



# KTG-1 Tube Guitar Preamp Owners Manual



# **Caution**

To prevent electrical shock, do not operate this unit in wet or moist areas.

There are no user - serviceable parts inside. (see, "Maintenance" and "Tube Chart" sections for user maintenance procedures.)

## **Specifications**

1 rack space, 2 channel, all vacuum tube preamplifier	Noise (referred to full output, 20 - 20Khz)
Input impedance - 1 meg	- All controls up Ch. 1 Hum and noise - -87.5 dB Ch.2 (high gain), Hum and noise - -70dB
Output impedance -5K (note: 5K output impedance is achieved using a vacuum tube in cathode follower configuration, there are no solid state devices used in the signal path)	- Master volumes down. Output control up. Output stage (#5 and #6 only) Hum and noise- -110dB 60Hz- - 134 dB 120Hz- - 131 dB
Max output before clip -25V RMS	Made in America
Boost #1 - 6.0 dB @ 1 KHz Boost #2 - 8.0 dB @ 1KHz Crunch - 8.0 dB @ 6KHz	



King Tone Generator

Congratulations on your purchase of the Seymour Duncan Research KTG-1™ Tube Guitar Preamp. "KTG" stands for "King Tone Generator"™ Each product in the KTG Series has been designed and built to generate great guitar sound, now and for years to come. Read this manual carefully to familiarize yourself with the features and operation of the KTG-1. Meanwhile here are some set - ups to try out.

**Top 40**  
**Channel 1** Open & spacious Clean  
**Channel 2** Rock & Roll Dirty

4	6	7	3	10	10	3	5	KTG 1
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**Blues**  
**Channel 1** Dirty Clean  
**Channel 2** Blues Lead Dirty

5	5	6.5	10	3	4	5	5	KTG 1
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"Pull"

**Metal**  
**Channel 1** Rock Rhythm  
**Channel 2** Scorching Lead

3.5	6	7	Not	Used	3.5	7	5	KTG 1
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"Pull"                      See Note\*

**Note:** This combination uses the red channel only. Gain boost 2 and Crunch Boost are pulled to achieve scorching lead. To achieve remote switching between these sounds Duncan programmable footswitch must be used.

**Jazz/Fusion**  
**Channel 1** Sparkling Clean  
**Channel 2** Smooth "Sustainy" lead

3	5	6.5	3	10	10	3	5	KTG 1
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"Pull"



Adds 5 db boost to both channels.

## Front Panel

The KTG- 1 Tube guitar preamp is designed to operate at the beginning of a rack system. It will generate a wide range of guitar sounds, from super clean to radical overdrive. The above front panel shows a basic set - up of clean and distorted rhythm and lead sounds.

## Channel and Tone Settings

For clean rhythm, use Channel One with no boost engaged. Add "Pull Boost" for clean solos, and clean rhythm with a touch of grit. Use Channel Two with no boost engaged for distorted rhythm or lead. Add Channel Two" Pull Boost" for fatter, more saturated rhythm or lead tone. Add Channel Two "Crunch Boost" for super high-gain solo tone. By experimenting, you can discover which combinations will work best for the sounds you need. See the settings on page 1.

## Channel Switching and Gain Boost Functions

Channel Switching and Gain Boost functions can be accessed 3 ways;

1. Manually from the front panel of the KTG- 1
2. Via the optional Four Function Programmable Footswitch
3. By using the optional Adapter Cable with any programmable MIDI switching device (see page 6)

**Note:** Any standard 1/4" phone SPST Footswitch will change channels, but can't activate the Gain Boost function.



Adds 8 db boost to Channel 2

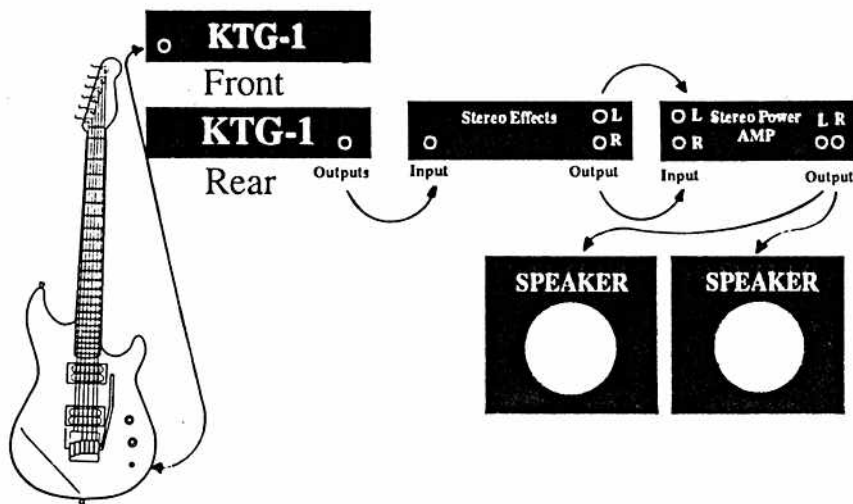
Adds 8 db at 6 khz to Channel 2

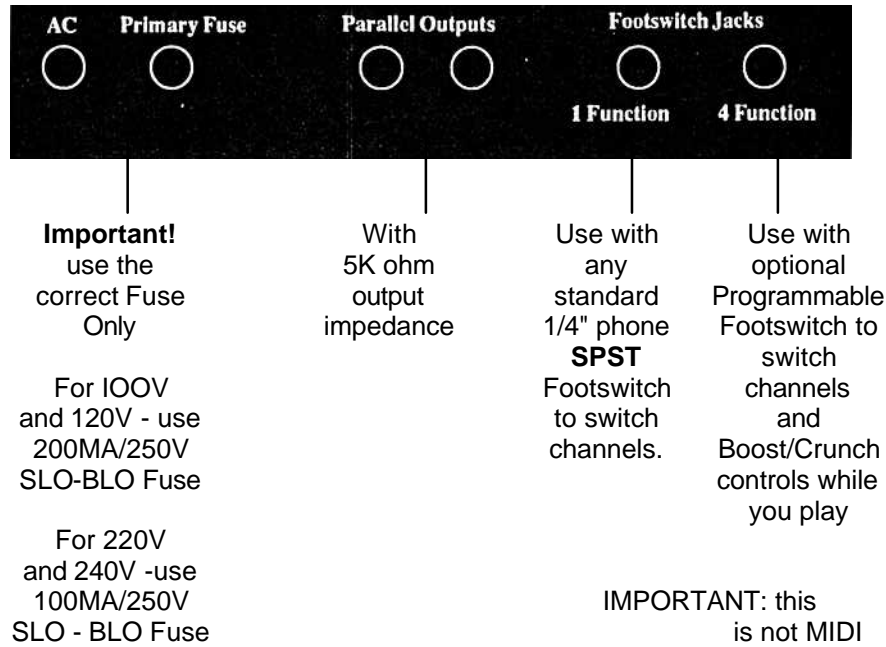
Using the Gain Boost functions of the KTG- I will provide many distinct tone and gain settings. The **Pull Boost** on Channel One adds 6 db boost to both channels. The **Pull Boost** on Channel Two adds 8 db to Channel Two only. The **Crunch** adds 8 db boost centered at 6KHz to Channel Two only.

## Using Effects

Any number of effects may be used between the KTG- I and the power amp. When not using effects, connect the parallel outputs on the back of the KTG- I to both channels of a stereo power amp. This produces a mono signal. When using stereo effects, connect either of the parallel outputs of the KTG- I to the input of the first effect in the chain. Come out of both outputs of the last effect in the chain, to both input channels of a stereo power amplifier.

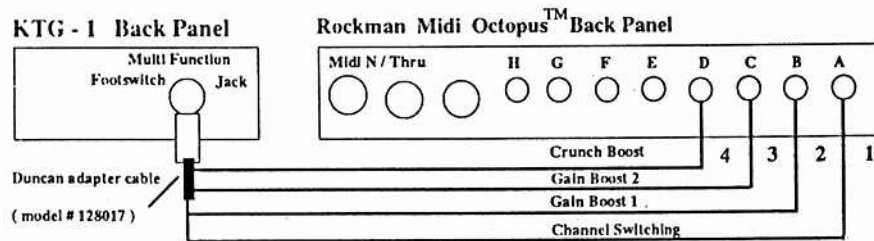
## Signal Chain/ Patching Diagrams





## Using the KTG-1 with MIDI Equipment

With the addition of a Duncan adapter cable (Model # 128017) and a programmable MIDI switching device such as the Scholz MIDI octopus, you can place functions of the KTG-1 under MIDI control. See the diagram below.



Programing different combinations of A, B, C, D will now be possible via MIDI

Buttons A, B, C and D on the Midi Octopus will now control:

Button A : Channel Switching      Button C : Gain Boost 2  
 Button B : Gain Boost 1      Button D : Crunch Boost

## How to use with a Duncan Programmable Footswitch



The KTG - 1 Preamp was designed to work equally well for musicians with and without full MIDI controlled racks. If you aren't set up for MIDI, then the optional Programmable Footswitch will give you quick and easy stage access to 4 sounds.

To use, make sure the preamp is in green (clean) channel and all boosts and crunch are off (pushed in), then simply plug the Programmable Footswitch into the "4 Function" DIN jack on the back of your preamp.

Dip switches inside the footswitch allow you to create the 4 sounds most useful to you. The footswitch comes pre - programmed for the following:

#1 Button - Green Channel = "Fendery" clean with good presence & depth.

#2 Button - Red Channel = Tight, punchy, dirty rhythm - Fat bluesy lead.

#3 Button - Red Channel with Boost 2 = Hi Gain lead, smooth, rich in harmonics and lots of sustain.

#4 Button - Red Channel with Boost 1, Boost 2 and Crunch Super gain over the top lead with bite and full - tilt distortion. Refer to page 2 for charts showing control settings.

## **Maintenance**

Handle the KTG- I with care, preferably mounted in a good quality rack, and it will provide years of trouble free service.

Most maintenance procedures will involve the tubes. Refer any other necessary work or adjustments to a qualified technician. There are no user servicable parts inside. If your KTG- I should require service, contact us at the factory (805) 964-9610 or your Seymour Duncan Research Dealer for the name of the Authorized Service Center nearest you.

The **12AX7 tubes** should last 1 1/2 years, depending on use. Symptoms which indicate failing tubes include:

- any intermittent noise (sputtering, ringing,etc.,)
- excessive white noise or hiss.
- inability to get a clean sound from the clean channel, even at low volumes.

## **Trouble Shooting**

The following chart should **help** isolate some common problems you may encounter with your pre-amp. Some are obvious problems you can solve yourself.

1. No output:

- Check power indicator. Switch on & AC plugged in?
- Check fuse. Replace with a 200 MA/250V SLO-BLO fuse
- Verify source voltage with something you know works.
- Check to make sure volume controls are up.
- Output jacks not connected, or faulty output cable.
- Defective speaker, or speaker connection.
- Guitar turned up?

2. Distortion from clean channel or deterioration of tone or quality in distortion channel.

- Check 12AX7 tubes.

3. Pre-amp will not switch channels:

- Check footswitch - is it overriding the front panel selector?

Check front panel Channel Switch - it must be in Channel I to enable the Programmable Footswitch to switch channels, please refer to section "How to use with a Duncan Programmable Footswitch.

If manual channel switching control, or internal switching circuit is defective, refer to authorized service center.

## **Notes**



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