
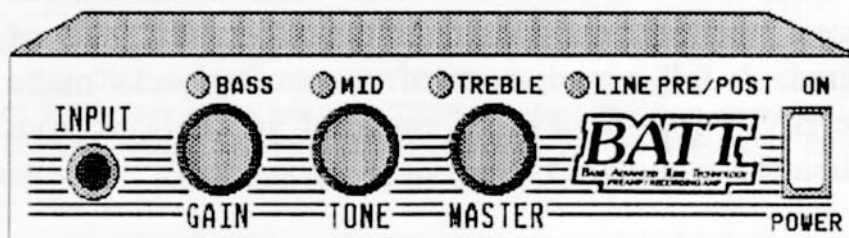


Hughes & Kettner® 

# BATT

BASS ADVANCED TUBE TECHNOLOGY  
PREAMP / RECORDING AMP



## INSTRUCTION MANUAL


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## ***THANK YOU***

*for selecting this quality Hughes & Kettner product.!*

The Hughes & Kettner BATT has been developed in conjunction with bass manufacturer ESH and German bassist Peter Sonntag. It has been fine-tuned to meet the requirements of demanding bass players. The BATT is a compact "Bass Sound Machine" which enables you to obtain great tube tone with the utmost of ease. The tone controls are very effective and precise, and the boost functions offer instantaneous access to several fundamentally different kinds of sound. A full complement of connecting jacks make the BATT ideal in a broad range of applications from rehearsal to studio to stage.

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## CONTROLS AND CONNECTION JACKS

**INPUT:** The BATT has two input jacks, on the front and one at the back. The input sensitivity of both are equal, and either can accommodate active or passive basses. The front panel input has priority, i.e. Instrument Input 2 on the back is automatically disconnected when the front panel jack is in use.

**GAIN:** The gain potentiometer controls the input level and thereby the sound characteristics of the preamp tubes. At low gain settings the BATT imbues the bass with warmth and fullness, and at medium levels delivers a fairly raw rock punch. From center settings onward, depending on the output level of the instrument itself, the preamp tubes add more and more harmonic distortion, thus intensifying the sound of the bass with characteristic tube overdrive.

**MASTER:** The MASTER control affects the overall output level of the signal at the LINE OUT and INSTRUMENT OUT jacks (assuming the TUBE/BYPASS switch in the back of the unit is in TUBE position), but does not affect the PA OUT, which remains a constant line-level signal, nor the SPEAKER OUT, the volume of which is controlled solely by the GAIN.

**TONE:** The control labeled TONE is a "one-knob tweaker" which can sweep the entire frequency range from powerful "cellar-bass" to the most transparent highs. Left of center (range from 30 Hz to 150 Hz), the low end will be boosted by a preset amount between + 4 dB to + 18 dB. In the center position both the bass and the treble receive a slight boost. To the right of center (range from 3 KHz to 15 KHz) the high end receives an ever-increasing amount of boost ranging from + 4 dB to + 22 dB, with a simultaneous reduction in bass.



**BOOST SWITCHES:** The three black pushbutton-switches for Bass, Mid, and Treble, are specially contoured to offer a dramatic amount of tonal control instantaneously.

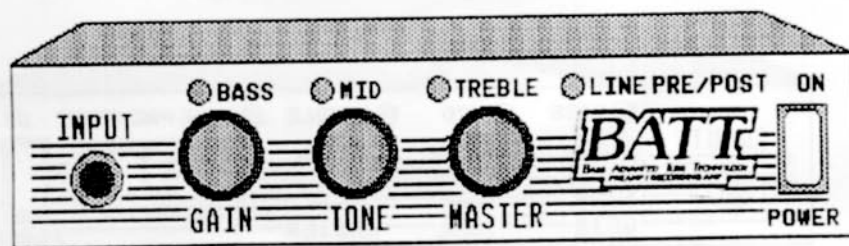
**BASS:** Boosts the frequency range from 80 to 400 Hz by approximately + 6 dB, bringing out fundamentals more strongly and adding a clearly audible "punch" in the low bass region.

**MID:** Boosts the range between 500 Hz and 2 KHz by approximately + 2 dB, adding clarity to the attack of each note, and providing the necessary penetration in band situations.

**TREBLE:** Boosts the entire frequency range between 1 KHz and 20 KHz by approximately + 8 dB. This emphasizes the harmonics inherent in the instrument, adding bite and sparkle overall. The TREBLE boost in combination with the TONE control is capable of producing some extraordinarily bright sounds.

**LINE PRE / POST POWERAMP:** With this switch, to the right of the three boost switches, you can select whether the signal appearing at the LINE OUT jack is tapped immediately after the preamp tube, or whether it goes through the power amp tube as well. Your choice will have a considerable effect on the overall sound. By fine tuning the GAIN and MASTER controls while using alternate settings of this switch, you can uncover further sound variations, from clear, to gritty, to growly, to all-out overdrive.

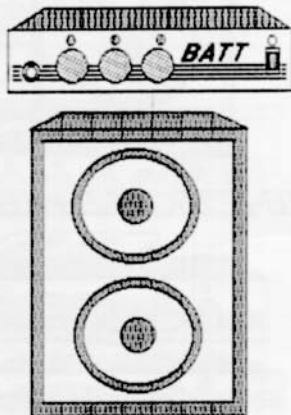
**TUBE AMP / BYPASS SWITCH:** This switch on the back of the unit will normally be set to TUBE. The LED next to the INPUT on the front panel will confirm this by being illuminated in tube mode and dim in bypass mode. In normal operation the signal runs through the tube section and appears at the LINE OUT, SPEAKER OUT, PA OUT, and INSTRUMENT OUT jacks. In bypass mode, the PA OUT jack is inoperative, thus allowing you in a live situation to tune up or swap instruments easily without being heard by the audience through the house system. The TUBE/ BYPASS function can also be switched using a conventional on-off footswitch.



## AMP FOR ALL SEASONS:

The Bass Advanced Tube Technology Amp / Preamp possesses a versatile array of jacks making the BATT at home in every conceivable situation, be it stage, studio, or practice. You can connect it to any speaker cabinet directly and use it as a practice amp head. You can connect it directly to a mixing console or multitrack recorder and use it as a studio quality bass preamp. You can connect it to a power amp and bass cabinet, using it as a live preamp. Or you can add it to an existing bass rig. (The BATT with its Advanced Tube Technology will breathe life into any sterile amp!)

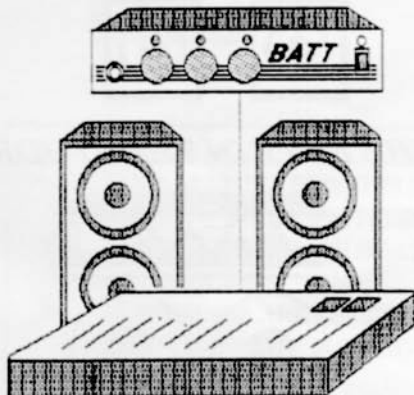
### ***THE BASS PRACTICE AMP***



### **SPEAKER OUT:**

the SPEAKER OUT jack on the rear panel of the unit is specially designed for direct connection to any desired speaker cabinet. The built-in 5 watt valve power amp (EL 84) is more than adequate for home practice or accompaniment. Like the signals for the other outputs, the SPEAKER OUT can be switched to PRE or POST power amp: it delivers the same level whichever option is selected.

### ***THE LIVE AND STUDIO AMP***



### **PA OUT:**

for connecting to the stage box during live gigs where a PA system is being used. The PA OUT signal delivers a constant LINE LEVEL SIGNAL and is therefore unaffected by the MASTER pot setting. However, gain, tone control and boost functions are still operative. When the TUBE / BYPASS switch is in BYPASS position, the PA OUT jack receives no signal, thus making it convenient to tune, or change basses.

### LINE OUT:

used to feed the power amplifier when the BATT is acting as a preamplifier in a complete rig. The output from the BATT is connected to the input of the power amp, and the output of the power amp is connected to the speaker cabinet. The LINE OUT signal can also be used as an alternative to the INSTRUMENT OUT jack when connecting the BATT to an external preamp, although it is important to ensure correct level matching.

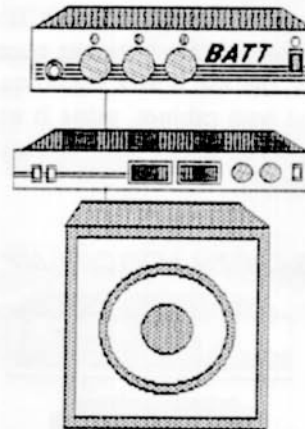
### INSTRUMENT OUT:

The INSTRUMENT OUT is designed as a signal path for connecting the BATT to an external amp or preamp, or for connecting two BATT preamps together. In TUBE position, the GAIN / MASTER section and the tone controls can be used to control the signal. In BYPASS, the signal is preamplified but unaffected by the tone control setting.

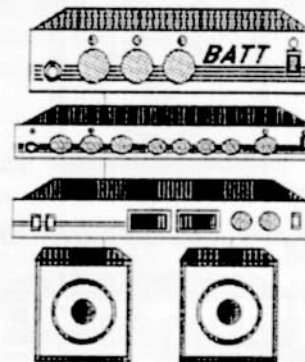
### IN THE STUDIO:

To feed a signal directly from the BATT to a line input on the mixing console or tape recorder, you have a choice of three outputs: the PA OUT (in which case the signal level is independent of the MASTER volume setting), the LINE OUT, and the INSTRUMENT OUT. No space or volume problems, no miking hassles, just full-bodied sound is available in an instant.

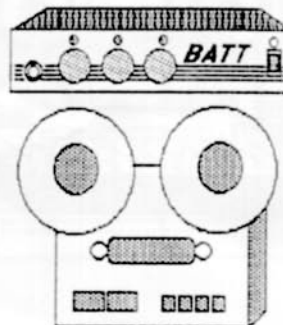
### *BATT AS A PREAMP*



### *THE FLEXIBLE PREAMP*

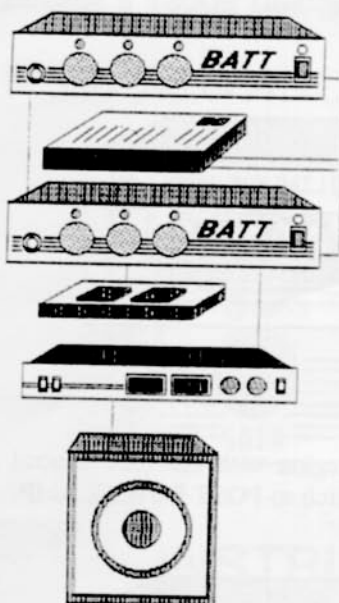


### *THE BATT IN THE STUDIO*



**RACK MOUNTING / BASS MASTER STAGEBOARD:** The BATT can be used as a stand-alone preamp or as an extension to an existing system. Hughes & Kettner offer special single and twin adaptors to facilitate 19" rack mounting. A Sound Machines STAGEBOARD is optionally available for easy on-stage switching of two units (Unit 1 / Unit 2 / Bypass ).

**THE STAGE/LIVE SET-UP FOOTSWITCH:**



A jack for connecting the BATT STAGEBOARD, designed to facilitate on-stage switching between different sounds such as two different BATT's. The INSTRUMENT OUT socket of the first unit is connected to the INPUT of the second. The second unit's LINE OUT jack is then used to control the amplifier/speaker combination for the stage sound. The PA OUT signal of each unit can be connected to a separate channel on the mixing console, and the STAGEBOARD connected to both can switch between the two.

- **PLEASE NOTE:** VALVES NEED TO REACH THEIR CORRECT OPERATING TEMPARATURE FOR THIS REASON, THE BATT NEEDS A FEW MOMENTS TO WARM UP AFTER SWITCHING ON BEFORE IT IS READY FOR USE.
- VALVES GEBNERATE HEAT, MAKE SURE THAT THE UNIT'S AIR VENTS ARE NOT BLOCKED.
- HOT VALVES ARE SENSITIV TO SHOCKS. ALLOW THE UNIT TO COOL OFF BRIEFLY BEFORE MOVING IT. AVOID JOLTING THE BATT DURING OPERATION.
- **TECHNICAL DATA:** POWER RATING: APPROX 25 WATT
- INPUT SENSIVITY: 300 mV / - 10dB FUSE VALUE: 315 mV / SLO-BLO.

## BATT SUGGESTED CONFIGURATION

The sounds suggested here can only be rough indication, as they will vary considerably depending on the instrument used and your playing technique. Once you have set-up a basic sound which you like, the boost functions and the pre/post power amp switch provide instant access to different sounds.

### 1. "STRAIGHT ROCK":


For raw valve sounds, turn gain little over half way. MID BOOST is activated, LINE PRE/POST switched to POST power amp.



### 2. "SLAP ATTACK":

Set GAIN between 4 and 5, emphasize the bass region with the tone control, activate BASS and TREBLE BOOST and set the switch to POST POWER AMP.



*Hughes & Kettner* 

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# FOOTSWITCH

Footswitch modes: MUTE+BYPASS, or TUBE+TUBE

