





Covering All Creative Bases

With 37 high-quality models to choose from, BOSS compact pedals span a wide musical landscape. There are pedals for all musical genres, and for all musicians. With an extensive range of distortion effects that embody the history of the rock guitar sound, along with best-selling spatial/ambient effects as well as utility pedals such as noise suppressors, tuners, and line selectors, BOSS's effects provide multi-faceted, rock-solid support for all musicians.

The BOSS compact series was awarded the "2011 Good Design / Long Life Design Award" which is awarded to products that have been supported for ten years or longer. This is a testimony to BOSS's ongoing commitment to musicians around the world.



*The BOSS compact series was awarded the 2011 Good Design / Long Life Design Awarded



THE BOSS COMPACT EFFECTS STORY

History

The pioneer

The BOSS brand was born for the sole purpose of creating effects at a time when the concept of effects pedals was barely in its infancy. The BOSS brand was infused with all of Roland's effects-related technologies, debuting with the CE-1* chorus effect in 1976, followed by the first compact pedal, the OD-1* overdrive. Following these innovative releases, BOSS added pedal after pedal to its compact-series lineup, products that would pioneer new sonic terrain. Indeed, the history of BOSS is the history of effect pedals.

One-and-only units

BOSS has a history of creating unique effects, having developed many groundbreaking models, including the SG-1* slow gear effect that reproduces the effects of violin bow playing, and the VB-2* vibrato effect. All of BOSS's compact effects are a result of the pursuit of uniqueness, as well as our commitment to responding to musicians' needs and our passion for creating new tones. And because of our pursuit of new creative expression, these units have truly earned the title of "one-and-only." BOSS's product family is a line-up of best sellers with long life-spans because of the unprecedented sound they deliver and their solid construction.

Innovation

BOSS is the world standard of compact effect units

From the beginning, BOSS has built the best pedals by adhering to these key principles:

① Reliable aluminum die cast bodies ② Pedal switches that withstand the 1,000,000-

repetition durability test ③ FET switches to eliminate the clicking noise of conventional mechanical switches ④ Non-slip rubber bases ⑤ Easy-to-install battery compartments ⑥ LED indicators ⑦ Battery and AC power



History of "world-first" products

BOSS has constantly incorporated the latest and most advanced technologies to evolve its effects units. In addition to the world's first chorus and overdrive effects, BOSS was also the first in the world to introduce digital delay, digital reverb, and pitch shifting in a compact-pedal format. Rivaling the specs of professional rack mount units, these pedals amazed the world.

Inspire

Play BOSS and be inspired by new sounds

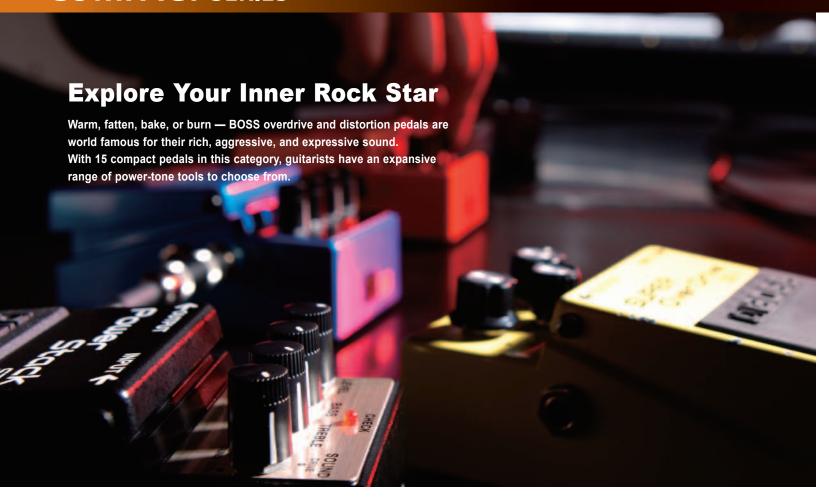
Adding one of the BOSS compact pedals to your arsenal doesn't mean you're limited to one killer tone. Versatility is another reason BOSS compact effects have become so popular. For instance, while BOSS distortion pedals are designed to deliver their most distinctive "signature"

sound with knobs set to 12 o'clock, the search for your own tone starts here. Tweak and play. The knobs will reveal a wide palette of sounds. Be inspired, as you discover new sounds for your song, for your music.









DN-2 Dyna Drive

An Overdrive Pedal that Reacts to You

 Equipped with Roland's Dyna Amp technology, this innovative overdrive pedal reacts to your playing dynamics
 Get a transparent, clean sound by playing softly, for example, and transition smoothly to a powerful overdrive by picking aggressively

Current Draw 36 mA (DC 9 V)



 A classic! Add some hard-edged distortion while preserving the subtle nuances of your playing dynamics
 A Tone control is provided for easy sound shaping DISTORE DIST

DS-2 TURBO Distortion

Two Distortions for the Price of One

 Features twin modes for an expanded range of distortion — taking you from blues-rock rhythms to searing leads at the press of a pedal or twist of a knob



Current Draw 12 mA (DC 9 V)

MD-2 Mega Distortion

Nu-School Distortion with Massive Low End

 This pedal's dual Distortion and Gain Boost circuits take thick, heavy distortion sounds to a whole new level
 Special Gain Boost and Bottom

Special Gain Boost and Bottom controls let you shape your tone for maximum volume and low-end punch

Current Draw 18 mA (DC 9 V)

ST-2 Power Stack

Current Draw 4 mA (DC 9 V)

Authentic amp stack sounds from a stompbox

Based on an extensive analysis of classic guitar amps, this pedal provides the ultimate in distortion tones <a href="Simple-Gense-Simple-Gense-Simple-Gense-Simple-Gense-Ge

MT-2 Metal Zone

BOSS's Most Popular Pedal!

Features dual-gain circuitry for thick, tube stack distortion with heavy mids and lows and long-lasting sustain
 A 3-band EQ with semi-parametric.

mids takes your sound to the extreme



Current Draw 20 mA (DC 9 V)

for BASS

FB-2 Feedbacker/Booster

The New-Breed Booster with Natural Feedback

● Wide tonal variety, from flat, clean boost to powerful mid-boost and bright, clear treble boost ● Boost characteristics can be changed continuously and smoothly from one knob ● Advanced feedback function provides smooth and natural amp feedback



IBC-2 Combo Drive

British Combo-Amp Tone

and Beyond

Wide range of tones from classic crisp clean and punchy crunch to creamy overdrive with long sustain and beyond
 Natural and dynamic response to picking nuance
 Provides warm combotones and authentic combo-amp cabinet responses.



5D-1 SUPER OverDrive

Warm, Tube Drive Sounds

● Uses BOSS's asymmetric overdrive circuitry for warm, smooth overdrive sounds that respond to your picking style just like a tube amp ● Includes a Tone control to dial in just the right



ML-2 Metal Core

Extreme Metal in a Compact Pedal

● The ML-2 delivers massive distortion and gain with heavy lows for music that requires a crushing sound ● The ML-2's ferocious and biting tone will slice through any blast beats your rhythm section can produce



FZ-5 Fuzz GUESM

Current Draw 36 mA (DC 9 V)

A Distorted Blast from the Past

● The FZ-5 uses COSM technology to authentically reproduce three famous vintage fuzz effects of the '60s and '70s ● Turn the FUZZ knob to BOOST and you'll create an intense distortion that even exceeds the originals



Crunchy Overdrive Effects for Bass

 An overdrive effect designed to cover the entire frequency range of bass guitars, including 5-string basses
 Overdriven sounds can be blended with dry bass signal for maximum clarity and punch

ODB-3 Bass OverDriv



Current Draw 15 mA (DC 9 V)

OD-3 OverDrive

Current Draw 45 mA (DC 9 V)

Natural Overdrive with Endless Sustain!

Current Draw 9 mA (DC 9 V)

Classic BOSS overdrive, based on a dual-stage design for bigger, fuller sounds Variable Drive and Tone controls create overdriven sounds from mild to extreme with almost endless sustain



BD-2 Blues Driver

Current Draw 45 mA (DC 9 V)

The Perfect Tone

for Blues

● Get the tone of a bluesy, vintage tube amp in a compact pedal capable of anything from warm overdriven sounds to full-on distortion ● Leaves the subtle nuances of your playing intact



OS-2 OverDrive/Distortion

Distortion and Overdrive Together At Last!

● A flexible pedal capable of producing overdrive, distortion, or a combination of both ● Get "in your face" distortion while maintaining the subtle nuances of single-coil guitar pickups



CS-3 Compression Sustainer

Improves Your Overall Tone

Compresses louder signals while boosting lower signals for smooth sustain without degrading the original sound quality Onboard EQ provides precise tonal control; low-noise design for super-quiet operation



GE-7 Equalizer

Current Draw 36 mA (DC 9 V)

Powerful 7-Band EQ!

● Shape your sound and eliminate feedback with seven bands of equalization ● Includes frequencies ranging from 100Hz to 6.4kHz with a powerful 15dB boost/cut per band



Current Draw 10 mA (DC 9 V)

for BASS

GEB-7 Bass Equalized

Precise Tonal Control

 With a frequency range from 50 Hz to 10 kHz, the GEB-7 is ideal for any bass guitar, including 5-string basses
 Seven bands of EQ are available, affording greater control over the crucial midrange

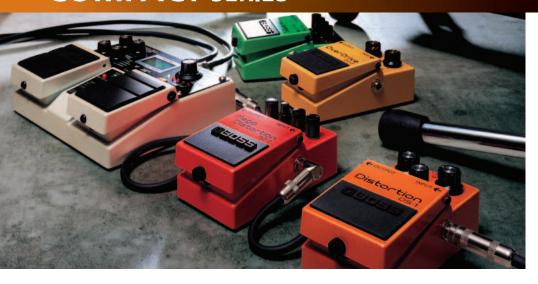


Current Draw 16 mA (DC 9 V)

Current Draw 13 mA (DC 9 V)

COMPACT SERIES





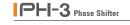
AC-3 Acoustic Simulator

Advanced Electric-To-**Acoustic Guitar Modeling**

● The AC-3 is a new-generation compact pedal that employs COSM modeling technology to transform any electric guitar into a variety of beautiful acoustics



Current Draw 39 mA (DC 9 V)



Modern Phasing with Tap Tempo Sync

Vintage BOSS phasing effects including 4-, 8-, 10-, and 12-stage phasers, plus new "Rise" and "Fall" effects for unidirectional phasing
Tap tempo sync or realtime control of rate via an Expression/Pedal input

Current Draw 50 mA (DC 9 V)



PS-6 Harmon

Create three-part harmonies, de-tune, and bend with ease!

 Latest DSP delivers high-quality, natural sound Three-voice harmony, pitch-shifting, and de-tuning Powerful super-bend effect enables amazing multi-octave effects Pitch can also be controlled with a Roland EV-5 external pedal (sold separately)

LMB-3 Bass Limite

Smooth Tone, Every Time

eliminating harsh volume peaks, even

when using dynamic slap and pop

techniques Ratio and Threshold

knobs allow precise control of limiting

Smoothes out your playing by

Current Draw 45 mA (DC 9 V)

for BASS

parameters



Current Draw 50 mA (DC 9 V)

CE-5 Chorus Ensemble

The Original Chorus

 Produces everything from mild, natural chorusing to the penetrating stereo chorus popular in contemporary music Covers a wide frequency range and includes both high- and low-cut filters



CHI-1 SUPER Chorus

A Unique Stereo Chorus

Delivers a clean chorus sound with crystal-clear highs and a unique stereo effect, variable between the left and right speakers An EQ function adjusts the tonality of the chorus sound



for BASS

CEB-3 Bass Chorus

A Chorus Pedal with **Built-in Crossover**

 A split-frequency chorus capable of applying warm, rich chorus to higher frequencies without muddying the lows A space synthesis effect quarantees a



natural and spacious chorus effect

Current Draw 22 mA (DC 9 V) Current Draw 70 mA (DC 9 V)

RC-3 Loop Station USB

Stereo track looper with up to 3 hours of recording!

 Diverse loop performances with up to 99 phrases and approximately three hours of recording time True-stereo input and output. AUX IN accepts audio from MP3 players Connect to your PC via USB to import and export phrases



Current Draw 17 mA (DC 9 V)

for BASS

SYB-5 Bass Synthesi

Synth Power Under Your Foot

 Utilizing the latest in DSP technology the SYB-5 faithfully reproduces the classic sound characteristics of analog synthesizers
The 11 internal sounds are supercharged for thick, aggressive



Current Draw 22 mA (DC 9 V)

AW-3 Dynamic Wah

Unbelievable "Talking" Wah Effects!

The world's first compact pedal to produce human-voice type wah sounds using a "Humanizer" effect

EXP Pedal mode allows foot control, plus dedicated Bass input for processing bass guitar



Flanger

OC-3 SUPER Octave

Current Draw 22 mA (DC 9 V)

The Ultimate Octave Pedal

The OC-3 SUPER Octave puts new polyphonic octave effects, a Drive mode with distortion, and the original OC-2 effect in one convenient pedal that's ideal for bass, too



TR-2 Tremolo

 Reproduces the classic tremolo effects of vintage '60s amps using a Low Frequency Oscillator (LFO) LFO waveform is variable from triangle to square for producing a variety of classic

Classic Tremolo Sounds!



Current Draw 20 mA (DC 9 V) Current Draw 20 mA (DC 9 V)

N5-2 Noise Suppresso

A "Must-Have" Pedal!

Eliminate unwanted noise and hum without altering your tone

A unique noise detection circuit preserves the natural attack and envelope, leaving your playing and dynamics intact



LS-2 Line Selector Simplifies Your Setup

 The easy way to switch settings among several effects or amplifiers, or route input and output signals . When used with an AC adaptor, the LS-2 can supply power to several BOSS compact nedals



ITU-3 Chromatic Tuner

Current Draw 50 mA (DC 9 V)

The New World-Standard

Tuner Has Arrived Smooth 21-segment LED meter with a High-Brightness mode that cuts through the harshest outdoor glare Accu-Pitch Sign provides visual

verification when tuning is complete

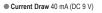


Current Draw 50 mA (DC 9 V)



The Flanger Gets a Face-Lift

The thickest stereo flanging sounds ever in a BOSS pedal • Ultra mode produces BOSS's deepest flanging sounds ever, while Gate/Pan creates spacious flanging with a cool Slicer effect that seems to "swirl" around the





Current Draw 50 mA (DC 9 V)

Pro-Quality Delay in a Compact Pedal

Current Draw 35mA (DC 9 V)

A powerful delay pedal with three distinct modes A variable Delay Time control creates delays from 12.5 ms to 800 ms, while a Hold function is capable of producing repeats from here to infinity



DD-7 Digital Delay

The Next Step in Compact Delay

The DD-7 takes the best features from its predecessors and expands the creative potential with Modulation Delay mode, classic modeled Analog Delay mode, external pedal control options, longer delay time, and more

Current Draw 55 mA (DC 9 V)



1.6 kg/3 lbs 9 oz

Current Draw 25 mA (DC 9 V)

● Current Draw 30 mA (High Brightness mode: 85 mA)

VOLUME PEDALS

FV-500H Foot Volume/Expression

The FV-500H (mono, high-impedance) volume pedal offers a new stylish design, a road-tough build, and a comfortable, smooth action.



x 289 (D) x 72 (H) mm (4-3/8" x 11-7/16" x 2-7/8") • Weight

FV-500L Foot Volume/Expression

The FV-500L (stereo, low-impedance) die-cast volume pedal is built for comfort and durability, ready to meet the needs of the most demanding pros.

■ Control MINIMUM VOLUME knob ■ Dimensions 110 (W) x 289 (D) x 72 (H) mm (4-3/8" x 11-7/16" x 2-7/8") • Weight 1.6 kg/3 lbs 9 oz

FV-50H Volume Pedal

The high-impedance FV-50H is designed to be connected before guitar effect units in the signal chain.



■ Control MINIMUM VOLUME knob
■ Dimension 86 (W) x 200 (D) x 54 (H) mm (3-3/8" x 7-7/8" x 2-1/8") Weight 400 g/15 oz

FV-50L Volume Pedal

The low-impedance EV-50L is designed for connection after effects units or for use with kevboards.



■ Control MINIMUM VOLUME knob
■ Dimension 86 (W) x 200 (D) x 54 (H) mm (3-3/8" x 7-7/8" x 2-1/8") Weight 400 g/15 oz

[Compact Pedal Effects Specifications] Nominal Input Level -20 dBu Nominal Output Level -20 dBu Power Supply DC 9 V: Dry Battery <6F22/6LR61 type>, AC Adaptor (PSA series: Optional) ■ Dimensions 73 (W) x 129 (D) x 59 (H) mm (2-7/8" x 5-1/8" x 2-3/8") ■ Weight (depending on the model) 400 to 450 g/15 oz to 1 lb ■ Accessory Dry Battery ■ Option AC Adaptor (PSA series)



IFBM-1 Bassman

FDR-1 Deluxe Reverb® FURMI Fender® Deluxe Reverb® Amp Pedal

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Fender® Bassman® Pedal



- Recreates the legendary tone of the 1959 Fender
- Additional BRIGHT IN provides the classic bright sound, similar to the original Bassman
- Presence, Treble, Mid, and Bass EQ controls
- Road-tough BOSS metal construction
- Perfect as pre-gain pedal for adding or retaining
- Ontrols PRESENCE, MIDDLE, BASS, TREBLE, GAIN, LEVEL ■ Current Draw 36 mA ■ Weight 440 g/1 lb (incl. battery)





- Recreates the legendary tone of the 1965 Fender Deluxe Reverb guitar amp
- Level, Gain, Treble, Bass, Vibrato, and Reverb controls
- Road-tough BOSS metal construction
- Perfect as pre-gain pedal for adding or retaining Fender tone color

Controls GAIN, LEVEL, TREBLE, BASS, VIBRATO, REVERB

IFRV-1 Fender® Reverb

Fender® Reverb Pedal



- Recreates the legendary sound of the 1963 Fender Reverb via COSM technology
- Easy operation with three classic controls for Dwell, Tone, and Mixer for creating sounds from buttery warmth to sparkling twang
- Road-tough BOSS metal construction
- Controls MIXER, TONE, DWELL Current 37 mA Weight 420 g/15 oz (incl. battery)



LOOP STATION RC-30 DUAL TRACK LOOPER

Stereo 2-Track Looper with Effects



- Store up to 99 phrases, ultra-long recording time of up
- Two stereo channels for input and output
- USB 2.0 port allows you to connect to a PC and import/
- Built-in effects for processing loops
 Mic jack* for recording voices and instruments

 AUX IN jack for recording audio from your MP3 player Runs on batteries or optional AC power supply

■Built-In Loop Effect

BEND DOWN This effect bends the pitch down rapidly.	
STEP PHASER This phaser varies the tone in a step-wise fashion.	
SWEEP FILTER This effect varies the frequency in sync with the tem	
TEMPO DELAY Tempo-synced delays.	
Lo-Fi	Unique lo-fi effect.

OOOOOE

GIGA DELAY

DD-20 DIGITAL DELAY

BOSS' Most Powerful Delay Pedal

Up to 23 seconds of delay with easy operation • 11 delay modes including classic tape delay and

New "Smooth" and "Twist" modes for subtle or radical delay effects • Memory function for changing delay modes seamlessly

Push-button knob for setting delay time in fine or coarse

DUAL TWIST PAN
SMOOTH TAPE MODU

sound-on-sound recording

5L-20 AUDIO PATTERN PROCESSOR

The Rebirth of a Roland Classic



RE-20 ROLAND SPACE ECHO RE-201

- Amazing simulation of the famous Roland RE-201, with the spacious, analog tone
- Features include 11 types of echo and reverb effects The classic chorus effect produced through tape speed.
- compression, and saturation are meticulously reproduced ● Tap input pedal allows delay time to be set by foot





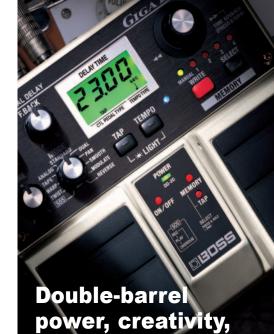
Instant Groove and Melody Maker



- Instantly transform a guitar, bass, keyboard, or vocal into a pulsating groove instrument
- 50 slice patterns onboard, with adjustable attack and duration, including Harmonic Slice
- Up to 40-second recording/loop playback function Tap Tempo via onboard pedal switch; internal and MIDI sync

 Variety of output modes, including the unique 3D Panning for spacious





and control! **BOSS Twin Pedal series — dramatically**

enhance your power as a player with these unique tools!

RT-20 ROTARY SOUND PROCESSOR

ROTARY ENSEMBLE

Supreme Rotary-Speaker Simulator



- Authentic rotary speaker sounds by COSM technology
- 4 types of sounds, from standard rotary speaker effects to rock-oriented tones and more
- Slow/Fast transition time is adjustable from gradual to rapid
- change; optional Expression pedal can control speed in real time ● Onboard Overdrive effects ● Dazzling virtual-rotor display



LOOP STATION



Accelerate your creativity with a BOSS Loop Station!

With the most innovative, creative loop features on the planet, BOSS Loop Stations are a dream for guitarists, vocalists, and all instrumentalists!







The Triple-Stereo Mega Looper







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- TRANSPOSE Transposes the sound when you turn the effect on.
- Produces a metallic resonance reminiscent of a jet airplane taking off and landing. Moves the stereo position (pan). TREMOLO Cyclically modulates the volume. Repeatedly cuts the sound, transforming a conventional sound to create the impression of a rhythmic backing.

 Produces pitch-up/pitch-down effects that can't be created using a guitar's tremolo arm. Adds a slightly modulated sound to the direct sound, creating beautiful spaciousness and depth. ROBOT Adds robot-like qualities to the voice. FEMALE Makes the voice more feminine. GT->BASS Transforms a guitar sound into a bass sound FILTER A filter with an extremely steep slope (a steep cutoff). Adds a delayed sound to the direct sound, giving the sound greater depth or creating special effects.

- Up to three hours of stereo recording and 99 onboard memories
- Three stereo tracks with dedicated footswitches and controls for each
- Dedicated fader per track
- 16 onboard effects optimized for looping
- Expression pedal for effects control in real time
- XLR microphone input with phantom power AUX IN jack for recording audio from your MP3 player • USB storage; import/export WAV files



Stereo 2-Track Looper with Effects and **Support for Battery Power**



- Up to three hours of stereo recording time and 99 onboard memory
- Two synchronized stereo tracks with true stereo I/O
- USB port allows you to connect to a PC and import/export WAV audio
- Built-in effects for processing loops
- MIC IN jack for recording voices and instruments
- AUX IN jack for recording audio from your MP3 player
- Runs on batteries or optional AC power supply





State-of-the-Art Looper in a **Compact Body**



- Compact and powerful stereo stompbox looper
- Up to three hours of stereo recording time and 99 onboard memory phrases
- USB port allows you to connect to a PC and import/export WAV audio
- AUX IN jack for recording audio from your MP3 player ● Rhythm quide with real drums ● Runs on a single 9-volt battery or optional AC power supply











Attach a VE-5 to your mic stand, and operate the unit from an easily reachable distance while you perform.





- High-quality effects for vocalists, easy to operate
- Perfect for live performances
- Attach to your mic stand for convenient control onstage
- Available in two color variations: white or red
- A variety of high-quality effects are onboard, including reverb, delay, dynamics, pitch correct, distortion, radio, and strobe for unique and impactful special effects 30 preset effects are easily accessible with a simple turn of a knob The handy Favorite Sound function lets you instantly access your preferred sounds with a press of button Phrase looper enables sound-on-sound solo performance with hands-free control via optional footswitch In addition to the balanced XLR/TRS microphone jack, a built-in microphone is provided as well Take it onstage and attach it to a microphone stand for real-time performance, or bring it to a studio or home and use it as a tabletop processor Battery operation makes it an ideal tool for street performers who want to bring a new dimension of creativity to their act





■ VE-5 Preset Sound List

No. Sound Name Features

01 BRIGHT ECHO



You can store and call up your favorite sounds instantly.







The Essential Stompbox for Vocalists



- Specialized effects for vocalists, including Double-Track, Dynamics, and more
- Create 3-part harmonies and layers
- Special FX, including distortion, radio and strobe
- Phrase Looper with 38 seconds of recording time
- Runs on six AA-batteries or optional AC adaptor

■ VE-20 Preset Sound List

No.	Sound Name	Features	No.	Sound Name	Features
01	HARD ROCK	A powerful preset suited for hard rock	16	5th HARMONY	Harmony in 5ths suited for a broad range of songs
02	POP	Great for pop songs with clear vocal distinction	17	3rd HARMONY	Beautiful harmonies in 3rds
03	BALLAD	Ideal for ballads with rich resonance	18	5th + DOUBLE	Harmony in 5ths + double-track effect
04	OLDIES	Suited for oldies from the '50s	19	3rd + DOUBLE	Harmony in 3rds + double-track effect
05	ROCK	Direct and full sound tailored for rock	20	3rd + 5th LOW	Harmony in 3rds and 5ths (two lower parts)
06	JAZZ	Create an intimate sound as if you're singing in a jazz club	21	3rd + 5th	Harmony in 3rds and 5ths (lower part and higher part)
07	ECH0	An echo effect that makes great use of short delays	22	3rd + 5th HIGH	Harmony in 3rds and 5ths (two higher parts)
08	ARENA	The sound of singing in a spacious arena	23	DISTORTION	Wild distortion effects
09	CATHEDRAL	The grand, stately reverberation you'd get in a cathedral	24	RADIO	Retro-sounding radio voice
10	HIP HOP	A great hip-hop sound with a touch of distortion	25	STROBE	Great for rhythmic phrases such as in rap
11	VOICE PERC	A crisp sound that's great for voice percussion	26	CHORUS	Chorus effects add a pleasant thickness to your sound
12	HARMONICA	Pleasant distortion for blues and rock harmonica	27	FLANGER	With its unique undulating effect, this was designed
13	DOUBLE VOICE	Stack your vocals with this realistic double-track effect	1 -		specifically for vocals
14	TRIPLE VOICE	Add another voice to create a 3-part harmony	28	PitchCorrect	Natural pitch correction in half-tone increments
15	6 VOICE	Combination of double-track and delay creates	29	CHROMATIC	Pitch-corrected sound that's a staple of modern pop
"	I	a 6-part sound	30	ROBOT	Robotic voice, a techno staple



BOSS Vocal Performer Effects



The all-in-one VE-20 and VE-5 provide a range of effects that are highly effective on vocals, including reverbs, delays, pitch correction, and double/harmony generation. Simply select from 30 types of presets with a simple turn of a knob, and store up to 50



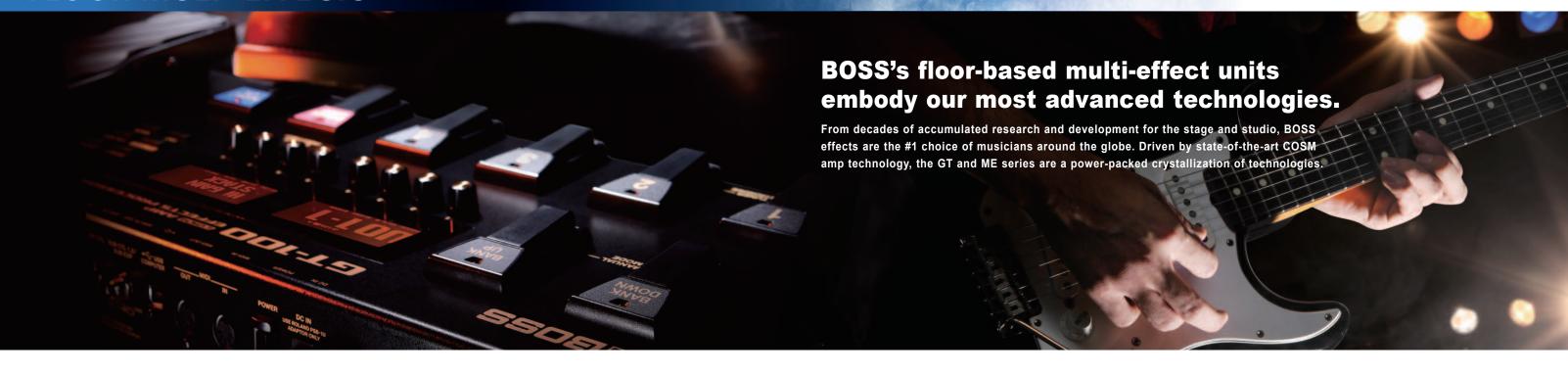
The VE-20 and the VE-5 support two types of power sources — batteries and optional AC adaptor — which lets you use it anywhere, indoors or out. The VE-20 can run up to eight hours on batteries, and 20 hours for the VE-5, so you can perform your entire selfiet with confidence.



The onboard Phrase Looper lets you create dramatic live performances. Create a dense a cappella chorus layer by layer, for example, or overdub voice percussion to create human beatbox grooves on the fly.

FLOOR MULTI EFFECTS









USB AUDIO

Powered by BOSS's latest custom DSP, the GT-100 delivers mind-bending power and performance. Welcome to the next generation of COSM!



- Advanced COSM amps that model vintage amp tones and delivers never-before-heard tones
- Dual-LCD for simple and intuitive operation with direct access to every parameter
- Improved EZ Tone feature with graphical Tone Grid for constructing new patches
- Advanced Amps excel in not only cloning classic amps, they also provide a new world of unimagined tone by delivering ultra-natural sounds considered to be physically impossible with existing amps. • Vintage Amp mode reproduces 17 different types of masterpiece amps. ● A/B Channel Divide can be assigned different amps and effects to each channel. ● Equipped with Phrase Loop function with up to 38 seconds of recording time • USB audio interface let you transfer the dynamic GT's sounds directly to your PC or Mac.



been modeled down to every detail.





● With its dual LCD display, the GT-100 puts you in direct contact with the editing functions you need without having to switch screens. You can control the parameters on the right-side screen while viewing the audio routings on the left screen. The large LCD offers excellent visibility even







● The EZ Tone function makes complex editing fast and easy. Patch Create mode lets you design sounds based on musical genres and song concept. Amp Customize and OD/DS Customize let you tweak the characteristics of your amp and overdrive/distortion to your preference

■ACCEL PEDAL

 Step on the new Accel pedal and modulate your sound dynamically in real time. The pedal enables real-time control of multiple parameters simultaneously, as well as time-variant effects such as Feedbacker, S-Bend, Twist, etc.; Laser Beam and Warp add extreme effects that resemble synth tones.

ADVANCED	VINT	CUSTOM	
NATURL CLEAN	JC-120	BG DRIVE	
FULL RANGE	CLEAN TWIN	MS1959 I	
COMBO CRUNCH	PRO CRUNCH	MS1959 I+II	
STACK CRUNCH	TWEED	R-FIER VINTAGE	
HIGAIN STACK	DELUX CRUNCH	R-FIER MODERN	
POWER DRIVE	VO DRIVE	T-AMP LEAD	
EXTREM LEAD	VO LEAD	SLDN	
CORE METAL	MATCH DRIVE	5150 DRIVE	
	BG LEAD		

■EFFECTS

COMP	ADVANCED	VINTAGE	CUST
OD/DS	MID BOOST	BLUES OD	i
PREAMP	CLEAN BOOST	0D-1	
EQ	TREBLE BST	T-SCREAM	
FX1	CRUNCH	TURBO OD	
FX2	NATURL OD	DIST	
DELAY	WARM OD	RAT	
CHORUS	FAT DS	GUV DS	
REVERB	LEAD DS	DST+	
	METAL DS	METAL ZONE	
	OCT FUZZ	'60S FUZZ	

Ш		13.1	/FX2	
П	T. WAH	TONE MODIFY	HARMONIST	PAN
П	AUTO WAH	GUITAR SIM.	SOUND HOLD	SLICER
П	SUB WAH	SLOW GEAR	AC.PROCESSOR	VIBRATO
П	ADV. COMP	DEFRETTER	PHASER	RING MOD.
П	LIMITER	WAVE SYNTH	FLANGER	HUMANIZER
П	SUB OD/DS	SITAR SIM.	TREMOLO	2X2 CHORUS
П	GRAPHIC EQ	OCTAVE	ROTARY	SUB DELAY
П	PARA EQ	PITCH SHIFTER	UNI-V	

COSM — The Pinnacle of **Modeling Technology** COSM amps not only reproduce the sounds of vintage masterpiece amplifiers, but also meticulously reproduce the playing feel and nuances of these amps. Enjoy the extensive

AMP MODELING

0000 1000000 000



range of vintage amps or create a custom amp that goes

revolutionary — COSM is a powerful technology that generates

beyond the limitations of existing amps. Legendary to

amazing sounds with unrivaled expressiveness

The meticulous effort that goes into COSM modeling begins with carefully selecting the amp to model. When modeling vintage amps, we make sure to choose amps that are in the best condition. We take the individual components and circuits of these selected units, such as vacuum tubes and capacitors, and carefully analyze their electrical and tonal characteristics. We then accurately emulate these components through COSM's unique modeling technology. This results in a modeling amp that delivers the same behavior and tonal quality as the original amp.

■The behaviors of individual components and circuitry have

■Even speakers and cabinets have been painstakingly modeled.

We have also paid attention to the number of speakers the amp drives, the unique tone of these speakers, cabinet resonance, and tonal differences that are created with different mic setups. We have exploited COSM to the fullest in these aspects as well, carrying out repeated tests in anechoic chambers to gather enormous amounts of data from actual measurements. In addition to reproducing the amps' electrical characteristics, we have also meticulously reproduced their physical characteristics through COSM modeling.

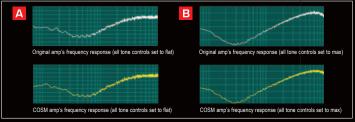
■ COSM amps reproduce the tonal variation of the original amp.

The sound of a COSM amp that is created through these processes exhibits the same behavioral characteristics as the original unit. Let's take a look for example at tone control, the core of the sound sculpting

process on an amp. Fig. A shows the curve when the tone control is set to flat. You can see that the curve of the COSM amp closely mimics the one from the original unit. In Fig. B, the BASS and TREBLE tone controls have

MUFF FUZZ

been fully turned up. As you can see, tweaking the knobs reproduces exactly the same variations in tone as its



■ Create your own amps that go beyond existing amps.

In 2012, BOSS introduces a revolutionary COSM amp that goes far beyond the realm of any modeling amp. Considered to be impossible on existing amps, the GT-100's Advanced Amp modeling offers exceptionally natural playing response It comes with eight Advanced Amp types that faithfully reflect the unique characteristics of your guitar and picking nuances including "STACK CRUNCH" which combines the response of vintage combo amps with the powerful feel of stack amps, and "FULL RANGE" which delivers a broad frequency range for a very flat response. With superb sound quality and versatile tone control, COSM amps offer unprecedented, sublime playing experience.

FLOOR MULTI EFFECTS



ME-70 GUITAR MULTIPLE EFFECTS



Stompbox Ease with COSM Creativity



- Powerful COSM amps and BOSS pro effects onboard
- Dedicated knobs for each parameter for fast, friendly operation
- PHRASE LOOP function in DELAY section, with 38 seconds of recording time
- EZ TONE for quick, easy editing
- Four footswitches and Expression pedal
- The simple knob-based controls for each effect section makes dialing Expression pedal lets you control effects such as Wah, +1 Octave and -1 Octave Pitch Bend, Voice, and Mod Rate ●AUX IN allows jamming with a digital audio player ● Built-in tuner ● Runs on six AA batteries or optional AC adaptor











Powerhouse FX with Stompbox Simplicity



- SOUND LIBRARY provides extensive collection of ready-to-use tones
- Powerful COSM amp models onboard, from classic to contemporary
- SUPER STACK adds immensely heavy low-end and punch
- Phrase Loop function with 38 seconds of recording time
- Functions as a USB audio interface, Cakewalk SONAR LE software included
- Select a performance category and a variation; simple steps let you find the perfect sound quickly
- Six categories with 10 variations each for a total of 60 powerful sounds Runs on six AA batteries or



Librarian software and additional SOUND LIBRALY are downloadable!

>> www.boss.info/sound/ME-25/







USB AUDIO

Top-of-the-Line Bass Station



- Optimized for bass, with essential effects such as OD/DS, Comp/Limiter
- COSM bass amps provides top-quality sounds without sacrificing richness and bottom of the bass tone
- EZ Tone enables intuitive tone creation by using an interactive user interface based on graphic icons
- Phrase Loop allows instant sound-on-sound loop creation
- Parallel Chain offers two separate effects paths that can be blended, switched by playing dynamics, or with the onboard pedals

 USB capability offers audio- and MIDI-streaming in real time • Comes equipped with XLR outputs as well as 1/4-inch jacks



ME-50B BASS MULTIPLE EFFECTS



Floor-Based Bass Multi-Effects Processor with Easy Control



- Powerful COSM Compressor/Limiter and EQ
- Get creative with Filter/Tone and Drive/Synth features
- High-quality Delay/Modulation and powerful Pedal FX

● Innovative Sound Hold function for sustaining a low note while playing on top ● Sound On Sound recording with new Kick Drum effect for keeping time

Dedicated knobs for each effect section—no menu-surfing! ● Easy Tone effects with Preset EQ templates for quick tone editing



ME-20B



Performance-Based Effects for Bass



- A wide variety of effects for bass, including compressor, distortion, T-Wah, chorus, delay, defretter, synth, and more
- EZ EDIT lets you create sounds quickly and intuitively
- BASS ENHANCE function for instant presence boost
- Easy-to-use interface with BOSS tone and quality Unique effects such as Synth, Octave, Defretter, and more ● 30 user memory locations ● AUX IN allows jamming with an audio player
- Battery or AC powered Built-in tuner







■ Plug in and start jamming right on the spot. Experience live-performance power with dynamic 2.1-channel sound!

Jam along with hundreds of onboard songs. eBand JS-10 is self contained and small but fills the room with full-range sound from its 2.1 sound system and pro BOSS effects. Rock your living room or bedroom as if you're on a concert stage.





■ Capable of storing up to 4,000 of your favorite songs.

The eBand Song List Editor application lets you import songs from your CDs or audio files via your PC. Store up to 4,000* of your favorite songs and jam along with your own custom library. *eBand Supports SDHC memory cards up to 32GB.

Supported operating systems:

●Windows® XP SP3 or later / Vista® SP2 or later / 7 ●Mac OS X v10.4.3 or later / v10.5 / v10.6 / v10.7

Over 350 high-quality backing tracks included.

eBand is pre-stocked with over 350 backing tracks optimally suited for guitar playing, from simple 3-chord songs to full arrangements.

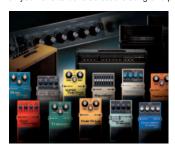
A wide range of genres is onboard — from ALL SONGS rock and blues to jazz, Latin, country, and more. Also included are variations for bass. as well as for bass + quitar jams.



Pro BOSS effects built in.

Get creative with the awesome BOSS effects built into eBand JS-10 (equivalent in quality to the flagship GT-100), including a coveted collection of COSM guitar amps. You can easily customize the amps and effects to create your own unique sounds.

Design your sounds in detail, or skip menus of setup options and jump to the EZ Edit mode. In the EZ Edit mode, just choose a music genre and a preset tone, and then steer the pointer on the matrix table until you find the right sound. Each song can store its own effect settings, so all you have to do is select the song and play.





■ Dual input channels let two musicians jam together.

Enjoy jams with your family and friends in combinations such as twin guitar, guitar + bass, or guita + vocal. Since eBand lets you assign individual effects to each input, you can dial up custom sounds for each musician



Recording your performance is a snap.

To capture your jams digitally, simply press the REC button anytime you wish. The Preview function lets you check your recording without actually saving it as a file. This is a handy feature when you want to re-record your takes multiple times. eBand also has features to assist you in practicing, such as Center Cancel for "minus-one" style play along, an AB repeat function for looping a particular part of a song, a speed variation feature for changing the tempo without changing the pitch, and pitch

variation feature for changing key signature without changing tempo.



■ USB and AUX IN jacks expand creativity.

In addition to its many cool play-along features, eBand can also be used as a USB audio interface. This means you can record your eBand jams into your favorite computer DAW program. Conversely, you can mix the

playback from your computer with your live performance and record it into eBand. You can also use eBand as a real-time USB streaming mixer, and as a player of audio files* stored on USB memory. eBand's AUX IN jack allows easy connection to an externa audio player.





EBand JS-10 AUDIO PLAYER with GUITAR EFFECTS









eBand, the popular audio player for guitarists, is more powerful than ever!

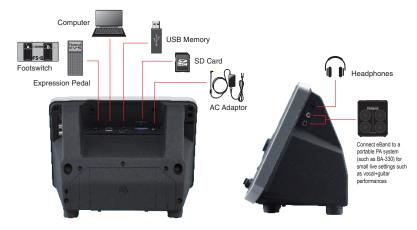
- Plug in and jam ... it's that easy
- eBand can store and play back up to 4,000 WAV or MP3 files
- The included SD card is loaded with backing tracks over 350 songs
- Equipped with authentic GT-100-class COSM amp and BOSS effects
- Two inputs allow dual-musician jams
- 2.1-channel sound system with subwoofer delivers powerful sound



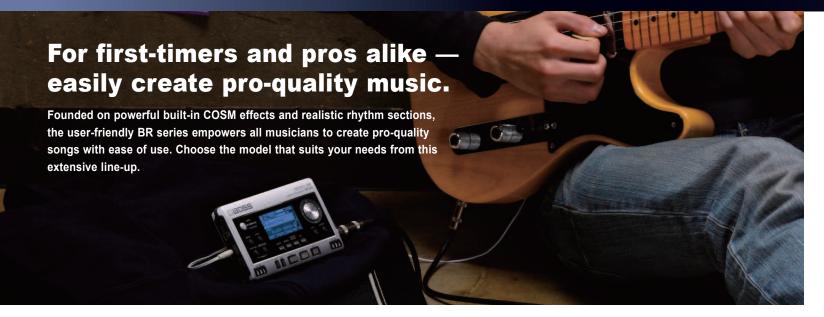












IMICRO BR BR-80



The ultimate new portable recording and jam-along tool for guitarists



- Three modes: MTR (multi-track recorder), eBand, and Live Rec
- 64 V-Tracks and eight simultaneous playback tracks
- eBand function for phrase training and play-along tracks
- World-class COSM amps and effects onboard
- USB audio interface onboard, bundled with SONAR LE for PC



eBand mode for phrase training and play-along sessions

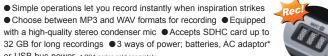
● Store up to 4,000 songs on an SD card, practice and jam along ● The "Best 30" function lets you instantly access your favorite songs • Over 300 types of backing and rhythm files for practice are onboard • Center Cancel function to minimize the guitar part from pre-recorded songs



Record your band performances or ideas

● Choose between MP3 and WAV formats for recording ● Equipped with a high-quality stereo condenser mic • Accepts SDHC card up to 32 GB for long recordings ●3 ways of power; batteries, AC adaptor* or USB bus power * PSA series sold separately











Create fully produced songs

• 64 V-tracks with support for 8-track simultaneous playback • Independent rhythm track with a wide range of built-in rhythm patterns

A diverse lineup of effects for guitars and vocals are onboard

Large display, dedicated buttons designed for ease of use

■ Extensive Range of Multi-effects for Specific Instruments

 Built-in COSM amps and effects let you create authentic and expressive sounds ● The BR-80's vocal effects are directly inherited from the VE-20

■ Compatible with PC-based Music Production

• USB audio interface let you transfer the dynamic guitar sounds directly to your PC or Mac

Bundled with SONAR X1 LE software for producing music on your PC



Mixer screen Check all settings for a single track with simple

BR-800 DIGITAL RECORDER





For Guitarists, for Vocalists, the Hands-on Music-Production Solution



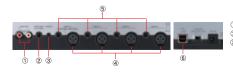
AMP						
BOSS CLEAN	DELUX CRNCH	VO CLEAN	MS1959 I	T-AMP LEAD	BOSS METAL	CONCERT 810
JC-120	BOSS CRNCH	MATCH DRIVE	MS1959 I+II	T-AMP CRNCH	5150 DRIVE	BASS 360
JAZZ COMBO	BLUES	FAT MATCH	MS HIGAIN	T-AMP CLEAN	METAL LEAD	T.E.
FULL RANGE	WILD CRNCH	MATCH LEAD	MS SCOOP	BOSS DRIVE	EDGE LEAD	SESSION
CLEAN TWIN	STACK CRNCH	BG LEAD	R-FIER VNT	SLDN	SUPER FLAT	AC BASS
PRO CRNCH	VO DRIVE	BG DRIVE	R-FIER MDN	LEAD STACK	FLIP TOP	
TWEED	VO LEAD	BG RHYTHM	R-FIER CLN	HEAVY LEAD	B MAN	

VOCAL							
	SOFT		DISTORTION	DOUBLE!	DOUBLE		RADIO
PITCH	HARD	1	RADIO	DOUBLE/ HARMONY	-10CT~+10CT	L0-FI	VINYL
CORRECT	ELECTRIC	TONE/SFX	STROBE	IIAIIIIION I	UNISON		DIGITAL
	ROBOT	1	CHORUS	LOW CUT			
DYNAMICS		1	FLANGER				

- 4-track simultaneous recording, 8-track simultaneous playback plus dedicated rhythm track
- EZ Recording interactively guides through the recording process
- Powerful guitar, bass, and vocal effects derived from BOSS's flagship
- Song Sketch recording for quick stereo capture in WAV format
- Built-in advanced drum machine with editor software Loop Recording function a convenient tool for songwriting ● Functions as a USB audio interface and DAW control surface ● Cakewalk SONAR LE software with audio loops included

 Built-in stereo condenser microphone

 Runs on six AA batteries/ USB bus power/AC adaptor (included)



1) LINE OUT Jacks (RCA phono type) 4 INPUT Jacks (XLR) Footswitch / Expression Pedal Jack (5) INPUT Jacks (TRS)

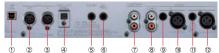
USB 80GB Hard Drive

IBR-1200 CD DIGITAL RECORDING STUDIO

The Versatile, Power-Packed 12-Track Recorder



- 2-track simultaneous recording, 12-track simultaneous playback
- Built-in CD-burner and mastering effects for CD-quality mixes
- Famous BOSS COSM amps and effects onboard
- High-quality rhythm section with EZ Compose function Vocal Toolbox provides pitch correction and



 DIGITAL OUT (optical type ⑤ FOOT SW Jack

(7) LINE OUT Jacks (BCA phono type LINE IN Jacks (RCA phono type 9 MIC 2 Jack (TRS 1/4" phone type) (i) MIC 2 Jack (XLR balanced) (1) MIC 1 Jack (TRS 1/4" phone type)

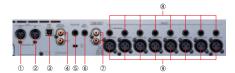
BR-1600 CD Version 2 DIGITAL RECORDING STUDIO

COSM V-LINK USB 80GB Hard Drive

Pro Features Meet Ease of Use



- 8-track simultaneous recording, 16-track simultaneous playback
- Eight XLR microphone inputs with phantom power
- Pro-quality COSM amps and effects onboard
- High-quality rhythm section built in Vocal Tool Box lets you create realistic harmony parts
- CD-burning capability with mastering effects



(4) DIGITAL IN/OUT (cos

7 LINE OUT Jacks (BCA phono type ® INPUT 1-8 Jacks 9 MIC 1-8 Jacks (XLR balanced



The world-standard family of tuners ... BOSS TU

The BOSS TU series has become the world standard tuner for solid, reliable, and friendly operation. BOSS proudly provides an extensive line-up of TU products, ranging from clip-on and tabletop models to pedal- and floor-based units.







Clip-On Tuner with "True" Color Display

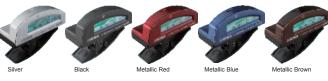


- Proven BOSS quality and reliability in a clip-on format
- Dramatic advancement of visibility with multi-color LCD
- Flat tuning up to 5 semitones
- Accu-Pitch function, and Stream mode
- •Accu-Pitch Sign function provides visual verification when tuning is complete Two meter-display modes: Cent (needle-style movement) and Stream (flow of lights indicates pitch deviation)
- ●Stylish design and robust body ●Five color variations available









TU-1000 STAGE TUNER

Pro-Caliber Tuning for the Stage Floor



- Large, high-intensity LED meter, great for dark stages and outdoor gigs
- Flat Tuning support of up to six half-steps
- Power can be turned on/off remotely via footswitch
- Chromatic, Guitar, and Bass modes, plus Open Tuning mode for DADGAD, Open D/E/G/A, Drop D tunings, etc



TU-3 CHROMATIC TUNER

The World-Standard Pedal Tuner



- 21-segment LED meter with brightness control
 - High-Brightness mode enhances meter visibility outdoors
 - Flat tuning up to six semitones below standard pitch
 - Accu-Pitch Sign function provides visual verification when tuning is complete
 - Chromatic and Guitar/Bass mode (with support for 7-string guitars and 6-string basses)
 Two meter-display modes: Cent and Stream Signal is automatically muted when the tuner is on ● Supplies power for up to 7 BOSS compact effect pedals

TU-12EX CHROMATIC TUNER

Famous TU-12 Features with Exciting Enhancements



- 23.9 mm thick body for easy storage in guitar cases
- Flat Tuning of up to six half-steps down
- Accu-Pitch verification with an audible beep
- Oversized needle indicator for superb visibility plus LED tuning guide Extended tuning range of E0-C8 for a variety of instruments High-sensitivity built-in mic provides accurate and stable tuning for acoustic instruments. • Auto power off prolongs battery life

TU-88 MICOR MONITOR & TUNER

Triple-Function Tuner for Guitar and Bass



- Three tuning modes; Chromatic, Guitar and Bass
- Built-in headphone amp lets you tune, warm up, and check your effects in private
- Built-in metronome with selectable rhythmic patterns and volume control
- Chromatic and Guitar/Bass mode (with support for 7-string guitars and 6-string basses) ● Flat Tuning function, and Accu-Pitch verification with an audible beep ● MIX IN allows jamming with an external audio player

 Available in black or white

TU-12 BW CHROMATIC TUNER

Designed Exclusively for Brass and Wind Instruments



- Reference Pitch allows for long-tone practice
- Quick Response mode offers faster needle response
- Includes clip-on contact mic and music-stand attachment bracket
- Accu-Pitch provides audible verification of tuning



TU-80 TUNER & METRONOME

The Pocket-Sized TU-80 Provides Tuning + Metronome



- Smooth, high-resolution needle-style LCD meter
- Supports chromatic tuning, plus 7-string guitars and 6-string basses
- Metronome features eight rhythm styles
- ●Accu-Pitch function sounds a tone when tuning is complete Flat tuning of up to 5-steps below

AD SERIES

IAD-8 ACOUSTIC GUITAR PROCESSOR

COSM

Models Six of the World's Finest Acoustics!



- Floor-based acoustic guitar processor featuring COSM Acoustic Modeling technology • Turns ordinary piezo-equipped guitars into six of the world's finest acoustics
- Body and String Enhance controls simulate warm, miked acoustic sounds
- Sculpt your tone with high-quality reverb and 4-band EQ Auto Anti-Feedback function eliminates feedback instantly •4 preset memory locations for switching acoustic sounds instantly

 Balanced XLR 0 0 0 0 0 outputs allow direct connection to PA systems
- Battery or AC powered, chromatic tuner onboard

IAD-3 ACOUSTIC INSTRUMENT PROCESSOR

Floor-Based Acoustic Processing

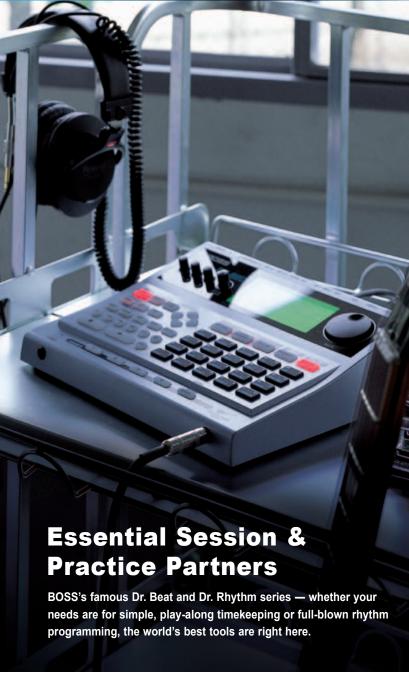


- Compact acoustic instrument processing pedal developed exclusively for gigging acoustic-electric guitarists
- Bi-Stereo Chorus offers split-frequency processing (Low and High) for natural, smooth chorus effect
- "Bottom" and "Top" controls offer variable tonal shaping to eliminate "dry" sound from piezo pickups and add rich, resonant lows and brilliant highs as desired
- Stereo balanced outputs allow for direct connection to PA Dual Anti-Feedback function can be manually set to eliminate feedback

 Battery or AC powered, chromatic tuner onboard

DR & DB SERIES





DR-880 Dr. Rhythm

USB

World's Best Rhythm Machine



- 440 world-class drum and percussion sounds, 40 bass sounds
- EZ Compose allows complex patterns to be constructed without note-by-note programming
- Guitar/bass input, plus multi-effects and COSM amp models
- Three independent insert effects (EQ and compression), TSC featuring dynamics and high-quality ambience ●1,000 patterns (500 preset, 500 user); easily add fills, ghost notes, chord progressions and more Digital and individual outputs; USB port for importing SMFs

DR-3 Dr. Rhythm

BATTERY (C)

Your Own Personal Drummer



- BOSS' most affordable drum machine for jamming or practice
- Realistic drum, percussion and bass sounds with velocity-sensitive pads
- Rhythm Progressions with 3 variations each for Intro, Verse, Fill and Ending
- TSC with Sound Shape function and Ambience for professional drum sounds
- ●100 preset styles and 100 user styles programmable via realtime or step recording ●TSC with Sound Shape function and Ambience for professional drum sounds. Footswitch input for easy live control; runs on battery power or optional AC adaptor

IDB-90 Metronome Dr. Beat

IDB-60 Metronome Dr. Beat



The Versatile and Professional Dr. Beat



- Quick rhythm customizing with Note Mixing function Rhythm Coach features four training modes to help build your accuracy, speed, and endurance ●4 metronome (including human voice) sounds ● Practice with the Rhythm Coach by connecting a Roland V-Pad (optional)
- Direct connection with guitar and bass, plus headphone monitoring

More Than Just a Metronome



- Note-Mixing function lets you create new rhythms quick and easy A variety of rhythm patterns such as 8-beat grooves, waltz, bossa
- nova, and more Tap Tempo, Timer, and Stopwatch functions
- Standard Pitch function for tuning instruments

The Take-Along Timekeeper



- Portable, ruggedly built, and packed with fun play-along patterns
- •24 beat variations with complex beats, and 9 rhythm patterns including "CLAVE" ●Large LCD with smooth tempo meter
- ●Tap-tempo feature ●12 internal chromatic reference tones
- ●Convenient Phones jack and Auto Power-Off function

OTHER EQUIPMENT

IBCB-60 Pedal Board



- Lightweight and tough pedal board for transporting a range of compact pedals and effects Padded interior can be customized to fit anything from a compact pedal to Twin Pedal Onboard AC adaptor for powering up to 7 devices; includes all cabling
- Power Supply DC 9 V: AC Adaptor Dimensions 670 (W) x 370 (D) x 100 (H) mm (26-7/16" x 14-5/8" x 3-15/16") ■ Weight 3.8 kg/8 lbs 7 oz ■ Accessory AC Adaptor, Pre-cut Insert x 3, Spare Insert x 1, 8-pin Parallel DC Cord, L-L Cable (short) x 5, L-L Cable

IBA-BR805 Silicone Case/Pouch Set for BR-80



•Made of soft silicone rubber, this case guards against dirt and scratches, and keeps the MICRO BR BR-80 from slipping on smooth surfaces

Custom pouch is also cushion-lined to absorb impact

IAB-2 2-way Selector



 Affordable A/B selector with 1-click operation and silent switching •2-way selector for using A/B input with one output, amplifiers, or switch between an amp and tuner

EV-5 Expression Pedal



•Can be used to control a range of functions and effects parameters in real time Compact, travel-friendly body fits perfectly onto guitar

IBCB-30 Pedal Board



Holds up to three BOSS compact pedals
 Comes with audio

- cables for connection between pedals

 Comes with parallel DC cord to power three compact pedals (with optional AC adaptor:
- Dimensions 330 (W) x 300 (D) x 81 (H) mm (13" x 3-3/16" x 11-13/16")
 Weight 1.2 kg/2 lbs 11 oz • Accessory 4-pin Parallel DC Cord, L-L Cable (130 mm) x 2 • Option AC Adaptor (PSA series)

IBA-PC15 Earphones/Guitar Cable Set



●Two essential items for MICRO BR BR-80 owners for recording on the go: high-quality in-ear stereo headphones and a 5' (1.5m) guitar cable with gold-plated connectors

IFS-5U Footswitch



■A metal-cased momentary "unlatch"-type footswitch
■Can be connected using an ordinary guitar cable

DI-1 Direct Box



 High-quality direct box with crystal-clear sound for transforming high-impedance, unbalanced instrument outputs to the low-impedance, balanced inputs of a mixina console

• Frequency Response 20 Hz to 40 kHz (+0.5/-1 dB) • Nominal Input Level -20/0/+20 dBu (selectable) Max. Input Level +45 dBu (1 kHz), 390 Vp-p Max. Output Level +8 dBu (Balanced: 600 O load, Unhalanced: 50 kO). Residual Noise -110 dBu or less (IHF-A) Total Harmonic Distortion 0.05 % or less Current Draw 6 mA Power Supply DC 9 V: Dry Battery <6F22/6LR61 type>, Phantom Power 24 V to 48 V DC ■ Dimensions 97 (W) x 125 (D) x 46 (H) mm (3-13/16" x 4-15/16" x 1-13/16")

IBA-CB3 Carrying Bag



 Ideal for transporting BOSS products such as the GT-10B and BR-1200CD ●Features internal compartments for power adaptors and cables, a shoulder strap and hand-carry handles

IFS-6 Dual Footswitch



- Combines latch- and momentary-type switching into one unit
- ●Each footswitch can be assigned latch- or momentary-type ● Can be connected to other footswitches (FS-5L/FS-5U/FS-6/AB-2)

IFS-5L Footswitch



A metal-cased latch-type footswitch with a LED to indicate status Can be connected with a standard guitar cable

IRH-300 Stereo Headphones



•Roland's top-of-the-line headphones for the ultimate in sound quality Newly developed driver provides ultra-wide frequency range Snug fit shuts out external sound

PCS-20A 8-pin Parallel DC Cable Roland



PCS-31L Audio Cable Roland

Stereo 1/4" ↔ 2 x 1/4"; 2.2 m

MSC-50/25/15 MIDI Cables Roland

PSA-series AC Adaptor

SPECIFI	CATIONS	Power Supply	Rechargeable Ni-MH Battery <hr6 (aa)="" type=""> x 4 or Alkaline <lr6 (aa)="" type=""> x 4, AC Adaptor (PSA series: Optional)</lr6></hr6>
ΓWIN PED <i>A</i>	AL SERIES	Current Draw Dimensions	190 mA (9 V max.) 178 (W) x 108 (D) x 55 (H) mm (7-1/16" x 4-1/4" x 2-3/16"), 178 (W) x 159 (D) x 55 (H) mm (7-1/16" x 6-5/16" x 2-3/16"), (including mic stand holder)
win Pedal Specifications	<u> </u>	Weight	460 g/1 lb 1 oz (including batteries), 700 g/1 lb 9 oz (including batteries and mic stand holder)
Dimensions 173 (W) x 1	ry Battery <aa type=""> x 6, AC Adaptor 58 (D) x 57 (H) mm (6-13/16" x 6-1/4" x 2-1/4")</aa>	Accessories	Mic Stand Holder, Audio Cable (Stereo miniature phone type, Cable tie attached), Alkaline Battery <lr6 (aa)="" type=""> x 4</lr6>
DD-20 Memories	P13	Options	AC Adaptor (PSA series), Footswitch (FS-5U, FS-6)
Nominal Input Level	GUITAR/BASS: -20 dBu,	■VE-20	P16-17
Nominal Output Level	GUITAR AMP SEND/RETURN: +4 dBu GUITAR/BASS: -20 dBu,	Nominal Input Level	-40 dBu (Mic Sens = 40) -40 dBu, PHONES/LINE: -25 dBu
Current Draw	GUITAR AMP SEND/RETURN: +4 dBu 200 mA	Nominal Output Level Memory	Sound 30 (Preset) + 50 (User)
Weight Accessories	1.2 kg/2 lbs 11 oz (incl. batteries)	Power Supply	DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6, AC Adaptor (PSA series: Optional)</r6>
Option	Dry Battery <lr6 (aa)="" type=""> x 6 AC Adaptor (PSA series)</lr6>	Current Draw	190 mA
RE-20	P13	Dimensions Weight	173 (W) x 158 (D) x 57 (H) mm (6-13/16" x 6-1/4" x 2-1/4" 1.1 kg/2 lbs 7 oz (incl. batteries)
Nominal Input Level	-20 dBu (INPUT VOLUME knob: center), max +4 dBu	Accessories	Dry Battery <lr6 (aa)="" type=""> x 6</lr6>
Nominal Output Level Current Draw	-20 dBu 75 mA	Option	AC Adaptor (PSA series)
Weight	1.2 kg/2 lbs 11 oz (incl. batteries)	FLOOR MU	LTI EFFECTS
Accessories Options	Dry Battery <r6 (aa)="" type=""> x 6 AC Adaptor (PSA series), Expression Pedal (Roland EV-5)</r6>	GT-100	P18-19
		AD Conversion	24 bits + AF method*
SL-20 Nominal Input Level	-20 dBu	DA Conversion Sampling Frequency	24 bits 44.1 kHz
Nominal Output Level	-20 dBu	Program Memories	44.1 KHZ 400: 200 (User) + 200 (Preset)
Current Draw Weight	110 mA 1.1 kg/2 lbs 7 oz (incl. batteries)	Nominal Input Level	INPUT: -10 dBu, RETURN: -10 dBu, AUX IN: -20 dBu INPUT: 1 MΩ, RETURN: 100 kΩ, AUX IN: 47 kΩ
Accessories	Dry Battery <r6 (aa)="" type=""> x 6</r6>	Input Impedance Nominal Output Level	OUTPUT: -10 dBu/+4 dBu, SEND: -10 dBu
Options	AC Adaptor (PSA series), Expression Pedal (Roland EV-5)	Output Impedance Dynamic Range	OUTPUT: 2 kΩ, SEND: 2 kΩ 100 dB or greater (IHF-A)
RT-20	P13	Power Supply	DC 9V: AC Adaptor
Nominal Input Level Current Draw	-20 dBu 85 mA	Current Draw	600 mA
Weight Accessories	1.1 kg/2 lbs 7 oz (incl. batteries) Dry Battery <r6 (aa)="" type=""> x 6</r6>	Dimensions	542 (W) x 271 (D) x 80 (H) mm (21-3/8" x 10-11/16" x 3-3/16"), Maximum height: 542 (W) x 271 (D) x 102 (H) mm (21-3/8" x 10-11/16" x 4-1/16")
Option	AC Adaptor (PSA series)	Weight Accessories	4.8 kg/10 lbs 10 oz AC Adaptor, USB Cap
OOP STAT	ION	Options	Footswitch (FS-5U, FS-6), Expression Pedal (FV-500L, FV-500H, Roland EV-5)
RC-300	D44.45	ME-70	
Nominal Input Level	MIC IN: -50 dBu (variable), INST IN: -10 dBu (variable),	AD Conversion	P20-21 24 bits + AF method*
Nominal Output Level	AUX IN: -20 dBu (variable) MAIN: -10 dBu, SUB: -10 dBu	DA Conversion	24 bits
Input Impedance	MIC IN: 4 k Ω , INST IN: 1 M Ω , AUX IN: 47 k Ω	Sampling Frequency Program Memories	44.1 kHz 36 (User) + 36 (Preset)
Output Impedance Recommended Load Impedar	2 kΩ	Nominal Input Level	GUITAR INPUT: -10 dBu, AUX IN: -18 dBu
	Maximum Recording Time: Approximately 3 hours (stereo),	Input Impedance Nominal Output Level	INPUT: 1 MΩ, AUX IN: 22 kΩ -10 dBu
Recording/Playback	Maximum Phrase Memory: 99, Number of tracks: 3, Data Format: WAV (44.1 kHz, 16-bit linear, stereo)	Output Impedance	2 kΩ DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6,</r6>
USB Interface	Hi-Speed USB (USB Mass Storage Class), Hi-Speed USB (USB-AUDIO)	Power Supply	AC Adaptor (PSA series: Optional)
Displays	7 segments, 2 characters (LÉD), 16 characters, 2 lines (backlit LCD)	Current Draw	130 mA 384 (W) x 229 (D) x 74 (H) mm (15-1/8" x 9-1/16" x 2-15/16"),
Power Supply	DC 9 V: AC Adaptor	Dimensions	Maximum height: 384 (W) x 229 (D) x 100 (H) mm (15-1/8" x 9-1/16" x 3-15/16")
Current Draw Dimensions	Maximum 320 mA (DC 9 V) 536 (W) x 231 (D) x 76 (H) mm (21-1/8" x 9-1/8" x 3")	Weight	3.5 kg/7 lbs 12 oz (incl. batteries)
Weight	3.9 kg/8 lbs 10 oz	Accessories	Dry Battery <lr6 (aa)="" type=""> x 6 AC Adaptor (PSA series), Footswitch (FS-5U, FS-6),</lr6>
Accessories Options	AC Adaptor, USB cap Footswitch (FS-5U, FS-6),	Options	Footswitch Cable (Roland PCS-31L)
•	Expression Pedal (FV-500L, FV-500H, Roland EV-5)	ME-25	P20-21
RC-30	P13, P14-15	AD Conversion DA Conversion	24 bits + AF method* 24 bits
Nominal Input Level Nominal Output Level	MIC IN: -40 dBu (variable), INST IN: -20 dBu, AUX IN: -10 dBu -20 dBu	Sampling Frequency	44.1 kHz
	Maximum Recording Time: Approximately 3 hours,	Program Memories Sound Library	60 60
Recording/Playback	Maximum Phrase Memory: 99 phrases, Number of tracks: 2, Data Format: WAV (44.1 kHz, 16-bit linear, stereo)	Nominal Input Level	INPUT: -10 dBu, AUX IN: -18 dBu
USB Interface	Hi-Speed USB mass storage device class DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6,</r6>	Input Impedance Nominal Output Level	INPUT: 1 MΩ, AUX IN: 22 kΩ -10 dBu
Power Supply	AC Adaptor (PSA series: Optional)	Output Impedance	2 kΩ
Current Draw	* Rechargeable Ni-MH batteries cannot be used. Maximum 195 mA (DC 9 V)	Power Supply	DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6, AC Adaptor (PSA series: Optional)</r6>
Dimensions	173 (W) x 158 (D) x 57 (H) mm (6-13/16" x 6-1/4" x 2-1/4")	Current Draw	150 mA 300 (W) x 191 (D) x 72 (H) mm (11-13/16" x 7-9/16" x 2-7/8"),
Weight Accessories	1.2 kg/2 lbs 11 oz (incl. batteries) Dry battery <lr6 (aa)="" type=""> x 6</lr6>	Dimensions	Maximum height: 300 (W) x 191 (D) x 93 (H) mm
Options	AC Adaptor (PSA series), Footswitch (FS-5U, FS-6)	Weight	(11-13/16" x 7-9/16" x 3-11/16") 1.9 kg/4 lbs 4 oz
RC-3	P11, P14-15	Accessories	ME-25 DVD-ROM, Dry Battery <lr6 (aa)="" type=""> x 6</lr6>
Nominal Input Level	INPUT: -20 dBu, AUX IN: -10 dBu	Option	AC Adaptor (PSA series)
Nominal Output Level	-20 dBu Maximum Recording Time: Approximately 3 hours,	GT-10B	P20-21
Recording/Playback	Maximum Phrase Memory: 99 phrases, Number of tracks: 1, Data Format: WAV (44.1 kHz, 16-bit linear, stereo)	AD Conversion DA Conversion	24 bits + AF method* 24 bits
USB Interface	Hi-Speed USB mass storage device class	Sampling Frequency	44.1 kHz
Power Supply	DC 9 V: <6LR61 type>, AC Adaptor (PSA series: Optional) * Rechargeable Ni-MH batteries cannot be used.	Program Memories Nominal Input Level	400: 200 (user) + 200 (preset) INPUT: -10 dBu, RETURN: -10 dBu
Current Draw	70 mA (DC 9 V)	Input Impedance	INPUT: 1 MΩ, RETURN: 220 kΩ
Dimensions Weight	73 (W) x 129 (D) x 59 (H) mm (2-7/8" x 5-1/8" x 2-3/8") 450 g/1 lb (incl. battery)	Nominal Output Level	OUTPUT: -10 dBu/+4 dBu, SEND: -10 dBu, SUB OUTPUT: +4 dBu
Accessory	Dry battery <6LR61 type>	Output Impedance Dynamic Range	OUTPUT: 2 kΩ, SEND: 3 kΩ, SUB OUTPUT: 600 Ω 100 dB or greater (IHF-A)
Options	AC Adaptor (PSA series), Footswitch (FS-5U, FS-6)	Power Supply	DC 9V: AC Adaptor
VOCAL PER	RFORMER	Current Draw Dimensions	800 mA 542 (W) x 272 (D) x 77 (H) mm (21-3/8" x 10-3/4" x 3-1/16"), Maximum height: 542 (W) x 272 (D) x 104 (H) mm
VE-5	P16-17	Weight	(21-3/8" x 10-3/4" x 4-1/8")
Nominal Input Level Input Impedance	MIC IN: -40 dBu (Mic Sens = 40), AUX IN: -20 dBu MIC IN: 4 kΩ AUX IN: 22 kΩ	Accessory	4.9 kg/10 lbs 13 oz AC Adaptor
Nominal Output Level	XLR OUT: -40 dBu PHONES/LINE: -20 dBu XLR OUT: 600 Ω PHONES/LINE: 33 Ω	Options	Footswitch (FS-5U, FS-6), Footswitch Cable (Roland PCS-31L)
Outroot Inc.			,
Output Impedance Memory	Sound: 50 DYNAMICS, PITCH CORRECT, TONE/SFX,		

ME-50B AD Conversion	P20-2
	24 bits + AF method* 24 bits
DA Conversion Sampling Frequency	24 bits 44.1 kHz
Program Memories	24 (User)
Nominal Input Level Input Impedance	INPUT: -10 dBu, AUX IN: -10 dBu INPUT: 1 MΩ, AUX IN: 100 kΩ
Nominal Output Level	-10 dBu
Output Impedance	2 kΩ DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6,</r6>
Power Supply Current Draw	AC Adaptor (PSA series: Optional)
Dimensions	384 (W) x 225 (D) x 78 (H) mm (15-1/8" x 8-7/8" x 3-1/8"
Weight Accessories	3.2 kg/7 lbs (incl. batteries) Dry Battery <lr6 (aa)="" type=""> x 6</lr6>
Options	AC Adaptor (PSA series), Footswitch (FS-5U, FS-6),
	Footswitch Cable (Roland PCS-31L)
ME-20B	P20-2
AD Conversion DA Conversion	24 bits + AF method* 24 bits
Sampling Frequency	44.1 kHz
Program Memories Nominal Input Level	30 (user) INPUT: -10 dBu, AUX IN: -18 dBu
Input Impedance	INPUT: 1 MΩ, AUX IN: 22 kΩ
Nominal Output Level Output Impedance	-10 dBu 2 kΩ
Power Supply	DC 9 V: Dry Battery <lr6 (aa)="" r6="" type=""> x 6,</lr6>
Current Draw	AC Adaptor (PSA series: Optional) 90 mA
Dimensions	294 (W) x 179 (D) x 54 (H) mm (11-5/8" x 7-1/16" x 2-1/8") Maximum height: 294 (W) x 179 (D) x 74 (H) mm (11-5/8" x 7-1/16" x 2-15/16")
Weight Accessories	1.6 kg/3 lbs 9 oz (incl. batteries)
Accessories Options	Dry Battery <lr6 (aa)="" type=""> x 6 AC Adaptor (PSA series), Footswitch (FS-5U, FS-6),</lr6>
.,	Footswitch Cable (Roland PCS-31L)
eBand 🚃	
JS-10	P22-2
Capacity	SD/SDHC Card: 1 GB to 32 GB
Data Types	eBand Songs (Recording/Playback), MP3 (Bit rate: 64 Kbps to 320 Kbps, Playback only), WAV (Quantization bit rate: 16 bits, Playback only)
External Memory	USB Flash Memory (Optional, sold separately)
AD Conversion DA Conversion	24 bits + AF method 24 bits
Sampling Frequency	44.1 kHz
Effect Patch Memories	Preset= 130, User= 100 eBand Songs= 4 hours (1 GB), 130 hours (32 GB),
Recording Time	WAV/16 bits/Stereo= 1.5 hours (1 GB), 50 hours (32 GB), MP3/128 Kbps/Stereo= 17 hours (1 GB), 550 hours (32 GI)* The above-listed recording times are approximate. Times may be slightly shorter depending on the number of songs that were created.
Nominal Input Level	INPUT 1/2 GUITAR/MIC IN (INPUT GAIN = GUITAR)= -10 dBu INPUT 1/2 GUITAR/MIC IN (INPUT GAIN = MIC)= -32 dBu, INPUT 2 AUX IN= -20 dBu
Nominal Output Level	LINE OUT= -10 dBu INPUT 1/2 GUITAR/MIC IN= 1 MΩ,
Input Impedance	INPUT 2 AUX IN= 47 kΩ
Output Impedance Internal Speakers	LINE OUT= 1 kΩ 2.1 channels (2-channel Stereo and Woofer)
Rated Power Output	12 W (Stereo Speaker 3.5 W x 2 + Woofer 5 W)
Display USB	Graphic LCD 132 x 64 dots Audio, Mass Storage Class
Current Draw	700 mA
Dimensions Weight	264 (W) x 169 (D) x 209 (H) mm (10-7/16" x 6-11/16" x 8-1/4"
Weight Accessories	1.8 kg/4 lbs AC Adaptor, SD Card, USB Cable
Options	Footswitch (FS-5U, FS-6), Expression Pedal (Roland EV-5, FV-500L, FV-500H), USB Flash Memory *Use USB Flash Memory sold by Roland. We cannot guarantee operation if other products are used.
BR SERIES	
MICRO BR	BR-80 P24-2
	<mtr mode=""> Tracks: 8, Simultaneously recording track: 2 V-Track: 64 (8 V-Tracks per each Track)</mtr>
Tracke	<eband mode=""> Tracks: 2 (stereo),Simultaneously</eband>
Tracks	recording track: 2 (stereo) <live mode="" rec=""> Tracks: 2 (stereo), Simultaneously</live>
	recording track: 2 (stereo) * Either the playback or the recording.
Capacity	SD/SDHC Card: 1 GB to 32 GB
	<mtr mode=""> Linear (Bit depth: 16 bits) <eband mode=""> eBand Songs (Recording/Playback),</eband></mtr>
Data Type	WAV (Bit depth: 16 bits, Playback only), MP3 (Bit rates: 64 Kbps to 320 Kbps, Playback only)
	<live mode="" rec=""> WAV (Bit depth: 16 bits, Recording/Playback),</live>
AD C	MP3 (Bit rates: 64 Kbps to 320 Kbps, Recording/Playback
AD Conversion DA Conversion	24 bits 24 bits
Sample Frequency	44.1 kHz
	<mtr mode=""> 1 GB: 3 hours, 32 GB: 100 hours <eband mode=""> [eBand Song] 1 GB: 4 hours, 32 GB: 130 hours <eband live="" mode="" rec=""></eband></eband></mtr>
	[WAV 16 bits, stereo] 1 GB: 1.5 hours, 32 GB: 50 hours [MP3 128 Kbps, stereo] 1 GB: 16 hours, 32 GB: 550 hour
Recording Time (conversion in one track)	* The above-listed recording times are approximate. Times may be slightly shorter depending on the number of songs that were created. * The above number of the MTR mode is the total for all the tracks that are used.
	Times may be slightly shorter depending on the number of songs that were created. *The above number of the MTR mode 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
	Times may be slightly shorter depending on the number of songs that were created. * The above number of the MTR mode is the total for all the tracks that are used. If each of the eight tracks contain an equal amount of

lominal Output Level Output Impedance	PHONES/LINE OUT jack: -14 dBu PHONES/LINE OUT jack: 22 Ω
	24-bit/44.1 kHz USB-AUDIO (Hi-Speed USB),
SB Functions	USB Mass Storage Class (Hi-Speed USB), BUS Power operation
awar Cunr I	DC 9 V: AC Adaptor (PSA series: Optional),
ower Supply	Dry battery <lr6 (aa)="" type=""> x 2, Rechargeable Ni-MH battery <hr6 (aa)="" type=""> x 2, or USB Bus Power</hr6></lr6>
urrent Draw	130 mA (DC IN)
imensions /eight	138 (W) x 86 (D) x 22 (H) mm (5-7/16" x 3-7/16" x 7/8") 140 g/5 oz
ccessories	SD Card, SONAR X1 LE DVD-ROM,
otions	USB Cable (mini-B type), Dry battery <lr6 (aa)="" type=""> x 2 AC Adaptor (PSA series),</lr6>
	Silicone Case/Pouch Set for BR-80 (BA-BR80S)
BR-800	P24-25
racks	Track: 8, V-Track: 64 (8 V-Tracks per each Track), Up to 4 tracks can be recorded simultaneously,
ample Fraguency	and up to 8 tracks can be played back simultaneously. 44.1 kHz
ample Frequency requency Response	20 Hz to 20 kHz (+1/-3 dB)
D Conversion	24 bits, 24 bits + AF method* (GUITAR/BASS input) 24 bits
apacity	SD/SDHC Card: 1 GB to 32 GB
ata Type	HiFi (MT2) Roland/BOSS original format, 16-bit linear stereo WAV format (SONG SKETCH only)
	Conversion in one track,1 GB: 8 hours 40 minutes,
	32 GB: 272 hours * The above-listed recording times are approximate.
ecording Time for multi-track recording)	Times may be slightly shorter depending on the number of songs that were created. * The above number is the
g)	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 above.
cording Time (for SONG SKETCH)	Stereo recording, 1 GB: 90 minutes, 32 GB: 48 hours
ominal Input Level	GUITAR/BASS jack: -10 dBu, INPUT 1–4 jacks: -50 to -20 dBu (XLR type),
	-26 to +4 dBu (1/4" TRS phone type), LINE IN jack: -10 dBu
put Impedance	GUITAR/BASS jack: 1 MΩ, INPUT 1–4 jacks: 3 kΩ (XLR type), 47 kΩ (1/4" TRS phone type),
ominal Output Level	LINE IN jack: 10 kΩ LINE OUT jacks: -10 dBu
utput Impedance	LINE OUT jacks: 1 kΩ
ecommended Load	LINE OUT jacks: $20 \text{ k}\Omega$ or greater, PHONES jack: $32 \text{ to } 100 \Omega$
esidual Noise Level	LINE OUT jacks: -85 dBu or less (IHF-A, typ.)
ower Supply	DC 9 V: AC Adaptor, Size AA Dry Battery x 6 (Alkaline batteries recommended), USB Bus Power
urrent Draw	280 mA (DC IN), 480 mA (USB Bus Power)
mensions eight	289 (W) x 184 (D) x 58 (H) mm (11-7/16" x 7-1/4" x 2-5/16") 890 g/2 lbs (incl. batteries)
ccessories	SD Card, AC Adaptor, USB Cable,
	BR-800 DVD-ROM
BR-1200CD	P24-25 Track: 12, V-Track: 192 (16 V-Tracks per each Track),
racks	Up to 2 tracks can be recorded simultaneously,
	and up to 12 tracks can be played back simultaneously. Internal Hard Disk: 80 GB
	*The maximum recording time of the original units (80 GB) is about 240 hours. The listed recording
laximum Usable	time is approximate. Time may be slightly shorter depending on the number of songs and size of imported
apacity/ decording Time	loop phrase that were created. The listed recording
•	time is the total for all the tracks that are used. If each of the twelve tracks contain an equal amount
	of data, the length of the resulting song will be
	of data, the length of the resulting song will be approximately 1/12 of the above.
	<ad conversion="">: [24 bits, AF method* (Guitar/Bass)],</ad>
ignal Processing	<ad conversion="">: [24 bits, AF method* (Guitar/Bass)], [24 bits, $\Delta \Sigma$ Modulation (VOCAL)], [24 bits, $\Delta \Sigma$ Modulation (LINE)], [24 bits, $\Delta \Sigma$ Modulation (SIMUL)],</ad>
gnal Processing	<ad conversion="">: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL)], [24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (SIMUL)], <ΔΣ Conversion>: 24 bits, ΔΣ Modulation (SIMUL)], <internal processing="">: 24 bits (digital mixer section)</internal></ad>
	<ad conversion="">: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL)], [24 bits, ΔΣ Modulation (LINE)], [24 bits, ΔΣ Modulation (GINUL)], [24 bits, ΔΣ Modulation (SIMUL)], CDA Conversion>: 24 bits, ΔΣ Modulation (slight mixer section) <recording data="">: 16-bit linear</recording></ad>
ample Frequency	$ \begin{array}{lll} \text{AD Conversion>:} [24 \text{ bits, AF method' (Guitar/Bass)}], \\ [24 \text{ bits, } \Delta \Sigma \text{ Modulation (VOCAL)}, [24 \text{ bits, } \Delta \Sigma \text{ Modulation (SIMUL)}, \\ \text{AD Conversion>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation (Gillut)}, \\ \text{AD Conversion>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation (alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma \text{ Modulation}, \\ \text{Alternal Processing>:} 24 \text{ bits, } \Delta \Sigma b$
ample Frequency requency Response	<ad conversion="">: [24 bits, AF method* (Guitar/Bass)], [24 bits, A∑ Modulation (NOCAL)], [24 bits, A∑ Modulation (LINE), [24 bits, A∑ Modulation (SIMUL)], Abd Conversion>: 24 bits, A∑ Modulation (aligned material Processing>: 24 bits, A∑ Modulation (aligned material Processing>: 24 bits, digital mixer section) Recording Data: 16-bit linear 44.1 kHz 20.05 % or less (INPUT SENS: CENTER,</ad>
ample Frequency requency Response otal Distortion lominal Input Level	<ad conversion="">: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (LNE), [24 bits, ΔΣ Modulation (LNE), [24 bits, ΔΣ Modulation (SIMUL)], 42 bits, ΔΣ Modulation (Although the Market (Gligital mixer section) - Recording Data: 16-bit linear 44.1 kHz 20 Hz to 20 kHz (+1/-3 dB) 0.05 % or less (INPUT SENS: CENTER, 1 kHz at nominal output level) GUITAR/BASS jack: 20 dBu, MIC 1/2 jacks</ad>
iample Frequency requency Response otal Distortion Iominal Input Level	«AD Conversion»: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL)], [24 bits, ΔΣ Modulation (LINE]), [24 bits, ΔΣ Modulation (SIMUL)], «DA Conversion»: 24 bits, ΔΣ Modulation (alternal Processing»: 24 bits, (digital mixer section) «Recording Data»: 16-bit linear 44.1 kHz 20 Hz to 20 kHz (+1/-3 dB) 0.05 % or less (INPUT SENS: CENTER, 1 kHz at nominal output level) GUITAR/BASS jack: ~20 dBu, MIC 1/2 jacks (TRS balanced/LRIP: -40 dBu, LINE IN jacks: -10 dBu [GUITAR/BASS] sack: -20 dBu, LINE IN jacks: -10 dBu [GUITAR/BASS] sack: -20 dBu, LINE IN jacks: -10 dBu [GUITAR/BASS] sack: -20 dBu, LINE IN jacks: -10 dBu [GUITAR/BASS] sack: -20 dBu, LINE IN jacks: -10 dBu [GUITAR/BASS] sack: -20 dBu, LINE IN jacks: -10 dBu [GUITAR/BASS] sack: -20 dBu,
ample Frequency requency Response otal Distortion ominal Input Level Variable)	$ AD Conversion> [24 bits, AF method' (Guitar/Bass)], [24 bits, \Delta \Sigma Modulation (VOCAL), [24 bits, \Delta \Sigma Modulation (VOCAL), [24 bits, \Delta \Sigma Modulation (LINE)], [24 bits, \Delta \Sigma Modulation (SIMUL)], < DA Conversion>: 24 bits, \Delta \Sigma Modulation (-Internal Processing>: 24 bits, \Delta \Sigma Modulation (-Internal Processing>: 24 bits, (Gigital mixer section) - Recording Data>: 16-bit linear 44.1 kHz 20 Hz to 20 kHz (+1/-3 dB) 0.05 % or less (INPUT SENS: CENTER, 1 kHz at nominal output level) GUITAR/BASS jack: 20 dBu, MIG 1/2 jacks (TRS balanced/XLR): -40 dBu, LINE IN jacks: -10 dBu [GUITAR/BASS jack: 1 MΩ], [MIG 1/2 jacks (TRS balanced/XLR): -40 MIG 1/2 jacks (TRS balanced/XLR$
ample Frequency requency Response otal Distortion ominal Input Level // Arriable	<ad conversion="">: [24 bits, AF method* (Guitar/Bass)]. [24 bits, ΔΣ Modulation (LNE). [24 bits, ΔΣ Modulation (LNE). [24 bits, ΔΣ Modulation (SIMUL)]. (A bits, ΔΣ Modulation (SIMUL)]. (A bits, ΔΣ Modulation (Alternal Processing»: 24 bits, ΔΣ Modulation (Alternal Processing»: 24 bits, (Gligital mixer section) <recording data="">: 16-bit linear 44.1 kHz 20 Hz to 20 kHz (+1/-3 dB) 0.05 % or less (INPUT SENS: CENTER, 1 kHz at nominal output level) GUITAR/BASS jack: 2/0 dBu, LINE IN jacks: -10 dBu (GUITAR/BASS jack: 1/20 dBu, LINE IN jacks: -10 dBu (GUITAR/BASS jack: -10 dBu (GUITAR/BASS jack: 1/20 dBu, LINE IN jacks: -10 dBu (GUITAR/BASS jack: -10 dB</recording></ad>
ample Frequency requency Response stal Distortion ominal Input Level ariable) put Impedance ominal Output Level	AD Conversion>: [24 bits, AF method' (Guitar/Bass)], [24 bits, Δ∑ Modulation (VOCAL)], [24 bits, Δ∑ Modulation (LNE)], [24 bits, Δ∑ Modulation (SIMUL)], (24 bits, Δ∑ Modulation (Alternal Processing>: 24 bits, Δ∑ Modulation (Alternal Processing>: 24 bits, d) (Gigital mixer section) - Received Final Processing>: 24 bits, d) (Gigital mixer section) - Received Final Processings: 24 bits, d) (Gigital mixer section) - Received Final Processings: A mixer section) - Received Final Processings: A mixer section (Signal Processings) (Alternatived Final Processings) (Alternatived F
ample Frequency requency Response otal Distortion ominal Input Level Arriable) uput Impedance ominal Output Level utput Impedance ecommended Load	AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL)], [24 bits, ΔΣ Modulation (NDCAL)], [24 bits, ΔΣ Modulation (LINE)], [24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (Alternal Processing): 24 bits, ΔΣ Modulation (Alternal Processing): 26 bits, ΔΣ Modu
ample Frequency requency Response otal Distortion ominal Input Level fariable) uput Impedance ominal Output Level utput Impedance ecommended Load uppedance	AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL), [24 bits, ΔΣ Modulation (NOCAL), [24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (Internal Processing»: 24 bits, ΔΣ Modulation (Internal Processing), (Internal Process
ample Frequency requency Response stal Distortion ominal Input Level driable) put Impedance ominal Output Level utput Impedance ecommended Load spedance	AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (SIMUL)], -DA Conversion>: 24 bits, Δ∑ Modulation (SIMUL)], -DA Conversion>: 24 bits, Δ∑ Modulation (Internal Processing>: 24 bits (digital mixer section) -Recording Data>: 16-bit linear -44.1 kHz -20 Hz to 20 kHz (+1/-3 dB) -0.05 % or less (INPUT SENS: CENTER, -14.1 kHz at nominal output level)
ample Frequency requency Response otal Distortion ominal Input Level araible) uput Impedance ominal Output Level utput Impedance ecommended Load upedance esidual Noise Level	AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL)], [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (Alternal Processing): 24 bits, ΔΣ Modulation (Alternal Processing): 24 bits, ΔΣ Modulation (Alternal Processing): 24 bits, (digital mixer section) (According Data:: 16-bit linear 44.1 kHz 20 Hz to 20 kHz (+1/3 dB)) (20 bits) (Alternal Processing): 24 bits, (Alternal Processing): 26 bits, (Alterna
ample Frequency equency Response tal Distortion minal Input Level ariable) put Impedance command Output Level utput Impedance commended Load pedance essidual Noise Level	AD Conversion>: [24 bits, AF method' (Guitar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (NOCAL), [24 bits, Δ∑ Modulation (SIMUL)], (24 bits, Δ∑ Modulation (SIMUL)], (24 bits, Δ∑ Modulation (SIMUL)], (24 bits, Δ∑ Modulation (Internal Processing): 24 bits (digital mixer section) <pre>- ARCHART (ARCHART (</pre>
ample Frequency equency Response tal Distortion ominal Input Level ariable) put Impedance opinian Output Level utput Impedance commended Load opedance esidual Noise Level terface over Supply	AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL)], [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (SIMUL)], (24 bits, ΔΣ Modulation (Alternal Processing): 24 bits, ΔΣ Modulation (Alternal Processing): 24 bits, ΔΣ Modulation (Alternal Processing): 24 bits, (digital mixer section) (According Data:: 16-bit linear 44.1 kHz 20 Hz to 20 kHz (+1/3 dB)) (20 bits) (Alternal Processing): 24 bits, (Alternal Processing): 26 bits, (Alterna
ample Frequency equency Response tal Distortion minal Input Level ariable) put Impedance ominal Output Level utput Impedance commended Load pedance essidual Noise Level tterface ower Supply ower Consumption mensions	AD Conversion>: [24 bits, AF method* (Gultar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (SIMUL)], [24 bits, Δ∑ Modulation (Internal Processing»: 24 bits, Δ∑ Modulation (Internal Processing»: 44,1 kHz 20 bits, 26 bi
ample Frequency requency Response stal Distortion ominal Input Level dariable) put Impedance ominal Output Level utput Impedance ecommended Load spedance esidual Noise Level terface ower Supply ower Consumption imensions eight	AD Conversion>: [24 bits, AF method* (Gultar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [124 bits, Δ∑ Modulation (IMEL), [24 bits, Δ], [25 bits, Δ], [26
ample Frequency requency Response stal Distortion minal Input Level ariable) put Impedance put Impedance commended Load ppedance escidual Noise Level terface ower Supply ower Consumption mensions eight ccessories	AD Conversion>: [24 bits, AF method* (Guttar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [124 bits, Δ∑ Modulation (SIMUL)], [24 bits, Δ∑ Modulation (SIMUL)], (24 bits, Δ∑ Modulation (SIMUL)], (24 bits, Δ∑ Modulation (Internal Processing>: 24 bits, Δ∑ Modulation (Internal Processing>: 24 bits, Δ∑ Modulation (Internal Processing>: 24 bits (Idigital mixer section) <a "the="" (16="" (80="" (cd-rom)="" 1="" 11-3="" 16,="" 240="" 256="" 3-3="" 4="" 4"="" 4")="" 8="" 80="" 9="" about="" ac="" adaptor,="" aportownate.="" be="" can="" content="" cz="" did="" discrete="" disk:="" drums="" gb="" gb)="" hard="" hours.="" href="Received Floating Floating</td></tr><tr><td>ample Frequency requency Response stal Distortion ominal Input Level ariable) put Impedance ominal Output Level utput Impedance ecommended Load spedance esidual Noise Level terface ower Supply ower Consumption imensions leight ccessories</td><td>AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (LINE)], [24 bits, Δ∑ Modulation (LINE)], [24 bits, Δ∑ Modulation (SIMUL)], (A bits, Δ∑ Modulation (Alternal Processing): 24 bits, Δ∑ Modulation (Alternal Processing): 24 bits, Δ∑ Modulation (Alternal Processing): 24 bits (Gigital mixer section) (ARCCORDING Data): 16-bit linear (44.1 kHz 20 Hz to 20 kHz (+1/3 dB)) (10.5 % or less (INPUT SENS: CENTER, 1 kHz at nominal output level) (UITAR/BASS) jack: 20 dBu, IMIC 1/2 jacks (TRS balanced/XLR): 40 dBu, LINE IN jacks: -10 dBu (IGUITAR/BASS) jack: 140 dBu, LINE IN jacks: -10 dBu (IGUITAR/BASS) jack: 140 dBu, LINE IN jacks: 22 kΩ] (LINE OUT jacks: 20 kΩ or greater, PHONES jack: 30 to 50 Ω LINE OUT jacks: 20 kΩ or greater, PHONES jack: 37 dBu or less (INPUT SELECT: GUITAR/BASS, input terminated with 1 kΩ, INPUT SENS: CENTER, IHF-A, typ.) DIGITAL OUT: S/PDIF 16 bits/24 bits (Optical type), USB (B type) DC 12 V: AC Adaptor 3A AT8 (W) x 297 (D) x 95 (H) mm (18-7/8* x 11-3/4* x 3-3/4*) 4.1 kg/9 lbs 1 oz AC Adaptor, DISCRETE DRUMS (CD-ROM)</td></tr><tr><td>ample Frequency requency Response otal Distortion ominal Input Level // / // / // / // / // / // / // / //</td><td>AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, <math>\Delta \Sigma</math> Modulation (VCDL), [24 bits, <math>\Delta \Sigma</math> Modulation (CALL), [24 bits, <math>\Delta \Sigma</math> Modulation (SIMUL)], (24 bits, <math>\Delta \Sigma</math> Modulation (SIMUL)], (24 bits, <math>\Delta \Sigma</math> Modulation (SIMUL)], (24 bits, <math>\Delta \Sigma</math> Modulation (Alternal Processing): 24 bits, <math>\Delta \Sigma</math> Modulation (Alternal Processing): 24 bits (Gigital mixer section) (ARCCORDING Data): (16-bit linear) (44-1 kHz) (20 Hz), (21 bits) (21</td></tr><tr><td>signal Processing sample Frequency requency Response otal Distortion tominal Input Level variable) sput Impedance tominal Output Level butput Impedance tecommended Load spedance tecsidual Noise Level steriface tower Supply ower Consumption timensions Veight tcccessories BR-1600CD tracks</td><td>AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (NOCAL), [24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 24 bits, Δ∑ Modulation (Internal Processing>: 24 bits (digital mixer section) - Recording Data>: 16-bit linear - 44.1 kHz - 20 Hz to 20 kHz (+1/-3 dB) - 0.05 % or less (INPUT SENS: CENTER, - 1 kHz at nominal output level) - GUITARBASS jack: 20 dBu, MIC 1/2 jacks - (TRS balanced/XR): -40 dBu, LINE IN jacks: -10 dBu - [GUITARBASS jack: 1 MΩ], - IMIC 1/2 jacks (TRS balanced/XR): - 12.5 kΩ (HOT-COLD) 6.5 kΩ (HOT-GND, COLD-GND)], - LINE OUT jacks: 20 kΩ or greater, - PHONES jack: 8 to 50 Ω - LINE OUT jacks: 9 to 80 or less (INPUT SELECT: - GUITARBASS, input terminated with 1 kΩ, INPUT - SENS: CENTER, IHF-A, lyp.) - DIGITAL OUT: SIPDIF 16 bits/24 bits (Optical type), - USB (B type) - DC 12 V: AC Adaptor - 3 A - 478 (W) x 297 (D) x 95 (H) mm (18-7/8* x 11-3/4* x 3-3/4*) - 4.1 kgpl lbs 1 oz - AC Adaptor, DISCRETE DRUMS (CD-ROM) - Version2 - P24-25 - Track: 16, V-Tracks 256 (16 V-Tracks per primary Track), - Up 10 8 tracks can be recorded simultaneously, - and up to 16 tracks can be playedback simultaneously, - and up to 16 tracks can be playedback simultaneously, - and up to 16 tracks can be playedback simultaneously, - and up to 16 tracks can be playedback simultaneously.</td></tr><tr><td>sample Frequency requency Response otal Distortion dominal Input Level variable) aput Impedance dominal Output Level butput Impedance decommended Load appedance desidual Noise Level anterface bower Supply ower Consumption bimensions leight accessories BR-1600CD</td><td>AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (NOCAL), [24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 24 bits, Δ∑ Modulation (Internal Processing>: 24 bits (digital mixer section) - Recording Data>: 16-bit linear - 44.1 kHz - 20 Hz to 20 kHz (+1/-3 dB) - 0.05 % or less (INPUT SENS: CENTER, - 1 kHz at nominal output level) - GUITARBASS jack: 20 dBu, MIC 1/2 jacks - (TRS balanced/XR): -40 dBu, LINE IN jacks: -10 dBu - [GUITARBASS jack: 1 MΩ], - IMIC 1/2 jacks (TRS balanced/XR): - 12.5 kΩ (HOT-COLD) 6.5 kΩ (HOT-GND, COLD-GND)], - LINE OUT jacks: 20 kΩ or greater, - PHONES jack: 8 to 50 Ω - LINE OUT jacks: 9 to 80 or less (INPUT SELECT: - GUITARBASS, input terminated with 1 kΩ, INPUT - SENS: CENTER, IHF-A, lyp.) - DIGITAL OUT: SIPDIF 16 bits/24 bits (Optical type), - USB (B type) - DC 12 V: AC Adaptor - 3 A - 478 (W) x 297 (D) x 95 (H) mm (18-7/8* x 11-3/4* x 3-3/4*) - 4.1 kgpl lbs 1 oz - AC Adaptor, DISCRETE DRUMS (CD-ROM) - Version2 - P24-25 - Track: 16, V-Tracks 256 (16 V-Tracks per primary Track), - Up 10 8 tracks can be recorded simultaneously, - and up to 16 tracks can be playedback simultaneously, - and up to 16 tracks can be playedback simultaneously, - and up to 16 tracks can be playedback simultaneously, - and up to 16 tracks can be playedback simultaneously.</td></tr><tr><td>requency requency requency Response otal Distortion lominal Input Level Variable) and Imput Impedance Imput Impedance Recommended Load Impedance Residual Noise Level Interface Rower Supply Prover Consumption limensions Relight Recessories RR-1600CD racks</td><td>AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL), [24 bits, ΔΣ Modulation (SIMUL)], [24 bits, ΔΣ Modulation (LNE]), [24 bits, ΔΣ Modulation (SIMUL)], [24 bits, ΔΣ Modulation (SIMUL)], [24 bits, ΔΣ Modulation (Internal Processing»: 24 bits, ΔΣ Modulation (Internal Processing»: 24 bits (Gigital mixer section) Recording Data»: 16-bit linear 44.1 kHz 20 Hz to 20 kHz (+1/-3 dB) 0.05 % or less (INPUT SENS: CENTER, 1 kHz at nominal output level) (SUTAR/BASS) jack: 20 dBu, Mic 1/2 jacks (TRS balanced/XLR): 40 dBu, LINE IN jacks: -10 dBu (GUTAR/BASS) jack: 140 dBu, LINE IN jacks: -10 dBu (GUTAR/BASS) jack: 140 dBu, LINE IN jacks: -10 dBu (LINE IN jacks: 22 kQ) LINE OUT jacks: -10 dBu LINE OUT jacks: 20 kQ (HOT-GND, COLD-GND)], LINE OUT jacks: 20 kQ or greater, PHONES jack: 10 dBu LINE OUT jacks: 20 kQ or greater, PHONES jack: 81 o 50 Q LINE OUT jacks: -27 dBu or less (INPUT SELECT: GUITAR/BASS, input terminated with 1 kQ, INPUT SENS: CENTER, IHF-A, typ.) DIGITAL OUT: SPUPI F db bits/24 bits (Optical type), USB (B type) CD (12 V: AC Adaptor as A 478 kW) x 297 (D) x 95 (H) mm (18-7/8" in="" internal="" is="" kg="" lbs="" listed="" maximum="" me="" not="" of="" original="" p24-25="" per="" primary="" recorded="" recording="" simultaneously,="" t<="" td="" teres="" the="" time="" to="" track),="" track:="" tracks="" units="" up="" v-track:="" v-tracks="" version2="" x="">
sample Frequency requency Response otal Distortion dominal Input Level variable) anput Impedance dominal Output Level butput Impedance decommended Load appedance desidual Noise Level anterface tower Supply ower Consumption imensions Veight accessories BR-1600CD racks	AD Conversion>: [24 bits, AF method* ("Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL), [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (SIMUL)], [24 bits, ΔΣ Modulation (SIMUL)], [24 bits, ΔΣ Modulation (Internal Processing): 24 bits, ΔΣ Modulation (Internal Processing): 26 bits, ΔΣ Modulation (Interna
sample Frequency requency Response otal Distortion dominal Input Level variable) apput Impedance dominal Output Level butput Impedance decommended Load mpedance desidual Noise Level atterface fower Supply ower Consumption imensions veight accessories BR-1600CD racks	AD Conversion>: [24 bits, AF method* (Gultar/Bass)], [24 bits, ΔΣ Modulation (VOCAL), [24 bits, ΔΣ Modulation (SIMUL)], ADA Conversion>: 24 bits, ΔΣ Modulation (SIMUL)], ADA Conversion>: 24 bits, ΔΣ Modulation Alternal Processing>: 24 bits, ΔΣ M
sample Frequency requency Response otal Distortion dominal Input Level variable) apput Impedance dominal Output Level butput Impedance decommended Load mpedance desidual Noise Level atterface fower Supply ower Consumption imensions veight accessories BR-1600CD racks	AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL), [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (SMUL)], [24 bits, ΔΣ Modulation (SMUL)], [24 bits, ΔΣ Modulation (Alternative Sessing) × 24 bits, ΔΣ Modulation (Alternative Sessing) × 26 bits, ΔΣ Modulation (Alternative Sessin
ample Frequency requency Response otal Distortion iominal Input Level variable) input Impedance iominal Output Level utput Impedance ecommended Load inpedance desidual Noise Level interface ower Supply ower Consumption imensions veight ccessories BR-1600CD racks	AD Conversion>: [24 bits, AF method* (Gultar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 40 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 40 bits, Δ∑ Modulation Alternal Processing>: 24 bits, Δ∑ Modulation Alternal Processing>: 41 bits, Δ∑ Modulation Alternal Processing>: 41 bits, Δ∑ Modulation Alternal Processing>: 42 bits, Δ∑ Modulation Alternal Processing>: 42 bits, Δ∑ Modulation Alternal Processing>: 42 bits, Δ∑ Modulation Alternal Processing>: 43 bits, Δ∑ Modulation Alternal Processing>: 44 bits, ΔΣ
ample Frequency requency Response otal Distortion ominal Input Level dariable) uput Impedance ominal Output Level utput Impedance ecommended Load upedance esidual Noise Level over Supply over Consumption imensions feight ccessories BR-1600CD racks	AD Conversion>: [24 bits, AF method* (Gultar/Bass)], [24 bits, Δ∑ Modulation (VOCAL), [24 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 40 bits, Δ∑ Modulation (SIMUL)], ADA Conversion>: 40 bits, Δ∑ Modulation Alternal Processing>: 24 bits, Δ∑ Modulation Alternal Processing>: 41 bits, Δ∑ Modulation Alternal Processing>: 41 bits, Δ∑ Modulation Alternal Processing>: 42 bits, Δ∑ Modulation Alternal Processing>: 42 bits, Δ∑ Modulation Alternal Processing>: 42 bits, Δ∑ Modulation Alternal Processing>: 43 bits, Δ∑ Modulation Alternal Processing>: 44 bits, ΔΣ
mple Frequency squency Response tal Distortion minal Input Level rirable) but Impedance minal Output Level tiput Impedance commended Load pedance sidual Noise Level erface wer Supply wer Consumption mensions signit cessories BR-1600CD tcks	AD Conversion>: [24 bits, AF method* (Guitar/Bass)], [24 bits, ΔΣ Modulation (VOCAL), [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (LNE)], [24 bits, ΔΣ Modulation (SMUL)], [24 bits, ΔΣ Modulation (SMUL)], [24 bits, ΔΣ Modulation (Alternative Sessing) × 24 bits, ΔΣ Modulation (Alternative Sessing) × 26 bits, ΔΣ Modulation (Alternative Sessin

Sample Frequency	44.1 kHz
Frequency Response	20 Hz to 20 kHz (+1/-3 dB) 0.02 % or less (INPUT SENS: CENTER,
Total Distortion	1 kHz at nominal output level) (Variable) GUITAR/BASS jack: -10 dBu, MIC 1–8
Nominal Input Level	jacks (XLR): -40 dBu, INPUT 1–8 jacks: -10 dBu
Input Impedance	[GUITAR/BASS jack: 1 M Ω], [MIC 1–8 jacks (XLR): 12.5 k Ω (HOT-COLD), 6.5 k Ω (HOT-GND, COLD-GND)], [INPUT 1–8 jacks: 22 k Ω]
Nominal Output Level	LINE OUT jack: -10 dBu
Output Impedance Recommended Load	LINE OUT jack: 2 k Ω , PHONES 1, 2 jack: 100 Ω LINE OUT jack: 20 k Ω or greater,
Impedance	PHONES 1, 2 jack: 8 to 50 Ω LINE OUT jack: -90 dBu or less (INPUT SELECT:
Residual Noise Level	GUITAR/BASS, input terminated with 1 k Ω , INPUT SEN CENTER, IHF-A, typ.)
Interface	DIGITAL IN: S/PDIF 16 bits/24 bits (coaxial type), DIGITAL OUT: S/PDIF 16 bits/24 bits (coaxial type), USB (B type)
Power Supply Power Consumption	DC 12 V: AC Adaptor 3 A
Dimensions	494 (W) x 339 (D) x 99 (H) mm (19-1/2" x 13-3/8" x 3-15/16"
Weight Accessories	4.9 kg/10 lbs 13 oz AC Adaptor, DISCRETE DRUMS (CD-ROM)
TU SERIES	
ITU-10	P26-2
Reference Pitch	A4 = 436 to 445 Hz
Tuning Range	C0 (16.35 Hz) to C8 (4,186.0 Hz) +1 cent
Tuning Accuracy Display Mode	Cent display, Stream display
Flat Tuning Power Supply	Regular to 5 semitone lower Lithium Battery <cr2032></cr2032>
. Систоприју	<color display="" mode="">: 12 mA <monochrome display="" mode=""></monochrome></color>
Current Draw	4 mA, Expected battery life under continuous use <color display="" mode="">: Approximately 12 hours <monochrome display="" mode="">: Approximately 24 hours * This figure will use depending on the partiel.</monochrome></color>
	* This figure will vary depending on the actual conditions of use.
Dimensions Weight	73 (W) x 33 (D) x 62 (H) mm (2-7/8" x 1-5/16" x 2-1/2") 45 g/2 oz
Accessory	Lithium Battery <cr2032></cr2032>
TU-1000	P26-2
Reference Pitch	A4 = 436 to 445 Hz
Tuning Range Tuning Accuracy	C0 (16.35 Hz) to C8 (4,186.0 Hz) ±1 cent
Power Supply	DC 9 V
Current Draw Dimensions	350 mA 414 (W) x 160 (D) x 61 (H) mm (16-5/16" x 6-5/16" x 2-7/16"
Weight Accessories	2.2 kg/4 lbs 14 oz AC Adaptor, 7-pin Parallel DC Cord
TU-3 Reference Pitch	P11, P26-2 A4 = 436 to 445 Hz
Tuning Range	C0 (16.35Hz) to C8 (4,186.0 Hz)
Power Supply	DC 9 V: Dry Battery <6F22/6LR61 type>, AC Adaptor (PSA series: Optional)
Current Draw Dimensions	30 mA (High Brightness mode: 85 mA) 73 (W) x 129 (D) x 59 (H) mm (2-7/8" x 5-1/8" x 2-3/8")
Weight	390 g/14 oz (incl. battery)
Accessory	Dry Battery <6F22 type>
TU-12EX	P26-2
Reference Pitch	A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz)
Tuning Range Tuning Accuracy	±1 cent
Tuning Range Tuning Accuracy Power Supply	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional)</r03>
Tuning Range Tuning Accuracy Power Supply Current Draw	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2,</r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 188 g/5 oz</r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 Y: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 Y: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case</r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2</r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to 8 (4,186.0 Hz)</r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pich Tuning Range Tuning Accuracy	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent</r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional)</r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Range Tuning Accuracy Power Supply Current Draw	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2,</r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W), 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz</r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1")</r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Piezo Microphone, Soft Case, Holder</r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Piezo Microphone, Soft Case, Holder</r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, Plezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent</r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Plezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: Dry Battery <6F22/ELR61 type> DC 9 V: AC Adaptor (PSA series: Optional)</r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Plezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: AC Adaptor (PSA series: Optional) 30 mA</r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Piezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: Dry Battery <6F22/IsLR61 type> DC 9 V: AC Adaptor (PSA series: Optional) 30 mA 140 (W) x 80 (D) x 30 (H) mm (5-9/16" x 3-3/16" x 1-3/16"</r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Piezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: AC Adaptor (PSA series: Optional) 30 mA 140 (W) x 80 (D) x 30 (H) mm (5-9/16" x 3-3/16" x 1-3/16" x 1-3/16" x 3-3/16" x 1-3/16" x 1-3/16" x 3-3/16" x 1-3/16" x 1-</r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessory Weight Accessory	#1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, Plezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: Dry Battery <6F22/ELR61 type>, DC 9 V: AC Adaptor (PSA series: Optional) 30 mA 140 (W) x 80 (D) x 30 (H) mm (5-9/16" x 3-3/16" x 1-3/16" type>) Dry Battery <6F22 type></r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Piezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: AC Adaptor (PSA series: Optional) 30 mA 140 (W) x 80 (D) x 30 (H) mm (5-9/16" x 3-3/16" x 1-3/16" to 97 oz (incl. battery) Dry Battery <6F22 type></r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessory TU-80 Reference Pitch Tuning Range Tuning Ange Power Supply	#1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Plezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: Dry Battery <6F22/ELR61 type>, DC 9 V: AC Adaptor (PSA series: Optional) 30 mA 140 (W) x 80 (D) x 30 (H) mm (5-9/16" x 3-3/16" x 1-3/16" y 19 g/7 oz (incl. battery) Dry Battery <6F22 type> P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) DC 3V: Dry Battery <6F22 type></r03></r03></r03></r03>
Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-12BW Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessories TU-88 Reference Pitch Tuning Range Tuning Accuracy Power Supply Current Draw Dimensions Weight Accessory TU-80 Reference Pitch Tuning Range	±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 138 g/5 oz Dry Battery <r03 (aaa)="" type=""> x 2, Soft Case P26-2 A4 = 438 to 445 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 3 V: Dry Battery <r03 (aaa)="" lr03="" type=""> x 2, DC 9 V: AC Adaptor (PSA series: Optional) 12 mA 148 (W) x 54 (D) x 24 (H) mm (5-13/16" x 2-1/8" x 1") 205 g/8 oz Dry Battery <r03 (aaa)="" type=""> x 2, Plezo Microphone, Soft Case, Holder P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz) ±1 cent DC 9 V: AC Adaptor (PSA series: Optional) 30 mA 140 (W) x 80 (D) x 30 (H) mm (5-9/16" x 3-3/16" x 1-3/16" y 30 g/7 oz (incl. battery) Dry Battery <6F22 (type> P26-2 A4 = 435 to 446 Hz E0 (20.6 Hz) to C8 (4,186.0 Hz)</r03></r03></r03></r03>

AD-8	
Nominal Input Le	rel -20 dBu
Nominal Output L	evel -20 dBu
Tuner Reference I	ritch A4 = 438 to 445 Hz
Tuning Accuracy	±3 cents
Power Supply	DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6, AC Adaptor (PSA series: Optional)</r6>
Current Draw	120 mA
Dimensions	250 (W) x 180 (D) x 60 (H) mm (9-7/8" x 7-1/8" x 2-
Weight	1.9 kg/4 lbs 4 oz (incl. batteries)
Accessories	Dry Battery <r6 (aa)="" type=""> x 6</r6>
Option	AC Adaptor (PSA series)
■AD-3	
Nominal Input Lev	el -10 dBu
Nominal Output L	evel -10 dBu
Power Supply	DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6, AC Adaptor (PSA series: Optional)</r6>
Current Draw	90 mA
Dimensions	170 (W) x 156 (D) x 70 (H) mm (6-3/4" x 6-3/16" x 2-1
Weight	1.0 kg/2 lbs 4 oz (incl. batteries)
Accessories	Dry Battery <lr6 (aa)="" type=""> x 6</lr6>
Option	AC Adaptor (PSA series)

DR-880	P28-29
Max. Polyphony	32 voices: Depending on the bass sound selected, max. polyphony may be lower
Instruments	Drums: 440, Bass: 40
Kits	User: 100, Preset: 100
Rhythm Patterns	User: 500, Preset: 500
Songs	User: 100
Power Supply	AC 14V: AC Adaptor
Power Consumption	600 mA
Dimensions	273 (W) x 242 (D) x 72 (H) mm (10-3/4" x 9-9/16" x 2-7/8"
Weight	1.4 kg/3 lbs 2 oz
Accessories	AC Adaptor, DR-880 Driver CD-ROM
Options	Footswitch (FS-5U, FS-6), Expression Pedal (Roland EV-5
DR-3	P28-29
May Dalumbany	13 voices

DR-3	P28-29
Max. Polyphony	12 voices
Instruments	Drum and Perc: 120, Bass: 12
Styles	User Style: 100, Preset Style: 100, 11 patterns for a style
Songs	Songs: 100, Song Length: Max. 250 patterns for a song
Power Supply	DC 9 V: Dry Battery <r6 (aa)="" lr6="" type=""> x 6, AC Adaptor (PSA series: Optional)</r6>
Current Draw	200 mA
Dimensions	213(W) x 185 (D) x 53 (H) mm (8-7/16" x 7-5/16" x 2-1/8")
Weight	710 g/1 lb 10 oz
Accessories	Dry Battery <lr6 (aa)="" type=""> x 6</lr6>
Options	AC Adaptor (PSA series), Footswitch (FS-5U, FS-6)

DB-90	P28-29
Metronome	Tempo: 30 to 250 (Accuracy: ± 0.1%), Beat 1: 1-9, Beat 2: OFF, 1-9, Pattern: 8-Beat x 4, 16-Beat x 3, Shuffle x 3, Funk x 2, Jazz x 2, Blues, Techno, House, Country, Reggae, Clave 3-2, Clave 2-3, Salsa, Rumba, Bossa Nova, Samba, Waltz, Tango, Mambo, Chachacha, March (30 kinds)
Rhythm Coach	Time Check, Quiet Count, Gradual Up/Down, Step Up/Down
Reference Tone	Reference Pitch: A4 = 438 Hz to 445 Hz (1 Hz step), Reference Tone Range: C2 to B6 (5 octave, 12 semitone)
Memory	Metronome: 50, Reference Tone: 10
Auto Power Off function	Turns unit off after 60 min.
Indicators	LCD Display, Tempo Indicator LED x 2
Power Supply	DC 9 V: Dry Battery <6F22/6LR61 type>, AC Adaptor (PSA series: Optional)
Current Draw	85 mA or less (with reference tone sounding), 190 mA or less (with signals inputting to the INPUT jack)
Dimensions	122 (W) x 164 (D) x 38 (H) mm (4-3/4" x 6-1/2" x 1-1/2")
Weight	450 g/1 lb (incl. battery)
Accessories	Dry Battery <6LR61 type>, Soft Case

DB-60	P28-2
Metronome	Tempo: 30 to 250 (Accuracy: ± 0.1 %), Beat: 1–9, 2+3, 3+2, 3+4, 4+3, 4+5, 5+6, 6+5, 6+7, 7+6, 7+8, 8+7, 8+9, 9+8 (23 kinds), Pattern: 8 Beat x 3, 16 Beat x 2, Shuffle x 2, Funk, Dance x 2, Country, Reggae, Clave x 2, Rumba Bossa Nova, Waltz, Tango, Mambo, March (20 kinds)
Reference Tone	Reference Pitch: A4 = 438 Hz to 445 Hz (1Hz step), Reference Tone Range: C4 to B4 (Accuracy: ±1 cent)
Timer	Setting Range: 1 to 60 minutes
Indicators	LCD Display, Tempo Indicator LED x 2
Power Supply	Dry Battery <r6 (aa)="" lr6="" type=""> x 2</r6>
Dimensions	129 (W) x 84 (D) x 22 (H) mm (5-1/8" x 3-5/16" x 7/8")
Weight	156 g/6 oz (incl. batteries)
Accessories	Dry Rattony CR6 (AA) types v 2 Soft Case

DB-30	P28-29
Metronome	Tempo: 30 to 250 (Accuracy: ± 0.1%), Beat: 0 – 9, 2+3, 3+2, 3+4, 4+3, 4+5, 5+4, 5+6, 6+7, 7+6, 7+8, 8+7, 8+9, 9+8 (24 kinds), Rhythm: Quarter note, Eighth note, Eighth note, Triple with center rest, Sixteenth note, Sixteenth note with sixteenth rest, Clave 1, Clave 2 (9 kinds)
Reference Tone	Reference Pitch: A4 = 438 Hz to 445 Hz (1 Hz step), Reference Tone Range: C4 to B4 (Accuracy: ±1 cent)
Auto Power Off function	Turns unit off after 60 min.
Memory function	Stores the settings when the power is turned off. (The Mute status is not stored in memory.)
Indicators	LCD Display, Tempo Indicator LED x 2
Power Supply	Lithium Battery <cr2032></cr2032>
Dimensions	61 (W) x 90 (D) x 20 (H) mm (2-7/16" x 3-9/16" x 13/16")
Weight	70 g/3 oz (incl. battery)
Accessory	Lithium Battery <cr2032></cr2032>

System Requirements (USB Connection)
Please refer to the BOSS website www.boss.info

•0 dBu = 0.775 Vrms

Effect Types

Experience the power of BOSS effects!

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http://boss.mobi/sp/



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Free download from the App Store



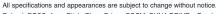
- · Apply effect settings!
- Store detailed knob settings! Record sample sounds and import images!
- · Search product information and listen to sample sounds!
- Backing tracks derived from BOSS eBand available for the recommended pedal boards! Enjoy jamming along with the backing tracks!



Once a musical instrument generates sound vibrations, it reaches the human ear through various mediating objects, each of which significantly affects the sound. The material and configuration of the instrument, the electric/electronic/magnetic amplifying system, the air and the reverberation of the room all affect the final sound. Sound modeling, the latest DSP technology, "virtually" reconstructs these objects. Roland's breakthrough Composite Object Sound Modeling (COSM) uses the advantages of multiple modeling methods and succeeds in accurately emulating existing sounds, as well as producing sounds that have never before been created.



Using V-LINK, musicians can "play" video from their electronic instrument — or even control a live video camera — when used with Roland video products. With V-LINK, musicians have a powerful interface for realtime audio and video integration



Roland, BOSS, Accu-Pitch, Blues Driver, COSM, DYNA DRIVE, eBand, LOOP STATION, METAL ZONE, MICRO BR. RHYTHM COACH, ROTARY ENSEMBLE, SLICER, SPACE ECHO. TSC, V-WAH are either registered trademarks or trademarks of Roland Corporation in the United States and/or other countries.

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