



CELVIANO AP-470

USER'S GUIDE

Please keep all information for future reference.

About These Instructions

These instructions consist of four pages on two sheets. Each page is identified by a page number in the upper right corner.

Before performing any operation, be sure to go to page 3/4 first and read the information under "Piano Buttons", "Using the FUNCTION Button", and "Keyboard Keys Used for Configuring Settings".

● Refer to "Assembling the Stand" on page 4/4 of these instructions for information about how to assemble the stand and attach the music stand.



These instructions provide general information about Digital Piano operations. For more detailed information, refer to the "User's Guide (Full)", which can be downloaded by visiting the website below or by using the nearby QR code. <http://world.casio.com/manual/emi/>

The "User's Guide (Full)" includes information on the topics listed below.

- Auto Resume and Operation Lock
- Connecting to an audio system and amplifier
- Connecting to a computer
- Details about settings using the **FUNCTION** button
- Operations using a USB flash drive
- MIDI Implementation Chart, etc.

● Be sure to read the "Safety Precautions" in these instructions and use the Digital Piano correctly.

⚠ Caution!

Make sure that the keyboard cover is fully open whenever you are playing. A partially open cover can suddenly close unexpectedly and pinch your fingers.

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Power Outlet

Your Digital Piano runs on standard household power. Be sure to turn off power whenever you are not using the Digital Piano.

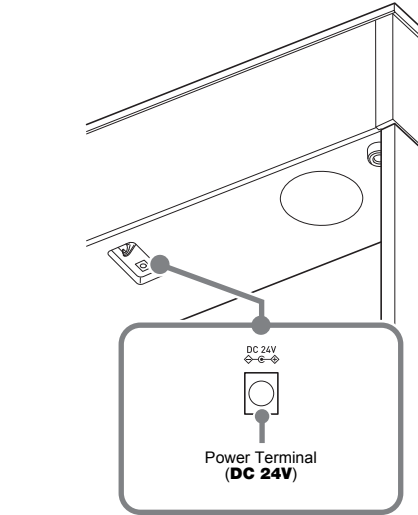
■ Using an AC Adaptor

Use only the AC adaptor (JEITA Standard, with unified polarity plug) that comes with this Digital Piano. Use of a different type of AC adaptor can cause malfunction.

Specified AC Adaptor:
AD-E24250LW

- Use the supplied power cord to connect the AC adaptor.

Bottom



⚠ IMPORTANT!

- Never connect the AC adaptor that comes with this Digital Piano to any other device besides this Digital Piano. Doing so creates the risk of malfunction.
- Make sure the Digital Piano is turned off before plugging in or unplugging the AC adaptor.
- The AC adaptor will become warm to the touch after very long use. This is normal and does not indicate malfunction.
- Never try to use the supplied power cord with any other device.
- Place the AC adaptor on the floor with its label surface pointed downwards. The AC adaptor becomes more prone to electromagnetic wave generation if the label surface is in a different position.

Turning Power On or Off

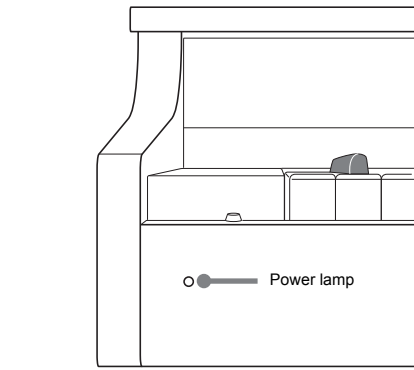
■ To turn on power

Press the **⏻** (Power) button. Power up takes about five seconds.

■ To turn off power

Hold down the **⏻** (Power) button until the power lamp goes out.

Front



⚠ IMPORTANT!

- Pressing the **⏻** (Power) button to turn off power actually puts the Digital Piano into a standby state (minute current continues to flow). If you do not plan to use the Digital Piano for a long time or if there is a lightning storm in your area, unplug the AC adaptor from the power outlet.

■ Auto Power Off

Power turns off automatically after four hours of non-use. To disable Auto Power Off, turn on power by holding down the **FUNCTION** button and pressing **⏻** (Power).

Adjusting Volume

Use the **VOLUME** knob to adjust the volume of speaker and headphone output.

Changing the Tuning

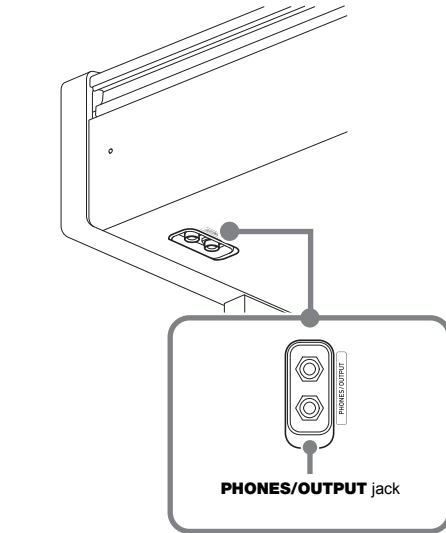
The factory tuning (A4=440.0Hz) can be change in 0.1 Hz steps.

1. Hold down the **FUNCTION** button and use the A-tuning keys (+, -).
 - Tuning is raised or lowered in 0.1 Hz steps.
 - To toggle between the two settings below, hold down the **FUNCTION** button and press the A-tuning keyboard keys (+ and -) at the same time.
 - 440.0 Hz (1 beep)
 - 442.0 Hz (2 beeps)

Connecting Headphones

Connect headphones to the **PHONES/OUTPUT** jack. Connecting headphones mutes speaker output, so you can practice even late at night. To protect your hearing, do not set the volume too high when using headphones.

Front



⚠ NOTE

- If the plug of the headphones does not match the **PHONES/OUTPUT** jack, use a commercially available adaptor plug.

Head Phone Mode

The Head Phone Mode reproduces natural sounding acoustic piano tones when using headphones.

1. Hold down the **FUNCTION** button and press the Head Phone Mode key.

Each press toggles between on and off.

Selecting a Tone with a Button

1. Press the **GRAND PIANO 1** button or **GRAND PIANO 2** button.
 - Pressing the **GRAND PIANO 1** button selects the CONCERT tone in the GRAND PIANO 1 group.
 - Pressing the **GRAND PIANO 2** button selects the CONCERT tone in the GRAND PIANO 2 group.

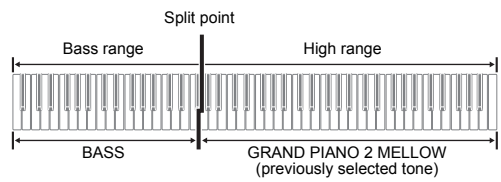
Selecting a Tone with a Keyboard Key

Tone names are marked above the keys.

1. Hold down the **FUNCTION** button and press the desired tone key. (See the "Tone" area under "Keyboard Keys Used for Configuring Settings".)
 - Some keys may have more than one tone assigned. In this case, each press of the key cycles to the next assigned tone. Which tone is selected by the key press is indicated by beeps.
 - Example: Cycling through MODERN, ROCK, and JAZZ settings
 - MODERN: (1 beep)
 - ROCK: (2 beeps)
 - JAZZ: (3 beeps)

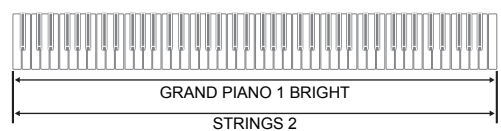
■ Bass Tone (BASS)

Pressing the BASS (LOWER) key to select a bass tone selects a bass tone for the low end (left side) of the keyboard only. The high end (right side) of the keyboard retains the tone assigned to it before the bass tone was selected.



Layering Two Tones

1. Hold down the **FUNCTION** button and press the Select Layer Tone key.
 - Each press of the keyboard key toggles between on and off.
2. Hold down the **FUNCTION** button and press key of the tone to be layered.

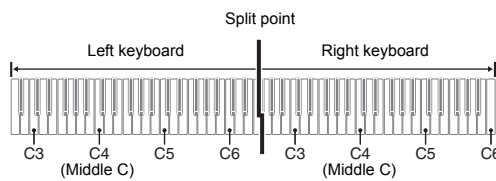


3. To return to the original tone, hold down the **FUNCTION** button and press the Select Layer Tone key (which exits the Layer Mode).

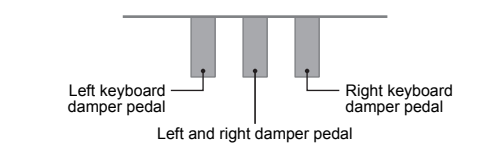
Splitting the Keyboard for Duet Play

You can split the keyboard in the center so the left and right sides have the same range. The left outer pedal is the left side damper pedal, while the right outer pedal is the right side damper pedal.

Keyboard



Pedals



⚠ NOTE

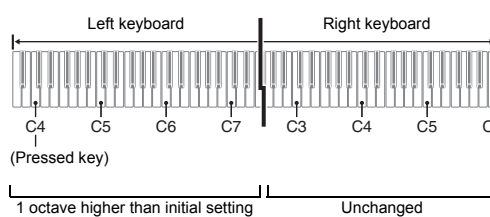
- Only the damper pedal for the right keyboard supports half-pedal operations.

1. Select a tone.
2. To cycle between the Duet Mode settings below, hold down the **FUNCTION** button and press the Duet Mode key.
 - Off
 - On
 - Pan: Outputs left side keyboard tone from the left speaker and right side keyboard tone from the right speaker.

Changing the Octaves of the Keyboards

You can change the ranges of the left and right keyboards in octave units from their initial default settings.

1. Pressing the **FUNCTION** button and the **GRAND PIANO 1** button, press the C-key you want as middle C (C4) of the left keyboard. Keep the **FUNCTION** button and the **GRAND PIANO 1** button depressed as you advance to step 2.
 - Example: Pressing the leftmost C key configures the keyboards below.



2. With the **FUNCTION** button and the **GRAND PIANO 1** button still depressed, press the C-key you want as middle C (C4) of the right keyboard.

This sounds the note assigned to C4 and change the octave of the right keyboard.

⚠ NOTE

- You can return the keyboards to their initial default ranges by exiting and then re-entering the Duet Mode, or by selecting the Pan setting.

Adjusting Acoustic Piano Sound Characteristics

The tones of your Digital Piano have built-in elements that give them the characteristic reverberation and other characteristics of an acoustic piano. Each of these elements can be individually adjusted to one of four levels.

■ Hammer Response

Controls the time lag between when a key is pressed and when the note actually sounds.

Settings

- 1: Quick
- 2: Grand piano style
- 3: Slightly slow
- 4: Slow

■ String Resonance

Adjusts the characteristic reverberation (string resonance) of an acoustic piano.

You can select a reverberation setting that matches the song being played or your own personal preference.

Settings

- 1: Subdued
- 2: Slightly subdued
- 3: Resonant
- 4: Very resonant

■ Lid Simulator

Adjusts how sound resonates in accordance with the opening state of a grand piano lid.

Settings

- 1: Lid closed
- 2: Lid partially open
- 3: Lid fully open
- 4: Lid removed

1. Hold down the **FUNCTION** button and press the desired element key.

⚠ NOTE

- Opening or closing the Digital Piano's lid does not affect the Lid Simulator setting.

Playing Back Built-in Songs

This Digital Piano comes with a Music Library of 60 piano songs (numbered 1 to 60), and Concert Play selection of piano and orchestra performance songs (numbered 1 to 10) built in.

Demo Songs

1. Hold down the **FUNCTION** button and press the **METRONOME** button.
 - This starts sequentially looped playback of all Concert Play (Listen) songs and Music Library songs.
 - To advance to the next demo song, hold down the **FUNCTION** button and press the **MIDI REC** button.
 - To return to the previous demo song, hold down the **FUNCTION** button and press the **AUDIO REC** button.
 - To stop demo playback, press the **▶** button.

⚠ NOTE

- Pressing the **METRONOME** button while holding down the **FUNCTION** button during Concert Play jumps to the first Music Library song. Performing the same operation during Music Library play jumps to the first Concert Play song.
- The only operations possible during demo play back are changing the currently playing tune and stopping playback.

Music Library

1. To select a song, hold down the **FUNCTION** button and use the Select Music Library Song keys (-, +). You can also input a value from 0 to 9 to specify a Music Library song number.
2. To start playback press the **▶** button.
 - To stop playback, press the **▶** button.

Concert Play

1. To select a song, hold down the **FUNCTION** button and use the **CONCERT PLAY** area SELECT keys (-, +).
2. To start song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.
 - To stop song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.

⚠ NOTE

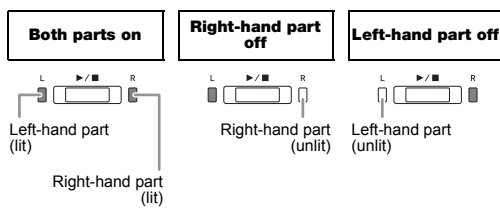
- Concert Play uses recordings of a live orchestra, so the tones used for recording are different from those that can be selected with the Digital Piano. Also note that breath and performance noises may be audible in Concert Play songs.

Practicing with Built-in Tunes

Music Library

Use the steps below to turn off the left-hand part or right-hand part of a song and play along.

1. To select a song to practice, hold down the **FUNCTION** button and use the Select Music Library Song keys (-, +, keys 0 to 9).
2. To select on or off for each part, hold down the **FUNCTION** button and press the **▶** button.
 - Play the part you turned off.



- Each press of the **▶** button cycles the on/off settings as shown above.
3. To start playback, press the **▶** button.
 - To stop playback, press the **▶** button.

Concert Play

You can use Concert Play for 3-step practice.

■ Step 1: LISTEN

Listen to playback of the piano and orchestra to familiarize yourself with the music.

1. To select a song, hold down the **FUNCTION** button and use the **CONCERT PLAY** area SELECT keys (-, +).
2. Hold down the **FUNCTION** button and press the **CONCERT PLAY** area LISTEN key.
3. To start song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.
 - To stop song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.

■ Step 2: LESSON

You can turn off the left-hand part or right-hand part of a built-in song and play along on the Digital Piano. Practice the piano part of the ensemble.

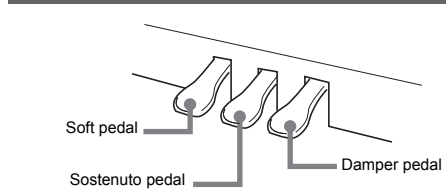
1. Hold down the **FUNCTION** button and press the **CONCERT PLAY** area LESSON key.
2. To select on or off for each part, hold down the **FUNCTION** button and press the **▶** button.
 - See the illustration under step 2 of the "Music Library" part selection procedure.
3. To start song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.
 - To stop song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.

■ Step 3: PLAY

Play along with the orchestra.

1. Hold down the **FUNCTION** button and press the **CONCERT PLAY** area PLAY key.
2. To start song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.
 - To stop song playback, hold down the **FUNCTION** button and press the **CONCERT PLAY** area **▶** button.

Using a Pedal



■ Damper Pedal

Pressing the damper pedal while playing causes the notes you play to reverberate. Half-pedal operation (pressing the pedal part way) is also supported.

■ Sostenuto pedal

Only the notes of the keys that are depressed when this pedal is pressed are sustained, even if the keyboard keys are released, until the pedal is released.

■ Soft pedal

This pedal makes notes softer and gentler. The effect is applied only to notes played while the pedal is depressed.

⚠ NOTE

- If pressing the pedal does not produce the desired effect, it could mean that the pedal cord is not connected properly. Fully push the plug in as far as it goes.

Using the Metronome

■ To sound the metronome

1. Press the **METRONOME** button.
 - The first beat of a measure is a chime, and remaining beats are clicks. The lamp flashes with each beat.
 - Press the **METRONOME** button again to turn off the metronome.

Metronome Settings

■ To set the beat

1. Hold down the **FUNCTION** button and press the **METRONOME** area BEAT key.
 - Keep the **FUNCTION** button depressed as you advance to the next step.
2. Still holding down the **FUNCTION** button, use the number keys (0 to 9) to specify the beat.

Setting range: 0 to 9

- Specifying 0 sounds a straight click, without any chime.

■ To set the tempo

1. Hold down the **FUNCTION** button and press the **METRONOME** area TEMPO key.
 - Keep the **FUNCTION** button depressed as you advance to the next step.
2. Still holding down the **FUNCTION** button, use the number keys (0 to 9) to specify the tempo.

Setting range: 20 to 255

- Each press of the + or - key raises or lowers the tempo by 1.

■ To adjust the metronome volume

Hold down the **FUNCTION** button and use the Metronome Volume keys (-, +) to set a volume level from 0 to 42.

Setting range: 0 to 42

- To return to the initial default volume, press the Metronome Volume + key and - key at the same time

Changing Keyboard Response to Touch Pressure (Touch Response)

Touch Response alters tone volume in accordance with keyboard pressure (speed).

1. Hold down the **FUNCTION** button and press the Keyboard Touch key.
 - You can select from among three levels, or off. Each press of the keyboard key causes it to beep the number of times shown below to indicate the current setting.
 - Once (long): Off
 - Once (short): 1
 - Twice: 2
 - Three times: 3
 - Setting a smaller value causes lighter touch to produce more powerful sound.
 - Selecting off causes notes to be played at a fixed volume, regardless of the key press velocity.

Using the MIDI Recorder

You can use the built in MIDI recorder to record your performance and play it back when you want.

■ Recording Capacity

- You can record approximately 5,000 notes in Digital Piano memory.

■ Recorded Data

- Keyboard play
- Tone used for keyboard play
- Beat (Track 1 only)
- Tempo setting (Track 1 only)
- Layer setting (Track 1 only)
- Duet (Track 1 only)
- Temperament (Track 1 only)
- Keyboard volume (Track 1 only)
- Chorus (Track 1 only)
- Brilliance (Track 1 only)
- Hall Simulator setting (Track 1 only)
- Acoustic Simulator (Track 1 only)

■ Recording Data Storage

- Starting a new recording deletes any data that was previously recorded in memory.
- Should power fail during recording, all of the data in the track you are recording will be deleted.

⚠ IMPORTANT!

- CASIO COMPUTER CO., LTD. takes no responsibility for any damages, lost profits, or claims by third parties arising from the loss of deleted recorded data due to malfunction, repair, or for any other reason.

■ Tracks

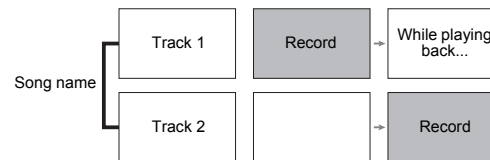
A "track" is a location where your performance is recorded. This Digital Piano has two tracks, and the status of each is indicated by the L/R lamps of the **▶** button.



Lamp	Status
Unlit	Off
Lit	Playback standby or playback in progress
Flashing	Recording standby or recording in progress

⚠ NOTE

- You can record each track separately and then combine them so they play back together as a single song.



■ To record keyboard play

1. Press the **MIDI REC** button once or twice so the **MIDI REC** lamp is flashing.
 - This enters record standby.
2. Hold down the **FUNCTION** button and press the **▶** button once or twice until the lamp of the track to be recorded is flashing.
3. To start recording, press the **▶** button or start playing.
 - Recording can also be started by pressing a pedal or performing another operation.

■ To play back a recorded performance

1. Press the **MIDI REC** button once or twice (Until the **MIDI REC** lamp is lit.)
This enters playback standby.
2. Hold down the **FUNCTION** button and press the **▶/■** button once or twice until the lamp of the track to be played back is lit.
• To play back both tracks, make sure that both the L and R lamps are lit.
3. Press the **▶/■** button.
This starts playback.
• To stop playback, press the **▶/■** button.

■ To play back from one track as you record to another track

1. Press the **MIDI REC** button once or twice (Until the **MIDI REC** lamp is lit.)
This enters playback standby.
2. Hold down the **FUNCTION** button and press the **▶/■** button once or twice until the lamp of the track to be recorded is flashing.
3. Press the **MIDI REC** button so the **MIDI REC** lamp is flashing.
This enters record standby.
4. Hold down the **FUNCTION** button and press the **▶/■** button once or twice until the lamp of the track to be recorded is flashing.
5. Press the **▶/■** button or start playing.
This starts recording and playback.
• If you want to re-record from the beginning, hold down the **MIDI REC** button until the Digital Piano beeps.
• To stop playback and recording, press the **▶/■** button.

■ To delete a recorded performance

IMPORTANT!

- A track delete operation cannot be undone. Deleted data is unrecoverable.

1. Press the **MIDI REC** button once or twice so the **MIDI REC** lamp is flashing.
2. Hold down the **FUNCTION** button and press the **▶/■** button once or twice until the lamp of the track to be deleted is flashing.
3. Hold down **MIDI REC** until the **MIDI REC** lamp is lit.
This enters delete standby.
4. Hold down the **FUNCTION** button and press the **▶/■** button.
This deletes the contents of the selected track.
• To exit the above operation at any point, press the **MIDI REC** button once or twice so the **MIDI REC** lamp is unlit.

Applying Hall Simulation

Hall simulation makes it possible to simulate the rich clarity, unconstrained brilliance, and other distinctive acoustic characteristics of world-famous concert halls.

1. Hold down the **FUNCTION** button and press **Hall Simulator** key of the simulation to be applied.

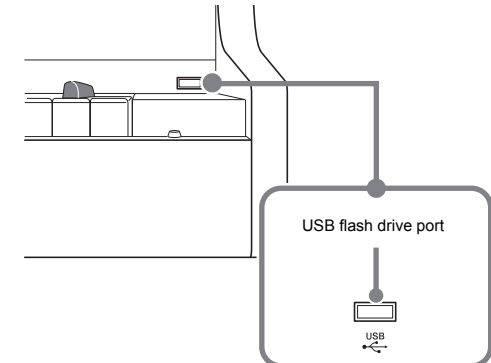
Name	Description
DUTCH CHURCH	Amsterdam church with acoustics that are suitable for music
STANDARD HALL	Standard concert hall
BERLIN HALL	Berlin arena type classic concert hall
FRENCH CATHEDRAL	Large Gothic cathedral in Paris

Using the Audio Recorder

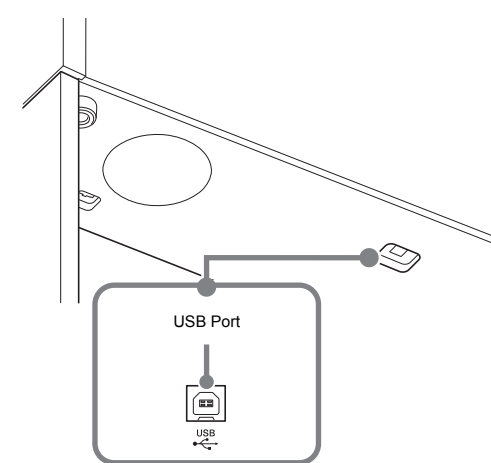
You can record your performances as audio files to a USB flash drive and play them back when you want. Anything played on the Digital Piano is recorded to the USB flash drive as audio data (WAV file)*.

- * Linear PCM, 16bit, 44.1 kHz, Stereo

Front



Bottom



■ Recording Capacity

- 99 files (TAKE01.WAV to TAKE99.WAV)
- Approximately 25 minutes maximum recording per file.

■ Recorded Data

- Everything played on the Digital Piano
- Individual part recording is not supported.

■ Recording Data Storage

Each new recording of audio data to a USB flash drive is automatically assigned a new file name, so existing data is not overwritten.

■ To record keyboard play

1. Insert the **USB flash drive** into the **USB flash drive port**.
• When you plug in a USB flash drive, the Digital Piano performs a mounting sequence to prepare for data exchange with the USB flash drive. The L and R lamps flash and Digital Piano operations are temporarily disabled during the mounting sequence.
• It may take up to 10 or 20 seconds or even longer for USB flash drive mounting to finish. Do not perform any operation on the Digital Piano mounting is in progress.
• A USB flash drive needs to be mounted each time it is connected to the Digital Piano.
2. Press the **AUDIO REC** button once or twice so the **AUDIO REC** lamp is flashing.
This enters record standby.
3. To start recording, press the **▶/■** button or start playing.

- This starts recording to the USB flash drive.
- Recording can also be started by pressing a pedal or performing another operation.
 - If, while recording is in progress, you want to re-record from the beginning, hold down the **AUDIO REC** button until the Digital Piano beeps. This discards the current recording data and enters recording standby.
 - To stop recording, press the **▶/■** button or **AUDIO REC** button.
To record more, perform the above procedure from step 2.

IMPORTANT!

- Do not remove the **USB flash drive port** while the **AUDIO REC** lamp is flashing. Doing so interrupts recording and may corrupt data.
- A yellow flashing **METRONOME** button lamp indicates an error. For more information, see "Error Indicators" on this page of these instructions.

■ To play back data recorded on a USB flash drive

1. Press the **AUDIO REC** button once or twice so the **AUDIO REC** lamp is lit.
This enters playback standby.
2. Select the song you want to play back.
If you want to play back the last file you recorded, jump directly to step 3.
• To select the previous song
Hold down the **FUNCTION** button and press the Select Music Library Song minus (-) key. Each press scrolls back one song.
• To scroll in file number sequence
Hold down the **FUNCTION** button and press the Select Music Library Song plus (+) key. Each press scrolls forward one song.
• To specify a file number
While holding down the **FUNCTION** button, use the Select Music Library Song number keys (0 through 9) to specify the file number (1 to 99) you want. (TAKE01.WAV, TAKE02.WAV, etc.)
The Digital Piano beeps if a file with the specified number does not exist.
3. To start playback, press the **▶/■** button.
• To stop song play, press the **▶/■** button.

■ To delete an audio file from a USB flash drive

Files can be deleted one at a time.

IMPORTANT!

- Note that the file (recorded data) delete operation cannot be undone.
1. Press the **AUDIO REC** button once or twice so the **AUDIO REC** lamp is lit.
This enters playback standby.
 2. Select the song you want to delete.
If you want to delete the last file you recorded, jump directly to step 3.
• To select the previous song
Hold down the **FUNCTION** button and press the Select Music Library Song minus (-) key. Each press scrolls back one song.
• To scroll in file number sequence
Hold down the **FUNCTION** button and press the Select Music Library Song plus (+) key. Each press scrolls forward one song.
• To specify a file number
While holding down the **FUNCTION** button, use the Select Music Library Song number keys (0 through 9) to specify the file number (1 to 99) you want. (TAKE01.WAV, TAKE02.WAV, etc.)
The Digital Piano beeps if a file with the specified number does not exist.
 3. Press the **AUDIO REC** button so the **AUDIO REC** lamp is flashing.
This enters delete standby, which is indicated by the L and R lamps flashing.
 4. Hold down the **AUDIO REC** button until the **AUDIO REC** lamp lights.
This deletes the file and enters audio recorder playback standby.
 5. Hold down the **FUNCTION** button and press the **▶/■** button.
This deletes the file and enters audio recorder playback standby.
• To exit the above operation at any point, press the **AUDIO REC** button once or twice so the **AUDIO REC** lamp is unlit.

NOTE

- The file number of the file you delete remains unused (remaining files are not renumbered). Recording a new file causes the file number that comes after the last file recorded to the USB flash drive to be assigned to the new file.

Error Indicators

The information below shows how the lamps indicate the error type by flashing or lighting when an error occurs due to data transfer failure or some other reason.

Lamps	Error Type	Cause	Action
	No Media	1. The USB flash drive is not connected to the USB flash drive port. 2. The USB flash drive was removed while some operation was in progress. 3. The USB flash drive is write-protected. 4. The USB flash drive is protected by anti-virus software.	1. Correctly plug the USB flash drive into the USB flash drive port. 2. Do not remove the USB flash drive while any operation is in progress. 3. Write-enable the USB flash drive. 4. Use a USB flash drive that is not protected by anti-virus software.
	No File	There is no loadable file in the "MUSICLIB" folder or no playable file in the "AUDIO" folder.	Move the file you want to load into the appropriate location in the "MUSICLIB" or "AUDIO" folder. For information about folders, refer to the "User's Guide (Full)".
	No Data	You are attempting to save data to a USB flash drive when there is no data to save.	Record something before performing a save operation.
	Read Only	A read-only file with the same name you are trying to use is already stored on USB flash drive.	Change the name and then save the new data. Remove the read-only attribute from the existing USB flash drive file and overwrite it with the new data. Use a different USB flash drive.
	Media Full	There is not enough space available on the USB flash drive.	Delete some files from the USB flash drive to make room for new data or use a different USB flash drive.
	File Full	1. There are too many files on the USB flash drive. 2. There is a file named TAKE99.WAV in the "AUDIO" folder.	1. Delete some of the files on the USB flash drive to make room for new data. 2. Delete the WAV file from the "AUDIO" folder.
	Wrong Data	1. The USB flash drive data is corrupted. 2. USB flash drive contains data that is not supported by this Digital Piano.	–

[Continued below left]

Lamps	Error Type	Cause	Action
	Format	1. The USB flash drive format is not compatible with this Digital Piano. 2. USB flash drive memory is corrupted.	1. Format the USB flash drive on the Digital Piano. 2. Use a different USB flash drive.
	Media R/W	USB flash drive memory is corrupted.	Use a different USB flash drive.
	Size Over	The data on the USB flash drive is too big to play.	This Digital Piano supports playback of song data files with a maximum size of 90 kbytes.

Troubleshooting

If this happens:	Do this:
No sound is produced when I press a keyboard key.	1. Rotate the VOLUME knob more towards "MAX". 2. Disconnect whatever is connected to the PHONES/OUTPUT jack. 3. Turn on the Local Control setting. For details, refer to the "User's Guide (Full)".
The pitch of the Digital Piano is off.	1. Change the transpose setting to "0". Or turn power off and then back on. 2. Change the tuning setting to 440.0 Hz. Or turn power off and then back on. 3. Change the octave shift setting to "0". For details, refer to the "User's Guide (Full)". 4. Change the temperament setting to "00: Equal".
Nothing happens when I press a pedal.	Check the orientation of the pedal unit plug and makes sure it is inserted as far as it goes. For the correct plug orientation, see "To connect the cables" under "Assembling the Stand" of page 4/4 of these instructions.
Tones and/or effects sound strange. Turning power off and then back on again does not eliminate the problem. Example: No change in intensity when key press pressure (touch) is changed	Turn off Auto Resume, and then turn power off and then back on again. For details, refer to the "User's Guide (Full)".
A tone's quality and volume sounds slightly different depending where it is played on the keyboard.	This is an unavoidable result of the digital sampling process,* and does not indicate malfunction. * Multiple digital samples are taken for the low range, middle range, and high range of the original musical instrument. There may be a very slight difference in tonal quality and volume between sample ranges.
When I press a button, the note that is sounding cuts out momentarily or there is a slight change in how effects are applied.	This happens while multiple parts are sounding at the same time while using layer, using the Duet Mode, playing back a built-in tune, recording, etc. Pressing a button when one of these conditions exists causes the effect setting that is built into the tone to change automatically, which causes notes to cut out momentarily or a slight change in how effects are applied. It does not indicate malfunction.
I need to reset all Digital Piano data and settings to their initial defaults.	Hold down the FUNCTION , MIDI REC and GRAND PIANO 2 buttons, and press the power button to turn on power.
I need to reset a specific setting to its initial default.	Hold down the FUNCTION button and press the + and - keyboard keys of the setting at the same time.

Product Specifications

Model	AP-470BK/AP-470BN/AP-470WE
Keyboard	88-key piano keyboard, with Touch Response
Maximum Polyphony	256 notes
Tone	22 types • Layer (excluding bass tones)
Acoustic Simulator	Damper Resonance (Damper Noise on/off), Hammer Response, String Resonance, Lid Simulator, Key Off Simulator, Key On Action Noise, Key Off Action Noise
Effects	Brilliance (-3 to 0 to 3), Hall Simulator (4 types), Chorus (4 types), DSP, Head Phone Mode, Volume Sync Equalizer
Metronome	• Beats: 0 to 9 • Tempo range: 20 to 255
Duet Mode	Adjustable tone range (-2 to 2 octaves)
Concert Play	• Songs: 10 • Song volume: Adjustable • Part On/Off: L, R (Lesson Mode only) • 3 Modes: LISTEN, LESSON, PLAY
Music Library	• Songs: 60; 10 download songs (Up to approximately 90 KB per song, up to approximately 900 KB/10 songs total)* * Based on 1 KB = 1024 bytes • Song volume: Adjustable • Part On/Off: L, R
Recorder	MIDI Recorder • Modes: Real-time recording, playback • Songs: 1 • Tracks: 2 • Capacity: Approximately 5,000 notes total • Recording storage: Built-in flash memory Audio Recorder • USB flash drive real-time recording and playback; Linear PCM, 16bit, 44.1 kHz, stereo WAV format • Songs: 99 files • Approximately 25 minutes maximum recording per file. • Audio file volume: Adjustable
Pedals	Damper (seamless half-pedal support), sostenuto, soft
Other Functions	• Touch Response: 3 levels, Off • Transpose: 2 octaves (-12 to 0 to +12) • Tuning: 415.5 Hz to 440.0 Hz to 465.9 Hz (0.1 Hz steps) • Temperament: Equal + 16 other types • Octave Shift: 4 octaves (-2 to 0 to +2) • Panel Lock
MIDI	16-channel multi-timbre receive
USB Memory	• Supported capacity: 32 GB or less recommended • Functions: SMF playback, recorded song storage, song data import, formatting, audio data playback and storage
Input/Output Terminals	• PHONES/OUTPUT jacks: Stereo standard jacks × 2 • AC Adaptor Terminal: 24 VDC • USB port: Type B • USB flash drive port: Type A • Pedal connector
Speakers	φ12cm × 2 + φ4cm × 2 (Output: 20W + 20W)
Power Requirements	AC adaptor: AD-E24250LW • Auto Power Off: Approximately 4 hours; Can be disabled.
Power Consumption	24V ~ 20W
Dimensions	Piano and Stand: 141.7(W) × 42.7(D) × 86.1(H) cm (55 13/16 × 16 13/16 × 33 15/16 inches)
Weight	Piano and Stand: Approximately 43.4 kg (95.7 lbs)

• Specifications and designs are subject to change without notice.

Linking with an Application (APP Function)

Your Digital Piano can connect with a smartphone, tablet, or other smart device. A special app is available that lets you use your smart device to perform piano operations, and view music scores* and commentary for built-in songs.

- * Excluding Concert Play songs.

Downloading the Special App

Go to the website below to download the app and install it on your smart device.
<http://web.casio.com/app/en/>



Included Accessories

- AC adaptor
- Power cord
- Music Stand
- Leaflets
 - Safety Precautions
 - Other (Warranty, etc.)

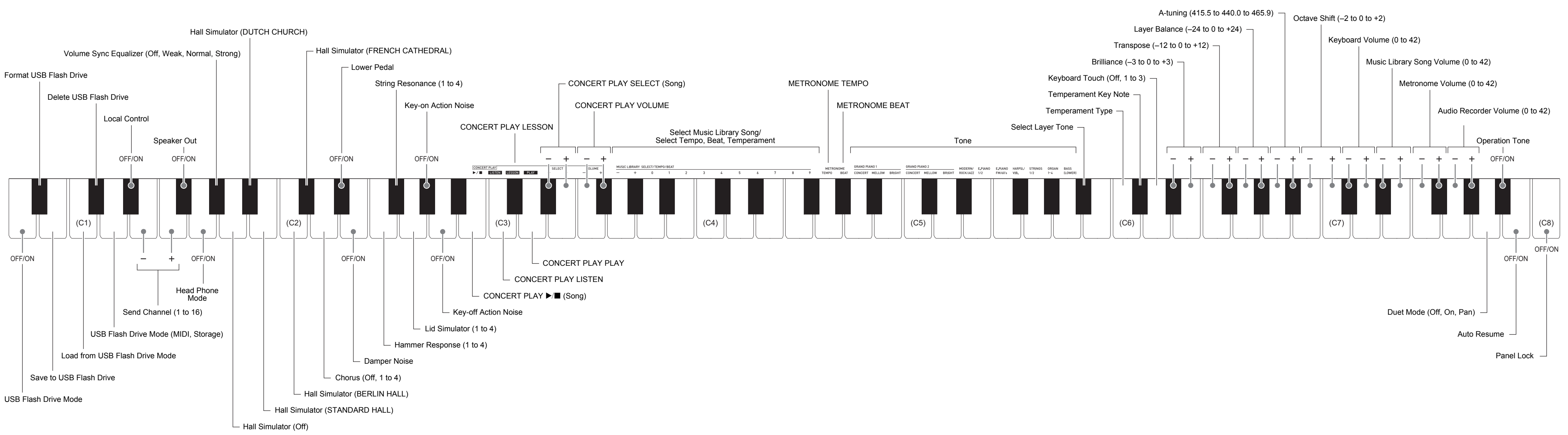
Items included as accessories are subject to change without notice.

Separately Available Accessories

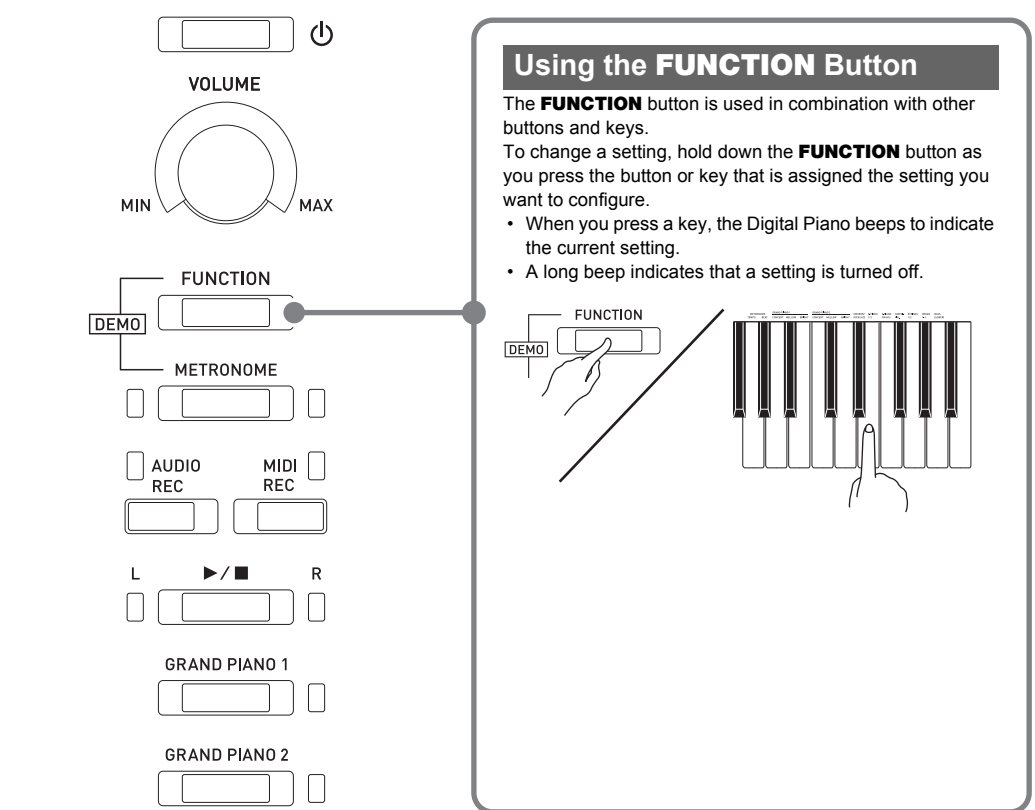
- You can get information about accessories that are separately for this product from the CASIO catalog available from your retailer, and from the CASIO website at the URL below.

<http://world.casio.com/>

Keyboard Keys Used for Configuring Settings



Piano Buttons



Tone List

Tone Name	Program Change	Bank Select MSB
CONCERT	0	0
GRAND PIANO 1	1	0
MELLOW	2	0
BRIGHT	3	0
GRAND PIANO 2	4	0
MELLOW	5	0
BRIGHT	6	0
MODERN PIANO	7	0
ROCK PIANO	8	0
JAZZ PIANO	9	0
ELEC.PIANO 1	10	0
ELEC.PIANO 2	11	0
FM E.PIANO	12	0
60'S E.PIANO	13	0
HARPSICHORD	14	0
VIBRAPHONE	15	0
STRINGS 1	16	0
STRINGS 2	17	0
ORGAN 1 (PIPE ORGAN)	18	0
ORGAN 2 (JAZZ ORGAN)	19	0
ORGAN 3 (ELEC.ORGAN 1)	20	0
ORGAN 4 (ELEC.ORGAN 2)	21	0
BASS(LOWER)		

Music Library List

Song No.	Song Name
1	Nocturne Op.9-2
2	Fantaisie-Improptu Op.66
3	Étude Op.10-3 "Chanson de l'adieu"
4	Étude Op.10-5 "Black Keys"
5	Étude Op.10-12 "Revolutionary"
6	Étude Op.25-9 "Butterflies"
7	Prélude Op.28-7
8	Valse Op.64-1 "Petit Chien"
9	Valse Op.64-2
10	Moments Musicaux 3
11	Impromptu Op.90-2
12	Marche Militaire 1 (Duet)
13	Frühlingslied [Lieder Ohne Worte Heft 5]
14	Fröhlicher Landmann [Album für die Jugend]
15	Von fremden Ländern und Menschen [Kinderszenen]
16	Träumerei [Kinderszenen]
17	Tambourin
18	Menuet BWV Anh.114 [Clavierbüchlein der Anna Magdalena Bach]
19	Inventio 1 BWV 772
20	Inventio 8 BWV 779
21	Inventio 13 BWV 784

Song No. Song Name

22	Praeludium 1 BWV 846 [Das Wohltemperierte Klavier 1]
23	Le Coucou
24	Gavotte
25	Sonatina Op.36-1 1st Mov.
26	Sonatine Op.20-1 1st Mov.
27	Sonate K.545 1st Mov.
28	Sonate K.331 3rd Mov. "Turkish March"
29	Rondo K.485
30	Für Elise
31	Marcia alla Turca
32	Sonate Op.13 "Pathétique" 1st Mov.
33	Sonate Op.13 "Pathétique" 2nd Mov.
34	Sonate Op.13 "Pathétique" 3rd Mov.
35	Sonate Op.27-2 "Moonlight" 1st Mov.
36	Rhapsodie 2
37	Waltz Op.39-15 (Duet)
38	Liebesträume 3
39	Blumenlied
40	La Prière d'une Vierge
41	Csikos Post
42	Humoresque Op.101-7
43	Melodie [Lyrische Stücke Heft 2]
44	Sicilienne Op.78
45	Berceuse [Dolly] (Duet)
46	Arabesque 1
47	La Fille aux Cheveux de Lin [Préludes]
48	Passépied [Suite bergamasque]
49	Gymnopédie 1
50	Je Te Veux
51	Salut d'Amour
52	The Entertainer
53	Maple Leaf Rag
54	L'arabesque [25 Étüden Op.100]
55	La Styrienne [25 Étüden Op.100]
56	Ave Maria [25 Étüden Op.100]
57	Le retour [25 Étüden Op.100]
58	La chevaleresque [25 Étüden Op.100]
59	No.13 [Études de Mécanisme Op.849]
60	No.26 [Études de Mécanisme Op.849]

Concert Play List

Song No.	Song Name
1	Je Te Veux
2	Vitava (Má vlast)
3	Canon
4	Tableaux d'Une Exposition "Promenade"
5	Piano Concerto No.20 K.466 2nd Mov.
6	Polovetzian Dance (Prince Igor)
7	Sonate K.331 1st Mov.
8	Violin Concerto 1st Mov.
9	Jesus, Bleibet Meine Freude
10	Melody In F

Operating Precautions

Be sure to read and observe the following operating precautions.

Location
Avoid the following locations for this product.
• Areas exposed to direct sunlight and high humidity
• Areas subjected to temperature extremes
• Near a radio, TV, video deck, or tuner
The above devices will not cause malfunction of the product, but the product can cause interference in the audio or video of a nearby device.

User Maintenance
• Never use benzene, alcohol, thinner, or other chemical agents to clean the product.
• To clean the product or its keyboard, wipe with a soft cloth moistened in a weak solution of water and a mild neutral detergent. Wring off excess moisture from the cloth before wiping.

Included and Optional Accessories
Use only accessories that are specified for use with this product. Use of unauthorized accessories creates the risk of fire, electric shock, and personal injury.

Digital Piano Finish
The finish of the Digital Piano has been designed to faithfully reproduce the appearance of natural wood, including cuts and other marks in the wood. Though knots, saw blade marks, and/or other marks may be visible on the finish, they are not actual cracks or scratches. Such marks will not cause any problems with the use of your Digital Piano.

Weld Lines
Lines may be visible on the exterior of the product. These are "weld lines" that result from the plastic molding process. They are not cracks or scratches.

Musical Instrument Etiquette
Always be aware of others around you whenever using this product. Be especially careful when playing late at night to keep the volume at levels that do not disturb others. Other steps you can take when playing late at night are closing the window and using headphones.

AC Adaptor Handling Precautions

- Use a power outlet that is easily accessible so you can unplug the AC adaptor when a malfunction occurs or whenever else you need to do so.
- The AC adaptor is intended for indoor use only. Do not use it where it might be exposed to splashing or moisture. Do not place any container, such as a flower vase, that contains liquid on the AC adaptor.
- Store the AC adaptor in a dry place.
- Use the AC adaptor in an open, well-ventilated area.
- Never cover the AC adaptor with newspaper, a table cloth, a curtain, or any other similar item.
- Unplug the AC adaptor from the power outlet if you do not plan to use the Digital Piano for a long time.
- Never try to repair the AC adaptor or modify it in any way.
- AC adaptor operating environment
Temperature: 0 to 40°C
Humidity: 10% to 90% RH
- Output polarity: ⚡

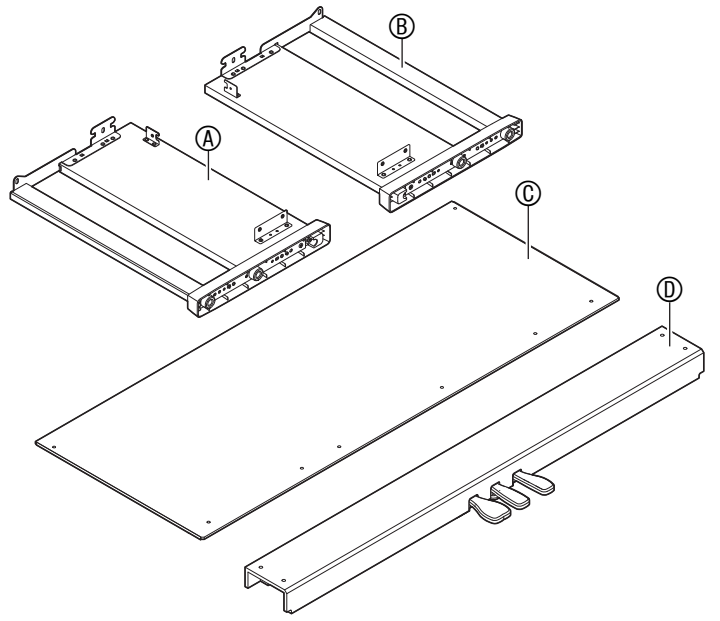
About Music Score data

You can use a computer to download music score data from the CASIO Website. For more information, visit the URL below.
<http://world.casio.com/>

Assembling the Stand

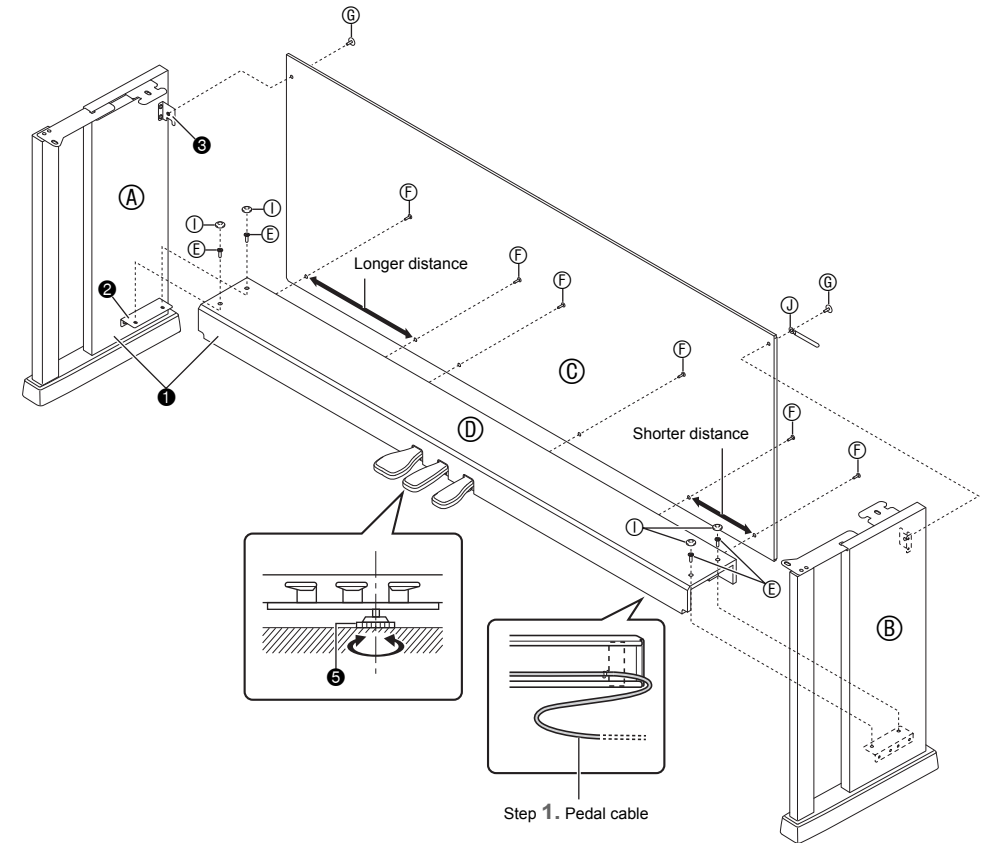
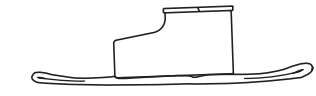
- Before starting assembly, check to make sure that you have all the parts shown below.
- This stand does not include any of the tools required for assembly. It is up to you to prepare a large Phillips head (+) screwdriver for assembly.

- IMPORTANT!**
- Do not remove the tape securing the keyboard cover in place until assembly is complete. Removing the tape can cause the keyboard cover to open and close during assembly, creating the risk of personal injury to your hands and fingers.
 - Do not use any screws other than those that come with the stand. Doing so risks damage to the stand and/or Digital Piano.
 - You can find the screws in a plastic bag inside the packing material.
 - If screws are missing or damaged, contact your local CASIO service provider.

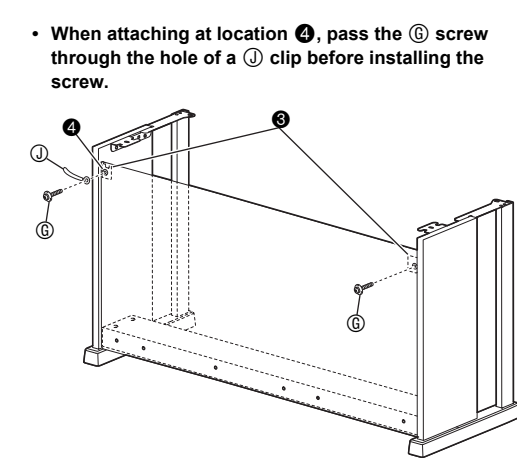


Part	Quantity
E	4
F	6
G	2
H	4
I	4
J	1
K	1
L	1

- Caution!**
- To assemble the stand, at least two persons should work together on a flat surface.
 - Take care that you do not pinch your fingers between parts when assembling them.
 - Spread felt or some other type of cloth under the bench to avoid direct contact between the rubber at the tips of the legs and the floor surface. Direct contact between the rubber and flooring can cause discoloration, marring, or other damage to the flooring.
 - When placing the Digital Piano on the floor, be sure to place it on something soft (a blanket, cushion, etc.) Do not place the Digital Piano directly onto the floor.



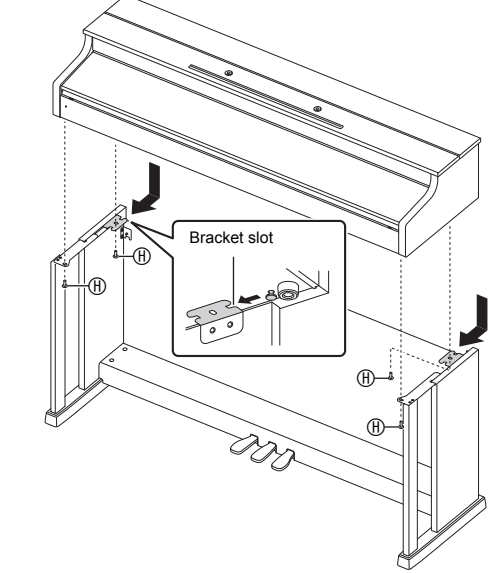
1. Attach crosspiece (D) to side panels (A) and (B). Secure the side panels using four (E) screws.
 - When attaching at location (1), make sure that bracket (2) enters into crosspiece (D) as far as it will go. If it doesn't, the (E) screws will not be able to reach the screw holes of the bracket (2), which can cause stripping of the screw threads.
 - Cover each of the four screws with screw caps (I).
 - Run the pedal cable out through crosspiece (D).
2. Attach the back panel (C) to the brackets (H) of the two side panels. Secure the back panel using two (G) screws.
 - When installing the back panel (C), make sure the screw holes at the bottom are positioned correctly.
 - Longer hole distance: Side panel (A) side
 - Shorter hole distance: Side panel (B) side
3. Install six (F) screws along the bottom of the back panel (C).



4. Adjust the height adjustment screw (6) to provide support so crosspiece (D) does not bow downwards when the pedals are pressed.

IMPORTANT!

 - Pressing the pedals without adjusting height adjustment screw (6) can result in damage to crosspiece (D). Be sure to adjust height adjustment screw (6) before operating the pedals.
5. Place the piano onto the stand.
 - Slide the piano onto the stand from behind so the bolts on the bottom of the piano engage with the slots of stand brackets.

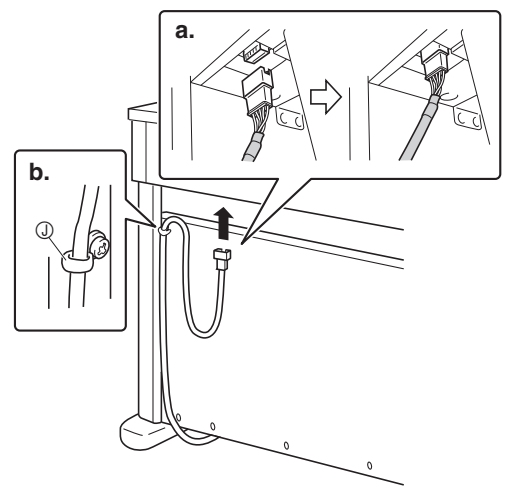


- The sides of the piano will overhang the left and right side panels slightly. Adjust the piano position so the left and right overhang is the same.
-
6. Use two (I) bolts to secure the piano to the stand.

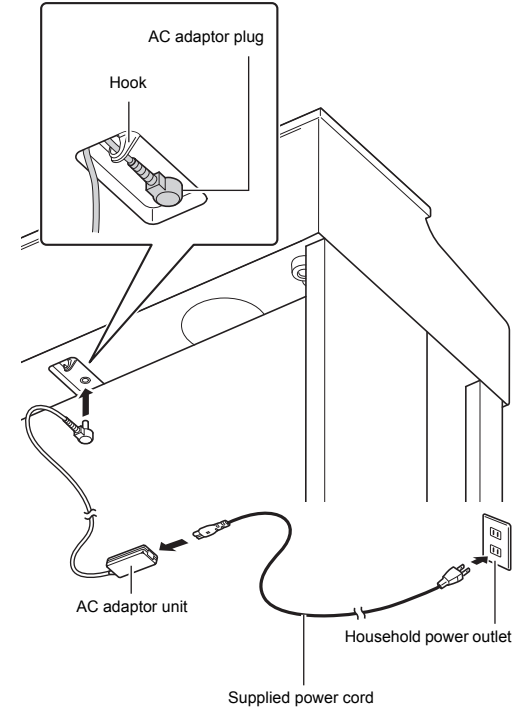
- IMPORTANT!**
- To avoid the risk of the piano from falling off the stand, be sure to tighten the bolt securely.

To connect the cables

1. With the pedal unit cable plug oriented as shown in the illustration below, plug it into the pedal connector on the bottom of the piano.
 - a. Push the plug fully in as far as it goes.
 - b. Use the (J) clip to secure the pedal cable to side panel (B).

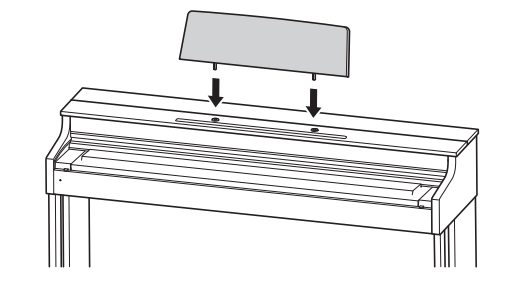


2. Plug the AC adaptor that comes with the digital piano (24 VDC) into the AC adaptor terminal. Plug the power cord of the AC adaptor that comes with the Digital Piano into a household power outlet as shown in the illustration below.
 - Secure the AC adaptor cord by hooking it onto the hook next to the AC adaptor terminal.



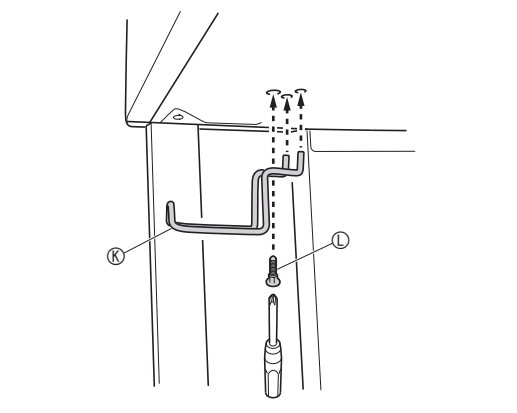
Attaching the Music Stand

1. Insert the tabs on the bottom of the music stand into the two holes on the top of the piano.



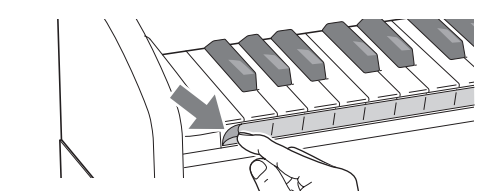
Install the Headphones Hook

1. Insert the headphones hook (K) into the two holes on the bottom of the piano.
2. Use screw (L) to secure the headphones hook in place.

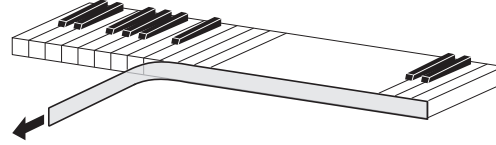


Removing the Protective Tape from the Keyboard

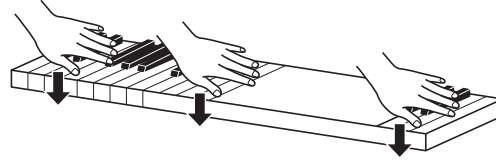
Protective tape is affixed to the front edges of the keyboard keys to protect them during shipment. Remove the protective tape before using the digital piano.



- Peel off the tape by pulling carefully towards you as shown in the illustration.



- If some keys seem to be raised up after you remove the tape, press down to return them to their normal positions.

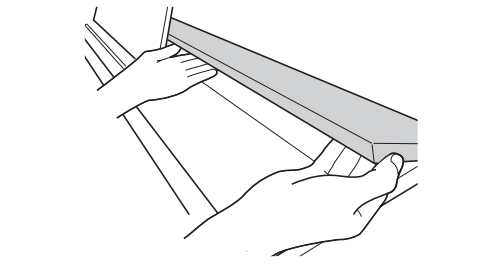


Opening and Closing the Piano Lid

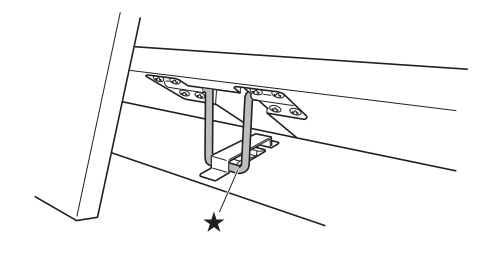
- IMPORTANT!**
- Use both hands whenever opening or closing the lid, and take care that you do not close it on your fingers.
 - Do not open the lid too wide. Doing so creates the risk of damage to the cover and digital piano.
 - Stand in front of the digital piano on the right side when opening or closing the lid.

To open the lid

1. Lift up the lid as shown in the illustration.

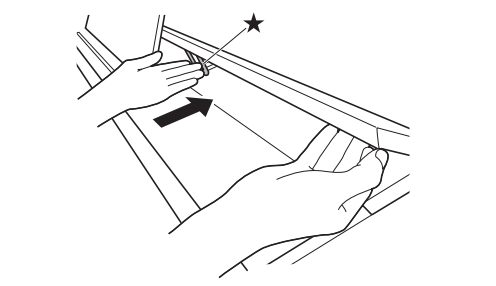


- The lid has a support bracket (indicated by the star * in the illustration) attached to its inside surface. Check to make sure that the support bracket is standing up fully.



To close the lid

1. Carefully lift up slightly on the lid.
2. Use the fingers of your left hand to press back on the support bracket (*) as you slowly and carefully lower the lid.



TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

The power indicator being unlit does not mean the apparatus is completely disconnected from the MAINS. When you need to have the apparatus completely disconnected from the MAINS, you must unplug the power cord. For that purpose, locate the apparatus in a way that secures easy access to the power cord.

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Declaration of Conformity

Model Number: AP-470
 Trade Name: CASIO COMPUTER CO., LTD.
 Responsible party: CASIO AMERICA, INC.
 Address: 570 MT. PLEASANT AVENUE, DOVER, NEW JERSEY 07801
 Telephone number: 973-361-5400

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

Important!

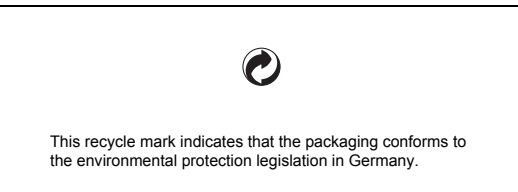
- Please note the following important information before using this product.
- Before using the AD-E24250LW Adaptor to power the unit, be sure to check the AC Adaptor for any damage first. Carefully check the power cord for breakage, cuts, exposed wire and other serious damage. Never let children use an AC adaptor that is seriously damaged.
 - The product is not intended for children under 3 years.
 - Use only CASIO AD-E24250LW adaptor.
 - The AC adaptor is not a toy.
 - Be sure to disconnect the AC adaptor before cleaning the product.

Declaration of Conformity According to EU Directive

Manufacturer:
 CASIO COMPUTER CO., LTD.
 6-2, Hon-machi 1-chome, Shibuya-ku, Tokyo 151-8543, Japan

Responsible within the European Union:
 Casio Europe GmbH
 Casio-Platz 1, 22848 Norderstedt, Germany
 www.casio-europe.com

Company and product names used in this manual may be registered trademarks of others.



About the AC adaptor that comes with the Digital Piano

- Note the following important precautions to avoid damage to the AC adaptor and power cord.
- Never pull on the cord with excessive force.
 - Never repeatedly pull on the cord.
 - Never twist the cord at the base of the plug or connector.
 - Before moving the Digital Piano, be sure to unplug the AC adaptor from the power outlet.
 - Loop and bundle the power cord, but never wind it around the AC adaptor.

AC Adaptor Handling Precautions

- Model: AD-E24250LW
1. Read these instructions.
 2. Keep these instructions on hand.
 3. Heed all warnings.
 4. Follow all instructions.
 5. Do not use this product near water.
 6. Clean only with a dry cloth.
 7. Do not install near radiators, heat registers, stoves, or any other source of heat (including amplifiers).
 8. Use only attachments and accessories specified by the manufacturer.
 9. Refer all servicing to qualified service personnel. Servicing is required after any of the following occurs: when the product is damaged, when the power supply cord or plug is damaged, when liquid is spilled into the product, when a foreign object falls into the product, when the product is exposed to rain or moisture, when the product does not operate normally, when the product is dropped.
 10. Do not allow the product to be exposed to dripping or splashing liquid. Do not place any object containing liquid on the product.
 11. Do not allow the electrical load output to exceed the label rating.
 12. Make sure the surrounding area is dry before plugging into a power source.
 13. Make sure the product is oriented correctly.
 14. Unplug the product during lightning storms or when you do not plan to use it for a long time.
 15. Do not allow product ventilation openings to become blocked. Install the product in accordance with the manufacturer's instructions.
 16. Take care the power cord is located where it will not be stepped upon or bent severely, particularly in locations close to plugs and convenience receptacles, and in locations where it exits from the product.
 17. The AC adaptor should be plugged into a power outlet as close to the product as possible to allow immediate disconnection of the plug in case of emergency.

The symbol below is an alert indicating un-insulated hazardous voltage inside the product's enclosure, which may be sufficient to constitute the risk of electric shock to users.

The symbol below is an alert indicating the presence of important operating and maintenance (servicing) instructions in the documentation that accompanies the product.

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