



HIGH-END HANDCRAFTED MIC PREAMPS, MICROPHONES & DI BOXES

SE-Pre1™
microphone preamp

MINI HANDBOOK

and

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Thank you for purchasing your **SE-Pre1™** mic preamp(s). It's always challenging to make the right decision when buying gear for one's recording facility. We're glad to have this opportunity for you to own and use some sage gear ~ and hope you will be too !

The **SE-Pre1** is a unique and elegant mic pre. It is the first critical link to achieving professional quality audio with your recording system.

The **SE-Pre1** was designed and built by sage ELECTRONICS founder and builder ~ Phillip Victor Bova. Here are some of his thoughts about them:

So much has changed so quickly in the recording world ... the changeover from 16 bit to the much higher resolution of 24 bit recording has peeled back yet another layer of sonic fuzziness. This has revealed inadequacies in the recording chain many hadn't noticed before. Quite rightly, the mic pre, sitting at the front end of the analogue signal path is coming under renewed scrutiny. Lets face it, it's the 'gatekeeper' for every mic and DI passing through it! So it better be good.'

I think of the sound of sage pres as being on the 'clean side of warm.' They do not exhibit as much colouration as some of their 'classic' counterparts. They have a very open, airy, but not-exaggerated top end and a really fat, tight bottom end. They make even cheap dynamic mics sound great. They sound the same at any gain level. They are not clip-able by any known mic input signal.

I designed them and now manufacture them because after operating studios for over twenty years ~ I was frustrated with the high maintenance / cost associated with owning 'vintage' gear. While I truly loved the way this 'classic' equipment sounded when it was working properly, it seemed like I was spending more time fixing it than recording ... and so sage ELECTRONICS® was formed to produce gear in the spirit of classic 1960s / 70s equipment but with brand new high quality components ... great sounding single minded gear which will last for many years to come.

SE-Pre1s are built to last a very long time
~ we always suggest that Folks put 'em in their will !

Please Please Please ! We beg of you:

Before you connect and operate your SE-Pre1 at least read this one section of this very short and sweet handbook.

SE-Pre1s are very simple to set up and use but even with simple things it's important to be aware of a few dos and don'ts.

When you first unpack these new toys ~ carefully inspect them to make sure UPS or FEDEX haven't dropped 'em off the back of a semi at 60 miles / hour. There should be no dents, scuffs or loose items rolling around the inside of the unit(s) that might indicate foul play ...

Your package should include;

- the number of SE-Pre1 microphone preamps ordered
- same number of mic pre > power supply 4 pin DIN cables
- the number of SE-PS2 or SE-PS8 power supplies ordered
- 1 AC cable per power supply
- this CDR and / or paper handbook / warranty

IMPORTANT: WHENEVER YOU ARE PLUGGING OR UNPLUGGING THE 4 PIN DIN POWER CABLE WHICH RUNS BETWEEN THE POWER SUPPLY AND EACH SE-PRE1 MIC PRE ~ MAKE SURE THAT THE AC POWER SWITCH LOCATED ON THE POWER SUPPLY IS TURNED OFF OR BETTER YET ~ THAT IT IS UNPLUGGED FROM THE WALL. BECAUSE THE 4 PIN DIN CABLE SUPPLIES 3 DIFFERENT VOLTAGES TO THE SE-PRE1S IT IS ESSENTIAL THAT THESE PLUGS ARE CONNECTED PRIOR TO POWER ON.

Before anything else decide where to situate your SE-Pre1(s).
If you have purchased just one or two modules you may decide to keep them close to you such as on a desk top ~ especially if you're using a DAW setup.

Two or more units will likely work best mounted in a rack space (2 units can be mounted together horizontally in a 2RU 19" rack space or up to 8 units can be mounted together ~ upright in a 3RU 19" space.

After situating your mic pres you should select a location for the power supply. It can either be mounted in a rack or placed on the floor near but not too close to your mic pres.

Although SE-Pre1s are very well shielded against interference it is always better to not tempt fate. Keep modules as far away as possible from video monitors, TVs, power supplies, power amps and wall warts.

All of the above are capable of introducing or generating serious hum and radio interference in sensitive gear.

All microphones and preamps have the challenging task of amplifying the incredibly fragile and weak signals (sometimes only a few thousandths of a volt) generated by microphones - by as much as 1000 times to bring the signal to a hot enough level to properly feed into your recording device.

Whatever installation option you choose for the power supply make sure there is adequate ventilation around the unit. If it's on the floor or carpet make sure it's not going to end up being covered up by dust, cat hair balls, dead plant leaves or other undesirable detritus which may build up over time. Heat build up is the enemy of all electronic gear.

Do not thermally hasten the demise of your gear. It needs to breath.

Please feel free to contact us at any time at;

sage

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SE-Pre1, **SE-PS2** and **SE-PS8** are trademarks of sage ELECTRONICS®. Serial numbers are located on the rear and / or side of each unit. We suggest that you record your serial number(s) in the space(s) provided below. Refer to it / them whenever you contact us ~ or an authorized repair service.

Features and specifications subject to change without notice.

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Serial _____

Purchase Date: _____

Purchased From: _____

PRODUCT APPLICATIONS



SE-Pre 1[™] mic preamp

- as single module or w/ up to 8 channels in 3RU 19" rackmount
- home / project / DAW & professional recording studios
- live recording
- FOH sound systems
- critical field recording
- high-end sampling
- voice-over, broadcast and edit suites

a listen's worth a thousand words ...

PRODUCT FEATURES

- discrete class A transistor circuitry
- hand-selected, precision-matched components
- hand-wired and assembled
- incredibly open sound quality / extremely low self noise
- unclip-able input even by extreme mic signals (requires no input pad)
- +26 dBu output capable of driving a 600 ohm load or greater
(this covers everything from vintage gear to the latest digital audio workstations)
- +48 volt switch-able phantom power - with highly visible indicator
- *Vishay* gain pot
- gold-plated balanced XLR I / O connectors
- separate DC connector cable from each module to power supply - eliminates ground hum
- unique exotic wood front panel detailing w/ vintage-style knob and switch
- high voltage external power supply (+ / - 22 volts) {sold separately}
- designed and manufactured (by hand) in Canada
- all modules subject to lengthy burn-in period - for maximum reliability
- three year warranty

PRODUCT SPECS

for single channel rackmountable or desktop module

● dimensions:	4"d x 2"w x 3 rack units high (front panel = 2 1/4"wide x 5 1/8" high)
● weight:	2.7 lbs
● maximum gain:	50dB (can be customized)
● phantom power:	+48V DC (switch-able w/ indicator)
● equivalent input noise (EIN):	0.27 uV rms in 20 kHz bandwidth with 200 ohm source
● dynamic range:	> 90dB (no weighting)
● frequency response:	20Hz to 20kHz (+ / - 0.5 dB)
● input impedance:	2000 ohms
● output impedance:	100 ohms
● maximum input level:	+10dBu
● maximum output level:	+26dBu
● CMRR:	> 70dB
● total harmonic distortion (THD):	< 0.1% (typical)
● transistors:	hand-selected / precision matched
● power requirements:	SE-PS2™ or SE-PS8™ external supply

PRODUCT OPERATION

- IT IS VERY IMPORTANT THAT POWER TO THE POWER SUPPLY (SE-PS2™ or SE-PS8™) AND THE MIC PRE (SE-PRE1™) IS NEVER ACTIVATED UNTIL ALL CABLES HAVE BEEN PROPERLY CONNECTED
- before beginning assembly make sure front panel toggle switch on both the SE-Pre 1 mic pre and your SE-PS2 or SE-PS8 power supply are in the 'OFF' (lower) position
- connect AC cable to AC inlet located on rear of your SE-PS2 or SE-PS8 power supply
- connect opposite end of this AC cable to a 3 pin wall receptacle or a properly grounded 3 pin extension cord

WARNING: DO NOT PLUG THE SE-PS2 OR SE-PS8 POWER SUPPLY INTO A 2 PIN OUTLET OR EXTENSION CORD AS THIS DEFEATS THE SAFETY FEATURE OF THE THIRD GROUND PIN, LIKELY CONTRAVENES LOCAL WIRING REGULATIONS AND WILL BE DIMLY VIEWED BY YOUR INSURANCE COMPANY



SE-PS2 power supply front panel

SE-Pre 1 mic pre rear panel



SE - Pre 1™ microphone preamp

- confirm you have power to power supply by flipping the toggle switch on front panel of power supply to "ON" (upper) position (amber light will glow to indicate power supply is properly connected)
- NOW BEFORE CONTINUING WITH CONNECTION ~ FLIP THIS POWER SUPPLY TOGGLE SWITCH TO "OFF" (LOWER) POSITION
- locate the power interconnect cable and insert the 4 pin Neutrik male connector into corresponding connector on power supply ~ firmly
- insert female 4 pin DIN connector located on opposite end of this cable into corresponding connector on rear panel of your SE-Pre 1 mic pre ~ the small groove in the DIN plug should face up
- carefully rotate the connector's threaded retainer ring clockwise to secure DIN plug - Be careful to not cross-thread the ring
- set gain control knob on SE-Pre1 mic pre to full counter clockwise position
- make sure phantom power toggle switch on front panel of SE-Pre1 is in "OFF" (lower) position
- connect input source (ie: microphone) If source is a dynamic microphone or passive transformer DI box then phantom power is not required. Therefore leave SE-Pre1 toggle switch in "OFF" (lower) position. If signal source is a condenser microphone or an active DI box flip toggle switch to "ON" (upper) position. Amber light should glow to confirm 48 Volt power is present. If in doubt as to whether a device requires phantom power please consult the manual that came

with that device. Some vintage ribbon mics can actually be damaged by phantom power although this is extremely rare. Searching the archives of rec.audio.pro on the internet should provide further info on this matter. A few very recent ribbon mics actually require phantom power to operate as they are equipped with onboard active electronics.

WARNING: NEVER CONNECT OR DISCONNECT MICROPHONES OR DI BOXES WHILE THE SE-PRE1 PHANTOM POWER TOGGLE SWITCH IS ACTIVATED (IE: WHEN AMBER LIGHT IS GLOWING) THE SE-PRE1 HAS BUILT-IN VOLTAGE SPIKE PROTECTION TO PREVENT DAMAGE TO ITS INPUT STAGE; SHOULD AN INPUT BE ACCIDENTALLY CONNECTED OR DISCONNECTED WHILE PHANTOM POWER IS ACTIVE. HOWEVER PARTICULARLY IN A CASE WHERE THE GAIN CONTROL IS SET TO A HIGH LEVEL A LARGE VOLTAGE SPIKE CAN SERIOUSLY DAMAGE EQUIPMENT TO WHICH THE SE-PRE1 MIC PRE OUTPUT IS CONNECTED. THIS IS TRUE OF MOST MIC PRES -

In addition before turning phantom power toggle switch to 'OFF' (lower) position it is a good idea to turn the gain control knob to the lowest position (ie: full counter clockwise) to minimize switching 'thumps'

- under normal operations the SE-Pre1's balanced 3 pin XLR output is connected to a correspondingly balanced input on your recording device or mixer using an appropriate cable

HOWEVER IF AN SE-PRE1 IS TO BE CONNECTED TO AN UNBALANCED INPUT IT IS IMPORTANT TO USE A PROPERLY WIRED ADAPTOR CABLE WHICH USES ONLY PIN 2 (HOT) AND PIN 1 (GROUND). IN THIS PARTICULAR SITUATION IT IS ESSENTIAL THAT PIN 3 IS LEFT UNCONNECTED. IF YOU ARE UNSURE OF THE WIRING OF YOUR CABLE CHECK IT WITH A VOLTMETER TO CONFIRM THAT PIN 3 IS UNCONNECTED OR HAVE AN ELECTRONIC TECHNICIAN MAKE YOU AN APPROPRIATE BALANCED TO UNBALANCED CABLE.

- assuming all of the above has taken place ... adjust your SE-Pre1's gain control knob to produce suitable signal for your recording device or mixer as displayed on level indicator(s) ~ and enjoy !

The power supply is fuse protected. The fuse is a 1 amp slo blo 250 Volt. The fuse is located in a slide out drawer in the lower part of the AC inlet on the rear of the SE-PS2 or SE-PS8 power supply unit. The fuse drawer contains two sections. The inner section contains the active fuse and the outer section contains a spare fuse we have provided for your convenience. Fuses are commonly available from electronics supply stores.

WARRANTY

sage ELECTRONICS® warrants its products to be free from defects in material and workmanship under normal use and service for a period of three (3) years from the date of purchase. This warranty extends only to the original purchaser. This warranty does not apply to fuses, lamps, batteries, cables, or any products or parts that have been subjected to misuse, neglect, accident, or abnormal operating conditions.

In the event of failure of a product under this warranty, sage ELECTRONICS® will repair in Canada, at no charge, the product returned to its factory. sage ELECTRONICS® may, at its option, replace the product in lieu of repair.

This limited warranty covers failures due only to defects in materials and workmanship which occur during normal, intended use and does not cover damage which occurs in shipment or failures which are caused by products not supplied by sage ELECTRONICS®. This limited warranty does not cover failures which arise from accident, misuse, abuse, neglect, mishandling, misapplication, faulty installation, improper adjustment, alteration or modification of product, incompatibilities, line-power surges, acts of God, or service performed by anyone other than sage ELECTRONICS® or its authorized agent.

If the failure has been caused by misuse, neglect, accident or abnormal operating conditions, repairs will be billed at the normal shop rate. In such cases, an estimate will be submitted before work is started, if requested by the customer.

LIMITS AND EXCLUSIONS

There are no express warranties except as listed above. sage ELECTRONICS® shall not be liable for special, subsequent, incidental, consequential, or punitive damages, including, but not limited to: damage to recordings, microphones, mixing consoles, or any associated equipment, downtime costs, loss of goodwill, or claims of any party dealing with purchaser for such damages resulting from the use of this product. All warranties, express and implied, including the warranties of merchantability and fitness for a particular purpose are limited to the applicable warranty period set forth above

Some provinces / states do not allow the exclusion or limitation of incidental or consequential damages, or length of time an implied warranty remains in effect. As such, the above exclusions may not apply. This warranty gives you specific legal rights and you may also have other rights which can vary from province to province ~ state to state.

Should your sage ELECTRONICS® product require service or repair please email us at: sage@sageelectronics.com or call us at (613) 228-0449 ~ with the following information:

- * **your name**
- * **your return shipping address**
- * **your telephone number(s)**
- * **your product's model number (example: SE-Pre1)**
- * **your product's serial number (located on side or rear of chassis)**
- * **date and location of purchase**
- * **description of problem or the service required**

Upon sage ELECTRONICS®' receipt of the above information from you we will provide you with your return authorization number. From this point we ask that you please;

- **pack your unit carefully.** Use your original packing if possible. If you do not have the original packaging, make sure your unit has adequate protection. Tight thick bubble wrap and foam is best if you do not have the original packing
- **include a note in the box** describing your problem or the service that your unit requires. Be sure to **include your return authorization number** on this note
- **write your return authorization number on the outside of your package / carton**
packages without a return authorization number will be returned to sender
- **Customer is responsible for paying shipping and insurance to sage ELECTRONICS® facility.** sage ELECTRONICS® will pay the return freight and insurance via FEDEX ground or Canada Post.

end