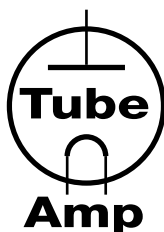


ENGL



Ritchie Blackmore Signature 100

**Full Tube
Guitar Amplifier**

Operator's Manual

Please, first read this manual carefully!

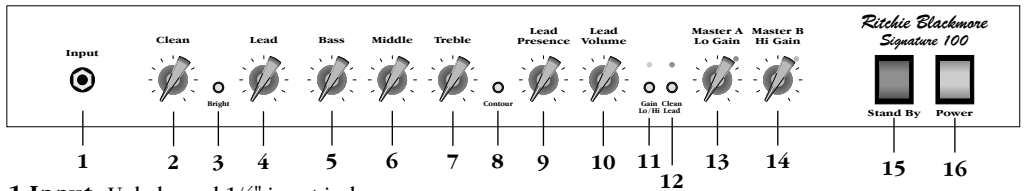
ENGL Ritchie Blackmore Signature - an all-tube guitar amp head featuring the sound and the look that fascinates a guitar legend such as Ritchie Blackmore.

The Ritchie Blackmore Signature amp is based on a classic, proven design, but is also equipped with a number of innovative features. For instance, you can vary the amount of crunch for the two channels Clean and Lead via the Gain Lo/Hi switch. More special features: Two Master Volume controls, the Contour button and a Custom Footswitch Port for the connection of a compact footpedalboard that enables the direct access to all important switching functions of the amp.

With its high-quality components and superior finishing, this amp is built to last. You will find guidelines on care and maintenance of tube amps on the last page of the manual. Please read and heed these before operating your amp.

The ENGL team is absolutely convinced you will be just as fascinated by this amp as Ritchie Blackmore is.

Front Panel



1 Input: Unbalanced 1/4" input jack.

2 Clean: Input sensitivity control for the Clean channel, adjust the volume by means of this control and the Lo Gain Master (13); in the Hi Gain mode use the Hi Gain Master (14) for adjusting the volume.

3 Bright: Alters the EQ by boosting the upper treble range; effectiveness decreases at higher Clean Gain (2) settings.

4 Lead: Gain control for the Lead channel, controls the amount of preamp overdrive in the Lead mode.

CAUTION: Extremely high gain and volume levels in the Lead mode can produce strong feedback. Avoid feedback squeals, they lead to hearing loss and damaged speakers!

A TIP from the Designer: To get Crunch or Rhythm sounds, set this control between the 9 and 1 o'clock position (depending on the type of pick-up) and leave the Gain Boost pushbutton in the Off-position.

5 Bass: Bottom end voicing control of the preamp's passive EQ.

6 Middle: Mid-range voicing control of the preamp's passive EQ.

7 Treble: Upper range voicing control of the preamp's passive EQ.

A TIP from the Designer: To get an idea of this amp's capabilities, I suggest you set all control pots to the 12 o'clock position. For hi-gain Lead sounds, your best bet is to turn the treble and presence knobs well down to prevent the pickups and speakers from interacting at hi levels and generating feedback (the recommended setting is somewhere in the 8 to 12 o'clock range).

8 Contour: Press this button to alter the mid-EQ. When the button is pressed, frequencies between 300 and 500 Hz are boosted slightly. You can also activate this function via the respective footswitch connected to Jack 19 or 21.

A TIP from the Designer: The tone is better audible while you are playing a Lead solo, when Contour is activated. I recommend the other option (Contour off) for metal style power chords.

9 Lead Presence: This control defines the Treble response in the poweramp stage for the Lead channel.

10 Lead Volume: Volume control for the Lead channel (pre-FX loop, influences the Send level).

Use this knob to dial in the desired balance of levels between the Lead and Clean channels.

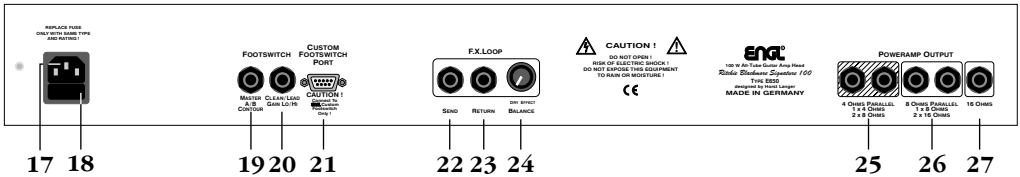
11 Gain Lo - Hi: When you press this button, the input sensitivity of both channels is increased. The Hi-Gain function actually turns Clean into a "Crunch" channel, and Lead into a "Heavy Lead" channel. It can also be activated via a suitable footswitch connected to Jack 19 or 20; the Gain Lo/Hi button is automatically disabled when you connect a footswitch. The yellow LED illuminates to indicate "Hi-Gain" mode is active.

12 Clean - Lead: Channel selector pushbutton for Clean and Lead modes, red LED indicate Lead mode; This function can also be activated via the respective footswitch connected to jack 20 or 21. Once a footpedal is connected, the channel selector pushbutton is deactivated.

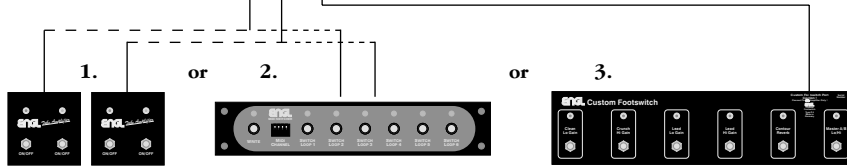
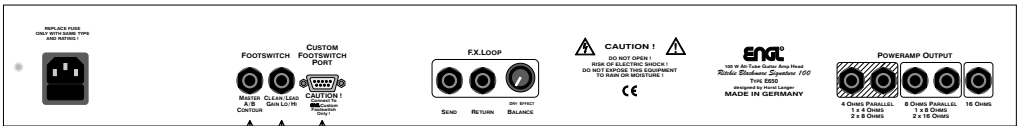
13 Master A - Lo Gain: Located after the effects loop in the signal chain, this knob determines the overall volume of the power amp when Lo Gain preamp mode is selected. Note that this is a dedicated knob with a fixed assignment to Lo Gain mode. However, when you connect the respective footswitch to jack 19 or 21, the knob is no longer assigned exclusively to Lo Gain mode. This means that you can select the master A or the master B volume knob via footswitch to activate two different master volumes for each preamp mode. To learn more about selecting modes and master levels, see section 19 or 21. The red LED next to the knob lights up when this knob determines the master volume level.

- 14 Master B - Hi Gain:** Located after the effects loop in the signal chain, this knob determines the overall volume of the power amp when Hi Gain preamp mode is selected. Note that this is a dedicated knob with a fixed assignment to Hi Gain mode. However, when you connect a footswitch to jack 19 or 21, the knob is no longer assigned exclusively to Hi Gain mode. This means that you can select the master B or the master A volume knob via footswitch to activate two different master volumes for each preamp mode. To learn more about selecting modes and master levels, see section 19 or 21. The green LED next to the knob lights up when this knob determines the master volume level.
- 15 Stand By:** Power amp standby switch: Use this switch to silence (0 position) the amp when you take a lengthy break. The amp's tubes stay warm, which means that it is ready to roll immediately when you switch it back to full power. The standby switch is also well-suited for muting the amp for brief breaks, for instance when you're switching guitars.
- 16 Power:** AC power on/off.

Rear Panel



- 17 AC SOCKET:** Connect an AC cord here
ATTENTION: Ensure you use an intact AC cord with an insulated plug only!
 Before you power the amp up, ensure the voltage value printed beside the AC socket corresponds to the available current.
- 18 AC FUSE BOX:** Contains mains fuse (rear chamber) and spare fuse (front chamber).
NOTE: Ensure replacement fuses bear identical ratings (refer to the table)!
- 19 Footswitch Master A - B; Contour:** 1/4" Stereo jack designed to take a dual footswitch for the following functions:
 1. Switching between the two Master volume controls A and B (mono terminal)
 2. Contour switching (stereo terminal).
Note that when you connect a footswitch to this jack, the master A/B switching option is reassigned to the footswitch, allowing you to activate the volume level of each knob irrespective of mode (Lo or Hi Gain).
- 20 Footswitch Clean - Lead; Gain Lo - Hi:** 1/4" Stereo jack designed to take a dual footswitch for the following functions:
 1. Channel switching Clean - Lead (mono terminal)
 2. Gain Lo - Hi (stereo terminal).
- 21 Custom Footswitch Port:** Connect the ENGL Custom Footswitch Z-5 (optional) to this port (Sub-D, 9-pin). This special footswitch lets you activate the four channels (Clean, Crunch, Soft Lead, Heavy Lead) directly via dedicated buttons. Master A/B and Contour are activated via two additional buttons. When the Z-5 footswitch is connected, the Clean/Lead, Gain Lo/Hi and Contour buttons on the front panel as well as footswitch Jacks 19 and 20 are disabled.
Note that when you connect a footswitch to this jack, the master A/B switching option is reassigned to the footswitch, allowing you to activate the volume level of each knob irrespective of mode (Lo or Hi Gain).
- 22 F.X. Loop Send:** Signal output for the Effects loop. Connect this output to a signal processor's input/return jack via a shielded cable with 1/4" plugs.
- 23 F.X. Loop Return:** Signal input for the Effects loop. Connect this input to a signal processor's output/send jack via a shielded cable with 1/4" plugs.
- 24 Balance:** FX mix control for the Effects loop: Rotate the knob to the "DRY" position for the pure amp signal, i.e. no effect on the signal. Turn clockwise to blend in an effect connected to the loop to the dry signal (parallel/passive). At the "EFFECT" position, only the wet signal, i.e. the signal sent from the FX device is fed to the power amp (serial/passive).
NOTE: If no effects processor is connected to this loop, leave this control in the "DRY" position!
- 25 Poweramp Output 4 ohms parallel:** 4 ohms speaker output jacks, internal parallel signal path for the connection of one 4 ohms cabinet or two 8 ohms speaker cabinets.
- 26 Poweramp Output 8 ohms parallel:** 8 ohms speaker output jacks, internal parallel signal path for the connection of one 8 ohms cabinet or two 16 ohms speaker cabinets.
- 27 Poweramp Output 16 ohms:** 16 ohms speaker output jack, for the connection of one 16 ohms speaker cabinet.
NOTE: Never operate the amplifier without a sufficient load, otherwise you may damage or destroy the power amp! Ensure your cabinet's specifications match the respective output's specs.
Possible speaker cabinet options: 1 x 4 or 2 x 8 ohms or 1 x 8 ohms or 2 x 16 or 1 x 16 ohms.



- The different options for controlling the Ritchie Blackmore signature amp remotely:**
- 1. Two-way footswitch (e.g. ENGL Z-4):** Connect it to the amp via a stereo ¼" cord. You will need one two-way footswitch for switching channels via Jack 20 and another footswitch for switching Master A/B and Contour via Jack 19. Functions: Clean/Lead, Gain Lo/Hi, Master A/B and Contour. With this solution, you can't activate the channels Crunch and Heavy Lead directly, i.e. this requires an intermediate switching operation.
 - 2. MIDI-Switcher (e.g. ENGL Z-11):** Connect the unit to the amp via two stereo ¼" cords. The buttons on the Switcher control Clean/Lead, Gain Lo/Hi, Master A/B and Contour. If you program the diverse switching configurations to different MIDI program locations (e.g. Gain Hi & Lead & Master A & Contour active), you can activate the desired configuration directly via a MIDI board (e.g. ENGL Z-12). This type of control option is extremely versatile, we recommend it highly if you intend to use the amp in conjunction with a MIDI system (e.g. MIDI effects devices).
 - 3. ENGL Custom Footswitch Z-5:** Connect it to the "Custom Footswitch Port" port via a 9-pin computer cable. Functions: Direct access to Clean (Clean & Lo Gain), Crunch (Clean & Hi Gain), Soft Lead (Lead & Lo Gain), Heavy Lead (Lead & Hi Gain) as well as Master A/B and Contour. This is a very convenient yet compact solution.

Technical Data:

Rated power: approx. 100 watts at 4, 8 or 16 ohms;

Tubes:
 V1 (Input Tube): ECC 83 / 12AX7, FQ selected;
 V2, V3: ECC 83 / 12AX7 selected;
 V4: ECC 83 / 12AX7, standard;
 V5 - V8: 5881 (6L6GC) matched sets.

Fuses:
external: 2 AT (slow) for the 230 Volt model;
 2,5 AM (slow) in the 100 and 120 Volt models.
internal: 4 AT (slow) for the 230 Volt model;
 5 AT (slow) in the 100 and 120 Volt models.

Important: Replace fuses only against same type and rating!

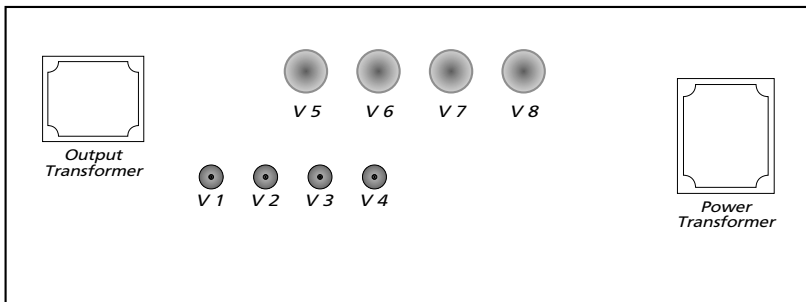
Power

Consumption: 295 watts max.

Dimensions: approx. 71 x 27 x 27 cm (l x h x d)

Weight: approx. 20 kg

Tube array:





*"Engl Amps are the best amps I've ever used
- not only are they powerful,
but they have texture and character too."*

Richie Blackmore

Handling and Care

- Protect the amp from mechanical knocks (tubes!).
- Let the amp cool down before you transport it (approx. 10 minutes).
- Tubes need about 20 seconds to warm up after you switch the power on, and further on a few minutes before they reach their full power capability.
- Avoid storing the amp in damp or dusty rooms, they are hard on jacks, switches and potentiometers.
- Make sure air can circulate at the front and top of the amp to allow for adequate cooling (increases component life).
- Never operate the amp without an adequate load.
- Replace tubes with select **ENGL** replacement tubes (special selection criteria) to avoid microphonic properties, undesirable noise and unbalanced performance.

Attention! Please read the following!

- This guitar amplifier can produce high volume levels. Exposure to high volume levels may cause hearing damage!
- Leave tube replacement and power amp biasing to qualified professionals.
- Be sure the unit is switched off and unplugged!
- Caution! Tubes can get very hot and burn skin when touched.
- Always use high quality cables.
- Never plug the amp into an ungrounded outlet!
- Never bridge a defective fuse and be sure replacement fuses feature identical ratings!
- Pull the AC mains plug before replacing fuses!
- Never open the chassis or attempt repairs on your own. Consult qualified service personnel!
- Never expose the amplifier to extreme humidity or dampness!
- Please read the instructions carefully before operating the unit!
- Be sure to operate and handle this amp as it was designed for. To this end, please heed the instructions in the operator's manual.
- You'll find an additional pamphlet accompanying this owner's manual entitled "Instruction for the prevention of fire, electric shock or injury of persons". Be sure to read it before you plug the preamp in and switch it on!

ENGL Gerätebau GmbH

internet: <http://www.engl-amps.com>

Text, design, graphics amp photography and layout by Horst Langer

Photo - Ritchie Blackmore: Antonio Scettri

**We reserve the right to make
unannounced technical upgrades!**