



The *SMS Classic*  
TUBE PREAMP  
Sarno Music Solutions ~ St. Louis, MO

Jerry Garcia Version  
**OWNER'S MANUAL**

Rev. 2 – 7/11/2014  
SMSC-JG2B

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## **INTRODUCTION**

Congratulations on your purchase of the **SMS Classic Tube Preamp – Jerry Garcia model**. The "Classic" is a boutique quality preamplifier using the finest selected components for the ultimate pristine clean tube guitar tone. This particular model includes mil-spec plate resistors, correct film/foil bass and mid cap's, and a well chosen treble cap just like (to the best of our knowledge) in Jerry's actual preamp circuits. From input to output, this preamp faithfully reproduces the circuit of Garcia's Twin Reverb preamplifier section. You will likely recognize the tone immediately. But also be prepared for the tone to improve over time. The first hundred or so hours can be considered a break in period during which the tubes and capacitors will form and settle in to an even more lush and rich sound that will remain for years to come.

The SMS Classic is entirely hand built in the USA. *Enjoy!*

## HOW IT WORKS

**INPUT** jack - This is an instrument level input with a typical 1Meg $\Omega$  input impedance. It should comfortably handle most any guitar, steel guitar, bass guitar, or acoustic instrument levels.

**GAIN** - This knob controls the loudness, obviously. One thing to remember is that this preamp is very much designed as a clean machine, and it is not meant to be cranked up and overdriven like other preamps. So keep that in mind as you put the "Classic" to use.

**Bright/Dark** switch - The up or "bright" position is just like what you'd find on many classic tube amplifiers. The middle position of the switch is off or neutral. The down or "dark" position on your particular SMS Classic Tube Preamp JG provides various functions depending on your particular model. Contact us for details on this.

**TREBLE** - Yup, it controls the amount of treble.

**MID** - The midrange control on this preamp is a cut-only function. Cranking the "MID" knob will approach a flat response but never boost mids. The voicing of this preamp will always tend to have some degree of midrange dip, just like any classic guitar amp. Mid settings below 12-noon will have subtler changes in the sound compared to settings past noon.

**BASS** - You guessed it. This knob controls the amount of bass frequencies in the sound.

**REVERB** - This knob controls the amount of reverb that gets blended in. The internal reverb is a high quality 24bit "hall" type that has a realistic and natural sound that blends well with just about anything.

**POWER** - Up is on, down is off. The little blue light will tell you it's on. Remember that these are tubes, and they typically take about 12 to 15 seconds to warm up and start working. Also, tubes will sound much better after 5 minutes of being warm, and reach their optimum tone after about 20 minutes. It's recommended that you generally leave the preamp on once it's on. Too much powering on and off can age the tubes prematurely. Also since it's just a preamp, the unit consumes very little power and creates very little heat (unlike a tube "power" amp), so don't be afraid to leave it on for many hours at a time if you know you'll be using it frequently throughout the day or night. Don't leave it on 24/7, but you get the idea. If you're on set break at a gig and want to mute your rig, just turn the gain down to zero instead of turning it off.

**OUTPUT** - On the back of the preamp there is an output jack. This jack is an unbalanced type output which means you should use a simple guitar-type cord to make the connection. It's best to keep the length of your cable run as short as possible. The output level from the preamp can be very high if you drive the preamp hard enough, so keep that in mind when you connect the preamp to a power amplifier, a DI box, an effects unit, a recording interface, or whatever.

**PAD KNOB** - The knob next to the rear output jack is the "pad" control. This preamp naturally has a very hot output level, too strong for many inputs on power amps and other line level devices that may follow the SMS Classic. For starters, leave this knob set a bit below "noon". See how this works with your particular setup and adjust from there. Quite often, the front panel "gain" knob will sound best in the "noon" to "2 o'clock" range. With that in mind, you can then dial in your ideal "pad knob" setting. This will allow the most flexibility with the controls on the front panel.

## **WARNINGS**

**The SMS Classic Tube Preamp contains lethal voltages.** The raw supply has over 300 volts present at a number of points on the circuit board. So if you ever decide to have a qualified person open the unit to change or replace tubes, be absolutely sure that the AC power is not connected to the preamp and that at least 2 minutes have passed to allow for the voltage to dissipate before ever entering the unit. The tubes can be gently wiggled into and out of their sockets fairly easily.

**CAUTION:** To reduce the risk of electrical shock, do not remove the cover. No user serviceable parts inside; refer servicing to qualified service personnel.

**WARNING:** To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.

The lightning flash with arrowhead symbol with an equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



**Before using your SMS Classic Tube Preamp, carefully read applicable items of operating instructions and safety suggestions.**

1. Obey all warnings on the SMS Classic Tube Preamp and in the SMS Classic Tube Preamp Owner's Manual.
2. Do not perform service operations beyond those described in this manual. In the following circumstances, all repairs should be performed by qualified service personnel **only**:
  - Liquid is spilled into the unit
  - An object falls into the unit
  - The unit does not operate normally or changes in performance in a significant way
  - The unit is dropped or the enclosure is damaged
3. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Be sure to practice "safe listening"

## **TUBES**

The SMS Classic Tube Preamp has two 12AX7 vacuum tubes inside of it. These are by far the most commonly available vacuum tubes out there. Most any guitar shop will carry this type of tube. If you want to tweak, you can try various brands, new and old, and even a few variations of tube as long as they stay close to the 12AX7 type.

If you do order tubes from a tube dealer, do try to make sure they've been tested for low microphonics. The unit currently ships with a pair of selected Shuguang tubes. These are currently proving to be great sounding, low-microphonic, and reliable tubes. There are a ton of tubes out there to be had. Here are a few types that also work well in the "Classic": **12AX7** (also called ECC83 or ECC803 in European nomenclature), 5751, 12AY7, and 7025.

# **SPECIFICATIONS**

**Tubes (2 total):** 12AX7 or similar

**Weight:** 4.5 lbs.

**Dimensions:**

Width: 19" Standard rack mount width

Height: 1-3/4" Standard single space rack unit height (1 RU)

Depth: 7.5"

**Fuse:** Internal 1/2-AMP Slo-Blo

**Mains:** Internally set for either 115VAC (North America) or 230VAC (across the pond and down under)

**Input Impedance:** 1Meg $\Omega$

**Output Impedance:** 25k $\Omega$  (approx.)

**Chassis:** Anodized aluminum face, powder coated aluminum chassis

**Power:** Standard IEC AC power cable (SVT style recommended)

**Reverb:** 24bit "spring" algorithm

# **WARRANTY**

- 1.** Sarno Music Solutions warrants the ***SMS Classic Tube Preamp***<sup>™</sup> as free from any defects resulting from faulty materials or workmanship for a period of two (2) years from the date of delivery; and ninety (90) days for the tubes. This warranty is in lieu of all other warranties expressed or implied, and Sarno Music Solutions makes no further warranties expressed or implied including, but not so limited, any warranties of merchantability or fitness for any particular purpose. Warranty does not cover: damage caused by misuse, abuse, product modification, neglect, improper installation or operation, attempted repair by unauthorized personnel, rental or any shipping damage.
  
- 2.** The exclusive remedy in the event of defects in workmanship or material shall be the repair or replacement of such components found to be defective after examination and inspection by Sarno Music Solutions, or replacement of the ***SMS Classic Tube Preamp***<sup>™</sup> whichever Sarno Music Solutions deems appropriate. Sarno Music Solutions shall bear the cost of transport of defective merchandise under warranty conditions **ONLY**. All shipping, risk of transport, and cost of repair and/or replacement work of the ***SMS Classic Tube Preamp***<sup>™</sup> made **AFTER** the above stated warranty period shall be the responsibility of the Buyer.
  
- 3.** It is expressly agreed that the Buyer or User shall have no claim against Sarno Music Solutions with respect to either personal injury or damage to property or loss of profit resulting from any defect or for any consequential damages, such as, but not so limited, loss of business opportunities, property or personal injury losses, etc. or for any indemnity, implied or expressed, with respect to claims by third parties, And Buyer shall indemnify Sarno Music Solutions against any and all claims by third parties against Sarno Music Solutions resulting from the use of equipment and/or materials purchased hereunder or from the use of any products made from or by said equipment or materials.
  
- 4.** These Terms and conditions take precedent over all other terms and conditions, warranty statements or policies.
  
- 5.** All warranties apply only to Sarno Music Solutions products purchased and used in the USA. Please keep the shipping box in a safe place for any potential future needs.

## **SERVICE INFORMATION**

Service and repairs of Sarno Music Solutions, LLC products are to be performed only at Sarno Music Solutions, LLC unless otherwise authorized in advance. Unauthorized service, repair, or modification will void this warranty.

Return Authorization is **required** prior to sending products for repair. All items **MUST** be shipped to Sarno Music Solutions, LLC **prepaid, insured, and properly packaged** – unless otherwise authorized in advance. Always include a letter giving complete details of the problem along with your name, phone number and/or e-mail address where Sarno Music Solutions, LLC can contact you if necessary. **Our address:** 852 Atalanta Avenue, St. Louis, MO 63119 or call 314-962-7220

## **OUT-OF-WARRANTY SERVICE**

1 Contact Sarno Music Solutions, LLC to obtain return authorization.

- 2 All items **MUST** be shipped to the above address **prepaid, insured, and properly packaged**. Products arriving in a non-standard package, which appear damaged, may be refused. ***Shipments received “freight-collect” will be refused.***
- 3 Product must be shipped to Sarno Music Solutions, LLC address with a letter stating return shipping address and description of problem.
- 4 Your unit will receive quality service and will be returned transportation pre-paid. Out-of-warranty billing will be determined by nature of required repairs.



# Tone Settings for the Garcia sound

Through extensive research, analysis of photographs, and interviews with various people, we have discovered that the way Jerry set his tone knobs on his Fender preamp is very central to achieving this distinctive tone. Since our knobs and front panel don't have the same Fender 1-10 dial gradient (remember Fenders are not 0-10), we can't exactly position them with the number method. But a brief description should suffice. Here's the basic rundown:

**Gain** – Garcia's Fender volume knob would be about 3.5 to 5. On our preamp with the kind of tapered pots available today, that's about 1:00 to 2:30 on the dial.

**Bright/Dark** – The bright/up position adds a bit of top end sparkle that you may find handy. The middle position is off/normal. Contact for details about the "dark" setting in your particular SMS CTP JG preamp.

**Treble** – All the way cranked, 100%!

**Midrange** – this varied, but Jerry seemed to go for 5.5 to 6 and likely never higher than 7. Since the bass knob is "off" and the treble knob is full "on", this is essentially THE main and only functional tone knob for a Jerry preamp. It's been said that Jerry referred to his Midrange knob as his "bass control".

**Bass** – All the way bottomed out, off, ZERO bass! Believe it! Actually, depending on the size and tuning of your speaker cabinet, you may find that dialing in just a hint of bass may fill things out just right.

**Reverb** – dial to taste.

The rear **pad knob** is there to control the final output level after the final tube stage. This pot will have no effect on the tone and should be used to balance your overall level and loudness to best match your power amplifier.

Keep in mind that all of this tone setting info is in the context of other elements central to the Jerry tone. JBL's are absolutely essential in my opinion. The right size and sounding speaker cabinet is also a major player in the overall voice of the sound. DiMarzio Dual Sound or Super II pickups split to single coil only and in the middle guitar position is again a central aspect to Jerry's definitive '80s tone. An on board buffer will also contribute to the clear and defined sound. And finally the power amplifier is also a contributor to the net sound. There are many discussions on the internet surrounding this topic at RU Kind.

Many thanks to Mike "Waldo" Wald for his passionate and tenacious work and investigation as he has gathered vast amounts of technical detail and facts concerning many aspects of Garcia's guitar rig. Without Jerry with us to consult, we can't expect to be 100% in every respect, but we feel very strongly these days that we're honing in on it like never before.

Enjoy!  
Sarno Music Solutions