

 **BOSS**[®]

GUITAR EFFECTS GUIDE BOOK

Vol.20

Guitar & Bass Effects /
Tuners / Metronomes



TEN MILLION
COMPACT PEDALS SOLD

1 AUTHENTIC BOSS AUTHENTIC
TEN MILLION
 COMPACT PEDALS SOLD

The World Leader in Compact Effects

10,000,000 pedals sold and going strong ... BOSS is the number one choice for musicians who want the best of the best. Carefully selected parts, uncompromised circuit design, road-tough construction-everything on a BOSS pedal is made with the professional in mind. Musicians who demand the best choose BOSS.



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The Many Roles of Guitar Effects

BOSS offers an extensive selection of guitar effects that can be used to create an incredibly wide and expressive range of sounds. Here is a quick reference guide to the type and function of each unit.

❖ Add Distortion

Overdrive

OD-3, SD-1, BD-2, DN-2, OS-2, ODB-3, OD-20
Simulates the sound of an overdriven tube amp and responds to playing touch.

Distortion

OS-2, DS-1, DS-2, MT-2, MD-2, ML-2, DD-20
Produces harder, metallic distortion with many upper harmonics.

Fuzz

FZ-5
Delivers distortion that radically emphasizes the overtone.

❖ Add Acoustic Dimensions

Delay

DD-6, DD-3, DD-20, RE-20
Samples the original sound and plays it back delayed to produce natural—or artificial—sounding echo.

Reverb

RV-5, RE-20
Adds the natural acoustic ambience present in rooms and halls.

❖ Modulate and Double Sounds

Chorus

CE-5, CH-1, CEB-3, CE-20
Combines a slight delay signal with the original signal and modulates it to create a thick, shimmering sound.

Flanger

BF-3
Electronically creates a slight delay and combines it with the original signal for a swirling “doubled” effect.

Phaser

PH-3
Combines an out-of-phase signal with the original signal to produce a sound similar to the “spinning” sound of a rotary speaker.

Tremolo

TR-2
Varies the volume of the original sound cyclically to create a pulsating effect.

Rotary

RT-20
Offers authentic modeled reproduction of the classic rotary-speaker effect.

❖ Change Tonality of Sounds

Equalizer

GE-7, GEB-7, EQ-20
Boosts or cuts a particular frequency band for flexible tone control.

Wah

AW-3, PW-10
Produces a distinctive “wah wah” effect by boosting or cutting a specific frequency range.

❖ Acoustic Simulator

AC-3
Makes an electric guitar sound like an acoustic.

❖ Bass Synthesizer

SYB-5
Makes a bass guitar sound like a synthesizer.

❖ Regulate Gain Level

Compressor

CS-3
Reduces the output of sounds over a set threshold relative to the strength of the input signal, making levels consistent and improving sustain.

Limiter

LMB-3
Limits the peak levels of sounds to precisely that of the threshold level.

❖ Change Sound Pitch

Octave

OC-3
Creates a signal one or two octaves lower than the original signal.

Pitch Shifter/ Harmonist

PS-5
Provides intelligent, key-specific pitch shifting +/- 2 octaves, plus Tremolo Arm and Flutter effects to give you convincing whammy bar-type sounds.

❖ Reduce Noise

Noise Suppressor

NS-2
Eliminates noise resulting from connecting multiple effects units or using very high gain.

❖ Change Connections

Line Selector

LS-2
Controls switching from solo to backing and also amp selection.

❖ Amazing Loop Manipulation

Loop Station™

RC-50, RC-20XL, RC-2
Enables a variety of realtime loop effects, such as sound-on-sound layering, etc.

❖ Legend Series

Bassman/ Deluxe Reverb

FBM-1 Bassman®
In conjunction with Fender, BOSS proudly unveils the FBM-1, a compact pedal that recreates the legendary tone of the 1959 Fender Bassman.

FDR-1 Deluxe Reverb®

Based on the Fender 1965-era Deluxe Reverb—a beloved tube amp known for its natural touch-responsive and distinctive snappy overdriven sound.

History of BOSS

AC Adaptor jack enables continuous, battery-free operation.

Indicator displays effect on/off status and battery check.

Electronic switch provides noise-free on/off switching.

Battery replacement is quick and easy.



Digital processing, the first ever offered on compact pedals, enables sophisticated effects such as delay, reverb, pitch shifter, and harmonist.



Double concentric control knobs offer more sound creation options, surpassing the limitations of ordinary compact pedals.

Compact Pedal Effects Specifications

- 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



The history of BOSS reads like the history of guitar effects. From our legendary CE-1 Chorus pedal—the big, gray box that started it all in 1976—to the world's favorite line of compact effects pedals, we've been responsible for more guitar innovations than just about anyone else. Our compact pedal lineup began 30 years ago in 1977 with the classic OD-1 OverDrive.

Its warm, smooth overdrive sounds and breakthrough BOSS pedal features— heavy-duty construction, rubber pads on top and bottom, recessed control knobs, silent switching, a built-in LED, and easy battery replacement—immediately set it apart from other stomp boxes on the market. And it established the masterful design for all other BOSS effects pedals since.

Throughout the years, BOSS has continued to define the cutting edge of guitar effects. Innovative digital processing allowed pedals like our original DD-2 Digital Delay to deliver studio-quality effects comparable to rackmount units. Dual concentric knobs allowed a greater range of control. And from modern breakthroughs like the ultra-programmable Twin Pedals to the

obscenely heavy sounds of the MD-2 Mega Distortion, BOSS continues to push the envelope with every effects pedal we produce. Thumb through the following pages and get to know the complete effects lineup from BOSS . . . the only company that's sold over 10 million effects pedals worldwide.

ADD DISTORTION

Guitar—offering more tonal depth than any other instrument

The guitar gives you expressive options that go beyond the amp, effect, or even the guitar model used. Everything from the type of pickup, string gauge, picking strength, and picking position contributes to the overall tonality. That's why playing rock guitar is so awesome—no other instrument gives you so much freedom to create your own signature sound.

- String gauge or pitch influences guitar tonality.
- Distortion effects change greatly depending on specific pickup types, such as single-coil or Humbucking.
- Pickup position also counts. With the pickup close to the neck, a mellower, rounded sound is produced, while using the pickup near the bridge produces a sharper sound.
- The tone control on the guitar helps to vary distortion effects.
- The quality of the shielded cord affects the sound quality.

Overdrive & Distortion

A key component of creating your sound, distortion effects units fall into two categories:

- **Overdrive:** Produces the natural, warm-sounding distortion like the sound of an overdriven tube amp.
- **Distortion:** Creates harder distortion effects ideal for heavy metal and hard rock.

Distortion effects: Yesterday...

Back in the days when PA systems were designed strictly for vocals, the only way to boost guitar volume was to turn your amp up to 10. Distortion effects occurred naturally as input signals overloaded the vacuum tube preamp and output stage as well as the speakers. A beneficial side effect was the unique tones that distortion created.

... and Today

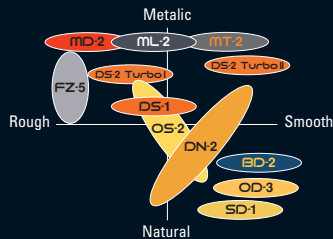
Distortion has evolved from simple overdrive into a wide variety of effects. Consequently, today's guitarists are very particular about effects units, amps, and the type of distortion they want. BOSS knows that and offers a wide selection of Overdrive and Distortion units.

- Amp volume and tone control are crucial to getting your sound.
- Amp sound characteristics depend not only on the output stage but on the cabinet and speakers as well.

For a great guitar sound, start with the right distortion.

Wondering about the differences between BOSS' 12 OverDrive and Distortion pedals? The following chart will give you an idea as to each pedal's sound.

Distortion Chart

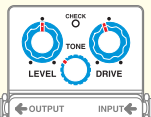


OD-3

The OD-3 is the ultimate BOSS OverDrive unit, capable of producing the widest range of smooth overdrive tones with a dynamic response which surpasses any other overdrive pedal on the market. Based on a dual-stage overdrive circuit, the OD-3 sounds bigger and fuller than previous pedals. Sustain for days with a tone to die for... that's the OD-3.

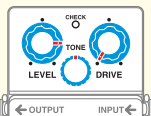
Try This!

For fat, crunchy Strat rhythms



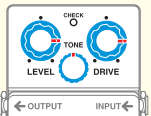
This setting gives you those full, crunchy overdrive sounds that work so well with single-coil pickups. Tons of sustain, with that expressive soulful overdrive sound.

To use as a booster



This setting boosts amp gain, resulting in powerful distortion. The key is to limit the DRIVE knob to the 9 o'clock position and, for the ultimate in distortion, to push the LEVEL control to the max.

For big, fat solos



When you really want your solos to punch through, crank the OD-3's Level and Drive controls to three o'clock. Then set the OD-3's Tone control as desired to get a fat, round solo sound that'll have 'em begging for more!

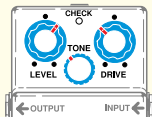


SD-1

The SD-1 produces the warm, smooth distortion of an overdriven tube amplifier while maintaining the subtle nuances of your picking technique. BOSS's unique asymmetric overdrive circuitry delivers a genuine overdrive effect for a classic guitar sound. A tone control is also provided for precise tonal adjustment.

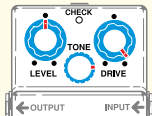
Try This!

To produce a mild overdrive sound



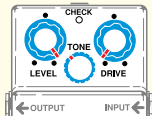
Set the DRIVE control at a lower level and avoid excessive TONE levels. Good for a bluesy sound.

To produce a hard overdrive sound



Turn DRIVE all the way up and boost the highs with the TONE control.

To use as a booster



Set DRIVE at a lower level and turn LEVEL all the way up. With this setting, the SD-1 functions as a gain booster, augmenting amp distortion and providing deeper, thicker sounds.

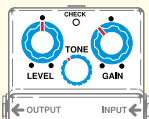


BD-2

The BD-2 is like having a bluesy, vintage tube amp in a compact effects pedal. Whether it's warm, natural overdrive or full-blown distortion, the BD-2 delivers all the expressiveness your guitar is capable of, complete with all the subtle nuances of your playing style. Sound control is as easy as using your favorite amp.

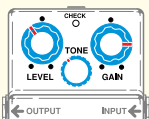
Try This!

To produce a mild overdrive sound



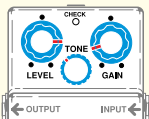
This setting brings out every nuance of your picking dynamics, and responds differently according to your guitar's control settings. Set the TONE any way you like.

For hard overdrive



Perfect for hard rock with a bluesy touch. Turn GAIN to just about max with TONE set slightly lower.

For using the BD-2 as a booster



Set DRIVE to a lower setting and turn LEVEL up. TONE should be adjusted to match your amp's characteristics.

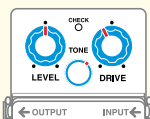


DN-2

The DN-2 is an exciting new type of overdrive pedal that reacts to the intensity of your performance. This unique pedal is equipped with Roland's Dyna Amp technology, which lets you create unique tone transitions based on picking dynamics. Get a transparent clean output sound by playing softly, for example, and a powerful overdrive by picking aggressively.

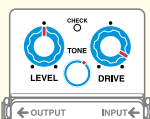
Try This!

Velocity-controlled crunch



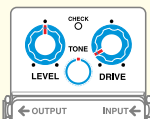
Turn the DRIVE control knob to a moderate setting for a crunchy sound and, based on the power of your backing chords or cutting stroke, the DN-2 will act as the perfect partner in delivering a truly tasteful performance.

For solos with long sustain



While providing high-gain distortion, akin to turning an amp to full volume, the DN-2 can also capture each delicate nuance in your picking expression. Control of the depth of distortion is also available by simply adjusting the guitar's volume.

For clean chord play



Though the DN-2 offers a clean, beautiful tone, this setting also provides a stronger, rougher effect when you put a little more velocity behind your playing. It's particularly well-suited for humbucker pickups.

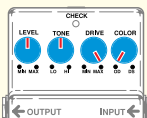


OS-2

The OS-2 gives you a choice of overdrive or distortion or lets you combine both—all in a single compact pedal. This integration gives you more options than using serially connected units, and provides hard distortion that maintains the subtle nuances of single-coil guitar pickups.

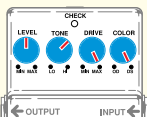
Try This!

For natural overdrive



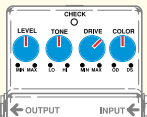
Turn the COLOR control all the way to the OD side. With this setting, the OS-2 functions strictly as an overdrive effect. Turn DRIVE all the way up to MAX to get hard distortion. This is a perfect sound for Humbucking pickups.

For nasty distortion



Turn the COLOR control all the way to the DS side. With this setting, the OS-2 functions strictly as a distortion effect. Turn DRIVE all the way to MAX to obtain a distinctive distortion sound with a hard edge.

For a mixed overdrive/distortion sound



Set the COLOR control right in the middle to get a mixture of overdrive and distortion sounds. Apply a strong dose of DRIVE for a thick, versatile sound.

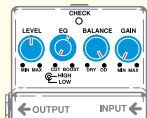


ODB-3

The ODB-3, a standard overdrive unit for bassists, works over the entire bass guitar frequency range including 5-string basses. By mixing the effected sound with the bass signal you always get great sounding distortion while maintaining all the power and presence of the regular expansive bass sound. The ODB-3 also makes a good gain booster.

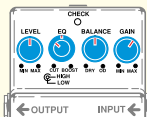
Try This!

For natural overdrive



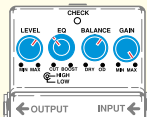
One of the great features of the ODB-3 is an extremely wide GAIN range. For this particular setting, however, set the GAIN at a minimum level to create a natural overdrive. Cut the highs with HIGH EQ. Turn BALANCE to the OD side.

For riffs



Center BALANCE and increase GAIN to achieve harder distortion. This setting is ideal for riffing on a heavy beat.

For a more over-the-top sound



Raise LEVEL and set BALANCE slightly toward OD. Set GAIN to max.

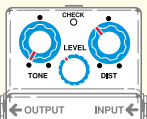


DS-1

The DS-1 provides a harder distortion effect for guitar and keyboard sounds. Instead of toneless, fuzzy distortion, the DS-1 faithfully reproduces all the subtle nuances of your playing dynamics, from whisper-quiet to screaming loud. The onboard TONE control allows you to tailor the overall sound to your liking.

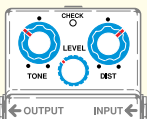
Try This!

For mild distortion



This setting gives you mild, mellow distortion. For best results, use your pickup closest to the neck.

For hard distortion



For this setting you should use your bridge pickup. When the TONE level is raised, highs are strengthened and a powerful distortion effect results. Adjust the amp and guitar volume carefully to avoid excessive effect depth.

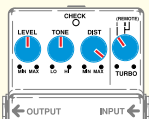


DS-2

The DS-2 features twin TURBO modes. TURBO Mode I produces warm and mellow distortion with flat frequency response. TURBO Mode II provides biting distortion with a mid-range boost that's great for leads. The built-in remote jack allows you to connect an external footswitch such as the FS-5L for instant, hands-free switching between modes.

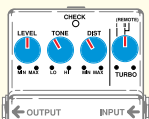
Try This!

For standard distortion



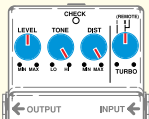
This setting gives you standard Turbo Mode I sounds. Even with DIST all the way up, you get a smooth, hard distortion without breakup. This is an effective setting for solos.

For hard rock chord work



Turbo Mode II gives you a full mid-range sound. Set DIST at a moderate level to obtain a rough, street-level sound. This setting is ideal for hard rock chord work.

For a grunge fuzz sound



This is where Turbo Mode II really shines. Turn DIST and TONE all the way to right. The result is a savage distortion sound with distinctive filtering. Perfect for alternative and grunge music.

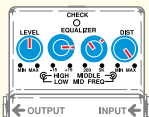


MT-2

Equipped with a dual gain circuit, the MT-2 provides super-long sustain and heavy mids and lows like a stack of overdriven amps. With three-band EQ, a wide range of distortion textures is at your command.

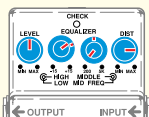
Try This!

For a fat metal sound



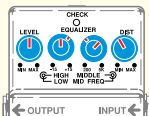
Boost the highs and lows with EQ. Great for metal solos and riffs.

For aggressive thrash metal



To get the MT-2's unique, extremely distorted sound, boost HIGH and LOW and cut MID. Set DIST fairly high. This is a no-holds-barred, aggressive sound ideal for thrash metal.

For '70s power rock



This setting gives you a great '70s power rock sound with fat, powerful mids—great for arena-rock riffs. After boosting the mids, find the best sound by adjusting the FREQ control.

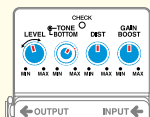


MD-2

Watch out! The MD-2's dual Distortion and Gain Boost circuits take thick, heavy sounds to a whole new level. Special Gain Boost and Bottom controls let you shape your tone for maximum volume and low-end punch—perfect for crushing "new school" metal sounds and beyond.

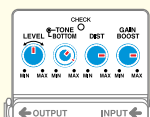
Try This!

MD-2 Standard Sound



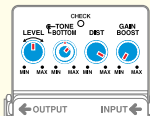
This setting will give you a great sound for playing heavy rhythm parts.

Powerful Low Boost



Crank up the BOTTOM, DIST and GAIN BOOST knobs for some boosted, over-the-top sounds with massive low-end.

Solid Distortion



Use this setting to kick up your distortion levels without boosting the overall gain.

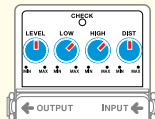


ML-2

The ML-2 easily delivers massive distortion and gain with heavy lows for playing Nu Metal, Grind Core, Industrial, Hard Core, or any genre that requires crushing sound. The ML-2's ferocious and biting tone will complement and cut through any blast beats your rhythm section can create.

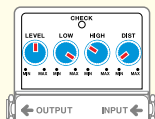
Try This!

For solid, heavy riffs



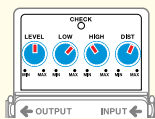
If there's a classic setting for the ML-2, this is it. Emphasizing the aggression and sharpness of your playing through the HIGH & LOW EQ controls, this setting is perfect for low, heavy riffs for full-range solos alike.

For extreme drop-tuning



This setting provides a dense, compressed sound, making the ML-2 highly compatible for use with 7-string guitars. Squeeze the settings slightly to add distortion, and activate the mute by down-picking to produce a tighter rhythmic tone.

For death metal that sustains and soars



This setting delivers a soaring tone through long sustains. Even solos higher up on the neck remain strong and are never lost. Combine with rear pickups for an even more powerful sound.

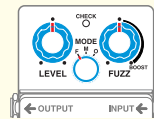


FZ-5 COSM

The FZ-5 uses COSM® technology to authentically reproduce the characteristics and tone quality of three famous vintage fuzz effects of the '60s and '70s. Turn the FUZZ knob to the BOOST and you'll create an intense distortion that exceeds the original instruments.

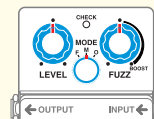
Try This!

For a psychedelic sound



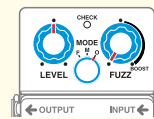
Use the "F" mode to create a compressed fuzz tone. The thick sound of the FZ-5 coupled with long sustains will result in guitar leads that revives the wild rock sounds of the Hendrix era.

For a trebly fuzz



Select the "M" mode to add a sense of compression and an emphasized high range. The crisp bass also delivered by the FZ-5 is perfect for tight riffing. For an even more radical sound, turn the FUZZ control into the BOOST range.

For multi-octave solos



The "0" mode adds sounds an octave up while damping the tone. To increase that effect, drop the FUZZ control, which produces an even more melodic sound.

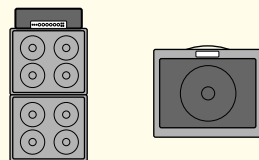




ADD DISTORTION

There are several ways to “boost” your overall signal level for guitar solos and melodic lines. You can run an overdrive unit into a cranked amp, use two distortion pedals (or a distortion and overdrive pedal) simultaneously, or even use a compressor or equalizer pedal. Try one of the following pedal combinations and settings to really “cut through” at your next gig.

Combining boost effects with your guitar amp.



For a crunch sound beyond what your stack-style guitar amp delivers, try the SD-1 coupled with a OS-2 for solos and melodic lines. For a bluesier type of overdrive sound, try the BD-2 into a medium-gain combo amp.

Using an overdrive unit



As the signal input to the amp increases, the distortion gets harder. Using an overdrive unit, raise the input signal gain. Here are two typical setups. Setting the amp for crunch gets the best results.

Using two distortion units (DS-2+MT-2)



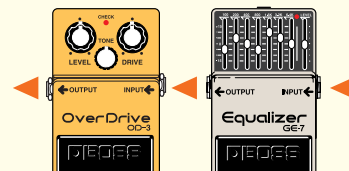
For an extreme distortion sound with earth-shaking results, plug into the DS-2 for a nice pre-boost and then plug into the MT-2 to take it over the top. To get a milder sound suitable for blues and rock solos, use the BD-2 or OD-3.

Using two distortion units (SD-1+BD-2)



When using the SD-1 to boost gain, set the SD-1's DRIVE control lower and LEVEL higher. Set the BD-2 for normal distortion. For backing, only switch on the BD-2. For solos, stomp on the SD-1 for harder-edged distortion. Remember that noise or feedback can occur depending on the effect's settings when using it as a booster.

Using an equalizer or compressor



An equalizer and compressor can also be great boosters. Using the equalizer will raise gain as well as emphasize distortion over a specific frequency range. Using a compressor can also create a distinctive boost by varying tone and attack.



Distortion varies depending on the type of guitar pickup

There are two main types of guitar pickups, and they form the basis of an electric guitar's sound.



Single-coil pickup

Single coil pickups are famous for their clear, biting tone. Some single-coil pickups include a built-in battery for increased output.



Humbucking pickup

Humbucking pickups are consist of two single coils aligned with opposing magnetic fields. This type of pickup provides higher output, more distortion, and a darker, fatter sound compared to single coils.



Delay & Reverb

- **Delay:** Digitally records the input signal and delays it for the time specified, then plays it back for a natural "echo" effect.
- **Reverb:** Combines multiple digital delays to simulate different sound decay characteristics from small rooms to large halls.



Tips Delay Unit

You can achieve a wide range of sounds using BOSS delay pedals. To double a sound for unison duets, use short delay times (50ms or less) without any feedback. A longer, reverb-like delay can be obtained with five delays at 100-200ms. Matching a 300ms delay to your song's tempo emphasizes the beat, creating interesting sequence effects. Finally, using delay times 800ms or longer allows you to play harmony lines over the delayed sound.

Tips Reverb Unit

Reverb Time sets the length of reverberation or decay, while Reverb Level controls reverb intensity. For clean, light reverb, reduce the reverb level and set a longer reverb time. More level and a shorter time provide reverb that's thicker sounding. The TONE control can be used to add brightness or depth to the sound. Key to making a great sound is to start with milder settings and then go for more radical sounds.

Digital Delay

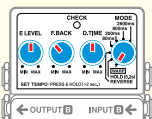
DD-6

Also Great
for BASS

The DD-6 is BOSS' top of the line compact delay pedal, with delay/hold times up to 5.2 seconds, sound-on-sound recording, and built-in tap tempo. It also includes unique Reverse and Warp delay effects—taking your sound to a whole new dimension.

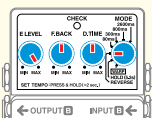
Try This!

Amazing "Warp" Delay



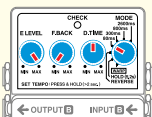
The DD-6's unique "Warp" delay mode creates radical, expansive delays on the fly. Just step on the pedal during the chords and riffs you want to repeat them endlessly.

Reverse Delay Sounds



This setting generates an inspiring reverse delay which can be used to emulate violins or the classic "backwards guitar" sounds of the '60s and '70s.

For a doubling-delay effect



Turn the LEVEL control on the DD-6 all the way up, set FEEDBACK at full left and the DELAY to sound only once. Adjust the delay time to 50ms or less, and a wonderful doubling effect of playing two guitars in unison is achieved.



Digital Delay

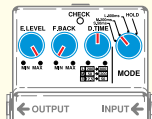
DD-3

Also Great
for BASS

This compact pedal provides a digital delay effect with outstanding quality equivalent to that of a dedicated rack-mount delay unit. In addition to three delay time modes, a DELAY TIME control is furnished, giving you speedy, precise adjustment of delay time continuously within a range of 12.5ms to 800ms. The HOLD function repeats the delay indefinitely.

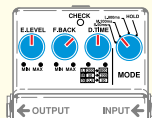
Try This!

To produce a twin guitar sound



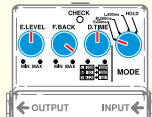
Set the MODE knob to 200ms. Turn the F.BACK control to MIN to get a single delay.

For a reverb-type effect



Great for starting a song with a guitar riff. Delay time ranges from 50 to 200ms.

For a sitar-like effect



Turn the F.BACK control to MAX, then connect an unconnected plug to the direct out.



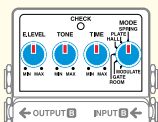
RV-5

Also Great
for BASS

The RV-5 Digital Reverb gives you six of BOSS' best reverbs in a single stereo pedal. New reverbs include a stunning spring reverb simulation, gate reverb, and an all-new "Modulate" mode for sounds with incredible depth.

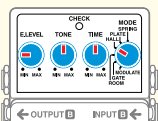
Try This!

Incredible Spring Reverb



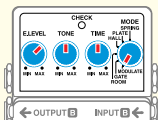
The RV-5 serves up some of the most convincing spring reverb simulations around—perfect for soulful solos, ballads, surf music, big chords and more. All without the hassles and maintenance of an actual spring reverb tank.

For concert-hall sound



This setting simulates a grand concert hall with a soothing and vibrant sound with the RV-5. The goal here is not to raise the effect level too much in the HALL mode.

For spacious chorus



The RV-5's MODULATE mode creates a lush, spacious sound space by adding movement without pitch modulation to the reverb. The effect is especially impressive when used on a clean arpeggio sound.



MODULATE AND DOUBLE SOUNDS

Chorus, Flanger, Phaser, and Tremolo effects can create a variety of essential sounds from shimmering textures to swooshing effects.

- Chorus: Adds dimension and depth for thick, rich sounds.
- Flanger: Creates swirling sounds. Use with distortion for jet-like effects.
- Phaser: Provides rotary-type effects with a full tone.
- Tremolo: Varies the volume cyclically to create pulsating effects.

Tips Combine short and long delays

If you combine a flanger and delay, you can create a distinctive reverb-type effect that's spacious and rich.

Tips Using different types of chorus

When used in mono, chorus provides a denser sound. When used in stereo, a spacious sound with less detuning is obtained.

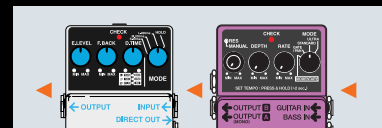
Tips Use a flanger to create a short delay

The basics of flanging and chorus are similar to delay. Turning flanger resonance down to 0 produces a chorus sound, while zeroing out all flanger controls results in a short delay.



Tips Using chorus with other players

If a guitarist and a keyboard player both use a chorus effect, the sound can become muddy. If so, try using clean, "un-effected" sound on the synth or electric piano.

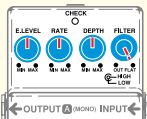


CE-5

The CE-5 chorus covers a wide frequency range and features high- and low-cut filters. This lets you create any kind of chorus effect from a mild, natural chorus to the clear and penetrating stereo chorus effect popular in contemporary music.

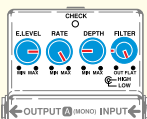
Try This!

For a contemporary chorus effect



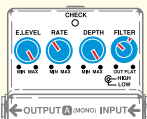
Set both the high- and low-cut filters to flat for a contemporary chorus sound with a wide frequency response.

For chorus without modulation



Flatten the high end with the HIGH filter and cut the low end with the LOW filter, and the CE-5 will give you a stable low end with the chorus effect applied to the upper end. Enjoy a smooth chorus effect without modulation.

For the sound of a vintage chorus



These settings on the CE-5 revive the warm, fresh chorus sounds of the classic CE-1. Use the HIGH & LOW filters to decrease the frequency response characteristics of both the high and low range for a truly special effect.

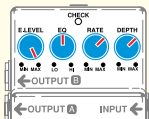


CH-1

The CH-1 SUPER Chorus features sharp sounds with clear highs, and a stereo effect that varies depending on the spacing between the left and right speakers. The EQ function allows you to adjust the tonality from soft, mellow sounds to sharp, cutting sounds ideal for rhythm guitar.

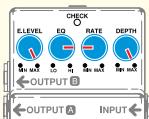
Try This!

To produce a popular chorus sound



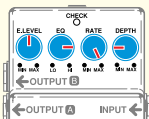
This setting provides a beautiful and popular chorus effect. Turn EQ to the left to cut highs to create a milder chorus sound, which is unique to analog chorus.

When playing arpeggios



Turn DEPTH to the right to obtain an intense chorus effect. Boost the highs with EQ to get a brilliant effect.

For guitar solos with vibrato



Turn RATE all the way up to obtain a light pulsating effect. Try matching the chorus rate to the song tempo.

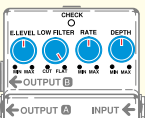


CEB-3

The CEB-3 features a low filter, so you can select the frequency band to which the chorus effect is applied. This lets you get all kinds of chorus effects, from a light chorus on harmonics only to a heavy chorus on all frequency bands. The space synthesis effect incorporated on the CEB-3 guarantees a natural and spacious chorus effect.

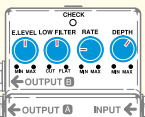
Try This!

For a modern chorus sound



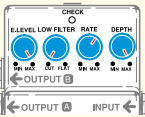
Setting LOW FILTER to FLAT adds full chorus to even the lowest notes. The way you use the low filter is the key to obtaining the chorus effect you want.

For a light chorus sound



With LOW FILTER set to center, increase DEPTH just a bit and set RATE for a slower chorus speed.

For a deeper chorus



Turn up RATE slightly, and set DEPTH and E. LEVEL to max. Then cut the effected sound's lows with LOW FILTER.



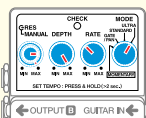
BF-3

Also Great for BASS

The new BF-3 gives guitarists and bassists an updated version of the classic BOSS flanger with the thickest stereo flanging sounds ever. Two new modes (Ultra and Gate/Pan) create stereo flanging with incredible depth—even Slicer-type effects and sounds that seem to “swirl” around the listener.

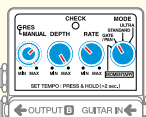
Try This!

Ultra Flanger



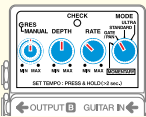
This sound, with maximum MANUAL and DEPTH settings and new ULTRA mode, will give you a deep flange unlike any other pedal.

Rotary Flanger



This setting approximates the sound of a rotating speaker by using the Gate/Pan mode and stereo outputs.

Gate Flanger



By setting the BF-3 in Gate/Pan mode and only connecting one of the stereo outputs, you can get a killer gated flanging sound.



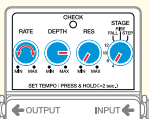
PH-3

Also Great
for BASS

The PH-3 serves up vintage BOSS phasing effects including 4-, 8-, 10-, and 12-stage phasers, plus new “Rise” and “Fall” effects for unidirectional phasing. In Tap Tempo mode, you simply tap the pedal to sync the PH-3’s phasing effects to your music, or you can plug in an optional expression pedal.

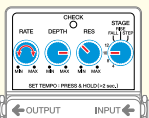
Try This!

Vintage Phase Shift 1



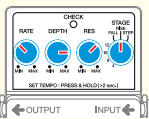
This setting emulates the sound of a vintage phaser pedal, complete with four-stage phasing and moderate DEPTH setting.

Deep Phase Shift



By setting the STAGE control to 10-stage phasing, and bringing the resonance up to about 10 o'clock, you'll get a very deep phasing sound.

Standard RISE/FALL Sound



New RISE and FALL modes give you unique phasing sounds never heard before, with DEPTH enough to cut through any mix.

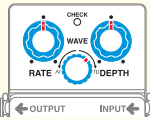


TR-2

The TR-2 gives you vintage tremolo sounds like the classic '60s amps with built-in tremolo. The secret is an LFO waveform with the duty ratio carefully set to an optimal value for guitar. The TR-2 also features a WAVE knob, which lets you alter the LFO waveform from triangle to square, allowing a wider range of tremolo variations.

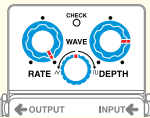
Try This!

For vintage tremolo



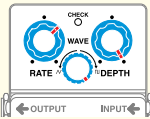
This setting sounds like the built-in tremolo on vintage amps. Use a single-coil pickup in the rear position and add reverb to get a classic surf-rock sound.

For rotary-speaker sound



The TR-2 delivers a rotary speaker sound effect that differs from that of a rotary simulator and other modulation-type effects. Need a faster tempo? Just turn the RATE control to the right.

For a “stuttered” sound



Turn WAVE all the way to right for a stuttered, staccato tremolo sound.



CHANGE TONALITY OF SOUNDS

Equalizer, Wah & Acoustic Simulator

Use these effects to tonally shape your sound.

- **Equalizer:** Lets you boost or cut frequency bands. Two types of equalizers are available — a graphic equalizer that provides easy confirmation of set boost/cut points and a parametric equalizer with continuously variable boost/cut points.
- **Auto Wah:** Automatically creates a foot wah effect depending on your picking dynamics.
- **Acoustic Simulator:** Makes an electric guitar sound like an acoustic.

Tips Equalization adds a new dimension to guitar solos

When you use an equalizer before a distortion unit, connecting another equalizer after the distortion unit lets you add emphasis to certain frequencies to make solos “cut through.”

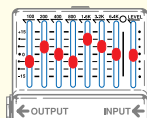


Equalizer GE-7

The GE-7 has seven bands ranging from 100Hz to 6.4kHz, ideal for guitar sounds, with boost/cut of +/- 15dB per band. This lets you completely control your sound and eliminate unwanted feedback, particularly when connected after a distortion effect.

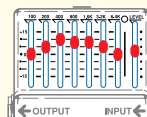
Try This!

For sharp rhythm sounds



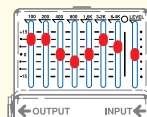
Cut the middle frequency bands around 800Hz and boost at 1.6kHz.

For powerful guitar solos



Boost the middle frequency bands slightly and connect the unit after distortion and overdrive. Set the LEVEL control a bit higher than normal.

For a metal sound



Cut the middle band around 800Hz and boost the lower and higher frequency bands. Place the GE-7 after the distortion or overdrive unit.

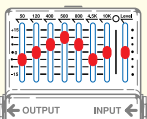


GEB-7

The GEB-7's usable frequency range extends all the way from 50Hz to 10kHz, allowing it to accommodate just about any type of bass guitar, even 5-string basses. Precise tonal adjustment is available through seven frequency bands, providing more control over the all-important midrange which is crucial for achieving a great bass sound. Each band can be boosted or cut over a +/-15dB range for the exact tonal shaping you want.

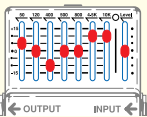
Try This!

For standard rock



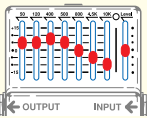
This setting gives you a nice, full sound, with a boost at 500Hz and moderate boosts at 400Hz and 800Hz. Cutting 50Hz and 4.5kHz eliminates muddiness and rounds out the tone.

For slap bass



This setting cuts midrange at 400Hz, while boosting the lows a bit at 50Hz for a bottom-heavy slap. Boosting the highs at 4.5kHz and 10kHz gives you a razor-sharp pop.

To simulate a bass amp



Cutting the high frequency bands gives you a round sound that effectively simulates the sound of a bass amp.



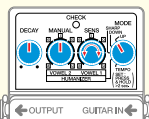
AW-3

Also Great
for BASS

The AW-3 is the world's first compact pedal to produce human-voice type wah sounds using a "Humanizer" effect. In addition to a wide range of killer auto wah sounds, there's an EXP Pedal mode for easy foot control, plus a dedicated Bass input for use with a bass guitar.

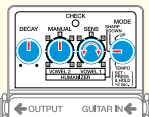
Try This!

Standard Picking Wah



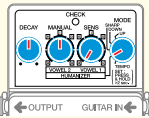
Adjust the SENS knob to match your picking strength, and the AW-3 will produce some very funky dynamic wah sounds.

Synth-like Picking Wah



To get more of a synth-type filter sound, adjust the SENS knob to suit your picking strength, and turn the MODE knob to SHARP.

Human-like Voice



The AW-3 can deliver some head-turning human voice-type wah sounds, with the VOWEL 1 and 2 knobs controlling the type of vowel sounds produced.



AC-3 COSM

The AC-3 employs COSM® modeling to transform the sound of an electric guitar into a beautiful acoustic. Select from four sound types, and use the BODY and TOP controls to reproduce body resonance, attack, and overtones.

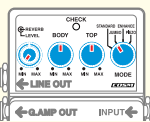
Try This!

For finger picking



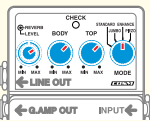
Set the MODE switch to STANDARD for a dreadnought-type reverb that's widely considered to be a classic standard. Center the parameters to get the most expression out of the slightest touch of finger picking.

For playing chords



A rich bass and beautiful upper register are the featured sounds of the JUMBO mode. Because the root and composition sounds are well balanced, this is the best setting for playing chords. Drop the REVERB to minimum to for a raw, live feel.

For playing solos



ENHANCE is the best mode for playing solos. Set the REVERB, BODY, and TOP controls slightly to the strong side to emphasize the echo and attack. Even in band ensembles, this remarkably expansive sound is never buried amongst the other instruments.



SYB-5

Utilizing the latest in DSP technology, the SYB-5 faithfully reproduces the fat and sharp sound characteristic of classic analog synthesizers. The 11 internal synth sounds are based on combinations of three oscillator waves (Saw, Square, Pulse) and filters that fluctuate according to the envelope and LFO changes. The external pedal input means that bassists can put their foot into the performance by connecting an EV-5 Expression Pedal (sold separately) to control the filter and LFO rate.

Try This!

On the SYB-5, first select the sound character using the mode switch. Then, use DECAF/RATE and FREQ/RES to tailor the sound to your taste. For Modes 1,2,4,5,7-11, DECAF/RATE controls the time for the frequency of the filter to move. For Modes 3 and 6, DECAF/RATE controls the speed at which the filter fluctuates. FREQ controls the frequency of the filter while RES controls the feedback amount of the filter.

SYB-5 MODES		
1	INTERNAL SOUND	SAW WAVE: A sharp-edged sound
2		SAW WAVE (-1OCT): A sawtooth wave one octave lower than "1"
3		SAW WAVE (AUTO): Automatically shifts the filter frequency for the sound in "1"
4	INTERNAL SOUND	SQUARE WAVE: A milder sound than that produced with the sawtooth wave
5		SQUARE WAVE (-1OCT): A mixture between the sound "4" and a square wave one octave below it
6		SQUARE WAVE (AUTO): Automatically shifts the filter frequency for the sound "4"
7	INTERNAL SOUND	PULSE WAVE 1: A sharp-edged sound, but one that differs from that produced with the sawtooth wave
8		PULSE WAVE 2: A pulse wave using an all-pass filter. Creates a sound that has depth and motion
9		PULSE WAVE (PWM): A fat, spreading sound by modulating the variations in the width of the pulse wave (Pulse Width Modulation)
10	WAVE SHAPE MODE: The input sound is directly processed to create the synthesizer sound.	
11	Up: The filter's frequency rises when played, then gradually returns to the original frequency Down: The filter's frequency drops when played, then gradually returns to the original frequency	



REGULATE GAIN LEVEL

Compressor & Limiter

- **Compressor:** Reduces hot signal levels and boosts low input levels for a more consistent, balanced sustain with no distortion.
- **Limiter:** Works to cut only input peaks above a preset threshold, leaving the original sound quality unchanged.

Tips A compressor vs. a limiter

While a limiter cuts only the peaks, a compressor acts on the entire signal for overall sound control and produces a sustain effect. Compressors are used to create different sounds—a mellow sound, sustained overdrive using an overdrive unit, or synth-like sounds by combining with a chorus effect. A limiter is mainly used for controlling an overall sound, such as balancing a rhythm sound, keeping an amp or VU meter from overloading, or blunting sharp edges of sounds.



Compression Sustainer

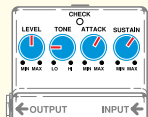
CS-3

Also Great
for BASS

The CS-3 compresses high-input signals while boosting low-input signals, giving you smooth sustain without degrading the quality of the original sound. A range of effects from gentle compression to squeezed sounds is at your command. Designed for outstanding low-noise performance, the CS-3 also provides EQ for precise sonic control.

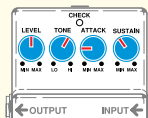
Try This!

For a mellow sound



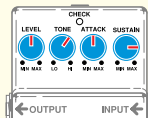
This setting is ideal for solos in ballads or mellow songs. Add a chorus effect for even more depth.

For chord work



This setting balances the volume of each string for smooth chord accompaniment.

For thick, rich sounds



Add Chorus and Delay after the Sustain effect. This setting is good when playing sustaining chords.

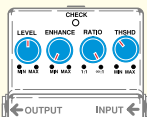


LMB-3

The LMB-3 eliminates harsh volume peaks and keeps your sound smooth and controlled, even when using dynamic pop and slap techniques. **RATIO** and **THRESHOLD** controls give you precise control over limiting parameters.

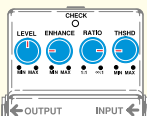
Try This!

For use as a limiter



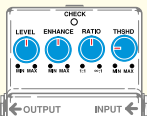
Set **ENHANCE** to **MIN** and turn **RATIO** fully to $\infty : 1$ to get a consistent, stable bass sound across its wide dynamic range.

For finger picking



Raise **RATIO** to change the original bass sound's envelope for natural compression.

For slap bass



Add more **ENHANCE** for greater clarity and presence to make a much more powerful slap sound.



CHANGE SOUND PITCH

Octave & Pitch Shifter

These effects change the pitch of the original sound and can simultaneously output it with the dry signal to produce harmonies.

- **Octave Unit:** Produces sound that's one and two octaves lower than the original signal. These are heard along with the dry signal for a much bigger sound.
- **Pitch Shifter:** Lets you easily shift pitch at various intervals for different effects.



Tips Using an octave effect before a distortion unit

An octave effect can be used to create a monster distortion sound when connected before a distortion unit. To maintain accurate pitch, connect the Octave as close as possible to the guitar in the signal chain.

Tips Pitch shifting with attitude

Using an expression pedal, you can obtain convincing tremolo bar effects without a whammy bar. Just step on the pedal to bend notes up or down in real time. The PS-5's Flutter effect can even simulate fast or slow up-and-down tremolo movement with adjustable timing and pitch.

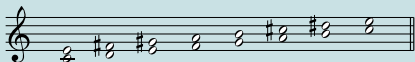
PS-5

Conventional pitch shifter vs. intelligent pitch shifter

A conventional pitch shifter's effect conforms to the direct sound, always maintaining the pitch interval you've set. But an intelligent pitch shifter automatically detects guitar signal pitch and adds correct harmony to the notes played by altering the pitch shift amount as required for more musical enhancement. You can make your choice depending on your specific application.

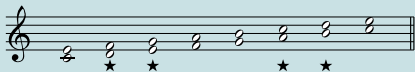
Use a conventional pitch shifter for:

- rock riffs with pitch shifted up a fifth and down a fourth
- a synth-like sound by going up a fifth and up one octave
- whammy bar effects in conjunction with an expression pedal



Use an intelligent pitch shifter for:

- incredibly beautiful twin-guitar harmonies
- quick single-note passages
- rich guitar orchestration



The PS-5 is really two effects in one—an intelligent pitch shifter/harmonist which also gives you wild Tremolo Arm/Flutter effects. Key-specific pitch shifting is possible up to ± 2 octaves. The Tremolo Arm effect bends notes up or down to a pre-selected value, while the Flutter effect simulates a fast or slow slap of a tremolo bar.

Try This!

1 For 12-String Guitar Sound

This setting produces a 12-string guitar sound with a brilliant tone—perfect for ballads and clean, acoustic-style strumming.



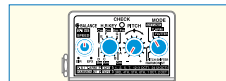
2 For Standard Harmony

Use this setting to produce a super-accurate key-specific harmony on your melodic leads and solos.



3 For Arm Down

This setting simulates the sound of a "dive bomb" on a tremolo bar, dropping your guitar's tuning down to -2 octaves.



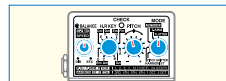
4 For Simulated Cricket

Use this setting to simulate a fast or slow slap of the tremolo bar—without the tuning headaches afterwards!



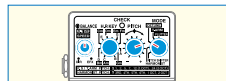
5 For Hawaiian

Produces a lap steel sound with heavy vibrato characteristic of Hawaiian music.



6 For Detuned Sound

The direct signal is overlapped with a slightly pitch-shifted signal for a thick, rich guitar sound.



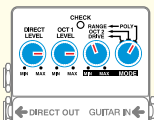
OC-3

Also Great
for BASS

Transform your tone with the OC-3—the world's first compact pedal with true polyphonic octave functionality. The OC-3 features three expressive and powerful performance modes: Poly mode, Drive mode with distortion, and the original OC-2 mode, capable of producing 1- and 2-octave layers. Poly mode allows you to process chords, and designate a note range.

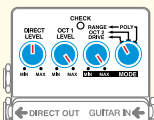
Try This!

Unison performance with guitar and bass



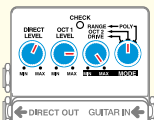
A triple threat—this setting allows unaffected guitar sounds on the first four strings, and unison guitar and bass on the others. You can blend guitar sounds from strings 1–4 and bass sounds from strings 5–6 by setting Range in Poly octave mode.

Simulate a guitar synthesizer



This applies thick distortion to the original sound, and adds a second tone one octave below. You can also pass the original sound through the Direct Out simultaneously.

Heavy-bottom 3-octave unison



Layer a second tone one octave below the original, and a third tone two octaves down. Dial in distortion for an aggressive edge. Bassists will enjoy the extra-heavy bottom this setting provides.

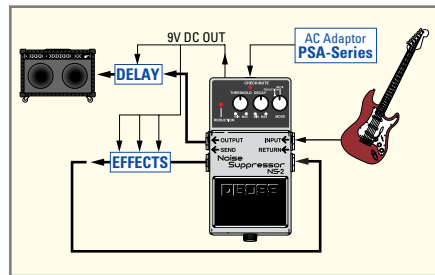


NS-2

The NS-2 effectively eliminates noise and hum of the input signal while preserving the original sound's tonality. The natural attack and envelope are unaffected thanks to BOSS's unique noise detection circuit that precisely separates the guitar sound and the noise components.

Try This!

An effect unit which is a potential source of noise is connected to the Send/Return jack. Connect a delay after the NS-2, not to the effects loop, in order to preserve its natural quality. When connected to an AC Adaptor, the NS-2 supplies power to other effect units.



*Use a Roland PCA-20A (8-PIN parallel) power connection cable.



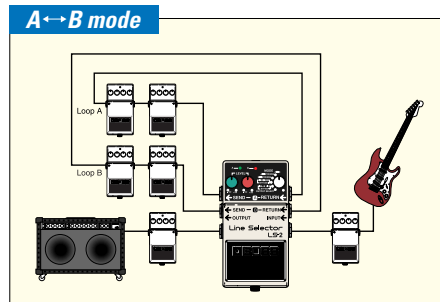


Line Selector

LS-2

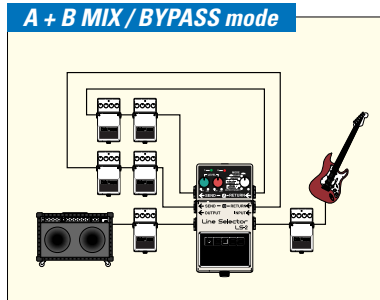
The LS-2 makes it easy to switch settings among several effects and to route input and output signals. Two line loops and six looping modes provide a wide variety of applications. Used with an AC adaptor, the LS-2 can also supply 9V DC power to several BOSS compact pedals. This makes it an ideal power supply and master switching unit for multiple effects setups.

Try This!

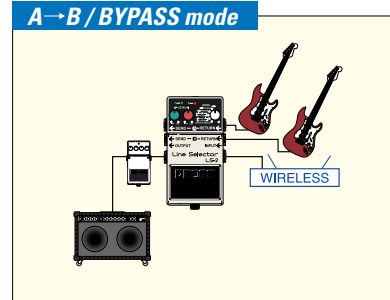


Effects you use for your backing sound are connected to Loop B, while Loop A is used for solos and riffs.

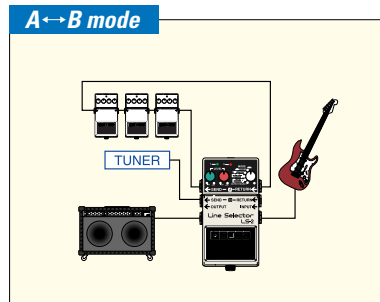
* Use a Roland PCA-20A (8-PIN parallel) power connection cable.



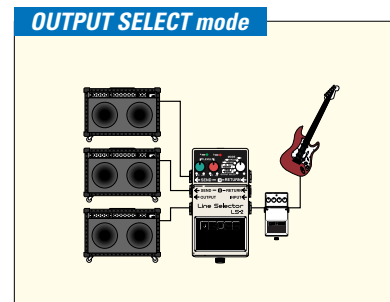
This setting lets you mix a solo sound on Loop A and a backing sound on Loop B.



This setup lets you switch between Strat and Les Paul-type guitars or between a guitar and synthesizer.



This setup is for switching between an effects loop and tuner. Switch to mode B during live performance for silent tuning.



This setup lets you choose between two or three outputs such as switching from a tube amp to a transistor amp to a monster stack, etc.

TU-2

The TU-2 Chromatic Tuner features world-renowned BOSS TU-Series tuning technology in a convenient, easy-to-use pedal. As with all BOSS compact pedals, the TU-2 is both sturdy and reliable, and its bright 7-segment LED ensures that you can read note/string information quickly and easily on the darkest of stages.

Try This!

Tuning with the "Stream" meter

The TU-2's bright 11-point LEDs and a convenient Stream Meter help you stay in tune even in low-light settings or under bright stage lights.



- When the LED movement is fast and toward the right, the note is sharp.
- LED movement gets slower as pitch becomes more accurate.
- When the note's pitch is perfect, the LED movement will stop.

Silent tuning

Connect your amplifier and effects to the TU-2's Output jack. When the tuner is activated (by stomping), its output will be muted, so you can tune the guitar without sending any signal to your amp. If you connect to your amp and effects using the Bypass jack, your guitar signals will be transmitted continuously regardless of the on/off status of the tuner.

Supplying power to the other effects

Use the TU-2 with a PSA-series adaptor and a PCS-20A parallel DC cord to supply power for a maximum of seven* compact pedals.

*The total current draw of the effects connected should be under 200 mA.



—Legend Series—



Popular vintage Fender® amps reproduced via COSM!

The tube amps produced by Fender Company in the U.S. during the '50s and '60s are still highly prized by guitarists all over the world. Approved by the Fender Company, the BOSS Legend Series employs COSM® technology to reproduce the true tone of the '59 Bassman®, one of the most popular Fender vintage amps, and their '65 Deluxe Reverb®. Brought to you by BOSS, these pedals represent an exciting new concept of retro-modern compact effects.



Fender® Bassman® and Deluxe Reverb® are the trademarks of F.M.C. All rights reserved.

— Legend Series —

FBM-1 COSM

Detailed modeling of the Fender® '59 Bassman®!

Powered by COSM® technology, the FBM-1 authentically reproduces the Fender '59 Bassman that was beloved in rock and blues for its strong, bright sound. Fender has granted permission to use the Bassman name and logo to only one company in the world, and, naturally, that company is BOSS.



Fender® and Bassman® are the trademarks of FMIIC. All rights reserved.

: Try This!

By using the FBM-1 as a pre-gain pedal, the unique sound of the Bassman can be added not only in combination with a clean guitar amp, but with a tube amp as well. The gorgeous tone characteristic of the Bassman can be easily reproduced with control knobs and the BRIGHT IN that are just like the original.



— Legend Series —

FDR-1 COSM

Detailed modeling of the Fender® '65 Deluxe Reverb®!

COSM® technology faithfully reproduces the classic '65 Fender Deluxe Reverb and the warmth unique to compact vacuum tube amps. Permission to use the Fender Deluxe Reverb name and logo has only been granted to one company's product in the world — the BOSS FDR-1.



Fender® and Deluxe Reverb® are the trademarks of FMIIC. All rights reserved.

: Try This!

With the FDR-1 employed as a pre-gain pedal, the special sound of the Deluxe Reverb can be used in combination with either a clean guitar amp or a tube amp. Equipped with control knobs just like the original, the FDR-1 perfectly simulates the characteristic spring reverb and vibrato of this beloved vintage amp.



NEXT-GENERATION PEDALS

Power and precision unite in the Next-Generation pedal series. More feature-packed than your standard compact pedal, each Next-Generation-series pedal is built to excel at a specific task, as opposed to handling multi-effect duties. Currently in the lineup:



■ **Twin Pedal Series:** Double your foot power with these unique 2-pedal effects: the RE-20, RT-20, RC-20XL, EQ-20, CE-20, OD-20, and DD-20.



■ **V-Wah®:** The ultimate funk machine! If you're looking for the new King of Wah, this is your box.



DRIVE ZONE

OD-20 COSM

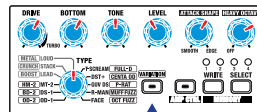


The OD-20 Drive Zone uses advanced COSM® technology to model the sound of classic overdrive/distortion pedals, as well as creating new sound of its own. There are 22 models to choose from, plus new “Attack Shape” and “Heavy Octave” parameters for dialing in subtle nuances or extreme tones. You can even switch amp channels remotely using the OD-20’s Amp Control jack.



Try This!

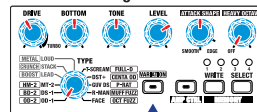
LOUD



Not lit

This original overdrive setting is perfect for a slightly-edgy rock sound with an octave being produced on the low notes.

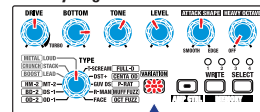
OD-1 modeling sound



Not lit

This setting produces the classic sound of the BOSS OD-1 OverDrive pedal, world renowned for its smooth tone and sustain.

Fairly bright metal sound



Lit

This custom sound has lots of bottom and enough top-end and gain to shred through everything from new-school metal to punk.



CE-20

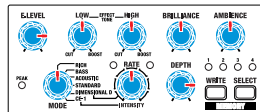
Also Great
for BASS

From vintage chorus effects to totally modern sounds, the CE-20 is the ultimate programmable stereo chorus pedal. Start with six distinct chorus modes—from acoustic guitar and bass—optimized sounds to classic “Dimensional D” and “CE-1” effects—then tweak your sounds and save them into memory for instant recall.



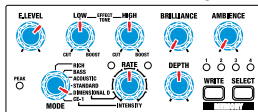
Try This!

■ SUPER RICH



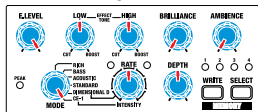
This full, rich chorus sound is about as lush as it gets, yet remains musical enough for a variety of playing.

■ DIMENSIONAL D modeling sound



In DIMENSIONAL D mode, the CE-20 yields the classic sound of the Roland SDD-320, with the RATE knob selecting between the various settings.

■ CE-1 modeling sound



This mode produces the vintage CE-1 chorus sound, complete with INTENSITY control.



DD-20

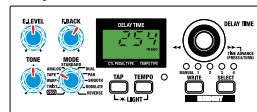
Also Great
for BASS

Strap on a seatbelt for BOSS' most powerful delay pedal. The DD-20 offers up to 23 (!) seconds of true stereo delay, 11 delay modes (including modeled analog and tape delay, and sound-on-sound recording), Smooth and Twist modes for subtle-to-radical delay effects, a memory function for changing delay modes seamlessly, and a new push-button knob for setting delay time in fine or coarse increments.



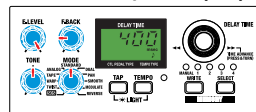
Try This!

■ Tape echo sound



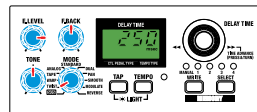
A beloved blast from the past—this patch emulates Roland's renowned Space Echo RE-201. It's a classic dual tape-head effect.

■ Dotted-8th delay with tempo input



A dotted-8th delay can be created with perfect timing by simply tapping the tempo with the DD-20's foot pedal. Naturally, the tempo can be set for all delay-mode sounds.

■ Wild twist sound



The delay sound oscillates and accelerates steadily when you hold down the ON/OFF pedal in the TWIST mode. Combined with distortion, this setting takes you on a truly wild ride!



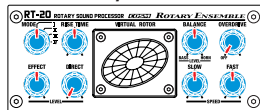
RT-20 COSM

The RT-20 faithfully reproduces classic rotary sounds through COSM® modeling. Controls include rotary speed, rise and fall time when switching between SLOW and FAST, volume adjustment for both horn and bass speakers, OVERDRIVE, and a stunning visual display of the virtual rotors.



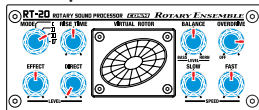
Try This!

Classic rotary effect



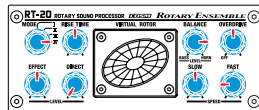
Setting the mode to "I" faithfully reproduces the classic rotary sound via COSM®, delivering a spatial effect that revives the sound of the '60s.

Wild spin effect



Mode "III" combines the rotary sound with stacked-amp distortion. Use the standard settings for the SPEED control knobs and deepen the DRIVE setting for solo phrasing.

Uni-V



Mode "IV" delivers the famous rock guitar sound of the '70s. Add animation to the sound by continuously varying the SPEED with the expression pedal (sold separately).



EQ-20

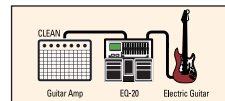
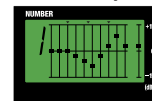
Also Great for BASS

This innovative pedal gives guitarists, bassists and other live performers 10 bands of programmable EQ with stellar sound quality. Physical sliders make instant EQ tweaks easy, and a straightforward Write function permits instant storage of EQ settings into the nine memory locations.

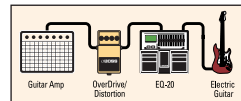


Try This!

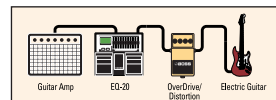
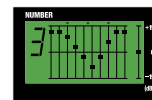
Guitar Clean Cutting



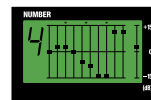
Mid Boost for the Lead



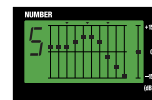
Thrash/Metal



Acoustic



Jazz Guitar





RE-20

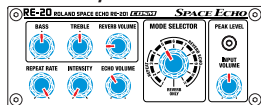
COSM

Roland's legendary RE-201 Space Echo is reborn through COSM® technology in the RE-20. The classic chorus effect produced through tape speed, compression, and saturation are meticulously reproduced. Features include 11 types of echo and reverb effects, a virtual tape display, tap tempo, and parameter control via expression pedal.



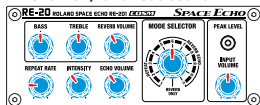
Try This!

Short delay



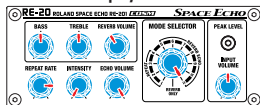
This setting creates a short delay and emphasizes ambience. By selecting the 1st playback head and Mode 5, you'll get a spatial sound thanks to the addition of light-reverb echo.

For a rich, luxurious sound



Try this setting for a luxurious and spacious feeling unique to the RE-201 Space Echo. When used in stereo, an immersive reverb is added to the delay for spatial impact.

Three virtual playback heads+reverb



This is an excellent setting for playing short, muted phrases. By minimizing the intensity and maximizing the echo volume, you'll create the perfect environment for complex phrasing.

PW-10

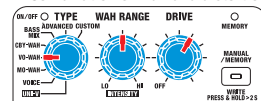
COSM

Also Great
for BASS

The PW-10 V-Wah is the world's first programmable modeling wah pedal, giving you instant access to six classic and modern wah pedal sounds, as well as all-new "Double Resonance," "Uni-V" and "Voice" modes! It also features overdrive/booster effects, three digital memories for storing sounds, noise-free infrared operation and more.

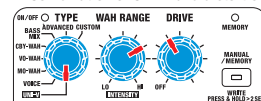
Try This!

Combination of wah and distortion



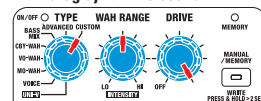
Combining the VO-WAH mode with a moderate DRIVE setting can give you some classic wah sounds from the '60s.

Combination of UNI-V and distortion



The UNI-V mode is great for achieving that classic swirling effect, complete with a moderate WAH RANGE and a touch of DRIVE.

Analog synth-like sound



To get a cool analog synth-type sound, set the TYPE to CUSTOM, give it a medium WAH RANGE, and add a ton of DRIVE.



AMAZING LOOP MANIPULATION

Powerful Loop Recorders for Live Performance

Loop, Layer, Rock! Transform a single instrument or voice into a wall of layered sound. Unleash the ultimate guitar or bass solo onstage. Plug in a mic and create cool vocal layers.

Loops for All Musicians

With an RC-series Loop Station, guitarists and bassists can build the ultimate solo live onstage. DJs & rappers can create on-the-fly remixes and loops. Vocalists can plug in a mic and start singing and layering!

Loop Station™

RC-50

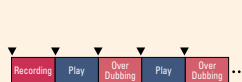
Also Great
for BASS

For those awaiting the arrival of a new industry-leading looper, the wait is finally over. Introducing the RC-50—the most feature-laden Loop Station BOSS has ever built. It's the best live looping tool ever built for that matter. Housed in a spacious seven-footswitch floor unit, the RC-50 lets you manipulate three stereo phrase tracks simultaneously, with each track supporting multiple overdubs. In other words, you can record phrase upon phrase, one by one, on each track, resulting in a monstrous stack!



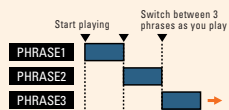
Try This!

Basic Operation



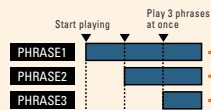
Create multi-layered by following the simple instructions above.

Single Mode



Switch freely between the three loop channels.

Multi Mode



Experiment with different loop textures by overlapping the channels.



RC-20XL

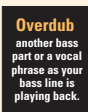
Also Great
for BASS

Explore the expressive options of sound-on-sound performance with the best-selling RC-20XL. Layer phrase upon phrase until you fill up the 16 minutes of ample recording space. Create a massive “one-person band” experience, build the ultimate solo, change tempo without changing pitch, undo mistakes, and do it all live in real time.



Try This!

Sound on Sound

Start recording
by pressing
the pedal.**Play**
a bass line.Stop recording
by pressing
the pedal.Start overdubbing
by pressing
the pedal.**Overdub**
another bass
part or a vocal
phrase as your
bass line is
playing back.Finish overdubbing
by pressing
the pedal.**Solo over your
recorded phrases.**

RC-2

Able to record 11 phrases for up to 16 minutes, the RC-2 is ideal for sound-on-sound layering or as a backing machine, a basic sampler, a phrase trainer, etc. Guide patterns are provided for accompaniment. RC-2 is also connectable to CD and MP3 players.

Try This!

Creating loops with the mode

1 Select an empty phrase track.

2 Set the MODE knob to .

3 Red light will illuminate. Step on the pedal to start recording.

4 Green light will illuminate. Step on the pedal to stop recording and begin loop play.

5 Yellow light will illuminate. Step on the pedal to start overdubbing.

Overdub!
6 Green light will illuminate. Step on the pedal to end overdubbing. (Playback begins after overdubbing is stopped.)

7 Not lit. Step on the pedal twice to stop playback. Step twice.

Play!

ACOUSTIC PROCESSORS

Enhance the Clarity, Warmth, & Richness of Your Acoustic Instrument

Who says stompboxes are just for electric guitarists? BOSS proudly offers a trio of specialized processors for piezo-equipped acoustic guitars. Prepare to be amazed as your instrument transforms under the control of COSM®-powered modeling. Acoustic pickups often diminish the full-bodied sound of an acoustic guitar, and can significantly alter the beautiful tone of the instrument. The AD-series can give piezo-equipped acoustic guitars the warm tone of a properly miked acoustic sound in the studio.

Acoustic Guitar Processor

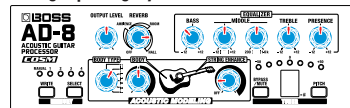
AD-8 COSM

A dream machine for acoustic guitarists who want to improve their sound, the AD-8 can enhance any piezo-equipped steel-string with the warmth and tonality of the world's finest acoustic guitars via COSM® modeling. Six guitar models are provided. The AD-8 also lets you control body resonance and overtone with the Body and String Enhance knobs, and offers automatic feedback elimination, high-quality reverb, 4-band active EQ, an onboard chromatic tuner with Mute, four preset memory locations for switching sounds instantly, and balanced XLR outputs.



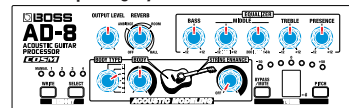
Try This!

■ Finger-picking style



This setup employs Body Type 2, and provides solid lows and a clear, distinct overall sound with reverb. The String Enhance function can be used to sculpt the tonal characteristics.

■ Strum-picking style



Using Body Type 3, this responsive patch imparts a unique seasoned tone, with rich lows and bright, clear highs.

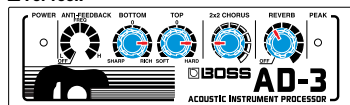
AD-3

The BOSS AD-5 raised the bar in studio-quality acoustic instrument processing. Now, with the AD-3, you get a floor-mount, performance-friendly version of the AD-5. Quite simply, this floor-based unit is the gigging guitarist's best friend. The foot-switchable bi-stereo chorus offers split-frequency processing (Low and High), the studio-quality reverb provides clear, deep reverberation, and the dual Anti Feedback function ensures a squeal-free performance. Connect directly to a guitar amp, as well as to a PA via stereo out.



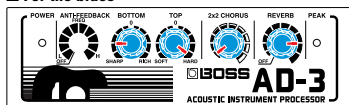
Try This!

For rock



To get maximum low-frequency power, turn the AD-3's BOTTOM (bass) knob toward the RICH side. Try turning on CHORUS during an arpeggio for a surprisingly effective result as well.

For the blues



To emphasize the melody line, set the TOP (treble) on the HARD side and increase the REVERB. To get a tight bluesy sound, decrease the BOTTOM (bass) amount.

CHALLENGE YOURSELF

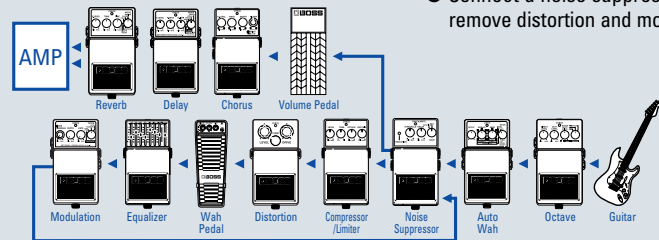
CREATING NEW SOUNDS

There's nothing more satisfying for a guitarist than creating your own original sounds using a combination of effect units. Here are some samples of different effects settings, from classic rock sounds to special effects. Use these as a reference and a motivation for creating your own cool sounds.

Some basics for making the most of effect units

Use these guidelines when connecting effects pedals.

- Effect units that detect an envelope, such as auto wah and octave, should be connected close to the guitar. The wah pedal is generally connected before the distortion pedal so it can regulate the distortion, though hooking it up after the distortion still sounds good. The wah effect varies depending on whether it's before or after the distortion in the signal chain. Try it both ways to see the difference.
- Connect EQ after your distortion so you can totally shape your sound.
- Connect reverb units toward the end of the chain for maximum effect.
- Decide where to connect chorus/delay/reverb by careful monitoring of the resulting sound.
- Connect a volume pedal before delay effects so that the volume can be lowered without cutting off the reverberation. If connected before the distortion pedal, the volume pedal controls the distortion intensity.
- Connect a noise suppressor to remove distortion and modulation noise.



CHALLENGE YOURSELF

Classic Overdrive Sound

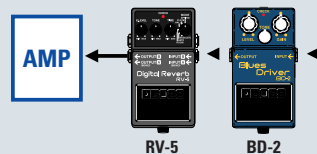
This setup gives you just enough bite to make your chords and riffs cut through, live or in studio. Add in just a touch of color with the CH-1 Super Chorus and some depth with the DD-6 Digital Delay, and you're all set to rock.



CHALLENGE YOURSELF

Classic Surf Sound

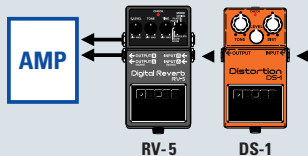
To really ride the wild surf, there's no easier way than this tight setup. The BD-2 produces the tube-driven tone, while the RV-5's Spring mode makes things shimmer.



CHALLENGE YOURSELF

Straight-Up Distortion

This setup is as basic as it gets, providing just the right amount of crunch and depth (courtesy of the RV-5) for serious riffing and power chords.



CHALLENGE YOURSELF

Big Ballad Tone

By combining the OD-20 Drive Zone in classic "OD-1" modeling mode, then connecting a CE-20 Chorus Ensemble, you've got that classic overdriven-chorus sound that launched a thousand ballads.



CHALLENGE YOURSELF

Versatile Setup

This setup provides a very versatile guitar sound. The DN-2 is used when you need a natural overdrive tone. The MT-2 is used when you need full-out thrash metal. Use the DD-3 as a doubler set at about 20ms. For chorusing add the versatile CE-5. Its filtering gives you a classic CE-2 warm chorus or a more contemporary sound depending on the settings.



CHALLENGE YOURSELF

As Fat as It Gets

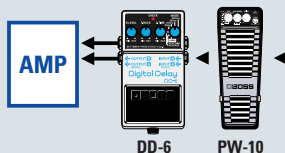
When nothing but the fattest, meanest distortion tones will do, this setup is what you want. Start with the insanely huge MD-2 Mega Distortion, throw in a NS-2 Noise Suppressor to clean things up, then add a "doubling" effect with the DD-6.



CHALLENGE YOURSELF

Funk Time

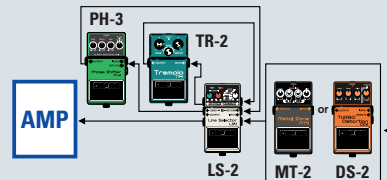
This tight little setup will have your crowd movin' and groovin'. It starts with the popular PW-10 V-Wah® and then adds a touch of rhythmic delay courtesy of the DD-6.



CHALLENGE YOURSELF

Tremolo Sound

Connect a DS-2 to the input of an LS-2. Set the LS-2 to A + B Mix mode and connect a TR-2 using a short wave to Loop A. Then connect a PH-3 to Loop B for leads. You can now blend your tremolo sound with your lead sound as desired.



CHALLENGE YOURSELF

Summon the sound of '60s rock

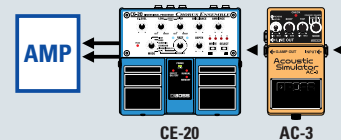
Based on the audacious fuzz sound of the FZ-5, this setting revives the classic rock of the '60s. Add a PW-10 wah pedal for more expressive performance capabilities or combine with the RT-20 for a legendary rotary-speaker effect.



CHALLENGE YOURSELF

Big, Rich Acoustic Tone

With this setup, you can get your standard electric guitar to sound like a lush acoustic-electric. Just plug into the AC-3 Acoustic Simulator and then add a hint of chorus with the flagship CE-20 Chorus Ensemble. You won't believe your ears!



CHALLENGE YOURSELF

Techno Synth Sounds for Guitar

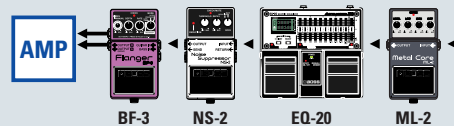
This unusual pedal setup simulates a keyboard's signal path, with the sound being generated by the PS-5 Super Shifter and going through the PH-3 Phase Shifter and DS-2 Turbo Distortion for a very futuristic and aggressive synth-type sound. Welcome to the future.



CHALLENGE YOURSELF

Seven-String Metallic

To get a monstrous seven-string metal sound, start with the ML-2 Metal Core and add the EQ-20 Programmable EQ on preset four to tighten up the low end. Use the NS-2 Noise Suppressor to wipe out any excess noise, and finish off with the BF-3 Flanger for some metallic icing on top.



CHALLENGE YOURSELF

An In-Your-Face Bass Solo Sound

This setting starts with a healthy amount of DS-1-type distortion and adds an octave above the original sound courtesy of the PS-5, making it great for in-your-face bass solos. Toward the end of the music example, the BF-3 Flanger is added (in "Ultra" mode) for an effect that will cut through any mix.



CHALLENGE YOURSELF

A Deep, Groovin' Bass Tone

This setting employs an OC-3 Octave pedal with a CS-3 Compression Sustainer. The result is a deep, rich bass sound in the vein of the classic analog synths of the '70s. Perfect for deep, funky, nasty grooves.



CHALLENGE YOURSELF

Killer Jet Phasing Sounds

By combining the popular "Heavy Octave" sound from the OD-20 and some rich, sweeping phaser tones from the PH-3, this pedal combination serves up some killer jet phasing sounds. It's perfect for everything from retro rock to techno.



MULTIPLE EFFECTS

GT SERIES

Command the Stage with GT

For the ultimate in power and convenience onstage, plug into a BOSS GT-series floor effects processor. These COSM®-equipped, all-in-one effects units are attractive yet tough, and provide towering tone.

ME SERIES

Maximum Processing with a Minimal Footprint

Meet BOSS's famous floor-based multi-effects processors with ridiculously easy-to-use, intuitive interfaces. Best of all, there's a model for guitar and one for bass!

GT-8

Guitar Effects Processor

COSM

Flagship Multi-Effects Floor Processor

Double your power with BOSS's new GT-8 floor-based mega processor. Loaded with twin COSM® modeling engines and powerful multi-effects, it brings unprecedented performance and tonal control to the stage and studio. The Dual COSM amp section provides two discrete amp channels; layer and manipulate each engine independently to create unique and expressive sounds. If you want the most powerful, professional processor for the floor, this is the one.



ME-50

Guitar Multiple Effects

COSM

Killer Tone Meets Ease of Use

What you see is what you get on the ME-50. This super-friendly multi-effects processor for guitar is built tank tough, and packed with features. In addition to real-time programmability, dozens of pro-quality presets are built in, including delay, reverb, compressor, COSM overdrive/distortion, modulation, and more. Dedicated knobs are provided for each effect section. There's also a built-in expression pedal, and inputs for two footswitches. If you want great-sounding effects without programming hassles, the ME-50 can't be beat.



GT-6B

Bass Effects Processor

COSM

Professional Bass Multi-Effects with COSM Technology

The GT-6B is BOSS's flagship bass multi-effects processor. This professional floor-based unit offers COSM Bass Amp Modeling with modeled compression, plus other "must have" effects, such as COSM overdrive/distortion, COSM wah, and reverb/delay. There's also a true analog bypass, plus XLR and digital outputs for recording applications—making the GT-6B the leader in high-quality multi-effects for bass.



ME-50B

Bass Multiple Effects

COSM

Big-Time Multi-Effects for Bass

Bass players, this one's for you. The ME-50B takes the best of the ME-50 and caters it for the bottom end. In addition to COSM compressor/limiter and drive effects, the ME-50B offers T-Wah, Slow Gear, Defretter effects, and more. The innovative Sound Hold function sustains a low note while you jam over it, and the sound-on-sound recording feature, complete with Kick Drum effect, makes keeping time a breeze.



ME-20

Guitar Multiple Effects



Expressive Effects That Will Ignite the Stage

From the smallest compact pedal to the most feature-laden rack, the BOSS brand is synonymous with effects that sound great and are built to last. Today BOSS expands its famous ME series multi-effects family with the ME-20, a powerful multi-effects unit optimized for live performance. Easy to use and road tough, the ME-20 provides world-class overdrive, distortion, delay, chorus, phaser, flanger, tremolo, rotary, and EQ effects, taking BOSS's performance-based philosophy to a very affordable price point.



ME-20B

Bass Multiple Effects

Unique Sounds That Will Make You Stand Out

The second new offering in the ME series is the ME-20B, a powerful multi-effects unit optimized for live performance. With the same performance-based design as its guitar-focused ME-20 counterpart, the ME-20B is aimed at the performing bassist who wants stage-friendly effects and solid construction at an affordable price. Mix, match, and customize a wide variety of effects, including compressor, overdrive, distortion, T-Wah, phaser, flanger, chorus, delay, reverb, defretter, synth, and more.



ACCESSORIES

PEDAL BOARDS

BCB-60 Pedal Board



The BOSS BCB-60 Pedal Board is a convenient way to set up and transport all your compact pedals. The unique padded interior can be customized to fit a wide range of gear—from BOSS compact and Twin Pedals to effects from other manufacturers. A convenient AC adaptor supplies power for up to seven devices.

BCB-30 Pedal Board



The BOSS BCB-30 Pedal Board stores three compact-effect pedals in a lightweight-yet-solid molded body for easy transport. The convenient parallel DC cable supplies power to the units through the optional PSA-100 AC adaptor. Two L-L cables are included for effortless patching.

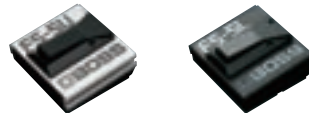
FOOT CONTROLLERS

AB-2 2-way Selector



Usable either as an input or output, the AB-2 selector lets you choose between a 2-in-1-out or 1-in-2-out configuration. Use it, for example, to switch between two guitar inputs or for amp-output switching.

FS-5U/5L Footswitches



There are two types of BOSS Footswitches to choose from depending on the application. The FS-5U (momentary type) engages a function while you hold down the switch. The FS-5L (latch type) changes the on/off status each time you press the switch.

ACCESSORIES

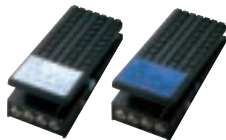
FOOT CONTROLLERS

FS-6 Dual Footswitch



Two switches in one, the FS-6 combines the FS-5L (latch-type) and FS-5U (momentary-type) technology into one unit. Choose the configuration that best suits your playing style and setup.

FV-50H/50L Volume Pedals



Control anything from effects units to violin volume. The high-impedance FV-50H is designed for connection before guitar effects units, while the low-impedance FV-50L is designed for connection after effects units for use with keyboards.

FV-500H/500L Foot Volumes



The high-impedance FV-500H and low-impedance FV-500L provide high-quality stereo performance in strong, die-cast aluminum bodies. With adjustable pedal torque, these units can also be used as expression pedals*. A Tuner-Out jack is also equipped.

* Roland PCS-33 (stereo 1/4" phone cable) required.

EV-5 Expression Pedal



Roland

With reliable, roadworthy performance in a compact, lightweight body, the EV-5 delivers both excellent performance and portability.

TUNERS

TU-15 Chromatic Tuner



The TU-15 is BOSS' ultimate tuner, offering renowned needle-point accuracy, a backlit display, flat tuning, and a host of "world's first" features not found in any other tuner. Especially noteworthy is the new "Accu-Pitch" function, which sounds a note when the correct tuning is reached.

TU-12/12H Chromatic Tuners



The worldwide standard used by top musicians everywhere, thanks to their extremely accurate, easy-to-use tuning. The TU-12 offers a tuning range from C1 to B5, while the TU-12H's extended range of C1 to B6 is perfect for the high-range instruments such as flutes.

ACCESSORIES

TUNERS

TU-80

Tuner & Metronome

Lock your tuning and timing down tight with the ultra affordable, portable, and reliable TU-80 LCD tuner/metronome. The TU-80 tunes across an 8-octave range, and can even support 7-string guitars and 6-string basses.



TU-2

Chromatic Tuner

The TU-2 Chromatic Tuner features world-renowned BOSS TU-Series tuner technology in a convenient, easy-to-use compact pedal design. As with all BOSS compact pedals, the TU-2 is both sturdy and reliable, and its bright 7-segment LED ensures that you can read note/string information quickly and easily on the darkest of stages.



METRONOMES

DB-90

Dr. Beat

Practice in style with the flagship of the Dr. Beat Metronome line. The new DB-90 is loaded with quality sounds and drum patterns to make your practice sessions less mundane and more musical. There's a Rhythm Coach function with an onboard microphone, a reference-tone function for tuning, an Instrument input, MIDI input, and a Note Mixing function for instantly customizing the play-along rhythms.



DB-60

Dr. Beat

More than a metronome, the DB-60 lays down the click in style. It can function as a standard timekeeper or it can spice things up with its selection of play-along rhythms, including 8-beat grooves, waltz, bossa nova, and more. There's a Note-Mixing function for quickly creating new rhythms, a Memory function that stores tempos for each song, and a Loop Play mode for arranging patterns in the order of your choice.



DB-30

Dr. Beat

Much more than just a simple timekeeper, this pocket-sized metronome provides a variety of rhythm patterns and time feels. It offers tap tempo, internal reference tones (12 semitones), and other timekeeping features to make practicing fun.



ACCESSORIES

AC ADAPTOR

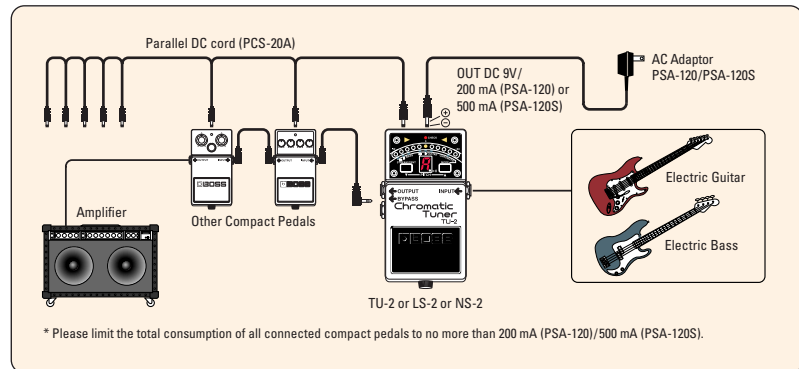
PSA-Series

AC Adaptor

BOSS power for BOSS pedals — PSA-Series adaptors are designed to supply power to multiple BOSS compact pedals at once, eliminating the worry and hassle of running out of batteries. BOSS also offers ACA-series adaptors for older-generation BOSS compact pedals (manufactured before August 1997). To identify which power series is required, please check the sticker attached to the pedal and carton box.

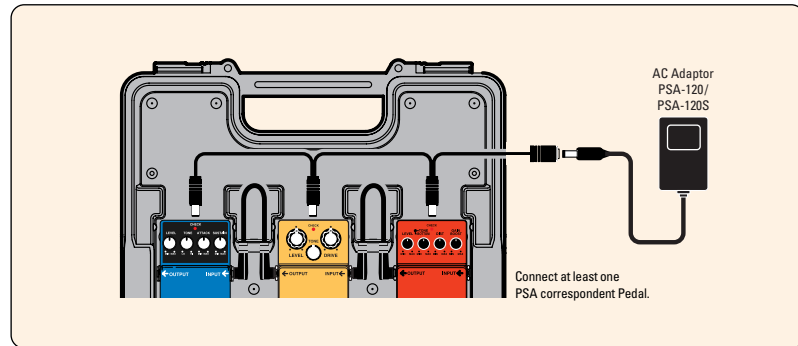
Tips Instructions to use PSA adaptors with BOSS ACA-required compact pedals.

- 1 ACA-required compact pedals can be used with PSA adaptors by connecting NS-2/LS-2/TU-2 and the optional PCS-20A (8-pin parallel power-supply cable).



AC ADAPTOR

- 2 ACA-required compact pedals can be used when installed in a BCB-30 pedal board.



- 3 ACA-required compact pedals can be used when installed in a BCB-60 pedal board.



BOSS[®]

www.BossUS.com

COSM Composite Object Sound Modeling

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/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.

Roland Corporation U.S.□

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