

SPECIFICATIONS

INPUT:	Input Impedance		2 Mohms // 100 pF
	Phantom Power	Optional	10 V, 20 mA max.
GAIN:	Gain Range	min/max	-∞/+30 dB
	Gain Peak LED		+10 dBv
	Frequency Response	+0 / -3 dB	20 - 20.000 Hz
CHARACTER:	Filter:	Type	Shelving High/Low Pass
	Gain:	Lo	+6 dB @ 80 Hz
		Mid	-2 dB @ 900 Hz
		Hi	+3 dB @ 7.5 kHz
COMP/LIMIT:	Compressor Gain		0 dB
	Attenuation	max	24 dB
	Compression Ratio	max	3:1
	Attack (80%)	typ	<10 ms
	Release (80%)	typ	100 ms
FILTER SECTION:	Bass Filter:	Type	12 dB/oct. Shelving
		Gain Range	+/- 18 dB @ 60 Hz
	Middle Filter:	Type	Bandpass Filter
		Frequency Range	50 - 5.000 Hz
		Q - Boost	0.5 - 1.3
		Q - Cut	0.5 - >5
		Gain Range	+/- 12-15 dB
	Treble Filter:	Type	Shelving
		Gain Range	+/- 18 dB @ 8 kHz
	Bright:	Type	Shelving
		Gain Range	>15 dB @ 10 kHz
BALANCED OUTPUT:	Output Level	Nominal	-10dBv
	Frequency Response	+0/-3 dB	35 - 20k Hz
	XLR Connections		1-GND, 2-Hot, 3-Cold
	Options		GND Lift, Post EQ, Spkr Sim
EFFECT LOOP:	Loop Signal Level	nominal	-10 dBv
	Gain		Unity (1:1)
	Output Impedance		<100 ohms
	Input Impedance		>50 kohms // 100 pF
	Phantom Power	Optional	10 V, 20 mA max.
REMOTES:	Connections:	REMOTE	RING = Mute, TIP = Drive
		FILTERS	RING = Filters, TIP = Character
	Function:		Connect to GND for operation, 5 mA current for LED.
LINE OUT:	Output Impedance		<5 kohms
	Signal Level	nominal	0 dBv
POWER AMP:	Continuous Output Power	@2-4 ohms	300 W RMS
	Dynamic Output Power		350 W peak
AUXILIARY INFO:	Power Requirements	max	400 W
	Mains Protection:		T3.15 Fuse (230V) T6.3A Fuse (100/120V)
	Dimensions (WxDxH)	max	48 cm x 33 cm x 9 cm 19" x 13" x 3.5"(2U)
	Weight:		9 kg (20 lbs.)

Specifications are subject to change without notice!

Users Manual

HD360

PROFESSIONAL HIGH DEFINITION BASS HEAD



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EBS HD360

PROFESSIONAL HIGH DEFINITION BASS HEAD

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Welcome to the EBS HD360 Bass Head!

The EBS HD360 provides a full bodied, warm and transparent tone throughout the entire range. It is equipped with EBS renowned built in compressor, an extensive Drive circuitry, professional balanced XLR-output, Character filter and an efficient 4-Band EQ that lets you master the sound. The HD360 does not compromise on the tone, it uses and benefits from all the 360 Watts RMS, without getting muddy or clipping, giving a powerful and highly portable amp with an impressive tone that will handle any stage or studio session gig.

The EBS HD360 handles loads down to 2 ohms and is the perfect companion to a stack of EBS ProLine or NeoLine cabinets, or used with a single full size EBS cabinet.

The HD360 amp is designed, developed and built in the heart of Sweden by EBS.

GETTING STARTED...

1. Carefully unpack the bass head.
2. Check that all knobs are set fully counter clockwise besides the EQ controls marked BASS, MIDDLE and TREBLE which should be set to mid position. Make also sure all push switches are set to their outer positions. Now the EBS HD360 settings are "zeroed" and ready to be personalized.
3. Connect one or more speaker cabinets to the speaker output. Make sure the total impedance is not below 2 ohms.
4. Turn on the POWER switch.
5. Plug in your bass. While plucking the strings as hard as you would during your hardest playing, gradually increase the GAIN knob until the peak LED starts to flash at peaks.
6. Move over to the VOLUME knob and adjust for the desired output volume.

BUILDING THE SOUND...

7. The first tonal shaping circuitry is the Character Filter next to the GAIN control. This filter provides a preshape EQ prior of further fine tuning of your sound.
8. Enable the filters by pressing the Filter Active pushbutton and explore the filter section. Play your bass. Note that there isn't any difference in sound yet.
9. The filters are basically of the boost/cut design. This means that the level controls marked with + and - signs, either boost or cuts the selected frequency band. Further, the MIDDLE section has got a frequency control for precise adjustment of the midrange.
10. Gradually increase or decrease the level and vary the frequency of the middle filter when operating the middle filter. Notice how the sound is effected. An A/B comparison can be made by toggling the filter active switch.
11. Proceed to the COMP/LIMIT knob. This control adjusts the compression and is useful when playing very dynamic or loud.
12. Turn up the COMP/LIMIT knob to mid and max position. Notice how the peaks in volume will straighten out as you play harder and harder.
13. Now, go on to the BRIGHT and turn it half way up. Play your bass. The BRIGHT filter is a high pass filter which works on the highest frequencies of the bass to give enhanced ambience and presence.
14. Finally, proceed to the DRIVE control and try increase this setting gradually until maximum position for a heavily over driven sound.

This was a brief introduction and as you go on further in this manual, you will learn how to use and utilize all of the useful features that the **EBS HD360** offers.

GOOD LUCK !

FUNCTIONAL DESCRIPTION REAR PANEL:

①

EFFECTS LOOP – EBS HD360 is provided with an effect loop for the use of external units such as box or rack effects.

The loop puts the external effects after the filter, compressor and drive sections.

The effect loop also facilitates the option of phantom power. To activate the phantom power, set the switch for the *phantom power loop return* on the rear panel to OUTER position.

FX MIX – This control controls the mix level for the effects loop, from 0% (off) to 50% (parallel), to 100% (serial)

②

TUNER OUT - This low impedance output is suitable for driving tuners. The signal from this output is identical to the input.

③

REMOTES – The EBS HD360 is equipped with two remote jacks for controlling with foot switches the *character*, *filter active* switches, drive section, plus a mute function.

You may use any standard footswitch pedal making connection to ground for each of the remote functions.

Refer to the rear panel screen print and technical specification for further info.

Note: Each of the filter switches on the front panel needs to be set to inner position in order to be remotely controlled

④

PHANTOM POWER SWITCHES - These switches activates the phantom power for the *input* and *effects return jack* respectively, when set to OUTER position.

⑤

LINE OUT - This is a fullrange output that will drive multiple poweramps, extending the power of the system. The signal present at this output is taken after the volume control.

⑥

SPEAKER OUTPUT – Connect your speakers here. These two outputs are connected in parallel.

Note: Total lower impedance than 2 ohms may cause permanent damage to the amp.

EBS will not take responsibility for eventual hearing damages caused by the powerful EBS HD360.

⑦

SYSTEM FAN – The amps performance is maintained among other techniques with a temperature controlled fan.

Make sure not to cover the ventilation openings of the amp! IMPORTANT!

⑧

MAINS – Connect only to the indicated mains AC voltage and replace fuse if needed only with same type and value.

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DRIVE - The DRIVE knob controls the amount of gain in the tube emulation stage, and provides an extra gain all the way up to 34 dB. The gain is compensated over this section producing a warm overdrive while the output remains more or less constant. This control also compresses the sound when turning up level up to maximum, producing pure limitation.

This Drive function can be controlled by a foot switch remotely. See rear panel descriptions for more details.

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VOLUME - The VOLUME knob controls all volume in the unit, controlling the poweramp and LINE outputs. The balanced output (XLR) is not affected by the setting of this knob.

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BALANCED OUTPUT - A balanced output functions as a high quality line box for connecting to PA mixing consoles or to studio or broadcast recording units, with high noise immunity. The volume level does not effect this output.

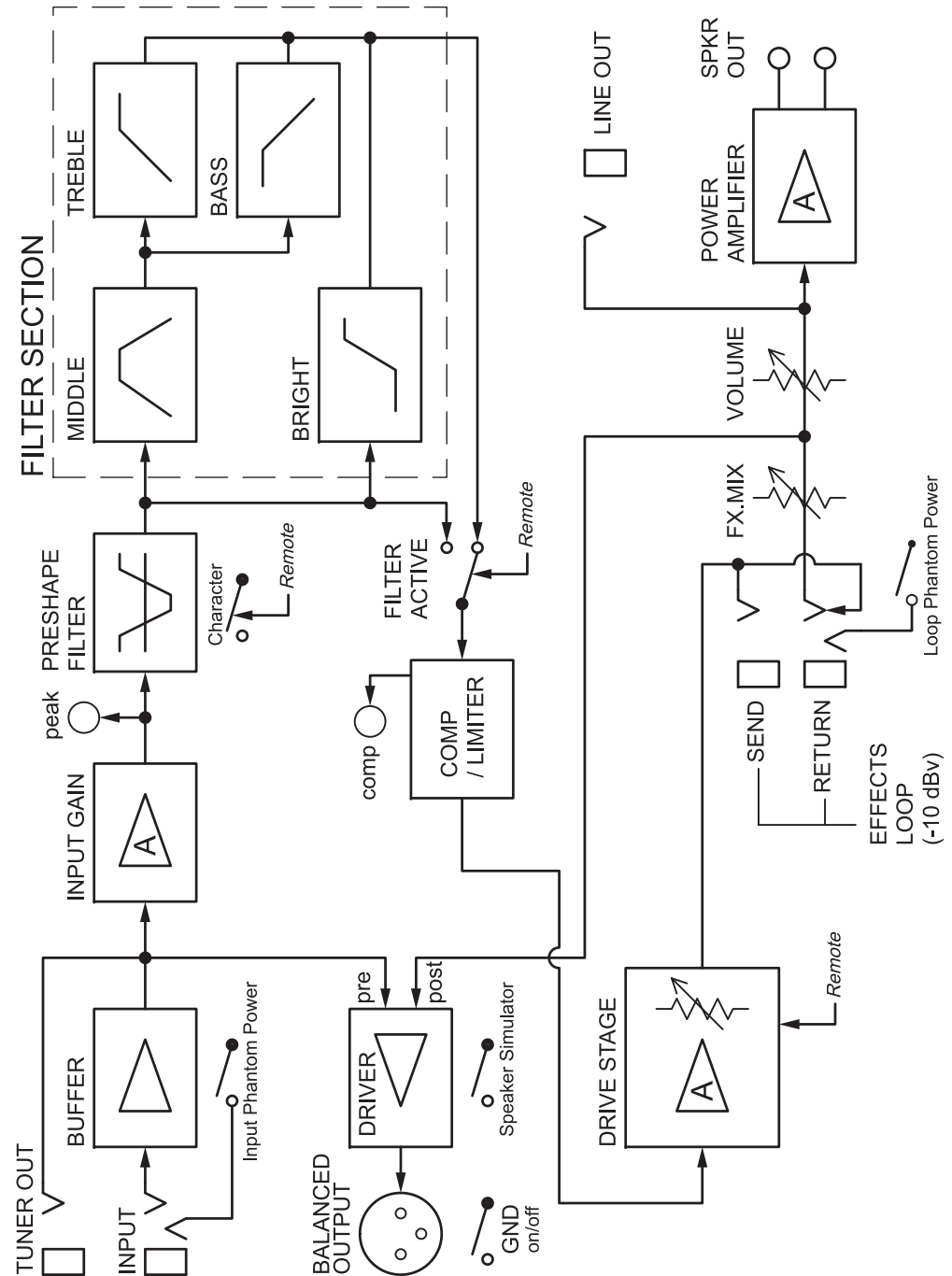
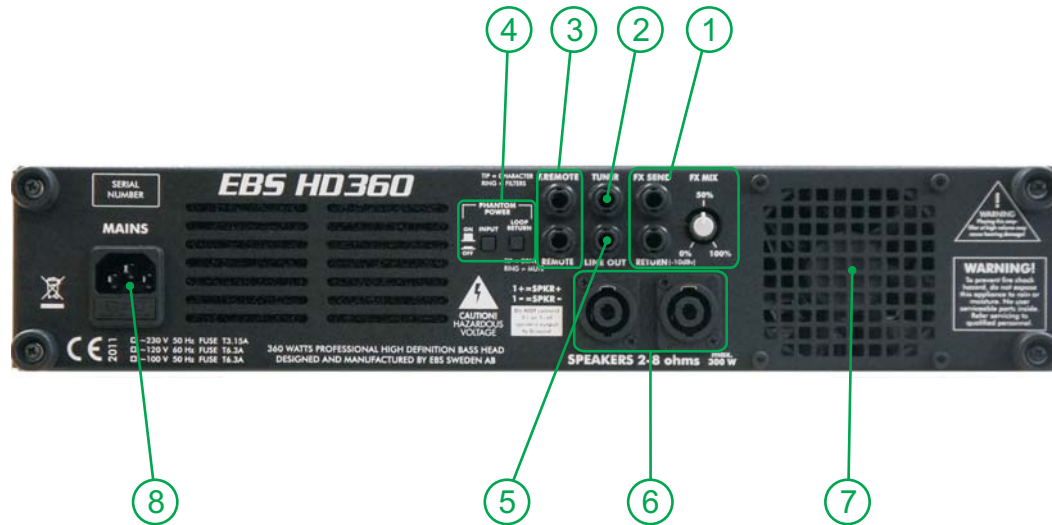
Lifting ground is a great aid in many occasions eliminating ground noise and hum. When required, press the *Gnd Lift* switch to disconnect the ground from the output.

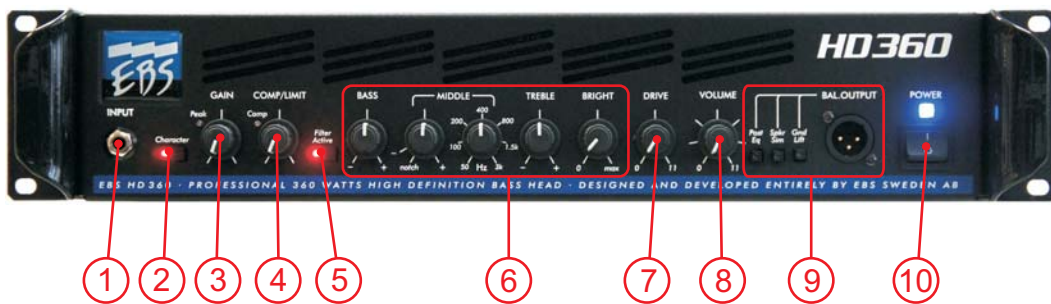
The *Post Eq* switch at the front selects the signal source. In the inner position this switch selects the overall sound included effects, otherwise, in the lower position an uncolored sound is taken immediately after the input.

The EBS HD630 also features a speaker simulator for the balanced output. Press the *Spkr Sim* button to activate this function.

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POWER - Switches the amp on or off.





FUNCTIONAL DESCRIPTION FRONT PANEL CONTROLS:

①

INPUT - A low noise, high impedance instrument input that will power active pickups and circuitry. If you want to use this function, take away the 9 volts battery from your bass and strap + and - pole on the battery holder.

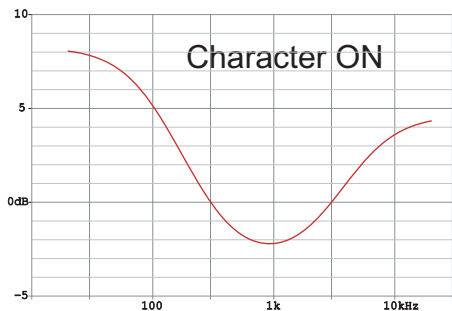
Use a standard stereo cable when using the phantom powering from the EBS HD360.

If you do not wish to use this feature, make sure the *Input Phantom Power* switch on the rear panel is set to OFF to defeat the phantom power.

②

CHARACTER FILTER - The EBS HD360 provides a preshape filter, *Character*, which operate independently from the other preamp functions. This gives the user the opportunity to preshape the sound before the final processing with the other features of the preamp.

When pressed to inner position, boost is achieved in bass and treble ranges respectively, while the midrange has a slight drop in gain.



③

GAIN - Control to adjust the instruments' signal strength to the right operating level in the EBS HD360.

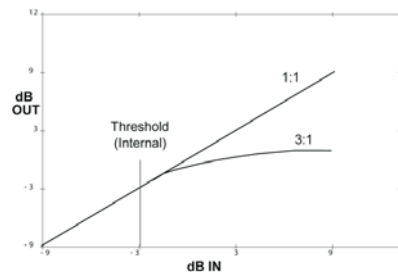
For optimum basic signal level, turn up the GAIN knob until the PEAK led starts flashing from the strongest signal from the instrument.

Note: A correctly set GAIN is vital for the signal processing to work properly in the EBS HD360.

④

COMP/LIMIT - A low noise compressor limiter that works fast and effectively, tightening up the sound and preventing the bass head from saturating at peaks when approaching the headroom limit.

The COMP/LIMIT knob sets the compression ratio, i.e. The signal strength relation between the input and output; the higher ratio the more compression. The LED indicates the amount of compression during play.



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⑤

FILTERACTIVE - This switch activates the filter section described under point 6. This switch can also be remote controlled by a foot switch. See rear panel descriptions for more details.

⑥

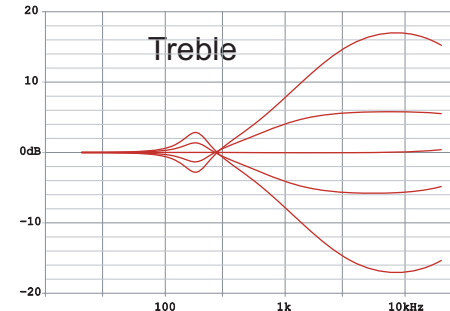
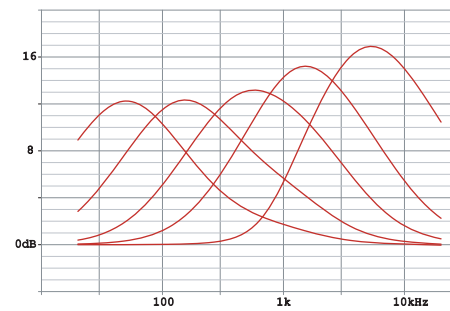
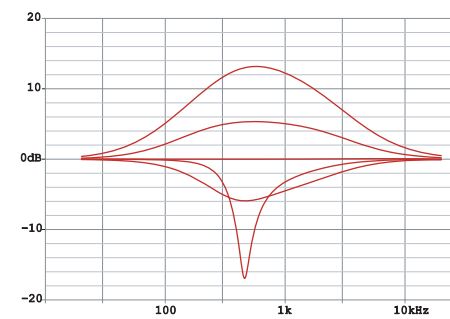
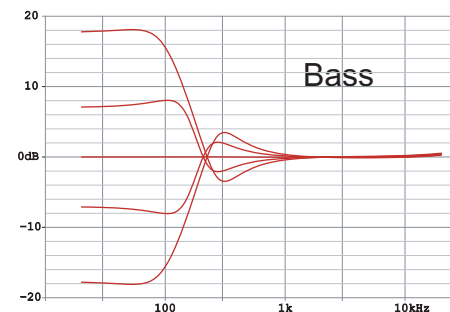
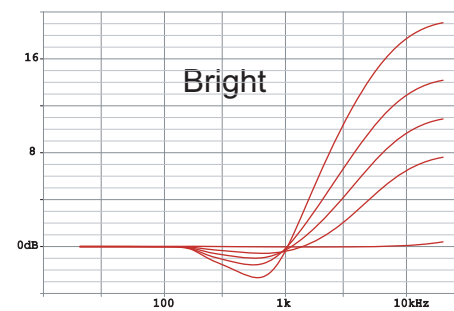
FILTERS - The filter section contains four enhanced performance filters:

BASS is a 'shelving' type 12dB/oct slope phase compensated bass filter with a wide gain range.

MIDDLE has an extended frequency range of 50-5000 Hz. This filter facilitates total control over the mids, with a wide bandwidth giving a natural and non-peaking result using frequency dependent gain. In addition, at minimum setting this filter facilitates a notch function, suitable for cutting an exact frequency or eliminating acoustic coupling.

TREBLE is a shelving type filter controlling the higher mids and treble registers, giving presence and ambience to the sound.

BRIGHT is an advanced high pass filter capable of producing bright high treble timbre, without adding practically any noise.



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