



**E330II**  
**Screamer 50 II**  
Operator's Manual

### **A FEW WORDS FROM THE AMP DESIGNER**

„Back in the mid of the nineties I designed the very first Screamer amp and since then this very popular amp obtained a several smaller updates including sound tuning and additional features.

Within this brand new fantastic combo amplifier, the Screamer 50 Mark II, I have packed some clever and useful ideas that offers you a broader spectrum of tonal palettes like the “Mid Boost Plusflex” switch matrix. And last but not least I spent many hours in some further sound tuning sessions, my favourite labour that is at ENGL Amps.

I hope you will enjoy the results of all my efforts.“

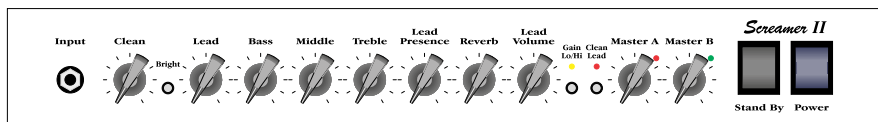
**Horst Langer**

## INTRODUCTION

The Screamer 50 Mark II delivers the sonic goods – tons of tone and palette of hip sounds from squeaky clean to hi-gain shred and everything in between. This all-tube beast is your first choice for many different sound styles! With a host of practical features and a clearly-arranged control panel, handling this amp is a piece of cake. The Screamer's opulent visuals are certainly arresting, but its unique, creamy tube tone and silky spring reverb truly set this amplifier apart. The Screamer comes complete with a bit of technical wizardry which you'll find useful where it counts most – out there in the real world of rehearsing and gigging. Among these features are a Lo/Hi Gain switch, which in effect doubles your choice of channels from two – Clean and Lead – to four – the afore-mentioned, plus Crunch and Heavy Lead. The built-in Noise Gate helps stifle the annoying hiss often generated when Gain Hi is engaged at very high gain levels. Other trademark ENGL features include a second master volume (Master A/B), and an adjustable, switchable FX loop (parallel/serial).

There are few more handy features to rave about: The Screamer amp sports our Serial Amp Control Port, or S.A.C. Port for short. Plug an ENGL Z9 into it and get hip to some very convenient remote control options. This footboard lets you activate the two channels directly in combination with Gain Lo/Hi and Master A/B switching simply by tapping its four footswitches. And that affords you instant access to four sound variations at two different volume levels each. Moreover you can access further prominent features like Master A/B, FX Loop off/on and Reverb off/on; the built-in Noise Gate is switchable via footswitch, too. In addition, the amp comes with three stereo jacks designed to accept dual footswitches like the ENGL Z4 or a MIDI switching system (e.g. ENGL Z11) for selecting the channels and other crucial Amp features.

Old world craftsmanship and highest quality components are part of what makes ENGL amps so special, and the Screamer 50 Mark II is no exception. On that note, please read and heed the guidelines on handling all-tube amps. The ENGL team is convinced that this amp will delight and inspire you.



## Input

Input ¼" (6.3mm) unbalanced input. Plug your guitar in here using a shielded cord.

## Clean

Gain control for the Clean and the Crunch channel.

(Clean: set the Gain-button to the Lo position, Crunch: set the Gain-button to the Hi position).

## Bright switch

Alters the EQ by boosting the upper treble range; effectiveness decreases at higher Gain settings; the Bright feature affects all channels.

## Lead

Gain control for the Soft Lead and the Heavy Lead channel. This knob determines the preamp's input sensitivity when the Soft Lead and the Heavy Lead channel is selected and, by extension, the preamp signal's saturation.

(Soft Lead: Gain Lo/Hi button disengaged; Heavy Lead: Gain Lo/Hi button engaged.)

CAUTION: Extremely high gain and volume levels in the Lead channels can produce powerful feedback. Avoid feedback squeals, they lead to hearing loss and damaged speakers!

## Bass

Bottom end voicing control of the preamp's passive EQ.

## Middle

Mid-range voicing control of the preamp's passive EQ.

## Treble

Upper range voicing control of the preamp's passive EQ.

## Lead Presence

This control defines the Treble response in the poweramp stage for the Lead channel.

## Reverb

This controls adjusts the portion of the reverb signal and increases reverb intensity if you rotate it clockwise; the reverb can be switched on/off via the respective footswitch.

## **Lead Volume**

Volume control for the Lead channel (pre-FX Loop, influences the send level). Use this knob to dial in the desired balance of levels between the Lead and Clean channels.

## **Gain Lo/Hi**

When you press this button, the input sensitivity of both channels is increased. The Hi-Gain function actually turns Clean into a „Crunch“ channel, and Lead into a „Heavy Lead“ channel. It can also be activated via a suitable footswitch; the Gain Lo/Hi button is automatically disabled when you connect a footswitch. The yellow LED illuminates to indicate „Hi-Gain“ mode is active.

## **Clean/Lead**

Channel selector push-button for Clean and Lead modes, red LED indicate Lead mode; This function can also be activated via the respective footswitch connected. Once a footswitch is connected, the channel selector push-button is deactivated.

## **Master A**

Master A volume knob. Located post effect loop, it controls power amp output. The red LED to the right of the knob lights up to indicate Master A is enabled and determining the master level.

You can switch between and using a ENGL Z9 connected to the S.A.C. Port or a footswitch connected to the TRS footswitch inputs.

## **Master B**

Master B volume knob. Located post effect loop, it controls power amp output. The green LED to the right of the knob lights up to indicate Master B is enabled and determining the master level.

## **Stand By**

Power amp standby switch: Use this switch to silence (0 position) the amp when you take longer break. The amp's tubes stay nice and toasty, and the amp is ready to roll immediately when you ramp it back up to full power. The standby switch is also well-suited for muting the amp for brief breaks, for instance when you're switching guitars.

## **Power**

Mains power on/off.

**Please note:** ensure that the Stand By switch is set to Stand By (0 position) before you switch the amp on. Let the tubes heat up for about 30 seconds before you activate the power amp. This procedure spares the tubes.



## Main Supply Connector (AC Power Inlet, IEC – C14 connector)

Plug the mains cord in here.

**CAUTION!** Make sure you use an intact mains line cord with a grounded plug! Before

you power the amp up, ensure the voltage value printed alongside the mains port is the same as the current of the local power supply or wall outlet.

Please also heed the guidelines set forth in the separately included pamphlet, Instructions for the Prevention of Fire, Electrical Shock and Injury.

## Mains Fuse Box

The rear chamber contains the mains fuse and the front chamber a spare fuse.

**NOTE:** Ensure replacement fuses bear identical ratings (refer to the table)!

**CAUTION!** ALWAYS make sure replacement fuses are of the same type and have the

same ratings as the original fuse! To this end, please refer to the fuse ratings shown on the type panel.

## Footswitch: Serial Amp Control Port (S.A.C.)

This serial data input accepts the optional ENGL Z9, which lets you control various amp functions remotely. Connect the ENGL Z9 to the amp using a cord equipped with stereo 6.3 mm (¼") jack plugs. This MIDI-enabled footcontroller is a custom tool designed to switch every amp feature designated as foot switchable in this manual. To learn if a given feature may be controlled remotely, refer to its description herein.

**Heads up:** Plugging a jack plug into the S.A.C. Port disables the Channel switching functions on the amp's front panel. What's more, it also disables the standard 6.3mm (¼") TRS footswitch remote-control capability. In other words, when a ENGL Z9's board is plugged in, it has priority over the amp's Channel switching controls as well as Channel switching via a standard 6.3mm (¼") TRS footswitch.

**CAUTION!** Connect only the ENGL Z9 to this 6.3 mm (¼") stereo jack!

Connecting any other switching device may damage it and/or the amp's circuitry!

Insert and remove the ENGL Z9 cable to and from the S.A.C. Port only when the amp is switched off!

**Please note!** Never link two S.A.C. Ports of ENGL amps via an Y-adaptor to a ENGL Z9! This can cause ground humming noise and damage the internal circuits!

## Footswitch: FX Loop, Noise Gate (conventional 6.3mm (¼") TRS)

Use this jack to connect a conventional footswitch with two switching functions, for example, the ENGL Z4 (2 x off/on – Single Pole Single Throw or SPST for short).

Tip: switching the FX Loop on and off.

Sleeve: switching the Noise Gate on and off.

### **Footswitch Master A/B, Reverb (conventional 6.3mm (¼") TRS)**

Use this jack to connect a conventional footswitch with two switching functions, for example, the ENGL Z4 (2 x off/on – Single Pole Single Throw or SPST for short).

Tip: switching between Master A and Master B.

Sleeve: switching the Reverb on and off.

### **Footswitch Clean/Lead, Gain Lo/Hi (conventional 6.3mm (¼") TRS)**

Use this jack to connect a conventional footswitch with two switching functions, for example, the ENGL Z4 (2 x off/on – Single Pole Single Throw or SPST for short).

Tip: switching between Clean and Lead channels

Sleeve: switching between Clean and Crunch (in the Clean channel)

switching from Soft Lead to Heavy Lead (in the Lead channel)

### **Mid Boost Plusflex**

The sound function „Mid Boost Plusflex“ is newly designed for the Screamer 50 Mark II Amp. It can be activated via a selector switch located on the back panel of the amplifier. With this function, you can create your own individual sound, and thus expand the entire sound spectrum. It can be paired with either Gain Lo/Hi or Master A/B.

There are four options to enable or automatically assign the Mid Boost feature:

#### **1. Mid Boost off**

for all settings of the amp (channels, gain levels, master)

- the Mid Boost sound function is generally disabled (off)

#### **2. Mid Boost Plusflex Hi Gain**

- Mid Boost is automatically activated on „Gain Hi“

#### **3. Mid Boost Plusflex Master B**

- Mid Boost is automatically activated on „Master B“

#### **4. Mid Boost on**

for all settings (channels, gain levels, master) of the amp

- the Mid Boost sound function is generally activated (on)

### **Noise Gate Threshold Level**

This control activates the onboard Noise Gate serving to suppress any excess noise generated when the Lead Channel or Lead Channel and Gain Hi are active. To this end, twist the knob clockwise, near or just beyond the 9 or 10 o'clock position. In addition the Noise Gate can be controlled remotely (on/off) via a footswitch connected to the responsible footswitch jack or via the ENGL Z9 connected to the S.A.C. port. If you want to control the Noise Gate remotely via footswitch, you must set the Threshold knob to 10 o'clock or beyond. Use this knob to set a threshold value (that is, the noise level) at which the Noise Gate activates

to suppress the signal within the 9 to 5 o'clock range. The further you twist the knob to the right, the higher the signal level at which the Noise Gate kicks in. If you set the knob to the 5 o'clock position, the Noise Gate reacts to extremely high noise levels, meaning that there's not much of a margin between the guitar signal and background noise.

### **FX Loop**

The FX Loop can be controlled remotely via a conventional footswitch connected to the responsible footswitch jack or via the ENGL Z9 connected to the S.A.C. port. In the signal path, the FX loop is located post preamp and pre the two power amp Master knobs.

### **FX Loop Send**

Connect the FX-Loop Send output to a signal processor's or an effect pedal's input/return jack using the shortest possible shielded cord equipped with 6.3mm (¼") plugs.

### **FX Loop Return**

Connect the input to a signal processor's or an effect pedal's output/send jack using the shortest possible shielded cord equipped with 6.3mm (¼") plugs.

### **FX Loop Balance**

FX mix control for the FX Loop. When the knob is set to Dry, the amp signal is routed through with no processed signal (0% Wet balance) added to the mix. Twist the knob clockwise to blend in the processed signal (parallel/passive, wet balance 1-99%, depending on knob position). When the knob arrives at the Effect position, only the wet signal (that is, the processed signal generated by the connected effect device) is patched to the power amp (serial, 100% Wet).

**Note:** Set this knob to Dry when the FX Loop is not in use! Settings between 9 and 3 o'clock position reduce the signal level. In the event of contact corrosion of the FX Return socket, volume fluctuations may occur.

### **Line Output – 0 dB Poweramp Signal**

This port taps the power amp's output to provide a line out signal configured at a level of about 0 dB. The frequency response is identical to that of the power amp output signal. In other words, its frequency response is not compensated or corrected. You can feed this signal to another linear power amp. Another option is to patch it through an outboard filter to emulate a speaker, or for example into the ENGL CABLOADER IR-Loader with an integrated microphone and poweramp simulation), and feed this externally processed signal to a recording device or PA system.



### **Poweramp Output, 4 Ohms Parallel**

4 ohms speaker output jacks, internal connected parallel.

### **Poweramp Output, 8 Ohms Parallel**

8 ohms speaker output jacks, internal connected parallel.

### **Poweramp Output, 16 Ohms**

16 ohms speaker output jack.

### **Cabinet options**

1. One 4 Ohm cabinet connected to a 4 Ohm jack

Summary: 4 Z, --> connected to 4 Ohm output

2. Two 8 Ohm cabinets connected to the 4 Ohm jacks

Summary: 8 Z + 8 Z, --> connected to 4 Ohm + 4 Ohm output

3. One 8 Ohm cabinet connected to an 8 Ohm jack

Summary: 8 Z, --> connected to 8 Ohm output

4. Two 16 Ohm cabinets connected to the 8 Ohm jacks

Summary: 16 Z + 16 Z --> connected to 8-ohm + 8-ohm output.

5. One 16 Ohm cabinet connected to the 16 Ohm jack

Summary: 16 Z --> connected to 16 Ohm output

6. An 8 Ohm cabinet connected to one of the 4 Ohm jacks in combination with a 16 Ohm cabinet connected to one of the 8 Ohm jacks

Summary: 8 Z + 16 Z --> connected to 4-ohm + 8-ohm output

### **Important Note:**

Never operate the power amp without a sufficient load, otherwise you may damage or destroy it! Always check the connected cabinets' impedance to confirm it matches the amp's output impedance! For example, if you are connecting a cabinet to one of the two 8-ohms output, make sure the speaker system is indeed rated for 8 ohms. You'll find the various speaker and cabinet options listed in the section above. I cannot stress enough the importance of proper impedance matching when connecting one or more cabinets to your amp. Impedance mismatching can damage the power amp!

## TECHNICAL DATA:

<b>Output power:</b>	approx. 50 watts; adjusted accordingly to 4, 8 and 16 Ohm
<b>Input sensitivity</b>	
Input:	from -20 dB, nominal, max. 0 dB
Effect Return:	from -20 dB, nominal, max. 0 dB
<b>Output level</b>	
SEND, level range:	from -20 dB to approx. 0 dB max.
Line Out:	approx. 0 dB at nominal power output
<b>Power consumption:</b>	approx. 220 Watt (260 VA) max.
<b>Fuses:</b>	
220 / 230 / 240 supply voltage	1,25 AT L (T: slow-blow)
100 / 115 / 120 supply voltage	2,5 AT L (T: slow-blow)
<b>Power Tube Fuses:</b>	2 x 0,16 AM (M: medium-blow)
<b>Important:</b>	Replace these with fuses of the same type and rating only!
<b>Tubes:</b>	
V1:	ENGL ECC83 First Quality (FQ)
V2 / V3 / V4:	ENGL ECC83 Selected
V5 / V6:	ENGL 6L6GC Hand-matched duet
<b>S.A.C.:</b>	Proprietary ENGL asynchronous data protocol
<b>Dimension:</b>	57,5cm x 48cm x 27cm
<b>Weight:</b>	approx. 23kg

## HANDLING AND CARE

- Keep the amp safe from hard knocks and shocks. Tubes are fragile and tend to suffer when exposed to mechanical stress!
- Let the amp cool down before you transport it. Ten minutes or so will spare the tubes.
- Tubes take some 20 seconds to warm up after you switch the power on, and about two to three minutes before they are able to pump out full power. Make a habit of giving your amp plenty of time to get toasty and flipping the Standby switch for short breaks.
- In order to spare the power tubes and prolong their lifetime, we recommend to set the Stand By switch to (0 position, that is) before you switch the amp on. After a period of 30 seconds you may activate the power amp by flipping the Stand By switch.
- Avoid storing the amp in damp or dusty rooms to spare jacks, switches and potentiometers. If you don't use the amp all the time, we recommend that you drape a covering over it to prevent the intrusion of dust. Even better, keep it in a transport cover or flight case.
- Never use caustic or scouring detergents to clean the amp's housing, front or rear panels. Use a soft, damp cloth or sponge with diluted soapsuds or a standard brand of mild dishwashing liquid instead. Never use solvents they can corrode the amp's vinyl skin and dissolve the front and rear panel labels. Keep liquids well away from the amp, particularly the interior of the housing. \* Make sure air can circulate at the rear and top of the amp to allow for adequate cooling, which increases component life.
- Never operate the amp without an adequate load (a speaker, cabinet or suitable terminating resistor).
- High ambient temperatures place an additional strain on diverse components; so if at all possible, avoid operating the amp at temperatures far higher than 30°C for longer periods. Running the amp at mains voltages exceeding the nominal mains input voltage over longer periods can also shorten component life.
- Replace tubes with selected tubes that satisfy ENGL selection criteria to forestall microphonic properties, undesirable noise and unbalanced power amp signals. Because power tubes' idle current (bias) must be checked and possibly adjusted when replacing tubes, this is a job best left to experienced and authorized specialists.

## **Attention! Be sure to read this section before powering the amp up!**

### **A few comments on tube amplifiers:**

- This amp's input is extremely sensitive due to its high gain factor.
- This guitar amplifier can produce high volume levels. Exposure to high volume levels may cause hearing damage!
- Leave tube replacement and power amp biasing to qualified professionals.
- Be sure the unit is switched off and unplugged!
- Caution! Tubes can get very hot and burn skin when touched.
- Always use high quality cables.
- Never plug the amp into an ungrounded outlet!
- Never bridge a defective fuse and be sure replacement fuses feature identical ratings!
- Pull the AC mains plug before replacing fuses!
- Never open the chassis or attempt repairs on your own. Consult qualified service personnel!
- Never expose the amplifier to extreme humidity or dampness!
- Please read the instructions carefully before operating the unit!
- Be sure to operate and handle this amp as it was designed for. To this end, please heed the instructions in the operator's manual.
- You'll find an additional pamphlet accompanying this owner's manual entitled „Instruction for the prevention of fire, electric shock or injury of persons“. Be sure to read it before you plug the preamp in and switch it on!

In combination with inherent microphonics of tubes, at certain settings this can elicit powerful feedback from the speakers – even without a guitar being connected! This occurs primarily when Crunch and Lead channels (that is, all channels whose preamp is easily over-driven) are activated and the following settings are dialed in: Gain and/or Lead Gain knob past the 12 o'clock position; Treble knob past the 12 o'clock position; Crunch/Lead Volume knob past the 12 o'clock position; Presence knob past the 12 o'clock position Avoid setting the aforementioned knobs to extreme positions (that is, combinations in which several of these knobs are set past the 12 o'clock position).

This type of configuration can cause considerable feedback that could well damage your hearing and destroy speakers. If you set the Volume or Master knobs to higher volume levels, always make sure to back off amplification levels to prevent feedback by turning the Lead channel Gain knobs down. The same applies to these channels' Treble and Presence knob settings. Before you power the amp up, take a moment to check out the control panel and make sure that these knobs are not set to any configuration similar to the one described above! A few words on background noise in tube amplifiers: You may hear slight background noise right after you power a tube amp up or even while you are operating. It manifests as intermittent hissing or sizzling, crackling, or popping noises. Caused by tubes, this type of noise may even occur with brand new tubes. This noise is particularly noticeable in high-gain Lead channels; reason being that these channels' gain stages are particularly powerful, amplifying noise along with these useful signal. It is not necessary to swap tubes if you encounter this kind of noise every now and then, though you may consider replacing tubes if it becomes a constant companion.

### **Some features that may be controlled remotely using a ENGL Z9 or ENGL Z4 footswitch fail to respond when you change settings:**

- Powerful static charges, strong radio signals, or mains voltage spikes can affect microcontroller-driven systems, setting them to an undefined status commonly called a hung chip. In this event, your only choice is to reset the system. Simply switch the amp off and on again.
- If a reset doesn't solve the problem, there is a defect in the control system, probably on the logic board holding the microcontroller or merely a faulty contact on one of the stereo footswitch jacks. In this case, consult an authorized service centre or a professional specialist.

### **The amp fails to respond when you try to control switching functions remotely via the ENGL Z9 footcontroller:**

- Is the ENGL Z9 footcontroller connected to the S.A.C.?
- Is the cord you are using stereo, intact, and wired properly?

### **The amp fails to respond when you try to control switching functions remotely using a footcontroller such as the ENGL Z4 or a MIDI switcher such as the ENGL Z11.**

- Are the footboards or switching loops connected to the corresponding footswitch jacks?
- Are the cords you are using stereo, intact, and wired properly?
- If you are using footswitches other than an ENGL Z4 or ENGL Z11, are the switches or relays inside the boards or switching loop systems off / on Single Pole Single Throw (SPST) switches? In other words, do these switches continuously connect to GND when you wish to activate the given function? If you're unsure about the answers to these questions, consult an authorized service centre or a professional specialist.

### **The amp is not providing an output signal / no sound is emanating from the speaker:**

- Is at least one speaker connected to the speaker outputs 4 ohms, 8 ohms or 16 ohms?
- Is the power amp activated (Standby switch to ON)?
- Are all cords (guitar, effect, and speaker) connected properly and are they functional?
- Unplug connected effectors and see if the preamp works fine without these peripheral devices.
- Is the Noise Gate activated in one of the Lead channels and the Threshold knob set to a high value? Deactivate the Noise Gate for a quick check.
- Are the active Master knob and the Gain and Volume knobs set to a value greater than 0? If any of these knobs is set to 0, no signal is routed to the amp's outputs.
- You may be looking at a faulty tube or another defect. In this case, be sure to take the preamp to an authorized, professional service centre.

**The speaker is emitting humming noises:**

- Is there a connection (for example, via a shielded circuit) between the amp and another device that is grounded via a power plug of its own? Two or more circuits sharing a common electrical ground line can cause audible hum. If low-frequency noise is emanating from your rig, be sure to consult a specialist.
- The amp and mains grounds are not connected properly or are altogether disconnected. Have an experienced specialist check this.
- Cords connected to the input or effect loops may not be shielded properly. Replace them to check if this is indeed the case.
- The amp or speaker cords may be picking up interference from powerful magnetic fields (for example, of nearby power transformers or electrical motors). Reposition the amp and connector cables.
- The amp or speaker cords may be picking up radio signals, for example, from activated mobile telephones or powerful local transmitting stations nearby. Switch off mobile phones while troubleshooting noise problems.

**One of the power tube fuses blows:**

- The given power tube is probably defective. If that power tube's fuse is replaced and the new fuse also blows, the tube needs to be swapped out.
- The amp has been overloaded, perhaps by excessive volume levels, excess mains voltage, or the wrong output impedance (where the impedance setting does not match the connected speaker's impedance). Check the speakers' overall impedance and, if necessary, adjust your setup accordingly.

Error messages that can not be solved by the troubleshooting should be reported to the customer support. You can reach us via the website [www.engl-amps.com](http://www.engl-amps.com) or via the email address [service@engl-amps.com](mailto:service@engl-amps.com). Please provide as much relevant information as possible and how the situation can be reproduced.

**Configuration table for assigning the Screamer II Amp's sound-shaping and special functions to the ENGL Z9 footswitch's Functions 1 and 2:**

<b>Button Z-9:</b>	<b>Functions Screamer amp:</b>	<b>Setup:</b>	<b>displayed:</b>	<b>S.A.C.:</b>
Function 1	Master A/B	1: Channel 1	LED 1 lights up	F1-1
Function 1	no	1: Channel 2	LED 2 lights up	F1-2
Function 1	FX Loop off/on	1: Channel 3	LED 3 lights up	F1-3
Function 1	Noise Gate off/on	1: Channel 4	LED 4 lights up	F1-4
Function 1	no	1: Channel 1	LED 1 flashes	F1-5
Function 1	Reverb	1: Channel 2	LED 2 flashes	F1-6
Function 1	no	1: Channel 3	LED 3 flashes	F1-7
Function 1	no	1: Channel 4	LED 4 flashes	F1-8
Function 2	no	2: Channel 1	LED 1 lights up	F2-1
Function 2	no	2: Channel 2	LED 2 lights up	F2-2
Function 2	no	2: Channel 3	LED 3 lights up	F2-3
Function 2	Noise Gate off/on	2: Channel 4	LED 4 lights up	F2-4
Function 2	no	2: Channel 1	LED 1 flashes	F2-5
Function 2	Reverb	2: Channel 2	LED 2 flashes	F2-6
Function 2	FX Loop off/on	2: Channel 3	LED 3 flashes	F2-7
Function 2	no	2: Channel 4	LED 4 flashes	F2-8

**Comments:**

**Column 1** lists the Function button on the ENGL Z9. Column 2 lists the sound-shaping and special functions that can be assigned to it.

**Column 2** lists sound-shaping and special functions on the ENGL Screamer II Amp that can be controlled remotely via the ENGL Z9.

**Column 3** lists the configuration or setting required to remote-control sound-shaping or special functions on the Screamer II Amp. The first digit indicates the Function Setup routine, that is, 1: for Function 1 Setup and 2: for Function 2 Setup. Channel 1 to Channel 4 denotes the button used to enter the setting.

**Column 4** indicates the currently or newly selected configuration. For example, if LED 3 flashes when the ENGL Z9's function 2 Setup routine is activated, then the Screamer II Amp's FX Loop switching feature is currently assigned to Function 2 the corresponding S.A.C. command is F2-7.

**Column 5** lists the shorthand designations for specific configurations that appear throughout the ENGL Z9 Operator's Manual. For detailed information, please refer to the ENGL Z9 Operator's Manual.

**Please note:** The ENGL Z9 is an optional accessory. The afore mentioned Function buttons, LEDs and setup routines pertain to the ENGL Z9.

Whilst the information contained herein is correct at the time of publication, due to our policy of constant improvement and development, ENGL AMPLIFICATION reserves the right to alter specifications without prior notice.

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