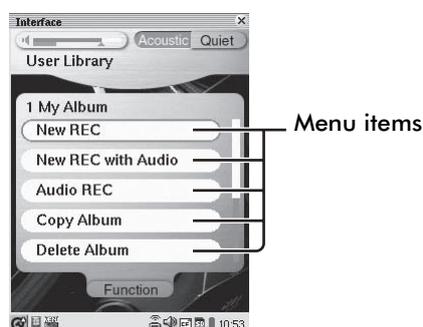


Creating a Song Library

The following functions listed in the Function Menu are useful for organizing the contents in the song libraries ([PianoSoft Library], [CD Library], [Download Library], [From/To PC], and [User Library]) as well as [Play Lists]. (→ pg. 27 “Utilizing the Play Lists”)

Note: Be sure to read “album” as “list” during operation for the [Play Lists].

Ex.: Function Menu for the Album List of [User Library]



Note: The menu items differ depending on the screen.

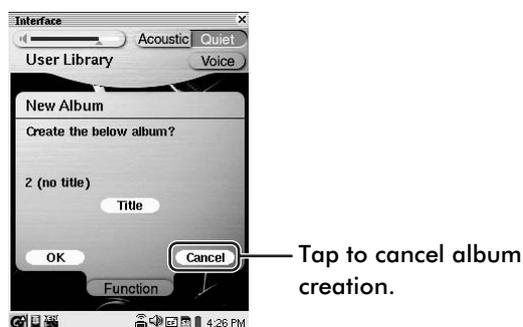
To clear the Function Menu screen, tap on **Func** or **Function**, or press .

Creating an Album in the Library

This function is available for [PianoSoft Library], [User Library], and [Play Lists].

1 Select the desired source (→ pg. 12 “Selecting a Song” in “Quick Guide”), and then tap on **Function**.

2 Tap on **New Album**.



To name the new album, see step **3** in “Renaming an Album” on page 62.

3 Tap on **OK**.

4 Tap on **OK** after the completion message appears.

Renaming an Album

This function is available except for [Download Library] and [From/To PC].

- 1 Select the desired album (→ pg. 12 “Selecting a Song” in “Quick Guide”), and then tap on **[Function]**.

- 2 Tap on **[Rename Album]**.



Tap to cancel renaming in step 3.

- 3 Tap on **[Title]**, rename the album (→ pg. 35 “Entering Characters”), and then tap on **[OK]**.

- 4 Tap on **[OK]**.

- 5 Tap on **[OK]** after the completion message appears.

Making Copies of Songs or Albums

This function is available except for [CD Library] and [Play Lists].

- 1 Select the desired song or album (→ pg. 12 “Selecting a Song” in “Quick Guide”), and then tap on **[Func]** or **[Function]**.

- 2 Tap on **[Copy Song]** or **[Copy Album]**.

Ex.: Copy Song

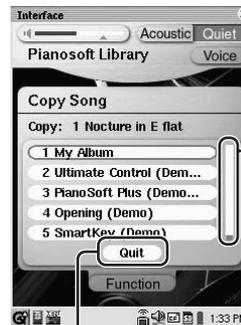


Tap to cancel the operation in step 3.

- 3 Copy the selected song or album.

Copying a Song:

- 1 Tap on **[Source]**, and then on the destination source in the list that appears if necessary.



Appears when there are more songs or albums not shown in the window. In such a case, tap on either end of this bar to show the hidden songs.

Tap to cancel the selection.

- 2 Tap on **[Album]**, tap on the destination album in the list that appears if necessary, and then go to step 4.

Continue to next page...

Copying an Album:

— only when [FD] is selected as the source



Tap on **Source**, and then on the destination source in the list that appears, and then go to step 4.

E-SEQ (Piano1) format conversion

When a song is saved in this format, the song can be played back on all Disklaviers.

To convert the format of the album stored in a floppy disk, tap on the check box for [Convert to E-SEQ (Piano1)].

Copying an Album:

— when a source other than [FD] is selected



Tap on **Album**.



Destination album list screen

Tap on the desired album, and then go to step 4.

4 Tap on **OK**.

5 Tap on **OK** after the completion message appears.

Making Copies of the Entire Contents in a Medium or Song Library

This function is available except for [CD Library] and [Play Lists].

1 Select the desired source (→ pg. 12 “Selecting a Song” in “Quick Guide”), and then tap on **Function**.

2 Tap on **Copy All**.



Tap to cancel making a copy.

3 Tap on **Source**, and then on the destination source in the list that appears if necessary.

4 Tap on **OK**.

Deleting Songs or Albums

This function is available for all song libraries and [Play Lists].

- 1 Select the desired song or album (→ pg. 12 “Selecting a Song” in “Quick Guide”), and then tap on **Func** or **Function**.
- 2 Tap on **Delete Song** or **Delete Album**.
To cancel deletion, tap on **Cancel**.
- 3 Tap on **OK**.
- 4 Tap on **OK** after the completion message appears.

Rearranging the Order of Songs/Albums

This function is available except for [From/To PC].

- 1 Select the desired song or album (→ pg. 12 “Selecting a Song” in “Quick Guide”), and then tap on **Func** or **Function**.
- 2 Tap on **Sort Song** or **Sort Album**.

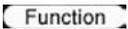
Ex.: Sort Song List



- 3 Tap on **▲/▼** repeatedly so that the selected song or album moves to the desired position.
- 4 Tap on **OK**.
- 5 Tap on **OK** after the completion message appears.

Deleting the Entire Contents on a USB Medium

You can delete the entire content on the USB media.

- 1 Connect an external USB media to the USB port on the Media Center.
- 2 Tap on  in the [Main] screen, and then .

Note: If you connect the USB hard disk formatted in other than FAT16/FAT32, the message indicating that the media is not inserted appears. If necessary, reformat the USB hard disk. (→ pg. 77 “Formatting a USB Hard Disk”)

- 3 Tap on .

The following confirmation dialog appears.



Tap to cancel deletion and return to the Function Menu screen.

- 4 Tap on .

The deletion process starts.

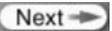
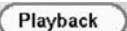


- 5 Tap on  after the completion message appears.

Other Settings

Skipping the Blank Part at the Beginning of a Song

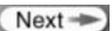
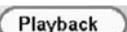
When there is a blank part created at the beginning of the recorded song, turning on this function automatically skips the unwanted part and starts playback from the actual beginning of the song.

- 1 Tap on  in the [Main] screen, and then on .
- 2 Tap on .
- 3 Tap on [Skip Space], and then press  to select [ON].
- 4 Tap on  to complete the operation.

To inactivate this function, select [OFF] in step 3.

Inactivating the Key Movement During Playback

During playback of a song, keys normally move in accordance with the playback of the respective note's key. In Quiet or Headphone mode, you can select an option of stopping this key movement. This enables you, for example, to play along with the song being played back, to add your own improvisation, or to create a four-hand duet.

- 1 Tap on  in the [Main] screen, and then on .
- 2 Tap on .
- 3 Tap on [Quiet Key], and then press  to select [ON].
- 4 Tap on  to complete the operation.

To inactivate this function, select [OFF] in step 3.

Tip: The shortcut button on the [Song] screen is also available. Tap on [Key On] to activate the function above, and on [Key Off] to inactivate it.



Using Timer Play

You can start or stop playback of a song, playback at random, turn the Disklavier off (Standby mode), or shut down the Disklavier automatically at specific times. A maximum of 99 timer programs can be set.

Note: Be sure to set the date, time, and time zone in advance. (→ pg. 16 “Setting up the Current Date and Time”)

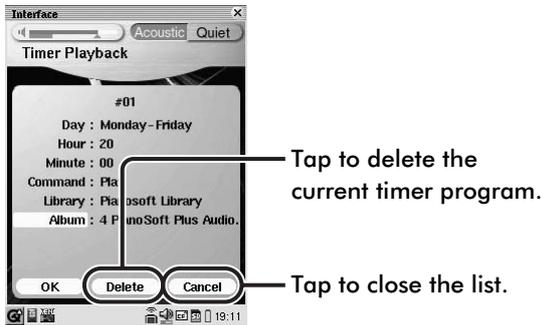
- 1 Tap on  in the [Main] screen.



Timer list screen

Continue to next page...

2 Tap on the desired row in the timer list.



3 Tap on [Day], and then press to select the desired day.

The following day settings are available: All Days, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Monday-Friday, Monday-Saturday.

4 Tap on [Hour], and then press to select the desired hour.

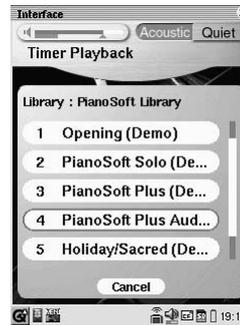
5 Tap on [Minute], and then press to select the desired minute.

6 Tap on [Command], and then press to select the desired command.

The following command settings are available:

- [Stop]:** Stops playback of songs.
- [Play]:** Starts playback of songs.
- [Random]:** Starts playback of songs in the selected library/album at random.
- [Off]:** Turns off the Disklavier (Standby mode).
- [Down]:** Shuts down the Disklavier.

7 Tap on [Library], and then the desired library.



Tip: If you want to select the current album, tap on **Cancel**. [- - - -] appears in the [Album] column in the timer list screen.

Note: If you select [Random] in step **6**, you cannot select [DisklavierRadio].

8 Tap on [Album], and then the desired album.

9 Tap on **OK**.

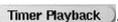


Tip: The following indications in the [Album] column show the type of song library.

- [PS-]:** PianoSoft Library
- [UR-]:** User Library
- [CD-]:** CD Library
- [PL-]:** Play list
- [RADIO]:** DisklavierRadio

If you do not specify a library in step **7**, the current album is selected for the timer program and [- - - -] appears in the [Album] column.

To select and activate a timer program

When two or more timer programs have been set, press  to select the desired program, and then tap on .

Each time you tap on , its setting changes as follows showing the status with icon colors:



- Tap on  to complete the setting.



When a timer program is activated, [Timer Playback] icon appears.

To delete all timer program settings, tap on  on the timer list screen, and then

 in the confirmation screen.

Tuning the Tone Generator (MasterTune)

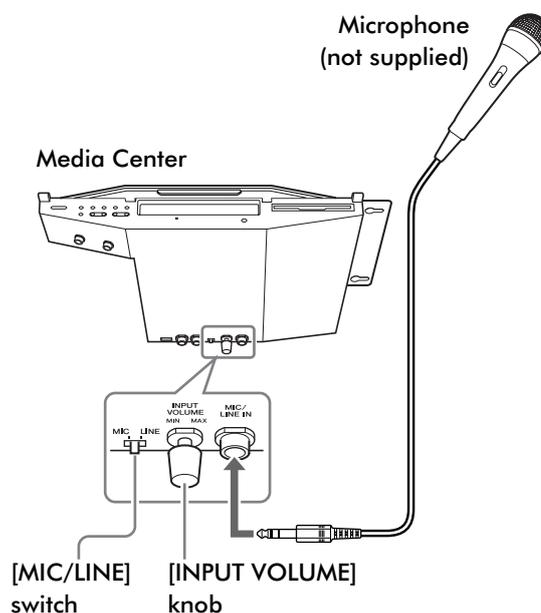
The digital piano has already been tuned to match the acoustic piano (A3 = 440 Hz). However, you can re-tune the digital piano in accordance with the pitch of the acoustic piano by following the procedure below.

- Tap on  in the [Main] screen, and then on .
- Tap on  /  to tune the Disklavier.
To cancel tuning, tap on .
- Tap on  to complete the operation.

Applying an Effect to Your Voice (Vocal Harmony)

By connecting a microphone to the Disklavier and singing along with the piano, you can enjoy a variety of effects such as adding harmony to your voice and changing the pitch of your voice. You may feel as if you were singing in a bar lounge. It's great fun to use this function.

- Hook up a microphone (not supplied) to the Media Center, and then turn on the microphone.



- Set the [MIC/LINE] switch to the [MIC] position.
- Turn the [INPUT VOLUME] knob to adjust the input volume of the microphone.

Continue to next page...

4 Adjust the [MIC] volume on PRC-100.
(→ pg. 27)

5 Apply the desired reverb effect.
(→ pg. 45)

6 Tap on  in the [Main] screen.

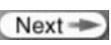


Vocal harmony type

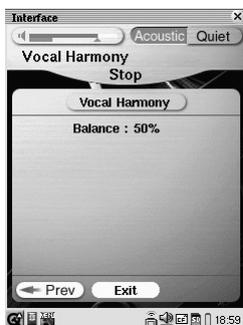
[Vocal Harmony] screen

7 Tap on the desired vocal harmony type.

For the entire list, see “Vocal Harmony Type List”.
(→ pg. 91)

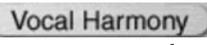
8 Tap on .

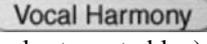
The [Balance] setting screen appears.



9 Tap on [Balance], and then press  to adjust the balance between your voice and the effect.

Tip: The balance can be adjusted from 0 to 100%.

10 Tap on  to activate Vocal Harmony mode.

Each time you tap on , the mode is activated (the color turns to blue) or inactivated.

11 Tap on  to clear the [Vocal Harmony] screen.

Tip: The shortcut button on the [Song] screen is also available. Tap on  to activate the mode above, and on  to inactivate it.



Each time you tap on this button,  and  switches.

Note: The following features are not available while Vocal Harmony Mode is activated.

- Video synchronized playback
- Video synchronized recording

Note: Vocal Harmony Mode does not function while playing back songs in SmartPianoSoft, PianoSoftPlusAudio, and audio CDs or receiving analog MIDI data.

Preparing for Use of Foot Controls/Switches

The optional foot controller (FC7) or the foot control switch (FC4, FC5) can be connected to the Disklavier and the desired function is assigned to them. At the maximum of two controllers/switches can be connected simultaneously.

Assignable functions are as follows:

[Play/Stop]:

Controls starting/stopping of playback. Tempo control is also available (only in the FC7).

[Main Volume]:

Controls the overall volume.

[Voice Volume]:

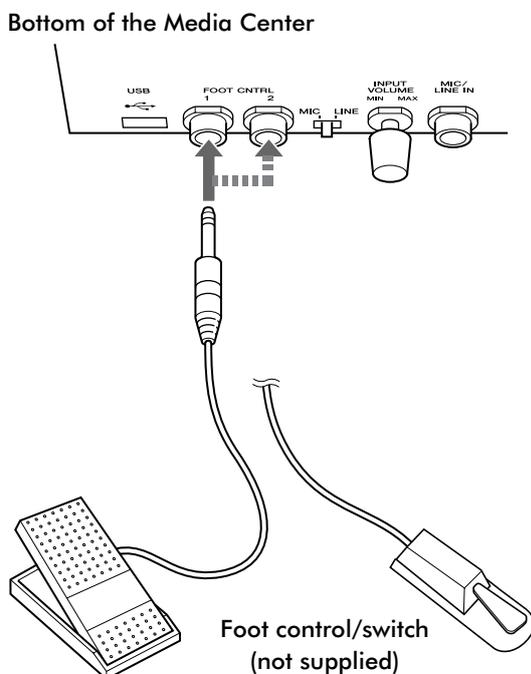
Controls the volume of the piano voice in Quiet Mode and Headphone Mode.

[Pitch Bend]:

Controls the pitch of the piano voice.

Setting Up the Disklavier for Foot Controls/Switches

- 1 Connect a foot control/switch to the FOOT CNTRL1/2 jack.



- 2 Tap on **Setup** in the [Main] screen, and then **Foot Cntrl**.



- 3 Tap on [Function] of the desired foot control/switch, and then the desired function.



- 4 Tap on **Close**.

Go to step 6 when you select the [Play/Stop] function.

- 5 Select the detailed setting.

When [Main Volume]/[Voice Volume] is selected

Tap on [Direction], and then press to select the option.

[Up]: Raises the volume when the foot control/switch is pressed and turns down the volume when released.

[Down]: Lowers the volume when the foot control/switch is pressed and turns up the volume when released.

Continue to next page...

When [Pitch Bend] is selected

Tap on [Direction], and then press   to select the option.

[Up]: Raises the key when the foot control/switch is pressed and resumes the original pitch when released.

[Down]: Lowers the key when the foot control/switch is pressed and resumes the original pitch when released.

Tap on [Polarity], and then press   to select the option.

[+]: Raises/lowers the key when the foot control/switch is pressed and resumes the original pitch when released.

[-]: Raises/lowers the key when the foot control/switch is released and resumes the original pitch when pressed.

6 Tap on to complete the setting.

Note: You cannot assign the same function to both [Foot Cntrl 1] and [Foot Cntrl 2].

Operating an Optional Foot Control (FC7)

When [Play/Stop] is selected for [Function]

When the control is pressed down all the way, playback will start in the original tempo. When the control is released completely, playback will pause. Playback tempo varies depending on the angle of the controller within the range of 0 to -50%.

When [Main Volume] or [Voice Volume] is selected for [Function] (with [Direction] set to [Down]*¹)

When the control is pressed down all the way, the sound will be muted. When the control is released completely, the volume turns up all the way. The volume varies depending on the angle of the controller.

**1 When [Up] is selected, the direction of control is reversed.*

When [Pitch Bend] is selected for [Function] (with [Polarity] set to [+]*²)

When the control is pressed down all the way, the song will be keyed up to +2 key. When the control is released completely, the original key will resume. The key varies depending on the angle of the controller.

**2 When [-] is selected, the song will be keyed down.*

Operating an Optional Foot Switch (FC4/FC5)

When [Play/Stop] is selected for [Function]

When the switch is pressed, playback will start. When the switch is released, playback will pause.

When [Main Volume] or [Voice Volume] is selected for [Function] (with [Direction] set to [Down]*³)

When the switch is pressed, the sound will be muted. When the switch is released, the original volume will resume.

**3 When [Up] is selected and the switch is pressed, the volume will increase all the way. (There is no effect for [Voice Volume].)*

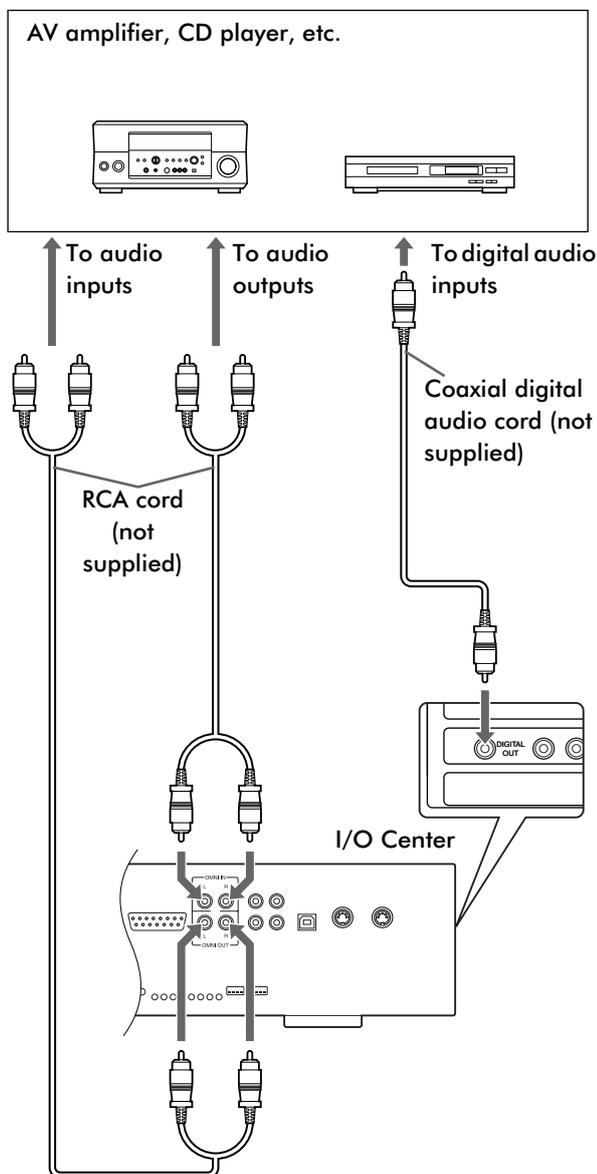
When [Pitch Bend] is selected for [Function] (with [Polarity] set to [+]*⁴)

When the switch is pressed, the song will be keyed up to +2 key. When the switch is released, the original key will resume.

**4 When [-] is selected and the switch is pressed, the song will be keyed down.*

Hooking Up AV Equipment

If you connect the Disklavier to an audio system, you can hear the sound played/played back on the Disklavier from the connected audio system, and the sound played back on the connected audio system from the Disklavier.



Setting Up the Disklavier for Audio Data Reception/Transmission

You can select the kind of the incoming/going out audio signals. The following options should be set up in advance.

[OMNI IN]

Selects the appropriate option to match the incoming data input to the [OMNI IN] jacks.

[Audio]: Select this when you play back an audio software on the connected CD player, etc. and reproduce the sound from the Monitor speakers*.

[Analog MIDI-YM]:

Select this when you play back PianoSoft-PlusAudio song.

Note: While this option is selected, Video Synchronized Playback and Vocal Harmony Mode is not available.

[Auto Detect]:

Select this when you make the Disklavier detect the input signal automatically.

[OFF]: Select this when you cancel the data reception from the [OMNI IN] jacks.

[OMNI IN Vol]

Adjusts the volume of the incoming audio signals to the [OMNI IN] jacks. The volume can be set in a range of 0 to 127.

[OMNI OUT]

Selects the desired data to be output from the [OMNI OUT] jacks.

[Output]: Select this when you output the same audio signals as the ones for the Monitor speakers*.

[Output+PianoTG]:

Select this when you output the ensemble part and the digital piano sound. (Note that the digital piano sound is also output in Acoustic mode.)

[PianoTG]: Select this when you output only the digital piano sound.

[OFF]: Select this when you cancel the data transmission from the [OMNI OUT] jacks.

Continue to next page...

[OMNI OUT Vol]

Adjusts the volume of the outgoing audio signals from the [OMNI OUT] jacks. The volume can be set in a range of 0 to 127 or to [Master volume]. When you set to [Master volume], the OMNI OUT volume works with the main volume.

[Digital Out]

Selects the desired data to be output from the [DIGITAL OUT] jack.

[Output]: Select this when you output the same audio signals as the ones for the Monitor speakers*.

[OMNI OUT]:

Select this when you output the same audio signals as the ones to be output from the [OMNI OUT] jacks.

[SYNC OUT]:

Select this when you output the same audio signals as the ones to be output from the [SYNC OUT] jacks.

[OFF]: Select this when you cancel the data transmission from the [DIGITAL OUT] jack.

* Only for models supplied with the Monitor speakers.

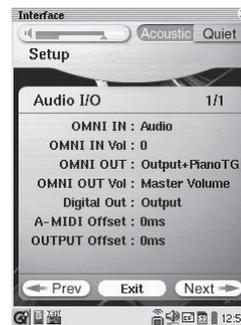
[A-MIDI Offset]

For some display devices, the video images may be displayed a little bit later than the piano playing when playing back the DVD software that contains the analog MIDI signal. To eliminate this delay, you can adjust the offset time that leads the actual playback of the piano. A delay is applied to the incoming analog MIDI signal. The offset time can be set in a range of -500 ms to 0 ms. Decrease this value to delay the piano.

[OUTPUT Offset]

For some speakers or digital amplifiers, the audio from the Disklavier may be output a little bit later than the acoustic piano playing. To eliminate this delay, you can adjust the offset time for the sound output. This setting is applied to the outgoing audio signal from the OUTPUT jacks, OMNI OUT jacks, and DIGITAL OUT jack. Decrease this value to advance the sound output. The offset time can be set in a range of -100 ms to 0 ms. Decrease this value to delay the piano.

- 1 Tap on **Setup** in the [Main] screen, and then on **Audio I/O**.



- 2 Tap on [OMNI IN]/[OMNI IN Vol]/[OMNI OUT]/[OMNI OUT Vol]/[Digital Out]/[A-MIDI Offset]/[OUTPUT Offset], and then press **◀ ▶** to select the desired option.
- 3 Tap on **Exit** to complete the operation.

Lyric Screen

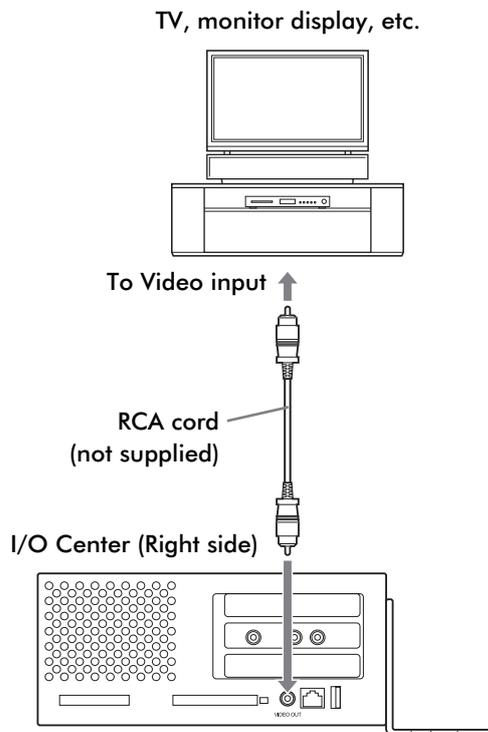
By hooking up a TV or a monitor display to the I/O Center, lyrics are automatically displayed on the TV or the monitor display during playback a song with lyrics prerecorded.

Note: For purchasing songs with lyrics, consult your Disklavier dealer.

Note: For users in North America, refer to page 27 thru 29 in the “Tablet Controller Operating Manual” as well.

Showing the Lyrics on a TV or a Monitor Display during Playback

- 1 Hook up a TV or a monitor display to the I/O Center.



- 2 Turn on the TV or the monitor display, and then select the input mode that corresponds to the connected TV or monitor display.

- 3 Start playback of a song with lyrics on the Disklavier.

The lyrics appear with a colorful background picture. A color bar behind the lyrics stretches gradually as the song goes on to indicate the current playback point.

Note: The lyrics are shown only when the song includes the lyric data.

Changing the Background Picture of the Lyric Screen

A number of colorful background pictures are prepared and categorized in the following subjects: Nature, Flowers, Vacation, World, Textures, Holidays, and Romantic.

- 1 Show the Lyric Screen on the TV or the monitor display to monitor the picture selection. (See above.)
 - 2 Tap on **Setup** in the [Main] screen, and then on **Next**.
 - 3 Tap on **Video Out**.
- 
- 4 Tap on [Category], press **Left/Right** to select the desired option, and then tap on **Close**.
 - 5 Tap on [Picture No.], and then press **Left/Right** to select the desired option.
 - 6 Tap on **Exit** to complete the operation.

Converting MIDI Data to a Standard Form (Strip XP)

Disklavier PRO pianos record highly precise control information (XP events) that becomes part of the MIDI song files. This data is used to achieve accurate playback on the Disklavier PRO, but is not used when the file is played back on general MIDI devices.

When you edit the song with external MIDI products (for example a software sequencer), the relationship between the note data and the XP event as well as the actual performance may not be maintained. There may be cases in which songs edited in this manner cannot be played back normally, depending on the instrument's settings. In such cases, use the Strip XP function to remove the XP event to convert the song to standard MIDI format before using it for playback. Strip XP also makes it possible to reduce the size of MIDI files when desired.

Note: Once the XP event is stripped, the original data cannot be restored. Before converting valuable music data, be sure to backup the original data.

- 1 Select the song to be converted (→ pg. 12 "Selecting a Song" in "Quick Guide"), and then tap on **Func** or **Function**.

- 2 Tap on **Strip XP**.



- 3 Tap on **OK**.
- 4 Tap on **OK** after the completion message appears.

Making Backups and Restoring the Song Library

You can make a backup copy of the song libraries and play lists, and restore the songs in the Disklavier. In order to protect your valuable music data, Yamaha strongly recommends that you backup your Mark IV hard drive on a regular basis.

Note: Be sure to use a USB HDD formatted in a FAT32 file system in the following procedure. The NTFS file system is not supported for this function.

Making Backups

- 1 Connect an external USB HDD to the USB port on the Media Center.
- 2 Tap on **Setup** in the [Main] screen, and then on **Next**.
- 3 Tap on **System**.
- 4 Tap on **Next** in the [System] screen, and then **Backup Song Data**.
- 5 Tap on **OK**.



- 6 Tap on **Continue**.
The Disklavier will start making backups.
- 7 Tap on **OK** after the completion message appears, and then **Exit**.

Restoring the Song Library

- 1 Perform steps 1 thru 3 in "Making Backups" above.
- 2 Tap on **Next** in the [System] screen, and then **Restore Song Data**.
- 3 Tap on **OK**.



- 4 Tap on **OK**.



- 5 Tap on **Continue**.
The Disklavier will start restoring the song library.
- 6 Tap on **OK** after the completion message appears, and then **Exit**.

Restoring the Contents in the Demo Album

If the demo songs are erased by chance, they can be restored by following the procedure below.

- 1 Tap on **Setup** in the [Main] screen, and then on **Next**.
- 2 Tap on **System**.
- 3 Tap on **Recall Demo Album**.
- 4 Tap on **OK** to start restoring.
- 5 Tap on **Exit** to complete the operation.

Note: The contents saved in the demo album will be erased.

Making an Install Floppy Disk

In the case of updating the Disklavier, be sure to make a install floppy disk.

- 1 Tap on **Setup** in the [Main] screen, and then on **Next**.
- 2 Tap on **System**.
- 3 Load a formatted floppy disk (2HD) to the drive. (→ pg. 20 “Loading and Ejecting a Floppy Disk”)
- 4 Tap on **Make Install FD**.

The Disklavier will start making a backup floppy disk.



- 5 Tap on **OK**, and then on **Exit** to complete the operation.

Formatting a Floppy Disk

You can format a floppy disk.

- 1 Tap **FD** on in the [Main] screen (→ pg. 12 “Selecting a Song” in “Quick Guide”), and then tap on **Function**.
- 2 Tap on **Format FD**.
To cancel erasure, tap on **Cancel**.
- 3 Tap on **OK**.
- 4 Tap on **OK** after the completion message appears.

Formatting a USB Hard Disk

You can reformat the USB hard disks formatted in other than FAT16/FAT32 so that you can use them with the Disklavier.

Note: All data stored in the disk will be erased after formatting. Make sure that the disk to be formatted does not contain the data you want to keep.

- 1 Connect a USB hard disk to the USB port on the Media Center.
- 2 Tap on **USB Media** in the [Main] screen.
When the connected USB hard disk is formatted in other than FAT16/FAT32, the message indicating that the media is not inserted appears.
- 3 Tap on **OK** to close the message, and then **Function**.
- 4 Tap on **Delete All**.

5 Tap on **OK**.

The following confirmation dialog appears.



Tap to cancel formatting and return to the [Main] screen.

6 Tap on **OK**.

The formatting process starts.



Note: The time required for formatting differs depending on the capacity of the hard disk.

7 Tap on **OK** after the completion message appears.**Resetting the Disklavier**

If you want to return your Disklavier to its initial factory settings, follow the procedure below.

1 Tap on **Setup** in the [Main] screen, and then on **Next**.**2** Tap on **System**.**3** Tap on **System Reset**.

Tap to cancel resetting.

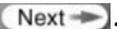
4 Tap on **OK** to start resetting.**5** Tap on **Exit** to complete the operation.

Assigning Frequently-used Functions to the Numeric Keys of the Pocket Controller (Shortcut)

You can assign the numeric keys of the Pocket Controller keyboard ([1] thru [9] and [0]) a series of procedures for often used functions. The following functions are available:

- [Power]:** Turns on and off the Disklavier.
- [Play]:** Starts playback of a song or songs in a selected album/song.
- [Repeat]:** Starts repeat playback of a song or songs in the selected album/song.
- [Random]:** Starts playback of songs in the selected album at random.
- [Radio]:** Starts playback of the selected DisklavierRadio channel. (→ pg. 99 “Accessing the Internet”)
- [Balance]:** Adjust the volume balance among the different sound sources (Voice, TG, Audio, and MIC). (→ pg. 27 “Adjusting the Volume Balance among the Keyboard Playing, Ensemble Sound, Software Playback, and Microphone’s Input”)
- [Quiet]:** Activates and inactivates the Quiet Mode. (→ pg.16 “Basic Piano Playing” in “Quick Guide”)

Assigning Functions

1 Tap on  in the [Main] screen, and then on .

2 Tap on .



Shortcut list

3 Tap on the desired row in the shortcut list.



Tap to delete the current shortcut setting.

Tap to cancel the setting.

4 Tap on [Command], and then press  to select the desired command.

5 Select the detailed setting.

When [Power] or [Quiet] is selected: Detailed settings are not required. Go to step **6**.

When [Play] or [Repeat] is selected:

- 1** Tap on [Medium], and then press  to select the desired library.
- 2** Tap on [Album], and then on the desired album in the list.
- 3** Tap on [Song], and then on the desired song in the list.
- 4** Go to step **6**.

Note: You can skip the song selection process in step 3. In such a case, playback starts from the first song in the selected album.

When [Random] is selected:

- 1** Tap on [Medium], and then press  to select the desired library.
- 2** Tap on [Album], and then on the desired album in the list.
- 3** Go to step **6**.

When [Radio] is selected:

- 1 Tap on [Channel], and then on the desired channel in the list.
- 2 Go to step 6.

When [Balance] is selected:

- 1 Tap on [Resource], and then press  to select the desired sound source.
- 2 Tap on [Direction], and then press  to select the option.
 - [Up]:** Raises the volume when the shortcut keys are pressed.
 - [Down]:** Lowers the volume when the shortcut keys are pressed.
- 3 Go to step 6.

To rename the shortcut, tap on [Name], enter the desired name with the keyboard on the Pocket Controller, and then tap on .

- 6 Tap on .

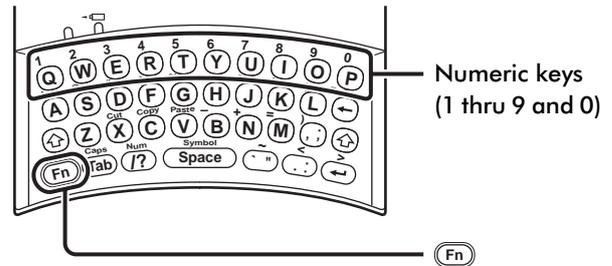


- 7 Tap on  to complete the setting.

To delete all shortcut settings, tap on  on the shortcut list screen, and then on  in the confirmation screen.

Using the Shortcut

- 1 Slide the front panel of the Pocket Controller to show the keyboard.
- 2 Press the corresponding key to execute the assigned function.



Shortcut	Keys to Press
#1	1 (Fn) + (Q)
#2	2 (Fn) + (W)
#3	3 (Fn) + (E)
#4	4 (Fn) + (R)
#5	5 (Fn) + (T)
#6	6 (Fn) + (Y)
#7	7 (Fn) + (U)
#8	8 (Fn) + (I)
#9	9 (Fn) + (O)
#0	0 (Fn) + (P)

Assigning a Specific Function to the ONE TOUCH Button

You can assign the ONE TOUCH button on the cradle a series of procedures for an often used function. The followings are the available functions.

[Record]: Sets the Disklavier in recording mode. (→ pg. 46)

[Performance]:
Turns on the Performance function. (→ pg. 42)

[Standby]: Turns off the Disklavier. (→ pg. 6 in “Quick Guide”)

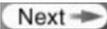
[DisklavierRadio]:
Turns on the DisklavierRadio. (→ pg. 100)

[Metronome]:
Turns on or off the internal metronome.

[Shortcut]: Recalls the function assigned to Shortcut #1 thru #9 and #0. (→ pg. 79 “Assigning Frequently-used Functions to the Numeric Keys of the Pocket Controller (Shortcut)”)

1 Tap on  in the [Main] screen, and then on .

2 Tap on [Function], press  to select the desired option, and then on .

Tip: If you cannot find a desired option, tap on  or  to switch the screen.

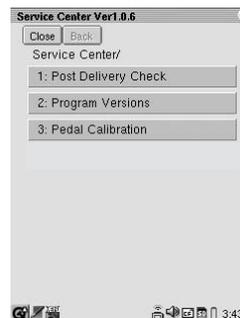
3 Tap on  to complete the operation.

To inactivate the ONE TOUCH button, select [No Function] in step **2**.

Diagnosing the Disklavier

The piano diagnostics may be required as the occasion demands. In such a case, follow the instructions of your Yamaha dealer and perform the following procedure.

1 Tap on  [Service Center] in the [PRC-100 Menu] screen.



2 Tap on the desired option, and then follow the instructions that appears on the screen.

3 Tap on  to return to the [PRC-100 Menu] screen.

Piano Voice List

The following table lists the voices in the internal tone generator only for the piano playing in Quiet or Headphone mode. For details on the voice selection, see “Selecting the Voice in Quiet/Headphone Mode” on page 19 in “Quick Guide”.

Instrument Group	Voice Name
Grand Piano	Grand Piano Bright Piano Mellow Piano
E.Piano	Electric Piano Modern Electric Piano DX Electric Piano Galaxy Electric Piano Vintage Electric Piano
Harpsichord	Harpsichord 4’ Harpsichord 4’+8’ Clavinet
Vibraphone	Vibraphone Marimba Celesta
Church Organ	Church Organ Principal Church Organ Flute Church Organ Full
Jazz Organ	Drawbar Organ Jazz Organ Rotor Organ
Guitar	Nylon Guitar Steel Guitar
Bass	Acoustic Bass Finger Bass Fretless Bass A.Bass and Cymbal
Strings	Strings 1 Strings 2 Synth Strings
Choir	Choir Slow Choir Scat
Pad	New Age Pad Warm Pad

Instrument Group	Voice Name
AEM Brass	AEM-Trumpet 1 AEM-Trumpet 2 AEM-Trombone
AEM Sax	AEM-Alt Sax 1 AEM-Alt Sax 2 (for Solo) AEM-Tenor Sax AEM-Baritone Sax
AEM Section	AEM-Brass Section AEM-Sax Section

Ensemble Part Playback Voice List

The following table lists the voices in the internal tone generators for the ensemble part contained in the PianoSoft-Plus, or for MIDI file playback on the Disklavier or external MIDI device (synthesizer, sequencer, etc.). (→ pg. 93 “Enhancing the Disklavier Features by Hooking Up a MIDI Device”)

Group Name	Voice Number	Voice Name
Piano	1	Grand Piano
	2	XG-GrandPno
	3	XG-GrndPnoK
	4	Mellow Piano
	5	XG-MelloGrP
	6	XG-PianoStr
	7	XG-Dream
	8	Bright Piano
	9	XG-BritePno
	10	XG-BritPnoK
	11	XG-E.Grand
	12	XG-ElGrPnoK
	13	XG-Det.CP80
	14	XG-ElGrPno1
	15	XG-ElGrPno2
	16	XG-HnkyTonk
	17	XG-HnkyTnkK
	18	Electric Piano
	19	Modern Elec. Piano
	20	Vintage Elec. Piano
	21	XG-E.Piano1
	22	XG-El.Pno1K
	23	XG-MelloEP1
	24	XG-Chor.EP1
	25	XG-HardEl.P
	26	XG-VX El.P1
	27	XG-60sEl.P

Group Name	Voice Number	Voice Name	
Piano	28	DX Electric Piano	
	29	Galaxy Elec. Piano	
	30	XG-E.Piano2	
	31	XG-El.Pno2K	
	32	XG-Chor.EP2	
	33	XG-DX Hard	
	34	XG-DXLegend	
	35	XG-DX Phase	
	36	XG-DX+Analg	
	37	XG-DXKotoEP	
	38	XG-VX El.P2	
	39	Harpsichord 4'	
	40	Harpsichord 4'+8'	
	41	XG-Harpsi.	
	42	XG-Harpsi.K	
	43	XG-Harpsi.2	
	44	XG-Harpsi.3	
	45	Clavinet	
	46	XG-Clavi.	
	47	XG-Clavi. K	
	48	XG-ClaviWah	
	49	XG-PulseClv	
	50	XG-PierceCl	
	Percussion	51	Celesta
		52	XG-Celesta
		53	XG-Glocken
		54	XG-MusicBox
		55	XG-Orgel
		56	Vibraphone
		57	XG-Vibes
58		XG-VibesK	
59		XG-HardVibe	
60		Marimba	

Group Name	Voice Number	Voice Name
Percussion	61	XG-Marimba
	62	XG-MarimbaK
	63	XG-SineMrmb
	64	XG-Balafon2
	65	XG-Log Drum
	66	XG-Xylophon
	67	XG-TubulBel
	68	XG-ChrchBel
	69	XG-Carillon
	70	XG-Dulcimer
	71	XG-Dulcimr2
	72	XG-Cimbalom
	73	XG-Santur
Organ	74	Drawbar Organ
	75	Jazz Organ
	76	XG-DrawOrgn
	77	XG-DetDrwOr
	78	XG-60sDrOr1
	79	XG-60sDrOr2
	80	XG-70sDrOr1
	81	XG-DrawOrg2
	82	XG-60sDrOr3
	83	XG-EvenBar
	84	XG-16+2"2/3
	85	XG-Organ Ba
	86	XG-70sDrOr2
	87	XG-CheezOrg
	88	XG-DrawOrg3
	89	XG-PercOrgn
	90	XG-70sPcOr1
	91	XG-DetPrcOr
	92	XG-LiteOrg
	93	XG-PercOrg2
	94	Rotor Organ

Group Name	Voice Number	Voice Name
Organ	95	XG-RockOrgn
	96	XG-RotaryOr
	97	XG-SloRotar
	98	XG-FstRotar
	99	Ch. Organ Principal
	100	Ch. Organ Flute
	101	Ch. Organ Full
	102	XG-ChrchOrg
	103	XG-ChurOrg3
	104	XG-ChurOrg2
	105	XG-NotreDam
	106	XG-OrgFlute
	107	XG-TrmOrgFl
	108	XG-ReedOrgn
	109	XG-Puff Org
Guitar	110	XG-Acordion
	111	XG-AccordIt
	112	XG-Harmnica
	113	XG-Harmo 2
	114	XG-TangoAcid
	115	XG-TngoAcid2
	116	Nylon Guitar
	117	XG-NylonGtr
	118	XG-NylonGt2
	119	XG-NylonGt3
	120	XG-VelGtHrm
	121	XG-Ukulele
	122	Steel Guitar
	123	XG-SteelGtr
	124	XG-SteelGt2
	125	XG-12StrGtr
	126	XG-Nyln&Stl
	127	XG-Stl&Body

Continue to next page...

Group Name	Voice Number	Voice Name
Guitar	128	XG-Mandolin
	129	XG-Jazz Gtr
	130	XG-MelloGtr
	131	XG-JazzAmp
	132	XG-CleanGtr
	133	XG-ChorusGt
	134	XG-Mute.Gtr
	135	XG-FunkGtr1
	136	XG-MuteStlG
	137	XG-FunkGtr2
	138	XG-Jazz Man
	139	XG-Ovrdrive
	140	XG-Gt.Pinch
	141	XG-Dist.Gtr
	142	XG-FeedbkGt
	143	XG-FeedbGt2
	144	XG-GtrHarmo
	145	XG-GtFeedbk
	146	XG-GtrHrmo2
	147	Acoustic Bass
	148	A.Bass and Cymbal
	149	XG-Aco.Bass
	150	XG-JazzRthm
	151	XG-VXUprght
	152	Finger Bass
	153	XG-FngrBass
	154	XG-FingrDrk
	155	XG-FlangeBa
	156	XG-Ba&DstEG
	157	XG-FngrSlap
	158	XG-FngBass2
	159	XG-ModAlem
	160	XG-PickBass
161	XG-MutePkBa	

Group Name	Voice Number	Voice Name
Guitar	162	Fretless Bass
	163	XG-Fretless
	164	XG-Fretles2
	165	XG-Fretles3
	166	XG-Fretles4
	167	XG-SynFretl
	168	XG-Smooth
	169	XG-SlapBas1
	170	XG-ResoSlap
	171	XG-PunchThm
	172	XG-SlapBas2
	173	XG-VeloSlap
	174	XG-SynBass1
	175	XG-SynBa1Dk
	176	XG-FastResB
	177	XG-AcidBass
	178	XG-Clv Bass
	179	XG-TeknoBa
	180	XG-Oscar
	181	XG-SqrBass
	182	XG-RubberBa
	183	XG-Hammer
	184	XG-SynBass2
	185	XG-MelloSB1
	186	XG-Seq Bass
	187	XG-ClkSynBa
	188	XG-SynBa2Dk
	189	XG-SmthBa 2
190	XG-ModulrBa	
191	XG-DX Bass	
192	XG-X WireBa	
Strings	193	XG-Violin
	194	XG-SlowVln
	195	XG-Viola

Group Name	Voice Number	Voice Name
Strings	196	XG-Cello
	197	XG-Contrabs
	198	XG-Trem.Str
	199	XG-SlowTrStr
	200	XG-Susp Str
	201	XG-Pizz.Str
	202	XG-Harp
	203	XG-YangChin
	204	XG-Timpani
Ensemble	205	Strings 1
	206	XG-Strings1
	207	XG-S.Strngs
	208	XG-SlowStr
	209	XG-ArcoStr
	210	XG-60sStrng
	211	XG-Orchestr
	212	XG-Orchstr2
	213	XG-TremOrch
	214	XG-VeloStr
	215	Strings 2
	216	XG-Strings2
	217	XG-S.SlwStr
	218	XG-LegatoSt
	219	XG-Warm Str
	220	XG-Kingdom
	221	XG-70s Str
	222	XG-Str Ens3
	223	Synth Strings
	224	XG-Syn.Str1
	225	XG-ResoStr
226	XG-Syn Str4	
227	XG-SS Str	
228	XG-Syn.Str2	
229	Choir	

Group Name	Voice Number	Voice Name
Ensemble	230	Slow Choir
	231	Scat
	232	XG-ChoirAah
	233	XG-S.Choir
	234	XG-Ch.Aahs2
	235	XG-MelChoir
	236	XG-ChoirStr
	237	XG-VoiceOoh
	238	XG-SynVoice
	239	XG-SynVox2
	240	XG-Choral
	241	XG-AnaVoice
	242	XG-Orch.Hit
	243	XG-OrchHit2
	244	XG-Impact
	Brass	245
246		AEM-Trumpet 2
247		XG-Trumpet
248		XG-Trumpet2
249		XG-BriteTrp
250		XG-WarmTrp
251		AEM-Trombone
252		XG-Trombone
253		XG-Trmbone2
254		XG-Tuba
255		XG-Tuba 2
256		XG-Mute.Trp
257	XG-Fr.Horn	
258	XG-FrHrSolo	
259	XG-FrHorn2	
260	XG-HornOrch	
261	XG-BrasSect	
262	XG-Tp&TbSec	

Continue to next page...

Group Name	Voice Number	Voice Name	
Brass	263	XG-BrssSec2	
	264	XG-HiBrass	
	265	XG-MelloBrs	
	266	XG-SynBras1	
	267	XG-QuackBr	
	268	XG-RezSynBr	
	269	XG-PolyBrss	
	270	XG-SynBras3	
	271	XG-JumpBrss	
	272	XG-AnaVelBr	
	273	XG-AnaBrss1	
	274	XG-SynBras2	
	275	XG-Soft Brs	
	276	XG-SynBras4	
	277	XG-ChorBrss	
	278	XG-VelBras2	
	279	XG-AnaBras2	
	Reed	280	XG-SprnoSax
		281	AEM-Alto Sax 1
282		AEM-Alto Sax 2	
283		XG-Alto Sax	
284		XG-Sax Sect	
285		XG-HyprAlto	
286		AEM-Tenor Sax	
287		XG-TenorSax	
288		XG-BrthTnSx	
289		XG-SoftTenr	
290		XG-TnrSax 2	
291		AEM-Baritone Sax	
292		XG-Bari.Sax	
293		XG-Oboe	
294		XG-Eng.Horn	
295		XG-Bassoon	
296		XG-Clarinet	

Group Name	Voice Number	Voice Name
Pipe	297	XG-Piccolo
	298	XG-Flute
	299	XG-Recorder
	300	XG-PanFlute
	301	XG-Bottle
	302	XG-Shakhchi
	303	XG-Whistle
	304	XG-Ocarina
Synth Lead	305	XG-SquareLd
	306	XG-Square 2
	307	XG-LMSquare
	308	XG-Hollow
	309	XG-Shmoog
	310	XG-Mellow
	311	XG-SoloSine
	312	XG-SineLead
	313	XG-Saw.Lead
	314	XG-Saw 2
	315	XG-ThickSaw
	316	XG-DynaSaw
	317	XG-DigiSaw
	318	XG-Big Lead
	319	XG-HeavySyn
	320	XG-WaspySyn
	321	XG-PulseSaw
	322	XG-Dr. Lead
	323	XG-VeloLead
	324	XG-Seq Ana
	325	XG-CaliopLd
	326	XG-Pure Pad
	327	XG-Chiff Ld
	328	XG-Rubby
	329	XG-CharanLd
	330	XG-DistLead

Group Name	Voice Number	Voice Name
Synth Lead	331	XG-WireLead
	332	XG-Voice Ld
	333	XG-SynthAah
	334	XG-VoxLead
	335	XG-Fifth Ld
	336	XG-Big Five
	337	XG-Bass &Ld
	338	XG-Big&Low
	339	XG-Fat&Prky
	340	XG-SoftWurl
	341	New Age Pad
	342	XG-NewAgePd
	343	XG-Fantasy2
	344	Warm Pad
	345	XG-Warm Pad
	346	XG-ThickPad
	347	XG-Soft Pad
	348	XG-SinePad
	349	XG-Horn Pad
	350	XG-RotarStr
	351	XG-PolySyPd
	352	XG-PolyPd80
	353	XG-ClickPad
	354	XG-Ana Pad
	355	XG-SquarPad
	356	XG-ChoirPad
	357	XG-Heaven2
	358	XG-Itopia
	359	XG-CC Pad
	360	XG-BowedPad
	361	XG-Glacier
	362	XG-GlassPad
	363	XG-MetalPad
	364	XG-Tine Pad

Group Name	Voice Number	Voice Name
Synth Lead	365	XG-Pan Pad
	366	XG-Halo Pad
	367	XG-SweepPad
	368	XG-Shwimmer
	369	XG-Converge
	370	XG-PolarPad
	371	XG-Celstial
Synth Effects	372	XG-Rain
	373	XG-ClaviPad
	374	XG-HrmoRain
	375	XG-AfrcnWnd
	376	XG-Caribbean
	377	XG-SoundTrk
	378	XG-Prologue
	379	XG-Ancestrl
	380	XG-Crystal
	381	XG-SynDrCmp
	382	XG-Popcorn
	383	XG-TinyBell
	384	XG-RndGlock
	385	XG-GlockChi
	386	XG-ClearBel
	387	XG-ChorBell
	388	XG-SynMalet
	389	XG-SftCryst
	390	XG-LoudGlok
	391	XG-XmasBell
392	XG-VibeBell	
393	XG-DigiBell	
394	XG-AirBells	
395	XG-BellHarp	
396	XG-Gamelmba	
397	XG-Atmosphr	

Continue to next page...

Group Name	Voice Number	Voice Name
Synth Effects	398	XG-WarmAtms
	399	XG-HollwRls
	400	XG-NylonEP
	401	XG-NylnHarp
	402	XG-Harp Vox
	403	XG-AtmosPad
	404	XG-Planet
	405	XG-Bright
	406	XG-FantaBel
	407	XG-Smokey
	408	XG-Goblins
	409	XG-GobSyn
	410	XG-50sSciFi
	411	XG-Ring Pad
	412	XG-Ritual
	413	XG-ToHeaven
	414	XG-Night
	415	XG-Glisten
	416	XG-BelChoir
	417	XG-Echoes
	418	XG-EchoPad2
	419	XG-Echo Pan
	420	XG-EchoBell
	421	XG-Big Pan
	422	XG-SynPiano
	423	XG-Creation
	424	XG-Stardust
	425	XG-Reso Pan
	426	XG-Sci-Fi
	427	XG-Starz
	428	XG-Sitar
429	XG-DetSitar	
430	XG-Sitar 2	
431	XG-Tambra	

Group Name	Voice Number	Voice Name
Synth Effects	432	XG-Tamboura
	433	XG-Banjo
	434	XG-MuteBnjo
	435	XG-Rabab
	436	XG-Gopichnt
	437	XG-Oud
	438	XG-Shamisen
	439	XG-Koto
	440	XG-T.Koto
	441	XG-Kanoon
	442	XG-Kalimba
	443	XG-Bagpipe
	444	XG-Fiddle
	445	XG-Shanai
	446	XG-Shanai2
	447	XG-Pungi
	448	XG-Hichriki
	Percussive	449
450		XG-Bonang
451		XG-Gender
452		XG-Gamelan
453		XG-S.Gamlan
454		XG-Rama Cym
455		XG-AsianBel
456		XG-Agogo
457		XG-SteelDrm
458		XG-GlasPerc
459		XG-ThaiBell
460		XG-WoodBlok
461		XG-Castanet
462		XG-TaikoDrm
463		XG-Gr.Cassa
464		XG-MelodTom
465		XG-Mel Tom2

Group Name	Voice Number	Voice Name
Percussive	466	XG-Real Tom
	467	XG-Rock Tom
	468	XG-Syn.Drum
	469	XG-Ana Tom
	470	XG-ElecPerc
	471	XG-RevCymb1
	472	XG-FretNoiz
	473	XG-BrthNoiz
	474	XG-Seashore
	475	XG-Tweet
	476	XG-Telphone
	477	XG-Helicptr
	478	XG-Appause
	479	XG-Gunshot
SFX Voice	491	XG-CuttngNz
	492	XG-CttngNz2
	493	XG-Str Slap
	494	XG-Fl.KClik
	495	XG-Rain
	496	XG-Thunder
	497	XG-Wind
	498	XG-Stream
	499	XG-Bubble
	500	XG-Feed
	501	XG-Dog
	502	XG-Horse
	503	XG-Bird
	504	XG-Ghost
	505	XG-Maou
	506	XG-Tel.Dial
	507	XG-DoorSqek
508	XG-Door Slam	
509	XG-Scratch	
510	XG-Scratch 2	

Group Name	Voice Number	Voice Name
SFX Voice	511	XG-WindChm
	512	XG-Telphon2
	513	XG-CarEngin
	514	XG-Car Stop
	515	XG-Car Pass
	516	XG-CarCrash
	517	XG-Siren
	518	XG-Train
	519	XG-Jetplane
	520	XG-Starship
	521	XG-Burst
	522	XG-Coaster
	523	XG-SbMarine
	524	XG-Laughing
	525	XG-Scream
	526	XG-Punch
	527	XG-Heart
	528	XG-FootStep
	529	XG-MchinGun
	530	XG-LaserGun
531	XG-Xplosion	
532	XG-FireWork	

Drum Voice List

The following table lists the drum voice in the internal tone generators for MIDI file playback on the Disklavier or external MIDI device (synthesizer, sequencer, etc.). (→ pg. 93 “Enhancing the Disklavier Features by Hooking Up a MIDI Device”)

Group Name	Voice Number	Drum Voice Name
Drum	480	XG-StandKit
	481	XG-Stnd2Kit
	482	XG-Room Kit
	483	XG-Rock Kit
	484	XG-ElectKit
	485	XG-AnalgKit
	486	XG-Jazz Kit
	487	XG-BrushKit
	488	XG-ClascKit
	489	XG-SFX Kit1
	490	XG-SFX Kit2

Vocal Harmony Type List

The following table lists the available vocal harmony types.

For details on the type selection, see “Applying an Effect to Your Voice (Vocal Harmony)” on page 68.

Vocal Harmony Type	Vocal Harmony Mode
Instrument Scat	Vocoder
Octave Up Scat	Vocoder
Auto Key Harmony	Vocoder
Auto Harmony-M	Vocoder
Auto Harmony-F	Vocoder
Octave Up	Chromatic
Octave Down	Chromatic
Country Quartet	Vocoder
Closed Men Quartet	Vocoder
Mix Acap Quartet	Vocoder
Womem Choir	Vocoder
Jazz Sisters	Vocoder
Standard Duet	Vocoder
Men Choir	Vocoder
Closed Choir	Vocoder
Girl in Duet	Vocoder
Speedy Mouse	Chromatic
High Male Quartet	Vocoder
Jazz Quartet	Vocoder
Mixed Choir	Vocoder
Country Girls	Vocoder
Sister Trio	Vocoder
Country Men	Vocoder
A Capella Boy	Vocoder
A Capella Mix	Vocoder
Gospel Diva	Vocoder
Lisa and Tina	Vocoder
Acap Mem Quartet	Vocoder
Jazz Mem Choir	Vocoder
Jazz Closed Cho	Vocoder

Vocal Harmony Type	Vocal Harmony Mode
Jazz Women Cho	Vocoder
Ladies Quartet	Vocoder
Sing B+G	Vocoder
Barber shop	Vocoder
Jazz Mixed Cho	Vocoder
Dream Girls	Vocoder
Sing the Bass	Chromatic
Falsetto Duet	Vocoder
Falsetto Trio	Vocoder
Falsetto Dia	Vocoder
Fal A Capella	Vocoder
Falsetto Jazz	Vocoder
2 Unison Low	Vocoder
3 Unison Low	Vocoder
Diatonic Jazz	Vocoder
Diatonic Girl	Vocoder
A Capella Dia	Vocoder
Chordal XG	Vocoder
Karaoke Auto	Vocoder
Karaoke Mode	Vocoder
Karaoke Girl	Vocoder
Karaoke Pitch	Vocoder
2 Unison High	Vocoder
3 Unison High	Vocoder
Vocoder Auto Upper	Vocoder
Vocoder Auto Lower	Vocoder
DetuneXG	Detune
VocoderXG	Vocoder
Vocoder Mode Upper	Vocoder
Vocoder Mode Lower	Vocoder
Vocoder Girl Upper	Vocoder
Vocoder Girl Lower	Vocoder
Vocoder PitchUpper	Vocoder
Vocoder PitchLower	Vocoder
ChromaticXG	Chromatic

Vocal Harmony Type	Vocal Harmony Mode
Voice & Inst	Vocoder

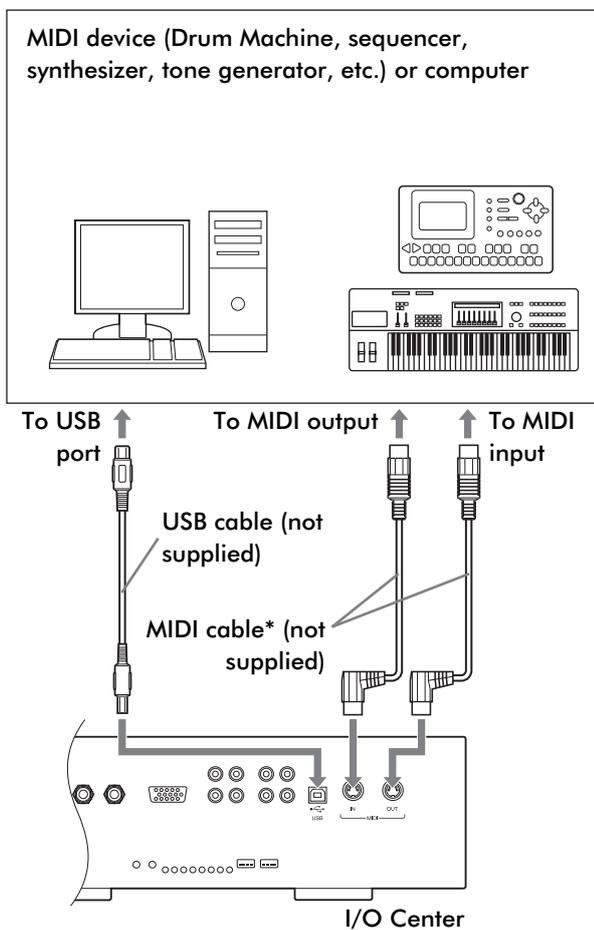
Enhancing the Disklavier Features by Hooking Up a MIDI Device

MIDI (an acronym for Musical Instrument Digital Interface) allows electronic device (synthesizers, etc.) to interact and work in synchronization with other MIDI compatible device. Disklavier enables you to enjoy a variety of MIDI features by connecting a MIDI device or computer to the Disklavier's I/O Center.

Note: When you use the USB connection, it is required to install the USB driver to the connected device. In such a case, visit the following website and download the driver.

http://www.global.yamaha.com/download/usb_midi/

Hooking Up a MIDI Device



* Be sure to use the commercially available MIDI cable with the L-shaped connector on the I/O Center end.

Setting Up the Disklavier for MIDI Data Reception (MIDI IN)

The Disklavier can play back the MIDI data being received from the connected MIDI device as well as the software loaded or stored in the Disklavier itself. The following options should be set up in advance.

[Port]

Selects the terminal/port used for the data reception.

[MIDI]: Select this when the MIDI device is connected to MIDI IN terminal.

[USB]: Select this when the MIDI device is connected to USB port on the front of the I/O Center.

[Piano Rcv Ch]

The MIDI data consists of multi channels that are respectively assigned to a certain instrument's part. This option assigns the desired channel(s) to the piano part(s) that is (are) played back on the Disklavier's keyboard.

[##]: Select this when you assign no channel to the piano part.

[01] thru [16]:

Select the desired channel to which you assign the piano part.

[HP]: Select this when you assign the "01" and "02" channels to the piano parts, and the "03" channel to the pedal part.

[1+2]: Select this when the "01" and "02" channels are assigned to the piano parts.

[Prg]: Selects the smallest number channel assigned to the piano group voice (→ pg. 83) to be played on the Disklavier.

[Prg(All)]: Selects all channels assigned to the piano group voice (→ pg. 83) to be played on the Disklavier.

[Delay]

When the Disklavier receives two kinds of data (strong and weak note) at the same time, the weak note sounds a little bit later than the strong one due to the characteristics of the Disklavier's mechanism. To eliminate this delay in the sound reproduction and the notes are sounded in accurate timing at 500 millisecond after the data reception, usually a delay is applied to the incoming MIDI data.

[ON]: Select this when you apply this delay to the incoming MIDI data.

[OFF]: Select this when you do not apply this delay.

- 1 Tap on **Setup** in the [Main] screen, and then on **MIDI**.



The MIDI screen consists of three screens. Tap on **Next** or **Prev** to switch the screen.

- 2 Tap on [Port]/[Piano Rcv Ch]/[Delay], and then press **Left** or **Right** to select the desired option.

- 3 Tap on **Exit** to complete the setup.

Setting Up the Disklavier for MIDI Data Transmission (MIDI OUT)

The Disklavier can transmit the information of piano playing/ensemble part playback on the Disklavier as the MIDI data to the connected MIDI device to reproduce the sound with its sound generator, etc. or to record the MIDI data. The following options should be set up in advance.

[Port]

Selects the terminal/port used for the data transmission.

[MIDI]: Select this when the MIDI device is connected to MIDI OUT terminal.

[USB]: Select this when the MIDI device is connected to USB port on the front of the I/O Center.

[Transmit]

Selects one of the following parts to be transmitted to the connected MIDI device.

[ESBL Out]: Select this when you transmit the ensemble part played back on the Disklavier.

[KBD Out]: Select this when you transmit the piano part played on the Disklavier.

[P-Part ESBL Out]

Selects the channel(s) to which the piano part is assigned.

[ON]: Select this when you assign the piano parts to both the piano and the ensemble channels at data transmission.

[OFF]: Select this when you assign the piano parts to only the piano channels at data transmission.

1 Tap on **Setup** in the [Main] screen, and then on **MIDI**.

2 Tap on **Next** / **Prev** so that the following screen appears.



3 Tap on [Port]/[Transmit]/[P-Part ESBL Out], and then press **Left** / **Right** to select the desired option.

4 Tap on **Exit** to complete the setup.

Setting Up the Disklavier for Keyboard Playing Data Transmission (KBD OUT)

Besides the [MIDI OUT] options, more detailed setups for the keyboard playing data transmission is available. The following options should be set up in advance.

[Out Ch]

Assigns the piano part to the desired channels.

[##]: Select this when you assign no channel to the piano part.

[01] thru [16]:

Select the desired channel to which you assign the piano part.

[HP]: Select this when you transmit the ON/OFF pedal data to the “01” and the half-pedal data to the “03”. (This option is prepared for the data format used on the former version of the Disklavier.)

[Local]

Selects whether you reproduce or not the piano part playing with the Disklavier’s internal tone generator.

[ON]: Select this when you reproduce the piano part with the Disklavier’s internal tone generator.

[OFF]: Select this when you reproduce the song (played on the Disklavier) on the external MIDI device. This option inactivates the internal tone generator to prevent both the internal and external tone generator sound at the same time.

[Split]

Sets the split point on the desired note that divides the keyboard into left-hand and right-hand part. The selected note and the notes lower than that note are assigned to the channel set in [Out Ch] option, and the notes higher than that note are assigned to the channel next to the channel set in [Out Ch] option.

[A-1] thru [C7]:

Select the desired note as the split point.

[OFF]: Select this when you assign all the notes to one channel.

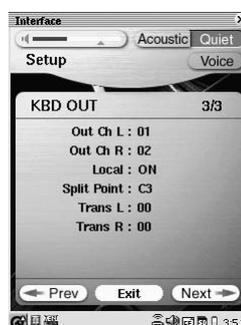
[Trans L]

Transposes the left-hand part to the desired key at transmission.

[Trans R]

Transposes the right-hand part to the desired key at transmission.

- 1 Tap on **Setup** in the [Main] screen, and then on **MIDI**.
- 2 Tap on **Next** / **Prev** so that the following screen appears.



- 3 Tap on [Out Ch]/[Local]/[Split]/[Trans L]/[Trans R], and then press **Left Arrow** / **Right Arrow** to select/adjust the selected option.
- 4 Tap on **Exit** to complete the operation.

Internet Direct Connection (IDC) Service

What is Internet Direct Connection (IDC)?

Internet Direct Connection (IDC) is a feature that allows you to connect your Disklavier directly to the Internet. Internet Direct Connection users are able to listen to a streaming broadcast (DisklavierRadio), preview and purchase thousands of songs (DisklavierMusicStore), and receive valuable information such as product updates (Network Update). Your Disklavier can be upgraded remotely as new technologies and services are developed through the IDC service.

Obtaining an ID and Password for the IDC Service (IDC Registration)

To use the IDC service, initial registration is required using an Internet-connected computer.

Please register at the following website: <https://music.yamaha.com/serviceRegistration.html>

Note: If you have already registered for the IDC service with any other instrument (such as the Clavinova), you do not need to register again. You can use your ID and password obtained through that registration.

Once you have an IDC account, you will interact with that account using the Pocket Controller. The dialog below shows a sample screen on the Pocket Controller in which you need to enter your previously registered ID (e-mail address) and password for using the full IDC service.

For details on entering characters, see “Entering Characters” on page 35.



Tap to submit the entered information.

Tap to cancel login.

Note: Some IDC service functions do not require an ID or password.

Connecting the Disklavier to the Internet

You can connect the Disklavier to a full-time online Internet connection (ADSL, optical fiber, cable Internet, etc.) via a router or a modem equipped with a router.

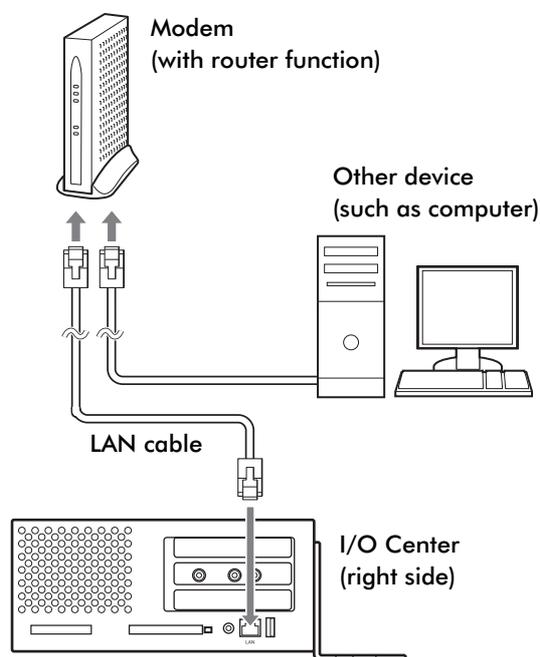
Preparations

- To use the Internet connection, you will first need to subscribe to an Internet service or provider.
- Use a computer to obtain and configure Internet service. You cannot obtain Internet service or configure router settings on a local area network using the Disklavier itself
- Use an STP (shielded twisted pair) cable to connect the I/O Center and a router.
- Before connecting the LAN cable, make sure to turn off (or shut down) the Disklavier.

Connecting the I/O Center to the Internet

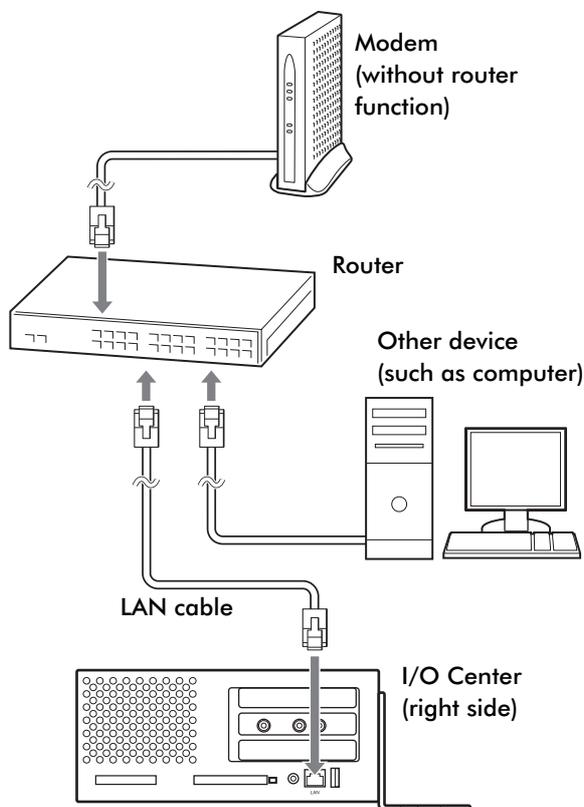
Connection example 1:

Using a modem with router function



Connection example 2:

Using a modem without router function



Note: Depending on the contract with your Internet provider, you may not be able to connect two or more devices (for example, a computer and the Disklavier) to the Internet. Please check your contract or contact your Internet provider for further information.

Note: Some types of modems (such as ADSL modems or cable modems) have multiple ports for connecting two or more devices (such as computer, musical instrument, etc.). If your modems have only one port, an optional router or hub is required in order to connect several devices simultaneously.

Note: Use an STP (shielded twisted pair) cable for connection.

For further information on the Internet connection (only a wired LAN connection is supported), visit the Yamaha Disklavier website:

<http://www.yamaha.com/disklavier/>
(for US customers)

<http://www.yamaha.ca/content/piano/products/disklavierpianos/>
(for Canadian customers)

<http://www.yamaha-disklavier.com/>
(for European customers)

<http://www.yamaha.com.au/au/>
(for Australian customers; Check the Disklavier website)

Notes on Network Security

The Disklavier Mark IV attempts to achieve a balance between security and usability in its network implementation. However, a determined hacker may be able to defeat these security measures and utilize the network of the purchaser in an unauthorized manner. Since each network is different, only the purchaser can determine whether the security measures discussed here will adequately protect their network.

The purchaser acknowledges that connection to the Internet and use of the Disklavier Mark IV Internet features is done at the risk of the purchaser. In no event shall Yamaha, its subsidiaries or Yamaha's and/or its subsidiaries' directors, officers, or employees be responsible for unauthorized access, loss or alteration of the data of the purchaser or be liable for any damage from intrusions.

Accessing the Internet

Once you have established an IDC account and successfully connected your Disklavier to the Internet, you can access a special Disklavier website where you can audition and purchase song files, access DisklavierRadio, and download software updates, among other things.

Note: Free contents that do not require an ID and password are available.

Note: The service contents are subject to change without prior notice.

[DisklavierRadio]:

Select this to listen to streaming broadcasts of music, with many channels of music content. You can enjoy listening to piano performances that play continuously.

Note: Music contents with narration are also available.

[DisklavierMusicStore]:

Select this to purchase and download MIDI song files. The available formats are PianoSoft Solo, PianoSoft Plus, Smart PianoSoft, and Standard MIDI.

Note: Standard MIDI files may not include an interesting piano part.

[To Download Library]:

Select this to play purchased songs. This option functions as the shortcut to [Download Library], where the purchased songs are stored.

[My Account]:

Select this to confirm your account information. You can also re-download song files previously purchased, log out from the IDC service, or refer to the help information from this option.

[Network Update]:

Select this to update the Disklavier using Internet connection.

1 Tap on in the [Main] screen.

The message [Connecting to the Internet ...] appears on the screen.

The [Internet] screen appears if the Disklavier has successfully connected to the Internet.



IDC service options

Note: If the connection fails, the [Failed to connect the Internet] message appears. In such a case, tap on  to return to the [Main] screen. Turn off the Disklavier and make sure the LAN cable is connected to the I/O Center firmly. Then turn on the Disklavier and perform step 1 again. If the connection still fails, see “Setting Up the Disklavier for Internet Connection” on page 103 and check the setting.

2 Tap on the desired option.

Perform operations on the screen that appears.

3 Tap on to return to the [Internet] screen.

4 Press to return to the [Main] screen.

Logging Out from IDC Service

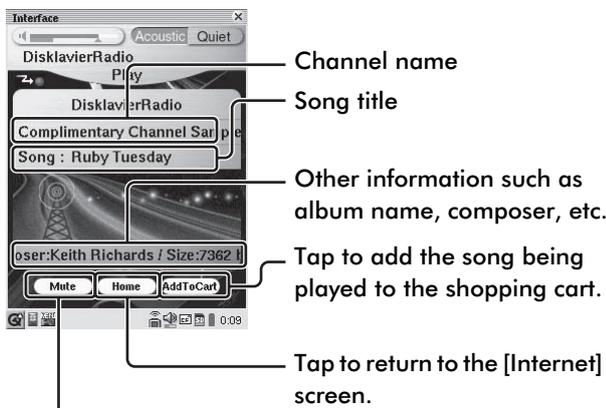
If you wish to use another IDC account or prevent the current account from being used by others, you must first log out from the IDC service.

- 1 Perform step 1 of "Accessing the Internet." (→ pg. 99)
- 2 Tap on **My Account**, and then on **Log Out**.
- 3 Tap on **Home** to return to the [Internet] screen.

Basic Operations on the IDC Service Screens

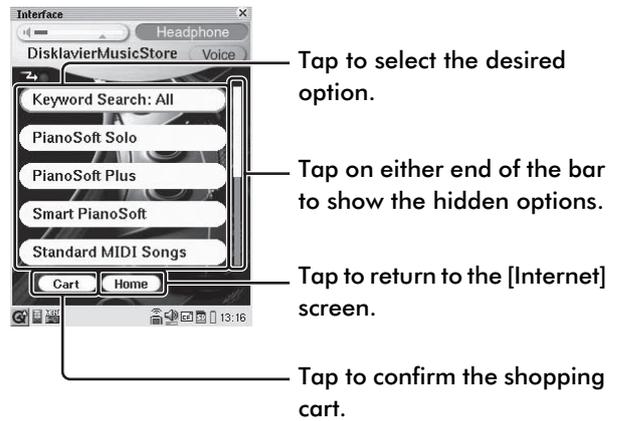
The following samples show the basic operations that you will perform frequently.

DisklavierRadio [Play] Screen

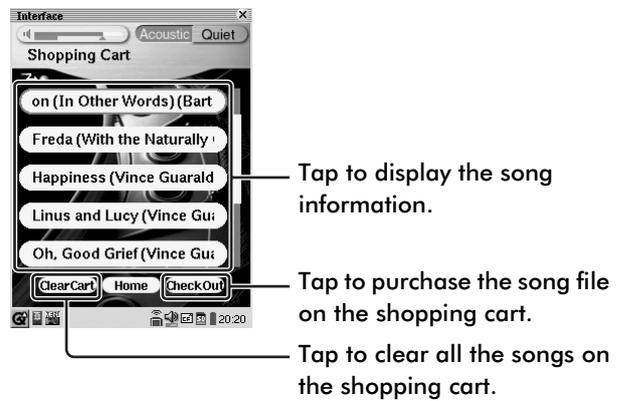


Each time you tap on this button, **Mute** and **Mute On** alternates. Tap on **Mute** to mute the sound. Tap on **Mute On** to resume the sound.

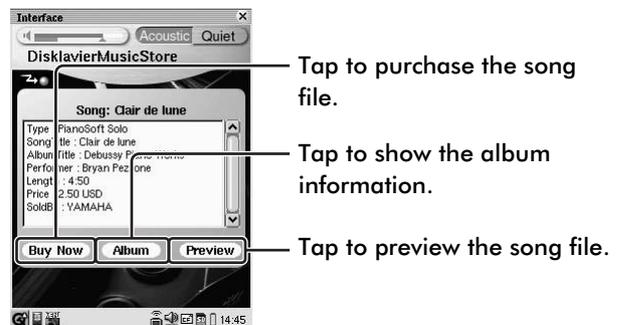
List Screen



[Shopping Cart] Screen



Purchase Screen



Checking Your Account Information

You can check your account information such as purchase history of song files and subscription status of the DisklavierRadio. You can also log out from the IDC service.

[Account Information]:

Select this to confirm your account information.

[Purchase History]:

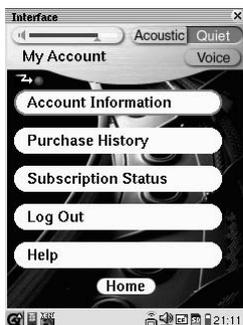
Select this to confirm the purchase history of song files. You can also re-download previously purchased song files.

[Subscription Status]:

Select this to renew a DisklavierRadio subscription or to unsubscribe from DisklavierRadio.

1 Perform step **1** of "Accessing the Internet." (→ pg. 99)

2 Tap on **My Account**.

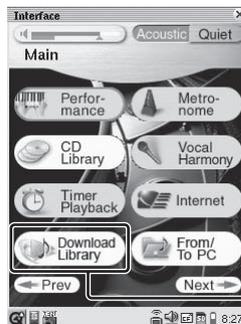


3 Tap on the desired option.
Perform operations on the screen that appears.

4 Tap on **Home** to return to the [Internet] screen.

Accessing the Download Library

The song data purchased in the DisklavierMusicStore is stored in [Download Library]. You can access this library from the [Main] screen or the [Internet] screen.



[Main] screen

Tap to access [Download Library].



[Internet] screen

Tap to access [Download Library].

Updating the Disklavier Using the Internet

You can download and then install update firmware using the IDC service.

1 Perform step **1** of "Accessing the Internet." (→ pg. 99)

2 Tap on **Network Update** .

The version confirmation process between the IDC server and the Disklavier starts.

If there is any updated firmware available, the following confirmation dialog appears.



Tap to cancel update.

3 Tap on **Update**.

The download process of the firmware starts.



The following confirmation dialog appears when the download process is completed.



Tap to reboot the Disklavier and install the firmware.

Tap to install the firmware next time you turn on the Disklavier.

Tap to cancel the installation process.

4 Tap on the desired option (**Reboot** or **Later**).

Note: The installation process starts automatically when you reboot the Disklavier.

Note: Since the installation process starts when the Disklavier is rebooted, it may take longer than usual to operate the Disklavier after power up.

Note: You cannot cancel the installation process once it has started.

Setting Up the Disklavier for Internet Connection

You can change various settings related to networking. In most cases, you do not have to change the default factory settings.

[Use DHCP]:

Select the method to determine several addresses. If your router has DHCP server function, we recommend that you to select [DHCP] or [DHCP+DNS].

[DNS1]/[DNS2]:

Enter the address of the primary and secondary DNS server. These settings must be made when [Use DHCP] is set to [DHCP+DNS] or [MAN.].

[IP Addr.]/[Sub Mask]/[Gateway]:

Enter the address of the I/O Center, subnet mask and gateway server. These settings must be made when [Use DHCP] is set to [MAN.].

Note: For information about DNS server address, IP address, subnet mask and gateway server address, check your contract or contact your Internet provider.

[Proxy Server]/[Proxy Port]:

Enter the name and the port number for the proxy server. These settings are necessary only when a proxy server is located in your local network.

[Delete Cookies]:

Delete the contents of all saved cookies*¹.

*1 See "Cookie" in "Glossary" on page 113.

[Connection Info.]:

You can confirm the information of network settings.

[Passcode]*²:

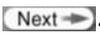
Enter the 4-digit passcode to prevent unauthorized access from the external remote controller.

[Thru MAC Addr.]*²:

For the external remote controller that cannot input the passcode, you can set the MAC address of that remote controller.

*2 These settings are not required for the use of the Pocket Controller and Tablet Controller. In case of using an external remote controller, refer to the user's guide for the remote controller.

Note: If changes are inappropriately made for [Passcode] and/or [Thru MAC Addr.] settings, the external remote controller may not function properly. In such cases, clear the current passcode to restore the initial settings.

1 Tap on  in the [Main] screen, and then on .

2 Tap on .



The [Network] screen consists of three screens. Tap on  or  to switch the screen.

3 Tap on the desired option.

Perform operations on the screen that appears.

4 Tap on  to complete the setup.

Initializing Internet Settings

If you want to initialize Internet settings, first you must reset the whole system of the Disklavier. (→ pg. 78 "Resetting the Disklavier")

However, cookies* are still remain after system resetting. To delete cookies, perform the appropriate operation on the [Network] setup screen. (→ pg. 103 "Setting Up the Disklavier for Internet Connection")

* See "Cookie" in "Glossary" on page 113.

If you are having difficulty operating your Disklavier, see if any of the symptoms listed below apply to your problem and follow the recommended remedy.

The Disklavier does not turned on.

- Make sure that the Power Supply unit is securely connected to an AC wall outlet with the supplied power cord. (→ pg. 14)
- Make sure that the Mains switches on both the Power Supply unit and the I/O Center are turned on.
- When the  does not light green and stays flashing green several minutes after the I/O Center is turned on, turn the Power Supply unit off, wait approximately 10 seconds or more, and then turn the unit back on. (→ pg. 4 “Turning the Disklavier On” in “Quick Guide”)

No sound is heard from the supplied Monitor speakers.

- Make sure the Monitor speakers’ AC power cables are connected to the SWITCHED AC outlets on the Power Supply unit.
- Make sure that the POWER switches on both Monitor speakers are turned on.
- Make sure the Monitor speakers are connected to the OUTPUT jacks on the I/O Center with the supplied speaker cords. (→ pg. 13)
- Make sure that the overall volume is adequately turned up on the Pocket Controller. (→ pg. 12 “Adjusting the Overall Volume” in “Quick Guide”)
- Make sure that the volume adjusted in [Balance] screen is adequately turned up on the Pocket Controller. (→ pg. 27 “Adjusting the Volume Balance among the Keyboard Playing, Ensemble Sound, Software Playback, and Microphone’s Input”)

- In Quiet mode, no sound is heard other than the solo piano sound during playback of a PianoSoft Solo song.
- The Monitor speakers are not supplied with the Disklavier PRO Series. In such a case, prepare active speakers equivalent to the Monitor speakers supplied with the Mark IV Series. (→ pg. 117 “Specifications”)

The Disklavier cannot be controlled on the Pocket Controller.

- The Pocket Controller is beyond the maximum operating range (approx. 20 m (65.6 ft.)). In such a case, move closer to the Disklavier.
- Make sure that the CF wireless LAN card is securely inserted into the Pocket Controller’s CF card slot. When you reinsert the card, be sure to reboot the Pocket Controller. (→ pg. 17)

The Disklavier does not read a song file.

- The maximum number of the readable files in an album (folder) is 999.
- Make sure that the name of the SMF song has an extension as “.MID”/“.mid” and the E-SEQ song has “.FIL”/“.fil”.

The playback order differs from the order on another device.

- The playback order depends on the recording software or other factors. Naming the file starting from numbers such as 01, 02, etc. may solve the problem.

The Disklavier does not recognize an USB flash memory.

- The Disklavier restricts the usage of the USB flash memories to seven identical ones by recognizing the ID information of the memories that have been inserted to the USB  port. (→ pg. 2) If you use USB flash memories other than the ones already recognized, shut down the Disklavier once before using them.
- Certain USB storage devices may not function properly with the Disklavier Mark IV/PRO Series. For a list of compatible products, please visit www.yamaha.com/disklavier.

The Disklavier does not read a CD-R/-RW.

- The song files should be formatted in ISO 9660 LEVEL1. The Disklavier may not read song files other than this format.

Some notes drop out during playback.

- In Acoustic mode, when a piano song is played back at a low volume, some notes in trill or tranquil part may drop out. This is a characteristic of the Disklavier and not a malfunction.

PianoSmart playback cannot be performed.

- Makes sure that the numbers indicated on both the SmartPianoSoft floppy disk and the paired CD are the same.

The I/O Center becomes hot.

- Although the chassis of the I/O Center may become hot while the Disklavier is turned on (also in Standby mode), this is not a malfunction.

Noise is heard from the I/O Center.

- The I/O Center contains HDD (Hard Disk Drive) and the HDD makes a disk spinning noise. This is not a malfunction.

Error Messages

While operating your Disklavier, an error message may appear in the display. If an error message appears, refer to the table below for an explanation of the message.

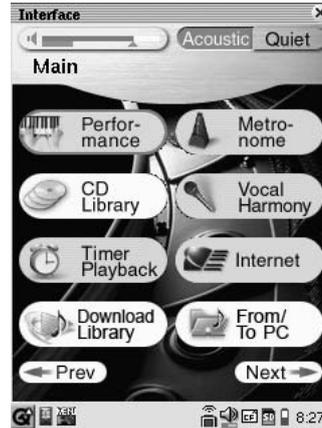
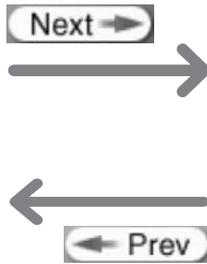
Situation	Error Messages	Description
You tried to copy copy-protected song files into a removable medium.	CANNOT EXECUTE - PROTECTED FILE	The commercially available copy-protected song files cannot be copied into any removable media.
You tried to copy song files into an album that already contains 3,000 song files.	CANNOT EXECUTE - Exceeds limit of 3,000 songs	The maximum number of the files in an album (folder) is 3,000.
You tried to copy song files into a library that already contains 10,000 songs.	CANNOT EXECUTE - Exceeds limit of 10,000 songs	The maximum number of songs in a library or playlist is limited to 10,000.
You tried to copy song files into a certain medium.	NOT ENOUGH DISK SPACE	The storage space in the destination medium is not enough.
You tried to erase entire contents in a floppy disk. ([Delete All])	CANNOT EXECUTE - DISK FORMAT	The floppy disk is not formatted in MS-DOS. In such a case, reformat on a Windows PC.
	CANNOT EXECUTE - PROTECTED FILE EXIST	When the floppy disk contains copy-protected song files, this function cannot be executed.
You tried to copy an album to a floppy disk in E-SEQ (Piano1) format.	CANNOT EXECUTE - NOT 2DD DISK	The destination floppy disk must be 2DD.
	CANNOT EXECUTE - Exceeds limit of 60 songs	The maximum number of songs on an E-SEQ type disk is limited to 60.

Screen Transition Diagrams

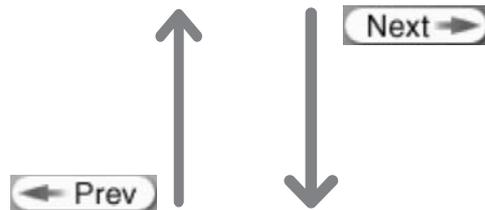
[Main] screens



(→ pg. 9 in "Quick Guide", and 22, 46)

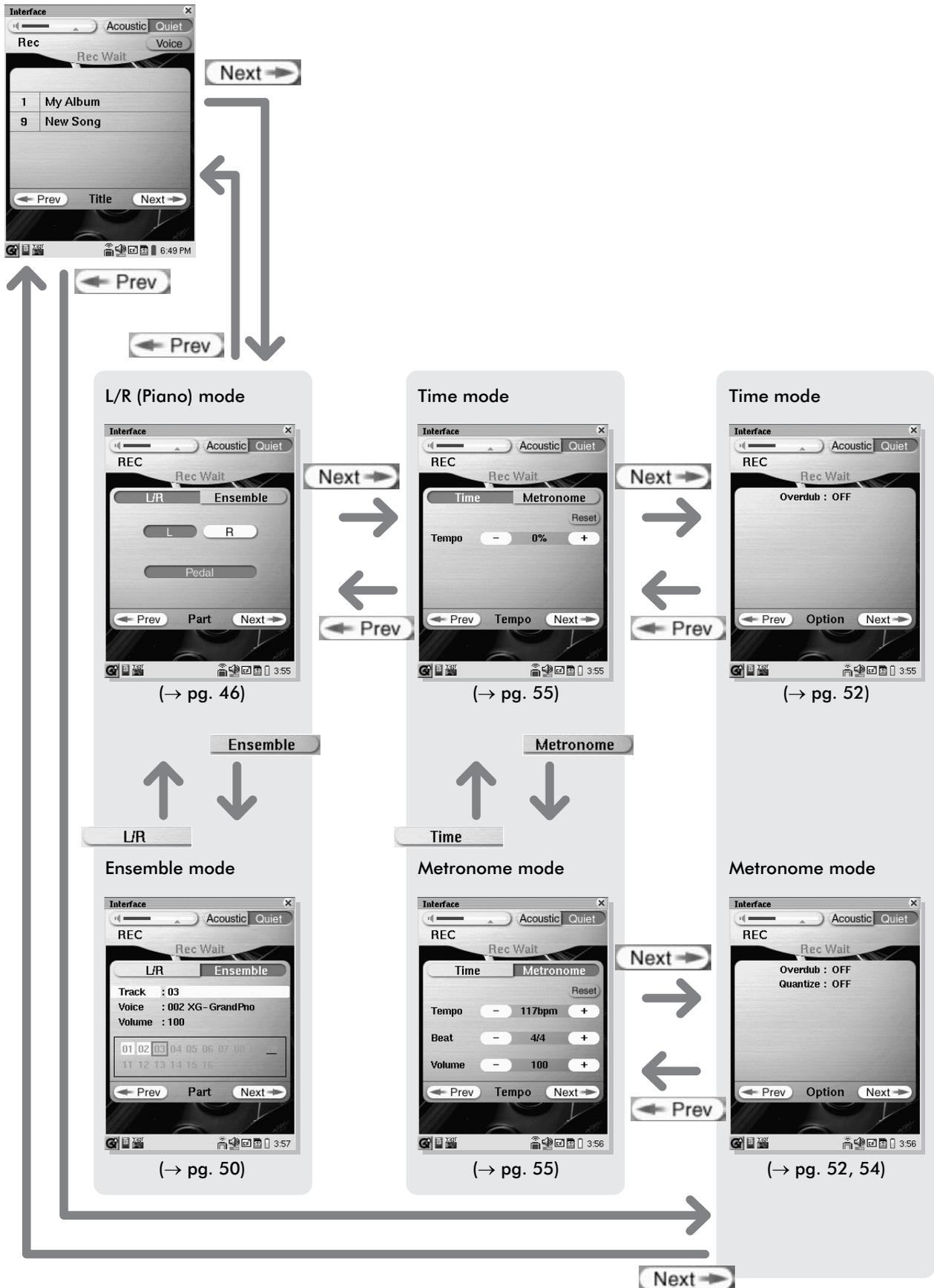


(→ pg. 9 in "Quick Guide", and 40, 42, 99, 101)

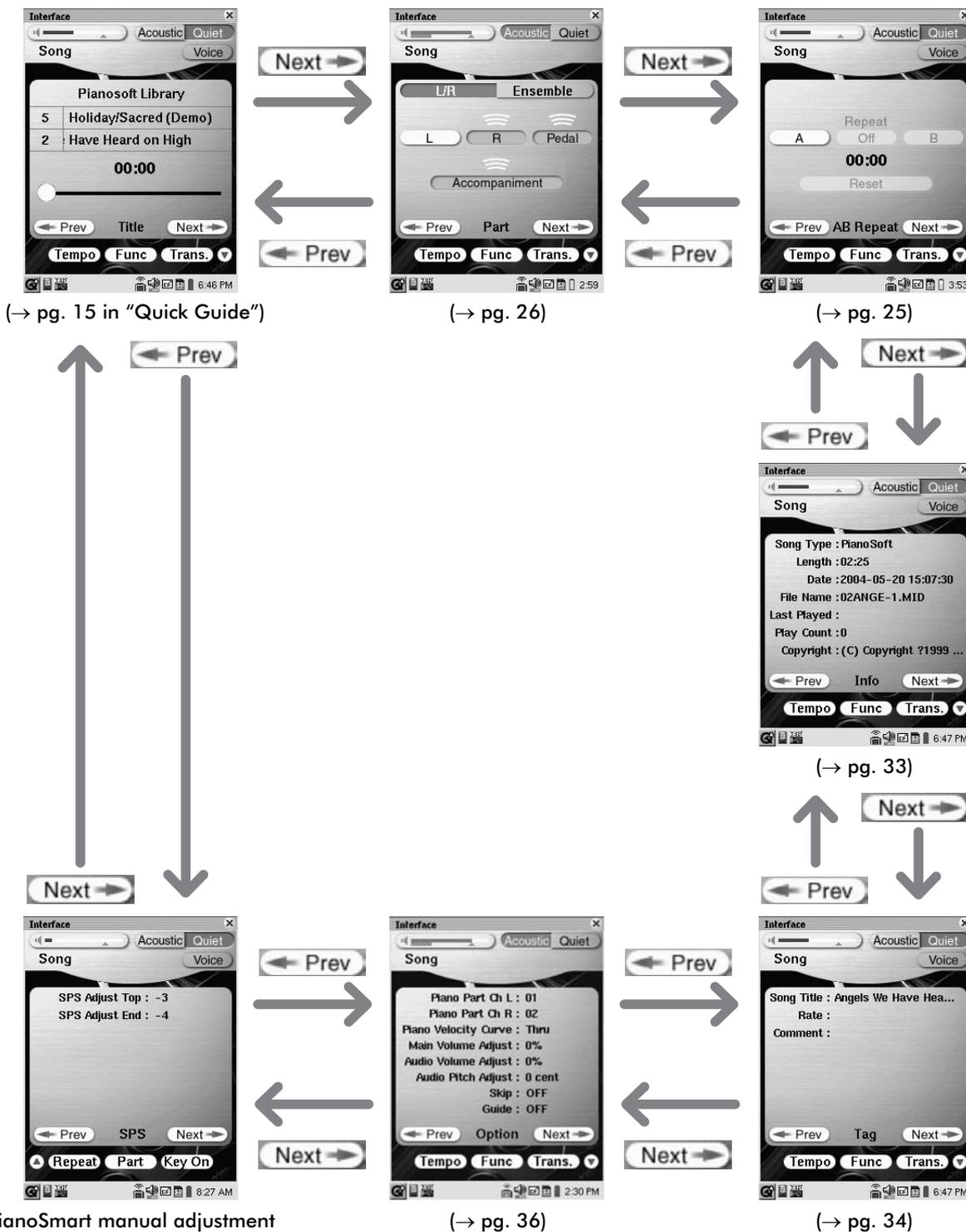


(→ pg. 6, 7 in "Quick Guide" and 66, 68, 70, 73 – 81, 94 – 96)

[Rec] screens

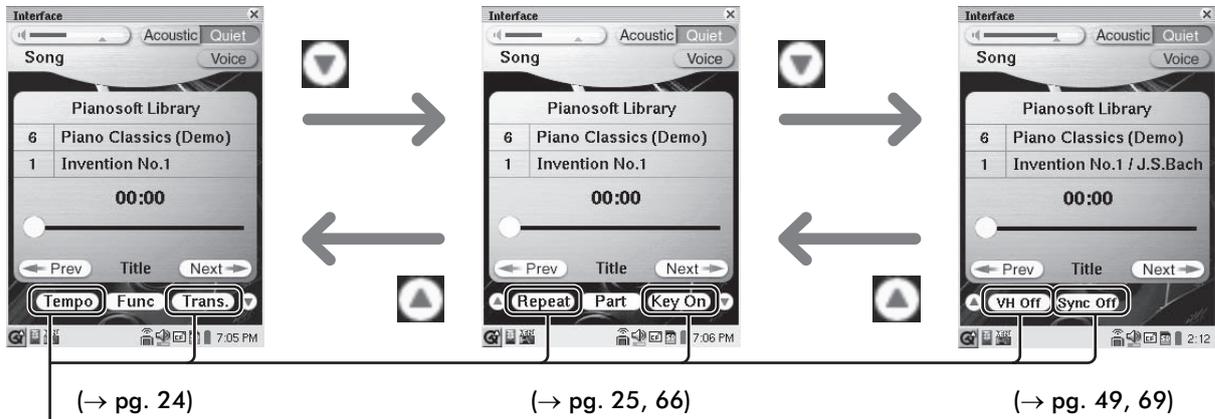


[Song] screens



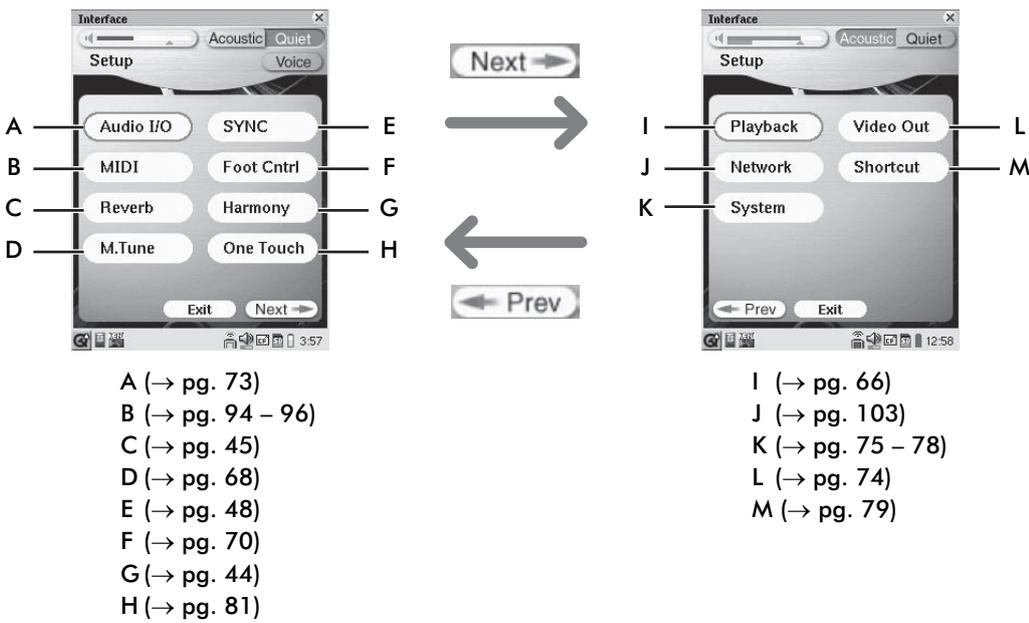
* For normal use, modification of these setups are not required.

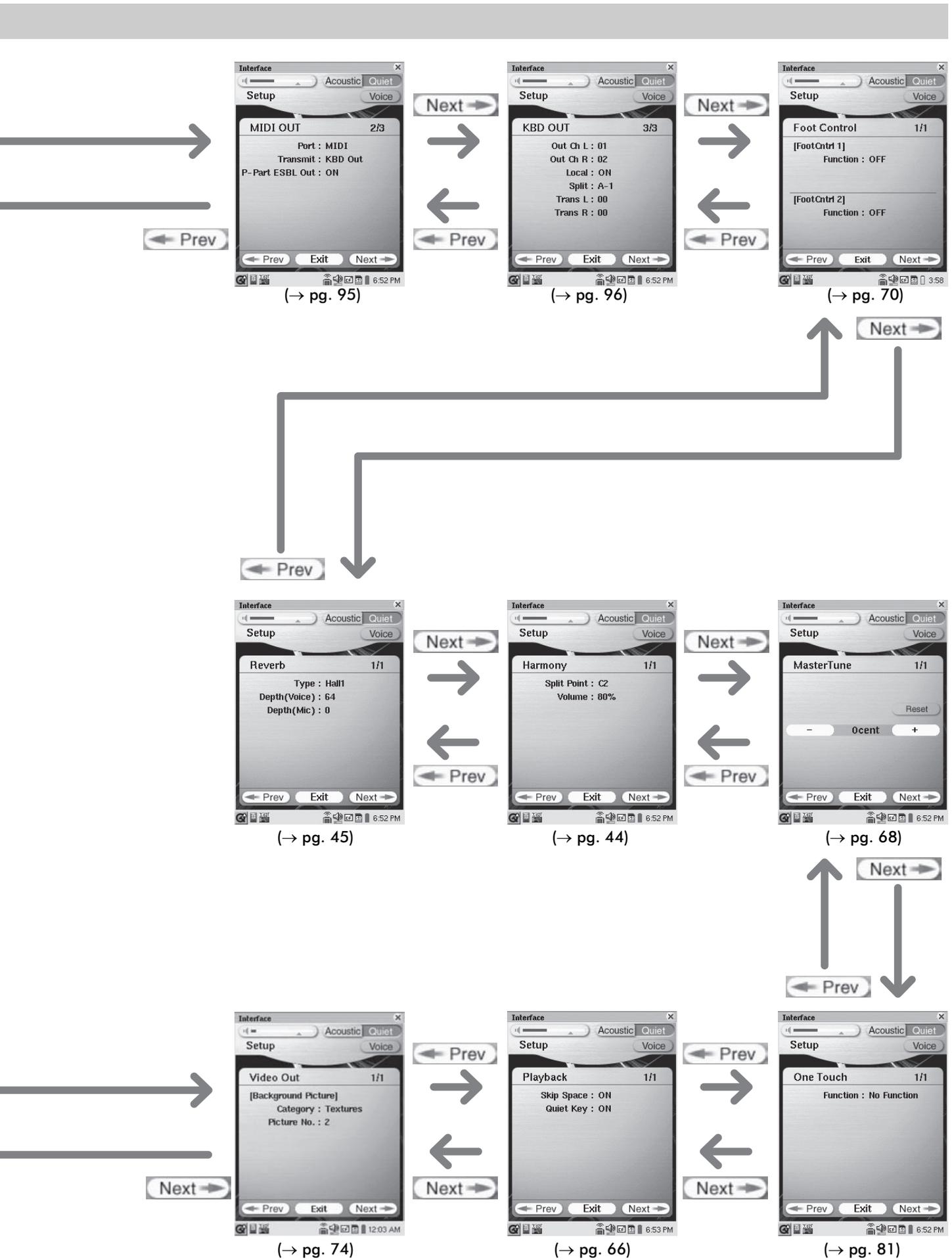
[Song] playback option buttons



Playback option buttons

[Setup] menu screens





This glossary provides basic definitions of terms used frequently in Disklavier manuals.

Continuous Pedal

See “Incremental Pedal”.

Cookie

A computer data file that stores certain information for use when revisiting a website. In the case of the Disklavier, cookies are used to store ID and password for the IDC service.

DHCP

This is a standard or protocol by which IP addresses and other low-level network configuration information can be dynamically and automatically assigned each time a connection is made to the Internet.

DNS

A system that translates names of computers connected to a network to their corresponding IP addresses.

Download

Transferring data over a network, from a larger “host” system to a smaller “client” system’s hard drive or other local storage device—much like copying files from your hard disk drive to a floppy disk. For the Disklavier, this refers to the process of transferring songs and other data from a website to the Disklavier.

Ensemble Song

A song which contains piano parts and accompanying instrumental voices. An Ensemble song contains the same left and right-hand parts as an L/R song, and in addition, up to 13 accompanying instrument tracks. These extra tracks are played by the internal XG tone generator. The accompanying tracks may be used for acoustic bass, drums, strings, vibes, etc.

E-SEQ Song Format

A song file format developed by Yamaha for saving songs.

Floppy Disk

The magnetic storage medium that the Disklavier uses to save songs. The Disklavier uses the 3.5 inch 2DD and 2HD floppy disks commonly used for computers.

Gateway

A system which links different networks or systems, and makes possible data transfer and conversion despite differing communications standards.

General MIDI (GM)

An addition to the MIDI standard that simplifies the transfer of MIDI song files between instruments of different manufacturers. A MIDI song recorded using a GM compatible tone generator should play back correctly when used with any GM compatible tone generator. The standard specifies that a GM compatible tone generator must support 24-note polyphony, 16 parts, and 128 standard voices.

Half Pedal

See “Incremental Pedal”.

Headphone Mode

A mode of the Silent Piano™ function in which sound is output through connected stereo headphones so that you can listen to songs or play the piano without disturbing people around you.

Incremental Pedal

Piano pedals are not always completely up or down and may be held somewhere in-between. Using incremental pedal data (also called continuous or half pedal data) the Disklavier precisely records the up and down movement of the piano pedals.

Internet

A huge network made up of networks, the Internet allows high-speed data transfer among computers, mobile phones and other devices.

IP Address

A string of numbers assigned to each computer connected to a network, and indicating the device’s location on the network.

LAN

Short for Local Area Network, this is a data-transfer network that connects a group of computers at a single location (such as an office or home) by means of a special cable.

L/R Song

In a L/R song, the left-hand piano part is stored on track 1 (L) and the right-hand piano part is stored on track 2 (R). During playback you can cancel either part, and then play that part yourself. When recording an L/R song, you can record the two parts simultaneously or separately.

MIDI

An acronym for Musical Instrument Digital Interface. MIDI allows electronic musical instruments to communicate with each other.

Modem

A device which connects and allows data transfer between a conventional telephone line and a computer. It converts the digital signals from the computer to analog audio for sending over the phone line, and vice versa.

Piano Parts

Refers to the left- and right-hand piano parts of a song. The left-hand piano part is recorded onto track 1 and the right-hand piano part is recorded onto track 2. These track assignments are the default settings and can be changed.

PianoSoft™

The PianoSoft Disk Collection is a library of prerecorded song disks made by Yamaha specifically for use with the Disklavier.

PianoSoft·Plus™

PianoSoft·Plus disks contain Ensemble songs that can be played on the Disklavier.

Polyphony

The maximum number of voices (or sounds) that can be produced at a time from MIDI instruments.

Provider

A communications business that offers Internet connection services. In order to connect to the Internet, it is necessary to contract to a provider.

Proxy

A proxy server is a server that all computers on a local network have to go through before accessing information on the Internet. It intercepts all or designated requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server. Proxy servers are used to improve performance and speed, and to filter requests, usually for security and to prevent unauthorized access to an internal network.

Quiet Mode

A mode of the Silent Piano™ function in which sound is output through the monitor speakers, enabling you to freely adjust the volume of the piano.

Reverb

Short for “reverberation.” The effect that adds a more realistic feel to a sound by simulating the reflection of the sound in rooms and halls of various sizes.

Rhythm Track

Tracks of an ensemble song designated for the accompanying rhythm. The rhythm track is unaffected by the playback transposition function.

Router

A device for connecting multiple computer networks. For example, a router is necessary when connecting several computers in a house or office, to allow all of them access the Internet and share data. A router is usually connected between a modem and a computer, although some modems have a built-in router.

Sequencer

A sequencer can be used with the Disklavier to play back and record MIDI data.

Server

A hardware system or computer used as a central point for a network, providing access to files and services.

Silent Piano™ Function

Yamaha’s innovative function that keeps the hammers from striking the strings, effectively silencing the acoustic piano. Sound information is sent to the digital piano tone generator and output through the monitor speakers (Quiet mode) or stereo headphones (Headphone mode).

Smart PianoSoft™

Software made by Yamaha containing MIDI signals for playing back along with standard audio CDs.

SMF

Abbreviation for Standard MIDI File.

SMF Song Format

A song file format supported by MIDI sequencers and music software.

Song

Normally, a short piece of music with lyrics. However, for clarity in Disklavier manuals, the term is used to refer to any piece of music of any genre.

Standard MIDI File

A file of MIDI data that can be read and used by a number of different MIDI devices and computers.

Subnet Mask

A setting used to divide a large-scale network into several smaller networks.

TG Master Tune

The function that allows you to tune the internal XG tone generator, and if connected, an external tone generator simultaneously so that their tunings match that of the Disklavier.

Tone Generator

An electronic device that can generate tones or instrument voices.

Transpose

Changing the key of a song. For example, a song in the key of C is transposed to the key of D when it is moved up two semitones.

Velocity

Because the loudness of a piano note is determined by the speed (velocity) with which a string is struck by a hammer, note loudness is referred to as velocity.

Voice

The sounds produced by a tone generator expressing various instruments.

Web Page

Refers to each individual page that makes up a website.

Website

This refers to the group of web pages that are opened together. For example, the collection of web pages whose addresses begin with “<http://www.yamaha.com/>” is referred to as the Yamaha site.

XG

Yamaha XG is an extension of the GM (General MIDI) format. Its greater polyphony, more voices, and use of effects enhances the compatibility between MIDI devices. When a song in the Yamaha XG format is played on another XG-compatible tone generator or synthesizer, it plays and sounds as the original composer/creator intended.

Specifications

General

Sensor System	Key Sensors	Noncontact optical fiber/grayscale shutter sensing system for 88 keys (senses the key position, keying velocity, and key releasing velocity)
	Hammer Sensors* <i>* Equipped with the C3 grand piano or higher specification models only.</i>	Noncontact optical fiber/grayscale shutter sensing system
	Pedal Sensors	Noncontact digital optical sensing system (senses the pedal position*) <i>* Continuous sensing for the damper and soft pedals, and on/off sensing for the sostenuto pedal.</i>
Drive System	Keys	DSP servo drive system (high-power servocontrolled solenoids with supersensitive magnetic sensor*) <i>* The supersensitive magnetic sensor is only for the PRO Series.</i>
	Pedals	DSP servo drive system (servocontrolled solenoids)
Data Storage	Internal HDD	80 GB
	File Format	Standard MIDI File (SMF) FORMAT 0/1, E-SEQ
Removable Media	Compact Disc	Yamaha PianoSoft-PlusAudio, audio CD (ISO 9600-compliant), Data CD (ISO 9660 Level1-compliant)
	Floppy Disk	3.5" 2DD (720 KB) or 2HD (1.44 MB) floppy disk
	USB Flash Memory	Yamaha does not assure the operation of all the commercially available USB flash memories. For a list of compatible products, please visit www.yamaha.com/disklavier .
	USB Hard Disk Drive	FAT32 format
Media Center	Drive	CD and floppy disk drive
	Dimensions (W × H × D)	405 × 257 × 73 mm (16 × 10 1/8 × 2 7/8 in.)
	Weight	3.3 kg (7.3 lb.)
Pocket Controller	Dimensions (W × H × D)	74 × 138 × 23 mm (2 15/16 × 5 7/16 × 15/16 in.)
	Weight	210 g (7.4 oz.) (not incl. screen protector, wireless LAN card, incl. rechargeable battery)
Monitor Speakers* <i>* Only for models supplied with the Monitor speakers.</i>	Rated Power Output	20W × 2 with tone and volume controls
	Drivers	16 cm (6 5/16 in.) woofer × 2, 2.5 cm (1 in.) tweeter × 2
	Dimensions (W × H × D)	144 × 236 × 167 mm (5 11/16 × 9 5/16 × 6 5/8 in.)
	Weight	4.4 kg (9.7 lb.)
Record/Playback Mode		Standard mode (Mark IV Series), XP mode (PRO Series)
Pitch Control		Set at A=440 Hz, tunable ±50 cents in 1 cent increment
Silencing Mechanism		Motor-driven hammer shank stopper
Piano Voice and Performance Tone	Type	AWM2/Articulation Element Modeling (AEM)
	Polyphony	64 notes digital stereo sampling (90 MB wave memory, 16 bit linear) (AWM2)/ 6 notes Articulation Element Modeling (AEM)
	Normal Voices	Piano (digital stereo sampling) and other 42 voices

Ensemble Tone	Type	Advanced Wave Memory 2 (AWM2)
	Polyphony	32 notes (max.)
	Ensemble Parts	16 parts
	Voice Module Modes	XG, GM
	Normal Voices	676
	Drum Voices	21 kits
Power Source	Local AC current, 100 – 240 V, 50/60 Hz	
Power Consumption	180 W	
Supplied Accessories	Media Center (1), Installation kit for the Media Center (1 set), Monitor speaker (2)*, Installation kit for the Monitor speaker (1 set)*, Speaker cord (2)*, Pocket Controller PRC-100 (1), CF wireless LAN card (2), Rechargeable battery EA-BL08 (1), Cradle (1), AC adaptor EA-70 (1), AC power cord (1), Advanced Operating Manual (this book), (1), Quick Guide (1), Stereo headphones (1 set) * Only for models supplied with the Monitor speakers.	
Optional Accessories	HPE-170 headphones	

Features

Playback Features	Media Select	Floppy disk, CD, USB media, internal HDD
	Arrangement of Songs	Song Libraries (PianoSoft Library, User Library, CD Library, Download Library, From/To PC) → pg. 9 in “Quick Guide”
	Polyphony	32 keys (PRO Series), 16 keys (Mark IV Series)
	Volume	128 levels
	Repeat	ALL (all songs in current album), RPT (current song), RND (all songs in current album in random order), A-B repeat
	Programming	Play Lists feature
	Part cancel	L (left), R (right), Pedal, Accompaniment
	Tempo	-50 to +20% in 1% increment
	Transposition	±24 semitones (2 octaves) in 1 semitone increment
	Balance	Volume balances among Voice (digital piano sound), TG (ensemble sound), Audio (accompaniment or standard audio sound on a CD), and MIC (microphone input)
	Track Voice changing	→ pg. 28
	Track Editing	Mix, Move, Copy, Delete, Transpose → pg. 30
	SmartKey	→ pg. 37
	SmartPiano	→ pg. 38
	Video Synchronization	→ pg. 38
Piano Playing Features	Metronome	→ pg. 42
	AEM Articulation	Head (blow-up), Joint, Tail (fall-down)
	Harmony	→ pg. 44
	Reverb	Hall1, 2, Room1, 2, 3, Stage1, 2, Plate (with 0 to 128 depth control)

Continue to next page...

Recording Features	Overwrite Recording	→ pg. 47
	Video Synchronization	→ pg. 48
	Ensemble Part Recording	→ pg. 50
	Overdubbing	→ pg. 52
	Metronome Mode Recording	→ pg. 53
	Quantize	→ pg. 54
	Tempo Changing	→ pg. 55
	Audio Recording	→ pg. 56
	Audio + MIDI Recording	→ pg. 57
Other Features	Timer Play	→ pg. 66
	Vocal Harmony	→ pg. 68
	Foot control/switch	→ pg. 70
	XP Strip	→ pg. 75
	Backup	→ pg. 75
	One Touch Button	→ pg. 81

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disklavier™

Mark IV/PRO Series

Appendix

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Version 2, June 1991

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MIDI Implementation Chart

Yamaha Disklavier
Model: Mark IV/PRO

Date: 15-May-2011
Version: 4.00

Function ...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1-16 1-16	1-16 1-16	Memorized
Mode	Default Message Altered	3 × *****	3 3, 4 (M=1) *3, *6 ×	
Note Number	: True Voice	0-127 *****	0-127 0-127	
Velocity	Note ON Note OFF	○ 9nH, V=1-127 ○ 8nH, V=0-127	○ V=1-127 ○	
After Touch	Key's Ch's	○ *8 ×	○ ○ *1, *3, *4	
Pitch Bend		×	○ 0-24 semi *1, *3, *4, *5	
Control Change	0,32 1 5 7 11 10 6, 38 64 65 66 67 71-74, 84 91, 93, 94 96-101	× × × × × × × ○ × ○ ○ × × ×	○ *1, *3, *4, *5 ○ *1, *3, *4, *5 ○ *1, *3, *4 ○ ○ ○ *1, *3, *4, *5 ○ *3, *4, ○ *2, *3, *4, *5 ○ *3, *4 ○ *2, *3, *4 ○ *2, *3, *4 ○ *3, *4 ○ *3 ○ *1, *3, *4	Bank Select Modulation Portament Time Volume Expression Pan Data Entry Hold 1 (Sustain) Portament Sostenuto Soft (Shift) Pedal Effect Depth
Program Change	: True #	○ 0-127 *****	○ 0-127 *3, *4, *5	
System Exclusive		○	○	
Common	: Song Pos : Song Sel : Tune	× × ×	× × ×	
System Real Time	: Clock : Commands	× ×	× ×	
Aux Messages	: All Sound Off : Reset All Cntrls : Local ON/OFF : All Notes OFF : Active Sense : Reset	○ ○ × ○ ○ ×	○ ○ ○ ○ ○ ×	
Notes	*1=Received if switch is on. *2="Player Piano" can recognize. *3=Tone for Ensemble (XG, GM) can recognize. *4=Tone for Quiet (AWM2) can recognize. *5=Tone for Quiet (AEM) can recognize. *6=M is always treated as "1" regardless of its value.		*7=Transmit if this model has a Sostenuto Pedal. *8=Applying further pressure on the key does not output "key aftertouch" information. Instead, key position is transmitted as additional information.	

Mode 1 : OMNI ON. POLY
Mode 3 : OMNI OFF. POLY

Mode 2 : OMNI ON. MONO
Mode 4 : OMNI OFF. MONO

○ : Yes
× : No



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