Tube Amp

Classic Tube 50

Guitar-Amplifier

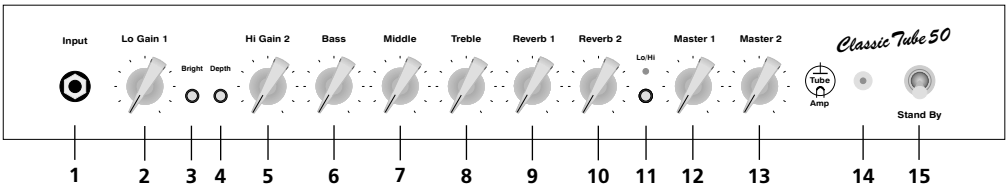
Operator´s Manual

Please, first read this manual carefully!

Some of the more rabid vintage gear and blues aficionados might argue that an amp with more than three or four controls could never be a "classic."
For my money, controls are just means to an end, their numbers don't mean much when you're trying to categorize an amp. The decisive factors are sound quality, the overall concept and, let us not discount the pleasures of gazing at a great-looking amp, appearance. This is what any meaningful verdict on what's "classic" must take into account.
I've been designing tube amps exclusively for the past 16 years and, in this time, I've developed a philosophy—take the best of the old and marry it to the best of the new. Yes, I want to offer you folks top-notch tone, but I also want you to enjoy the benefits of innovative concepts. Enter the Classic tube Line, which incorporates my ideas while satisfying the demands of the working guitar player. These amps are chock full of practical features, yet, when it comes to handling ease, these babies, like many of my other "kids", are a piece of cake. Perhaps I didn't coin it, but I'm a firm believer in my adopted slogan: "Plug in and play!"
Horst Langer, Designer

Quality components, excellent workmanship and strict quality control ensure this amp retains its value.
You'll find guidelines on care and maintenance of tube amps in the operator´s manual. Please read and heed these before operating your amp. You'll also come across boxes shaded grey throughout this manual. These are located between the descriptions of the amp's functions and contain handy tips on the preceding function. All critical information pertaining to the operation of this amp is preceded by "NOTE" or "CAUTION." Please pay particular attention to these safety tips and to the "Instruction for the prevention of fire, electric shock or injury of persons" printed in the separate manual.
The ENGL team wishes you all the best—may you and your amp enjoy a "harmonically rich" future together!

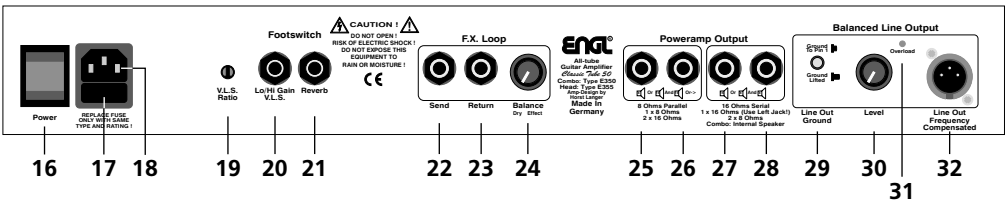
Front Panel



1 Input: Input¼" unbalanced input. Plug your guitar cord in here.
2 Lo Gain 1: Input sensitivity control during Lo Gain mode.
Lo Gain: set the Gain-button 11 to the Off position,
Hi Gain: set the Gain-button 11 to the On position, LED illuminates.
A Tip from the Designer: Gain settings depend on what type of pickups are installed in your guitar. The recommended setting for humbuckers or active pickups lies between the 8 and 11 o'clock positions and 9 to 12 o'clock for single coils for a pure clean response; the Gain button must be in the OFF-position.
3 Bright: Alters the EQ by boosting the upper treble range; effectiveness decreases at higher Gain (2 & 5) settings; the Bright feature affects both Gain sections.
A TIP from the Designer: For a crisp glassy tone, set the Bright switch to the On position. This setting boosts the treble response of muddy pickups.
4 Depht: Alters the EQ by boosting the low end range; the Depth feature affects both Gain modes.
A TIP from the Designer: The Depth feature enable precision shaping of basic sounds, and allows you to tune sounds to best match your guitar's pickups. In combination with higher Gain settings this button should be set to the Off position to avoid undifferentiated bass response.
5 Hi Gain 2: Input sensitivity control during Hi Gain mode. It controls the amount of preamp overdrive.
CAUTION: Extremely high gain and volume levels in the Hi Gain mode can produce strong feedback. Avoid feedback squeals, they lead to hearing loss and damaged speakers!
A TIP from the Designer: For Crunch- and melodic Rock-Rhythm-Sounds set the Hi Gain pot between 9 and 11 o´clock positions depending on the type of pickup; Gain button 11 in On position. For solo parts try settings between 11 and 4 o´clock positions.

6 Bass: Bottom end voicing control, passive.
7 Middle: Mid-range voicing control, passive.
8 Treble: Upper range voicing control, passive.
A TIP from the Designer:To get an idea of this amp's capabilities, we suggest you set the tone control pots Bass (6), Middle (7) and Treble (8) to the 12 o'clock position. For extremely soft blues or jazz sounds, try setting the Treble knob to somewhere in the 8-to-11 o'clock range. For sparkling Clean or spanky funk sounds, go for something in the range of 12 to 3 o'clock with the Treble control.
9 Reverb 1: Reverb control, adjusts the portion of the reverb signal during the Lo Gain mode and increases reverb intensity if you rotate it clockwise; the reverb can be switched on/off via the respective footswitch connected to jack 21.
10 Reverb 2: Reverb control, adjusts the portion of the reverb signal during the Hi Gain mode and increases reverb intensity if you rotate it clockwise; the reverb can be switched on/off via the respective footswitch connected to jack 21.
11 Lo/Hi: Mode selector pushbutton for Lo and Hi Gain modes, red LED indicate Hi Gain mode; This function can also be activated via the respective footswitch connected to jack 20. Once a footpedal is connected, the mode selector pushbutton is deactivated.
12 Master 1: Master volume control for power amp output during Lo Gain mode. The feature to switch between two volume levels (V.L.S. - active or passive) can be accessed by means of the respective footswitch connected to jack 20. Adjust the ratio between the two volume levels with the "V.L.S. ratio" pot (see chapter 19).
13 Master 2: Master volume control for power amp output during Hi Gain mode. The feature to switch between two volume levels (V.L.S. - active or passive) can be accessed by means of the respective footswitch connected to jack 20. Adjust the ratio between the two volume levels with the "V.L.S. ratio" pot (see chapter 19).
14 Power-Indicator: This LED indicates Power On, means the Amp is switched on.
15 Stand By: Power amp standby switch: Use this switch to silence the amp when you take a lengthier 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.

Rear Panel



16 Power: AC power on/off.
17 AC Fuse Box: Contains mains fuse (rear chamber) and spare fuse (front chamber).
NOTE: Ensure replacement fuses bear identical ratings (refer to the table)!
18 AC Socket: Connect AC cord here.
CAUTION: 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.
19 V.L.S. Ratio: Use this potentiometer to determine the balance between the two switchable volume levels. We deliberately left the knob off this pot, but you can rotate the shaft to dial in the desired preset. If you're operating the amp without a footswitch, "hi volume" (high-volume mode) is active and this pot is disabled. You can switch between the Lo and Hi volume levels via a standard two-way footswitch connected to Jack 20 (or via the MIDI Switcher). Turn the pot's shaft clockwise to turn up the "lo volume" level.
20 Footswitch Gain Lo/Hi; V.L.S.: 1/4" stereo jack for double footswitches, executes the following functions:
1. Gain mode switching between Lo and Hi (mono terminal).
2. Switching between the two volume levels (stereo terminal).

21 Footswitch Reverb: 1/4" mono jack for a single footswitch (e.g. Z-1) that executes Reverb on/off.

Impotant Note: You can use standard footswitches that connect the mono or stereo contact of the ¼" jack and its ground. An LED that serves as a status indicator can also be connected in series (power requirements approx. 10 - 20 milliamperes, depending on function). In practice though we've found that not every footswitch by every manufacturer under the sun is compatible. If you choose to use the ENGL Z-3 and Z-1 (basic plastic version without LED display) or ENGL Z-4 (rugged metal version with LED display) footswitches, you won't encounter any compatibility problems.

A TIP from the Designer: If you want to control the amplifier via a MIDI system, use jacks 20 and 21 and a Looper or MIDI Switcher (e.g. ENGL Z-11). Use one stereo and one mono ¼" cord to connect the ENGL MIDI Switcher Z-11 (optional). You can then preset the three switching functions Gain mode, V.L.S. and Reverb via the Switcher, store your custom switching setups as different MIDI programs and activate the presets via a MIDI board (e.g. ENGL Z-12).

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, 26 Poweramp Output 8 ohms parallel: Parallel 8-ohm speaker outs. Connect an 8-ohm cabinet. Alternatively, two 16-ohm cabinets can also be connected to these two outputs. For example a combination of the internal 16-ohm speakers of the Combo E350 and an external 16-ohm cabinet, e.g. the ENGL model E210.

27 Poweramp Output 16 ohms serial: 16-ohm speaker out, connected internally in series with Jack 28. Connect a 16-ohm cabinet here or, in the case of the Combo E350, its internal speakers here. Two 8-ohm speakers are connected to Jacks 27 and 28.
CAUTION: If you intend to use a 16-ohm cabinet only, make absolutely certain you connect it to Jack 27. Jack 28 is only enabled when a speaker is connected to jack 27.

28 Poweramp Output 16 ohms serial: This is an auxiliary output connected in series with Jack 27. This jack is designed for one application for only—when you are driving a combination of two 8-ohm cabinets/speakers. This output may only be used when an 8-ohm speaker is connected to Jack 27. (See the example for Item 27)

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 combinations:
1 x 8 ohms or 2 x 16 ohms (Jacks 25 and 26) or
1 x 16 ohms (Jack 27!) or 2 x 8 ohms (Jacks 27 and 28).

29 Line Out Ground: This switch assigns Pin 1 of the XLR socket to ground (position "Ground to Pin 1"). You'll find this option is handy when you want to shield the circuit you have routed to a mixing console or recording device. In order to come up with an unbalanced signal (e.g. for feeding the signal to a computer for HD recording purposes), you'll need a cord equipped with an XLR connector on one end and an RCA connector or ¼" plug on the other. Pin 2 is used to carry the signal and Pin 1 as the ground (set the switch to the position "Ground to Pin 1"). With this application—an unbalanced circuit—you may encounter a ground loop caused by the respective grounds of the two devices, which will generate audible hum.
NOTE: Pin 1 of the balanced line may only be connected to ground on one end (either at the amp or mixer / recording device), otherwise it may cause a ground loop, which in turn generates undesirable hum!

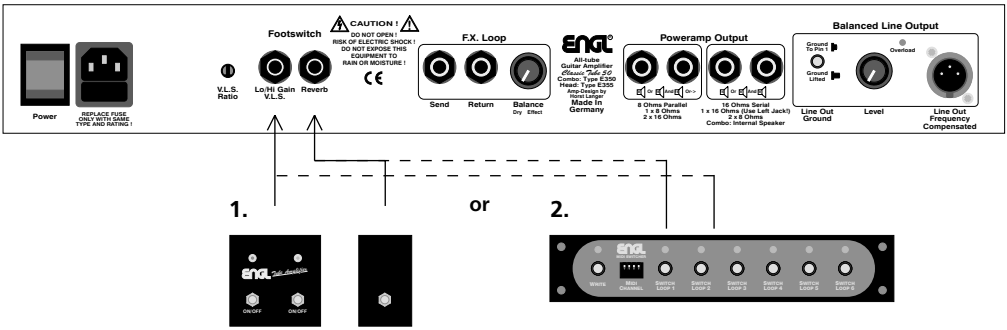
30 Level: Signal level control for the frequency-corrected line output; it is used to match the amp's signal level at the Line output to the mixing console or recorder's input.

31 Overload: This LED denotes the Line output is overloading; in this case, reduce the signal's level via the Level control.

32 Line Out Frequency Compensated: The frequency-corrected, balanced Line output jack (XLR; Pin 2 and 3 signal, Pin 1 = Ground or not connected, depending on the setting of switch 29). This signal can be routed directly to a mixing console or a recording unit. The line out is located post poweramp in the signal chain, so ensure the poweramp is activated and a load is connected to one of the output jacks.

A TIP from the Designer: The Line Out's output level is influenced by the following factors: By the input level (Gain), to some degree by voicing control settings, and by the Master volume level. First dial in the desired sound combination at the front panel. Then adjust levels at FX devices or signal processors (if connected). Now use the Level control to adjust the Line level. The Line output is not overloaded until the Overload LED illuminates brightly and continuously. You can push the level up to this point to match a mixing console or recorder's input level requirement. Use the respective device's input sensitivity or gain control to fine-tune level adjustments.

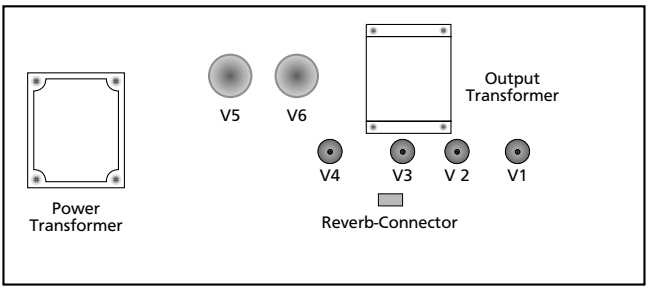
The different options for controlling the Classic Tube 50 amp remotely:



1. Two-way footswitch (e.g. ENGL Z-4) and single footswitch (e.g. ENGL Z-3):
Connect it to the amp via a stereo ¼" cord. You will need one two-way footswitch for switching the Gain mode and V.L.S. (second volume level) and another single footswitch for switching the Reverb.
Functions: Gain mode, V.L.S., Reverb.
2. MIDI-Switcher (e.g. ENGL Z-11):
Connect the Switcher to the amp via a stereo and a mono ¼" cord. The buttons on the Switcher control Gain Lo/Hi, V.L.S. and Reverb. If you program the diverse switching configurations to different MIDI program locations (e.g. Gain Hi & Master Lo & Reverb), 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).

Technical Data:

Rated power:		approx. 50 watts at 8 or 16 ohms;
Tubes:		V1(input-tube): ECC 83 / 12AX7, FQ Grade; V2, V3: ECC 83 / 12AX7 selected; V4: ECC 83 / 12AX7, standard; V5, V6: 5881 (6L6GC) matched set.
Fuses:	**external:**	1 AT (slow) at 230 Volts; 2 AT (slow) in the 100 and 120 Volts models.
	internal:	1,25 AT (slow) at 230 Volts; 2,5AT (slow) in the 100 and 120 Volts models.
Important:		**Replace fuses only against same type and rating!**
Power consumption:		155 watts max.
Dimensions:		Combo E350 approx. 57,5 x 48 x 27 cm, (22,6 W x 18,9 H x 10,6 T) Head E355 approx. 57,5 x 27 x 27 cm, (22,6 W x 10,6 H x 10,6 T)
Weight:		Combo: approx. 24 kg (48,4 lbs); Head: approx. 18 kg (39,6 lbs);
Tube array:		



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 furtheron 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 rear 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 microfonic properties, undesireable 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: www.engl-amps.com
Text, design, grafics, photographies and layout by Horst Langer