

MTX100 Firmware Version 4.11

This Release Note provides the following information:

- Added functions
- Bug fixes
- Note for upgrading the firmware and reinstalling the operating system
- Note for using the instrument
- Upgrading the firmware
- Note for reinstalling the operating system in the MTX100 option 05 or 06

Added Functions

In firmware version 4.11, the following function is newly added:

- Support Windows 2000 Service pack 4 (SP4). The MTX100 application software operates normally after installing Service pack 4 into the Windows 2000 operating system supplied with the MTX100.

Bug Fixes

In firmware version 4.11, the following bugs are fixed:

- The captured transport stream file can sometimes be recognized as a non-transport stream (Non TS) file—fixed.
- When you record the stream file being capturing, the record may not start until you press the front-panel REC button more than once—fixed.
- When outputting an ISDB-T transport stream with the Update mode on, PTS/DTS values are offset—fixed.
- When outputting a transport stream in the Non TS format, PCR and PTS/DTS values are wrongly updated —fixed.

Note for Using the Instrument

In the case when the Output Buffer Empty error occurs while outputting a transport stream, the transport stream output after the error is different depending on the Update mode setting (On or Off) in the Play menu. Select one of the following settings for your application:

- When Off is selected: the output is stopped, and then the transport stream is output normally.
- When On is selected: the output is stopped, and then is restarted; however, since time information is inserted into wrong packets, the output transport stream is corrupted.

Note for Upgrading the Firmware and Reinstalling the Operating System.

Before upgrading the firmware or reinstalling the operating system of your MTX100, read the following information:

**Instrument with Serial
Number J300XXX and
Firmware Version less
than 4.1**

Upgrading the Firmware.

Do the following steps to upgrade the firmware:

1. Remove the MTX100 application currently used. Refer to step 1 through step 6 on page 4 for instructions.



CAUTION. Even if the operating system is only installed in the hard disk, be sure to install the application software version 4.1 or earlier and then uninstall it.

2. Download Windows 2000 Service pack 2, and then download Service pack 4 from the Microsoft web site (www.microsoft.com). Install a program(s) to provide appropriate security and operating system reliability, if necessary.
3. Download the new firmware (version 4.11) from the Tektronix web site (www.tektronix.com), and then upgrade the firmware of your MTX100. Refer to *Upgrading the Firmware* on page 4 for instructions.

Reinstalling the Operating System.

When you reinstall the operating system, be sure to use the Windows 2000 Operating System Recovery Disk with the following part number.

- Tektronix part number: 062-A275-52

**Instrument with Serial
Number J300XXX and
Firmware Version 4.1****Upgrading the Firmware.**

Do the following steps to upgrade the firmware:

1. Remove the MTX100 application currently used. Refer to step 1 through step 6 on page 4 for instructions.
2. Download the new firmware (version 4.11) from the Tektronix web site (www.tektronix.com), and then upgrade the firmware of your MTX100. Refer to *Upgrading the Firmware* on page 4 for instructions.

Reinstalling the Operating System.

When you reinstall the operating system, be sure to use the Windows 2000 Operating System Recovery Disk with the following part number.

- Tektronix part number: 062-A275-52

**Instrument with Serial
Number J310XXX****Upgrading the Firmware.**

Do the following steps to upgrade the firmware:

1. Remove the MTX100 application currently used. Refer to step 1 through step 6 on page 4 for instructions.
2. Download the new firmware (version 4.11) from the Tektronix web site (www.tektronix.com), and then upgrade the firmware of your MTX100. Refer to *Upgrading the Firmware* on page 4 for instructions.

Reinstalling the Operating System.

When you reinstall the operating system, be sure to use the Windows 2000 Operating System Recovery Disk with the following part number. If you install the operating system using the previous version, the instrument will not work.

- Tektronix part number: 062-A275-53

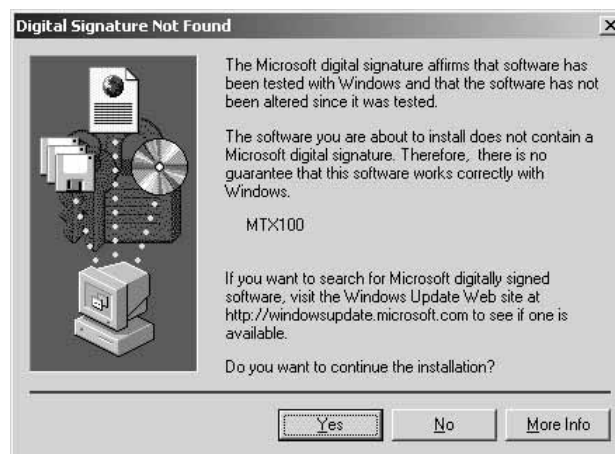
Upgrading the Firmware

NOTE. The MTX100 & RTX100 Application Recovery Disc Version 4.11 includes the program to upgrade the firmware of your MTX100 to 4.11. When you upgrade the firmware, be sure to follow these instructions:

Upgrading the MTX100 Application

1. Connect the keyboard and mouse provided with the instrument to the USB connectors on the front panel.
2. Select **Exit** from the **File** menu in the Play or Record screen to exit the MTX100 application. The Windows 2000 desktop appears.
3. Select **Settings** → **Control Panel** from the Start menu. The **Control Panel** window appears.
4. Double-click the **Add/Remove Programs** icon. The **Add/Remove Programs Properties** dialog box appears.
5. Select the **MTX100, RTX100** in the list, click the **Remove** button.
6. After you remove the MTX100 application, restart Windows 2000.
7. Insert the **MTX100 & RTX100 Application Software Recovery Disc Version 4.11** CD-ROM into the CD-ROM drive.
8. Double-click the **My Computer** icon and the **CD-ROM drive** icon.
9. Double-click the **Application_Software** folder.
10. Double-click the **setup.exe** icon in the folder.
11. Follow the installing instructions on the screen.

When the following dialog box is displayed, click the **Yes** button. This dialog box appears more than once.



When the following dialog box is displayed, click the **OK** button, and then click the **Finish** button to complete the setup.



12. Restart Windows 2000. The **Play** screen appears.

Upgrading the Internal FPGA Code

13. Select **Status** from the **Utility** menu. The **STATUS** dialog box appears.

14. Check the **Code** numbers of the **Main** module and optional interface module (if installed).



CAUTION. While checking the Code numbers, do not operate the instrument, especially do not press the front-panel **PLAY** or **REC** button. Doing so will cause trouble in operation.

If the displayed code number(s) is(are) different from the following, upgrade the corresponding FPGA code(s).

- Main: 12
- ASI: 02
- Univ I/F: 03
- BNC I/F: 01
- DHEI: 01
- IEEE1394: 02
- SMPTE310M: 01

If the Code numbers of the Main and optional interface modules are different from above, you need to upgrade the FPGA codes of both modules.

15. Select **Exit** from the **File** menu to exit the MTX100 application.

16. Double-click the **My Computer** icon and the **CD-ROM drive** icon.

17. Double-click the **Upgrade_V4_1_FPGA** folder.

18. Double-click one of the folder corresponding to the FPGA code that you want to upgrade (for example, **Main**).

19. Double-click the **.bat** icon in the folder.



CAUTION. *Do not power off the instrument until the upgrade is complete. Doing so will cause the instrument to not start up normally.*

The upgrade process is completed in about 2 minutes. When the process is normally complete, the message “Success” appears on the screen. When an error message appears on the screen, repeat this step again.

20. If there is another FPGA code to upgrade, open the appropriate folder and double-click the **.bat** icon in it.

21. Power off the instrument and then power it on again.

22. Check whether the new version of the firmware is properly installed:

- a. Select **Status** from the **File** menu. The **STATUS** dialog box appears.
- b. In the dialog box, check that the MTX100 Version number and the Code number(s) are as follows:

MTX100 Version: **4.11**

Main and optional module Code: the same number as listed above

This completes the firmware upgrade procedure.

Note for Reinstalling the Operating System in the MTX100 Option 05 or 06

When you reinstall the Windows 2000 operating system in the MTX100 Option 05 or 06, the operating system may not recognize the optional interface module automatically. Therefore, the Found New Hardware Wizard dialog box appears while installing. If this happens, perform the following procedure:

1. Remove the Windows 2000 Professional Operating System Recovery Disc from the CD-ROM drive, and then insert the MTX100 & RTX100 Application Software Recovery Disk into the CD-ROM drive.
2. Follow the installing instructions on the screen.
3. When the **Locate Driver Files** dialog box appears, enter the following directory path in the text box:

D:\Application_Software\program_files\Tektronix\MPEGPlayer\Inf

4. Follow the instructions on the screen.
5. When the installation of the operating system is complete, reinstall the MTX100 application software.