



Model: MP 820

User Manual





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DIGITAL MP3 PLAYER (MP820)
USER MANUAL

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INTRODUCTION

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Thank you for selecting the Oregon Scientific™ Digital MP3 Player MP820. The sleek, compact MP820 fits easily into a shirt pocket, making it convenient to use wherever you go and at any time. With memory space to store up to 30 radio stations, the unit features an FM receiver. The device acts as a mobile disk for convenient storage of your favorite music tracks, documents and other important files, and can record voice messages that you may want to keep during important meetings or discussions.

Other key features include:

- No software drivers needed for Windows ME / 2000 / XP
- MP3, WMA and WAV playback
- Built-in 128MB, 256MB or 512MB flash memory (refer to indication on packing)
- Digital voice recording: approximately 8 hours (128MB) / 16 hours (256MB) / 32 hours (512MB)
- FM radio (up to 30 preset radio channels)
- Blue backlight for easy viewing of LCD display
- Firmware upgradeable / reinstallation
- Mobile storage function
- ID3 Tag information display
- 5-mode equalizer
- Records voice messages for playback

Keep this manual handy as you use your new product. It contains practical step-by-step instructions, as well as technical specifications and warnings you should know about.

PACKAGE CONTENTS

When you unpack your MP3 player, make sure to keep all the packing materials in a safe place, in case you need to later transport the device or return it for servicing.





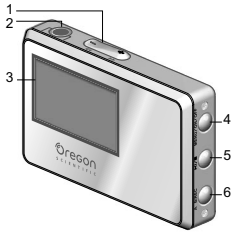
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In the box, you will find:

- Digital MP3 player main unit
- USB cable
- Stereo earphone
- Software installation CD-ROM

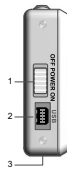
PRODUCT OVERVIEW

FRONT / TOP VIEW



1. - or ◀◀: Press to go to the previous track or menu selection, OR decrease volume.
+ or ▶▶: Press to go to the next track or menu selection, OR increase volume.
2. Earphone jack
3. LCD screen
4. **MENU / ON / OFF**: Press to turn audio player on or off / Enter menu settings (note that the **POWER** switch must be turned on prior to pressing this button).
5. ▶||/■ **PLAY / PAUSE / STOP**
6. **A-B / REC**: Press to repeat a track session or recording audio.

SIDE VIEW



1. **OFF POWER ON**: Slide this switch to turn the MP3 player on or off.
2. USB slot
3. Built-in MIC

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LCD DISPLAY SYMBOLS

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1. 5-Mode Equalizer
2. 5-Mode Repeat
3. Playing Status
4. Track Title
5. Artist and Album Name
6. Track Number / Total Number of Tracks
7. Volume
8. Battery Indicator
9. Mode
10. Playing Time / Time of Track

GETTING STARTED

SYSTEM REQUIREMENTS

Before you begin, please check to make sure your computer meets the following system requirements:

- Intel® Pentium® 133MHz or faster
- CD-ROM Drive
- USB 1.1 support
- 10MB free hard disk space
- Microsoft® Windows® 98 / 98SE, Me, 2000 (with Windows 2000 Service Pack 3 or above installed), or XP

INSTALLING FIRMWARE UPGRADE SOFTWARE AND WINDOWS 98 / 98SE DRIVERS (FIRST TIME USERS)

1. Make sure your player is disconnected from the computer.
2. Insert the MP820 CD-ROM into your computer. If the installer does not automatically begin, please refer to the troubleshooting section for help.
3. Follow the onscreen instructions.
4. Restart your computer.





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- The firmware upgrade software installation is completed. If you are using Windows 98 / 98SE, the driver is already installed on your computer.

WINDOWS 98 / 98SE

Installing the MP820 Windows driver will allow your computer to recognize your player each time it is connected to the computer.

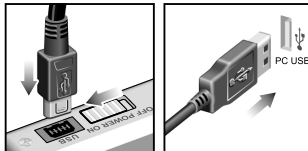
WINDOWS ME, 2000, XP

When you connect your recorder to your PC, it will appear as a removable drive (i.e., Removable Disk (H:)). If you see the pop up screen "New hardware found", please click **Next** continually and then **Cancel**.



NOTE: If you are using Windows 2000, Windows 2000 Service Pack 3.0 or above must be installed prior to installation of the MP3 player. This update is found at Microsoft's website. If you require assistance installing this service pack, please contact Microsoft directly.

CONNECTING TO A COMPUTER





Slide the **POWER** switch to the "ON" position. Once the player is connected to the PC via the supplied USB cable, the player's LCD shows an icon signaling PC-to-audio player connectivity. If nothing shows on the LCD, press **MENU / ON / OFF** once to turn on the player.

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When plugged in, the player automatically begins charging. To charge the player's internal battery to full capacity, wait for about 2 to 3 hours before disconnecting.

NOTE: Windows 98 / 98SE based computers indicate that new hardware has been found and automatically installs the software drivers. If you have not installed the software, please first install the program before connecting the device.

TRANSFERRING FILES

After connecting your player to the computer, the computer will detect and identify the device as a removable storage drive, allowing you to drag and drop files between your computer and your player.

1. Select the voice or MP3 / WMA files from your computer.
2. Drag and drop the selected files onto the Removable Disk.

NOTE: Your MP3 player is equipped for mass data storage support. This means that it can also be used as a portable hard drive to store and transport all forms of computer data files. You will not be able to view or play any of the stored data unless it is one of the supported audio formats:

- MP3 (Layer 3 MPEG-1, MPEG-2 and MPEG-2.5)
- WMA (Windows Media Audio)
- WAV (IMA ADPCM format)

NOTE: Do not disconnect the MP3 player from the computer while transferring files otherwise the unit may not function because of damage sustained to the software.






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DISCONNECTING THE PLAYER FROM THE PC

WINDOWS 98 / 98SE

1. Double click the **My Computer** icon.
2. Right click the removable drive letter your player has been assigned.
3. Click "Eject" from list before disconnecting.

WINDOWS ME, 2000, XP

1. Click the "Stop USB Mass Storage Device"  icon on the Windows taskbar at the bottom right of the monitor.
2. Click your player drive letter to stop the device before disconnecting.

NOTE: Before unplugging your player from your computer, wait at least 15 seconds after the audio or data file transfer is completed to prevent any data loss.



USING THE AUDIO PLAYER

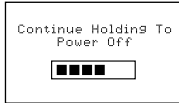
POWER ON / OFF

The **POWER** switch controls when the device is on or off. The switch is used to reset the device if it is not operating properly or if it has timed out.

1. During normal operation, slide the switch to "ON". If the device needs to be reset, slide the switch to the "**OFF**" position, and switch it back to the "**ON**" position after 2 minutes.
2. Then press the **MENU / ON / OFF** button to turn the player on. The blue backlight LCD display appears. Every time a button is pressed, the backlight turns on for about 5 seconds. If no other keys are pressed within 5 seconds, the backlight turns off automatically.

NOTE: The **POWER** switch must be activated before pressing **MENU / ON / OFF**, otherwise the device cannot be turned on.










To turn the player off, press and hold **MENU / ON / OFF** continuously for about 3 seconds. This can be done whether a track is being played back or not. The LCD shows a bar when **MENU / ON / OFF** is pressed. Once the bar is full (after 3 seconds), the MP3 player turns off.





MENU NAVIGATION

MAIN MENU / MODE	MENU / SUB-MENU	SUB-MENU OPTIONS
 Volume	Increase / Decrease	None
 Music	None	
 Voice	None	
 FM Tuner	Preset, Search, Store	None
 Setting	Eq	Normal, Rock, Jazz, Classical, Pop
	PlayMode	Normal, Repeat Track, Repeat All, Shuffle, Shuffle Repeat
	PowerSaving	Disable, 1 min, 2 mins, 5 mins, 10 mins
	Exit	None








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MAIN MENU / MODE	MENU / SUB-MENU	SUB-MENU OPTIONS
 Delete	Music, Voice, Exit	None
	Ver.	None
	Total Bytes	None
	Free Bytes	None
 Exit	None	

1. After the device is turned on, press **MENU / ON / OFF** to show the main menu / mode list on the LCD.
2. Use **- / ◀** or **+ / ▶** to navigate through the main menus / modes and press **MENU / ON / OFF** to select an option and enter its corresponding sub-menu.
3. Use **- / ◀** or **+ / ▶** to navigate through the sub-menus and press **MENU / ON / OFF** to confirm selection of a corresponding option, if any.
4. Use **- / ◀** or **+ / ▶** to navigate through the sub-menu options and press **MENU / ON / OFF** to confirm selection of the corresponding option.

VOLUME

1. Use **- / ◀** or **+ / ▶** to navigate to , and press **MENU / ON / OFF** to select it.
2. Use **- / ◀** or **+ / ▶** to increase or decrease volume accordingly. The LCD (while in Music or Voice mode) shows the  icon with "VOL" flashing to indicate it is being selected.
3. After adjusting volume, press **MENU / ON / OFF** for 1 second to store the setting and return to the current mode. The LCD will flash once.

NOTE: To adjust volume in  mode, press and hold **- / ◀** or **+ / ▶** while in Preset option.





MODES

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The MP820 has 3 main modes: (default mode when player is first turned on), and . To access each mode:

1. While in the main menu / mode list, use - / or + / to navigate to the corresponding mode you want to choose.
2. Press **MENU / ON / OFF** to select it.

NOTE: The letters "M", "V", or "F" appears on the top right hand corner of the LCD to show that you are in Music, Voice or FM Tuner mode, respectively.

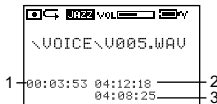
MUSIC



1. Press to play a music track. Press the button to pause the current track. Press again to continue playing, and press and hold to stop playing.
2. To choose the next track or previous track, press - / or + / .

NOTE: When the player is playing a track, the battery charge indicator may move up and down. This is the electric charge oscillation generated due to **changes in** power consumption during playback.

VOICE



1. Recording elapsed time
2. Last recording remain time
3. Remaining recording time

To record voice messages onto the player for playback:

1. Press and hold **A-B / REC** to start recording.
2. Press again to stop recording.
3. Press to play the recorded file. The LCD shows the icon "STOP" change to "PLAY" .





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NOTE: If there is no recorded file, the LCD shows a dotted line across the screen.

NOTE: The backlight is turned off during recording to avoid any noise that may result from having the backlight on.






FM TUNER (87.5MHZ - 108MHZ)

While in  mode, press  to toggle between Preset, Search and Store options. There are 30 preset channels in total.




NOTE: Press **A-B / REC** to switch to Mono or Stereo reception. This may not be obvious in some areas due to differences in reception.

PRESET



1. Use - /  or + /  to navigate through any previously stored radio stations. Preset stations are represented by alphanumerical character such as "P19" shown on the lower left corner of the LCD.
2. To adjust volume, press and hold - /  or + / .
3. If there are no previously stored radio stations, press  to begin searching for a station. The device automatically switches to "Search" as shown on the LCD.

SEARCH

1. Press and hold - /  or + /  until station auto-search begins. Auto searching stops whenever a station is found or FM signal is received. The player automatically begins audio playback of the station.
2. During auto searching, press + /  once to stop searching.





3. To search manually, press - / ◀◀ or + / ▶▶ in rapid succession until a station is found. The player automatically begins audio playback of the station.




STORE

1. When auto searching finishes and stops at a station, press ►||/■ to switch from "Search" to "Store".
2. Press - / ◀◀ or + / ▶▶ to select the memory slot represented by alphanumerical character such as "M02" to save the station.
3. After a station is stored, press ►||/■ to switch back to "Preset".

NOTE: FM scanning reception may vary in different areas.

NOTE: Using - / ◀◀ or + / ▶▶ to save a radio station is saved only temporarily. Any stations saved this way are lost if the internal battery is taken out. To ensure that any radio stations are saved permanently, press and hold ►||/■ continuously to turn off the audio player.

ADJUSTING THE SETTINGS

1. Use - / ◀◀ or + / ▶▶ to navigate to "  ", and press **MENU / ON / OFF** to select it.
2. Press **MENU / ON / OFF** again to select the corresponding Setting sub-menu option.



EQ (EQUALIZER)

ICON	EQ
-	Normal
ROCK	Rock
JAZZ	Jazz
CLASS	Classical
POP	Pop

Use - / ◀◀ or + / ▶▶ to select from 5 equalizer settings and press **MENU / ON / OFF** to confirm and save.





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PLAYMODE (REPEATING TRACKS)

Use - / ◀ or + / ▶ to select from 5 repeat track settings and press **MENU / ON / OFF** to confirm and save.

ICON	RPT PATTERN	DESCRIPTION
-	Normal	All tracks are played once from the first track to the last track.
	Repeat Track	Repeats the current track. Press + / ▶ to skip to the next track.
	Repeat All	Play all tracks once repeatedly.
	Shuffle	All tracks are randomly selected and played back once.
		All tracks are randomly selected then played back once repeatedly.

POWERSAVING

When the player is turned on, the Powersaving feature lets you set the device to power off automatically when no buttons are pressed within a specified time during operation. Use - / ◀ or + / ▶ to select from 5 power management settings and press **MENU / ON / OFF** to confirm and save.

NOTE: Press **MENU / ON / OFF** to turn the player off once you have adjusted the settings. Only then are all settings saved into memory.

REPEAT TRACK SESSIONS

To repeat a section of a track or recorded voice / FM radio, use **A-B / REC** to choose the range in which a track repeats:

1. During track playback, press **A-B / REC** to set the starting point A.
2. The track plays until you press **A-B / REC** again to set the endpoint B. During this time, the player plays only the section between A and B repeatedly. A-B is shown on the LCD screen.





3. During playback between A and B, press **A-B / REC** again or use **VOL / SEARCH** to choose the previous or next track to automatically to cancel the repeat A-B function.


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DELETE

1. Use **- / ◀◀** or **+ / ▶▶** to navigate between Music, Voice, or Exit and press **MENU / ON / OFF** to select the chosen sub-menu option.
2. Use **- / ◀◀** or **+ / ▶▶** to switch between the file you want to delete.
3. After deciding on the file to delete, press **▶||/■** to switch between "Yes" and "No".
4. When "Yes" is selected, press **MENU / ON / OFF** to delete the selected file. "File Deleted" appears on the LCD.
5. Repeat steps 2-4 to delete the next file.
6. Press **MENU / ON / OFF** to exit the option.



ABOUT

1. Use **- / ◀◀** or **+ / ▶▶** to navigate to  shown in the LCD, and press **MENU / ON / OFF** to select it.
2. The LCD shows information on firmware version (EXAMPLE Ver., Total Bytes: and Free Bytes).
3. To exit, press **MENU / ON / OFF**.

NOTE: There is a small difference in memory size between "Free Bytes" and Total Bytes" even when the device does not contain any MP3 or recorded voice files. This is because the memory status display takes both audio and multi-file formats and some system files into account when displaying the memory status.

REINSTALLING FIRMWARE

If your player is not working properly, you may reinstall the firmware at any time. Reinstalling your MP820 MP3 player with the firmware ensures the device provides optimal playback performance.

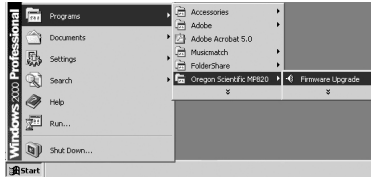
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1. Connect your player to the computer.
2. From your computer, go to **Start>Programs>Oregon Scientific MP820>Firmware Upgrade**.



3. The current and updated firmware version is displayed in a window. You are given the option to format your MP3 player before the firmware upgrade. Check the Format Data Area box.



4. Click the **Start** button. A window may pop up with the prompt, "Formatting data area will erase the media contents. Continue?". Click **Yes** and all data stored in the MP3 player is erased (if you chose to "Format Data Area") and the firmware upgrade process begins.

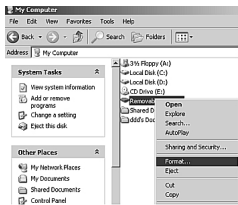




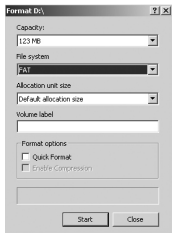
5. Click the **Close** button to close the software once the process is completed.
6. Unplug the MP3 player from the computer.



FORMATTING THE AUDIO PLAYER



1. In Windows Explorer, select the drive letter of your player assigned by the computer.
2. Ensure you have selected the right drive (i.e. Removable Disk (H:)). Right-click your mouse button and select the **FORMAT** option.
3. Select **FAT** as the format to use under the **File System** option.
4. Click **Start** to ready the device for formatting. Then click **OK** in the pop up window to start formatting your player.
5. When formatting has finished, click **OK** to exit the program.



NOTE: Formatting the audio player will erase all files previously found on the device. Make sure you have made copies or backed up your files onto your computer.





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TROUBLESHOOTING

This section includes a list of frequently asked questions for problems you may encounter with your digital audio player. Check here before contacting our customer service department.

Why is it that the audio player cannot play back some MP3 files?

The device supports MPEG 1, MPEG 2 and MPEG 2.5 MP3 formats. Make sure you have not transferred MP3 files in formats not supported by the audio player. Use software to convert music files to the appropriate MP3 format supported by this audio player. Note that the player may not be able to play back digitally protected content. Please check the Oregon Scientific website for the latest firmware updates.

What .WAV formats does the audio player support?

The device supports .WAV files based on the IMAADPCM format. Do not put .WAV files not supported by the audio player into the root directory of the Removable Disk and the VOICE folder, otherwise it may shut down when playing such .WAV files.

Why does the memory size displayed in the device differ from the actual allotted memory size?

The software in the audio player takes up a small portion of memory, so you will see a small discrepancy between memory size indicated on the device and actual memory size.

What causes the audio player to run so slowly?

Frequently playing or deleting MP3 files over a long period of time will generate fragments in the flash memory, much like fragments generated in a computer's hard disk. This causes the player to run slowly. Format the unit from time to time to ensure that it maintains smooth operation. Refer to the section "FORMATTING THE AUDIO PLAYER" for more information.

My player is unable to start, or the display is garbled.

This could be due to corrupted firmware. Please remove and replace the battery. If this fails to resolve the issue, you may need to flash the firmware. For details on how to do this, refer to the section "REINSTALLING FIRMWARE" for more information.





Why is the audio player not working properly, i.e., always shutting off?

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If you encounter any operational failures due to improper use of the device, turn the unit off and wait a few minutes before turning the audio player on again. You may also format the player or reinstall firmware from your computer. The player's internal battery may have also run out of power, in which case you should recharge the battery as soon as possible.

COPYRIGHT

Voices or sounds recorded cannot be used in ways that infringe copyright laws. Note that some restrictions apply to the recording of performances, entertainments and exhibits, even when intended purely for personal use.

Users are also asked to note that the transfer of memory containing data or MP3 files protected under copyright laws are only permissible within the restrictions imposed.

SPECIAL NOTICE

Read this manual carefully before operating the unit. We do not assume any liability arising out of improper operation or incidental damages. Operate this unit with care and back up any files when necessary.

SAFETY AND CARE

SAFETY

To ensure that you use your audio player correctly, read these Safety Notes and your User Manual carefully. The warnings given here provide important safety information and should be observed at all times.





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GENERAL WARNINGS

- Do not attempt to repair the audio player yourself or make any changes or modifications to this product. Contact the retailer or our customer service department if your product requires servicing.
- The audio player is a precision instrument. Never attempt to take this device apart. There is a serious danger of powerful electric shocks.
- Do not immerse the audio player in liquid. This can cause electrical shock and damage the unit.
- Do not, under any circumstances, touch the exposed electronic circuitry of the audio player, as there is a danger of electric shock should it become exposed.
- Take special care when handling a damaged LCD display, as the liquid crystals can be harmful to your health.
- Do not use or store the audio player in locations that may adversely affect the product such as rain, snow, desert, and magnetic fields.
- Keep your player away from excessive dust/sand, moisture, rain, direct sunlight or heat.
- Keep your player in a dry, well-ventilated place to prevent it from molding.
- Do not use this device in aircrafts or hospitals. The use of the audio player can cause malfunctions in the control devices of other equipment.
- Keep your player away from any strong magnetic fields. Exposure to magnetic fields may cause the memory to be erased or even damaged.
- Do not subject the audio player to impact, shock or extreme force.
- Take care not to drop the unit when using it.
- Unauthorized changes may void your right to use the product and invalidate the warranty.





- The technical specifications for this product and the contents of the user guide are subject to change without notice.
- Never use headphones/earphones while driving, cycling, or operating any motorized vehicles.
- Listening to music at high volume for long periods of time may damage your hearing. Keep the volume at a moderate level.
- Do not set headphone/earphone volume to high while using pedestrian crossings or walking.



ABOUT NOISE

During recording or playback, noise may be generated if the device is too close to a power lead, florescent light, or portable phone. If the unit is bumped or rubbed during recording, noise may be recorded.

CLEANING YOUR MP3 PLAYER

Use a soft, dry cloth to clean the LCD display. Use a damp cloth and mild detergent to wipe the unit. Dry immediately.

STORAGE

Remove the device from the pouch and keep it in a well-ventilated place to prevent molding. Check all major functions when the audio recorder has not been used over a long period of time. This ensures the device remains fully operational.

CAUTION

In case of electrostatic discharge, the product may not function properly and will require a manual reset. After reset, messages recorded will remain intact; if a message was being recorded it will be lost.





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TECHNICAL SPECIFICATIONS

TYPE	DESCRIPTION
Recording Medium	Built-in 128MB, 256MB or 512MB Flash memory (refer to indication on packing)
Maximum Recording Time	Approx. 8 hours (128MB) Approx. 16 hours (256MB) Approx. 32 hours (512MB)
Input	Built-in microphone
Output	Double-channel earphone, above 8ohm
Range of Output Frequency	87.5-108MHz
Power	Built-in rechargeable lithium-ion battery
Battery Life*	63mm (L) x 40mm (W) x 12.5mm (T)
LCD Viewable Area	30mm (L) x 15mm (W)
Weight	33g
PC Connection	USB 1.1
PC Compatibility	Windows 98 / 98SE / ME / 2000 (Service Pack 3.0 or above installed) / XP



*Data is measured with included battery. Various factors can affect battery life, such as temperature, battery type or battery capacity.

NOTE:Design and specifications are subject to change without notice.





ABOUT OREGON SCIENTIFIC

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Visit our website (www.oregonscientific.com) to learn more about Oregon Scientific products such as digital cameras; MP3 players; children's electronic learning products and games; projection clocks; health and fitness gear; weather stations; and digital and conference phones. The website also includes contact information for our customer care department in case you need to reach us, as well as frequently asked questions and customer downloads.

We hope you will find all the information you need on our website, however if you'd like to contact the Oregon Scientific Customer Care department directly, please visit: www2.oregonscientific.com/service/support

OR

Call 949-608-2848 in the US.

For international enquiries, please visit: www2.oregonscientific.com/about/international/default.asp



FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.





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However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

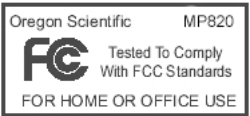
CAUTION: Modification -The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Oregon Scientific, Inc. may void the user's authority to operate the equipment.



Interface cable -Use the shielded cable sold or provided by Oregon Scientific, Inc. for your equipment. Using other interface cable may exceed the limits of Class B Part 15 of the FCC rules.



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