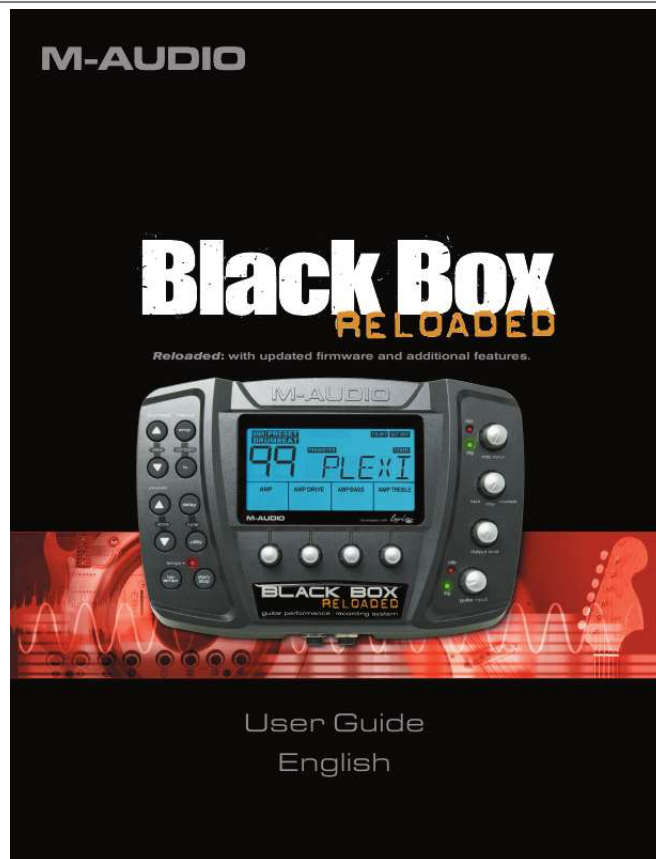




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You can read the recommendations in the user guide, the technical guide or the installation guide for M-AUDIO BLACK BOX. You'll find the answers to all your questions on the M-AUDIO BLACK BOX in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

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You may also want to refer to your audio software's documentation, to better understand how the Black Box's features are integrated with your audio software.

Your experience and enjoyment of your Black Box will be greatly enhanced by a good working knowledge of your audio software. User Guide 3 English What's in the Box Your Black Box package contains the following: <<<<<< Black Box CD-ROM containing driver software and user manual in PDF form. CD-ROM containing Ableton Live Lite 4 GTR and Pro Sessions Drum Loops Printed Quick Start Guide USB cable 9 Volt AC 1A Power Supply Mic stand mounting bracket with screws Minimum Computer System Requirements If you intend to use your Black Box as an audio interface with your computer, please make certain that your computer meets the minimum requirements below. See the "Driver Installation" section later in this manual for instructions on using the Black Box with a computer. Windows\* <<<< Pentium III 500 MHz 128 MB RAM Windows XP (SP2) with DirectX 9.0c or higher Onboard USB connection The Black Box is not supported under Windows 98, Windows 98SE, Windows ME or Windows 2000. Mac OS\* <<<< Macintosh G3/G4\*\* 500 MHz 512 MB RAM OS X 10.3.9 / 10.4.

4 Onboard USB connection \*Please be sure to also check your DAW software's minimum system requirements, as they may be higher than those of the Black Box. \*\*G3/G4 accelerator cards not supported. New Version 2 Firmware Inside Your Black Box has been upgraded to our new version 2 firmware, making it far more powerful than before at no extra cost. If you're familiar with the original Black Box, the principal new features are: << The number of amp models is increased from 12 to 40 and the original amps have been improved to be more accurate. Plus, we've included four classic bass amps, a fuzz tone and an octave fuzz. The number of effect types is increased from 43 to 121. In addition to new variations of the existing effects, we've added lots more of Black Box's unique filter sequences, tremolo sequences and arpeggio sequences, as well as great new effects like rotary, vibrato, auto-pan, talk pedal, volume swell, fixed filters and even a few sci-fi effects. Myraid enhancements to existing features. < User Guide 4 However, we didn't stop there. We also added a number of new bonus features: <<<<< Reverb Compression Link Drumbeat: Now selecting a preset will automatically call up its assigned drumbeat, which you can change.

Tempo Source: Now you can select one of three sources for the playing tempo: the preset's assigned tempo, the drumbeat's assigned tempo or the global tempo. These new bonus features go beyond the 16 parameter menus in the LCD display, so we created a new Shift mode to access their settings. To learn about Shift mode, see the section entitled "Additional Shift Parameters." Front Panel Connectors << Plug your headphones into the jack with the headphone icon (11). Plug your guitar into the Guitar Input jack (12 key brings up the four Effects menus in the LCD; EFFECT, FX SPEED or FX FREQUENCY, FX DEPTH or FX KEY and FX WET/DRY.

The rotary control under each menu parameter in the LCD allows you to change the parameter value. Holding the FX key down for 1/2 second will turn the effect off and "FX OFF" will display in the LCD. Holding the FX key down for another half second will turn the effect back on, and FX OFF will disappear from the LCD display. Compare (press Amp [22] and FX [24] simultaneously) If both the Amp and FX keys are pressed simultaneously, the Compare function is activated and "COMPARE" will be displayed in the LCD. During this time, any edits to the preset are removed, permitting you to compare your changes to the original, unedited preset.

Press the Amp and FX keys simultaneously again to exit the Compare function. Delay Key (26) Pressing the Delay key brings up the four Delay menus in the LCD; DELAY TIME, DELAY REPEATS, DELAY VOLUME and DRUMS TO DELAY. The rotary control under each menu parameter in the LCD allows you to change the parameter value. Holding the Delay key down for one half second will turn the delay effect off and "DLY OFF" will display in the LCD. Holding the Delay key down for another half second will turn the delay effect back on. "DLY OFF" will disappear from the LCD display. Utility Key (28) Pressing the Utility key brings up the four Utility menus in the LCD; PRESET VOLUME, GUITAR/DRUMS BALANCE, EXPRESSION PEDAL and TEMPO. The rotary control under each menu parameter in the LCD allows you to change the parameter value. When both the Delay and Utility keys are quickly pressed simultaneously, the Tuner function is activated. "TUNER" will be displayed on the LCD along with the note value of the currently played string.

Press any key to exit the Tuner function and "TUNER" will disappear from the LCD display. Tuner (press Delay [26] and Utility [28] simultaneously) If both the Delay and Utility keys are pressed simultaneously, the Tuner function is activated and "TUNER" will be displayed in the LCD. When the Tuner is active the display will tell you if the notes you're playing are in standard guitar tuning. See the section entitled "Tuner Function" for more information. Start/Stop Key (32) Pressing this key will start and stop the drum machine. When in Play mode, the tempo LED will blink 1/4 notes at the current tempo. When in Stop mode, the LED will be unlit. To hear a simple intro of four 1/4-note hi-hats before the drumbeat starts, press Tap Tempo before pressing Start/Stop. If the drumbeat is playing, press Tap Tempo before pressing Start/Stop to automatically stop the drumbeat playing at the exact beginning of the next measure.

Rotary Controls (13) These are used to change the parameter values and also used to name presets.

When a parameter value has been changed, "EDIT" will be displayed in the LCD display and "PARAMETER" will be displayed. This is a reminder that you must store any changes to keep them. If the changes are not stored and another preset is loaded, the previous preset will revert to its stored settings. LCD Display (33) All presets, parameters and values are displayed in the LCD. Mic Input Control The Mic Input knob (17) boosts the level of the mic input signal. The green Signal LED (21) will light when a detectable threshold input level is reached. The red Clip LED (20) will light if the input signal is too hot. The best input signal level is achieved when the green LED is solid and the red LED only blinks occasionally. This input mixes into the other audio outputs so when not using the mic input, turn this knob down to minimize any noise. User Guide 7 English Tap Tempo Key (31) This key allows you to enter the tempo for the drum machine by tapping 1/4 notes.



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As the effects are beat-synced to the drum machine, this also sets the tempo of the effects. The drums do not need to be playing for the effects to lock to the tempo. **Mix (Input/Playback) Knob (16)** This knob is used when recording into a multi-track recording application or DAW via USB. It is a ratio control you can use to balance how much input signal you hear versus how much playback signal you hear from the DAW. When you are overdubbing tracks, you'll need to hear previously recorded tracks or a click track to play along with as well as your input signal. Adjust this control to fit your needs. When you are mixing down a song, this knob should be turned all the way to the right as you will not need to hear any input signals while mixing. **Output Level (15)** This controls the overall volume to the Main Outputs as well as the headphones. **Guitar Input Control (14)** The Guitar Input knob boosts the level of the guitar input signal. The green Signal LED (19) will light when a detectable threshold input level is reached.

The red Clip LED (18) will light if the input signal is too hot. The best input signal level is achieved when the green LED is solid and the red LED only blinks occasionally. Presets and Drumbeats Presets A preset is a unique combination of all the settings that affect the guitar sound, including guitar amp models, effects, delay, reverb and compression. There are 100 fixed factory presets (0-99) and 100 editable user presets (0-99). To change between presets, press the Preset Increment (27) and Preset Decrement (29) keys. The 100 user presets follow the 100 factory presets. The active preset number and six-character name will always appear after a preset is selected. To edit the settings that comprise a preset, you'll use the Amp, FX, Delay and Utility buttons. When one of these buttons is pressed, the lower part of the display will show four names. These are the functions of the four rotary controls below the display.

For example, when you press Amp, the four rotary controls will have the functions AMP, DRIVE, AMP BASS and AMP TREBLE. Drumbeats There are 100 fixed drumbeats numbered 0 to 99. To view the current drumbeat number and name for three seconds, press either Drumbeat Increment, Drumbeat Decrement or both. Press Drumbeat Increment (23) during this time to go to the next higher drumbeat; press Drumbeat Decrement (25) during this time to go to the previous lower drumbeat. Hold Drumbeat Increment to rapidly and repeatedly increment the drumbeat number; hold Drumbeat Decrement to rapidly and repeatedly decrement the drumbeat number.

User Guide 8 Editing the Guitar Amp and Compression Settings Black Box provides 40 highly accurate and dynamic guitar amp models based on the most popular classic and modern amps in existence. We even throw in four bass amps, a few custom amp designs of our own, a fuzz tone and octave fuzz, plus a clean mic preamplifier. This represents a tremendous library of cherished guitar tones from which to choose, and will definitely allow you to find the sound you need for your songs. Black Box also provides an audio compressor. This is useful either as a note sustainer or as a limiter, reducing the level of loud notes and increasing the level of soft notes.

It is placed in the signal chain just before the amp modeling. To access the amp model and compressor settings, press the Amp key. The lower part of the screen will display the following four control parameters: AMP, DRIVE, AMP BASS and AMP TREBLE. Here is a description of those four settings plus a couple of others: Amp This knob (#1) is used to select one of 40 guitar amplifier models. Amp Drive This knob (#2) changes the Amp Drive (0-99), which affects the amount of distortion in the signal. On most amp models, a setting of 0 is a clean sound and higher settings give increasing levels of distortion or overdrive. The amount of overdrive depends on the amp selected. Compression (Shift: Amp Drive) This permits the level of drive to the compressor, adjustable from 0 to 99: < CMP 0 (no compression) < CMP 99 (maximum compression) This is a Shift parameter. To view or adjust it: 1) 2) 3) Press the Amp button and select column 2. Double-tap the Amp button to enter Shift mode.

The screen will show the current Compression value. To change it, turn rotary control 2. Use lower values to gently limit peaks. Use higher values to sustain your guitar notes, similar to increasing Amp Drive but without the distortion that overdriving provides. Amp Bass This knob (#3) lets you control the amount of bass. The knob's range and frequency follow that of the modeled amp and therefore vary depending on the amp selected. The control range is from 0 to 99. Amp Mid (Shift: Amp Bass) To adjust Amp Mid, select Amp Bass then double-tap the Amp button. (See the "Additional Shift Parameters" section below.) This lets you control the amount of midrange.

The knob's range and frequency follow that of the modeled amp and therefore vary depending on the amp selected. The control range is from MID 0 to MID 99. Amp Treble This knob (#4) lets you control the amount of treble. The knob's range and frequency follow that of the modeled amp and therefore vary depending on the amp selected. The control range is from 0 to 99.

Amp On/Off Hold the Amp button for one half second to bypass amp modeling entirely. When bypassed, the Amp Off icon will appear in the LCD. Hold it again for one half second to re-enable amp modeling; the Amp Off icon will disappear. User Guide 9 English Amp Descriptions Here's a list of the amp names and the original guitar amps they were modeled after: 1. 2.

3. 4. 5. 6. 7. 8. 9. 10. 11. 12.

13. 14. 15. 16. 17. 18. 19. 20. 21. 22.

23. 24. 25. 26. 27.

28. 29. 30. 31. 32.

33. 34. 35. 36. 37. 38. 39. 40. BASMAN DLXREV TWNREV DELUXE CHAMP MAR 45 PLEXI MAR800 MAR2K VOKS30 VOKS15 JAZZ HIWHAT STU70S BIG90S SOLDON UBER DIESEL ANGLE EDDIEV XTACY BUDDHA CHIEF INTENS BIGMID SIZZLE PLEXIS SCOOP CRISP HOLLOW BITE NECKPU SOLID ACO360 AMPSVT GK 800 SWR500 FUZZ OCTAVE MICPRE Fender Bassman Fender Deluxe Reverb Fender Twin Reverb Fender Deluxe Fender Champ Marshall JTM45 Marshall Super Lead Plexi Marshall JCM800 Marshall JCM2000 VoxAC30 VoxAC15 Roland Jazz Chorus Hiwatt DR103 (Studio 1970s) Mesa Boogie Mark IIc (Big 1990s) Mesa Boogie Dual Rectifier Soldano SLO 100 Bogner Uberschall Diezel VH4 ENGL Powerball Peavey 5150 MkII Bogner Ecstasy Budda Twinmaster Matchless Chieftain Custom model with an intense high-gain solo tone Custom model with strong high-gain mid tone Custom model with a present high-end sizzle Custom model based on Marshall Super Lead Plexi with EQ Custom high gain model with scooped mid Custom model with a '80s twangy tone Custom model with a hollow tone Custom model with biting high notes Custom model, great with a Strat neck pickup Custom model with a solid tone Bass amp: Acoustic 360 Bass amp: Ampeg SVT Bass amp: Gallien-Krueger 800RB Bass amp: SWR SM500 Fuzz tone Octave fuzz Clean mic preamp Note: M-Audio and Black Box are trademarks of Avid Technology, Inc.



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All other product names used are trademarks of their respective owners, which are in no way associated or affiliated with Avid Technology, Inc.

These trademarks of the other manufacturers are used solely to identify the products of those manufacturers whose tones and sounds were studied during M-Audio's sound model development. No claim is made that the Black Box duplicates these sounds exactly, but rather that it produces tones inspired by these classic amps. Reference to artists and bands is for informational purposes only and does not imply an endorsement or sponsorship of the Black Box by such artists or bands. User Guide 10 The following is a description of each of the 40 amps modeled in the Black Box. 1. BASMAN (based on Fender Bassman) The Bassman is a marvelous and very early Fender amp that was embraced by many blues, rock and country guitarists in the '60s. With four 10" speakers and very sweet 40-watt power amp distortion, this one is worthy of the high prices the originals fetch. Excellent clear as well as overdriven, our hats are off to Leo and the guys. Incidentally, this was the amp that Marshall virtually copied in designing their early amps. 2.

DLXREV (based on Fender Deluxe Reverb) The Deluxe Reverb is another stellar Fender design. With a single 12", a very high and intense treble and sweet power amp distortion, this amp was and still is a popular mid-volume blues/rock amp. The bass folds over a little because of the open back, single 12" design, but that's part of the sound. Oddly, they chose to call the tremolo on this early amp "vibrato." The real amp had only bass and treble controls, so in adding our Mid control, we tried to stick to the spirit of the Fender design principle by looking at what they did in subsequent models.

3. TWNREV (based on Fender Twin Reverb) It seemed that in the '70s, just about everybody had a Twin or a friend that had one. With 100 watts in two 12" speakers as well as intense treble boost, this amp is probably responsible for more tinnitus than any other. It might not achieve that much distortion by today's standards, but it gets a sound that's pure classic Fender. 4.

DELUXE (based on Fender Deluxe) This early Fender delivered great distortion--regardless of whether it was intended or not--by virtue of its low power and relatively flat EQ before the distortion. I'm not sure if Leo bought into Minimalism with this design, but this little screamer had but one "tone" control, effectively a treble control. In adding our bass and mid controls, we tried to predict what Leo would have done had he been less austere. 5. CHAMP (based on Fender Champ) Intended as a low-cost beginner's amp, the small '60s-vintage tweed unit was embraced by a number of studio players who valued it for its solid tone and kindness to their backs when carrying it around. The little speaker didn't deliver much low end, but the uniquely crisp high end more than makes up for it. 6. MAR 45 (based on Marshall JTM45) Released in 1962, this amazing amp head has a full, warm and remarkable tone. Though its circuitry is largely copied from the original Fender Bassman, subtle differences gave it its own distinct and very attractive personality. 7.

PLEXI (based on Marshall 100 watt Super Lead "Plexi") This wasn't just an amp but almost an instrument in itself, redefining how guitar is played--it's that significant. Released in 1966, this 100-watt head is the heart of the famous Marshall stack used by countless bands in the '60 and '70s. Along with the JTM-45, this amp was usually played with all controls set to full because compared to later high-gain amps, it doesn't provide that much gain. 8. MAR800 (based on Marshall JCM800) A very popular evolution of the Plexi, this was one of the first amps to include higher gain, a master volume and an overdrive stage before the tone controls. Although preamp distortion isn't quite the same as power amp distortion, it introduced a distinctive tone similar to putting a distortion stomp box before your amp. The full and intense high gain sound further redefined lead guitar. 9. MAR 2K (based on Marshall JCM2000 TSL100) This modern amp stretched the Marshall sound to include more versatile tone controls and 3 channels--clean, crunch and lead. You could easily switch between clean, full mid, scooped mid and super high gain tones just by switching channels.

We modeled the lead channel here and love the full bass and warm treble it serves up. 10. VOKS30 (based on Vox AC30 Top Boost) A unique and truly inspired design, the Vox AC30 is one of the most famous and coveted amps ever created. It was used by the Beatles, Rolling Stones, and lots of other British Invasion bands on tons of early recordings, as well as later recordings by Brian May of Queen and countless others. Originally launched in the late '50s, this gem produced a warm and singing power amp distortion by virtue of its 30 watts into two 12" speakers.

Both the intense but warm treble and the full bass are characteristically different than other amps, making it a highly addictive amp to play through. User Guide 11 English 11. VOKS15 (based on Vox AC15) This smaller precursor to the AC30 produced an understatedly elegant 15 watts of power into a single 12" speaker. It wasn't exactly a stadium filler but like the 30, it delivered a warm and unique tone that is cherished to this day. 12.

JAZZ (based on Roland Jazz Chorus JC-120) A classic transistor amp? You bet. This was a very popular unit for its shimmering highs, full range and loud, clear tones. It departed from the designs of the day with its inclusion of chorus instead of the standard tremolo. This will give you a lovely soft jazz tone, an intense treble twang and even a bit of overdrive. 13. HIWHAT (based on Hiwatt DR103) Most famous for Pete Townshend's sound on old The Who recordings, this classic was also popularized by David Gilmour and many others. With a brilliant and responsive tone unlike any others of the day, it's easy to see why those who have played them won't turn back. 14. STU70S ("Studio 1970s", based on Mesa Boogie Mk II) This innovative design put high quality and high gain together into a small, portable package, making it the choice of studio pros in the '70s. It's the perfect gig amp--it produces a very solid midrange tone with great sustain and articulation, plus unusually high volume for its small size.

15. BIG90S ("Big 1990s", based on Mesa Boogie Dual Rectifier Solo head) Clear guitar tone? Who needs it?! This exceptional amp turns your guitar signal into a solo or crunch tone that is powerful, thick, well-defined and just plain fun to play. Our model of this monster will give you all that low-end power, high-end sizzle, scooped or full mids and make you sound huge. Revel in your tonal grandeur. 16. SOLDON (based on Soldano SLO 100 Super Lead Overdrive)

We're sold on this amp.



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Originally released in 1987, this stellar design was a major force in defining the high gain sound in scores of famous players. Solid both in tone and construction, we're proud to pay homage to this fine creation with our Black Box model. 17. **UBER** (based on Bogner Uberschall) Designed primarily for heavy playing and aggressive styles of music, this amp blows all others out of the water.

It delivers extreme gain and volume while staying focused--no mushy sounds here. This model is guaranteed to split eardrums and shatter rib cages. 18. **DIESEL** (based on channel 4 of a Diezel VH4) This is an intense, very high gain lead amp with big bass and great high end for the most shredding of shredders. German engineering at its best.

19. **ANGLE** (based on ENGL Powerball) Another great work of German engineering, ENGL's high gain amps are played by the likes of Richie Blackmore and Steve Morse. The Powerball is the culmination of years of research and creation by the ENGL team. Extreme flexibility, tone and gain structure converge in this unit, resulting in the ultimate amp. Close the windows and doors and crank this model up.

20. **EDDIEV** (based on Peavey 5150 MkII) This amp is the result of a collaboration between guitar god Eddie Van Halen and the all-American Peavey musical instrument company. We think they achieved something great here and we're certainly not alone in our opinion. Check out our model of this fine creation and savor its exceptional lead tone and rhythm crunch, which goes well beyond the classic Van Halen "brown sound." 21. **XTASY** (based on Bogner Ecstasy) This great Bogner amp was designed to deliver more of the classic tones like the Marshall amps Mr. Bogner used to personally modify for the likes of Eddie Van Halen. A versatile amp delivering clean to bark to growl and beyond, we're proud to model this fine design. 22. **BUDDHA** (based on Budda Twinmaster) A well-loved boutique amp, this gem is similar in tone to an old blackface Fender Deluxe but with more midrange fullness.

With relatively low power, the distortion here is all in the power amp and that's a big part of its sound. Great note articulation with mild or higher gain. 23. **CHIEF** (based on Matchless Chieftain) Another superb boutique amp, this one has a unique and addictive sound (not to mention a very cool backlit "Matchless" logo on the front panel). With a Class A power amp, a unique tone circuit and two 12" speakers, there is a quality to the mids and highs in this amp that is, well, Matchless. We've done our best to model its special character. User Guide 12 25. **BIGMID** (same as Black Box version 1's "UBER") This is the same model as version 1 software's "UBER" (Bogner Uberschall). Since our new and improved UBER model better represents that fine amp, we kept this one but changed its name to better reflect its true nature. This model delivers a very solid and powerful midrange lead tone to cut through a mix.

26. **SIZZLE** (same as Black Box version 1's "MAVRICK") This is the same model as version 1 software's "MAVRICK" (Mesa Boogie Maverick), but we've renamed it Sizzle to emphasize its own special personality. This model delivers tremendous presence. 27. **PLEXIS** (same as Black Box version 1's "PLEXI") This is the same model as version 1 software's "PLEXI" (Marshall Super Lead "Plexi" 100 watt).

Though we've created a new Plexi model for version 2 software, we kept this one because it captures a particular character of Marshall recordings of the 70s. (Think of Free's "All Right Now".) 28. **SCOOP** (a custom high gain model with scooped mid) This custom model gives a big scooped-mid high-gain tone for solid crunch or lead work. Scoop away.

.. 29. **CRISP** (a custom model with a 60s twangy tone) This fun model gives a very crisp, twangy exaggerated tone for those early Beatles chord or solo clear sounds, often originally achieved with a Vox AC15 and console EQ. Sounds great overdriven too. 30. **HOLLOW** (a custom model with a cool, "hollow" sound) This custom model gives an exaggerated "hollow" sound that will make people turn their heads and say "huh?" Try it for something completely different. 31. **BITE** (a custom model with biting high notes) This custom model gives a great treble bite on the high notes coupled with a nice, overall warmth. Sort of like an AC30 off-mic'd through warm console EQ.

32. **NECKPU** (a custom model great for a Strat neck pickup) This completely exaggerated "amp + console EQ" model gives an intensely boosted upper-mid treble and high bass with almost no mids, intended to be used when playing a Strat on the neck pickup. Think of the Rolling Stones' "Midnight Rambler" or Jimi Hendrix's "The Wind Cries Mary." 33. **SOLID** (a custom model with a very solid crunch and lead tone) This custom amp model delivers a vintage tone with hints of Tweed Fender Deluxe but with tight upper bass, strong mids and pronounced high-end presence. Its solid rhythm crunch and vintage lead tones will take you places where other amps fear to tread. 34. **ACO360** (based on Acoustic 360 bass amp) The Acoustic 360 was another amp that just about everybody in the 70s used, including John Paul Jones. Its deep, loud bass partly derives from its unique 18" folded horn design. We pay homage to this fine instrument in our model.

35. **AMPSVT** (based on Ampeg SVT bass amp) The 300-watt SVT--a classic and virtually ubiquitous rock bass amp of the '60s and 70s--was heavy both in tone and weight, particularly with the 8" x 10" SVT cabinet we used for our model. 36. **GK 800** (based on Gallien-Krueger 800RB bass amp) Gallien-Krueger amps are very well-engineered, very loud and very heavy! (We dare you to try lifting the 800RB head, from which this model was created.) The Gallien-Krueger team understands that you need massive amounts of power to reproduce low bass without distortion.

Beyond that, they also understand bass tone. This amp, very popular in the '80s, was a testament to an intimate knowledge of all the fundamentals that bassists require. We honor the Gallien-Krueger team with our model of their fine amp. User Guide 13 English 24. **INTENS** (same as Black Box version 1's "LAMOD") This is the same model as version 1 software's "LAMOD" (L. A. modern high gain amp). It delivers a very intense, screaming lead tone. Not for the faint of heart--it may make you faint of hearing. 37. **SWR500** (based on SWR SM500 bass amp) The SWR-500, upon which our model is based, is the successor to the world-famous SWR400, chosen by professionals for its well-defined tone and graphic EQ. SWR amps have great, versatile sound and high, consistent quality and we're proud to include it in the Black Box's arsenal.

38. **FUZZ** (fuzz tone) This amp and stomp box hybrid gives you the sound of vintage fuzz tones like Fuzz Face with bass, mid and treble controls.



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Think "American Woman" and create your own classic. 39.

**OCTAVE** (based on Octave fuzz) Here you'll find the classic Octave Fuzz sound, heard on hits like "Purple Haze." Excellent results are achieved on the high E string above the 7th fret using the neck pickup. **40. MICPRE** (a clean mic preamp) Select this one to get the clean, warm sound of plugging directly into the console. Thought we don't recommend drive settings above 0, overdriving it will produce a sound similar to the opening of the Beatles' "Revolution." Don't worry--this won't damage the circuitry... Note: M-Audio and Black Box are trademarks of Avid Technology, Inc. All other product names used are trademarks of their respective owners, which are in no way associated or affiliated with Avid Technology, Inc.

These trademarks of the other manufacturers are used solely to identify the products of those manufacturers whose tones and sounds were studied during M-Audio's sound model development. No claim is made that the Black Box duplicates these sounds exactly, but rather that it produces tones inspired by these classic amps. Reference to artists and bands is for informational purposes only and does not imply an endorsement or sponsorship of the Black Box by such artists or bands. User Guide 14 Editing the Modulation and Filter Effects The Black Box has 121 different modulation and filter effects for you to choose from, most of which can be beat-synced to the drumbeats or to an external MIDI clock. It is these synchronized effects--including Black Box's wonderful filter sequences--that help make this device so creative, fun and inspirational to work with.

When you press FX, the lower part of the screen will display the following four control parameters: EFFECT, FX SPEED (or FX FREQ), FX DEPTH (or FX KEY), and FX WET/DRY. Here is a description of those settings: Effect This knob (#1) is used to select one of 121 modulation or filter effects. See the next section "Modulation and Filter Effect Descriptions" for a list of the effects and a description of each. Once selected, the effect can be modified by the other three parameters below. FX Speed or FX Freq This knob (#2) controls either FX Speed or FX Frequency, depending on the selected effect: 1) FX Speed controls the speed of modulation effects (effects that move up and down in frequency over time) and ranges from 0-99 (fixed speeds of

1 cycle per second through 10 cycles per second), followed by 16 tempo-synced speeds: 8 measures 4 measures 2 measures One cycle every 2 whole note triplets 1 measure One cycle every whole note triplet 1/2 note 1/2 note triplet 4N 4T 8N 8T 16N 16T 32N 32T 1/4 note 1/4 note triplet 1/8 note 1/8 note triplet 1/16 note 1/16 note triplet 1/32 note 1/32 note triplet 8M 4M 2M 2MT 1M 1MT 2N 2T 2) FX Freq (frequency) controls the brightness of the effect for filter tremolo, random filter or filter sequence effects. "0" is the lowest frequency setting and creates a deep tone. The highest setting is 99 and creates a very bright tone. FX Depth or FX Key This knob (#3) controls either the FX Depth or FX Key, depending on which effect is selected: 1) FX Depth controls how far up and down the effect moves over time. A setting of 0 gives no movement; a setting of 99 gives maximum movement. A setting of -99 gives maximum negative movement; for example, this will cause the auto wah effect to sweep only down instead of up when you play a note. FX Key only appears when the arpeggiator effect is selected. It allows you to transpose the arpeggio sequence to a different musical key in semitone steps (i.e. half-steps) from 0 to 99.

Settings of 0, 12, 24, 36, etc., are different octaves in the key of E. Most of the included sequences are set by default to 24, which is the key of E at an octave that is not too low and not too high. To transpose the sequence, change this value up or down by the number of semitones you wish to transpose. For example, if the value is 24 (key of E) and you wish to transpose the arpeggiator sequence up to A, change the Key value from 24 to 29 (5 semitones). You can also transpose arpeggio sequences in real time by sending MIDI Note On messages from the computer. 2) FX Wet/Dry This is a balance control between the effected and unaffected signal. 0 is no effect (effect is bypassed) and 99 is full effect. User Guide 15 English Modulation and Filter Effect Descriptions Black Box includes a variety of unique beat-synced modulation and filter effects that you won't find in other products. These unique sounds range from beat-synced versions of classic effects like tremolo or flanging to our innovative random filtering, filter sequences, tremolo sequences and arpeggio sequences. To hear these synchronous effects in their best light, we recommend that you audition them while the drum machine is playing. An effect by itself may sound interesting, but that same effect heard beat-synced to the drums suddenly becomes inspiring. Simply play open chords at first to get the full sound of the effect. The MIDI effects permit various MIDI messages (note number, note velocity or controller) to alter the frequency of either the internal bandpass filter (wah-wah) or resonant flanger (also useful for arpeggiator effects). For example, you could use a computer sequencer to record your own custom filter or arpeggiator sequences.

The Black Box's effects will then follow this sequence as you play along with your composition. These effects are for MIDI geeks only (you know who you are!) and some fantastic sounds can be created using these tools. TREM1 TREM2 TREM3 PAN1 PAN2 PAN3 PAN4 FTREM1 FTREM2 FTREM3 FTREM4 FTREM5 FLANG1 FLANG2 FLANG3 CHORS1 CHORS2 ROTOR1 ROTOR2 VIBRA1 VIBRA2 RNFI 4 RNFI 8 RNFI8T RNFI16 RNFI24 RNFL 4 RNFL8 RNFL8T RNFL16 RNFL24 ATOWA1 ATOWA2 Normal tremolo Hard-switched tremolo Sawtooth wave tremolo Normal stereo panning Hard-switched stereo panning Left-to-right only stereo panning Hard-switched random panning Filter tremolo 1, up and down sweeping low-pass filter Filter tremolo 2, sawtooth down mod of low-pass filter Filter tremolo 3, slow up and down band-pass filter Filter tremolo 4, sawtooth up mod of band-pass filter Filter tremolo 5, switches between low-pass frequencies Slow flanger, positive phase (full bass at top of cycle) 1-bar flanger, inverted phase (less bass at top of cycle) 1/4-note flanger, inverted phase Chorus 1, triangle wave, low depth Chorus 2, sine wave, higher depth Rotary speaker at slow speed Rotary speaker at fast speed Vibrato at slow speed Vibrato at medium speed Random filter 1/4 notes, band-pass filter Random filter 1/8 notes, band-pass filter Random filter 1/8 note triplets, band-pass filter Random filter 1/16 notes, band-pass filter Random filter 1/16 note triplets, band-pass filter Random flanger 1/4 notes Random flanger 1/8 notes Random flanger 1/8 note triplets Random flanger 1/16 notes Random flanger 1/16 note triplets Auto-wah 1 (filter frequency follows guitar level) Auto-wah 2 (fixed attack-decay speed) ATOWA3 ATOWA4 ATOWA5 ATOWA6 ATOWA7 ATOWA8 WAHPDL TKBOX1 TKBOX2 TKBOX3 TKBOX4 TKBOX5 TKBOX6 SWELL FIXFLT FIXFLA TLKPD L SCIF1 SCIF2 SCIF3 SCIF4 SCIF5 TRSQ 1 TRSQ 20 FLSQ 1 FLSQ 20 ARSQ1 - ARSQ20 MVE2FI MNT2FI MMD2FI MVE2FL MNT2FL MMD2FL Auto-wah 3 (louder notes produce lower filter freq) Auto-wah 4 (same as 1 but soft filter tone) Auto-wah 5 (same as 2 but soft filter tone) Auto-wah 6 (sharp attack, fixed decay) Auto-wah 7 (louder notes = higher fixed filter) Auto-wah 8 (louder notes = lower fixed filter) Wah pedal Talk Box 1 (voice box simulator) Talk Box 2 same as 1 but louder notes result in lower tone Talk Box 3 (slow attack and decay speeds) Talk Box 4 (fast attack, slow delay speed) Talk Box 5 (note-triggered chorus sound) Talk Box 6 (louder notes result in higher fixed freq) Volume swell Fixed band-pass filter (use FX FREQ to change frequency) Fixed flanger (use FX FREQ to change frequency) Pedal-controlled talk box Science fiction sound FX 1 Science fiction sound FX 2 Science fiction sound FX 3 Science fiction sound FX 4 Science fiction sound FX 5 20 preset tremolo sequences 20 preset filter sequences 20 preset arpeggio sequences MIDI velocity modulates filter freq MIDI note modulates filter freq MIDI controllers 1 (mod wheel), 11, 16, 70 or 74 modulate filter freq MIDI velocity modulates flanger freq MIDI note modulates flanger freq MIDI controllers 1 (mod wheel), 11, 16, 70 or 74 modulate flanger freq User Guide 16 Tremolo (TREM1 - TREM3) This is a classic effect where the volume pulses up and down slightly at a selected speed.



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With a slow speed (8N) and low depth (30) you can achieve a nice mellow effect that can give a guitar track some character. With a high speed (16N) setting and a full depth setting (99) you can get an extreme machine-gun sound.

There are three different tremolo effects to choose from--normal tremolo, "pulse" tremolo (in which the sound is switched fully on or off instead of a gradually pulsing) and "sawtooth" tremolo (in which the volume repeatedly diminishes then instantly switches to full volume. Auto-Pan (PAN1 - PAN4) This effect automatically pans the signal left and right at the selected speed, with four variations. Tip: Try PAN2 at a speed of 8M, causing your guitar sound to switch between speakers exactly every four measures; it's like "trading fours" with yourself. Filter Tremolo (FTREM1 - FTREM5) This is similar to a standard tremolo, but rather than the volume pulsing up and down, the filter frequency (brightness) goes up and down, similar to a wah-wah pedal automatically rocking back and forth. Try 1/4 note triplets (4T) with a depth of (40) for a cool sound. There are several variations to choose from. Another great effect is FTREM3 which sounds like a wah pedal automatically being rocked back and forth every 4 measures; try this with a high-gain amp for a stellar lead sound. Flanger (FLANG1 - FLANG3) Flanging imparts a whooshing, "jet airplane" sound that slowly cycles up and down over time. There are three variations. FLANG1 is a positive-phase flanger, giving a fuller bass at the top of its cycle whereas FLANG2 and FLANG3 are inverted-phase flangers, giving a more pronounced effect (like real tape flanging) at the top of the cycle.

Black Box makes its own flanger much cooler than other products by making it move in sync to the beat. For your information, the term "flanging" comes from how this effect used to be achieved in the old days of analog tape recording: The sound engineer would set up two tape machines with copies of the same recording then while listening to a mix of both, try to manually play them in sync. When their playback would drift apart to within about 20 milliseconds of each other, you'd start to hear this "jet airplane" sound because of the slight out-of-phase interaction of the two copies of the same recording. The method the engineer would use to manually get the two tape machines closer in sync was to put his hand on the "flange" (the circular top metal piece) of the tape reel and press down rhythmically to make one tape drag slightly slower than the other. Chorus (CHORS1 and CHORS2) This effect adds a subtle doubling effect to your sound. With a speed of one measure (1M) and a depth of (4) you'll get a nice, mellow chorus sound. Extreme settings like (8N) with a depth of (99) might make you seasick! There are two chorus effects to choose from. Rotary Speaker (ROTOR1 and ROTOR2) This is a simulation of the classic Leslie rotary speaker effect, primarily used with the Hammond organ but also appearing on countless guitar recordings, including Cream's classic hit "Badge." Use ROTOR1 for the slow rotary effect and ROTOR2 for the fast effect. Vibrato (VIBRA1 and VIBRA2) Vibrato, a periodic variation of pitch, is an effect that can add a moving feel to your sound that is more subtle than chorus or flanging--kind of like continuously bending the whammy bar on a Strat.

Jazz guitarist Bill Frisell commonly plays with vibrato control on all the time and this adds a very nice quality to his tone, particularly when the vibrato interacts with the delay and reverb in his sound to produce chorus-like textures. Random Filter (RNFI 4, RNFI 8, RNFI8T, RNFI16, RNFI24) Sometimes called "Sample and Hold Filter," this effect changes to a new, randomly chosen filter frequency at even time intervals of either 1/4 notes, 1/8 notes, 1/8 note triplets, 1/16 notes or 1/16 note triplets. You can think of this, for example, as a wah pedal that instantly changes to a new random position on every 1/8 note. The FX FREQ parameter allows you to set a base frequency value. The Depth parameter determines how far above and below the base frequency the random frequencies' range will be.

For tempo settings of 110BPM or less, try the RNFI16 effect. For tempo settings above 110BPM, try the RNFI 8 effect. Random Flanger (RNFL 4, RNFL 8, RNFL8T, RNFL16, RNFL24) This effect is similar to the classic flanger effect except that instead of slowly sweeping up and down, it generates a new, randomly chosen flanger tone at every 1/4 note, 1/8 note, 1/8 note triplet, 1/16 note or 1/16 note triplet. The Frequency parameter allows you to set a base frequency value. The Depth parameter determines how far above and below the base frequency the random flanger frequencies' range will be.

For tempo settings of 110BPM or less, try the RNFL16 effect. For tempo settings above 110BPM, try the RNFL 8 effect. User Guide 17 English Auto Wah (ATOWA1 - ATOWA2) Also known as envelope wah, this effect simulates, for example, a wah pedal that automatically rocks back and forth each time a new note is played. Because of this automatic rocking back and forth, you can achieve an affect that is simply not possible with a standard wah pedal. A perfect example of this effect can be heard on the guitar solo in the song, "What I Am," by Edie Brickell and the New Bohemians. Instead of a speed control, this effect has a "frequency" control. You can think of frequency as a "brightness" control. Lower values create a deeper tone while higher values create a brighter tone. Each of the eight variations has a unique character. In auditioning them, play both loud and soft notes to get an idea of how each variation responds to dynamics.

Wah Pedal (WAHPDL) The "wah" pedal has been around since the early 60's. The wah pedal uses a bandpass filter that exhibits a resonant peak at its bandpass frequency. The resonant peak can be moved up and down in frequency by the player, and this makes for a striking emulation of the human voice making a "waaaah" sound. A standard wah pedal usually has an on/off switch at the toe position, but since expression pedals have no such on/off function, a momentary foot switch connected to the rear panel must be used to turn the wah effect on and off. Talk Box (TLKBX1 - TLKBX6) This simulates the classic talk box effect made popular by Peter Dinklage's song "Show Me the Way" and later by Bon Jovi's "Living on a Prayer." Originally, this effect was generated by a device that piped the instrument's sound into your mouth via a plastic tube. Moving your mouth as you played added vocal characteristic to the sound, which was picked up by a mic. This simulation doesn't generate specific words, but it does replicate a variety of mouth movements--without making you choke on a plastic tube. Each of the eight variations has its own unique character.



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*Delay Volume* This parameter simply sets how loud the delayed signal is compared to your original signal. Try a setting of (20) for starters. *User Guide 20 Drums to Delay/Input* This is a special feature that allows you to send the drum machine signal into the delay effect or directly into the input path of the Black Box.

The whole idea here is to create interesting drum sounds. Since you can record the output of the Black Box via USB, S/PDIF or the analog outputs, you can now also create a custom drum loop library based on drum sounds created with the Black Box. The parameter value can be set from "DLY 00" to "DLY 99" for delay. The higher the number, the more delayed drum signal you will hear along with your original drum sound. This parameter can also be used to send the drums signal to the input of the amp modeling, effects and delay signal chain, just like the guitar input.

To do this, turn the rotary control past the 100 delay settings for another 100 settings: "INP 00" to "INP 99." Again, since the effects are beat-synced to the drum machine, all of the effects stay in perfect time. You can get some truly new and inspiring drum sounds. Increasing this parameter further permits sending the drum signal to the reverb; the options are REV 00 (no send to reverb) through REV 49 (maximum send to reverb). *Delay On/Off* To turn delay on or off, hold the Delay button for one half second.

When off, the Dly Off icon will appear in the LCD screen. *Reverb Time (Shift: Delay Time)* This permits the selection of one of five reverb times: <<<<< RVTM 1 (tiny) RVTM 2 (small) RVTM 3 (medium) RVTM 4 (large) RVTM 5 (huge) This is a Shift parameter. To view or adjust it: 1) 2) 3) Press the Delay button and select column 1. Double-tap the Delay button to enter Shift mode. The screen will show the current Reverb Time value. To change it, turn rotary control 1. *Reverb High Frequencies (Shift: Delay Repeats)* This permits the level of high frequencies in the reverb signal to be controlled. The range is from 0 to 99: << RHF 0 (least high frequencies) RHF 99 (most high frequencies) This is a Shift parameter. To view or adjust it: 1) 2) 3) Press the Delay button and select column 2. Double-tap the Delay button to enter Shift mode.

The screen will show the current Reverb High Frequency value. To change it, turn rotary control 2. *Reverb Volume (Shift: Delay Volume)* This permits the level volume of the reverb signal to be adjusted. The range is from 0 to 99: << RVL 0 (no reverb) RVL 99 (high reverb volume) This is a Shift parameter. To view or adjust it: 1) 2) 3) Press the Delay button and select column 3. Double-tap the Delay button to enter Shift mode. The screen will show the current Reverb Volume value. To change it, turn rotary control 3. *User Guide 21 English Reverb On/Off* To turn reverb on or off, hold the Utility key for more than 1/4 second (just like holding Amp, FX and Delay turns on or off the amp, effects and delay). And one more thing.

.. *Reverb/Delay Compromises* If reverb is on, delay is limited to a maximum of 625 milliseconds. Specifically: 1) If reverb is on and delay time is increased past a fixed value of 625 ms, then reverb is turned off. If reverb is on and delay time is set to any tempo-based value that requires more than 625 ms at the current tempo, the delay time is internally changed to 1/2 or 1/4 of that value to fit within 625 ms.

If delay time is set to a fixed value higher than 625 ms and reverb is turned on, then delay is turned off (the Dly Off icon will appear). If delay time is set to any tempo-based value that requires more than 625 ms at the current tempo and reverb is turned on, the delay time is internally changed to 1/2 or 1/4 of that value to fit within 625 ms. 2) *Editing the Utilities* The Utility key provides access to the following settings: <<<<<<< Preset Volume Noise Gate Guitar/Drums Balance Link Drumbeat Expression Pedal Assignment Tempo Tempo Source Here's a description of each of these parameters: *Preset Volume* This sets the output level of the selected preset. It only has an effect if amp modeling is used; it will have no effect if the amp modeling is bypassed. Use this control to adjust the volume of the preset relative to other presets, as well as to set the recording level to your recording software.

In setting this value, choose a setting that sounds equal in volume to the sound level when the amp and FX are both bypassed. To do this, toggle the amp on and off by holding the Amp key; toggle the modulation/filter effects on and off by holding the FX key. When the effected and bypassed levels are about the same, you've set the preset volume to the right level. As a reference, if Drive = 0 and Bass, Mid and Treble = 60, a preset volume of 50 should be roughly equal to the level when the amp is bypassed. *User Guide 22 <<< GATE 0: Noise gate is disabled. GATE 1: Noise gate is on at lowest threshold. Very sensitive to soft picking, OK when very little background noise and pickup hum exists. GATE 9: Noise gate is on at highest threshold. Least sensitive to soft picking, but best rejection of high background noise and hum. This is a Shift parameter.*

To view or adjust it: 1) 2) 3) Press the Utility button and select column 1. Double-tap the Utility button to enter Shift mode The screen will show the current Gate value. To change it, turn rotary control 1. *Guitar/Drums Balance* This controls the relative balance between the guitar and drum signals. This is a global parameter, meaning that it stays where you set it even after you change presets. A setting of G50 will only provide guitar sound. A setting of D50 will only provide drum sounds. Any setting in between will play a combination of both. A middle setting of EQU means that the output of the drums is equal in volume to the output of the guitar effect. A setting of SEP means the drum signal will come out of one output, while the guitar effect signal will come out of the other, which is useful if you wish to record both signals simultaneously, but have them each on one of two separate (mono) tracks.

*Link Drumbeat (Shift: Guitar/Drums Balance)* This setting permits each preset to have an assigned drumbeat. When the preset is selected, its assigned drumbeat is automatically selected. Certain presets and drumbeats go together well and with this setting on, selecting a preset will automatically select a drumbeat that goes well with it. This is a global parameter, meaning that it stays where you set it even after you change presets. This parameter has two options: << LKDB N: When you select a new preset, the drumbeat won't change (as in version 1 software).

LKDB Y: When you select a new preset, its assigned drumbeat is automatically selected. This is a Shift parameter. To view or adjust it: 1) 2) 3) Press the Utility button and select column 2. Double-tap the Utility button to enter Shift mode.



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