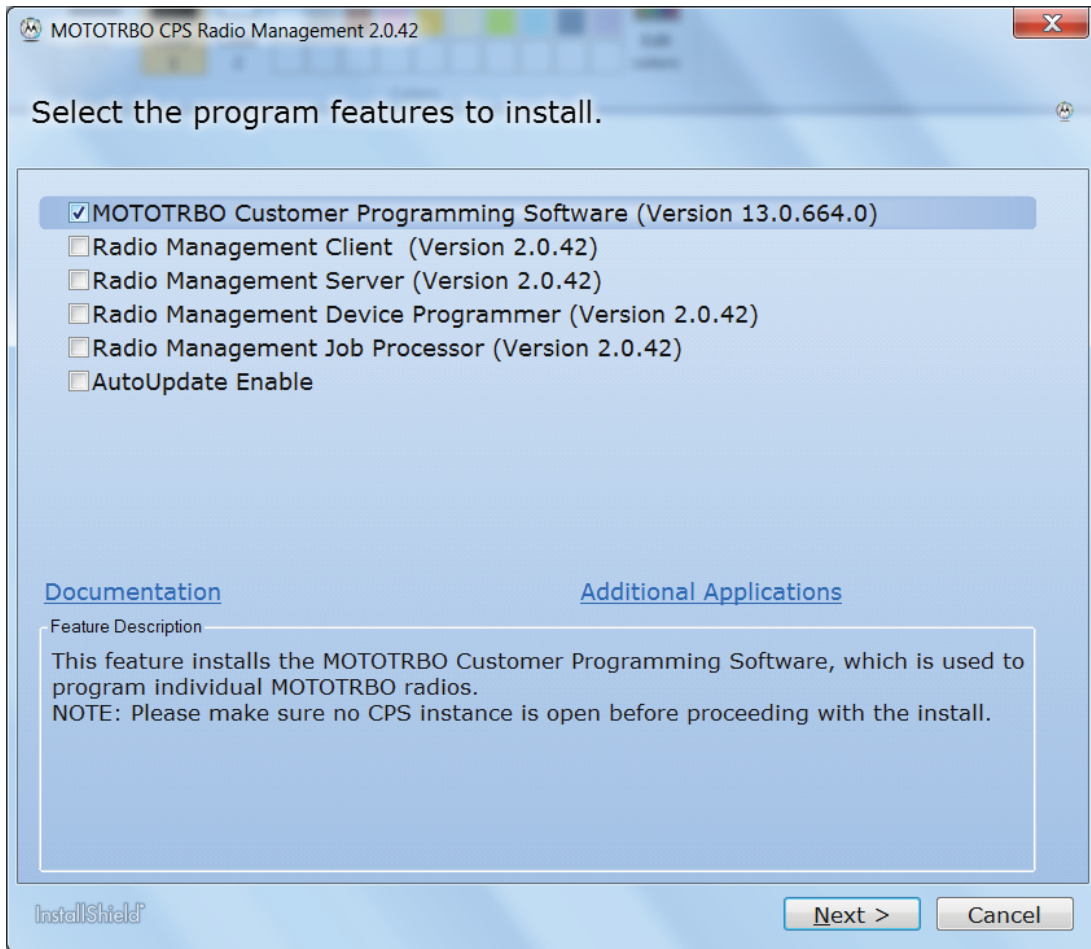
Procedure:

1 Unplug all devices connected to the computer.

2 Exit all programs running on the computer.

3 Insert the DVD into the DVD drive.

   If you have more than one DVD drive, use the master DVD drive.

4 Wait for the auto-install program to start, and follow the instructions on the screen.

   If the program fails, navigate to `Setup.exe` on the DVD, and double-click the file.

   The screen shows the language options.

5 Select a language to be used for the installation, and click **Next** to proceed.

The screen shows the feature options.

6 Select **MOTOTRBO Customer Programming Software**, and click **Next** to proceed.

7 Follow the instructions on the screen to complete the installation.

Reboot the computer if prompted during the installation process.

Click **OK** to proceed if security-related messages appear during the installation process.

8 Click **Finish** to exit.

Send Feedback

2.2
Installing Radio Management Applications

Follow the procedure to install Radio Management applications on a computer.

Prerequisites: You have to be logged on as a user with local administration rights to the computer, or enable User Account Control.
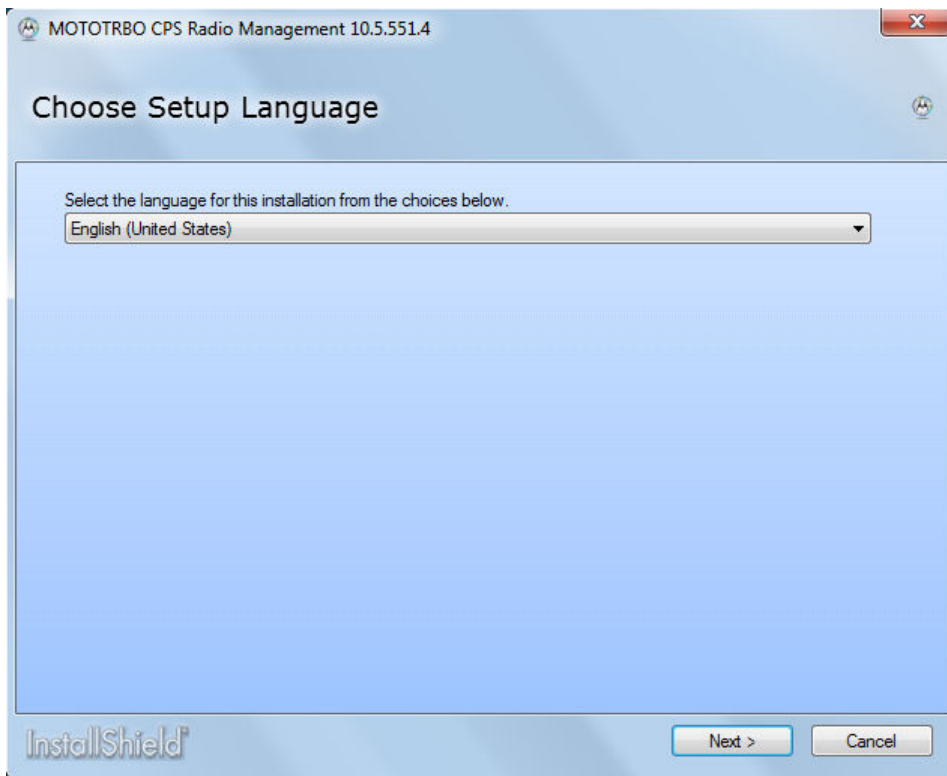Do any of the following:

- If you are using a Windows 8 operating system and have not enabled .NET Framework 3.5 Windows feature on the computer, see Enabling .NET Framework 3.5 Windows Feature by Using the Internet on page 18 or Enabling .NET Framework 3.5 Windows Feature by Using the Windows 8 DVD on page 19 before you proceed.

- If you are using a hardened operating system and have not set the required user privileges, see Setting User Privileges for Hardened Operating Systems on page 19 before you proceed.

- If you want to make sure there are no pending jobs in Radio Management before you proceed, see Checking Job Status on page 20.
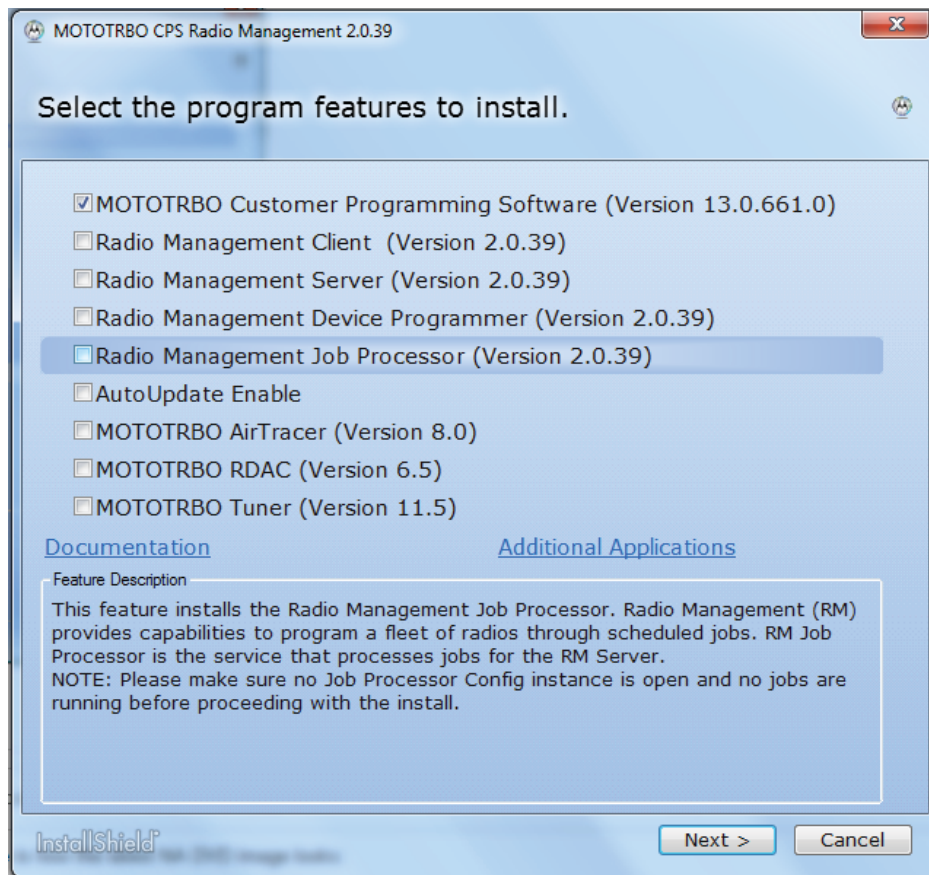
Procedure:

1 Unplug all devices connected to the computer.

2 Exit all programs running on the computer.

3 Insert the DVD into the DVD drive.

 If you have more than one DVD drive, use the master DVD drive.

4 Wait for the auto-install program to start, and follow the instructions on the screen.

 If the program fails, navigate to `Setup.exe` on the DVD, and double-click the file.

 The screen shows the language options.

5 Select a language to be used for the installation, and click **Next** to proceed.

The screen shows the feature options.

6 Select **MOTOTRBO Customer Programming Software**, **Radio Management Server**, and **Radio Management Device Programmer**, and click **Next** to proceed.

Send Feedback

7 Follow the instructions on the screen to complete the installation.

Reboot the computer if prompted during the installation process.

Click **OK** to proceed if security-related messages appear during the installation process.

8 Click **Finish** to exit.

2.3
Installing Tuner Application

Follow the procedure to install Tuner application on a computer.

Prerequisites: If you are using a Windows 8 operating system and have not enabled .NET Framework 3.5 Windows feature on the computer, see Enabling .NET Framework 3.5 Windows Feature by Using the Internet on page 18 or Enabling .NET Framework 3.5 Windows Feature by Using the Windows 8 DVD on page 19 before you proceed.

Procedure:

1 Unplug all devices connected to the computer.

2 Exit all programs running on the computer.

3 Insert the CD into the CD drive.

4 Wait for the auto-install program to start, and follow the instructions on the screen.

    If the program fails, navigate to `Autorun.exe` on the CD, and double-click the file.

    The screen shows the language options.

5 Select a language to be used for the installation, and click **Next** to proceed.

    The screen shows the feature options.

6 Select **MOTOTRBO Tuner**, and click **Next** to proceed.

7 Read and accept the Software License Agreement.

8 Follow the instructions on the screen to complete the installation.

    Reboot the computer if prompted during the installation process.

    Click **OK** to proceed if security-related messages appear during the installation process.

9   Click **Finish** to exit.

Postrequisites: You can proceed to install MOTOTRBO driver, and set up MOTOTRBO Local Area Connection. See Installing MOTOTRBO Driver on page 17 and Setting Up MOTOTRBO Local Area Connection on page 20 for the steps.

2.4
Installing AirTracer Application

Follow the procedure to install AirTracer application on a computer.

Prerequisites: If you are using a Windows 8 operating system and have not enabled .NET Framework 3.5 Windows feature on the computer, see Enabling .NET Framework 3.5 Windows Feature by Using the Internet on page 18 or Enabling .NET Framework 3.5 Windows Feature by Using the Windows 8 DVD on page 19 before you proceed.

Procedure:

1   Unplug all devices connected to the computer.

2   Exit all programs running on the computer.

3   Insert the CD into the CD drive.

4   Wait for the auto-install program to start, and follow the instructions on the screen.

If the program fails, navigate to `Autorun.exe` on the CD, and double-click the file.

The screen shows the language options.

5   Select a language to be used for the installation, and click **Next** to proceed.

The screen shows the feature options.

6   Select **MOTOTRBO AirTracer**, and click **Next** to proceed.

7   Read and accept the Software License Agreement.

8   Follow the instructions on the screen to complete the installation.

Reboot the computer if prompted during the installation process.

Click **OK** to proceed if security-related messages appear during the installation process.

9   Click **Finish** to exit.

Postrequisites: You can proceed to install MOTOTRBO driver, and set up MOTOTRBO Local Area Connection. See Installing MOTOTRBO Driver on page 17 and Setting Up MOTOTRBO Local Area Connection on page 20 for the steps.

2.5
Installing Repeater Diagnostics and Control Application

Follow the procedure to install Repeater Diagnostics and Control (RDAC) application on a computer.

Prerequisites: If you are using a Windows 8 operating system and have not enabled .NET Framework 3.5 Windows feature on the computer, see Enabling .NET Framework 3.5 Windows Feature by Using the Internet on page 18 or Enabling .NET Framework 3.5 Windows Feature by Using the Windows 8 DVD on page 19 before you proceed.

Procedure:

1   Download the MOTOTRBO RDAC for Portables, Mobiles, and Repeaters zipped file from Motorola Online web site.

2   Unplug all devices connected to the computer.

3 Exit all programs running on the computer.

4 Extract all files in the zipped file, and save them to the computer.

5 Double-click `Autorun.exe` from the extracted files.

If the program fails, double-click `Autorun.exe` again.

The screen shows the language options.

6 Select a language to be used for the installation, and click **Next** to proceed.

The screen shows the feature options.

7 Check the box for **MOTOTRBO RDAC**, and click **Next** to proceed.

8 Read and accept the Software License Agreement.

9 Follow the instructions on the screen to complete the installation.

Reboot the computer if prompted during the installation process.

Click **OK** to proceed if security-related messages appear during the installation process.

10 Click **Finish** to exit.

Postrequisites: You can proceed to install MOTOTRBO driver, and set up MOTOTRBO Local Area Connection. See Installing MOTOTRBO Driver on page 17 and Setting Up MOTOTRBO Local Area Connection on page 20 for the steps.
If RDAC application is required to connect to an IP backbone by using the Ethernet port, set up the Local Area Connection on the computer with the correct IP address, and subnet parameters.

2.6
Installing Applications in Silent Mode

You can use silent installation instead of standard installation when you install MOTOTRBO Customer Programming Software (CPS), Tuner, AirTracer, or Repeater Diagnostics and Control (RDAC), or Radio Management Server, Device Programmer, or Job Processor application. Silent installation allows you to install the applications without user interaction, and makes the installation easier when you deploy the applications to large numbers of workstations.

Procedure:

1 Right-click the command prompt and select **Run as administrator** to open.

2 Type `cd`, and press enter to navigate to the location of the installer.

3 Type the appropriate command for the features you want to install.

Installer	MOTOTRBO Customer Programming Software `cps_<version>_standalone.zip`
Command	`Setup.exe /s /v" /qn"`
Command with Logging	`Setup.exe /s /v"/qn /l*vx \"C:\log.txt\""`

Installer	MOTOTRBO Radio Management `cps_<version>.zip`

Table continued…

Command	`Setup.exe /silent ISFeatureInstall=Feature1,Feature2`
Command with Logging	`Setup.exe /silent /debuglog ISFeatureInstall=Feature1,Feature2`

Installer	DVD MOTOTRBO Radio Management Job Processor
Command	`MOTOTRBO_RMJobProcessor.exe / silent`
Command with Logging	`MOTOTRBO_RMJobProcessor.exe / silent /debuglog`

Installer	DVD Full
Command	`Setup.exe /silent ISFeatureInstall=Feature1,Feature2`
Command with Logging	`Setup.exe /silent /debuglog ISFeatureInstall=Feature1,Feature2`

4 Replace `Feature1` and `Feature2` with the appropriate command.

- `MOTOTRBO_Customer_Programming_Software`
- `RM_Server`
- `RM_Device_Programmer`
- `MOTOTRBO_AirTracer`
- `MOTOTRBO_RDAC`
- `MOTOTRBO_Tuner`

5 Replace `C:\log.txt` with the full path of the location you want to save the log file.
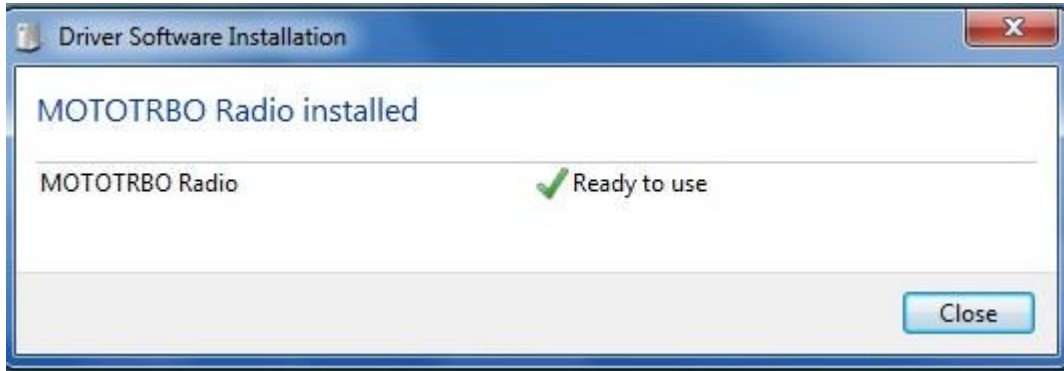
6 Press **Enter** to run the command.

2.7
Installing MOTOTRBO Driver

The MOTOTRBO driver is installed once to enable communication between MOTOTRBO devices and the USB port by using any of the applications. Follow the procedure to install the driver on Windows 7 Professional, 32-bit or 64-bit, or Home Premium, 32-bit or 64-bit operating system.

Procedure:

1 Exit all MOTOTRBO programs running on the computer.

2 Connect the programming cable to the radio or repeater, and the USB port on the computer.

3 Turn on the radio.

The **Driver Software Installation** window appears.

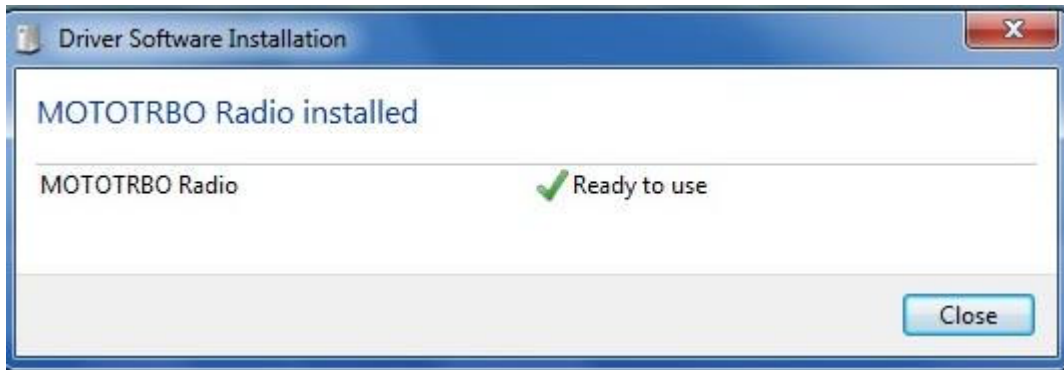**4** Click **Close** when the installation is complete.

2.8

Installing FlashZap Driver

The FlashZap driver is installed to enable the Customer Programming Software (CPS) device update or recover feature to communicate with the radio in FlashZap or boot mode. The driver installation starts automatically the first time the device update or recover feature is used on a USB port. The driver installation is required for every USB port used. Follow the procedure to install the driver on Windows 7 Professional, 32-bit or 64-bit, or Home Premium, 32-bit or 64-bit operating system.

Procedure:

1 Exit all MOTOTRBO programs running on the computer.

2 Connect the programming cable to the radio, and the USB port on the computer.

3 Turn on the radio.

   The **Driver Software Installation** window appears.

4 Click **Close** when the installation is complete.

2.9

Enabling .NET Framework 3.5 Windows Feature by Using the Internet

Follow the procedure to enable .NET Framework 3.5 Windows feature on a computer running on Windows 8 operating system with Internet access.

Procedure:

1 Click **Start**.

2 Type `Windows Features`, and press **Enter**.

The **Turn Windows features on or off** dialog box appears.

3 Select **.NET Framework 3.5 (includes .NET 2.0 and 3.0)**, and press **OK**.

4 Reboot the computer if prompted.

> **NOTICE:** If the **.NET Framework 3.5** failed to install with a proxy connection, please uncheck **Automatically detect settings in Local Area Network (LAN) settings** dialog and try again.

Postrequisites: Refer to Microsoft web site, https://msdn.microsoft.com/en-us/library/hh506443.aspx, for more information.

2.10
Enabling .NET Framework 3.5 Windows Feature by Using the Windows 8 DVD

Follow the procedure to enable .NET Framework 3.5 Windows feature on a computer running on Windows 8 operating system without Internet access.

Procedure:

1 Insert the DVD into the DVD drive.

2 From the drive folder, go to `sources\sxs`.

3 Right-click on `CMD.EXE`, and select **Run as administrator** to open the command prompt.

4 Type `DISM.exe /online /enable-feature /featurename:NetFX3 /All / Source:<DVD_Drive>:\sources\sxs /LimitAccess`, and press **Enter**.

5 Close the command prompt when the installation completes.

The .NET Framework 3.5 Windows is enabled.

2.11
Setting User Privileges for Hardened Operating Systems

Follow the procedure to set user privileges on a computer running on hardened operating system.

Procedure:

Set the following privileges to the user running the installer.

The user running the installer needs to have Administrator rights, and the following privileges to install Microsoft SQL Server, which is required for the Radio Management Server to function.

Table 2: Permission Requirements for Microsoft SQL Server Installation

Local Policy Object Display Name	User Right
Backup files and directories	SeBackupPrivilege
Debug Programs	SeDebugPrivilege
Manage auditing and security log	SeSecurityPrivilege

Postrequisites: When the user no longer needs these privileges, revert the permissions to the initial secure settings.

Checking Job Status

Follow the procedure to check job status in the Radio Management on a computer.

Procedure:

1 Click **File** on the menu.

2 Click **Radio Management** to proceed.

3 Check the job status column in the radio view table.
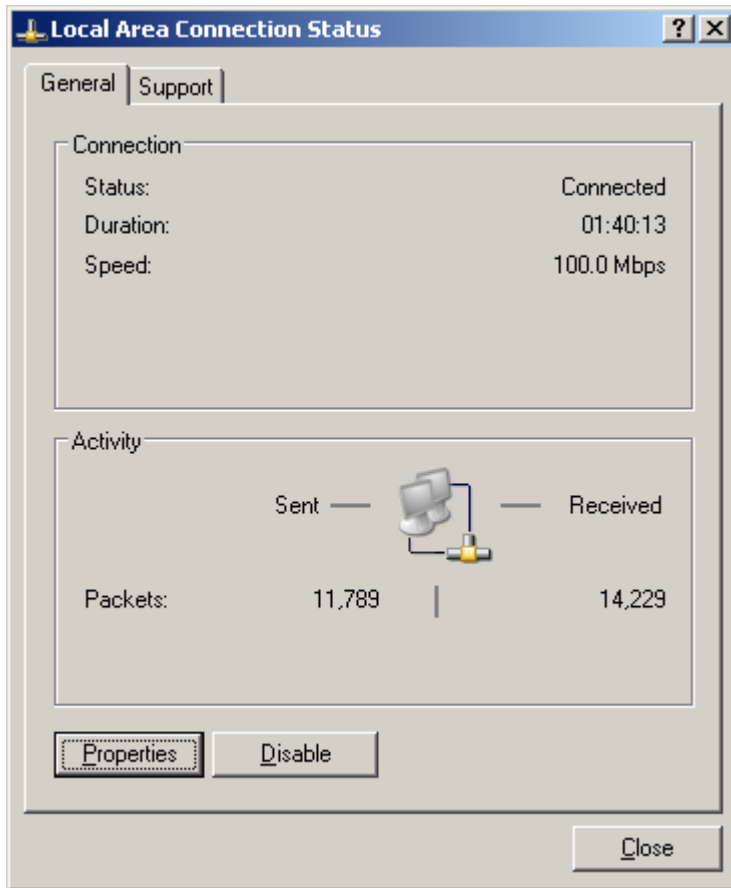
Setting Up MOTOTRBO Local Area Connection

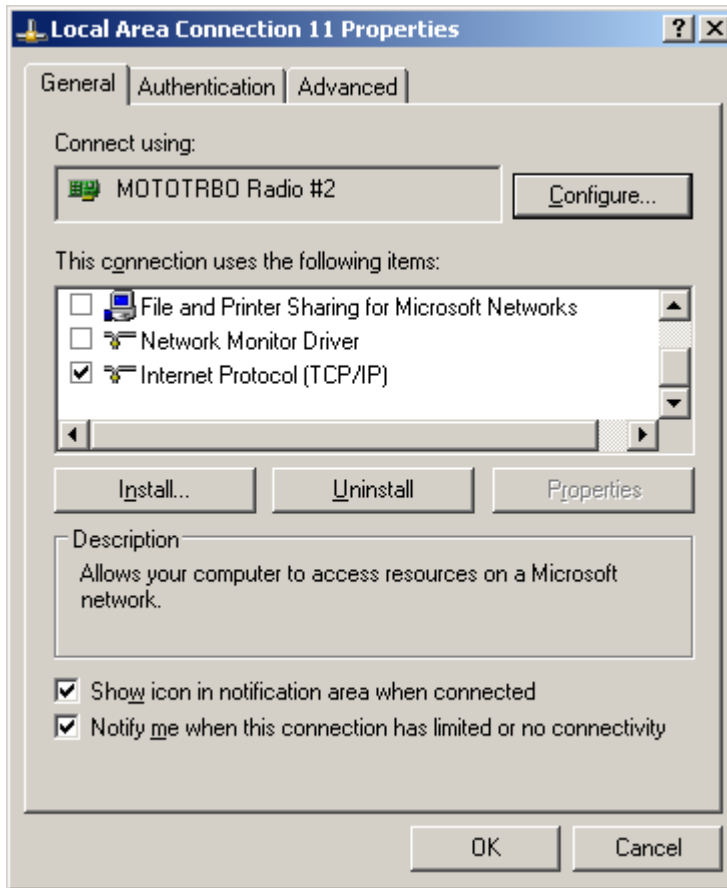Follow the procedure to set up MOTOTRBO Local Area Connection on the computer.

Procedure:

1 Do one of the following:

- Click **Start → Settings → Network Connection**, and select **Open**.
- Click **Start → Control Panel → Network Connection**, and select **Open**.

2 From the main menu, select **View → Details**.

3 Double-click on the network connection **Local Area Connection** with the device name **MOTOTRBO Radio**.

If you have more than one active Local Area Connection on the computer, make sure you selected the right one.

4 Click on **Properties**.

5 Uncheck all the checkboxes except the checkbox for **Internet Protocol (TCP/IP)**.

6 Select **Show icon in notification area when connected** and **Notify me when this connection has limited or no connectivity**.

   The **Notify me when this connection has limited or no connectivity** option may not be available on all computers.

7 Click **OK**, and the setup is complete.

   NOTICE: If you are unable to access Radio Management from CPS, please refer to the *Radio Management Deployment* guide which is distributed on the CD image, for additional information.

2.14
Retrieving Firmware and Codeplug Update Package

Follow the procedure to retrieve the latest firmware and codeplug update package for installation.

Procedure:

1 Launch a web browser.

2 Log on to Motorola Solutions Online web site, https://businessonline.motorolasolutions.com.

3 Search for the latest firmware and codeplug update package.

4 Download the latest firmware and codeplug update package.

   The update packages on Motorola Solutions Online web sites are executable files. The **Hardware Installation Wizard** shows the instructions to install the update packages.
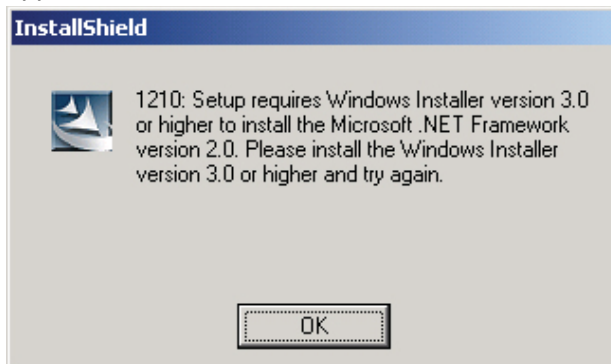
Chapter 3

Troubleshooting

The following troubleshooting steps are performed to resolve Windows installer and update issues in order to have successful installations.

3.1
Troubleshooting Windows Installer Issues

Follow the procedure to troubleshoot Windows installer issues on a computer with Windows operating system.

When and where to use: If the Windows installer is not present on the computer, an error message appears.

Procedure:

   1 Exit the installation.

   2 Ensure the computer has the minimum system requirements.

      See System Installation Requirements on page 7 for more information.

   3 If the computer system is not running Service Pack 2 or Service Pack 3, download and install Service Pack 3 from Microsoft.

   4 Run the installation.

3.2
Troubleshooting Windows Update Issues

Follow the procedure to troubleshoot Windows update issues on a computer running on a computer with Windows 7 or later operating system.

When and where to use: If the Windows update is not enabled on the computer, the Radio Management Server installation is not able to install Windows Identity Foundation, and this causes the installation to fail.

Procedure:

   1 Exit the installation.

   2 Go to **Control Panel → System and Security → Windows Update**.

   3 Select one of the options except **Never check for updates**.

4 Follow the steps on Microsoft web site, https://support.microsoft.com/en-us/kb/958043, to enable Windows update.

5 Run the installation.

Send Feedback