GigMaster 30

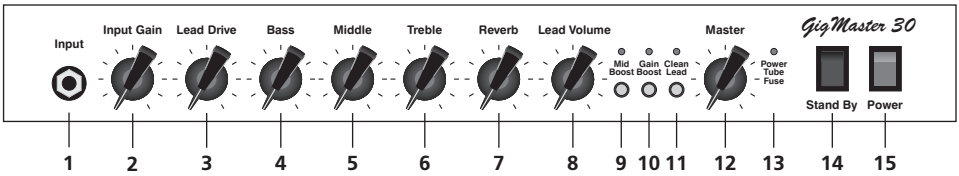
Tube Guitar Amplifier

Operator's Manual

Please, first read this manual carefully!

Welcome to the ENGL *GigMaster 30*. This compact tube-driven amp delivers to-die-for tone in a phenomenally portable package! Either version, Combo or Head, is your perfect sidekick for playing gigs, recording in studios, and practicing at home. It comes loaded with a bevy of convenient sound-sculpting features designed to make your musical life easier and more rewarding, including a built-in spring reverb, Gain Boost, and Master Volume Boost. This M.V.B. lets you access two different master volume levels on the fly via footswitch, for example, one for rhythm and the other for leads. Four EL84 pentode power tubes serve up the amp's sweet fundamental sound, while the preamp's ECC83 double triode dishes out lashings of overdrive and distortion. What's more, the GigMaster 30 sports two channels, Clean and Lead, to give you an even wider variety of tonal flavors. And its Mid Boost switch accentuates those middle frequencies that mean so much to the sound of an electric guitar. Six sound-shaping may be controlled remotely via footswitch, which gives you lots of tonal flexibility paired with utmost handling ease! This ingenious little amp is sure to delight with its warm, bluesy tone and assertive mids. But don't take our word for it - plug in, play, and enjoy!
You'll find guidelines on care and maintenance of tube amps handling in certain places of this manual. Please read and heed these before operating your amp. You'll also come across boxes shaded grey throughout the 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. The ENGL team wishes you all the best—may you and your amp enjoy a "harmonically rich" future together!

Front Panel Features



1 Input: ¼" unbalanced input jack. Plug your guitar in here using a shielded cord.
2 Input Gain: This knob controls the preamp's input sensitivity. Use to dial in the desired amount of gain for the Clean and Lead channels. It and the Master (12) knob determine the Clean channel's volume. Note: Turning the Input Gain knob all the way down gives the lowest input sensitivity.

A tip from the designer:
If you want to keep the preamp signal pristine clean, dial in a setting between 7 and 11 o'clock for active and humbucking pickups, and between 9 and 1 o'clock for single-coil pickups. The power amp provides a moderate amount of headroom, so be sure to choose a relatively low Master knob setting (lower than 12 o'clock) if you wish to avoid any kind of break-up. Even in Clean mode, you can push both the amp's preamp and power amp hard enough to overdrive the signal.

3 Lead Drive: This knob controls the Lead channel's sensitivity. It and the Input Gain (2) determine the amount of preamp distortion in Lead mode.
Note: The amp's noise floor will increase appreciably if you crank both the Lead Drive and Input Gain knobs!
CAUTION: Extremely high gain and volume levels in Lead mode can produce powerful feedback. Avoid feedback squeals; they can lead to hearing loss and damage speakers! At higher volumes, back off the Gain (Lead Drive) and Treble levels in order to prevent unchecked feedback!

A tip from the designer:
Again, it's the combination of Input Gain (2) and Lead Drive (3) settings that control the amount of preamp overdrive. You can use these two knobs to set the desired amount of Gain in Clean and Lead modes, and then dial in the perfect balance between the two. Note that setting the Lead Drive knob to around 10 o'clock (Gain Boost not activated) will give you a tougher rhythm tone with a little added edge.

4 Bass: Bottom end voicing control of the preamps´s passive EQ.
5 Middle: Mid-range voicing control of the preamps´s passive EQ.
6 Treble: Upper range voicing control of the preamps´s passive EQ.

Tips from the Designer:
To help you get acquainted with the amp's fundamental sounds, I recommend that you set all tone controls to the center or 12 o'clock position. If you want to dial in very soft lead, blues, or jazzy clean sounds, try setting the Treble knob between 11 and 2 o'clock. For more aggressive riffs or funk-approved tone, try a knob position between 2 and 4 o'clock.

7 Reverb: Reverb intensity knob. Twist it to adjust the amount of reverb for Clean and Lead. Turn the Reverb control knob clockwise to increase the effect's intensity. The signal remains completely dry when the knob is set to the 7 o'clock position or if Reverb is deactivated via a footswitch. You can switch the reverb unit on and off using a footswitch connected to jack 18. The reverb unit is always on if you do not plug a footswitch into jack 18.

8 Lead Volume: Volume control for the Lead channel (pre-FX loop, influences the Send level). The red LED above the channel switching selector (11) indicates Lead operating mode. Use this knob to dial in the desired balance of levels between the Lead and Clean channels.

9 Mid Boost: This voicing feature operates globally, affecting both channels by boosting specific midrange frequencies when activated. The LED above the button lights up to indicate Mid Boost is activated. It may also be switched using a footswitch connected to jack 19. When a footswitch is plugged in, the front panel Mid Boost button is disabled.

A tip from the designer:
Mid Boost targets and shapes specific midrange bands crucial in voicing a guitar's sound. This tone-shaping option is remotely controllable via footswitch, so you can adapt the amp's fundamental sound on the fly, say to better support rhythm guitar work, singing leads, and slashing power chords.

10 Gain Boost: Press this button to increase the Clean and Lead channels' amplitude. The red LED above the button lights up to indicate Gain Boost is engaged. You can also control Gain Boost remotely via a footswitch connected to port 20.

A tip from the designer:
Engaging Gain Boost in the Clean channel slightly increases the gain level and subtly changes the frequency response. This brings out the middle frequencies and conjures a more assertive tone for throaty riffs and gritty lead lines. Activating Gain Boost in the Lead channel kicks up the gain level considerably, saturating the preamp to give you more sustain for playing leads.

11 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. Once a footpedal is connected, the channel selector pushbutton is deactivated.

12 Master: This master volume knob controls the power amp's output (it is located post FX Loop). **M.V.B. (Master Volume Boost)**: This feature increases the master volume level, giving you instant access to two different volume levels for different musical situations, for instance, one for rhythm parts and the other for lead lines.
You can control this feature via a footswitch connected to port 19.

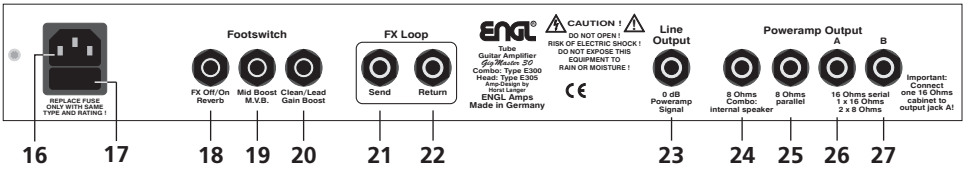
13 Power Tube Fuse: This red LED lights up to indicate one of the internal power tube fuses has blown. You can continue playing, but the amp's performance will be diminished. Normally the loss of a power tube results in an unbalanced signal.
Be sure to have a specialist look over the power amp as soon as possible; the fuse probably blew because of a defective power tube. Once a fuse has blown, it must be replaced by a new fuse.

14 Stand By: Power amp standby switch: Use this switch to silence (0 position) the amp when you take a 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.

A tip from the designer:
I suggest you get into the habit of using standby during short breaks. In this mode, current is not piped through the power tubes, so they don't get as hot (due to the lack of anode dissipation) and are spared considerable wear. The amp is ready to run when you flip the Standby switch because the tubes are already warm and don't require time to heat up. For breaks of 30 minutes and longer, I recommend that you switch the amp off in order to conserve energy.

15 Power: AC power on/off.
Please note: ensure that the Stand By switch (14) is set to Stand By (0 position) before you switch the amp on. Let the tubes heat up for about 30 seconds before you activate the power amp. This procedure spares the tubes.
CAUTION: After an extended period of operation and higher ambient temperatures the amps's chassis can become very hot, therefore avoid touching the rear panel surface !

Rear Panel Features



16 Mains Connector (AC Power Inlet; IEC - C14 connector)
Plug the mains cord in here. For European models, use a standard non-heating equipment connector cable.
CAUTION: Make sure you use an intact mains line cord with a grounded plug! Before you power the amp up, ensure the voltage value printed alongside the mains socket is the same as the current of the local power supply or wall outlet.
Please also heed the guidelines set forth in the separately included pamphlet, Instructions for the Prevention of Fire, Electrical Shock and Injury.

17 Mains Fuse Box: The rear chamber contains the mains fuse and in the front chamber, a spare fuse.
CAUTION: ALWAYS make sure replacement fuses are of the same type and have the same ratings as the original fuse! Please refer to the fuse ratings table.

18 Footswitch FX Off/On; Reverb: Use this ¼" Stereo jack to connect a conventional footswitch with two switching functions, for example, the ENGL Z-4 (2 x off/on - Single Pole Single Throw or SPST for short). This type of footswitch lets you switch the FX Loop and Reverb off and on.
One of the two switches activates the FX Loop; the other engages the internal Reverb.
The FX Loop and the Reverb system are activated by default if you do not connect a footswitch to this jack. Note also that a footswitch may be equipped with LEDs indicating the given switching status. Each of the two switches is provided with about 10 milliamperes of current, which suffices to power a standard LED. The jack's mono terminal (the tip) switches the FX Loop off and on, and the stereo terminal (the ring) switches Reverb off and on. For pin assignments, see "Wiring of Principal Connectors".

19 Footswitch Mid Boost; M.V.B. (Master Volume Boost): Use this ¼" Stereo jack to connect a conventional footswitch with two switching functions, for example, the ENGL Z-4 (2 x off/on - Single Pole Single Throw or SPST for short).
One of the two switches activates Mid Boost; the other engages Master Volume Boost.
Plugging a footswitch into this jack disables onboard Mid Boost (9) switching. Note also that a footswitch may be equipped with LEDs indicating the given switching status. Each of the two switches is provided with about 10 milliamperes current, which suffices to power a standard LED. The jack's mono terminal (the tip) switches Mid Boost, while the stereo terminal (the ring) switches M.V.B. For pin assignments, see "Wiring of Principal Connectors".

20 Footswitch Clean/Lead; Gain Boost: Use this ¼" Stereo jack to connect a conventional footswitch with two switching functions, for example, the ENGL Z-4 (2 x off/on - Single Pole Single Throw or SPST for short). This type of footswitch lets you access the two channels and Gain Boost.
One of the two switches activates Clean or Lead; the other engages Gain Boost.
Plugging a footswitch into this jack disables onboard channel (11) and Gain Boost (10) switching. Note also that a footswitch may be equipped with LEDs indicating the given switching status. Each of the two switches is provided with about 10 milliamperes current, which suffices to power a standard LED. The jack's mono terminal (the tip) selects Clean or Lead, while the stereo terminal (the ring) switches Gain Boost. For pin assignments, see "Wiring of Principal Connectors".

A Tip from the Designer:
If you want to control the amplifier via a MIDI system, use jacks 18, 19, 20, and a looper or MIDI switcher (such as the ENGL Z-11). Use three stereo ¼" cords to connect the optionally available ENGL MIDI Switcher Z-11. You can then preset the six switching functions Clean/Lead, Gain Boost, Mid Boost, M.V.B., FX Loop Off/On and Reverb Off/On via the switcher, store your custom switching setups as different MIDI programs, and activate the presets via a MIDI board such as the ENGL Z-12. For more details, see the remote control options on the last page.

21 FX Loop Send: Connect the FX Loop output to a signal processor's input/return jack using the shortest possible shielded cord equipped with ¼" plugs.

22 FX Loop Return: Use a shielded cord equipped with ¼" jack plugs to connect an effects device's output or send jack to this input. You can control the FX Loop remotely via a footswitch connected to port 18. The FX Loop is active (on) by default when no footswitch is connected to port 18.
Remark: The FX Loop is located between the preamp and power amp in the signal path. Inserting a ¼" jack plug into the Return port interrupts the circuit between the preamp and power amp.

23 Line Out - 0 dB Poweramp Signal: This port taps the power amp's output to provide a line out signal configured at a level of about 0 dB. The frequency response is identical to that of the power amp output signal. In other words, its frequency response has not been compensated or corrected.
You can feed this signal to another linear power amp. Another option is to patch it through an outboard filter to emulate a speaker, for example, a 4x12 cabinet simulation, and feed this externally processed signal to a recording device or PA system.

24 Poweramp Output 8 Ohms, internal speaker: This 8-ohm speaker out is wired in parallel with port 25. Connect an 8-ohm cabinet or, in the case of the E300 Combo, its internal speaker to it.

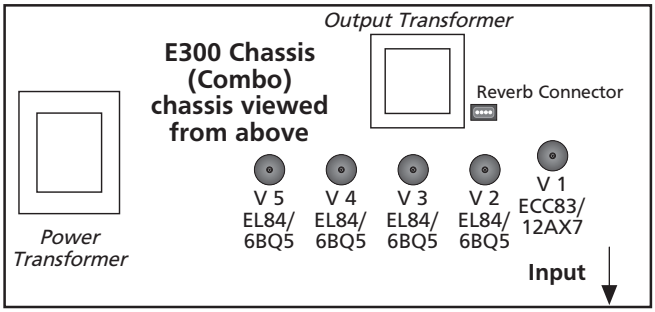
25 Poweramp Output 8 Ohms parallel: This 8-ohm speaker out is wired in parallel with port 24. Use it in combination with port 24 to connect two 16-ohm cabinets.

26 Poweramp Output A -16 Ohms serial: 16-ohm speaker out, connected internally in series with Output B (jack 27). Connect a 16-ohm cabinet here (Output A). Two 8-ohm speakers are connected to Output A (jack 26) and Output B (jack 27), for example a combination of the internal 8-ohm speaker of the Combo E300 and an external 8-ohm cabinet, e.g. the ENGL models E112 or E412.
CAUTION: If you intend to use a 16-ohm cabinet only, make absolutely certain you connect it to Output A (jack 26).
Output B (jack 27) is only enabled when a speaker is connected to Output A (jack 20).

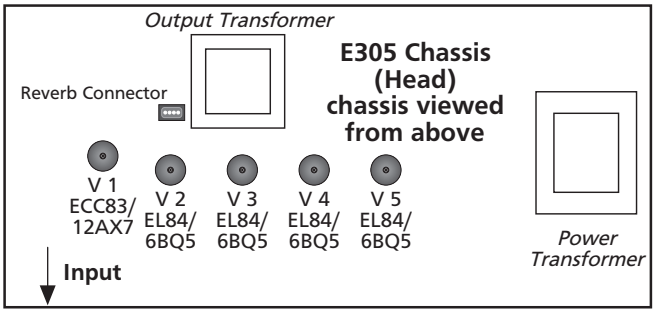
27 Poweramp Output B - 16 Ohms serial: This is an auxiliary output connected in series with Output A (jack 26). This output is designed for one application for only—when you are driving a combination of two 8-ohm cabinets/speakers. This output may only be used when an 8-ohm speaker is connected to Output A (jack 26).
NOTE: Never operate the amplifier without a sufficient load, otherwise you may damage or destroy the power amp!

Speaker/ cabinet options:
You can connect one 8-ohm cabinet (or the Combo's internal speaker) to the 8-Ohm Output (24);
or two 16-ohm cabs to the two 8-Ohm Outputs (ports 24 and 25);
or one 16-ohm cab to Output A (port 26);
or two 8-ohm cabs to Output A and B (ports 26 and 27).

Tube array:



Reverb Connector:
red plug:
reverb spring input
black plug:
reverb spring output



Technical Data

Rated power:		approx. 30 watts at 8 or 16 ohms;
Input sensitivity level Input, Clean channel:		-20 dB
Input sensitivity FX Return:		-10 dB, approx. +10 dB max.;
Output level FX Send, level range:		-10 dB to approx. +5 dB peak;
Tubes:	V1:	ECC 83 (12AX7) selected;
	V2, V3, V4, V5:	EL 84 (6BQ5) matched set.
Fuses:		
Mains fuse:		0.63 ATL (slow) for the 230 Volt model; 1.25 ATL (slow) in the 100 and 120 Volt models.
Power Tube Fuses (internal):		4 x 0.063 AM (63 mA medium blow)
Important:		**Replace fuses only against same type and rating!**
Power Consumption:		approx. 138 watts max.
Dimensions:	Head - E305	approx. 49.5 x 22 (24) x 25 cm; 19.5" x 8.7" x 9.8";
(W x H x D)	Combo - E300	approx. 49.5 x 43 (45) x 25 cm; 19.5" x 17" x 9.8";
Weight:	Head - E305	approx. 12 kg; 26.5 lbs;
	Combo - E300	approx. 18 kg; 39.7 lbs;
Speaker in Combo E300:		12" Celestion;

Tube replacement report:

Replaced on: _ _ _ _ _ _ _ 20 _ _ _ Replaced by: _ _ _ _ _ _ _ _ _ _ _ _ _ _

Replaced tubes V1: O V2: O V3: O V4: O V5: O

Reason: _

Handling and Care

* Keep the amp safe from hard knocks and shocks. Tubes are fragile and tend to suffer when exposed to mechanical stress!
* Let the amp cool down before you transport it. Ten minutes or so will spare the tubes.
* Tubes take some 20 seconds to warm up after you switch the power on, and about two to three minutes before they are able to pump out full power. Make a habit of giving your amp plenty of time to get toasty and flipping the Standby switch for short breaks.
* In order to spare the power tubes and prolong their lifetime, we recommend to set the Stand By switch to Stand By (0 position, that is) before you switch the amp on. After a period of 30 seconds you may activate the poweramp by flipping the Stand By switch.
* Avoid storing the amp in damp or dusty rooms to spare jacks, switches and potentiometers. If you don't use the amp all the time, I recommend that you drape a covering over it to prevent the intrusion of dust. Even better, keep it in a transport cover or flight case.
* Never use caustic or scouring detergents to clean the amp's housing, front or rear panels. Use a soft, damp cloth or sponge with diluted soapsuds or a standard brand of mild dishwashing liquid instead. Never use solvents they can corrode the amp's vinyl skin and dissolve the front and rear panel labels. Keep liquids well away from the amp, particularly the interior of the housing.
* Make sure air can circulate at the rear and top of the amp to allow for adequate cooling, which increases component life.
* Never operate the amp without an adequate load (a speaker, cabinet or suitable terminating resistor).
* High ambient temperatures place an additional strain on diverse components; so if at all possible, avoid operating the amp at temperatures far higher than 30°C (86°F) for longer periods. Running the amp at mains voltages exceeding the nominal mains input voltage over longer periods can also shorten component life.
* Replace tubes with selected tubes that satisfy ENGL selection criteria to forestall microphonic properties, undesirable noise and unbalanced power amp signals. Because power tubes' idle current (bias) must checked and possibly adjusted when replacing tubes, this is a job best left to experienced and authorized specialists.

Troubleshooting

*** The amp does not power-up after you have switched the power on.**
The control lamp inside the power switch (15) does not light.
-> Is the mains cord connected to the receptacle / live power source ?
-> Is the power cable you are using intact ? Try another equal mains cable.
-> Is the mains lead properly connected to the AC Power Inlet (16) at the amp ?
-> Possibly the mains fuse (17) has blown, unplug the mains cord from the mains connector and the receptacle and check the mains fuse.

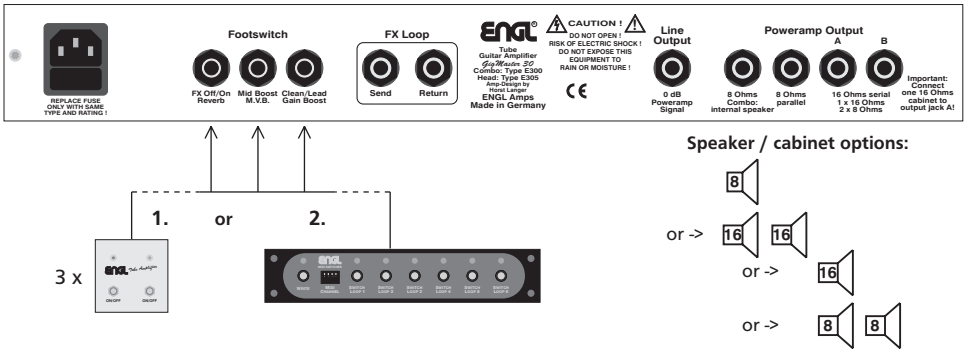
*** The amp fails to respond when you try to control switching functions remotely using a footboard such as the Z-4 or a MIDI switcher such as the ENGL Z-11.**
-> Are the footpedals (or the switching loops) connected to the corresponding footswitch jacks (18, 19, 20) ?
-> Are the cords you are using stereo, intact, and wired properly ?
(Refer to "Wiring of Principal Connectors" for pin assignments.)
-> If you are using footswitches other than an ENGL Z-4 or Z-11, are the switches or relays inside the boards or switching loop systems off / on Single Pole Single Throw (SPST) switches? In other words, do these switches continuously connect to GND when you wish to activate the given function?
If you're unsure about the answers to these questions, consult an authorized service center or a professional specialist.

*** The amp is not providing an output signal / no sound is emanating from the speaker.**
-> Is at least one speaker connected to the speaker outputs 8 ohms (24, 25) or 16 ohms (26) ?
-> Is the power amp activated (Standby switch to ON) ?
-> Are all cords (guitar, effect, and speaker) connected properly and are they functional ?
-> Unplug connected effectors and see if the amp works fine without these peripheral devices.
-> Are the Master, Lead Drive or Lead Volume knobs set to a value greater than 0 ?
If any of these knobs is fully down, no signal is routed to the amp's outputs.
-> You may be looking at a faulty tube or another defect. (the internal power tube fuses blown, etc.)
In this case, be sure to take the preamp to an authorized, professional service center.

*** The speaker is emitting humming noises:**
-> Is there a connection (for example, via a shielded circuit, e.g. Line Out) between the amp and another device that is grounded via a power plug of its own?
Two or more circuits sharing a common electrical ground line can cause audible hum.
If low-frequency noise is emanating from your rig, be sure to consult a specialist.
-> The amp and mains grounds are not connected properly or are altogether disconnected. Have an experienced specialist check this.
-> Cords connected to the input or effect loops may not be shielded properly.
Replace them to check if this is indeed the case.
-> The amp or speaker cords may be picking up interference from powerful magnetic fields (for example, of nearby power transformers or electrical motors).
Reposition the amp and connector cables.
-> The amp or speaker cords may be picking up radio signals, for example, from activated mobile telephones or powerful local transmitting stations nearby.
Switch off mobile phones while troubleshooting noise problems.

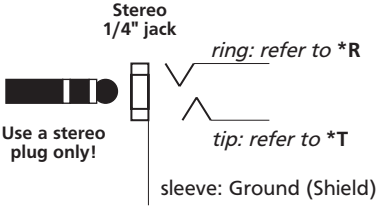
CAUTION! Please read and heed the following:
You'll find an ancillary pamphlet accompanying this owner's manual entitled Instructions for the Prevention of Fire, Electrical Shock and Injury.
Be sure to read it before you plug in and power up the amp!

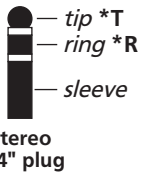
Your options for controlling the GigMaster 30 amp remotely:



1. Use a dual footswitch such as the ENGL Z-4, connecting it to the amp via a stereo cord equipped with ¼" jack plugs. You can switch channels and Gain Boost via the dual footswitch connected to port 20, Mid Boost and M.V.B. via the dual footswitch connected to port 19, and FX Loop Off/On and Reverb Off/On via the dual footswitch connected to port 18.
2. Use a MIDI switcher such as the ENGL Z-11, connecting it to the amp via three stereo cords equipped with ¼" jack plugs. The buttons on the switcher can serve to control Clean/Lead, Gain Boost, Mid Boost, M.V.B., the FX Loop, and Reverb.
You can also program all kinds of switching setups to the various MIDI program locations. Here's just one example: You could configure MIDI Preset #1 so that the Clean channel, Gain Boost, and Reverb are on, while Mid Boost, M.V.B., and the FX Loop are off. Then you could set MIDI Preset #2 up so that Lead channel, Mid Boost, and M.V.B. are on, while Gain Boost, the FX Loop, and Reverb are off. Whatever setups you decide to program, you can easily activate the desired configuration directly via a MIDI board such as the ENGL Z-9, Z-12, or Z-15.
This type of control option is extremely versatile; we recommend it highly if you intend to use the amp in conjunction with any MIDI system, including MIDI effects devices.

Wiring of Principal Connectors: Footswitch (18, 19, 20)





Footswitch jack (18):
***R:** A switch connected to this terminal controls *Reverb:* off <–> on;
***T:** A switch connected to this terminal controls *FX Loop:* off <–> on;

Footswitch jack (19):
***R:** A switch connected to this terminal controls M.V.B. off <–> on (low / high level);
***T:** A switch connected to this terminal controls Mid boost: off <–> on;

Footswitch jack (20):
***R:** A switch connected to this terminal controls Gain Boost: off <–> on;
***T:** A switch connected to this terminal controls Channel switching: Clean <–> Lead;

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