

Blackstar[®]

AMPLIFICATION



HT STUDIO 20/20H

Owner's Manual

the sound in your head

Introduction

Thank you for purchasing this Blackstar HT Studio 20 amplifier. Like all our products, this amp is the result of countless hours of painstaking Research and Development by our world-class design team. Based in Northampton (UK), the Blackstar team are all experienced musicians themselves and the sole aim of the development process is to provide guitarists with products which are the ultimate tools for self-expression.

All Blackstar products are subjected to extensive laboratory and road testing to ensure that they are truly uncompromising in terms of reliability, quality and above all TONE.

The HT Studio 20's flexible two channel design features the unique patented ISF (Infinite Shape Feature) control and although it has a comprehensive control set, it is still simple and intuitive to use. Please read through this handbook carefully to ensure you get the maximum benefit from your new Blackstar product.

If you like what you hear and want to find out more about the Blackstar range of products please visit our website at www.blackstaramps.com.

Thanks!

The Blackstar Team

Features

The HT Studio 20 is a highly versatile amplifier suited to a wide range of playing styles and situations.

The Clean Channel provides a wide range of clean and moderately overdriven tones. The voicing is typical of many 'boutique' style amplifiers with a ringing Class A type performance. The overall character may be adjusted with the Tone control from dark and warm through to bright and sparkling.

The HT Studio 20 Overdrive Channel is characterised by a tone which is high in gain, but lacks any of the detached top-end 'fizz' often found in many similar designs. This is a result of unique preamplifier and power amplifier shaping techniques, which also benefit the player in the way the overdrive cleans up beautifully as the guitar volume is reduced. Even at the most extreme settings, the Overdrive Channel remains natural sounding.

The HT Studio 20 Overdrive Channel also has its own highly flexible EQ section providing a variety of overdriven tones. The patented ISF (Infinite Shape Feature) control is unique to Blackstar Amplification and represents a major step forward in tone shaping flexibility. The ISF control shifts the response of the three control tone stack between a US type response at one end, and at the other a UK type response. Importantly, in between the two extremes lie an infinite number of alternative tone choices that would be otherwise unavailable.

The HT Studio 20's two channel design has been optimised for either preamp or power amp overdrive, or a combination of both. The carefully voiced preamp and cathode biased dual EL34 power amp configuration provides the user with the ability to create wonderfully lush valve tones. From mild overdrive that cleans up by backing off the guitar volume control, to highly saturated distortion, this amp does it all.

The HT Studio 20 also features a completely natural sounding digital reverb, which is outstandingly musical on both clean and crunch tones and raises the benchmark for guitar amplifier specific reverb design.

Front Panel

1. Input

Plug your guitar in here. Always use a good quality screened guitar lead.

2. Clean Volume

This controls the volume of the Clean Channel. Turning it clockwise increases the volume. At higher settings the channel will start to overdrive, particularly with higher output pickups.

3. Clean Tone

The Tone control allows adjustment of the balance between treble and bass frequencies within the sound. At low settings (counter clockwise) the sound will be warmer and darker in character. As the Tone control is rotated clockwise the sound will become brighter.

4. Overdrive Indicator

When the red LED is on, the Overdrive Channel is selected. When the LED is off, the Clean Channel is in operation.

5. Overdrive Select

Press this switch to select the Overdrive Channel.

NOTE: This switch must be 'in' for the footswitch to work.

6. Overdrive Gain

The Gain control adjusts the amount of overdrive or distortion on the Overdrive Channel. Low settings (counter clockwise) will deliver a clean sound on the edge of break-up. As the Gain control is increased clockwise the sound will become more overdriven, moving through crunch tones until, at its maximum position, a full distorted lead tone is arrived at.

7. Overdrive Volume

This control adjusts the volume of the Overdrive Channel. Turning it clockwise increases the volume.

8. Bass

The Bass control adjusts the amount of low-end frequencies in your tone. This amp has an advanced tone shaping circuit which allows the tone to be varied from tight and cutting when counter clockwise, to warm and thumping when fully clockwise.

9. Middle

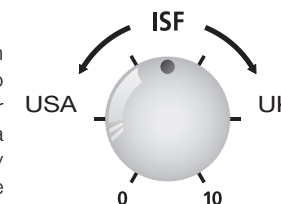
The Middle control adjusts the amount of middle frequencies in your tone. The middle frequencies are particularly important in setting the amount of 'body' your tone has. With the Middle control set to its minimum position (fully counter clockwise) the sound will be aggressive and scooped, a tone ideal for aggressive rhythm playing. As the Middle control is increased (clockwise) the amount of 'body' is increased, which is more suitable for sustained lead guitar tones.

10. Treble

The Treble control allows exact adjustment of the treble frequencies within the sound. At low settings (counter clockwise) the sound will be warm and darker in character. As the Treble control is increased (clockwise) the sound will become brighter. At the maximum setting the sound will be aggressive and cutting.

11. ISF (Infinite Shape Feature)

The patented ISF control works in conjunction with the Bass, Middle and Treble controls. It allows you to choose the exact tonal signature you prefer. Fully counter clockwise has a more American characteristic with a tight bottom-end and more aggressive middle, and fully clockwise has a British characteristic which is more 'woody' and less aggressive.



Unlike conventional 'contour' controls and parametric equalisation systems, the Bass, Middle and Treble controls remain interactive with each other just like in a traditional guitar amplifier tone stack. This leads to a very familiar, musical response.

12. Master Volume

The Master Volume sets the overall volume of the Amp. Turning it clockwise increases the volume.

13. Reverb

The Reverb control sets the overall level of the reverb effect. With the control fully counter clockwise there will be no reverb. Turning the control clockwise will increase the amount of reverb.

14. Power Indicator Light

The power indicator will light when the amplifier is switched on.

15. Power

This switch is used to turn the amplifier on and off.

Rear Panel

1. Mains Fuse

The value of the Mains Fuse is specified on the rear panel. Never use a fuse of the incorrect value or attempt to bypass it.

2. Mains Input

The supplied detachable mains lead is connected here. The lead should only be connected to a power outlet that is compatible with the voltage, power and frequency requirements stated on the rear panel. If in doubt get advice from a qualified technician.

3. H.T. Fuse

The value of the H.T. Fuse is specified on the rear panel. Never use a fuse of the incorrect value or attempt to bypass it.

4. Speaker Outputs

The output marked '1x16 Ohm' is for the connection of a single 16 Ohm extension speaker cabinet. (or the internal loudspeaker of the HT Studio 20 combo).

The outputs marked '1x8 Ohm or 2x16 Ohm' are for the connection of either a single 8 Ohm extension cabinet or two 16 Ohm cabinets. Also, the internal loudspeaker of the HT Studio 20 combo must be plugged in here if it is used with a 16 Ohm extension cabinet. See table below.

	'1x16 Ohm' output	'1x8 Ohm or 2x16 Ohm' outputs	
Internal 16 Ohm combo speaker	✓	X	X
Internal 16 Ohm combo speaker plus one 16 Ohm extension cab	X	✓	✓
One 16 Ohm extension cabinet	✓	X	X
Two 16 Ohm extension cabinets	X	✓	✓
Single 8 Ohm extension cabinet	X	✓	X

WARNING: The output marked '1x16 Ohm' should never be used at the same time as any of the outputs marked '1x8 Ohm or 2x16 Ohm'. Failure to correctly match the impedance of the amplifier and speakers will damage the amplifier.

5. Speaker Emulated Output

This output emulates the tonal characteristics of a guitar speaker cabinet and provides a natural valve overdrive tone for connection to a recording device or mixing desk. Always use a good quality screened lead.

NOTE: To record 'silently', simply set the master volume to zero. You may also record from this output without a loudspeaker connected, but ensure that no loudspeaker leads are connected to any of the loudspeaker output jack sockets of the amplifier, as this will defeat the load protection circuit and will cause damage to the amplifier.

6. Effects Loop Return

Connect the (mono) output of an external effects unit here.

7. Effects Loop Send

Connect the (mono) input of an external effects unit here.

8. Effects Loop Level

The Effects Loop Level switch sets the effects loop to either +4dBV/-10dBV, which enables you to use it with either professional equipment (+4dBV setting), or with guitar level effects such as effects pedals (-10dBV setting).

9. Footswitch

The supplied footswitch is connected here. The footswitch enables you to switch between the Clean Channel and the Overdrive Channel.

NOTE: Overdrive Select switch (Front Panel 5) must be in for the footswitch to work.

Technical Specification

HT Studio 20 Combo

Power (RMS): 20 Watts

Valves: 2 x ECC83, 2 x EL34

Weight (kg): 19.2

Dimensions (mm): 573 x 522 x 292

Footswitch: FS-4 supplied

HT Studio 20 Head

Power (RMS): 20 Watts

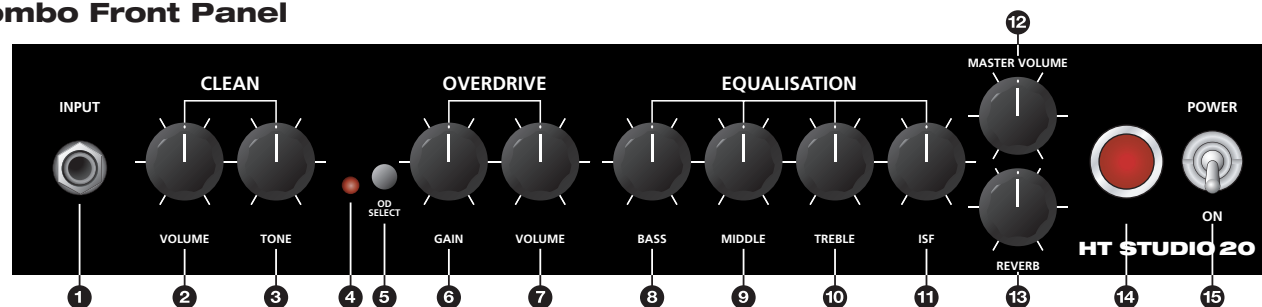
Valves: 2 x ECC83, 2 x EL34

Weight (kg): 12.2

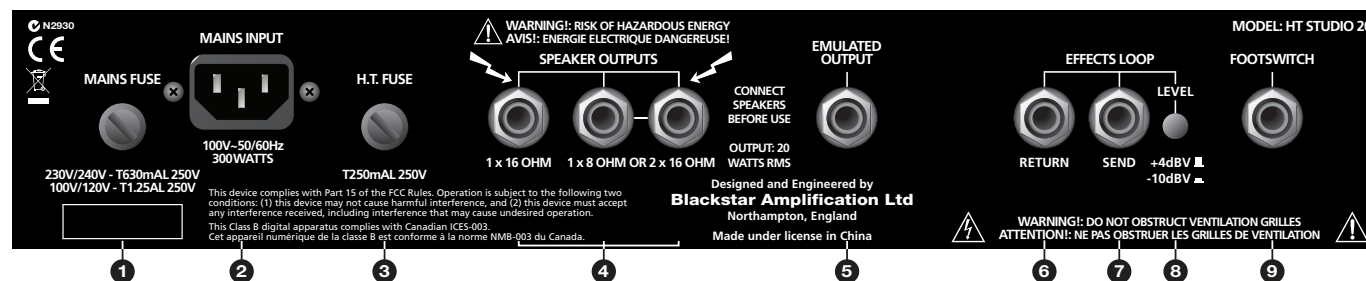
Dimensions (mm): 517 x 281 x 279

Footswitch: FS-4 supplied

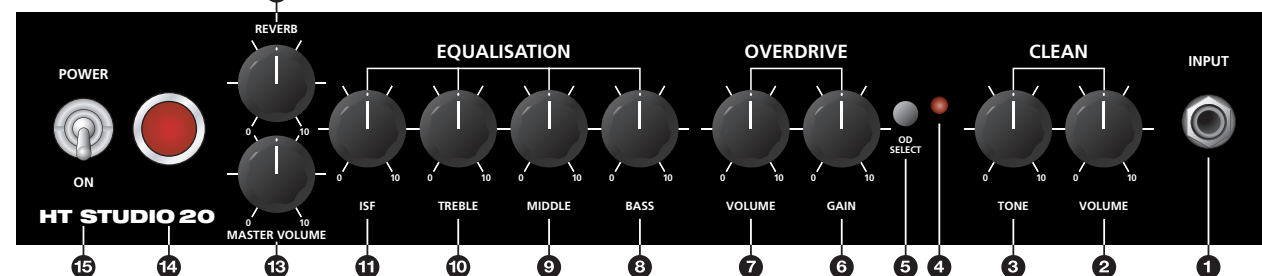
HT Studio 20 Combo Front Panel



HT Studio 20 Combo Rear Panel



HT Studio 20H Head Front Panel



HT Studio 20H Head Rear Panel

