

 **BOSS**[®]

for Acoustic Guitar

Recording Guidebook

featuring BR-600



From mic recording to creating a CD — get started recording your acoustic guitar right away!



DIGITAL RECORDER **BR-600**

Step 1

Recording Your Acoustic Guitar

Simply playing the guitar is fun, of course, but being able to do things like recording the beautiful sound, or combining guitars for ensemble play, or composing songs with guitar and vocals can be even more enjoyable and rewarding. Try out the BR-600 digital recorder from BOSS and add an exciting new dimension to your guitar performances!

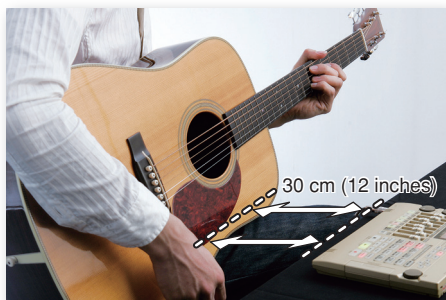
First, Let's Try Recording





Onboard Stereo Mics

The BR-600 has onboard stereo condenser mics. (*1) These microphones let you record acoustic-guitar performance, vocals, and more without any additional equipment.

(*1) *Condenser mic*
This is a versatile microphone for recording live instruments and vocals. It's designed to accurately capture clear, brilliant sounds with realism and sensitivity.



The BR-600 is designed to make it easy for guitarists to record. This means you can start recording right away, with few steps and no need for a complicated setup.

It's simple — just turn on the onboard stereo mics, press the  and  buttons, and you're ready to record.

Place the BR-600 30 cm (12 inches) from the body and position it so the stereo mics are on either side of the guitar's sound hole, and you're all set. You can record well-balanced, resonant sound over the full range of sound, from bass to treble.

Uses CompactFlash As the Recording Media

You can record about 65 minutes (*2) on the 128 MB card, and a tremendously long time of around 520 minutes(*2) on the 1 GB card.



(*2) *Recording times*
For recording on a single track with the data type set to "HiFi (MT2)." Even longer recording times are possible when the data type is set to "STD (LV1)" or "LONG (LV2)."

Quick Tip 1

Many Ways to Position the Mics

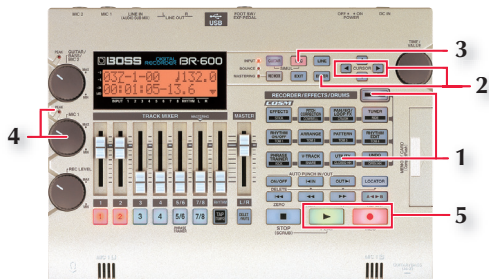
Another way of positioning the microphones is to aim them more toward the endpin than the bridge, or point them toward the head. Changing the point you aim at lets you create a variety of different sounds, including making the body resonance more prominent or achieving bright reverberations.

Quick Tip 2

Close Mic Placement and Low-Cut Recording

With finger picking or other low-volume playing, it's advisable to move the mics closer to help minimize noise. Moving the mics closer makes the bass more prominent, however, so use the low-cut features of the EQ (equalizer — see page 5) to get a more natural and well-balanced sound.

Let's Try the BR-600



1. Make sure **PAD** is not lit, then press **UTILITY**.
If **PAD** is lighted, press **PAD** to turn it off.
2. Use **COURSE** to move the cursor to "NEW," then press **ENTER** three times.
This operation lets you prepare the song that you're going to record.

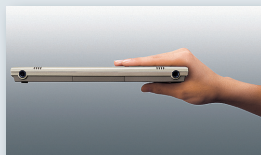


3. Press the **REC** button to turn on the onboard stereo microphones; the button will illuminate red.
4. Use the knob to set the sensitivity so that the **PEAK** indicator on the left side of the unit lights up only momentarily when you play the guitar with force.
Sensitivity that's too high may cause sound drop-out, but noise may be noticeable if the sensitivity is too low.
5. When you're ready, press the **REC** and **PLAY** buttons simultaneously to start recording.

When you're done recording, press **STOP**, then **ZERO**, then **PLAY**, and listen to what you've recorded.

Runs on Batteries, So You Can Record Anywhere

In addition to running the unit off an AC adapter (the BOSS PSA series, available separately), you can power it using six AA batteries. (We recommend using alkaline batteries.)



Step 1
Recording Your Acoustic Guitar

Step 2
Try Recording a Combination of Different Parts

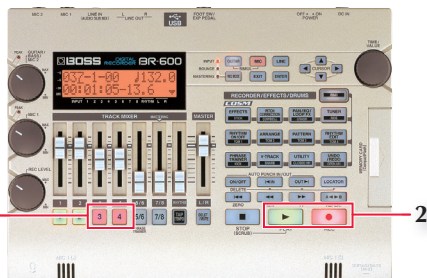
Step 3
Advanced Use



Step 2

Try Recording a Combination of Different Parts

After you've recorded your guitar playing, try adding some other parts. You can expand your enjoyment by adding arpeggios or vocals to stroked chords to form an ensemble.

Add Another Guitar to Make an Ensemble



1. Press buttons **3** **4** at the bottom left of the unit so they're flashing red.
2. Now you can record a new performance on top of the previously recorded one as you listen to it — just press the  and  buttons simultaneously.

Use faders 1 and 2 (the sliders on the left half of the unit) to adjust the volume of the sound you recorded on the previous page.

Recording each part on separate tracks(*3) in this way — by first recording the stroked chords, then recording arpeggios as you listen to the recorded chords, then combining vocals into the recording, and so on — is called "multitrack recording."

Recording on separate tracks makes it easy to re-record a single part later. For instance, you can raise the volume of just the chords, or redo just the recorded arpeggios if you made a mistake.


(*3)Track

With stereo recording, however, the left and right audio channels are each recorded on separate tracks, for a total of two. The BR-600 has eight tracks in all, which means you can combine up to four parts when you're recording them all in stereo.

Let's Try Playing



● The faders for volume control

Now press the  button to hear the tracks you've recorded.

You can individually **control the volume** of each track by raising and lowering the faders (the sliders on the left half of the unit). Adjust the volume balance to make the song come together better.

This lets you create an ensemble all by yourself when other musicians are unavailable or when you want to create songs individually. The BR-600 lets you start recording right away with just a guitar and headphones. The onboard stereo microphones also let you record vocals without having to purchase and connect any additional equipment. If you have an idea, just go ahead and give it a try!

● Quick Tip 3

How Do You Position the Panning? (See page 5.)

One common pattern is to position the main sound — such as vocals and solos — at the center, and shift other parts to the left or right. This produces a rich stereophonic sound that accents the individual parts.

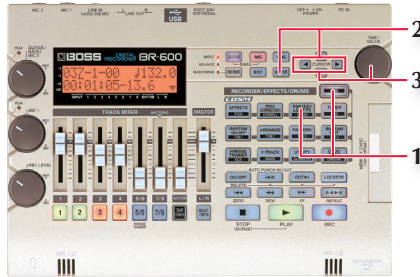
● Quick Tip 4

Techniques for Getting a Wide Stereo Sound

First, record the chords on track 1, then record the same chords again on track 2. Pan track 1 all the way to the left and track 2 all the way to the right. This creates a sound with rich, broad diffusion across the stereo soundfield.

Put the Finishing Touches On Your Recorded Tracks

After you've adjusted the volume balance, it's time to individually adjust the sound on each track so everything blends together perfectly.



1. Make sure **PAD** is not lit, then press **UTILITY CLOSURE**. If **PAD** is lighted, press **PAD** to turn it off.
2. Press **CURSOR** to move the cursor to "PAN," "EQ," or any other item whose setting you want to make, then press **ENTER**.
3. Press **CURSOR** to move the cursor to the parameter whose setting you want to make. You can then turn the **TIME/VALUE** knob to change the value.



- This sets the position of the recorded audio in the stereo sound field.

Panning

Panning determines the position, between the left and right speakers, from which the sound will be heard. Here you can make the settings for the stereo position, such as by positioning stroked chords on the left and vocals at the center.



- This adjusts the sound quality by boosting or cutting the high or low range.

EQ (Equalizer)

This lets you adjust the tone of each part, such as by cutting off the lower band to make the sound clearer and cleaner, or boosting the high band for a sound with greater brilliance.



- You can add a sense of depth by making settings for reverb, chorus, or delay.

Loop Effects

The loop effects include reverb, which can produce reverberations that give the feel of a spacious room or a large concert hall.

This lets you create sounds with beautiful lingering reverberations that have realistic breadth.

Adding finishing touches like these to the sound on each track makes it possible for you to achieve results that approach professional recordings.

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Step 3

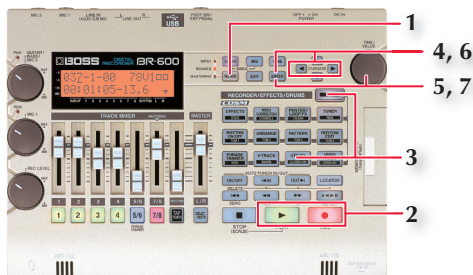
Advanced Use

Step 3

Advanced Use

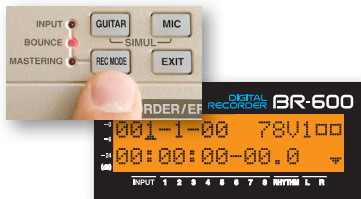
You can send data recorded with the BR-600 to a computer as WAV or AIFF files. This means **you can make the computer a part of your music creation process**, so you can burn your songs to a CD or convert them to MP3 files for e-mailing, uploading to music blogs, or just about any other use you can think of.

Sending Recorded Data to a Computer



To make recorded data ready for sending to a computer, you must compile the ensemble performance — the chords, arpeggios, vocals, and everything else — into just two tracks. (This is called a "mixdown" or "bouncing.")

1. When you're done adjusting the sound quality and balance for each track, press **REW** so the **BOUNCE** indicator is lit.
2. Pressing **REC** and **PLAY** takes the mixed sound and records it (as a mixdown) on the track shown at the top right of the display (such as 78V1).



Next, connect the computer and the BR-600 by USB and send the WAV or AIFF files.

3. Make sure **PAD** is not lit, then press **UTILITY**. If **PAD** is lighted, press **PAD** to turn it off.
4. Press **CURSOR** to move the cursor to "USB," then press **ENTER**.
5. Turn the **TIME/VALUE** knob to choose "EXPORT," then press **ENTER**.
6. Press **CURSOR** to move the cursor to either "WAV" or "AIFF," then press **ENTER**.
7. Turn the **TIME/VALUE** knob to choose the mixdown track you used in step 1 (in this example, that's 78V1), then press **ENTER**.



● Connect to your computer using a USB cable.



● Create audio CDs and back up your data.

● Quick Tip 5

A Technique for Making Sound Thicker

When you want to get a wide stereo feel, try recording the same phrase on tracks 1 and 2, with track 1 tuned to A = 440 Hz and track 2 tuned to A = 442 Hz. Detuning the pitch slightly can produce a "fat" sound.

● Quick Tip 6

Eliminating Noise with Track Erase

Noise before and after a performance can create an unpleasant distraction, but using track-erase operations to silence portions where nothing is played can greatly enhance the quality of the recorded audio.

Even More Things You Can Do with the BR-600!

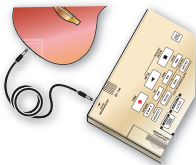
Mic Effects



Pressing the **[MIC]** button to turn on the onboard microphones calls up effects suited to stereo recording.

You can try out a variety of different effect settings simply by pressing the **[EFFECTS STICK]** button and turning the TIME/VALUE knob.

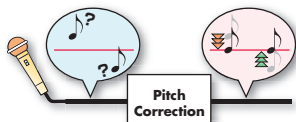
Support for Line Recording, Too



If your acoustic guitar has a built-in pickup, you can also record via a cable connection with the guitar.

This lets you record with less noise, especially with finger picking or other low-volume playing, and can also minimize ambient sounds.

Pitch Correction



Correct to the perfect pitch!

This feature can correct for fluctuations in pitch — something guitarists who are less than confident in their singing are sure to appreciate. This can correct slightly off-key vocals to make them precisely in tune.

Mastering Toolkit



The Mastering Toolkit provides effects for achieving results on a par with commercial CDs.

Pump up your mix for a solid, high-impact sound, for example, or create a polished sound of clear, transparent beauty.

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BR-600 Specifications

Tracks

Track: 8

V-Track: 64 (8 V-Tracks per each Track)

* Up to 2 tracks can be recorded simultaneously, and up to 8 tracks can be played back simultaneously.

Useful Capacity

CompactFlash: 32 M — 1 Gbytes

Data Type

HIFI (MT2)

STANDARD (LV1)

LONG (LV2)

Signal Processing

AD Conversion:

24 bit, $\Delta\Sigma$ Modulation + AF-AD (Guitar/Bass)

24 bit, $\Delta\Sigma$ Modulation + AF-AD (Mic 1/2)

24 bit, $\Delta\Sigma$ Modulation (Line)

24 bit, $\Delta\Sigma$ Modulation (Simul)

DA Conversion: 24 bit, $\Delta\Sigma$ Modulation

Internal Processing: 24 bit (digital mixer section)

* AF method (Adaptive Focus method)

Adaptive Focus is a unique Roland/BOSS technology that allows the signal noise (S/N) ratios of AD and DA converters to be vastly improved.

Sample Rate

44.1 kHz

Frequency Response

20 Hz to 20 kHz (+1/-3 dBu)

Recording Time (conversion in one track)

Capacity	Data Type		
	HIFI (MT2)	STD (LV1)	LONG (LV2)
32 MB	16 min.	10 min.	24 min.
64 MB	32 min.	39 min.	49 min.
128 MB	65 min.	78 min.	98 min.
256 MB	130 min.	156 min.	196 min.
512 MB	260 min.	312 min.	392 min.
1 GB	520 min.	624 min.	784 min.

* The listed recording times are approximate. Times may be slightly shorter depending on the number of songs that were created.

* The number is the total for all the tracks that are used. If each of the eight tracks contain an equal amount of data, the length of the resulting song will be approximately 1/8 of the number.

Nominal Input Level (Variable)

GUITAR/BASS jack: -20dBu

MIC1/2 jack: -40dBu

LINE IN jack: -10dBu

Input Impedance

GUITAR/BASS jack: 1 M Ω

MIC1/2 jack: 2 k Ω (HOT-COLD)

LINE IN jack: 30 k Ω

Nominal Output Level

LINE OUT jack: -10 dBu

Output Impedance

LINE OUT jack: 2 k Ω

Headphone jack: 140 Ω

Recommended Load Impedance

LINE OUT jack: 20 k Ω or greater

Headphone jack: 32 – 100 Ω

Residual Noise Level

LINE OUT jack: -85 dBu or less

(INPUT SELECT: GUITAR/MIC, input terminated with 1 k Ω , INPUT SENS: CENTER, IHF-A, typ., EFFECT: OFF)

* 0 dBu=0.775 Vrms

Interface

USB Connector

Display

16 Characters x 2 Lines (Backlit LCD)

Connectors

GUITAR/BASS jack (1/4 inch phone type)

MIC 1 jacks (TRS balanced 1/4 inch phone type)

MIC 2 jacks (TRS balanced 1/4 inch phone type)

LINE IN jack (Stereo miniature phone type)

LINE OUT jack (RCA Phono type)

FOOT SW/EXP PEDAL jack (1/4 inch phone type)

PHONES jack (Stereo 1/4 inch phone type)

USB connector

Power Supply

DC 9 V: Supply AC Adaptor (PSA series) / Size AA Dry battery x 6 (alkaline batteries recommended)

Current Draw

200 mA

Expected battery life under continuous use

Alkaline dry cell batteries Approximately 5 hours (with continuous playback of 8 tracks)

* May vary according to usage conditions, batteries used, and type of CompactFlash used.

Dimensions

257.0 (W) x 183.0 (D) x 27.1 (H) mm

10-1/8 (W) x 7-1/4 (D) x 1-1/8 (H) inches

Weight

700 g / 1 lb 9 oz (excluding batteries)

Accessories

Soft Case

Size AA alkaline dry cell batteries (6)

TRS-XLR converter cable

Demo Card (Already inserted when the BR-600 is shipped)

Owner's Manual

Separate sheet ("About Memory Cards")

Roland Service (information sheet)

Options

AC Adaptor: PSA series

Foot Switch: FS-5U

Pedal Switch: DP-2 (Roland)

Expression Pedal: EV-5 (Roland), FV-500L/FV-500H

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

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