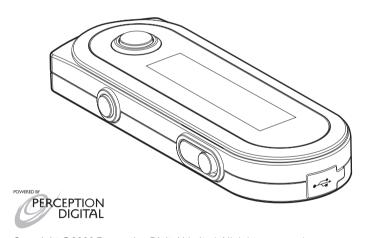
PD-230





USER MANUAL



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Regulatory Information

Federal Communications Commission (FCC)

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.

NOTE: 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. 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.

Modifications to this device that are not authorized by the manufacturer may void the user's authority to operate the device.

TECHNICAL SUPPORT

TABLE OF CONTENTS

If you experience a problem while installing or operating your PD-230 MP3 player, please refer first to the relevant sections of this manual regarding setup and installation. If you are not able to resolve the problem, please refer next to the section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting. Please email to us at text-to-the-section on Troubleshooting emailto: <a href="mailto:the-

For US or Canada technical service, please email to ustechnical@perceptiondigital.com.

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Introduction

PD-230 is versatile and user-friendly. Its features include:
Drag & drop file transfer using Windows Explorer
Plays MP3 and WMA files
Plays variable bit rate (VBR) files
Equalizer presets
Repeat playback modes
Upgradeable firmware
Mass storage device - can be used to store non-audio files
Text display

In the Package

The items listed below are inside the packaging:

- 1 PD-230 player
- 1 AAA battery
- 1 USB connection cable
- 1 Ear bud-type headphone set
- 1 User's Guide

SPECIFICATIONS

SYSTEM REQUIREMENTS

Windows 98, 2000, XP compatible Mac OS X compatible

SOFTWARE SPECIFICATIONS

Standard USB 1.1 interface

- Supports Windows Explorer file system
- Supports Windows Media Player 9.0

Supports ID3v1 and ID3v2

- Displays File Names or ID3 tags (Artist Song name) Audio playback formats supported:
- MP3
- WMA
- VBR MP3

HARDWARE SPECIFICATIONS

Dimensions: 92.5mm x 36.3mm x 21mm

LCD Display

Internal Memory: 128MB/256MB depending on versions

Audio output

Earphone Jack: 3.5mm

Audio Specifications

Frequency Response: 20Hz-20kHz MP3 Bitrate 32-320 kbps WMA Bitrate 48-192 kbps

Power Supply:

- Power 1 AAA Alkaline Battery
- Battery Life (normal operation) up to 12 hours

CERTIFICATIONS

• FCC part 15 compliant

WARNINGS & PRECAUTIONS

Getting Started

USAGE & SAFETY

Carefully read the following safety and operating instructions. Keep this document handy for future reference.

Do not subject the player to extreme force

Vibration during walking or exercising will not affect the unit player. However, dropping the player or dropping a heavy object on the player may result in damage to the unit.

Keep the player away from water at all times

The player may be damaged if water enters it. If the player comes in contact with water, wipe it immediately with a dry cloth. If the player does not function, call PD Technical Support.

Keep the player away from small children

The player contains small parts that present a choking hazard.

Do not operate a motor vehicle while using the player

In many states, using the player will operating a motor vehicle is illegal. It's also dangerous.

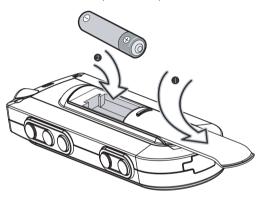
Store the player with care

Avoid keeping the PD-230 on or near high heat source(s) or in places with high humidity or a strong magnetic field.

OTHER PRECAUTIONS

- Do not use any object to probe the openings of the product as this may result in electric shock or fire, and will
 also damage the product.
- Do not use PD-230 when lightning is occurring.
- Do not listen to headphones at loud volumes as permanent hearing damage may result. If you experience ringing
 in your ears, discontinue use.

1.INSERT BATTERY (one AAA alkaline)



- Open the battery compartment door and insert one AAA alkaline battery (included). Be sure to match the polarity markings (+ and -) on the battery to the player's polarity markings.
- After inserting the battery, Close the battery compartment door.

2.INSTALL DRIVER (Windows 98 only)

- If your operating system is Windows 98, download the driver from www.perceptiondigital.com
- Locate the downloaded driver file (setup.exe) on your hard drive and double click the driver file (setup.exe).
 Follow on-screen prompts to complete the driver installation process.



2

NOTE: If your operating system is Windows 98, DO NOT connect PD-230 to your PC before installing the required driver. The driver is not required for Windows 2000/XP or MAC.

3.CONNECT THE PLAYER TO PC • To power ON the unit, press ▶II , connect the small end of the USB cable (included) to the USB port. • Connect the other end of the USB cable to a USB port on your PC. • If necessary follow any on-screen prompts to complete installation. • Follow the instructions on the next page to load music onto the player.

TROUBLESHOOTING

If you encounter difficulties which cannot be resolved, please read this entire section before calling PD Technical Support.

If the player does not turn on when the ON button is pressed:

- The battery may be inserted incorrectly. Be sure to match the battery's polarity markings (+ and -) to the polarity markings on the player.
- The battery may be depleted. Use a new battery.
- The HOLD function might be ON.

If tracks are skipping or the sound quality is poor:

- There may be strong magnetic fields near the unit. Move the unit away from the TV or other source of a magnetic field.
- The battery may be nearly depleted. Use a new battery.
- Verify that the sound quality of the original file is okay.

If PD-230 will not start playback:

• The HOLD function may be activated. Put the HOLD switch in its OFF position.

If PD-230 is not recognized by Windows:

- Check the USB connection between your unit and the computer.
- Verify that the PC's USB drivers are properly installed.
- Verify that the player is powered ON.

If PD-230 freezes:

Remove the unit's battery, reinsert the battery and press ON/PLAY/PAUSE/OFF to power ON the unit. Normal
operation should be possible.

FIRMWARE UPGRADES

PD-230 has upgradeable firmware. This means PD can release a download program that will change or update PD-230's features. If PD does release a firmware update, it will be available - along with instructions - at www.perceptiondigital.com.

FIRMWARE UPGRADE WARNINGS

- Prior to starting the firmware upgrade process, install a new battery in the unit.
 Loosing power during a firmware upgrade can cause device failure.
- Do not change the file name or extension of the upgrade file.
- Do not use packet writing to record the firmware upgrade onto a CD-RW.

Transferring files from PC

To transfer audio tracks from your PC to PD-230:

- 1. Power ON the unit and your PC.
- 2. Using the USB cable, connect the unit to your PC.
- 3. On your computer's desktop, right-click on MY COMPUTER.
- Windows Explorer will open. there will be a new removable disk created.
- 4. Navigate to your hard drive-based MP3 and/or WMA files that you wish to transfer to the unit.
- 5. Drag and drop MP3 or WMA files into the unit (REMOVABLE DISK).



WARNING: When transferring tracks to the unit, be sure to COPY them from your hard drive to the unit. If you move or cut the files from your hard drive and paste them to the unit, the files will no longer exist on your hard drive.

To transfer data files from your PC to PD-230:

- PD-230 can function as a portable data storage device, allowing you to load non-audio files, such as text documents into its memory. This can come in handy when you need to transport a data file from one location to another 1. Power ON the unit and your PC.
- 2. Using the USB cable, connect the unit to your PC.
- 3. On your computer's Desktop, right-click on MY COMPUTER and select OPEN.
- Windows Explorer will open. There is an additional REMOVABLE DISK.
- 4. Navigate to your hard drive-based data files that you wish to transfer to created.

5. Drag and drop (or copy and paste) data files into the removable disk.



NOTE: Data tracks that are stored on PD-230 cannot be browsed using the player's interface.

To view the contents of PD-230's memory:

- 1. Power ON the unit and your PC.
- 2. Using the USB cable, connect the unit to your PC.
- 3. On your computer's desktop, right-click on MY COMPUTER and select OPEN.
- Windows Explorer will open. The unit will be listed as a REMOVABLE DISK.
- 4. In Windows Explorer, double click on the Removable Disk icon that represents the unit.
- The contents of the unit's memory will be displayed in Windows Explorer

To delete tracks from PD-230:

- 1, Power ON the unit and your PC.
- 2. Using the USB cable, connect the unit to your PC.
- 3. On your computer's Desktop, right-click on MY COMPUTER and select OPEN.
- Windows Explorer will open. The unit will be listed as a REMOVABLE DISK.
- 4. In Windows Explorer, double click on the REMOVABLE DISKicon that represents the unit.
- 5. Highlight the file(s) you wish to delete and press your keyboard's DELETE (DEL) button.
- 6. Click YES to confirm.

To disconnect PD-230 from your PC:

- When you are ready to disconnect the unit from your PC, right click on the UNPLUG or EJECT HARDWARE icon in your Windows task bar and select UNPLUG or EJECT HARDWARE.
- The UNPLUG OR EJECT HARDWARE window will open.

RESHM

• This option allows the user to set MOJO X so that playback resumes at the begining of the track where it ended when the player was last powered off.

LINGOS

This option allows the user to set the scroll speed (OFF, Slow, Medium, Fast) that occurs when the SKIP FORWARD
or SKIP BACKWARD button is held down.

CONTRACT

• From the CONTRAST menu, display contrast settings between a level of 1 and 10 can be selected.

DEFAULT

• This option allows the user to reset the player to its factory default setting.

VERSION

• This option displays the firmware version.

IDLE

• This option allows the user to set the idle timer setting of 3, 5, 15, & 30 minutes or OFF before powering down the unit.

SONGINFO

• This option allows the user to display either the file name or ID3 tag.

FXIT

• Returns to upper level menu.

EXIT

Returns to previous screen.

EQ MENU

From the EQ menu, the following sound equalization options can be selected by highlighting the desired option and pressing the SELECT button.

NORMAL

JAZZ

POP

ROCK

BASS

• These options allow the user to select any of the four (JAZZ, POP, ROCK, and BASS) preset DSP equalization filters. Each preset provides a different blend of bass and treble. Selecting NORMAL turns off equalization filters.

USER

• From the USER menu, a BASS and TREBLE setting between a level of 1 and 4 can be selected.

EXIT

• Returns to previous screen.

DELETE MENU

From the DELETE menu, files can be deleted by pressing the **SELECT** button.

SETTINGS MENU

From the SETTINGS menu, the following options can be selected by highlighting the desired option and pressing the SELECT button:

SLEEP

• From the SLEEP menu, sleep timer settings of 10, 30 or 60 minutes or OFF can be selected.

2. In the UNPLUG OR EJECT HARDWARE window, highlight the **Removable Disk** icon that represents the unit and click **STOP**.

It is now safe to disconnect the unit from your PC.



NOTE: Windows Media Player 9.0 or later (not included) can also be used to transfer tracks to the unit. Please view the instructions included with Windows Media Player for more details.



NOTE: MusicMatch Jukebox's (not included) Export Playlist Tracks feature can be used to transfer audio tracks to the unit. For details, check the documentation that's included with MusicMatch Jukebox.

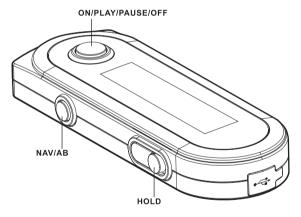
Playing Music



NOTE: Disconnecting the USB cable before using the unit allows playback to occur. When the unit is connected to a PC, its buttons are disabled.

There are 8 function control buttons on the unit. See the "Player Display Menus" section of this document for details on the unit's PLAYBACK DISPLAY and its MAIN MENU DISPLAY.

PLAYER CONTROLS



MAIN MENU DISPLAY SUB MENUS

From the MAIN MENU DISPLAY, the sub-menus (PLAYMODE, EQ, DELETE, SETTINGS, & EXIT) can be opened by highlighting the desired sub-menu and pressing the SELECT button. Use the SKIP FORWARD button to highlight the next option and the SKIP BACKWARD button to highlight the previous option. (An option is highlighted when a box appears around the option.)

PLAYMODE MENU

From the PLAYMODE menu, the following options can be selected by highlighting the desired option and pressing the SELECT button.

NORMAL

When the NORMAL mode is selected, the current track will play through once, the next track will play through
once, and so on.

REPEAT ONE

• When the REPEATE ONE mode is selected, the current track will play repeatedly.

REPEAT FOLDER

• When the REPEAT FOLDER mode is selected, tracks within the current folder will be played repeatedly.

REPEAT ALL

• When the REPEAT ALL mode is selected, all tracks will be played repeatedly.

SHUFFLE FOLDER

• When the SHUFFLE FOLDER mode is selected, tracks within the current folder will be played in a shuffled order.

SHUFFLE ALL

• When the SHUFFLE ALL mode is selected, all tracks will be played in a shuffled order.

SHUFFLE REPEAT

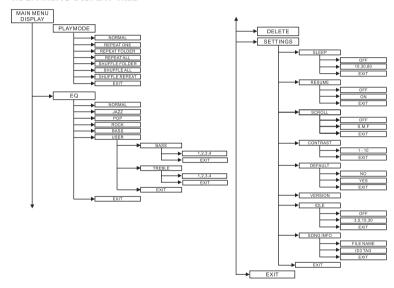
 When the SHUFFLE REPEAT mode is selected, all tracks will be played randomly and playback will continue repeating randomly until stopped.

MAIN MENU DISPLAY

The MAIN MENU DISPLAY is the main unit options screen.

- The MAIN MENU DISPLAY can be accessed by pressing SELECT when the PLAYBACK DISPLAY is shown on the player
 From the MAIN MENU DISPLAY, sub-menus can be opened by highlighting the desired option and pressing SELECT.
- From any screen, you can press the NAV button repeatedly until the player returns to the PLAYBACK DISPLAY.

MAIN MENU DISPLAY TREE



1. ON/PLAY/PAUSE/OFF

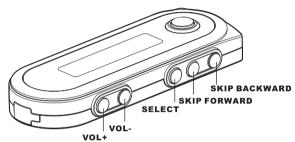
- To turn ON the unit, press the ►II button.
- To start playback, press the ►II button for a while.
- To pause playback, press the ►II button.
- To turn OFF the unit, hold down the ►II button for a few seconds.

2. NAV/AB

- When in the Main Menu, press the **NAV** button to return to the Playback Display.
- Press the NAV button to go up a menu or directory level.
- When the Playback Display is displayed on the uint's screen and playback is active, pressing the NAV button sets the start point A (if point A is not set), and pressing NAV again sets point B (if point B is not set). If the Repeat A-B is activated, pressing the NAV button will reset playback to normal mode.

- Place in ON position to disable all other buttons.
- Place in OFF position to enable all other buttons.

PLAYER CONTROLS CONTINUED



4. SKIP BACKWARD

When the Playback Display is displayed on the unit's screen:

- When playback is active, press the SKIP BACKWARD button once to restart playback at the beginning of the current track.
- When playback is active, quickly press the SKIP BACKWARD button twice to start playback at the beginning of previous track.

When the Main Menu or a sub-menu is displayed on the unit's screen:

• Press to highlight the previous menu option. (A box will appear around the highlighted menu option.)

5. SKIP FORWARD

When the Playback Display is displayed on the unit's screen:

Press to skip to the beginning of the next track.

- If playback is active, press and hold down to skip forward in the current track.

When the Main Menu Display or a sub-menu is displayed on the unit's screen:

• Press to highlight the next menu option. (A box will appear around the highlighted menu option).

Numeric Counter/Timer: 88:88/88:88

This counter/timer is functional when a song has been selected. When playback is not active, it will show the length of the song. While playing, it will indicate elapsed time.

• Highlighted (black) when HOLD function is enabled. When hold function is enabled, all controls except for HOLD are disabled.

Battery:

• Status bars inside battery indicate remaining battery life.

Shuffle All mode: SHUFFLE ALL

Highlighted (black) when SHUFFLE ALL mode is active. When the shuffle all mode is active, tracks will be played
in a shuffled order.

Shuffle Folder: SHUFFLE FLDR

 Highlighted (black) when SHUFFLE FOLDER mode is active. When the shuffle folder mode is active, tracks within current folder will be played in a shuffled order.



 Current track/total number of tracks in directory. Or when navigating directories, current sub-directory/total number of sub-directories in directory.

Left and Right arrows: ►

- Left arrow highlighted (black) when there is a directory (folder) level above the level that's currently displayed.
- Right arrow highlighted (black) when there is a directory (folder) level below the level that's currently displayed.

Folder:

• Highlighted (black) when name being displayed is a folder rather than a song.

Musical note:

• Highlighted (black) when item being displayed is a song file that can be played.

Play: ▶

Highlighted (black) when playback is active.

Pause:

· Highlighted (black) when playback is paused.

6. VOL-

· Press to decrease the volume.

7. VOL+

Press to increase the volume.

8. SELECT

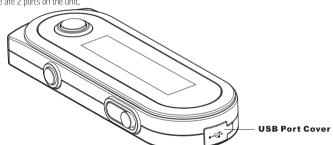
- Press the 🕶 button to select the highlighted menu option or to open a highlighted folder.



NOTE: To navigate up and down the track/folder lists, use the ▶ and ◄ buttons. To open a folder, highlight the folder and press ◄ . To go up a folder level, press NAV.

PLAYER PORTS

There are 2 ports on the unit.



1. USB

 Used for transferring tracks and data between the unit and a PC. Open the USB port cover and connect the small end of the included USB cable to the unit. Connect the other end to your PC.



2. HEADPHONES

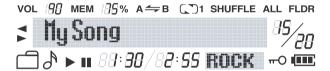
· Connect headphones for private listening.

PLAYER DISPLAY MENUS

PD-230's two primary display modes/screens are the PLAYBACK DISPLAY and the MAIN MENU DISPLAY.

PLAYBACK DISPLAY

The PLAYBACK DISPLAY (see below) is the standard playback screen. From any screen, you can press the NAV button repeatedly until the player returns to the PLAYBACK DISPLAY



Here's a breakdown of the Playback Display:

Volume level: **VOL** 188

• Volume has a range from 0 to 100%, in 5% increments of 0, 5, 10, 15, to 100, with 100% being the loudest.

Used memory: **MEM** /88%

• Memory used indication has a range from 0% to 100%. At 100%, all of the unit's memory has been utilized.

Repeat A-B mode: A 🖚 B

• Highlighted (black) when REPEAT A-B mode is active.

Repeat All mode:

Highlighted (black) when REPEAT ALL mode is active. When the repeat all mode is active, all tracks will play
repeatedly in the same order.

Repeat One mode: 1

Highlighted (black) when REPEAT ONE mode is active. When the repeat 1 mode is active, the current track will
play repeatedly.