PianoDisc

Prodigy (SDHD II) User Guide

Rev K

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4111 North Freeway Blvd.
Sacramento, CA 95834
www.pianodisc.com

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Table of Contents

Table of Contents **2**
Important Safety Instructions **4**
General operating notes 5
Power 5
Power source connection 5
About Prodigy **6**
Wireless playback information 6
Buttons and Connections **7**
Getting Started **8**
Getting Your iPad Ready 8
PianoDisc iQ Player app 8
Use the PianoDisc iQ Player App to play music 8
Adjust the volume 8
Audio 9
MIDI 10
Standard Mode 10
Professional Mode 10
Connection diagrams 12
Advanced users and Professional Mode **15**
Enable Professional Mode 15
Prodigy Calibration 15
Standard Mode, iPod Library, and PianoDisc Radio Calibration 15
Professional Mode calibration 15
External Audio 16
Playback Volume Range (Level) 16
Piano Volume 16
Synchronization 16
PianoSync Delay 16
Play and record MIDI files 17
Adding music to your system **18**
Free music download 18
Download music to your iOS device automatically from the PianoDisc Music Store 18

Download purchased music from your email client on your iOS device and save to the iQ Player app 18
Use iTunes File Sharing to add music to the iQ Player app 19
Save MIDI files to the iQ Player app from Safari 20
Support 23

Important Safety Instructions

Warning: When using electrical appliances, these basic precautions should always be followed:

1. Read and understand all instructions before using the product.
2. Do not open the cover under any circumstances.
3. Power is supplied through a three-prong, grounded AC connector. Connect only to a three-prong, grounded outlet.
4. Keep the power cord away from other objects. Make sure that the cord is not twisted, placed in any lane of traffic, or trapped under the piano.
5. Locate your PianoDisc unit away from direct sunlight, water or moisture, or hot or cold air currents.
6. If the PianoDisc unit is to remain unused for an extended period of time, the power supply should be disconnected.
7. If repair is necessary, refer only to authorized service personnel.
8. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause harm at high volume levels or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, consult your physician.
9. The product should be located so that its location or position does not interfere with its proper ventilation.
10. Care should be taken so that objects do not fall onto and liquids are not spilled into the product through the openings.
11. Care should be taken so that objects do not fall onto and liquids are not spilled into the piano through the keys or inside the piano cabinet.
12. The products should be unplugged, and serviced by qualified service personnel when:
    a. The power supply cord or plug has been damaged.
    b. Objects have fallen or liquid has been spilled into the product or piano.
    c. The product or piano has been exposed to rain.
    d. The product does not appear to operate normally or exhibits a marked change in performance.
    e. The product has been dropped or the enclosure is damaged.

Save These Instructions!

General operating notes

Even when not in use, your piano and control box continue to consume a small amount of power. Disconnecting your piano from the power source completely shuts down the unit.

If your piano or PianoDisc Prodigy control box fails to operate in a manner consistent with the instructions in this manual, please disconnect it from your power source and contact an authorized PianoDisc dealer or a certified PianoDisc technician in your area.

Power

Make sure the correct power source is available.

- In the United States, your PianoDisc system uses a standard 120-volt AC household electrical outlet as a power source.
- In other countries, PianoDisc systems are usually equipped with a power supply and cord that are compatible with the prevailing voltage standards of that geographic area.

If you have questions concerning compatibility with local electrical standards, please consult your PianoDisc retailer before connecting your PianoDisc system to a power source.

Power source connection

- For systems installed on vertical (upright) pianos, the electrical cord is usually found extending from a small hole in the back of the piano. Make sure the cord is securely plugged into the outlet before moving the piano against the wall. Do not crush the cord or plug under or against the piano.
- For systems installed on grand pianos, the electrical cord extends from the power supply. The power supply is usually mounted on a support beam under the piano. Plug the electrical cord securely into a power source and avoid placing the cord where it becomes a tripping hazard.
- If speakers and/or other peripherals are installed, purchase a surge protector to distribute power to each device. Mount the surge protector underneath the piano and attach it to the side of the beam. Plug it into the wall, then plug the speakers, peripherals, and power supply into the surge protector.

About Prodigy

The new PianoDisc Prodigy combines the iQ and SilentDrive HD into one box, resulting in cleaner and easier installations, and less likelihood of accidental damage. Additionally, it offers far more connection options, with integrated Bluetooth and USB MIDI, analog, and digital audio.

The new PianoDisc Prodigy is set up entirely via the PianoDisc Calibrate App, and the iQ's "select wheel" has been removed. Since the calibration is app-based, it offers improved flexibility and accuracy, resulting in noticeably better performance and easier adjustment.

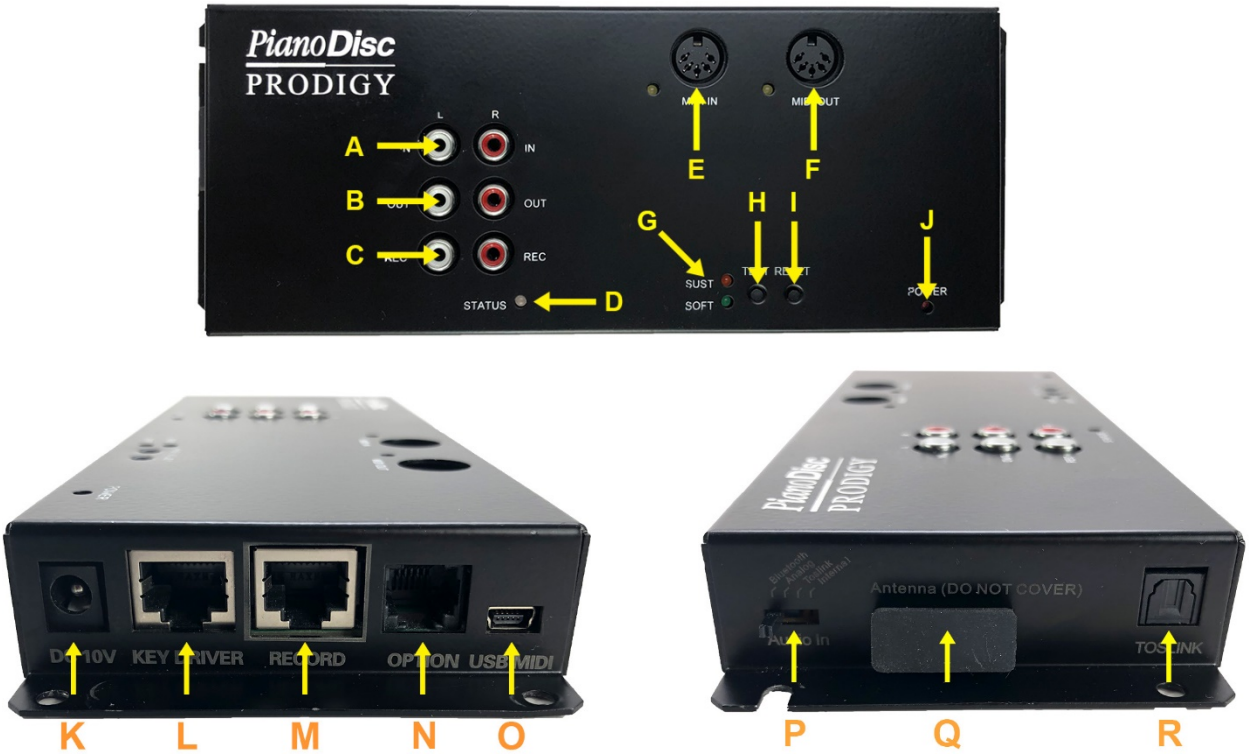
Here's what's new in Prodigy:

- iQ and SilentDrive are now integrated into one box.
- Setup and calibration via the PianoDisc Calibrate App
- USB MIDI port
- Bluetooth MIDI input and output
- Bluetooth audio input
- TOSLINK digital audio input

Wireless playback information

Please note that Bluetooth wireless playback range and performance is not unlimited and can be affected by your environment. For best performance, it is recommended that the playback device stay within 30 feet of your PianoDisc system.

Buttons and Connections



A. Analog Audio Input

B. Analog Audio Output (To speakers)

C. Record Output (For optional PianoDisc analog data recording)

D. iQ Status (Green = decoding active)

E. MIDI In

F. MIDI Out

G. Soft and Sustain Pedal Status

H. Test (Push to play all keys and pedals)

I. Reset (Push to reset CPU)

J. Power Indicator

K. DC 10V Power Input

L. Key Driver Port

M. Record (Connect to ProRecord/ProScan)

N. Option (Reserved for future use)

O. USB MIDI (Connect to computer or mobile device)

P. Audio Input Selector

Q. Bluetooth Antenna

R. TOSLINK Digital Audio Input

Getting Started

Getting Your iPad Ready

Most customer play music using an Apple iPad or iPhone. However, regardless of which device you use, it's important to silence system sounds and notifications, as they can disrupt playback.

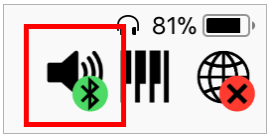
PianoDisc iQ Player app

The most popular way to use your Prodigy system to connect to it via Bluetooth, and play music with the PianoDisc iQ Player app.

1. **Download the PianoDisc iQ Player app**. If your iOS device doesn't have the PianoDisc iQ Player app installed, open the App Store, search for "PianoDisc iQ Player", and download and install it.
2. **Turn on Bluetooth**. Open the Settings App and tap Bluetooth, then tap the toggle icon so that it is in the "On" position.
3. **Connect to your Prodigy system via Bluetooth**. In the Bluetooth menu, wait until "PD SilentDrive BT Audio" appears in "Other Devices" and select it. When it appears under the "My Devices" list with the word "Connected" next to it you have successfully connected to your PianoDisc system.

Use the PianoDisc iQ Player App to play music

1. **Make sure your iOS device is connected to your PianoDisc system via Bluetooth**.
    1. Turn on your device's Bluetooth radio and connect to the Prodigy system. Note: if you have connected to the Prodigy system before, your iOS device should automatically connect to it again once it's in range, unless your iOS device is already connected to another Bluetooth device.
    2. Open the PianoDisc iQ Player app. If you are connected to your Prodigy system via Bluetooth, a speaker with a green Bluetooth symbol should appear in the upper right-hand corner.



2. **Select a song**. In the PianoDisc iQ Player app, tap on a song and it will begin to play on your PianoDisc system.

Adjust the volume

You can adjust the volume of your PianoDisc system by using the volume buttons on the side of your iOS device, or through the PianoDisc iQ Player app.

To adjust the volume in the PianoDisc iQ Player app:

1. Tap on the arrow on the bottom left-hand corner to bring up the “Now Playing” screen.
2. On the “Now Playing” screen tap on the speaker icon to reveal a volume slider.
3. Tap and drag the circle in the volume slider to the left or the right to raise or lower the volume.

Connecting to your piano and speakers

PianoDisc Prodigy includes built-in technology that gives you the flexibility to connect to your piano and speakers in many different ways. How you connect depends on your needs and environment—but don’t worry. Prodigy makes connection easy, and rarely requires extra adapters or dongles.

Before deciding how to connect, it’s important to have a basic understanding of the options and technology. Your PianoDisc system communicates with the piano and speakers using two basic signals: Audio and MIDI.

Audio

The PianoDisc system uses audio for background audio, such as instrumentals or vocals. It also can use audio to send piano performance data to the piano. If you play a PianoDisc song using a standard audio player (or listen to it through the speakers on your phone or iPad), you may hear a high-pitched squeal (like a FAX machine). That’s the data signal used to drive the piano and should not be audible when everything is connected correctly.

Prodigy includes three standard audio interfaces. The audio input switch on the CPU must be set to match the audio input method you’re using. (See Ill. 1)

Bluetooth: A Bluetooth audio receiver is built-in to every Prodigy. Devices such as mobile phones and tablets that support Bluetooth audio (A2DP) can directly connect and play your piano. The range is highly dependent on wireless interference and environmental conditions, but is typically 30 ft. (Your experience may vary depending on where you have it installed and what devices are operating nearby). Bluetooth audio shares its bandwidth with Bluetooth MIDI. For best results, we recommend using either a Bluetooth audio or MIDI connection, but not both.

Analog: The analog input can be used to connect the Prodigy to the output of your music player device. A wired connection is always more stable and reliable than wireless. The analog port can also be used to connect an alternative wireless receiver. Bluetooth, AirPlay, and DLNA receivers are widely available, and generally compatible.

TOSLINK: The TOSLINK input port allows for digital connection to special equipment, such as Blu-ray players. TOSLINK uses a digital protocol that does not allow for volume adjustment. Volume should be pre-set to a suitable level using the PianoDisc Calibrate App. When using a TOSLINK connection, the Automatic Volume setting in the Calibrate App should be disabled.

MIDI

MIDI is used to play the piano itself. It is a digital signal that controls what keys play and at what velocity. While MIDI can be sent over audio, a direct MIDI connection is often more accurate and flexible.

Prodigy includes three methods of connecting MIDI to your piano. While it's not necessary to select which MIDI type you're using, it's important to only connect one MIDI device using one connection. If multiple MIDI devices are connected simultaneously, they will interfere with each other.

In addition to using MIDI to play the piano, it can also be used to record a performance. Record functionality is only available when you've installed an optional ProRecord or ProScan sensor system. When a record system is installed, use the Prodigy's MIDI interface to connect to external devices, not the record system's.

Legacy Interface (5-Pin DIN): Used for decades to connect musical instruments to computers and other instruments, the legacy interface allows connection flexibility for recording studios and customers with advanced MIDI equipment.

USB MIDI: For quickly connection to a computer or iPad, a wired USB connection is both convenient and reliable. iPad connection requires a "Lightning to USB Camera Adapter", which is sold separately by Apple.

Bluetooth MIDI: The latest versions of iOS (and many computers) now support sending and receiving MIDI over a wireless Bluetooth connection. While very reliable, wireless connections may be subject to interference from other devices, and environmental conditions may further limit range. Typically, you can expect a range of 30 ft. Bluetooth MIDI shares its bandwidth with Bluetooth audio. For best results, we recommend using either a Bluetooth audio or MIDI connection, but not both.

Standard Mode

We recommend using the iQ App in standard mode for most users. In standard mode, the app connects directly to the Prodigy using one of the audio interfaces, and all features work normally.

When using the app in standard mode, it's still possible to connect to the Prodigy via MIDI for record and playback functionality. In order to continue using standard mode when connected to a Prodigy using MIDI, simply turn on the "Disable Professional Mode" switch in Settings.

Professional Mode

The PianoDisc iQ App includes a "Professional Mode" for owners looking for the maximum performance from their PianoDisc systems. In professional mode, the iPad has a direct MIDI connection to your PianoDisc system.

Audio for accompaniment can be routed through the Prodigy, or directly to external speakers. When external speakers are used, PianoDisc music in the iPod Library will not play the piano, nor will the PD Radio play. That's because these two music types require an audio connection to the Prodigy in order to play the piano.

There are several advantages to Professional Mode:

1. A direct MIDI connection to the Prodigy CPU is more accurate than sending the MIDI as audio and then decoding it in the CPU.
2. You can synchronize playback of a standard stereo audio file along with a matching MIDI file, thus achieving true stereo accompaniment.
3. Accompaniment audio quality can be increased by connecting directly to wireless speakers (or to speakers connected to an AirPlay or Bluetooth adapter)—bypassing the Prodigy altogether.

There are also some disadvantages:

1. Bluetooth MIDI does not connect automatically—and must be manually connected. Wired MIDI connections do not have this limitation.
2. If you have PianoDisc music stored in the iPod Library, it will not play when using external speakers. However, if your PianoDisc music is moved to the "My Music" library instead, it will play normally, even with external speakers.
3. PianoDisc Radio will not play correctly when using external speakers

Calibrations should be done in the PD Calibrate App as usual, but the iQ playback calibration must be set in the iQ App. If you're <u>not</u> using the external speaker feature, the iQ playback calibration should <u>also</u> be done in the PianoDisc Calibrate app. The iQ App calibration is for the "software" iQ, while the Calibrate app adjusts the "hardware" iQ.

Connection example: Play music from an external device

To use your PianoDisc system with an external player such as an MP3 player, DVD player, or whole house audio system instead of an iOS device:

1. Connect its audio output to the Analog Audio Input ports on the front of the CPU, or the TOSLINK port on the side of the CPU.

Illustration 1 – Changing the Audio Input Selector

2. Switch the Audio Input Selector, located on the right side of the CPU, to "Analog" or "TOSLINK", depending on which cable you are using. **Note: if you change the Audio Input Selector, you <u>must</u> change it back to "Bluetooth" to play music via the PianoDisc iQ Player app using Bluetooth. If you are hard-wired, or using another audio device, such as Airport Express, you should select the Analog input and still use the app.**

If you would also like to use your home theater's speakers instead your PianoDisc system's, we recommend using the "External Audio" setting in Pro Mode.

Since the output volume of every music player is different, you may want to re-calibrate your PianoDisc system's settings if you use an external device to play PianoDisc music. Please see the Calibration chapter for instructions.

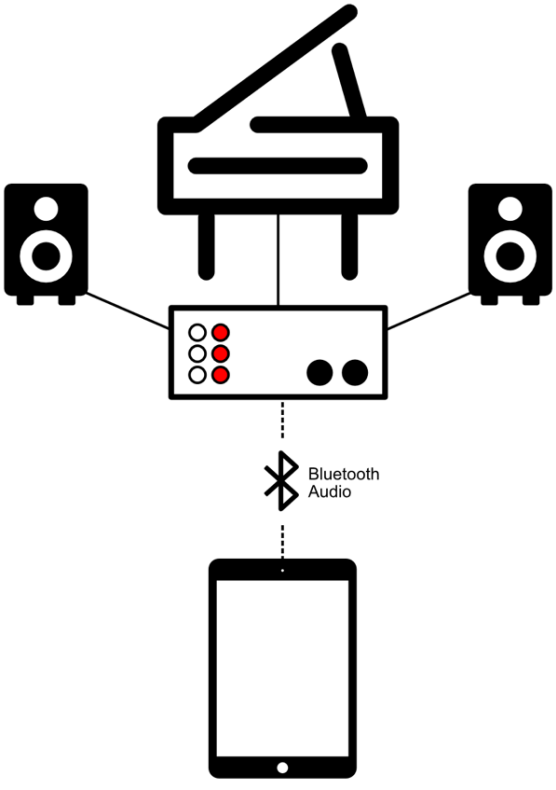
Connection diagrams

The following diagrams show the most common ways to connect your iPad to the Prodigy player system. If maximum reliability is a concern, any of the wireless connection methods can be replaced with a wired connection.

Note that there are many possible variations to these connection methods, and you can customize your connection to best match your needs.

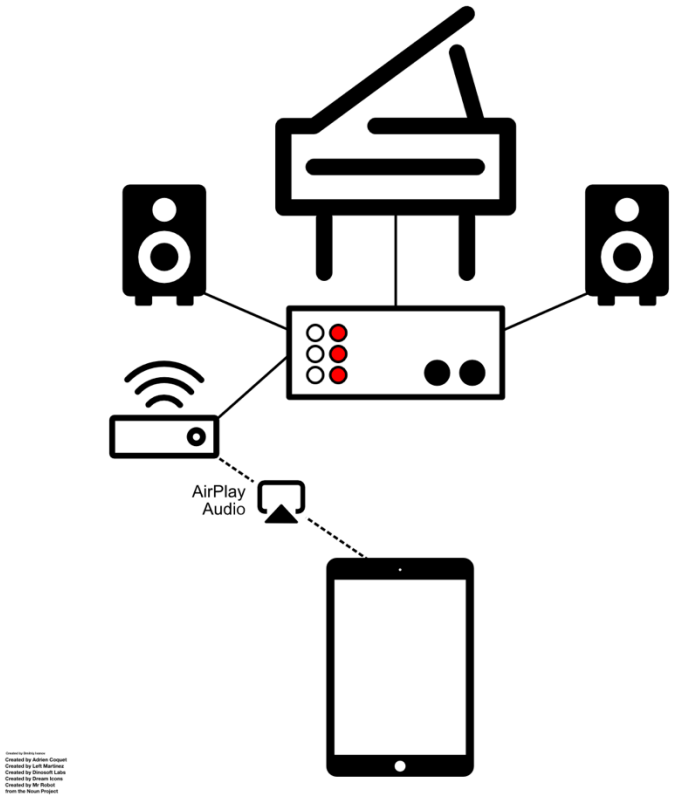
Standard Mode

- Audio-only connection to the piano
- Speakers mounted in or near piano
- Control from the same room



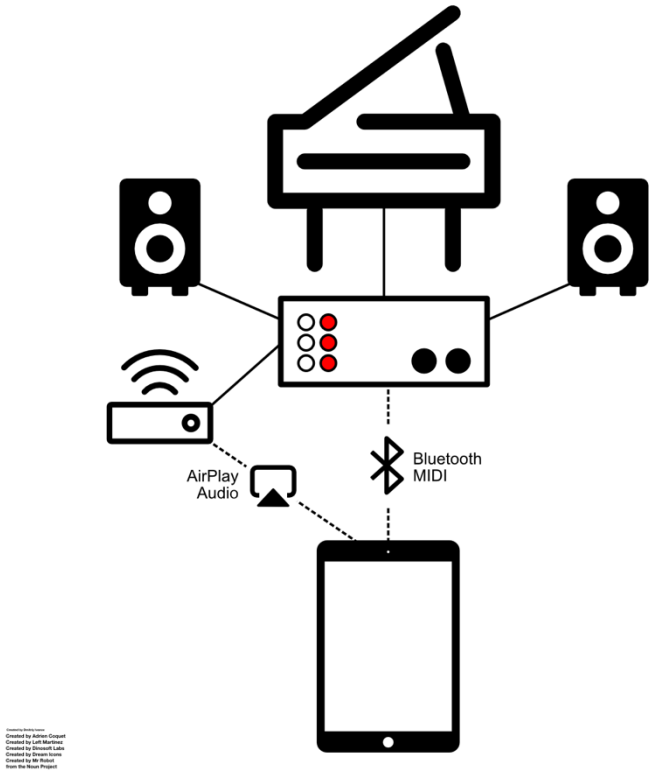
Freedom Mode

- AirPlay-only connection to the piano
- AirPlay adapter audio output connected to Prodigy analog input
- Speakers mounted in or near piano
- Control from anywhere (as long as WiFi is available)



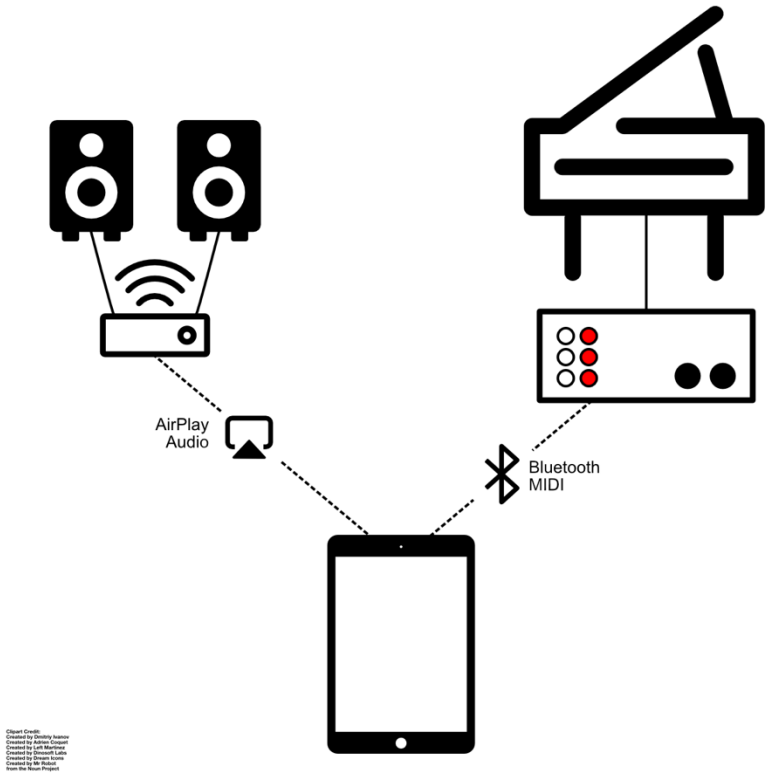
Professional Mode (AirPlay Audio)

- Bluetooth MIDI connection to the piano
- Audio connection via AirPlay
- AirPlay adapter audio output connected to Prodigy analog input
- Speakers mounted in or near piano



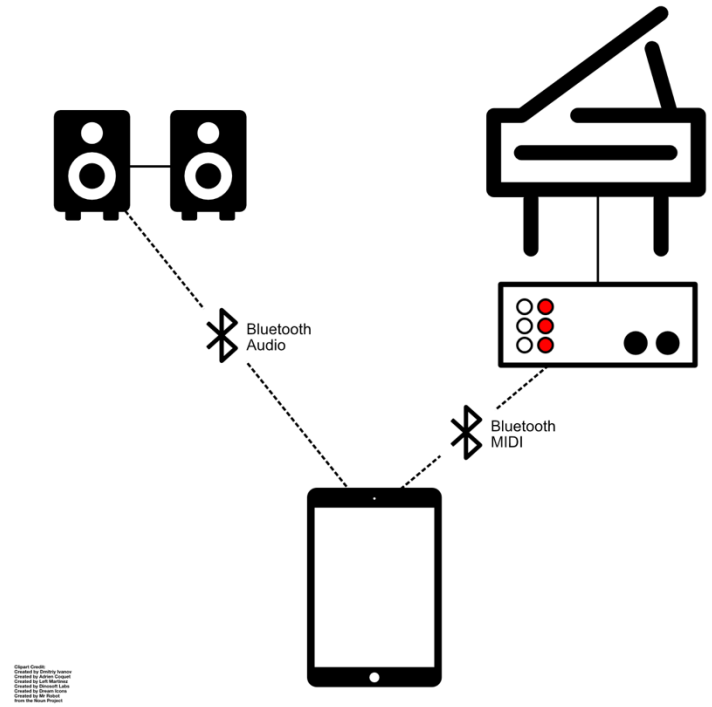
Professional Mode (External AirPlay)

- Bluetooth MIDI connection to the piano
- Audio connection via AirPlay Audio
- Speakers and Airport Express placed anywhere in the room (or in AV cabinet)



Professional Mode (External Bluetooth)

- Bluetooth MIDI connection to the piano
- Audio connection via Bluetooth audio directly to the speakers
- Speakers use internal Bluetooth receiver
- Speakers can be placed anywhere in the room



Advanced users and Professional Mode

Professional Mode is for users who have a PianoDisc system equipped with a Prodigy CPU and would like to play PianoDisc-formatted MP3 songs via MIDI. Professional Mode is enabled automatically when you use MIDI to connect the Prodigy with the iQ app. A full list of the pros and cons can be found under "Professional Mode" in the "Connecting to your piano and speakers" section.

Enable Professional Mode

Professional Mode will automatically activate when a MIDI device is connected to your PianoDisc system. This can be done either by using the MIDI connector located on the front of the Prodigy CPU, or by Bluetooth MIDI, outlined in the instructions below.

1. In the iQ Player app, open Settings, and scroll down to "MIDI Devices".
2. Tap "Connect Bluetooth MIDI" and your device will begin searching for available Bluetooth connections.
3. Select "PD SilentDrive BT MIDI" when it is available.

Prodigy Calibration

The PianoDisc Calibrate app is used to make advanced changes to your PianoDisc system, such as the maximum and minimum volume levels, individual key levels, and accompaniment synchronization. While the end user is able to do this, PianoDisc recommends that only certified PianoDisc technicians make any adjustments. For a full manual on how to use the Calibrate app, please go to www.pianodisc.com.

Standard Mode, iPod Library, and PianoDisc Radio Calibration

When Professional Mode is disabled, or you are playing from the iPod library or PianoDisc radio sources, the Prodigy uses the internal iQ decoder hardware to play the piano. To calibrate playback in these modes, use the iQ calibration function in the PianoDisc Calibrate app.

Professional Mode calibration

Professional Mode changes the way your PianoDisc system handles music and will use the calibration settings found in the iQ Player app instead of the ones that your technician set using the PianoDisc Calibration app. PianoDisc highly recommends that you calibrate your PianoDisc system when Professional Mode is enabled for the first time. The calibration settings can be found in the Settings menu, under "Playback Calibration". The available settings are: External Audio, Playback Volume Range (Level), Piano Volume, Synchronization, and PianoSync Delay.

External Audio

Enable this setting to output accompaniment audio directly to external speakers instead of having it passed through your PianoDisc system's CPU. For example, if your speakers are connected to an Airport Express, choosing this option will enable the iQ Player app to connect directly to them.

Playback Volume Range (Level)

This setting defines the volume range of your iOS device that plays the piano. The left dot sets the iOS volume level at which the piano will start playing at minimum volume, and should be set to a position where the piano and accompaniment sound balanced at low volume. The right dot sets the volume level at which the piano will play at maximum volume and is typically set to 100%.

Note: the piano will not play if your iOS volume is less than the left dot. Once your volume level exceeds it, the piano will begin to play.

Piano Volume

This is the volume range of the piano. The left dot sets the piano volume when the iOS device is set at minimum volume, and the right dot sets the volume of the piano when the iOS device is set to maximum volume. Adjust this setting if the piano plays too quietly or too loudly, relative to your iOS device's minimum and maximum volume levels. Typically, the left dot should be set at 1%, while the right dot should be set to 80%.

Synchronization

This setting adjusts the synchronization between piano accompaniment and minimum and maximum volumes. Since a piano's keys travel slower when played softly, and faster when played loudly, it may be necessary to adjust the synchronization between the piano and the accompaniment track.

There are two dots on the slider that are on top of each other by default. Slide the first dot, which represents the maximum volume, to the right to reveal the minimum volume dot below it. Their values are located on the right and left sides of the slider and represent the adjustment to the piano's timing at high and low volumes.

PianoSync Delay

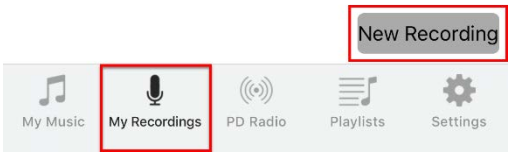
This setting adjusts the delay when playing an MP3 and a MIDI file that haven't been pre-synchronized together, as well as MIDI files that have both a piano and an accompaniment track. The default value is usually correct, but can be adjusted if needed. Note that this feature only applies to MIDI files played at the same time as external audio files and will not have any effect on standard PianoDisc MP3 files.

Note: if you make a mistake or decide you do not like the changes that you made, press "Load Defaults" at the bottom of the "Playback Calibration" section to revert back to the original settings.

Play and record MIDI files

If your PianoDisc system is equipped with a ProRecord or ProScan, you can record and play MIDI files to your iOS device or an external device. Note that Professional Mode is not required.

1. Connect your external device to the Prodigy via 5-pin DIN, USB, or Bluetooth (only iOS devices supported, see “Enable Professional Mode” for instructions).
2. Select “My Recordings” on the bottom menu to go to the recordings page.
3. Select “New Recording” to begin the recording clock or begin a new recording by playing the first note.



Adding music to your system

Free music download

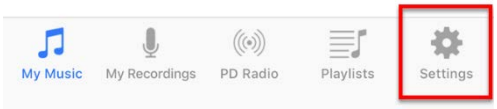
After you install and open the PianoDisc iQ Player app for the first time, it will automatically download several free albums*. To download PianoDisc's entire library of free music, select "Settings" on the bottom of the screen. Scroll down to the "Preferences" section and select "Download complimentary music library". To view your download progress, go to Playlists -> My Downloads.

*Device must be connected to a wireless network with internet access to download

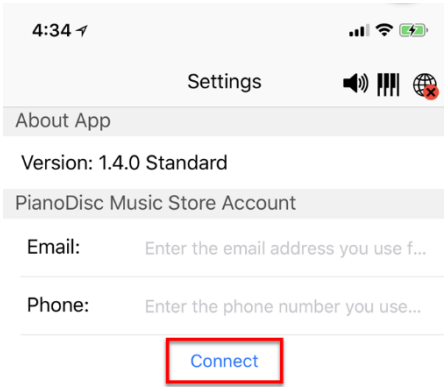
Download music to your iOS device automatically from the PianoDisc Music Store

Connect your iQ Player app with your PianoDisc account to automatically download any music that you purchase from the PianoDisc Music Store.

2. Go to the Settings page by tapping on the Settings at the bottom of the screen.

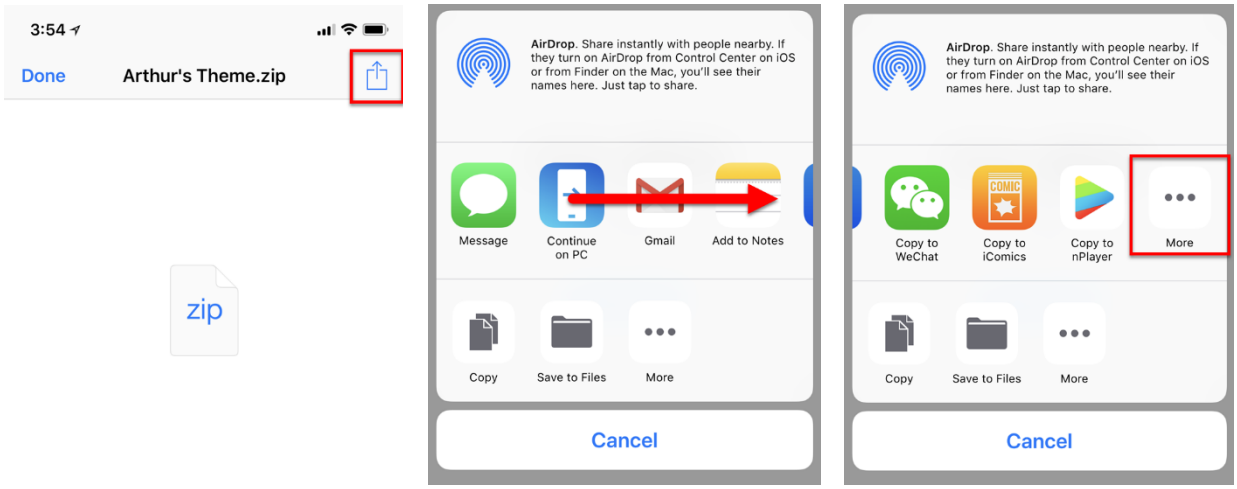


3. Enter the email and phone number that you used to register your PianoDisc account and press "Connect". Any music that you purchase in the future from the PianoDisc music store will be downloaded automatically.

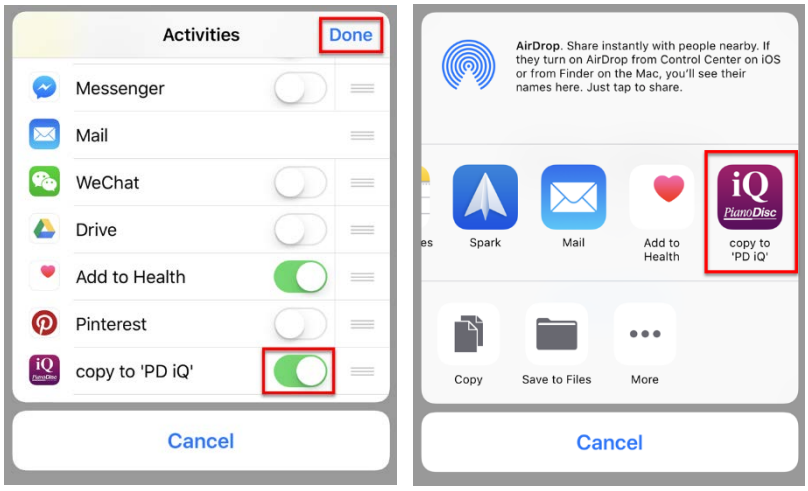


Download purchased music from your email client on your iOS device and save to the iQ Player app

1. In your iOS device's email client, open the email from PianoDisc that has a zip file attachment. This file contains the songs that you purchased.
2. Open the email and select the zip file to download it onto your device.
3. After the zip file has finished downloading, press the Share button in the top right corner. This will open the Share Sheet. Scroll to the right until you see the "More" button and tap to open it. This will open the Activities list.

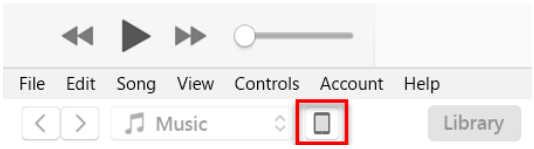


4. Scroll down the Activities list until you see “copy to PD iQ”. Tap the toggle to enable it and press “Done” to return to the main Share Sheet page. Scroll to the right once again to find the “copy to PD iQ” button. Select it to add your music to the PianoDisc iQ Player.



Use iTunes File Sharing to add music to the iQ Player app

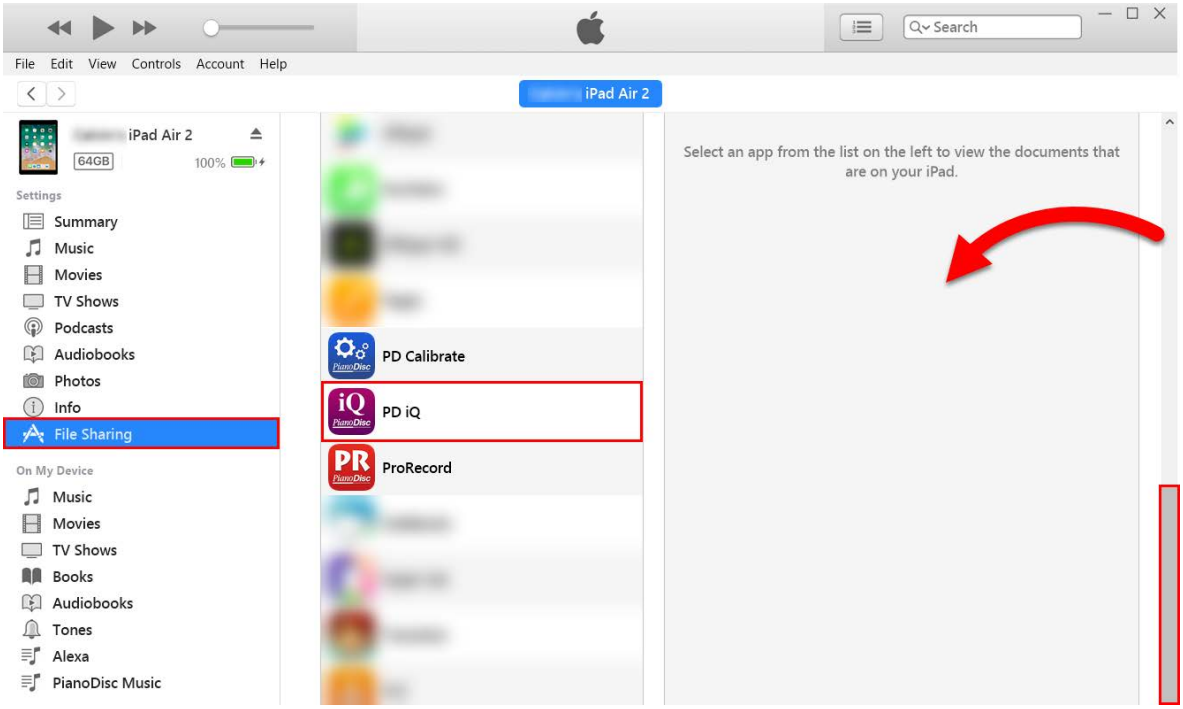
1. Open the email that contains your purchased music from the PianoDisc Music Store and save the zip file onto your computer.
2. Extract the contents of the zip file onto your desktop.
3. Connect your iOS device to your computer and open iTunes. When iTunes detects your iOS device, an icon representing it will be displayed in the upper left corner. Click it to manage your device.



4. Select “File Sharing” and iTunes will display a list of all the apps on your iOS device that you can add files to.

5. Select “PD iQ”. Depending on how many apps you have installed on your iOS device, you may have to use the scroll bar on the right.

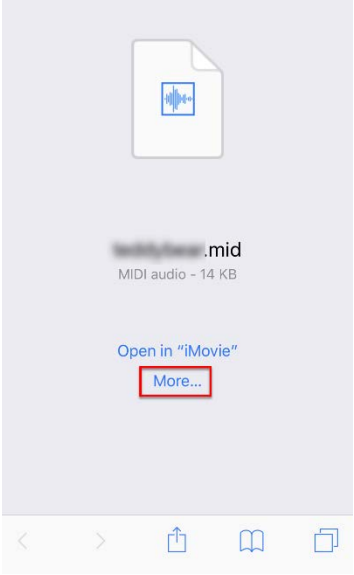
6. Drag the music that you extracted from the zip file onto the Documents section (as indicated by the red in the picture below) to add your music to the iQ Player app.



Save MIDI files to the iQ Player app from Safari

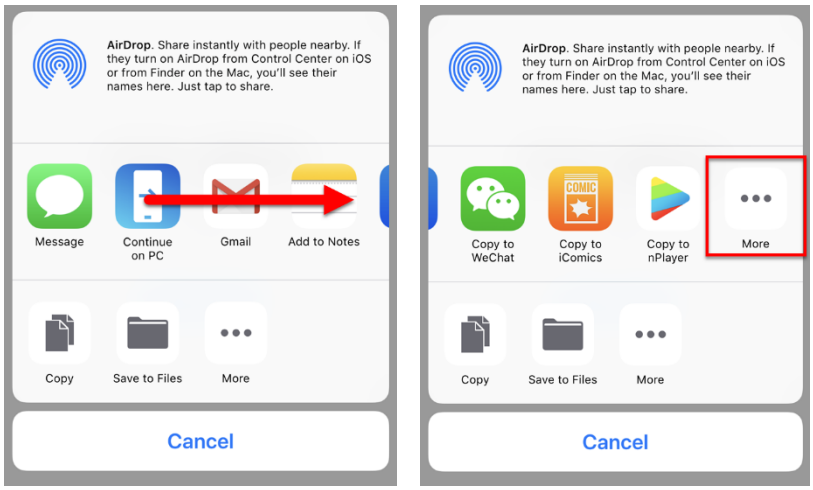
1. Use Safari to go the website that has the MIDI file that you would like to download.

2. Click on the link to download the MIDI file and you will be taken to a page that will look similar to this one.

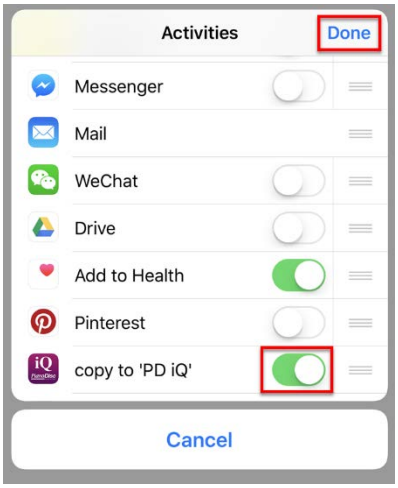


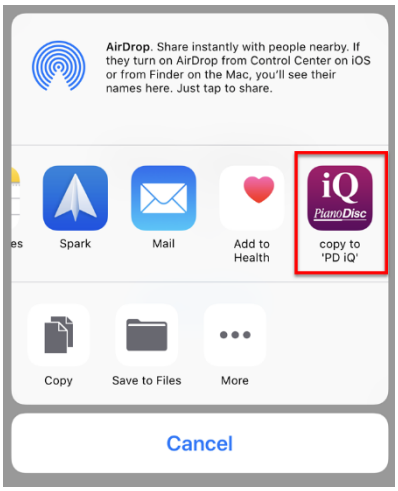
3. Press “More” and the Share Sheet will open. Scroll to the right until you see the “copy to PD iQ” button. Select it to add your music to the PianoDisc iQ Player under My Music. If you don’t see the “copy to PD iQ” button in your Share Sheet, continue with the steps below.

4. If the “copy to PD iQ” button is not in your share sheet, scroll all the way to the right until you see a “More” button and select it. This will open the Activities list.



5. Scroll down the Activities list until you see “copy to PD iQ”. Tap the toggle to enable it and press “Done” to return to the main Share Sheet page. Scroll to the right once again to find the “copy to PD iQ” button. Select it to add your music to the PianoDisc iQ Player.


Activities
Done
Messenger
Mail
WeChat
Drive
Add to Health
Pinterest
copy to 'PD iQ'
Cancel


AirDrop. Share instantly with people nearby. If they turn on AirDrop from Control Center on iOS or from Finder on the Mac, you'll see their names here. Just tap to share.
Spark
Mail
Add to Health
copy to 'PD iQ'
Copy
Save to Files
More
Cancel

Support

Having trouble with your system, or just need some friendly advice? PianoDisc is here for you. Feel free to call or email us for help:

Worldwide Support
Phone：+1 866-566-DISC
EMail：tech@pianodisc.com

Support is available M-F 4AM - 7PM PDT and SAT 8AM - 4PM PDT