POWER REQUIREMENTS

Utilizes included 9V DC, 100-240V universal auto-switching power supply, 200mA minimum, center negative. **Tech 21 Model #DC9. NOTE: See page 7 for instructions how to change the prong assembly for countries other than the US.**
For replacements, contact your local dealer/distributor, or Tech 21.
Maximum power consumption of the Fly Rig: approx 150mA.

WARNINGS:

* There are no user-serviceable parts inside. Attempting to repair unit is not recommended and may void warranty.
* Missing or altered serial numbers automatically void warranty. For your own protection: be sure serial number labels on the unit's back plate and exterior box are intact, and return your warranty registration card or register online.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

WARRANTY:

ONE YEAR LIMITED. PROOF OF PURCHASE REQUIRED.
Manufacturer warrants unit to be free from defects in materials and workmanship for one (1) year from date of purchase to the original purchaser and is not transferable. This warranty does not include damage resulting from accident, misuse, abuse, alteration, or incorrect current or voltage. If unit becomes defective within warranty period, Tech 21 will repair or replace it free of charge. After expiration, Tech 21 will repair defective unit for a fee.

REPAIRS:

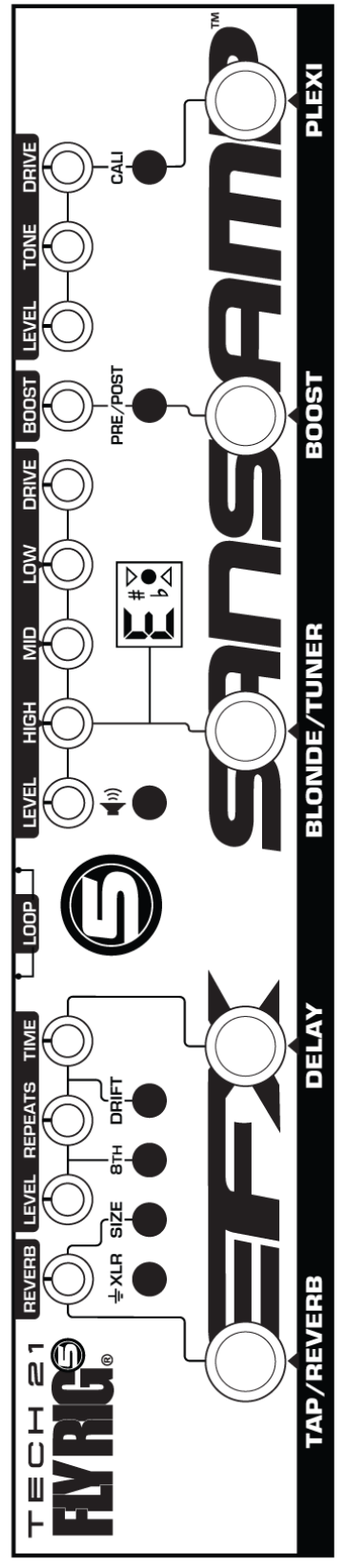
ALL REPAIRS for residents of U.S. and Canada: Call Tech 21 for **Return Authorization Number**. Manufacturer will **not** accept packages without prior authorization, pre-paid freight (UPS preferred) and proper insurance. International residents should contact our local distributor, which can be found on the Support page of our website.

FOR PERSONAL ASSISTANCE & SERVICE:
Contact Tech 21 weekdays 9:00 AM to 5:00 PM, EST: 973-777-6996.

Hand-built in the U.S.A. using high-quality components sourced domestically and around the globe.

T: 973-777-6996 • F: 973-777-9899
E: info@tech21nyc.com • W: tech21nyc.com
 (rev 10/24)

FLY RIG® TECH 21



OWNER'S MANUAL

TECH 21, THE COMPANY

Tech 21 was formed by a guitarist possessing the unusual combination of a trained ear and electronics expertise. In 1989, B. Andrew Barta made his invention commercially available to players and studios around the world. His highly-acclaimed **SansAmp**® pioneered Tube Amplifier Emulation in professional applications for recording direct and performing live, and created an entirely new category of signal processing. There have since been many entries into this niche, yet SansAmp continues to maintain its reputation as the industry standard.

Each product is thoughtfully and respectfully designed by B. Andrew Barta himself with the player in mind. Our goal is to provide you with flexible, versatile tools to cultivate, control, refine and redefine your own individual sound. Tech 21 takes great pride in delivering consistent quality sound, studio to studio, club to club, arena to arena.

PRODUCT OVERVIEW

Each Tech 21 Fly Rig is much more than a pedalboard. In a single pedal. And no board. Less than 13 inches long and weighing just over 20 oz., each sleek, compact unit embodies an entire rig. At the heart, is the all-analog SansAmp, which makes it possible to go direct to a PA or mixer. For effects, you have the essentials and the ability to add some fun stuff, too. What you don't have are crackling patch cables, dying batteries or ground loops. No stinkin' van, heavy flight cases, cable spaghetti, and no dead weight.

With a Tech 21 Fly Rig, you can relax. For fly gigs across the globe, jamming at the local hang, and last minute sessions, you'll be the first one ready to go. You can stop stressing over what to pack and agonizing over what to leave behind. You can stop dreading cheesy backline loaners and overheating at the mere thought of your touring rig going down. Just pop your Fly Rig into your guitar case or backpack and head for the door. (Be sure to wipe that smile off your face when the rest of the band shows up sweating and out of breath.)

FLY RIG 5 v2

The original Fly Rig, introduced in 2014, was a true game-changer for players in all categories, from touring pros to bedroom hobbyists. At a time when pedalboards were expanding and backs were breaking, the innovative Fly Rig enabled players to slim down without sacrificing great tone, and travel without fear of baggage surcharges and dreaded mystery backlines.

Going beyond being just a multi-effects unit, the all-analog SansAmp technology enables any Tech 21 Fly Rig to be an actual "rig." You can run directly into mixers of recording desks and PA systems, as well as augment your existing amplifier set-up. Always seeking to improve our offerings and listening to customer feedback, we incorporated some new features in the v2 to follow the same form factor as later Fly Rigs, such as the Bass, Acoustic, and Paul Landers Signature PL1.

The Fly Rig 5 v2 retains the same SansAmp heart, but adds a few twists and turns. New features include an independent reverb with choice of room size, switchable pre/post Boost, an effect loop, a tuner, and an XLR Output.

APPLICATIONS

As a PRE-AMP or STOMPBOX with a guitar amp. You can connect the Fly Rig 5 in-line just as you would a standard distortion pedal. If the pre-amp of your amplifier is imparting too much of its own character on the pedal, plug into the low level input and set the pre-amp as clean and neutral as possible. As most amps tend to be on the bright side, you may need to start with High in the Blonde SansAmp section below 12 o'clock and adjust as necessary.

Also, be aware that most tube amps have a tone stack. When everything is on max, they tend to cut the mid-range. So don't be surprised to find that the flattest sound is achieved with bass and treble at minimum, and mid at max. Since most tube amp passive tone stacks work in a similar fashion, we recommend this as a good starting point and adjusting to taste.

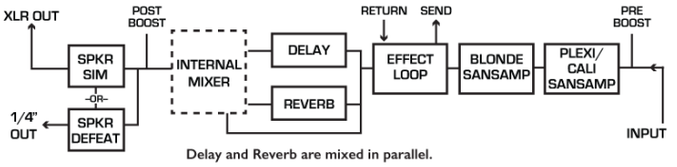
You can also plug into the effects loop return of your amplifier (if the amp has one). This will disable the entire pre-amp of the amp for a truer representation of the pedal's sound.

Going DIRECT to MIXER: PA Live, Recording Desk, Computer Interface. All of the tone shaping and cabinet emulation needed is already incorporated into the SansAmp sections of the pedal. It can be plugged into mixers (live and studio), workstation/recorders, and even directly into the sound card on a computer.

GOOD TO KNOW BEFORE YOU START

SIGNAL FLOWS RIGHT TO LEFT

ALL ANALOG IN-LINE SIGNAL PATH



Delay and Reverb are mixed in parallel.

UNITY GAIN

Set the Level control of the SansAmp section so you have the same volume coming from your speaker/monitor whether the pedal is active or in bypass. This ensures the next device in the signal chain won't get slammed by a much hotter signal than what would normally come from the instrument. Similarly, you wouldn't want a drop in volume, either which would force the next device to struggle for enough signal.

THE INS AND OUTS

1/4" INPUT: 1megOhm instrument level. For normal operation, signal level to *Input* should be close to that of a standard electric guitar (approx -10dBm / 250mV). The input is designed with the same sensitivity and loading characteristic as a tube amp.

!! WARNING !! DO NOT RUN THE SPEAKER OUTPUT OF *ANY* AMP directly into a Fly Rig/SansAmp input. Severe damage will result.

1/4" UNIVERSAL OUTPUT: Unbalanced 1kOhm Low Z instrument level output. This output can be connected to High Z guitar amplifiers (or effects) as well as Low Z mixer and computer inputs. Output level is unity gain when pedal is in bypass mode. It also drives long cables without loss of signal integrity, even in bypass.

BALANCED XLR OUTPUT & GROUND CONNECT SWITCH: Balanced low Z output. When the Ground Connect switch is engaged, the ground connects. Disengaged, the ground of your stage system and other interconnected gear is lifted (isolated) from the ground of the mixing console.

NOTE: **Both outputs can be used simultaneously.** For example, 1/4" Out to your amp and XLR Out to PA mixer, which is one instance where the Ground might need to be disengaged.

LEVEL CONTROLS

SET SANSAMP LEVEL CONTROL FOR UNITY GAIN

Set the level control of the SansAmp section so you have the same volume coming from your speaker/monitor whether the pedal is active or in bypass. This ensures the next device in the signal chain won't get slammed by a much hotter signal than what would normally come from the instrument. Similarly, you wouldn't want a drop in volume either, which would force the next device to struggle for enough signal. (If, however, you're driving a power amp that requires extra volume, you need not concern yourself with unity gain.)

RELATIONSHIP OF THE LEVEL CONTROLS

Be aware that the "last" level in the signal path will determine the overall output level:

- Plexi/Cali and no Boost: Plexi/Cali Level
- Plexi/Cali and/or Blonde and no Boost: Blonde Level
- Plexi/Cali and Pre-Boost: Plexi/Cali Level
- Plexi/Cali and/or Blonde and Pre-Boost: Blonde Level
- Plexi/Cali and/or Blonde and Post-Boost: Post-Boost Level

Note: The Delay Level control only affects the mix level of the delay, not the overall output level.

REVERB LEVEL CONTROL SERVES AS A CLIP WARNING

The Reverb control has a built-in clip warning. Like a VU meter, it will flash red to warn you if the Fly Rig is being overloaded.

You can then trim the corresponding control accordingly: Plexi/Cali SansAmp Level, Boost Level or Blonde SansAmp Level. Bear in mind that occasional blinks (peaks) are okay and can be expected when you dig into your strings, but it should not be continuously lit.

GUIDE TO FUNCTIONS and CONTROLS

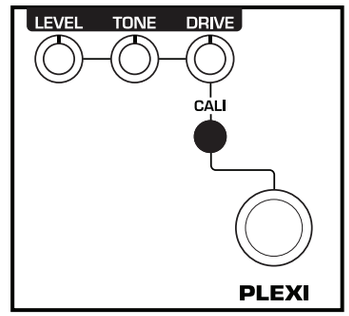
SANSAMP Sections

The SansAmp technology enables the Fly Rig 5 to run directly into mixers of recording desks and PA systems, as well as augment your existing amplifier set-up. It can also be used to enhance previously recorded tracks.

PLEXI/CALI SansAmp Section

Provides the dirtier side of the Fly Rig. You have a choice of a roaring Plexi tone with its muscular crunch, detailed mids and mule-kick low end or you can engage the Cali switch (in position) for the chunk of a '70s high gain amp tone inspired by the then-boutique shop over on the West Coast. Each mode can be dialed in to your liking with dedicated Drive, Tone and Level controls.

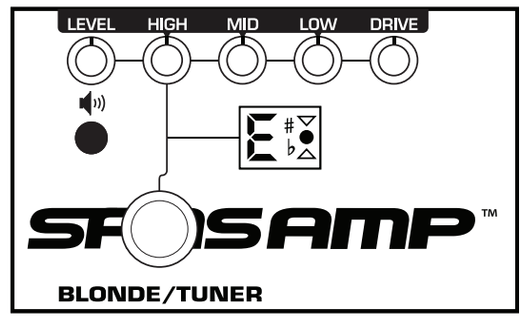
DRIVE: Adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. Highly interactive with the level of your guitar. For instance, you can clean up the amount of distortion by decreasing the guitar's volume (except in very extreme settings) without having to change the setting on the pedal. Conversely, you can increase the amount of distortion by simply increasing the guitar's volume.



TONE: Adjusts the hi-end content. At max, it's flat. As you reduce the setting, it will decrease the high end.

LEVEL: Adjusts the output level of the Plexi/Cali SansAmp section. This control has an exceptionally wide range for maximum compatibility with a variety of equipment.

BLONDE SansAmp Section



The Blonde SansAmp section of the Fly Rig 5 v2 has the tonality of the Blonde Character Series pedal. It includes 3-band active EQ, Level and Drive controls. To dirty things up, you have the flexibility of using the Drive control, the Boost function, or you can add grit from the Plexi/Cali section. Or all three. Each method achieves different tones.

DRIVE: Adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. The first half of the rotation will increase the volume as well as the overdrive.

LOW, MID, HIGH: On-board post-EQ section gives you full control, like having a studio mixing board at your fingertips. Unlike passive tone controls that only cut, these active controls cut and boost. At 12 o'clock, they are flat.

LOW is tuned to ±12dB @ 80 Hz.
MID is tuned to ±12dB @ 500 Hz.
HIGH is tuned to ±12dB @ 3.3 kHz.

LEVEL: Adjusts the output level of the unit when the Blonde SansAmp section is engaged. This control has an exceptionally wide range for maximum compatibility with a variety of equipment.

Level Tip: When running the Fly Rig 5 Output directly to the PA, set the SansAmp Levels fairly high to achieve the best signal-to-noise ratio.

SPEAKER SIMULATION

Speaker simulation is an integral part of the SansAmp circuitry. It is designed for a smooth, even response as would be achieved by a multiply-miked cabinet, without the peaks, valleys, and notches associated with single miking. The shape of the speaker curve will not adversely effect or interfere with the frequency response of your own cabinet. The speaker simulation works in tandem with the EQ controls to custom tailor the overall sound.

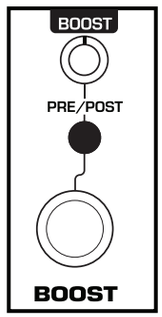
The built-in speaker simulation can also be used independently from the Blonde section. This enables you to run the Plexi/Cali section, or an external pedal (OD, fuzz, distortion, etc.), through the speaker simulation. This is useful for running into a full range speaker system or recording interface.

If desired, you can defeat the speaker simulation by disengaging the speaker switch (up position).
NOTE: The speaker simulation defeat function will only affect the 1/4" output. It will not defeat the signal going through the XLR Output.

PRE/POST BOOST

Switchable Pre/Post Boost to beef up drive and distortion or increase the overall volume to punch up fills and solos.

Out position = Pre-Boost up to 20dB
In position = Post-Boost up to 12dB



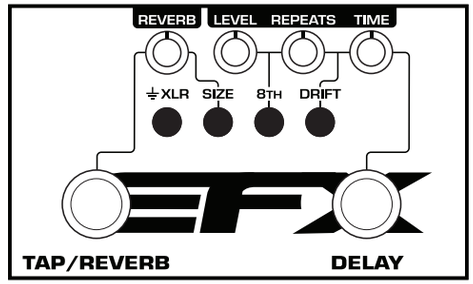
EFX Sections

DELAY

The delay is voiced for the sounds of a vintage tape echo.

TIME: Controls the amount of delay. This single, continuously-variable control provides a smooth, full sweep, ranging from 28 milliseconds up to 1,000 milliseconds. At 12 o'clock, Time is approx 300 milliseconds. You can easily dial in the exact amount of delay desired with one turn of the knob. Turning the Time control while playing will transpose the pitch of your guitar note, just like a vintage analog delay.

REPEATS: Feeds back the delayed signal to the input of the delay circuit to generate the number of repeats. At minimum (7 o'clock), you will hear one repeat. As you increase the setting, the repeats will follow accordingly until they are almost infinite.



Repeats Tip: When using the Delay in front of an amp, the amp will compress the signal and the repeats will become more pronounced. Therefore, you will most likely need to have the setting lower than you would when running through an effects loop. For instance, you may find a Repeats setting at 10 o'clock through an effects loop will yield 3 repeats. However, through the front of an amp, you may find a setting of 8 o'clock will give you the same results.

DRIFT Switch: Adds a random, unpredictable element to the modulation that is more true to a vintage tape echo.

8TH Switch: Changes quarter notes to dotted 8ths.
Out position = Quarter notes. In position = Dotted 8ths.

LEVEL: Adjusts the output level of the Delay section only.

DUAL-FUNCTION TAP/REVERB FOOTSWITCH:

Engages the Tap Tempo function just by tapping it. Holding it down for half-second will engage/disengage the Reverb function.

TAP TEMPO: Simply tap in the delay tempo you want during your performance. Tap Tempo will override the Time setting (and conversely, turning the Time knob will override the Tap Tempo). The Tap Tempo works in Bypass so you can set it ahead of time. A special feature of the Tech 21 Tap Tempo is that it will not change the pitch of your guitar when you change the pace from faster to slower or slower to faster. This provides a seamless transition for on-the-fly adjustments if your drummer drifts.

REVERB

Reverb features a single, continuously-variable control. It provides a smooth, full sweep to easily dial-in the amount of reverb desired. Choose between "rooms" via the Size switch:

Out position = Small room
In position = Large room

Also functions as a clip warning (see page 3).

OTHER GOODIES

CHROMATIC TUNER

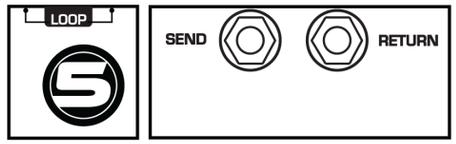
The BLONDE/TUNER footswitch engages the chromatic tuner. Simply hold the footswitch down for half-second to engage the tuner, which will simultaneously mute the signal path. The LED in the tuner window will then light up. If the green light is on, you're in tune. If you're not, the red arrows serve as indicators:

Arrow points up = Flat. Raise the pitch.
Arrow points down = Sharp. Lower the pitch.

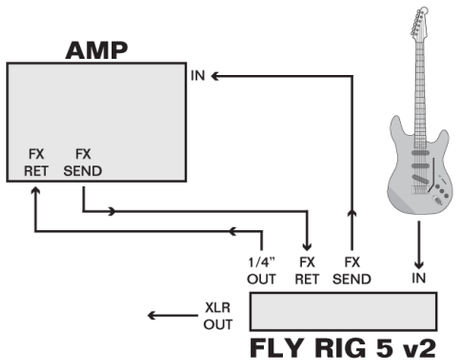
As you get closer to being in tune, the arrow will blink faster and turn off when you are in tune. The green light then comes on and you're good to go. When you're finished tuning, simply hold the footswitch for half-second to disengage.

EFFECT LOOP

Post-SansAmp, pre-effects to patch in external effect pedals. Connect the input of your effect to Send; output of your effect to Return.



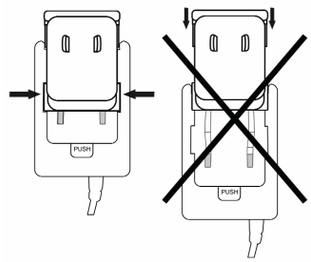
Hookup diagram utilizing the 4-cable method:



UNIVERSAL POWER SUPPLY

The included power supply is provided with a U.S. prong assembly installed. To change the prong assembly to one of the included European, UK or Australia/New Zealand styles, be sure the power supply is unplugged and follow these instructions:

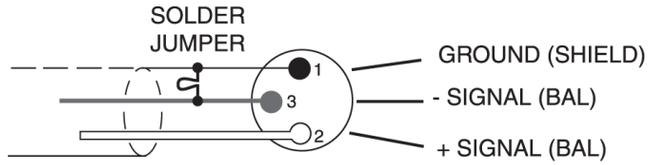
Press the PUSH switch to release the prong assembly. Slide the assembly up (about halfway) to align the side tabs of the prong assembly with the slots of the power supply housing. Then pull up to remove the assembly. Choose the new prong assembly, align the side tabs with the slot of the housing and slide down until it clicks into position.



NOTE: You cannot slide the prong assembly all the way in or out.

NOTEWORTHY NOTES

1) Using the Fly Rig 5 with a Power Engine 60. Simply connect the 1/4" output of the Fly Rig 5 to the 1/4" input of the Power Engine 60. Be aware the Power Engine 60 utilizes a ground independent transformer, which may pick up hum from the auto-switching power supply. Therefore, the XLR input of the Power Engine 60 should be grounded. You can make your own grounding plug by modifying a male XLR connector by soldering Pin 1 to Pin 3 and inserting into the XLR input of the Power Engine 60 per the diagram below. **NOTE:** If you're not into soldering, a Tech 21 grounding plug is available for purchase. Please see our website Accessories page for details.



2) Using the Fly Rig 5 with a Power Engine Deuce Deluxe. Simply connect the 1/4" output of the Fly Rig 5 to the 1/4" input of the Power Engine Deuce Deluxe.

3) Tech 21 controls are unusually sensitive and tend to perform well beyond what would be considered "normal." So you need not set everything at max to get maximum results. For instance, to brighten your sound, rather than automatically boosting High all the way up, try cutting back on Low first.

4) To find the best settings for interacting with your other gear, you may need to use radically different settings for each individual way you use it. You need not be discouraged or suspect something is wrong with the unit. If you've got your sound, you've simply found the right balance to complement each individual piece of gear. We recommend you start with the tone controls at 12 o'clock and cut or boost as necessary.

5) Tech 21 pedals have exceptionally low noise levels. However, they may amplify noise emanating from the input source. To minimize noise, we recommend active electronic instruments have the volume set so that the clip light barely comes on when in Bypass, and have the tone controls positioned flat. If you need to boost, do so slowly and sparingly. Also check for pickup interference by moving your guitar or turning the volume off. Be aware single coil pickups are more likely to generate noise.

6) Placement notes: The Fly Rig can be treated as an amplifier or pre-amp when it comes to setting up your signal chain:

Place the following effects BEFORE the Fly Rig:
Phaser/Vibe, Overdrive, Wah.

Place the following effects in the Effect Loop of the Fly Rig:
Delay, EQ, Flanger, Phaser, Pitch Shifter, Reverb.

7) Buffered bypass eliminates the shortcomings associated with "true bypass" (pops and clicks, and high-end loss when multiple pedals are connected together), as well as signal loss associated with other types of switching circuits.

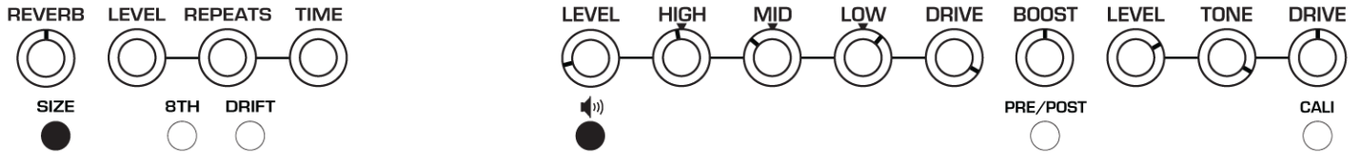
8) Custom actuators. All Tech 21 pedals feature smooth, custom, silent-switching actuators.

9) With on-going product development and improvements, specifications and/or the cosmetic appearance of this unit may change without prior notice.

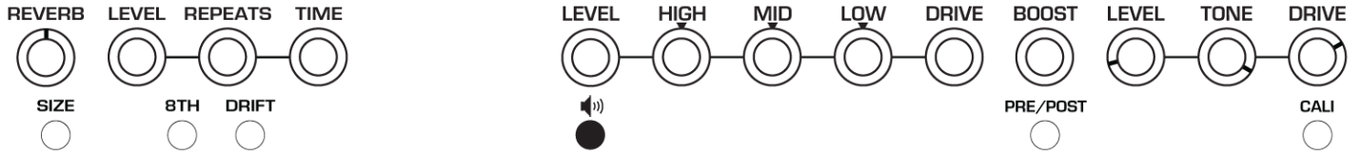
ON (IN) ● OFF (OUT) ○ NOTE: When there are no knob indicators present, that function or section is not engaged.

REVERB | DELAY | LOOP | BLONDE SANSAMP | BOOST | PLEXI SANSAMP

VAN HALEN/*Fair Warning*-style



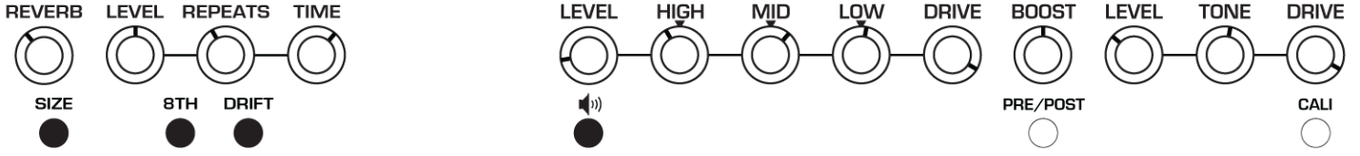
BLACK CROWES/*Twice as Hard*-style



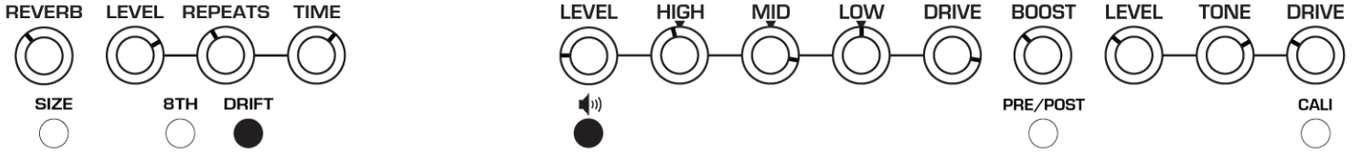
ON (IN) ● OFF (OUT) ○ NOTE: When there are no knob indicators present, that function or section is not engaged.

REVERB | DELAY | LOOP | BLONDE SANSAMP | BOOST | PLEXI SANSAMP

GILMOUR/FLOYD-style



THE EDGE/*I Will Follow*-style

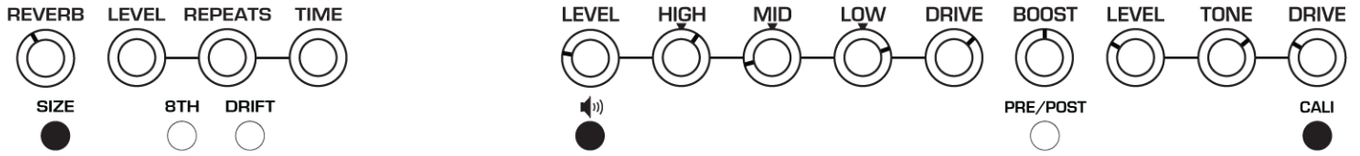


ON (IN) ● OFF (OUT) ○ NOTE: When there are no knob indicators present, that function or section is not engaged.

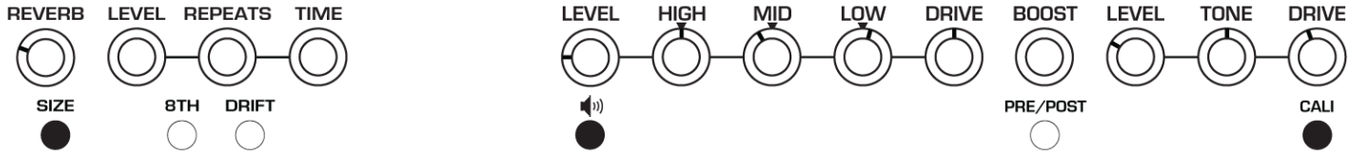
SAMPLE SETTINGS

REVERB | DELAY | LOOP | BLONDE SANSAMP | BOOST | PLEXI SANSAMP

SRV/Blues-style



CALI ROCK-style

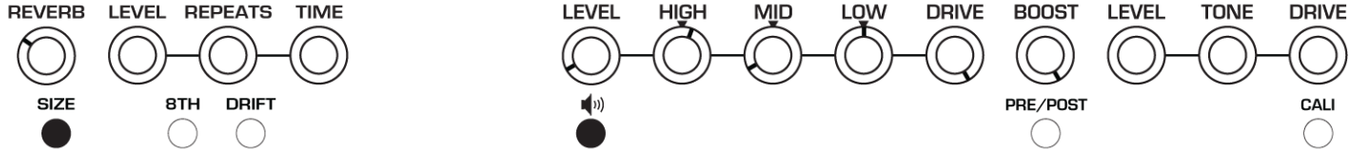


ON (IN) ● OFF (OUT) ○ NOTE: When there are no knob indicators present, that function or section is not engaged.

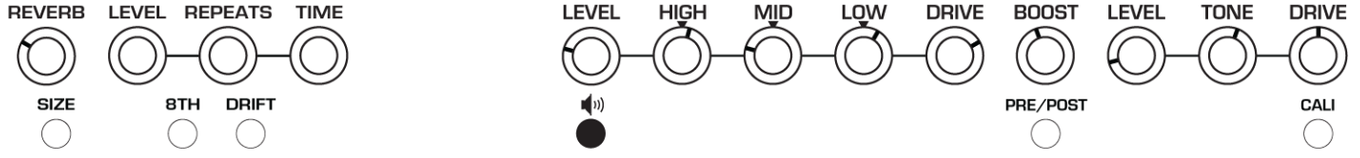
SAMPLE SETTINGS

REVERB | DELAY | LOOP | BLONDE SANSAMP | BOOST | PLEXI SANSAMP

CRANKED BLACKFACE-style



FENDER “Clean” + PLEXI “Dirt” style

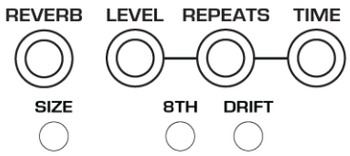


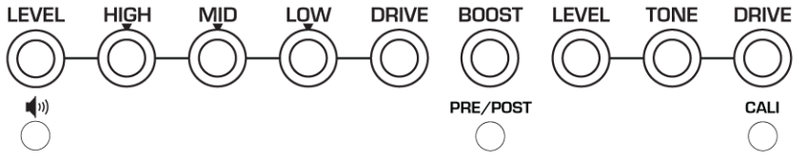
Names of sample settings are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with the companies, artists, or songs named.

ON (IN) ● OFF (OUT) ○

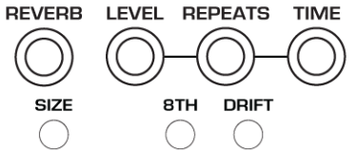
CUSTOM SETTINGS

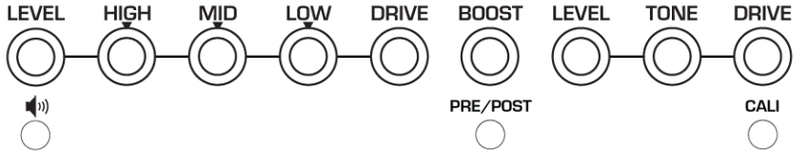
Name: _____





Name: _____

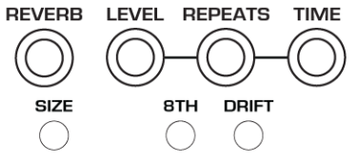


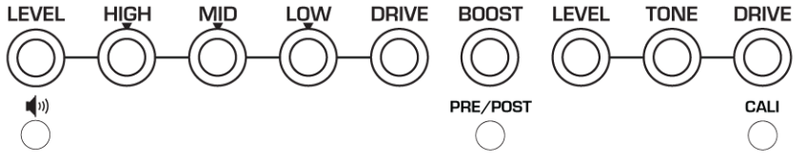


ON (IN) ● OFF (OUT) ○

CUSTOM SETTINGS

Name: _____





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