

straight into Pro Tools, Logic or any other DAW application. The digital output signal is in 96 kHz/24 Bit AES/EBU format. This ensures the highest possible resolution and quality of your recorded bass signal. To determine where in the signal chain the signal for the digital output should be tapped, use the PRE/POST switch located right beside the LINE DRIVER OUT jack on the BLACKSMITH's rear panel. Your bass signal is present on both Left and Right digital channel.

Setting up for recording:

In order to record straight from BLACKSMITH's digital output, follow these steps:

- Connect BLACKSMITH's DIGITAL OUT to your DAW.
- Set your DAW to sync/slave to "external clock".
- Hit the record button in your DAW and start playing.

SPDIF Compatibility

While a simple XLR to RCA converter may suffice to allow recording through an SPDIF interface, please note that AES/EBU and SPDIF have different level and impedance specifications, which in some cases can cause compatibility problems.



If you want to record with an analog signal instead, you may also use the BLACKSMITH's balanced output signal from the LINE DRIVER OUT jack.

6 – INSERT PREAMP I/O – Effects Loop/Break point

These jacks provide a break point between BLACKSMITH's *preamp* section (which includes SpectraComp™, Tone controls and the TubeTone™ module) and the *power amp* section. This break point can be used as a regular serial effects loop for inserting e.g. modulation effects or other external devices.

Linking Two Amps

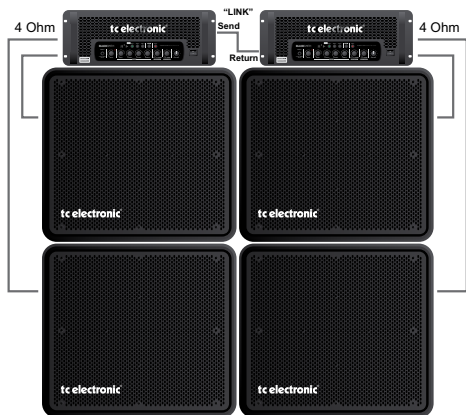
The break point may also be used to link two BLACKSMITH units together to achieve even more power.

- Use a standard 1/4" jack instrument cable to connect the first BLACKSMITH SEND (the upper) to the second BLACKSMITH's RETURN (the lower jack).
- Plug your bass into the INPUT jack on the first BLACKSMITH and adjust your sound using the controls on this BLACKSMITH.
- Set the volume using the MASTER volume knobs of both amps. You now have – let us say "enough" amplification power at your fingertips!



Please see relevant setup example on the following page.

OPERATION REAR PANEL



*Example: 1600 W power per stack.
The left head controls both stacks.*

8 – LINE DRIVER OUT – Balanced Line Out

Use the LINE DRIVER OUT jack to connect your BLACKSMITH to the PA when you play on stage or to connect it to a recording device when you are in the studio.

To determine where in the signal chain the signal for the balanced output should be tapped, use the PRE/POST switch (7), located right next to the LINE DRIVER OUT jack.



BLACKSMITH's MUTE button mutes both the speaker and headphones outputs. This means that you can tune up with no sound going to your own rig or to the PA.

BLACKSMITH's balanced output has been designed with the utmost care for the sound. This is achieved through a galvanic isolated transformer coupling. The active design by far outperforms most standard DI boxes around, and it is capable of driving long cable hauls. No phantom power is required.

Ventilation

Be sure not to cover the black cooling plate of the BLACKSMITH amplifier! Insufficient ventilation may cause the amplifier's temperature to increase.



If your BLACKSMITH is insufficiently ventilated, it may go into Heat Protection mode, which is indicated by an "H" on the front panel display. Please read more on the following page.

Protection mode

BLACKSMITH is equipped with an intelligent protection system, ensuring that the amp does not suffer or malfunction if operated wrongly or in extreme environments.

General Protection mode

If the BLACKSMITH's display indicates "P", the amp is in *Protection mode*.

Protection mode is invoked if for some reason a short-circuit situation occurs. In Protection mode, the speaker outputs are shut off so that the speakers cannot be damaged by a shortcut. The balanced output, digital recording out and the effects loop, however, are still passing audio in Protection mode.

To remedy the problem, try turning off your BLACKSMITH for a minute and then turn it on again. If the display still indicates "P", you will have to send your BLACKSMITH to a qualified service-center for inspection.

Heat Protection Mode

If the display indicates an "H", the amp is too hot. This is rarely seen, but a few extreme situations can invoke this mode:

- a) If the amplifier is used in an environment that is too hot, or if proper ventilation is not ensured.
- b) The Load Impedance switch on the amplifier's back plate must match the load of the connected cabinet configuration. If the Load Impedance switch is set to 4 Ohm and the amplifier is run at high levels over a long period of time with a 2 Ohm speaker configuration, the amplifier may enter Heat Protection mode.

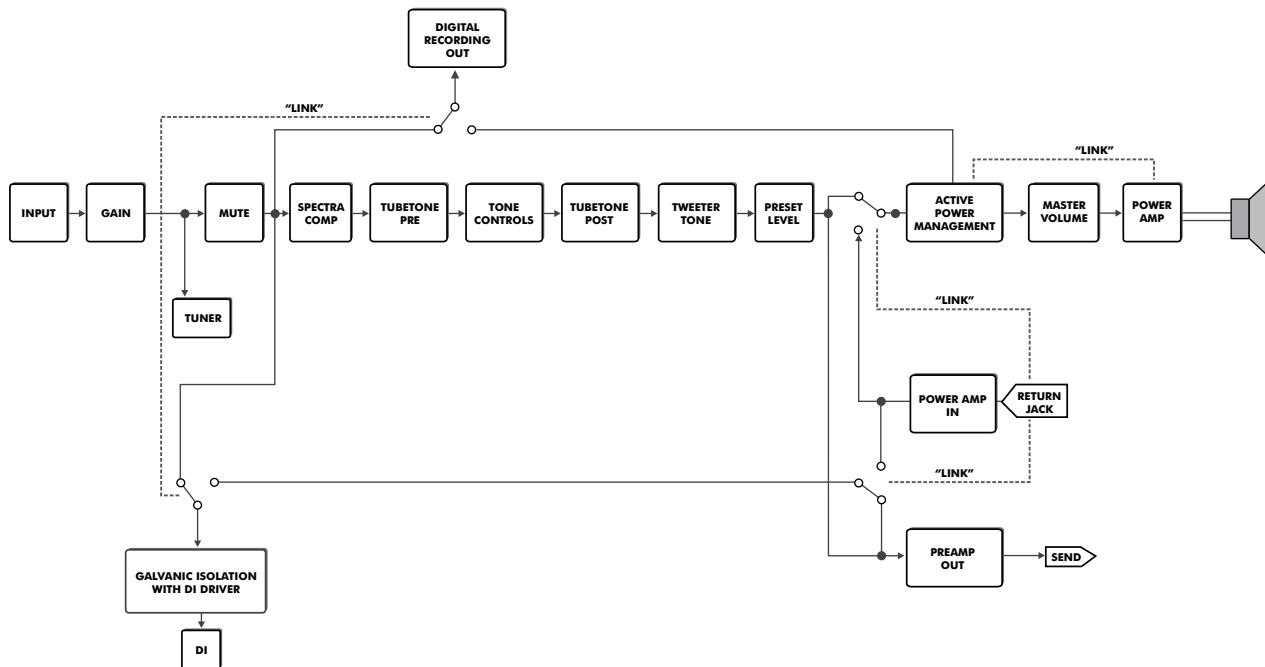
In both situations, proceed as follows:

- Turn off the amplifier.
- Solve the issues.
- Allow the amplifier to cool off for a few minutes.
- Turn on the amplifier again.



Notice that due to Blacksmiths protection features the amplifier will NOT be damaged if a wrong Load Impedance setting is selected.

APPENDIX – SIGNAL FLOW



APPENDIX – TECHNICAL SPECIFICATIONS

Input Section		Power rating	1600 W (4500 W Peak)
Input connector	1/4" jack	2 Ohm / >4 Ohm setting	Recessed Toggle Switch
Input impedance	1 MOhm / 100 pF	Balanced output	Transformer Balanced XLR, Pre/Post Pre-amp
Gain range	-96 to 32 dB	Max. Output	+0 dBu
Tone controls		Optimal Load Impedance	600 Ohm
Bass	Default Freq: 200 Hz (range: 71-1120 Hz, Gain: +15/-24 dB) - Shelving type.	Preamp out	1/4" Jack, Balanced Output, Max Output Level = +8 dBu
Low Mid	Default Freq: 400 Hz (range: 100-1600 Hz, Gain: +15/-24 dB)	Power amp in	1/4" Jack, balanced input, impedance = 10 kOhm, Max Input Level = +8 dBu
High Mid	Default Freq: 800 Hz (range: 200-3150 Hz, Gain: +15/-24 dB)	Digital Recording out	Balanced XLR, AES/EBU, (24 Bit)
Treble	Default Freq: 4000 Hz (range: 400-6300 Hz, Gain: +15/-24 dB) - Shelving type.	Remote connection	5 pin DIN, Cable with shield
Tweeter Tone	-12 to 12, L-PAD Cabinet Recreation	Operating/Storage Temperature	0° C to 50° C / -30° C to 70° C
Tube Tone	0 to 12, Tube amp Recreation	Humidity	Max. 90 % non-condensing
Spectra Comp	3 band Spectral Compression	Dimensions	483 x 412 x 178 mm / 19" x 16.2" x 7"
Preset Level	-12 dB to 0 gain attenuation	Weight	12 kg / 26.5 pounds
User Memories	3 memory locations storing all front panel controls except Mute & Master Level	Finish	Anodized aluminum front Plated and painted steel chassis
Tuner			
Tuning range	Chromatic, constant on A0 (27.50 Hz) to E5 (659.26 Hz)		
Mute	Mutes Speaker out and Balanced out		
Mains supply	100-120V~ or 220-240V~ 50/60 Hz (200 W @ 1/8 Power)		
Speaker out	2x Speakon™		

Due to continuous development, these specifications are subject to change without notice.

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