

**SoniClear
Gov Mobile
OPERATION GUIDE**



About This Manual

This manual covers the installation procedures for the Gov Mobile recording system. This integrated hardware and software system incorporates the following SoniClear digital recording software products:

Multi-Channel Recording, Playback, and Transcribing

- SoniClear Gov Recorder 8

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Using Gov Mobile

Overview

SoniClear Gov Mobile is an integrated hardware and software system for recording meetings and administrative hearings. SoniClear software runs on a Windows laptop computer connected externally to the Gov Mobile audio interface.

If the Gov Mobile is purchased with the SoniClear Tablet Recorder computer, no installation steps are required for the computer. Simply plug in the system and audio sources, and start using it.

If a laptop computer is supplied by the user, the system must be configured by a qualified computer technician following the instructions provided in this Guide.

For instructions on how to use the features of SoniClear Gov Recorder 8, see the SoniClear User Guide.

Using Gov Mobile

For Gov Mobile systems using a laptop computer with the Gov Mobile audio interface. Follow these startup steps:

- Connect the Gov Mobile firewire cable to the laptop while audio interface and laptop are both turned off.
- Turn on the audio interface power switch located on front panel
- Turn on the computer
- Log onto user account, if required.
- Run the SoniClear 8 application from the desktop icon.

Turn off the system following these startup steps:

- If currently recording, stop recording.
- Exit SoniClear.
- Select Turn Off Computer from the Start menu.
- Select Turn Off.
- After computer has turned off, switch off the power to the audio interface on front panel.
- Disconnect the laptop firewire cable from the Gov Mobile system.

Installation

Overview

Gov Mobile is optionally available without the pre-configured SoniClear Tablet Recorder computer. Following are hardware requirements and installation steps for connecting the Gov Mobile unit to a user-supplied computer system.

Hardware Requirements

The following are the hardware requirements for the recording computer:

- Laptop Computer
- Windows 7 or Windows XP (XP Professional recommended)
- Dual Core Processor, 1.5 GHz or faster
- Adequate disk space for recording (see “Disk Storage Space” below).

IMPORTANT NOTES:

- Some newer laptop computers that include advanced display chipsets will not record correctly (such as computers with some models of ATI or NVidia graphic processors). Contact SoniClear for instructions for how to test the computer for compatibility with multichannel recording. Failure to verify the compatibility of the computer may result in recordings with audio that is missing or damaged.
- Computers with slower processors can be used for playback, transcription and archiving using Gov Recorder 8 or Transcriber Live software included with Gov Boardroom. See the SoniClear Installation Guide for more information about installing Gov Recorder 8.

Disk Storage Space

SoniClear stores the recorded audio data on the disk drive of the laptop computer that is running the program. A network or remote drive cannot be used for storage during recording. Playback from a network drive is possible for files converted to MP3 format, but this will depend on the speed of the network and shared server involved. Storage requirements for the various recording modes are as follows:

2 Channel WAV	316 Megabytes per hour
4 Channel WAV	948 Megabytes per hour
6 Channel WAV	1264 Megabytes per hour
8 Channel WAV	1580 Megabytes per hour

2 Channel MP3	44 Megabytes per hour
4 Channel MP3	132 Megabytes per hour
6 Channel MP3	352 Megabytes per hour
8 Channel MP3	440 Megabytes per hour

Audio Hardware

Gov Mobile is shipped with one of the specific multi-channel audio interfaces supported by the Gov Recorder 8 software:

Motu 8Pre
RME Fireface 800

These interfaces connect to the laptop using a standard firewire high-speed data connection.

Technical Support

Contact your SoniClear dealer or view the SoniClear Support Page at www.soniclear.com for current release and technical support information.

Computer Setup

For systems where the computer is supplied by the user, the computer must be configured specifically for audio recording. Following are required installation steps to ensure that the computer will run reliably when running SoniClear Gov Recorder 8 software connected to the Gov Mobile audio hardware. The following instructions are based on the Windows XP operating system. For Windows 7 these instructions will need to be altered to match with the controls for that version of the operating system.

Power Management

Turn Off all Hibernation, Screen Saver, and Power Saving options:

To prevent the system from powering down to reduce power usage, from Control Panel –> Power Options, activate the “Always On” power scheme. For Plugged in and Running on Batteries alternatives, set “Turn off monitor”, “Turn off hard disks”, and “System standby” to Never.

To prevent hibernation, from Control Panel -> Power Options -> Hibernate tab, Uncheck “Enable Hibernation”.

Turn off Screen Saver, Right Click on Desktop -> Properties -> Screen Saver tab, select “(None)” for the type of screen saver.

Some manufacturers use the default power management included in Windows XP. However, some systems include extra control panels for this purpose. Consult the computer documentation for more details.

System Sounds

Turn off System Sounds to prevent these from becoming recorded, from Control Panel -> Sounds and Audio Devices.

In the Audio tab, set Default device to internal sound card.

In the Sounds tab, under Sound Scheme, choose “No Sounds” (select No to saving the previous Scheme). Then click Apply

Drive Indexing

Turn off drive indexing for all NTFS drives. Open My Computer, right click on the NTFS drive and select Properties. Uncheck “Allow Indexing Service...” and click Apply.

In the confirmation dialog, select “Apply Changes to C:\subfolders and files”. If you get the Access Denied error message, click Ignore All.

Performance

Performance options are set in the dialog Control Panel -> System -> Advanced -> Performance -> Settings.

In the Visual Effects tab, select “Let Windows choose what’s best for my computer”. On slower computers, moving a window around on the screen can cause interruption of recording. If that occurs, uncheck “Show Window contents while dragging”. This will automatically switch the type to Custom and will change the display to optimize the performance of window movement. This may also change the appearance of windows on the screen.

In the Advanced tab, set Processor scheduling to “Program”.

In the Advanced tab, set Memory Usage to “Program”.

In the Advanced tab, Virtual memory, click Change, select Custom size and enter the same size in both Initial size and Maximum size. The required value will depend on how much memory is installed and how many programs are used simultaneously. As a minimum value, enter the following:

- For 256MB RAM - Enter 512 for Min and Max
- For 512MB RAM - Enter 768 for Min and Max
- For 1024MB RAM - Enter 1536 for Min and Max

Automatic Updates

Turn off Windows Automatic Update service. From Control Panel -> System -> Automatic Updates tab, select “Turn off Automatic Updates”. For systems that are always network connected, it may be safer to select “Notify me but don’t automatically download or install them.” This will ensure that the user is always informed of the need to perform an update, without interfering with recording processes.

Internet Time

Turn off the automatic updating of the system time with a central server. From Control Panel -> Date and Time -> Internet Time, Uncheck “Automatically synchronize with an Internet time server”. Click Apply.

Desktop Cleanup Wizard

Disable the automatic Desktop Cleanup Wizard. From Control Panel -> Display -> Desktop -> Customize Desktop -> Uncheck "Run Desktop Cleanup Wizard every 60 days".

Firewire Installation

Overview

Depending on the type of laptop used and the audio hardware supplied in the Gov Mobile system, a firewire interface device may need to be added to the laptop. If the laptop has a built-in firewire port, it must be compatible with the supplied interface. If the built-in interface is incompatible, or if there is no firewire interface in the laptop, a firewire card must be added to the laptop.

The cable from the Gov Mobile firewire interface uses a 6 pin connector on one end. The other end of the connector must match the port on the computer. This can be either 6 pin or 4 pin connector, but is usually 4 pin. A third type of firewire connection, 9 pin, is supported by the RME Fireface 800, which can be connected to a 9 pin, 6 pin, or 4 pin computer port.

Built-in Firewire Connections

Many computers include a built-in firewire interface. This can be used as long as it has a chipset that is compatible with the firewire audio interface supplied with Gov Mobile.

For Gov Mobile systems incorporating the Motu 8Pre interface, the Texas Instruments, Via, and Lucent laptop chipsets are supported. For the RME Fireface 800 interface, any Firewire 400 or Firewire 800 almost all chipsets are supported. Contact Trio Systems for a current list of supported firewire interface card options.

Laptop Firewire Add-On Cards

If a laptop computer is being used for recording that does not include a compatible firewire port, an add-on firewire PCMCIA PC Card or ExpressCard can be added to the computer. The card plugs into the PCMCIA card slot. No device drivers need to be installed.

Be sure the laptop is turned off when plugging in the card. It is also recommended that the computer and firewire interface be turned off when connecting the laptop to the Gov Mobile audio interface. Failing to do so could result in damage to either the firewire card or the audio interface unit.

Note: the firewire interface may not work correctly if the computer has gone into a power saving mode, such as hibernation. You will need to reboot the computer before using the firewire interface if this should occur.

Audio Interface Installation

Motu 8Pre Installation

The Motu 8Pre firewire audio interface is used for connecting microphone and line-level audio signals to the computer. When connecting to user-supplied computer systems, the 8Pre device drivers must be installed and the system configured for use with the Gov Recorder 8 recording software.

Power and Data Interface Cables

The Gov Mobile system has a connection to a power outlet. It does not support battery operation. Be sure to obtain extension power cables for providing power to the audio interface unit and the laptop in the meeting room where recordings will be made.

The Motu 8Pre connects to the computer using a standard firewire cable. Because power is not derived from the firewire bus, both 4 and 6 pin connectors are satisfactory. You will need to ensure that the method of connecting the cable to the computer is physically sound so that the cable cannot be accidentally disconnected from the computer during recording. Loose connectors or situations where the cable can become snagged and pulled out of the plug need to be addressed in the setup of the equipment. In addition, use of an inflexible firewire cable for connection to a laptop may result in damage to the laptop connector. For this reason it is important to use thin firewire cables, such as the proprietary, very thin, Apple Computer firewire cables.

Motu 8Pre Software Installation

Driver and Control Panel Installation

The Motu 8Pre provides drivers and control panel software with the product on CDROM. Installation of drivers should be performed by a qualified computer technician.

When installing a new system, the CDROM drivers can be used. It is recommended, however, that you download the latest Windows software available from the Motu website if there are more recent updates (see www.motu.com).

To install from the supplied CD, insert the disk and follow the instructions in the manual and on screen. To install the downloaded drivers follow the instructions provided on the Motu support website.

After installing the drivers, reboot the computer to complete the installation process. Depending on the driver version, it will normally display additional installation messages after rebooting. If the system prompts you to install the new hardware, do not select the

option to search Windows Update, and use the Automatic Install option. This prompt may occur several times. Carefully follow the written and on-screen instructions to ensure proper installation.

Driver Configuration

Once driver installation is complete, run the Motu Audio Setup wizard from the Start/All Programs menu. The following settings are required:

- General Tab
 - 44100 Sample Rate
 - Clock Source Internal
 - Samples/Buffer 512
 - Pedal – unchecked
 - Enable full wave supported – checked
 - Enable Multichannel Sync – checked
- 8Pre Tab
 - Optical Input – off
 - Optical Output – off
 - Phones – Phones 1-2

After running the Audio Setup wizard, run the Cue Mix control panel from the Start/All Programs menu. Adjust the level controls for the mix to create a 2-channel mix that will be suitable for transcription and archive review. This will generally involve panning each microphone to the same spatial location in the stereo mix as the location of the microphone in the meeting room. This mix can be adjusted after completing installation of the SoniClear Gov Recorder 8 software.

Motu 8Pre Audio Connections

Using Microphones

Microphones are connected using standard balanced XLR connectors. If the microphones require phantom power, this must be turned on using the front panel switch for each microphone channel (up position). In addition, the Pad switch should be set to Up (no Pad).

The Gov Mobile system is supplied with a microphone “snake” cable. This will allow placement of the microphones at a greater distance from the recording system. The snake can be left connected to the interface unit. Roll up the cable and store it inside the Gov Mobile case. Care should be taken to avoid physical damage to the microphone cables and microphone snake, such as smashing or crimping the cable. If the cables are not kept in good condition, hum and/or intermittent signal may result.

When connecting the 8Pre to a microphone-level output from a sound system (instead of microphones), isolation transformers may be required to prevent ground loop hum problems. Consult with an audio installation technician regarding this application.

Using Analog Line Input or Digital Input

Line-level analog audio can be connected to the Motu 8Pre using ¼” TRS balanced line connections. This requires disconnecting the XLR microphone snake from the unit.

When connecting the Motu 8Pre to a sound system using analog line-level signals, isolation transformers may be required to prevent ground loop problems. Consult with an audio installation technician regarding this application.

Digital inputs and outputs are also provided using standard ADAT optical connections.

RME Fireface 800 Installation

For Gov Mobile systems that incorporate the RME Fireface 800 interface, consult the setup instructions in the SoniClear Installation Guide.

Gov Recorder 8 Installation

SoniClear Software Installation

Installation from CDROM

To install SoniClear from CDROM, insert the SoniClear Disk in the computer. The install program should automatically start. If the install program does not start, manually start installation: press the Task Bar START button and select "Run". At the prompt enter D:\InstallSoniClear8.exe (where "D" is the CDROM drive letter,) and press Enter. Follow the installation instructions presented on the screen.

Administrator and Non-Administrator Rights

The installation process requires that the user account have full Administrator Rights. This allows for installation of the USB Key device drivers and for writing information into the system registry to control standard uninstall procedures (Add/Remove Programs in the Control Panel).

Adding the SoniClear Icon to Your Desktop

SoniClear automatically adds a program icon to the desktop for the user who installs the program, and SoniClear can also be started from the Windows Start button.

If you want to add a program icon to the desktop of another user, follow these instructions:

1. Right click on the Windows Start button (in the Task Bar).
2. Select "Explore" from the pop-up menu.
3. Open the SoniClear program folder:
 \Documents and Settings\Username\Start Menu\Programs\SoniClear8.
4. Right click on the SoniClear icon.
5. Select "Copy" from the pop-up menu.
6. Right click on the desktop.
7. Select "Paste Shortcut" from the pop-up menu.

Install Gov Recorder 8 License

The SoniClear Gov Recorder 8 software license is stored on a supplied USB Key device. It is recommended that you lock the license to the Gov Mobile recording computer and put the USB Key away in a secure location in case it is needed to move the license to another computer at a later time. To lock the license, follow these steps:

- Plug the Gov Recorder 8 USB Key device into the computer USB port.
- Run SoniClear from the desktop icon.
- Select Edit/Preferences from the pulldown menu.
- Click on the License tab.
- Click Lock to lock the license to the computer.
- Click OK.
- Exit SoniClear.

Gov Recorder 8 Software Configuration

After installation of the software and hardware, Gov Recorder 8 must be configured to work with the audio interface in the Gov Mobile system. If the configuration settings from this step are changed for some reason, or a new computer is installed for use with the system, these settings must reset to the correct configuration for proper operation of the system. Modifications to the configuration should only be made by a qualified computer technician.

Edit Audio Hardware Preferences

To set the configuration, start Gov Recorder 8 and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according the following instructions.

Recording Device Selection

The Recording Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used as the audio source for the Stereo Mix channels stored in the primary recording file. The value should be set to Motu Mix input source.

Recording Array Device List

Edit Multi-channel recordings accept audio input from a series of audio interface channels that are numbered sequentially. Click the Edit button and select Motu channels 1+2. Then click the Defaults button to adjust the rest of the array list.

Removable Recording Device

The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Recording Options

These options control how recording is processed.

Recording Process Priority

Default value should be set to Medium.

Buffer Size

The default value should be set to Automatic.

Disk Update Time

The default value should be set to 5000 milliseconds.

Force Recording at 44.1KHz.

The default value should be set to Checked.

Playback Device Selection

The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback.

Default Playback Device Selection

This is the sound card that will be used for playback through speakers. The default value should normally be set to the computer internal sound card. However, a room sound system can also be connected to the stereo balanced outputs on the 8Pre. In that case, use the Main Out selection.

Enable Live Monitoring

This is the sound card that will be used for playback through headphones. This option should be checked and the Headphone Monitor Device Selection should be set to Motu Phones.

Removable Recording Device

The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Playback Options

These options control how playback is processed.

Playback Buffers

The default value should be set to 4 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to Checked.

Edit File Preferences

Gov Recorder 8 can be configured to store files in various locations for the recording and archiving features. The default file location for storing recordings is in My Documents, and LAN archives are stored in My Documents\LANArchive. Change these defaults in the Files preference dialog by selecting the Edit/Preferences pulldown menu option.

It is important to set the default recording location to the hard drive of the recording computer. Do not use a local area network drive for recording. The LAN Archive can be set to any location.

Edit Recording Option Preferences

Gov Recorder 8 can be configured to default to recording 2, 4, 6, 8, 10, or 12 channels. In addition, there is the option of recording in standard WAV format, or in MP3 format. The advantage of the MP3 format is that it dramatically reduces the size of recorded files. The benefit of WAV format is that in some situations the sound quality will be slightly clearer, and WAV format is non-proprietary, which may be legally required in some governmental applications.

To set the Recording Options do the following:

- Start Gov Recorder 8
- Select Edit/Preferences from the pulldown menu.
- Select the Recording Options tab.
- Set the number of recording channels (such as 4).
- Set the recording format (WAV or MP3).
- Click OK.
- Exit SoniClear.