

ALL ABOUT USING THE **JUNO-G** TO RECORD AND CREATE A CD



Record a song using Roland's versatile JUNO-G — the "all-in-one" synth that gives you a synth, rhythm machine, effect unit, sequencer, recorder, and mixer in one package!

What it means to create a song.

Play the piano. Create drum grooves. Wail away on the guitar.

Sing your heart out.

Put all of this into a "song."

Creating a song is like magic.

I'm going to create a song today, because there's someone I want to reach.

The Roland JUNO-G is an excellent keyboard for live performance, but it also has sophisticated recording features that rival studio equipment. This book will lead you through the process of using the Roland JUNO-G to create a song, and then turning your song into a CD.

Let's get started!

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INTRO

The JUNO-G will change your musical life

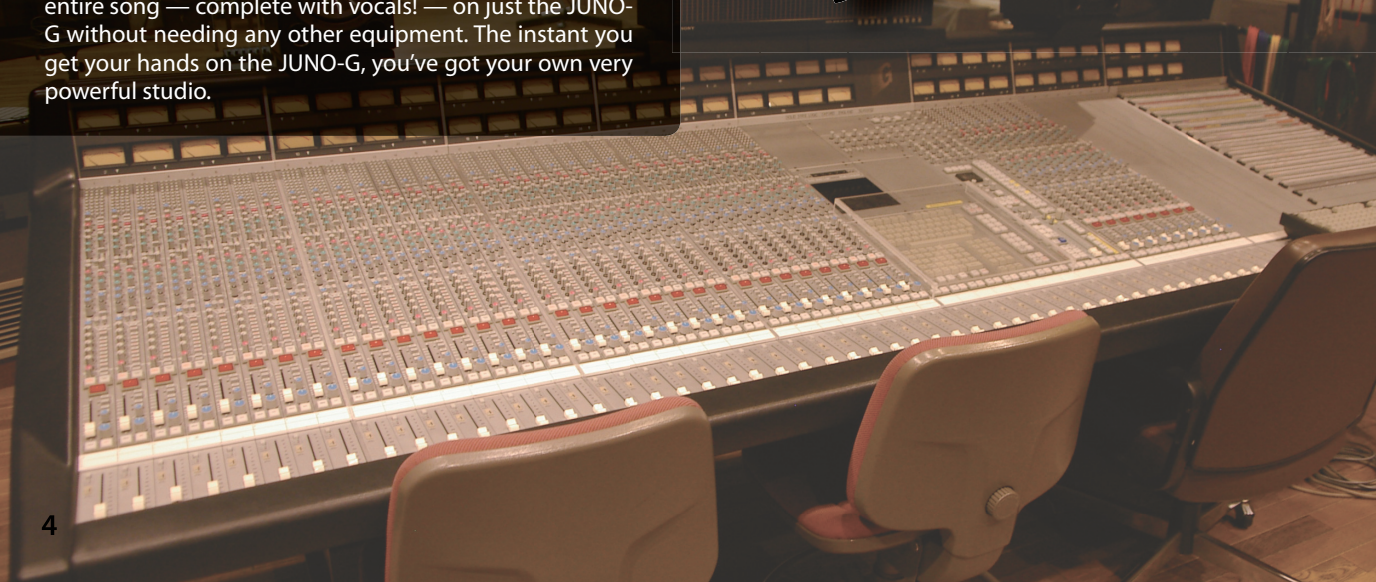
A synth you can carry

At a mere 6.2 kg (13 lbs. 11 oz.), this is one of the lightest 61-key synthesizers available. You can easily carry it to live performances or to the studio. If you've been using the equipment provided by the studio because your own synth is too heavy to carry, it's time for a change. With the JUNO-G, you can take it anywhere.



Your very own studio

The JUNO-G gives you all the equipment you need for music production. The multi-effect unit provides 78 effect types that cover all your instrumental or studio needs. There's rhythm machine-like functionality for creating and playing rhythm patterns, so you can start grooving immediately. The "song recorder" gives you step-recording capability as well as realtime-recording that's as easy as using a multi-track tape recorder, letting you create an entire song — complete with vocals! — on just the JUNO-G without needing any other equipment. The instant you get your hands on the JUNO-G, you've got your own very powerful studio.



A whole world of instruments

The JUNO-G is powered by a high-quality synth engine. It contains 1,024 different sounds, ranging from standards such as piano, electric piano, organ, and strings, to unusual ethnic instruments and rare large instruments. There are also 45 drum sets, letting you generate beats of any style. With the JUNO-G, a whole world of musical instruments is at your fingertips.

Computer connection

The JUNO-G's USB connector gives you a single-cable connection to your computer, allowing you to transfer song data that you created on the JUNO-G. After transferring the data to your computer, you can use it to easily burn your own CD. The "JUNO-G Editor" software that's included with the JUNO-G lets you edit the JUNO-G's sounds on the screen of your computer, further expanding the potential of this versatile instrument.



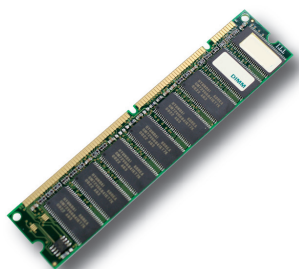
STEP 1

Get your equipment together for recording on the JUNO-G

The JUNO-G is a powerful synthesizer that lets you create a full-fledged song simply by step-recording with its built-in synth sounds. But the JUNO-G doesn't stop there — it's also a powerful audio recorder that lets you edit, process, and mix your songs like a pro.

Let's check that we have the equipment needed for recording.

Memory (DIMM)

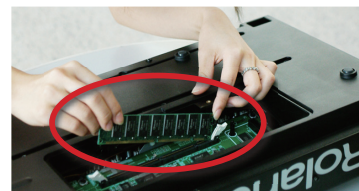


When you connect your guitar or mic to the JUNO-G and record, your performance is captured as audio data in this memory. The more memory you've installed, the longer recording time will be available.

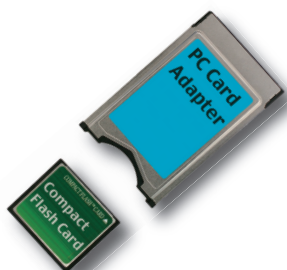
The JUNO-G lets you install up to 512 Mbytes of memory (DIMM). (For details, refer to **"A NOTE OF ADVICE"** on the next page.)

Memory is easily damaged by static electricity from your hand, so handle it with care. When you install memory, read and observe the manual carefully.

 For details, refer to "Expanding the Memory" (p. 176) in the owner's manual.



CompactFlash and PC card adaptor



The content that you record into memory will be lost when you turn off the power. In order to preserve your song data, you'll need a CompactFlash card. When you're ready to send a finished song to your computer, you'll also write the data to a CompactFlash card and then copy it from the card into your computer.

The JUNO-G can use CompactFlash cards up to 1 Gbyte in size. It's a good idea to get a CompactFlash card that's larger than the size of memory (DIMM) you're using.

To use a CompactFlash card, you insert it in a PC card adaptor and then insert the adaptor into the **"PC CARD"** slot located on the rear panel of the JUNO-G.



Computer



Most of today's computers are able to burn a CD. If your computer can't, you may be able to attach an external CD burner. Check the owner's manual that came with your computer.

USB cable



You'll need this in order to connect the JUNO-G to your computer. There are several types of USB cable, but you need the "AB type." The "A" type connector goes to your computer, and the "B" type connector goes to the JUNO-G. Make sure you have the right kind of cable.

CD-R



This is a blank CD. These days you can even buy them at convenience stores.

Mic



You'll need this if you want to record vocals, or if you'll be recording an instrument via a mic. The type of microphone called a "dynamic" mic is the type that can be connected directly to the JUNO-G.

(The photo shows a Roland "DR-50" dynamic mic.)

Headphones



If you're recording via a mic, you should use a "sealed" or "in-ear" sealed-type of headphones that does not allow sound to escape outside.

(The photo shows Roland "RH-300" sealed-type monitoring headphones.)



512 Mbytes is the recommended size of memory (DIMM)!

The JUNO-G can accept 64, 128, 256, or 512 Mbytes of memory (DIMM). The following table shows the recording times available with each amount of memory.

Memory (DIMM) size	Recording time *Total of all tracks
128 Mbytes	Approx. 25 minutes mono (12 minutes stereo)
256 Mbytes	Approx. 50 minutes mono (25 minutes stereo)
512 Mbytes	Approx. 100 minutes mono (50 minutes stereo)

With 256 Mbytes of memory, the JUNO-G's four stereo audio tracks would fill up the memory in just six minutes. We recommend that you go for 512 Mbytes, so you'll be able to record a song more than ten minutes long even when using all tracks in stereo!

STEP 2

Get ready to record

1 Listen to the demo song

The JUNO-G contains a demo song that you can use as a model for your own productions. It's an example of what a pro musician can do with the JUNO-G. Let's start by listening to this demo song.

Turn on the JUNO-G's power, wait for it to start up, and then simply press the [PLAY] button to hear the demo. Be careful of the volume.



2 Take a look at the song recorder

The JUNO-G has a function called the "song recorder." The song recorder contains "MIDI tracks" that let you record note data that will play the JUNO-G's own sounds, and "audio tracks" that let you record sounds from a connected mic etc., just as though you were using an audio recorder. Let's take a look at these two types of tracks.

MIDI tracks

The "MIDI tracks" record the note data and other performance data that plays the JUNO-G's synthesizer sound generator. Press the [SONG] button to see these tracks.



MIDI TRACK		[Say It]	J = 96
Meas	0018-01	*(PNO) Juno-G Grand	4/4
/Beat			
1	Juno-G Grand	PLAY	
2	Juno-60 Bass	PLAY	
3	Flat SynBs	PLAY	
4	LonesomeRoad	PLAY	
5	No Left Turn	PLAY	

UNDO GUARANTEE MICRO MUTE MARKER EDIT

The instrumental parts of the demo song are all recorded on these MIDI tracks. The screen makes it easy to see which instrument is assigned to each of the 16 tracks.

AUDIO tracks

"Audio tracks" are the other type of track; they record actual "sound" from a mic or other audio source connected to the JUNO-G. Press the [AUDIO TRACK] button to see these tracks.



AUDIO TRACK		[Say It]	J = 96
Meas	0013-04		4/4
/Beat			
CURRENT POS 0013:04:07D CHORUS			
1	Male 1-Shots		
2	Male Break		
3	Female BG 1		
4	Female BG 2		

Trk1 19:03:250 P0003 C'mon

INSERT COPY DELETE MUTE MARKER MIXER

The vocal parts of the demo song are recorded on the audio tracks. Notice that the audio waveforms are shown on the four tracks.

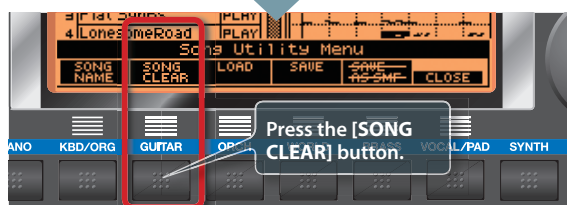
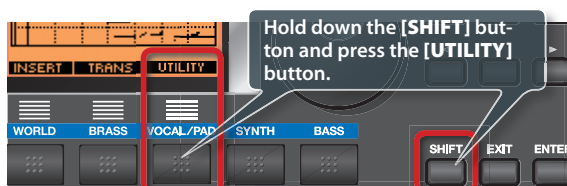
3 Clear the demo song

Now it's time to clear the demo song so that you can record a new song. Don't worry — when you turn on the power of the JUNO-G, the demo song will be back ready to play, so just go ahead and clear it.

Press the **[SONG]** button; the MIDI TRACK screen appears.



Hold down the **[SHIFT]** button and press the **[UTILITY]** button; the utility menu will appear in the bottom of the screen. Press the **[SONG CLEAR]** button.



The JUNO-G will ask whether you're sure you want to clear the song, so press the **[EXEC]** button.



Now the song recorder is empty.

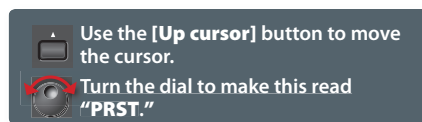
4 Select Performance mode so you can use multiple instruments

When you're creating a song on the JUNO-G, you'll want multiple instruments such as piano, bass, and drums etc. to be playing together. "Performance mode" lets the JUNO-G's synthesizer operate in this way. In Performance mode you can produce an ensemble consisting of as many as 16 different instruments.

Press the **[PERFORM]** button to access the basic screen of Performance mode.



From this screen, we'll select a performance called "PRST (preset)" — "002 Seq: Template."



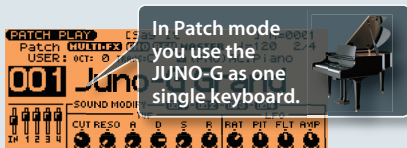
"Seq: Template" sets each instrument to the same volume, and also initializes the effect settings. It's an ideal group of settings for starting out to create a song.



Patch mode is great for live performance!

If you're playing live, you'll be using the JUNO-G as a simple "keyboard." In such cases, it's convenient to use "Patch mode." In Patch mode, the name of the sound you're playing is shown in big letters in the screen, so it's easy to read even when you're on stage.

For more about Patch mode, refer to "Playing in Patch Mode" (p. 25) in the owner's manual.



STEP 3

Create a rhythm track with the rhythm pattern function



1 The JUNO-G contains a rhythm machine!

The JUNO-G can play patterns just like a rhythm machine. It's easier to come up with ideas for your song when you've got a rhythm going.



A popular rhythm machine: the BOSS DR-880

The rhythm machine inside the JUNO-G doesn't look anything like the DR-880, but it's definitely a powerful tool for song production. Let's get started!

2 Use the rhythm pattern function to play patterns

Press the **[RHYTHM PATTERN]** button; the rhythm pattern screen appears.



In this screen you can select a pattern to use in your song. Listen to the different patterns, and choose the one that's closest to what you have in mind.

For more details, refer to "Playing Rhythms" (p. 79) in the owner's manual.



Try changing the tempo!

The tempo is an important element of a song. You'll probably want to adjust the tempo even during the process of creating a song. On the JUNO-G, simply press the **[TEMPO]** button to access the tempo screen, and turn the dial. When you've specified the tempo you want, press the **[TEMPO]** button again to close the tempo screen.

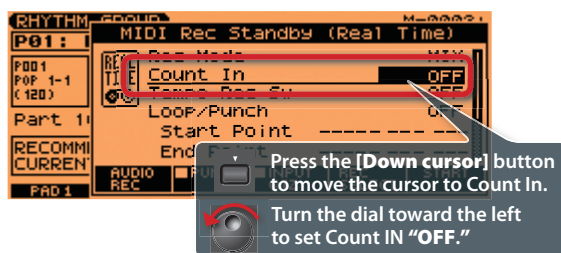


3 Record the rhythm on a MIDI track

When you've selected a rhythm, you can record it on a MIDI track. Once again, press the button for the selected pattern to stop the playback. Then press the **[REC]** button, and the JUNO-G will stand by to record the pattern on a MIDI track.



For this example, let's turn **Count In "OFF."** (With the default setting, there would be a one-measure count-in, meaning that the pattern would be recorded from the second measure.)

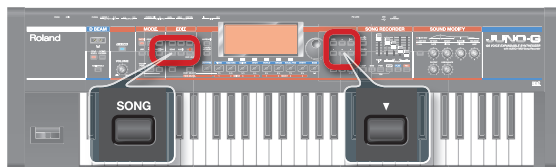


In this state, you can press the **[PLAY]** button to start recording. After you've recorded as many measures as you want (i.e., the length of your song), press the **[STOP]** button to stop recording.

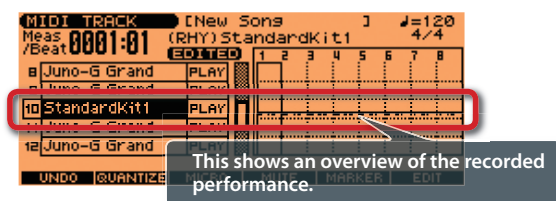


4 Listen to what you recorded

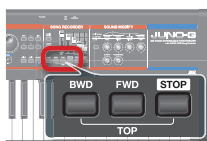
Let's take a look at what you just recorded in the MIDI track. Press the **[SONG]** button, and the MIDI TRACK screen will appear. In this screen, press the **[Down cursor]** button to move the cursor to "10," and you'll see the rhythm you just recorded. The JUNO-G always records the rhythm on track 10.



The MIDI TRACK screen is an excellent way to view your song as a whole; for example, you might notice that "this section looks 'busier,' so it's probably right before the break."



Now let's play back the rhythm that was recorded in the MIDI track. Hold down the **[STOP]** button and press the **[BWD]** button; the playback position will return to the beginning of the MIDI track.



Then press the **[PLAY]** button to play back from the beginning.



You can switch rhythm patterns while recording!

You can switch between the six pattern variations while you record on the MIDI track.

Press the **[PLAY]** button to start recording the rhythm pattern, and then press the **[CLOSE]** button to return to the rhythm pattern screen; now you can switch between the six pattern variations. The patterns will be recorded on the MIDI track exactly as you switch between them. If you use this cleverly, you can create a very cool rhythm track that's shifting dynamically, and doesn't sound simply like patterns strung together.



You can edit the rhythm track recorded in the song!

After you've recorded the rhythm in a MIDI track, there might be times when you decide that it would be nice to have a fill here, or a break there. No problem! Just use the edit function to modify the MIDI track. One of the great things about MIDI tracks is that after you're finished recording the rhythm track, you can freely edit each individual note with incredible detail to create absolutely any rhythm you can imagine.

For more details, refer to "Editing a Song (MIDI Track)" (p. 94) in the owner's manual.

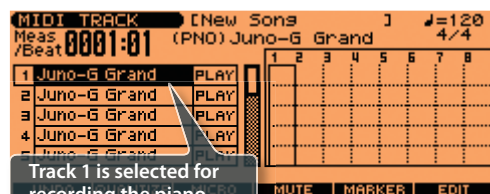
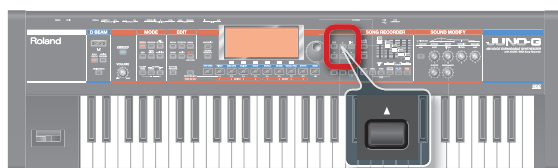
STEP 4

Record your piano performance using realtime recording

1 Access the recording screen

Now that you've created your rhythm track on track 10, let's record the piano part on track 1. To record the piano, we'll use "realtime recording," the method in which your keyboard playing is captured just as you actually play it.

In the MIDI TRACK screen, press the [Up cursor] button to move the cursor to "1."



In the screen shown above, the name of the instrument at "1" is highlighted, meaning that you'll be recording track 1.

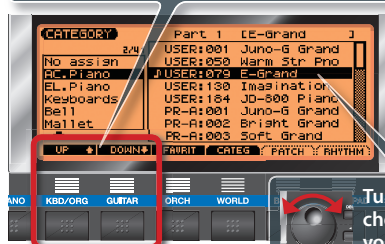
2 Select the piano sound you want

After you've selected track 1, press the [ENTER] button.



Now a screen will appear where you can select an instrument to use for track 1.

Use the [UP]/[DOWN] buttons to select the piano category (AC.Piano or EL.Piano).



Turn the dial to choose the sound you want.

The JUNO-G contains 21 types of acoustic pianos and 36 types of electric pianos. These provide sounds that are suitable for a wide range of styles, so play the keyboard to try them out, and select one that you like.

When you've selected a sound, press the [ENTER] button to finalize your choice.



Here are the piano sounds we recommend!

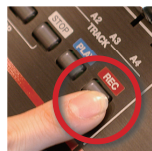
The JUNO-G gives you 21 acoustic piano sounds and 36 electric piano sounds. **PR-A:001 "Juno-G Grand"** is particularly recommended. It's recorded in stereo, so it delivers amazing presence. If you're playing a piano solo, this is the one to use. If you need a crisp-sounding piano, we suggest **PR-A: 007 "E-Grand."** This is the sound of an electric grand piano, and should be a good choice for hammering out rock piano parts. For an electric piano, you should check out **PR-A: 015 "LonesomeRoad"** for that classic wavering feel — just what you need for '70s pop or AOR, or for the R&B styles of today. **PR-A:028 "FM EP"** is the brilliant electric piano sound that was fashionable during the '80s. It's the perfect match for the pop songs of that era.

3 Record your piano performance

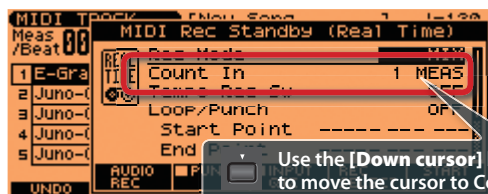
Press the **[PLAY]** button so that the drums play, and then start playing your piano part. Having the rhythm playing makes it easier to get into a nice groove with your own performance. Play several times until your hands have absorbed the rhythm.



When you've got a good idea of the phrases you want to play, you can start recording. Return to the beginning of the song (**[STOP]**+**[BWD]** buttons). Then in the MIDI TRACK screen, press the **[REC]** button to access the recording standby screen so that you can record your keyboard playing.



In this example, let's set **Count In** to "1 MEAS." With this setting, the metronome will sound for one measure before recording actually begins, so it will be easy for you to start playing at the right timing.



Use the **[Down cursor]** button to move the cursor to Count In.

Turn the dial to change Count In to "1 MEAS."

Recording will start when you press the **[PLAY]** button. When you're finished playing, press the **[STOP]** button.



4 Look at what you recorded

When you've finished recording, let's take a look at the data that was recorded. In the MIDI TRACK screen, go back to the beginning of the song.



Your piano performance is recorded on track 1.

The phrases you recorded are shown in the screen.

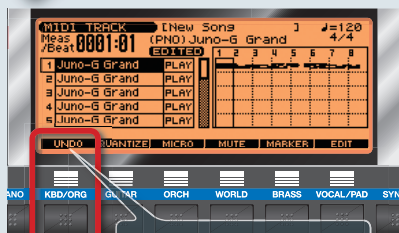
For now, simply take a glance at this to check the result of your recording. But this screen is also a great way to view the overall structure of a song and to help you edit it.

For more about realtime recording, refer to "Recording Your Performance as You Play It (Realtime Recording)" (p. 88).



If you've made a mistake, you can backtrack!

It's common to make slight mistakes when recording. If you do, you can take advantage of a useful function that lets you cancel your mistake. In the MIDI TRACK screen, press the **[UNDO]** button, and then press the **[EXEC]** button in the confirmation screen that appears. This will instantly erase the recording you just made. It's as easy as that, so don't be afraid to make mistakes, since you can easily undo them until you're satisfied with your performance.



Press the **[UNDO]** button in the MIDI TRACK screen.



In the confirmation screen, press the **[EXEC]** (Execute)



STEP 5

Record the bass using step recording

1 Access the recording screen

Next we'll record the bass. This will complete the essential ensemble, so all of a sudden your song will sound more coherent.

Unlike the way in which you recorded the piano (by playing the keyboard while you listened to the other parts), we're going to record the bass using a method called "step recording," in which you enter the notes one by one.

To record the bass, we'll select track 2 in the MIDI TRACK screen.



Use the [Cursor] buttons to move between tracks. We'll record the bass on track 2.

2 Select the bass sound you want to use

When you've selected track 2, press the [ENTER] button.



A screen will appear, allowing you to choose the instrument you want to use in track 2.

Use the [UP]/[DOWN] buttons to select a bass category (Bass or Synth Bass).



Turn the dial to select the sound you want.

The "Bass" category contains 27 acoustic and electric bass sounds, and the "Synth Bass" category contains 74 bass sounds (mainly analog synths).

When you've selected the sound you want, press the [ENTER] button to confirm your selection.



Here are some bass sounds we recommend!

The JUNO-G has a rich array of bass sounds. **PR-B:020 "Ulti Ac Bass"** is a stand-up bass that sounds so "woody" it will have you playing jazz riffs right away. **PR-B:023 "FingerMaster"** is a finger-plucked electric bass; a nicely robust sound that's a good choice for songs that need solid anchoring.

PR-B:105 "TBasic" reproduces the sound of the famous Roland TB-303, and is a very "synth-like" bass sound that's typical of techno styles. Another tasteful synth bass is **PR-B:050 "SH-101 Bs 1,"** not a flashy sound, but highly usable in a variety of styles. You can use the knobs shown at right to modify the sound in very dramatic ways — try it out!



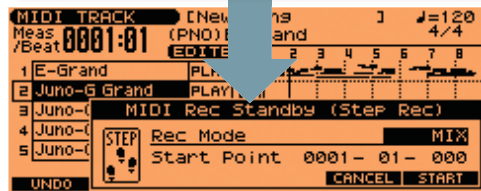
3 Access the step recording screen

The procedure until this point has been the same as when you recorded the piano, but now we'll shift to a procedure that is distinctive of step recording.

In the MIDI TRACK screen, the metronome will begin sounding when you press the [REC] button once, but if you press the [REC] button once again you'll enter the step record standby screen.



In the MIDI TRACK screen, press [REC] twice to access the step record standby screen.



In this screen, notice that "Start Point" is "0001-01-000" (the beginning of the first beat of measure one). If it's not, use the [Down cursor] button to move the cursor to Start Point, and then use the dial to set it.



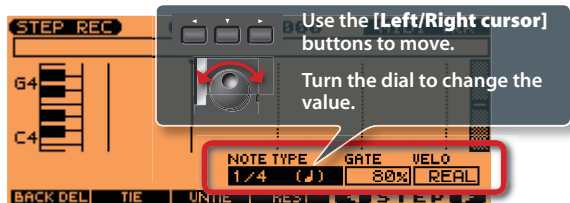
Use the [Down cursor] button to move the cursor. Turn the dial to change the Start Point to "0001-01-000".

When you press the [START] button, you'll see the step recording screen.



4 Enter the data

We'll begin by making some settings that specify the type of notes we want to enter. Set the note length and volume as shown in the screen below.

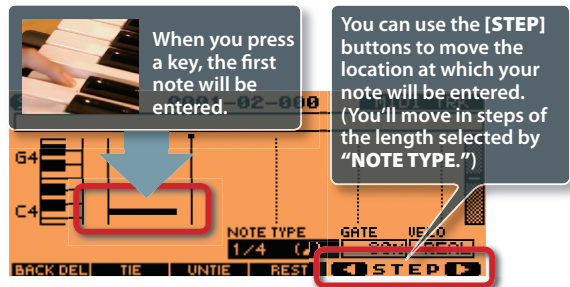


Use the [Left/Right cursor] buttons to move.

Turn the dial to change the value.

Setting	Explanation
NOTE TYPE	Specifies the note length (time value).
GATE	Specifies the duration of the actual sound relative to the note length. For example even if NOTE TYPE is set to 1/8th notes, this GATE setting will determine whether the notes are legato or staccato.
VELO	Specifies the velocity (loudness) of the notes. If you set this to "REAL," the force at which you actually strike each key will be entered as the velocity. If you specify a value of 1-127, that's the velocity value that will be entered; the force at which you actually strike the key will be ignored.

When you've finished making these settings, press a key to enter the first note.



When you press a key, the first note will be entered.

You can use the [STEP] buttons to move the location at which your note will be entered. (You'll move in steps of the length selected by "NOTE TYPE.")

When you press a key, a horizontal bar will appear, indicating the pitch of the note you entered. Simply repeat this step to enter the notes. When you've finished, press the [STOP] button.

For more details on step recording, refer to "Inputting Data One Step at a Time (Step Recording)" (p. 92) in the owner's manual.

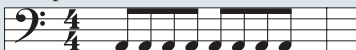
A NOTE OF ADVICE



Some phrases are just made for step recording!

It goes without saying that keyboard instruments are fundamentally different than other types of instruments. For example, what will happen when you play the following bass phrase from the keyboard?

Tempo=150



It looks easy, but at this rapid tempo it's not easy to play consistent repeated notes at the same pitch. It takes a moment to move your finger off the key, so it's rather difficult to avoid a staccato feeling. Even phrases like this that might be difficult to play from a keyboard are easy if you use step recording. If you're trying for high-precision patterns, you'll want to take advantage of step recording.

STEP 6

Record your guitar playing on an audio track

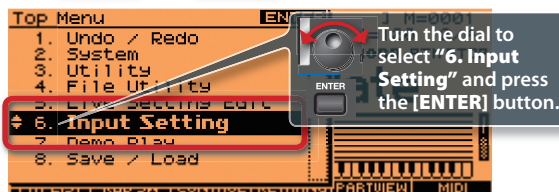
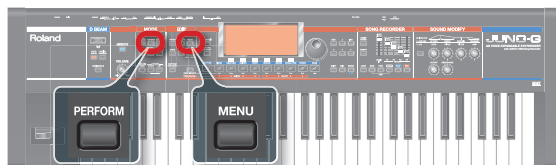
1 Connect your guitar to the JUNO-G

Connect your guitar to the **AUDIO INPUT “L (MONO)/MIC”** jack located on the rear panel of the JUNO-G. You can use the same type of “phone” cable that you would use when connecting your guitar to an amp. If you’re using a stereo output (such as when routing your guitar through an effect processor), make connections in stereo (to both **L** and **R** jacks).

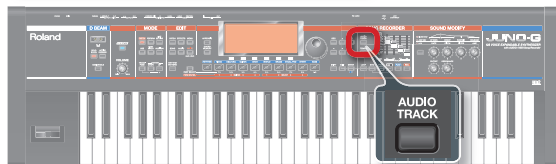
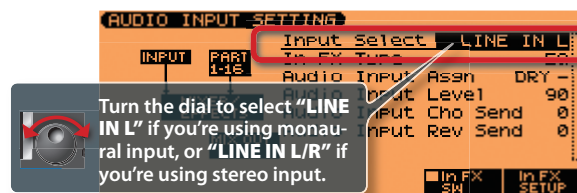


2 Adjust the JUNO-G’s input settings appropriately for your guitar

Press the **“PERFORM”** button, then press the **“MENU”** button, and choose **“6. Input Setting”** from the menu that appears.



In the screen that appears, choose Input Select as shown below, and then press the [AUDIO TRACK] button.



An effect processor with built-in amp simulator is great!

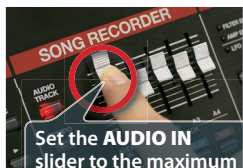
When you connect your guitar to the JUNO-G, it’s especially nice to use a multi-effect unit that contains an amp simulator, such as the BOSS GT-8. Simply connect this between the JUNO-G and your guitar, and you’ll get that powerful “studio-recorded” sound.



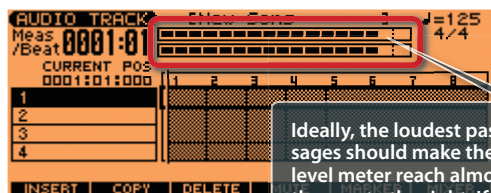
3 Check the recording level

Setting the level is the most important thing when recording. If the level is too low, you'll lose dynamic range, and the audio quality will suffer. If the level is too high, you'll get distortion (crackling or grinding noise).

To begin, set the **AUDIO IN** slider located on the JUNO-G's panel to the maximum position (all the way up). Then, while playing your guitar, use the **LEVEL** knob on the rear panel to adjust the recording level.



Adjust the level so that when you play your guitar the loudest, the JUNO-G's level meter does not quite reach all the way to the maximum point. You should also make sure that the level is not too low.



Ideally, the loudest passages should make the level meter reach almost all the way to the right. If the level reaches all the way to the right edge, however, the sound will be distorted.

4 Start recording!

First you'll need to return to the beginning of the song ([**STOP**] + [**BWD**] button). Press the [**REC**] button to enter standby mode. This time you'll be recording only the sound from an external audio source, so set **Audio Rec Mode** to "**SOLO**."



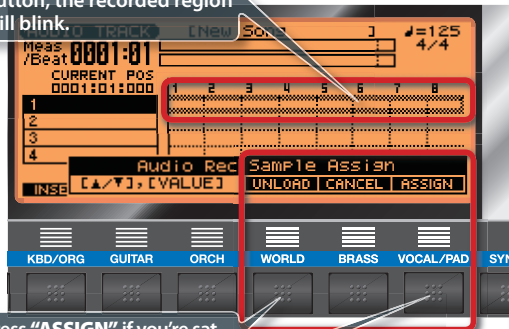
Turn the dial to select "**SOLO**."

Next, press the [**PLAY**] button to start recording. Go ahead and play your guitar like a rock star! When you've finished recording, press the [**STOP**] button.



Take a look at the **AUDIO TRACK** screen at this time, and you'll notice that there's a blinking graphic indicating the region you recorded.

When you press the [**STOP**] button, the recorded region will blink.



Press "**ASSIGN**" if you're satisfied, or press "**UNLOAD**" if you're not satisfied.

If you're happy with your performance, press the [**ASSIGN**] button. If you're unsatisfied, press the [**UNLOAD**] button. You'll be asked whether you really want to discard your performance; press the [**EXEC**] button to discard it.



For more about audio recording, refer to "Recording a Song (Audio Track)" (p. 104) in the owner's manual.

A NOTE OF ADVICE

Totally cool! You can change the tempo of the recording!

If you're not confident of being able to play at the necessary tempo, you can drop the song tempo a little (see page 10 of this booklet) when you record. If you think this will make you look uncool, you're wrong — you can change the tempo back when you're finished recording! This is an absolutely great feature that most other hard-disk recorders don't have!



STEP 7

Record a vocal on an audio track



1 Connect your mic to the JUNO-G

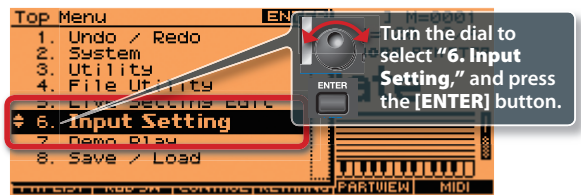
Connect your mic to the **AUDIO INPUT** jack "L (MONO)/MIC" on the JUNO-G's rear panel.

Be aware that the "R" jack doesn't support microphones, and won't give you the correct volume.



2 Adjust the JUNO-G's input settings appropriately for a mic

Just as you did when you played your guitar, press the **[PERFORM]** button and then press the **[MENU]** button. From the menu that appears, select **"6. Input Setting."**



In the screen that appears, make the settings shown in the screen shot below.



Then press the **[AUDIO TRACK]** button.



Watch out for background noise when recording from a mic!

When recording from a mic, it's important to watch out for background noise. If you're recording at home, the mic could accidentally pick up all sorts of noises from everyday life. If possible, you should try to record at a rehearsal studio or soundproof room. If you're using headphones of a type that can leak sound, your mic will also be picking up leakage from the headphones. It's best to use sealed-type headphones that completely cover your ear, or "in-ear" types that fit tightly into your ear canal.

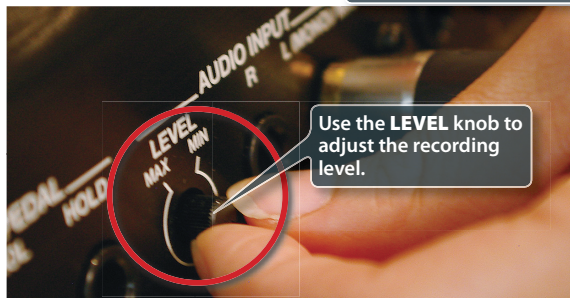
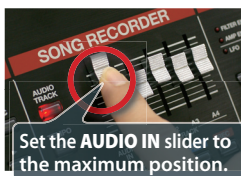


The photo shows Roland RH-300 sealed headphones

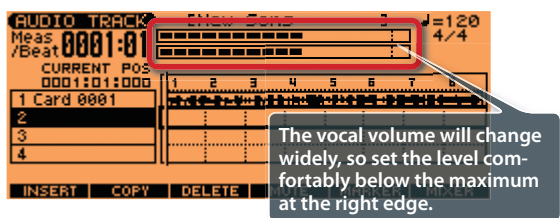
3 Check the recording level

As when recording your guitar, adjusting the level is important for vocals as well. The difference is that in the case of vocals, it's difficult to maintain a consistent distance to the mic, meaning that the volume will change every time you face the mic. The volume is also affected by the condition of the person who is singing. These factors make it hard to get a consistent vocal recording.

The process of adjusting the level is the same as when recording your guitar; set the **AUDIO IN** slider to the maximum position, and use the rear panel **LEVEL** slider to adjust the recording level.



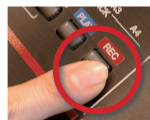
The volume of a vocal will tend to change significantly, so it's best to be cautious, and set the level a bit lower than you otherwise would.



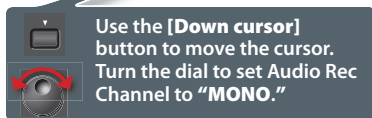
4 Start recording!

Since we're going to record the vocal on audio track 2, use the **[Down cursor]** button to select track "2."

Return to the beginning of the song (**[STOP]** + **[BWD]** button), and then press the **[REC]** button to enter standby mode; the metronome will begin sounding.



As when recording the guitar, we'll be recording just the sound from an external source, so set **Audio Rec Mode** to "SOLO." Since we're recording the mic in mono, set **Audio Rec Channel** to "MONO."



Press the **[PLAY]** button to start recording. When you've finished singing, press the **[STOP]** button to stop.



In the same way as when you finished recording the guitar part, press the **[ASSIGN]** button if you're satisfied with your performance. If you're not satisfied, press the **[UNLOAD]** button, and you'll be asked whether you really want to erase the recording; press the **[EXEC]** button to discard your performance.

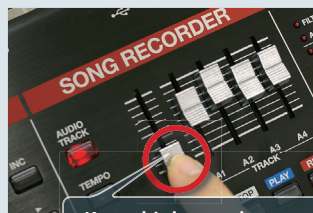
For more about audio recording, refer to "Recording a Song (Audio Track)" (p. 104) in the owner's manual.

A NOTE OF ADVICE



If you're not recording, keep the **AUDIO IN** slider lowered!

When recording a guitar or vocal, you should set the **AUDIO IN** slider to the maximum position in order to get the best sound. But if the **AUDIO IN** slider is raised, any noise from the mic or guitar connected to the JUNO-G will always be mixed into the output of the JUNO-G, so it's best to keep the **AUDIO IN** slider lowered unless you're actually recording. If you notice unwanted noise coming from the JUNO-G, check the **AUDIO IN** slider first!



STEP 8

Mix your song to a final polish

1 Why “mixing” is necessary

Mixing is the process of adjusting the volume balance of the tracks on which you’ve recorded the instruments and vocals, and adding reverberation and/or other effects to give your song the finishing touches. The mixing console is the heart of every recording studio.



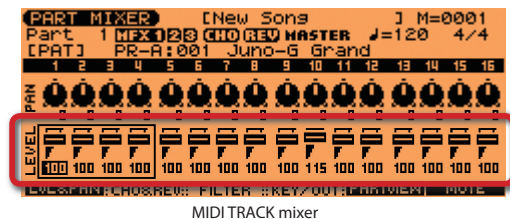
A mixer in a recording studio

The JUNO-G has its own mixer built in. Since it also contains a full range of effects, it’s not too much to say that the JUNO-G gives you an entire recording studio! Here’s how to use it to bring your song to a final state of completion.

2 The JUNO-G has a built-in mixer

The JUNO-G has dedicated mixers for the MIDI tracks and the AUDIO tracks. Even though these have essentially the same functionality as a stand-alone mixer, they’re conveniently built right into the JUNO-G!

The “LEVEL” sliders control the volume of each instrument (track). There are 16 sliders for the MIDI tracks, and four sliders for the AUDIO tracks.



MIDI TRACK mixer



AUDIO TRACK mixer



Use the sliders to adjust the AUDIO TRACK volumes!

You can use the sliders on the front panel of the JUNO-G to adjust the AUDIO TRACK volumes. In fact, you can simultaneously adjust the MIDI TRACK mixer in the screen while you use the sliders to adjust the AUDIO volumes. The volume of each part is something you’ll want to keep an eye on, so this feature is incredibly convenient.

Adjust the MIDI TRACK volumes



Adjust the AUDIO TRACK volumes

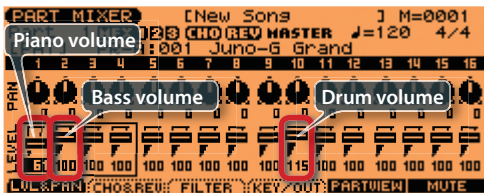
3 Adjust the volume balance

Now let's adjust the volume of the instruments you've recorded up to this point. The volume balance is the basis of mixing, so make sure you get this right.

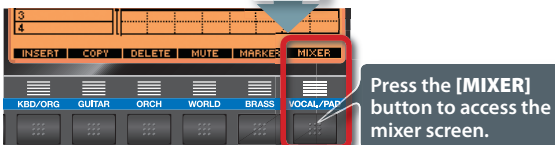
Press the **[PART MIXER]** button to access the MIDI TRACK mixer screen. Press the **[PLAY]** button so you can hear the song while you make adjustments.



Use the **[Left/Right cursor]** buttons to select the instrument (track) volume you want to adjust; then use the **[Down cursor]** button to select "LEVEL" and use the dial to adjust the volume.



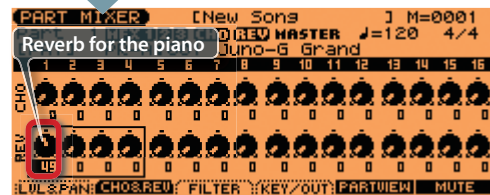
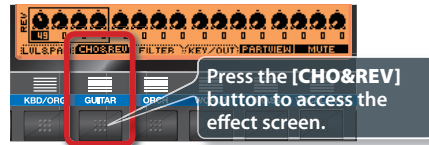
For the AUDIO TRACK, press the **[AUDIO TRACK]** button and then press the **[MIXER]** button to access the mixer screen. Here you can make adjustments in the same way.



4 Use reverb to add space to the sound

The reverberation in a church or concert hall is relatively long, and this can add a beautiful character to the sound. In a recording studio, this is simulated by a "reverb" processor. Let's add reverb to the piano to give the sound some spatial character.

Press the **[PART MIXER]** button to access the mixer screen, and then press the **[CHO&REV]** button. The effect adjustment screen will appear.



Use the **[Cursor]** buttons to move the cursor to "REV" for track 1, and use the dial to adjust it.

The vocal will also sound better if you add an appropriate amount of reverb. You can use similar steps to add reverb to an AUDIO TRACK. Go ahead and try it.

For details on the MIDI TRACK mixer refer to "Using the MIXER Screen" (p. 61) in the owner's manual, and for details on the AUDIO TRACK mixer refer to "Controlling Audio Tracks (AUDIO MIXER screen)" (p. 111).

A NOTE OF ADVICE



Some sounds shouldn't have reverb!

Adding reverb to piano and vocal can make the sound very beautiful. You might think of adding reverb to other instruments as well, but slow down! There are some sounds that are best without reverb. As a rule, for example, the kick drum and bass should have no reverb at all. If reverb is applied to low-frequency sounds, the result can be mush. Even worse, the sense of rhythm gets blurred. A straight-ahead rock band will sound better and more direct if you don't overdo the reverb. The appropriate amount of reverb will depend on the style of music, so be aware of what you're doing, and use reverb wisely.

STEP 9

Make your song into a CD

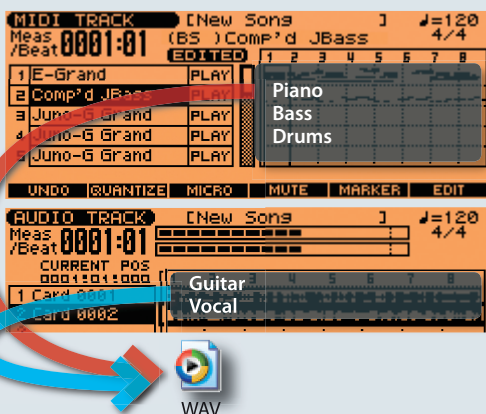
Part 1: Create a WAV file on the JUNO-G



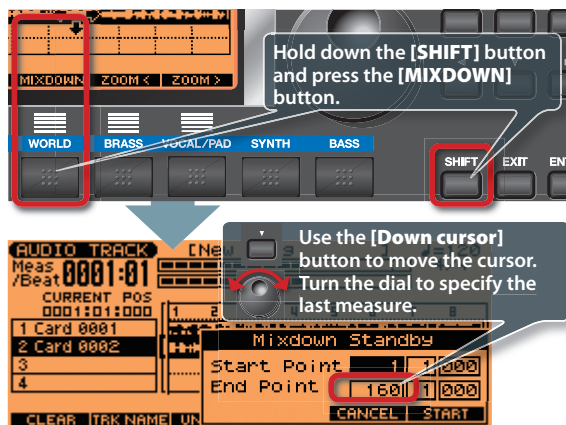
1 Mix down your completed song into a single WAV file

In order to create a CD, the song you created on the JUNO-G has to be rendered into a WAV file. Since WAV files can be played back on your computer, you can use them to make a CD.

Rendering all tracks into a single WAV file



With the AUDIO TRACK screen displayed, hold down the [SHIFT] button and press the [MIXDOWN] button; the mixdown standby screen will appear. Follow the steps shown below, and the region of measures you specify will be rendered into a WAV file.



Next, press the [START] button to begin the mixdown. When the mixdown has been completed for the measures you specified, the process will stop automatically. A message will ask you which track the completed file should be assigned to.

However in this case, we're not going to assign the file to a track (we just want to create the WAV file), so press [CANCEL].



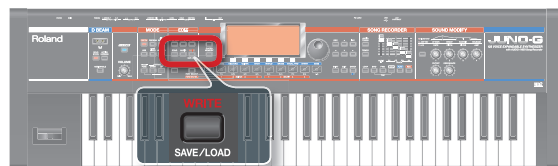
In this example, press [CANCEL] so that the mixdown file won't be assigned to a track.

2 Save the song data on a card

When you've finished the mixdown, save your completed song on a card. If you don't do this, all your hard work up to this point will be lost forever when you turn off the power.

What you're saving here is the data for "the entire song." This single Save operation will save the "MIDI tracks," "AUDIO tracks," and the "mixed-down WAV file" to the card all at once.

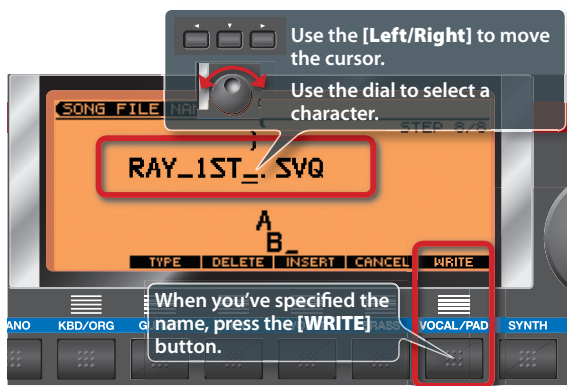
With the AUDIO TRACK or MIDI TRACK screen displayed, press the [WRITE] button.



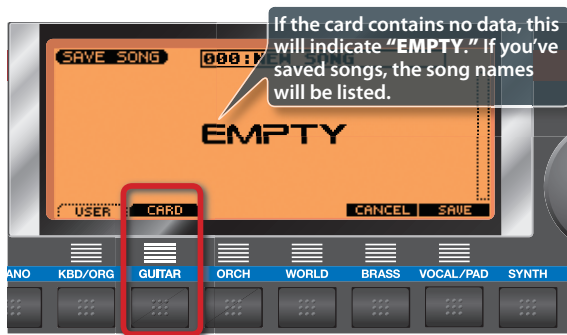
A screen like the following will appear, so use the dial to select **"1. Save Song+SmpIs."** This will save all data of the MIDI tracks and AUDIO tracks.



Next, press the [ENTER] button and a screen will let you enter a name (shown below). You can enter a name of up to eight characters, so assign a name that will help you recognize the file later.



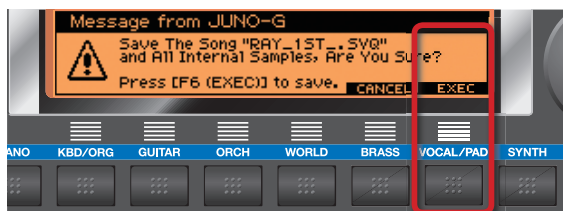
Next, a screen where you can specify the save-destination of the file will appear. The data size will be large if you've recorded audio tracks, so be sure to save the data on a card. Press the [CARD] button and the screen will show the songs currently saved on the card.



Next press the [SAVE] button.



A message will ask if you want to save the data, so press the [EXEC] button.



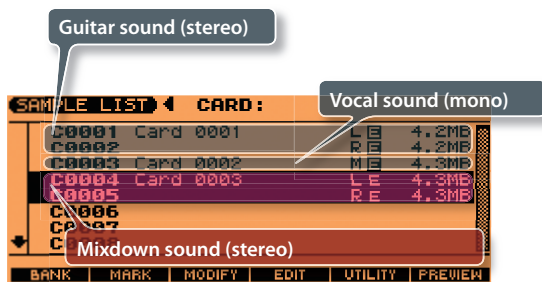
While the display indicates "Now Saving..." or "Now Writing...", the data is being saved; never turn off the power while these messages are displayed. When these messages disappear and you return to the AUDIO TRACK screen, the data has been saved.

3 Check the WAV files you'll be transferring to your computer

Press the [AUDIO] button twice, and the screen will list the AUDIO tracks you've recorded.



From the top, these are the "guitar sound," the "vocal sound," and the "mixdown sound."



You can use the [Up/Down cursor] buttons to select a file and press the [PREVIEW] button to hear the sound. Now would be a good time to check this.



If you've been following along with the procedure we've described in this booklet, the final "mixdown of all tracks (WAV file)" will be "C0004." On your computer, this will appear as a file named "smp10004.WAV."

You're going to transfer this WAV file to your computer and use it to create a CD, so make a note of the name.

STEP 9

Turn your song into a CD

Part 2: Use your computer to burn a CD

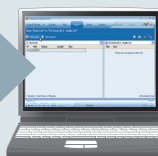


The process of creating a CD

You've finished creating your song on the JUNO-G! Now you're going to transfer the WAV file created on the JUNO-G to your computer, and burn it to a CD. In order to create a CD, your computer needs to have a drive that can write a CD, and software such as "Windows Media Player" (if you're using Windows) or "iTunes" (if you're using Mac OSX). Any recent computer should satisfy these conditions, so you're probably ready to burn CDs right away. Just be aware that some versions of these programs may be unable to burn a CD. For details, refer to the owner's manual or Help file of your software.



WAV



Transfer the WAV file created by the JUNO-G to your computer via the USB connection.

Use "Windows Media Player" or "iTunes" software on your computer to burn a CD.

1

Connect the JUNO-G to your computer

Now you'll connect the JUNO-G to your computer so your computer can see the contents of the JUNO-G's card.

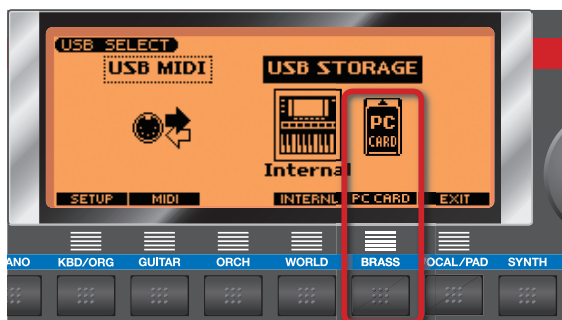
Use a USB cable to connect the JUNO-G to your computer.



Next, press the JUNO-G's [USB] button.



The screen shown below will appear. Press the [PC CARD] button, and a screen that indicates "USB Access..." to show the connection will appear. Now your computer can see the contents of the PC card.



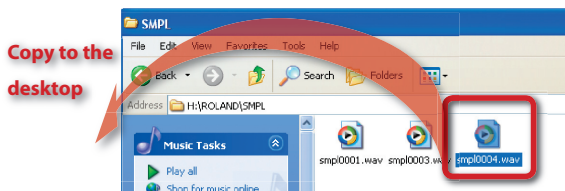
2 Copy the WAV file to your computer

Take a look at the desktop of your computer. If you're using Windows XP, you'll see the "JUNO-G card" icon in "My Computer." If you're using Mac OSX, you'll see this icon on the desktop.



Double-click this icon, and you'll see the contents of the JUNO-G's card.

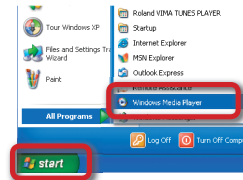
After you've opened "JUNO-G card," proceed to open the "RO-LAND" and then the "SMPL" folder. Inside it you'll find the audio tracks you recorded. These should include the "smpl0004.WAV" that you checked in the preceding step. Copy this file to the desktop or some other convenient location on your computer.



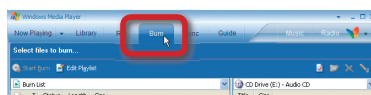
3 Use Windows Media Player to burn a CD

Finally you're ready to actually burn (write) the CD. The basic procedure will be similar for any program, but here we'll use the example of Windows Media Player 10. If you're using a different version or a different program, refer to its Help file or owner's manual.

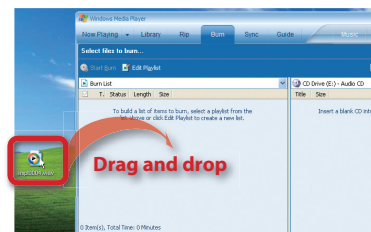
Beginning with the **Start** menu, click **[All Programs]-[Windows Media Player]**.



In Windows Media Player, click the **[Burn]** tab.



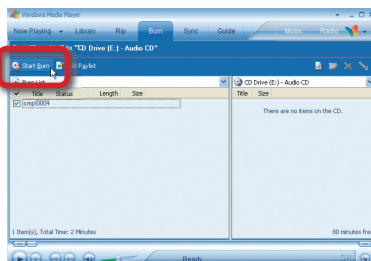
Drag and drop the WAV file you created on the JUNO-G into the "Burn List."



Insert a blank CD-R into your computer.



Click the **[Start Burn]** button.



When burning is finished, the CD-R will be ejected from your computer — you've just created your CD!



Afterword

We've explained the process of creating a song and creating a CD. There may have been some unfamiliar steps, and you might have been uncertain about some things, but you probably gained confidence as you proceeded.

Many things were explained in this booklet, but what we covered is actually just a small part of what the JUNO-G is capable of. There are many more effects you can use, and there are also many more sounds in addition to piano, drums, and bass. You can also add expansion boards to add more of your favorite sounds, and use the included "JUNO-G Editor" computer software to edit your own sounds with your computer screen. The JUNO-G gives you enormously more than we've been able to cover here.

But you shouldn't feel that you have to use all of its functionality. The important thing is to find your very own way of using the JUNO-G. This much power means that you have a broad scope for doing just what you want.

So go ahead and enjoy playing. Create lots of songs. Use the JUNO-G to enjoy music.

We hope that the JUNO-G will make your musical life more creative and rewarding.



Specifications

JUNO-G: Synthesizer Keyboard (Conforms to General MIDI 2 System)

Keyboard

61 keys (velocity sensitive)

Sound Generator Section

- **Maximum Polyphony**
128 voices (shared with audio track section)
- **Parts**
16 parts
- **Wave Memory**
64 M bytes (16-bit linear equivalent)
- **Preset Memory**
Patches: 768 + 256 (GM2)
Rhythm Sets: 36 + 9 (GM2)
Performances: 64
- **User Memory**
Patches: 256
Rhythm Sets: 32
Performances: 64
- **Effects**
Multi-Effects: 3 systems, 78 types
Chorus: 3 types
Reverb: 5 types
Input Effects: 6 types
Mastering Effects: 3-band compressor

Song Recorder Section

- **Tracks**
MIDI tracks: 16
Audio tracks: 4 stereo tracks
Tempo track: 1
Beat track: 1
- **Song Length**
9998 measures
- **Tempo**
5–300
- **MIDI Track**
Resolution: 480 TPQN
Note Capacity: approx. 400,000 notes
Recording Method: Realtime recording, Step recording
- **Audio Track**
Data Format: 16-bit linear
Sample Rate: 44.1 kHz
Recording Time:
 - Memory not expanded (4 M bytes)
approx. mono 47 seconds (stereo 23.5 seconds)
 - Memory fully expanded (516 M bytes)
approx. mono 102 minutes (stereo 51 minutes)

Others

- **Arpeggio**
Preset: 128
User: 128
- **Rhythm Pattern**
Preset: 256 (32 groups)
User: 256 (32 groups)
- **Chord Memory**
Preset: 64
User: 64
- **Controllers**
D Beam Controller
Pitch Bend/Modulation Lever
Sound Modify Knob x 6
- **Display**
240 x 92 dots graphic LCD (with backlight)
- **Expansion Slots**
SRX expansion board: 1 slot
DIMM: 1 slot (memory expansion for audio recording)
- **External Storage Device**
PC Card: 1 slot
(supports SmartMedia and CompactFlash using a PC card adaptor)
- **Connectors**
Headphones Jack (Stereo 1/4 inch phone type)
A (MIX) Output Jacks (L (MONO), R) (1/4 inch phone type)
B Output Jacks (L, R) (1/4 inch phone type)
Input Jacks (L (MONO)/MIC, R) (1/4 inch phone type)
MIDI Connectors (IN, OUT)
Hold Pedal Jack
Control Pedal Jack
USB Connector (supports file transfer and MIDI)
- **Power Supply**
DC 9V (AC Adaptor)
- **Current Draw**
2000 mA
- **Dimensions**
1022.8 (W) x 298.4 (D) x 101.7 (H) mm
40-5/16 (W) x 11-3/4 (D) x 4-1/16 (H) inches
- **Weight**
6.2 kg
13 lbs 11 oz
(excluding AC Adaptor)

Accessories

Owner's Manual
CD-ROM x 2 (Editor/Librarian/USB MIDI driver, SONAR LE)
PC Card Protector
AC Adaptor

Options

Wave Expansion Board: SRX Series
Keyboard Stand: KS-12
Pedal Switch: DP Series
Foot Switch: BOSS FS-5U
Expression Pedal: EV-5

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

System requirements

Windows

Microsoft® Windows® XP / 2000

Macintosh

Mac OS X: 10.2 or later

SRX SERIES LINE-UP

SRX-01

Dynamic
Drum
Kits



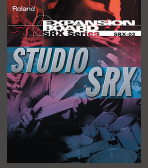
SRX-02

Concert
Piano



SRX-03

STUDIO
SRX



SRX-04

Symphonique
Strings



SRX-05

Supreme
Dance



SRX-06

COMPLETE
ORCHESTRA



SRX-07

Ultimate
Keys



SRX-08

Platinum
Trax



SRX-09

World
Collection



SRX-10

Big Brass
Ensemble



SRX-11

COMPLETE
PIANO



SRX-12

Classic
EPs



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