POWER REQUIREMENTS

Utilizes included 9V DC universal auto-switching power supply with interchangeable international plugs for use anywhere in the world.
To change the prong assembly, refer to instructions on page 4.

Tech 21 Model #DC9
100-240V; 300mA; center negative.
For replacements, contact your local dealer/distributor, Tech 21 or visit our store on Reverb: **reverb.com/shop/tech21**.
Maximum power consumption: 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 backplate and exterior box are intact, and return your warranty registration card or register online: **tech21nyc.com/register**

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.

ONE YEAR LIMITED WARRANTY. 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.
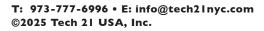
ALL REPAIRS for residents of U.S. and Canada: Call Tech 21 for **Return Authorization Number**. Manufacturer will **not** accept packages without prior authorization, pre-paid freight (UPS preferred) and proper insurance.
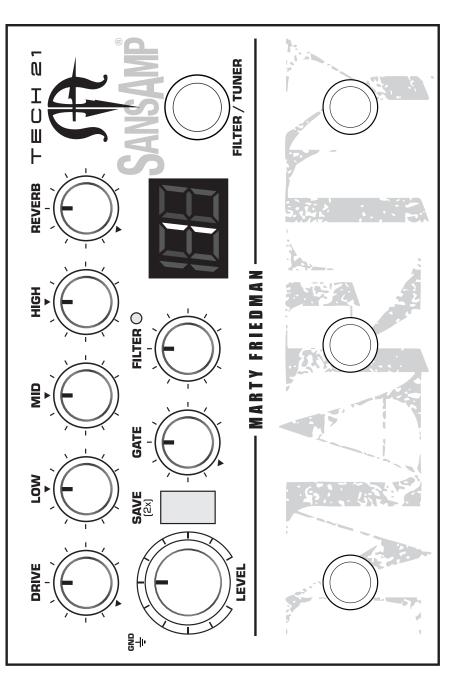
NOTE: With on-going product development and improvements, specifications and/or the cosmetic appearance of this unit may change without prior notice.

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

Marty Friedman Signature SansAmp
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 incorporated Tech 21 and made his unique invention commercially available to players and studios around the world. His highly-acclaimed, 100% analog **SansAmp®** pioneered Tube Amplifier Emulation in professional applications for recording direct and performing live, and created an entirely new category of signal processing. While there have since been many entries into this niche, SansAmp continues to maintain its reputation as the industry standard.

Each Tech 21 product is thoughtfully designed by Andrew 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 professional quality sound, studio to studio, club to club, arena to arena.

Tech 21, Cracking the Code

As a staunch proponent of analog, Andrew Barta has never had the desire to venture into digital designs. The inventor of the SansAmp tube amplifier emulation technology, which debuted in 1989, Barta has remained loyal to the analog domain. That is, until now.

According to Barta, "To me, the main drawback of a digital modeler is the feel and the sound quality. It lacks dynamics and responsiveness. It sounds one-dimensional and it isn't touch-sensitive, so the nuances of your playing style get lost. It limits your ability to change the tone by using your volume knob, picking lighter or harder. No matter how hard you hit the strings, the result is mostly the same. There's no headroom and it doesn't breathe. You are forced go to a different patch for a different tone. Ultimately, you have to conform to the device and play in a different way. So your artistic expression suffers. Artists have told me it's like being in a cage. You have to wrestle harder to squeeze out the results and their fingers get really tired.

"Whatever device you're using, be it an amp or SansAmp or modeler, it's really a part of your instrument. Your instrument actually consists of the entire signal chain, not just the guitar. Digital is just a numeric translation and isn't capable of preserving the individual personality of the guitar you use. The output is pretty much the same whether it's a Fender or Gibson or Ric."

Just as the original SansAmp was a personal mission to encapsulate tube amplifier sounds in a compact, portable pedal, Barta has long been on a quest to do the same in the digital domain. Never one to jump on a bandwagon, Barta wouldn't "go digital" until he found a way to replicate the dynamics, responsiveness and fluidity of its analog counterpart.

After many years, Barta "cracked the code." This happened to coincide with the opportunity to collaborate with Marty Friedman. The result is the Marty Friedman Signature SansAmp.

Marty Friedman Signature SansAmp, an Overview

"This is it! This pedal has been in the works for a long time and only an exceptional design engineer like Andrew Barta could make something with these beautiful tones so incredibly simple to use. Such bonehead easy-to-use effects haven't been known to have world class sounds in them until now. I'm proud to put my name on the first one."
—Marty Friedman

An iconic guitarist who eloquently serves up enchanting and tearful melodies, as well as complicated notes that make your head spin, Marty Friedman surprisingly likes to keep his arsenal quite simple. The goal for Tech 21 was to embody his tone in a neat, compact, plug-and-play footprint. Marty's focus is always on the music taking the spotlight rather than complex gear with distracting bells and whistles or requiring a cumbersome learning curve.

The Marty Friedman programmable Signature SansAmp comes preset with his main clean, rhythm and lead tones. Operationally similar to the SansAmp PSA 2.0, there are two modes: Performance mode to have your 3 main presets at the ready and Studio mode for up to 128 locations for custom presets.

Storing and recalling programs is simple. You don't need any special training or a degree in physics to operate your unit. The rotation of each control increases and decreases in a smooth, gradual, linear fashion, so when you turn a knob, you hear the difference immediately –in real time. You just set your tones and push the Save button. Yeah, it's that easy.

In the studio, you can record direct, enhance existing tracks in mixdowns, as well as add interesting touches to any instrument. Live, the Marty Friedman Signature SansAmp can be used as a pre-amp direct into a power amp with speaker cabinets, as a "monster direct box" to a P.A. system (or both simultaneously), and as an outboard processor.

Controls include Reverb, 3-band active EQ, Drive and Level. There's also an adjustable Gate that dynamically and smoothly cleans up the signal, rather than cutting it off abruptly. Filter alters the tonality by manipulating the mid-range and is specifically voiced for Marty's unique sound.

As is the case with all of our signature artist gear, the Marty Friedman Signature SansAmp offers Marty's core sounds and the versatility for many different styles.

APPLICATIONS

WITH AN AMP RIG:
-As a Pre-Amp: Run the 1/4" Output of the SansAmp directly into the power amp input, a.k.a. "effects return" (if applicable), of an amp. This bypasses the tone-coloring pre-amp section of the amp.

-As a Stomp Box: Run the 1/4" Output into the front input of an amp. For best results, keep the SansAmp level close to unity gain so as not to overload the amp's input, which could yield undesirable distortion.

TO DRIVE A POWER AMP:
Run the 1/4" Output or the XLR Output to the corresponding input of a power amp, and adjust your stage volume with the Level control of the SansAmp.

NOTE: When running into the power amp input of an amp or a power amp alone via the 1/4" Output, make sure to engage the +10dB Output Level Switch (in position).

Then adjust the Level as needed. If you are so inclined, this is the time to crank it!

DIRECT to MIXER: PA Live, Recording Desk, Computer Interface
Plug the XLR or 1/4" Output directly into the input of a mixer/recorder. Work with the input trim control on the mixer/recorder and be sure not to overload its input. When using 1/4-inch Output, disengage the +10dB Output Level Switch (out position).

THE INS AND OUTS

> **WARNING: DO NOT run the speaker output of *any* amp directly into the SansAmp. Doing so may result in severe damage to the amp and/or the SansAmp.**

Follow *Standard Audio Procedure* to avoid unwanted and potentially speaker-damaging "pops" when connecting or disconnecting any equipment:

Always mute mixing board and/or turn down amp volume before plugging or unplugging!

IMPORTANT: TURN ON FIRST. TURN OFF LAST.

1/4" INPUT: 1megOhm, instrument level.

UNIVERSAL OUTPUT SECTION
The output section of the SansAmp is designed to be compatible with any application. The outputs can be used for full range (multi-track recorders, studio monitors, P.A. systems) or limited range systems, as well as simultaneously. Note: You can compensate for different frequency responses of speaker enclosures by using the High control.

BALANCED XLR OUTPUT:
Balanced low Z output. Sends the signal to mixing console/recorder.

GROUND CONNECT SWITCH: When engaged, Pin 1 of the XLR is connected to ground. Disengaged, the ground of your stage system and other interconnected gear is lifted (isolated) from the ground of the mixing console.

With a mixer only: If you are plugging your guitar into the SansAmp and taking the XLR Output to a mixer **--and do not have any other grounded equipment connected in the setup--** you will have to push the switch in to connect the ground.

With a mixer and an amp: If you are going to the mixer via the XLR and using the 1/4" Output to feed an amp (with its own AC ground), you should have the switch disengaged (in the out position) to be in "Ground Lift" mode. If you experience hum and/or buzz with the switch in either position, there may be a problem with the AC outlets you are using.

NOTE: If using vintage equipment without proper grounds, take extra care connecting it to modern grounded equipment. Any inadequacies of the ground in vintage gear could result in damaging anything it is connected to.

1/4" OUTPUT: Unbalanced low Z output.

1/4" Output Level Boost Switch: Provides a +10dB boost.

NOTE: Both the 1/4" and XLR outputs can be used simultaneously. For example, 1/4" Out to your amp and XLR Out to PA mixer for live performances.

SEND/RETURN Effects Loop: For external effects, connect the input of your processor to Send; output of your processor to Return.
Note: The Effects Loop remains on when the SansAmp is in use and is inactive when in bypass.

3.5mm Type A MIDI Jacks:
MIDI IN: Accepts program change commands and is set to OMNI.
MIDI OUT: For future use.

UNIVERSAL POWER SUPPLY
The Marty Friedman Signature SansAmp is shipped with a 9V power supply set up with a U.S. prong assembly. 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, slide down until it clicks into position.

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

GUIDE TO CONTROLS

DRIVE: adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed.

LOW, MID, HIGH: Active tone controls that cut or boost ±12dB from unity gain at 12 o'clock.

REVERB: for the spatial ambiance of a well-balanced recording room.

FILTER: alters the tonality by manipulating the mid-range and is specifically voiced for Marty's unique sound.

GATE: dynamically & smoothly gates your signal, rather than abruptly cutting it off.

LEVEL adjusts the output level.

CHROMATIC TUNER:
The FILTER/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 center dash of the right digit is on, you're in tune. If you're not, the vertical dashes of the right digit serve as indicators:

Top right lights up = Sharp.
Lower the pitch.

Middle lights up = In tune.

Lower right lights up = Flat.
Raise the pitch.

As you get closer to being in tune, the right dash will move up and down until it sits in the center, indicating you are in tune.
You then have 2 choices:
• Hitting the Tuner footswitch again will put you in unmuted bypass. This allows you to toggle back and forth to audibly hear the notes.
• Hitting any of the other footswitches will take you directly to that program.

DISPLAY AND SWITCHES

3-DIGIT LED DISPLAY
This display is readable from any angle, in daylight or darkness. It tells you which program is active, whether any knob's setting has been changed, and when a program is stored. It also serves as your tuning guide.

SAVE SWITCH stores your custom settings.

FILTER FOOTSWITCH with LED status indicator engages and disengages the Filter setting.

FOOTSWITCHES

In Performance Mode:
Left Footswitch	= Program 1
Center Footswitch	= Program 2
Right Footswitch	= Program 3

In Studio Mode:
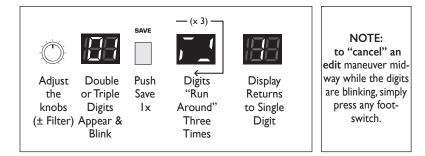|	
Left Footswitch	= Down
Center Footswitch	= Active/Search
Right Footswitch	= Up

PERFORMANCE MODE

The Marty Friedman Signature SansAmp arrives in Performance Mode, pre-loaded with Marty's 3 main presets: (1) Clean, (2) Rhythm and (3) Lead.
Each of Marty's settings can be easily tweaked, customized and saved, even on the fly.
Just turn the knobs to the position desired, and adjust the Filter position (on or off), if necessary, and hit Save. NOTE: saving will overwrite the stored preset.

Programming or Editing in Performance Mode. Settings are displayed as single digits: 1, 2, 3. When you're programming or editing a setting, however, the digits will temporarily appear as double or triple digits until you save the new setting.

Adjust the knobs (± Filter)	Double or Triple Digits Appear & Blink	Push Save 1x	Digits "Run Around" Three Times	Display Returns to Single Digit

NOTE: to "cancel" an **edit** maneuver mid-way while the digits are blinking, simply press any foot-switch.

BYPASS
Pressing the corresponding footswitch to the channel you're currently in a second time will put the SansAmp into bypass. The display will then show a dash (-) in the center. To exit bypass, simply press any footswitch.

CHANGING PRESETS in Performance Mode
To put your particular three most often used programs in a row for instant access, you can either edit and save, as per the above, or follow the move/copy instructions to place your favorite presets into 1, 2, 3 program locations. **Refer to "Programming" on page 7.**

STUDIO MODE

To change modes (Performance to Studio or vice versa), press footswitches 1+ 3 simultaneously.

In Studio Mode, settings are displayed as double digits: 01, 02, etc. or triple digits: 101, 102, etc.

RIGHT AND LEFT FOOTSWITCHES
Pushing either of these switches once counts up or down through the programs one at a time. Holding the switch down moves quickly through the program numbers.
Right Footswitch	= Up
Left Footswitch	= Down

CENTER FOOTSWITCH
Allows you to alternate between two functions:

Active
The LED numerical display remains lit. Depressing the Up or Down footswitch allows you to step-scroll by increasing or decreasing the program number one at a time.

Search
The LED numerical display flashes. Depressing and holding the Up or Down footswitch allows you to speed-scroll to a desired location --without sending any program change information. Depressing the Active/Search footswitch a second time re-engages the Active function and instantly changes to the program desired.

NOTE: Studio Mode is not limited to recording. It can also be used for live performances.

PROGRAMMING & EDITING IN STUDIO MODE

A note of CAUTION: You can overwrite any location including factory presets.

Programs 01-03 are Marty's personal favorite presets for clean, rhythm and lead, respectively.
Programs 04-09 are other Marty/Megadeth presets.
Programs 10-19 are various clean settings.
Programs 20-29 are various rhythm settings.
Programs 30-39 are various lead settings.
Programs 40-128 are set neutral. Locations can be used for custom settings or to copy presets for tweaking without overwriting the original presets. See next two sections.

Tweaking an Existing Setting (factory or custom)

If you want to edit a factory or custom setting, first decide if you want to keep the existing setting intact. If so, copy the setting to a new location, as per the instructions below.
1. Choose the setting you want to edit.
2. Adjust controls to taste.
3. Push the Save switch twice. The display will "run around" three times, stop blinking and then display the program number. That's it. You've stored the edited program.
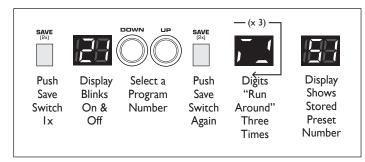
Note: to "cancel" an edit maneuver midway while the digits are blinking, simply press any footswitch.

Moving/Copying a Program to a New Location

1. Choose the preset number you want to move or copy.
2. Push the Save switch once. The digits of the display blink on and off.
3. Use the Up or Down buttons to the new location where you want to save it.
4. Push the Save switch a second time. The display will "run around" three times and then show the selected program number (it will stop blinking). That's it. You've moved/copied a program.
Note: The original preset setting doesn't change until it is overwritten.

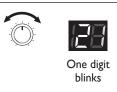| Push Save Switch 1x | Display Blinks On & Off | Select a Program Number | Push Save Switch Again | Digits "Run Around" Three Times | Display Shows Stored Preset Number |

Saving a Custom Program from Scratch

1. Choose a program location.
2. Edit controls to taste, including the position of the Filter footswitch (on or off).
3. Push the Save button twice. The display will "run around" three times, stop blinking and then display the program number. That's it. You've stored a new program.

Be careful not to overwrite a custom program you don't want to lose. Accidents can happen, so we recommend keeping track of your programs. Blank diagrams are provided on pages 12-14 and can be photocopied. Write in the knob settings and give each program a name (song title, description of the tone, etc.) for easy reference later.
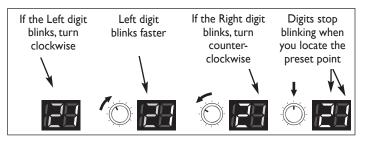
Locating Individual Control Values Within a Preset

When recalling presets, the positions of the controls do not reflect the actual stored values of each of their parameters. When you turn any of the knobs, the SansAmp will go into edit mode and "unlock" whichever control you turn. The circuitry will then show to the actual value of that control's position (vs. the stored value), allowing you to edit the sound to your liking. When you turn/unlock a control from the setting that's stored in the memory, one of the digits in the LED numerical display will blink.

One digit blinks

Note: When you're in program 100 or higher, the two left digits blink together as one number.

Let's say the preset point for a particular knob is 12 o'clock. If the left digit blinks after unlocking it, you will need to turn the knob clockwise to reach the preset value. As you get closer, the left digit will blink faster, then stop when you've reached the stored value. Conversely, if the right digit blinks, you will need to turn the knob counter-clockwise, etc.

| If the Left digit blinks, turn clockwise | Left digit blinks faster | If the Right digit blinks, turn counter-clockwise | Digits stop blinking when you locate the preset point |

TECH NOTES

1) Factory Preset Reset Procedure:
- Be sure to back up any custom presets you want to keep.
- Disconnect the power supply from the SansAmp.
- Press and hold the Center footswitch while reconnecting the power supply. Continue holding the Center footswitch until you see "dF" in the display window. Then release the Center footswitch. The display will go dark. When the reset is complete, you will see "dF" in the display a second time, indicating the factory reset is complete.
- After the reset, the display will show "1" indicating you're in Performance Mode, Program 1.

2) Booting Up. When you first turn the pedal on, the software version number will briefly appear in the LED display.

For firmware updates, please visit our website Support page: tech21nyc.com/support.

NOTEWORTHY NOTES

1) 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.

2) 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.

3) Tech 21 pedals have exceptionally low noise levels. However, they may amplify noise emanating from the input source. Also, check for pickup interference by moving your guitar or turning the volume off. Be aware single coil magnetic pickups are more likely to generate noise.

4) Daisy chains. Be aware daisy chaining may introduce ground loops, noise, hum, odd artifacts, etc. We recommend using the provided power supply or using a power supply with isolated outputs.

5) Placement notes: The SansAmp can be treated like an amplifier or pre-amp when it comes to setting up your signal chain:

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

Place the following effects AFTER the SansAmp or in the Effect Loop:
Delay, EQ, Flanger, Phaser (yes, after is good, too), Pitch Shifter, Reverb.

6) 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.

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

FACTORY PRESETS

Note: Factory presets are based upon using the appropriate types of instruments and/or accessories associated with each particular sound.

SOUND GROUP	PRESET	SOUND
Marty's Personal Presets	01	Marty Clean
	02	Marty Rhythm
	03	Marty Lead
Mega Marty style	04	Symphony
Misc styles	05	Metal 1
	06	Metal 2
	07	Metal 3
	08	Fuzz
	09	Sustain
Clean styles	10	Blonde
	11	Tweed
	12	Liverpool 1
	13	Liverpool 2
	14	British 1
	15	British 2
	16	California 1
	17	California 2
	18	Boutique 1
	19	Boutique 2
Rhythm styles	20	Blonde Rhythm
	21	Tweed Rhythm
	22	Liverpool Rhythm 1
	23	Liverpool Rhythm 2
	24	British Rhythm 1
	25	British Rhythm 2
	26	California Rhythm 1
	27	California Rhythm 2
	28	Boutique Rhythm 1
	29	Boutique Rhythm 2
Lead styles	30	Blonde Lead
	31	Tweed Lead
	32	Liverpool Lead 1
	33	Liverpool Lead 2
	34	British Lead 1
	35	British Lead 2
	36	California Lead 1
	37	California Lead 2
	38	Boutique Lead 1
	39	Boutique Lead 2

Due to on-going improvements, factory presets may updated. For the latest owner's manual and firmware updates, please visit our website Support page:
tech21nyc.com/support

Names of factory presets are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with any companies, products, song titles, or artists named, except, of course, Marty Friedman.

CUSTOM SETTINGS CHECKLIST

Program #   **Sound/Name**

_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
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_____   _____

CUSTOM SETTINGS

Program Number: _____   ON ● OFF ○

DRIVE   LOW   MID   HIGH   REVERB

GATE   FILTER ○

LEVEL

Notes: _____

_____

Program Number: _____   ON ● OFF ○

DRIVE   LOW   MID   HIGH   REVERB

GATE   FILTER ○

LEVEL

Notes: _____

_____

Program Number: _____   ON ● OFF ○

DRIVE   LOW   MID   HIGH   REVERB

GATE   FILTER ○

LEVEL

Notes: _____

_____

CUSTOM SETTINGS

Program Number: _____

ON ● OFF ○

DRIVE **LOW** **MID** **HIGH** **REVERB**

LEVEL **GATE** **FILTER** ○

Notes: _____

_____

Program Number: _____

ON ● OFF ○

DRIVE **LOW** **MID** **HIGH** **REVERB**

LEVEL **GATE** **FILTER** ○

Notes: _____

_____

Program Number: _____

ON ● OFF ○

DRIVE **LOW** **MID** **HIGH** **REVERB**

LEVEL **GATE** **FILTER** ○

Notes: _____

_____

Program Number: _____

ON ● OFF ○

DRIVE **LOW** **MID** **HIGH** **REVERB**

LEVEL **GATE** **FILTER** ○

Notes: _____

_____

Program Number: _____

ON ● OFF ○

DRIVE **LOW** **MID** **HIGH** **REVERB**

LEVEL **GATE** **FILTER** ○

Notes: _____

_____

Program Number: _____

ON ● OFF ○

DRIVE **LOW** **MID** **HIGH** **REVERB**

LEVEL **GATE** **FILTER** ○

Notes: _____

_____