Sovereign 100

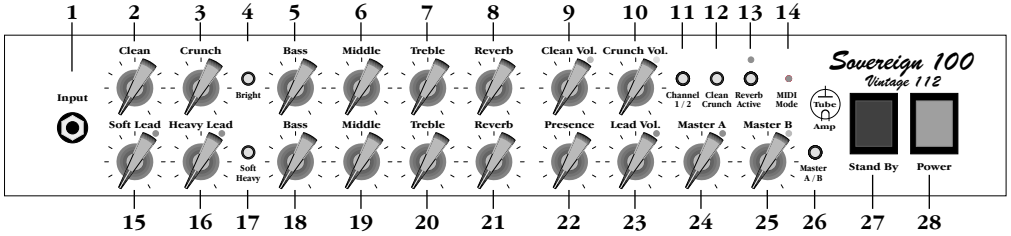
Vintage 112

Operator´s Manual

Please, first read this manual carefully!

ENGL *Sovereign 100 - Vintage 112*, an all-tube guitar combo that delivers devastating tone and a comprehensive range of sounds, from vintage tube to contemporary ultra high-gain lead. Its easy-to-operate control feature array and practical features and functions set the standard for ergonomic handling, and what's more, the amp looks exceptionally cool.
Four basic channels: Clean, Crunch and two Lead (Soft and Heavy), dedicated gain controls for each channel; main channels feature individual 3-band voicing sections and reverb intensity controls; Accutronics spring reverb system; three preamp volume controls, poweramp Master A and Master B volume controls, variable FX loop and a balanced, frequency-corrected Line Out. Channel selection, and the two Master A/B volumes can be switched via conventional double footswitches, and for maximum versatility, also via an exceptionally compact custom footswitch (Z-10, optional) and finally, with the help of the MIDI Interface (Z-7, optional) via MIDI. Superior craftsmanship, finishing and quality components are what this device is all about. 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 boxes shaded in gray located between the diverse descriptions of the amp´s functions contain interesting tips covering the preceding function. All crucial information pretaining to the operation of this amp is preceded by "NOTE" or "CAUTION." Please read and heed these as well.
The ENGL team is convinced this amp will absolutely facinate you: plug in, play and enjoy!

Front Panel



1 Input: Unbalanced 1/4" input jack.
2 Clean: Input sensitivity and Gain control for the Clean channel.
Gain settings depend on what type of pickups are installed in your guitar. The recommended setting for humbuckers or active pickups lies between the 10 and 1 o'clock positions and 12 to 3 o'clock for single coils for a pure clean response.
3 Crunch: Sensitivity and Gain control for the Crunch channel.
"Light-Crunch-Sounds" can be attained at Crunch settings between 9 and 12 o'clock; high Crunch Gain settings (more than 2 or 3 o'clock) are ideal for playing solo.
4 Bright: Alters the EQ by boosting the upper treble range in the Main Channel 1 Clean/Crunch.
For a crisp glassy tone, set the Bright switch to the On position. This setting boosts the treble response of muddy pickups.
5 Bass: Bottom end voicing control for the Main Channel 1, Clean/Crunch.
6 Middle: Mid-range voicing control for the Main Channel 1, Clean/Crunch.
7 Treble: Upper range voicing control for the Main Channel 1.
To get an idea of this amp's capabilities, we suggest you set the tone control pots Bass (5), Middle (6) and Treble (7) to the 12 o'clock position.
8 Reverb: Reverb control, adjusts the portion of the reverb signal and increases reverb intensity in the main channel 1 Clean/Crunch when you rotate it clockwise; the reverb can be switched on via the Reverb Active (13) pushbutton. The red LED above this pushbutton indicates the reverb is active. The reverb can also be switched via the Custom Footswitch & MIDI Interface Port (34), or the footswitch jack (33).
9 Clean Volume: Volume control for the Clean channel (in front of the FX loop, affects the Send level).
10 Crunch Volume: Volume control for the Crunch channel (in front of the FX loop).
11 Channel 1/2: Main Channel selector pushbutton; selects Main Channel 1 or 2 and, depending on the other channel selector pushbutton settings (12 and 17) it activates the Clean, Crunch, Soft or Heavy Lead channels. Off position: Main Channel 1 (Clean or Crunch), On position (pushed in): Main Channel 2 (Soft or Heavy Lead). This feature can also be switched via the Custom Footswitch & MIDI Interface Port (34) or the footswitch jack (31): the channel selector pushbutton is deactivated once a footswitch is connected to the footswitch jack (31).
12 Clean/Crunch: Channel selector pushbutton for switching between Clean and Crunch modes. Off position: the Clean channel is active; On position (pushed in): the Crunch channel is active when the main channel selector pushbutton (11) is in the Off position (Main Channel 1) in both cases. An LED located next to the respective channel's volume control illuminates when the channel is activated.

(continuation 12): This feature can also be switched via the Custom Footswitch & MIDI Interface Port (34), or the footswitch jack (31); the channel selector pushbutton is deactivated once a footswitch is connected to the footswitch jack (31).
13 Reverb Active: This pushbutton activates the integrated spring reverb system. A red LED above the the pushbutton indicates the reverb is active. This pushbutton's primary significance is during MIDI programming via the MIDI Interface (if connected). Use it to assign the internal reverb signal to different MIDI presets. Adjust the reverb portion with the respective Reverb controls (8, 21)in both main channels. Reverb can also be switched via the Custom Footswitch & MIDI Interface Port (34), or the footswitch jack (33); the pushbutton is deactivated once a footswitch is connected to the footswitch jack (33).
14 MIDI Mode Led: This red LED illuminates when the ENGL MIDI Interface is connected and activated; the LED flashes when the amp is operating in the MIDI mode.

The ENGL MIDI Interface offers even more comfortable handling features and loads of interesting combinations. This interface allows you to switch the channels, Master A/B and the Reverb via a MIDI stage board. You can also save diverse sound combinations as presets in up to 99 MIDI memory locations, assign polychannels 1 - 8 via the interface and control another ENGL device equipped with an MIDI Interface Port; e.g. an second combo for a stereo setup.

15 Soft Lead: Gain for the Soft Lead channel, controls the amount of preamp overdrive in the Soft Lead mode.

The Soft Lead channel is ideal for marginal to medium distortion and you have the option of dialing in a different Crunch sound by adjusting this control between the 9 and 12 o´clock position.
This Lead channel emphasis deep mids and therefore it responses very soft and warm.

16 Heavy Lead: Gain for the Heavy Lead channel, controls the amount of preamp overdrive in the Heavy Lead mode.

Medium to extreme high gain Lead sounds can be attained in the Heavy Lead channel and therefore this mode is ideal for playing solos with plenty sustain or very heavy rhythm riffs. This Lead channel emphasis bass frequencies and the gritty highs and it responses more aggressive than the Soft Lead channel.

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!

17 Soft - Heavy: Channel selector pushbutton for switching between Soft and Heavy Lead modes. Off position: the Soft Lead channel is active; On position (pushed in): the Heavy Lead channel is active when the main channel selector pusbutton (11) is in the On position (Main Channel 2) in both cases. An LED located next to the respective channel's gain control illuminates when the channel is activated. This feature can also be switched via the Custom Footswitch & MIDI Interface Port (34), or the footswitch jack (32); the channel selector pushbutton is deactivated once a footswitch is connected to the footswitch jack (32).
18 Bass: Bottom end voicing control for the Main Channel 2, Soft/Heavy Lead.
19 Middle: Mid-range voicing control for the Main Channel 2, Soft/Heavy Lead.
20 Treble: Upper range voicing control for the Main Channel 2, Soft/Heavy Lead.

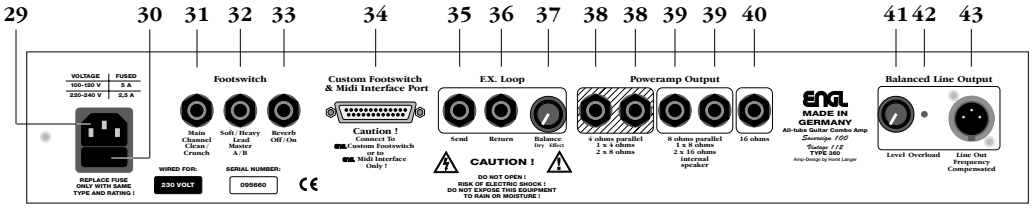
To get an idea of this amp's Lead sounds, we suggest you set the tone control pots Bass (18), Middle (19), Treble (20) and Lead Presence (22) to the 12 o'clock position.

21 Reverb: Reverb control, adjusts the portion of the reverb signal and increases reverb intensity in the main channel 2 Soft/Heavy Lead when you rotate it clockwise; the reverb can be switched on via the Reverb Active (13) pushbutton. The red LED above this pushbutton indicates the reverb is active. The reverb can also be switched via the Custom Footswitch & MIDI Interface Port (34), or the footswitch jack (33).
22 Lead Presence: This control defines the Treble response in the poweramp stage for the Lead channel.
23 Lead Volume: Volume control for the Lead channel (in front of the FX loop, affects the SEND level). The red LED beside this control indicates Main channel 2 (Lead) activ.
24 Master A: Master volume A for power amp output (located post FX loop).
25 Master B: Master volume B for power amp output (located post FX loop).
26 Master A/B: Switches between Master A and Master B; the active Master control is identified by an LED next to the respective control. This feature can also be switched via the Custom Footswitch & MIDI Interface Port (34), or the footswitch jack (32); the channel selector pushbutton is deactivated once a footswitch is connected to the footswitch jack (32).

The two Master volume controls offer a few practical applications: adjust two different volume levels in the poweramp and assign them to the four channels. Another application is a combination with the two preamp operating modes Soft and Heavy Lead, to obtain different volumes for the two channels.

27 Stand By: Poweramp standby switch.
28 Power: AC power on/off.

Rear Panel



29 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.
30 AC Fuse Box: Contains mains fuse (rear chamber) and spare fuse (front chamber).
NOTE: Ensure replacement fuses bear identical ratings (refer to the table)!
31 Footswitch, Main Channel; Clean/Crunch: 1/4" stereo jack for connecting a dual footswitch; it executes the following functions:

1. Main channel selection between Clean/Crunch and Soft/Heavy Lead (mono terminal).
2. Channel selection between Clean and Crunch (stereo terminal).

32 Footswitch, Soft/Heavy Lead, Master A - B: 1/4" stereo jack for connecting a dual footswitch; it executes the following functions:

1. Channel selection between Soft Lead and Heavy Lead (mono terminal).
2. Switching between Master A/B control (stereo terminal).

33 Footswitch, Reverb Off/On: 1/4" stereo jack for connecting a single footswitch; it executes the following function: Reverb On/Off (mono terminal).
34 Custom Footswitch & MIDI Interface Port: You can connect the ENGL Custom footswitch (Z-10, optional) to execute channel selection functions (11) (12) (17), Master A/B (26) switching, and Reverb Active (13). Or you can connect the ENGL MIDI Interface (Z-7, optional) to this jack (Sub D, 25 pins) and then execute the same functions via MIDI. You can also save the switch settings in up to 99 memory locations (MIDI presets) of the MIDI interface. The MIDI Mode LED (14) illuminates when the interface is active. Flashing LEDs denote the amp is operating in the MIDI mode. A very detailed operating manual is included with the MIDI Interface.
35 F.X. Loop Send: Signal output for the FX Loop. Connect this output to a signal processor's input/return jack via a shielded cable with 1/4" plugs.
36 F.X. Loop Return: Signal input for the FX Loop. Connect this input to a signal processor's output/send jack via a shielded cable with 1/4" plugs.
37 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 position Dry!
38 Poweramp Output, 4 Ohms parallel: 4 ohms speaker output jacks, internal connected parallel. For diverse cabinet options see the last chapter on this page!
39 Poweramp Output 8 Ohms parallel: 8 ohms speaker output jacks, internal connected parallel; the internal 8 ohms speaker is connected to one of this two jacks. For diverse cabinet options see the last chapter on this page! The impedance of a additional cabinet should bear 8 ohms.
40 Poweramp Output 16 Ohms: 16 ohms speaker output jack. For diverse cabinet options see the last chapter on this page!
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.
Choose only one of the following cabinet options:

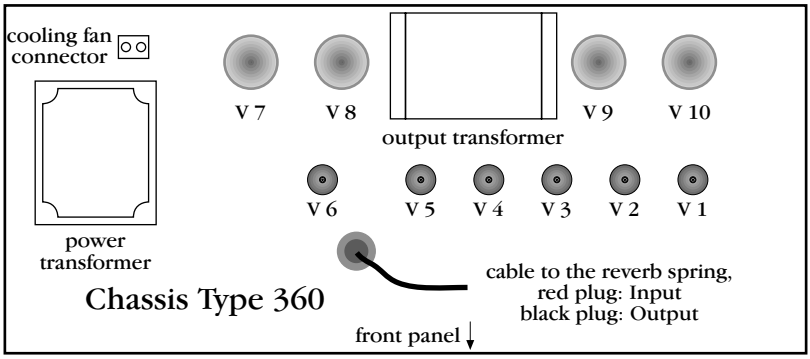
A: One 4 ohms cabinet connected to a 4 ohms jack (without the internal speaker !);
B: An external 8 ohms cabinet and the internal speaker connected to the 4 ohms jacks. When you unplug the cable for the external cabinet, ensure you plug the internal speaker back into the 8 ohms jack!
C: Two external 8 ohms cabinets connected to the 4 ohms jacks (without the internal speaker !);
D: Internal speaker only, connected to a 8 ohms jack;
E: One external 8 ohms cabinet connected to a 8 ohms jack (without the internal speaker !);
F: Two 16 ohms cabinets connected to the 8 ohms jacks (without the internal speaker !);
G: One 16 ohms cabinet connected to the 16 ohms jack (without the internal speaker !).

41 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.
42 Overload: This LED denotes the Line output is overloading; in this case, reduce the signal's level via the Level control.
43 Line Out Frequency Compesated: The frequency-corrected, balanced Line output jack (XLR; Pin 2 and 3 signal, Pin 1 = N.C.). 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.

The Line Out's output level is influenced by the following factors: By the input level (Gain), the Volume control settings for the various channels, 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.

Technical Data:

Rated power:		approx. 100 watts at 4, 8 or 16 ohms.
Tubes:		V1 (input-tube): ECC 83 / 12AX7, FQ selected; V2, V3, V4: ECC 83 / 12AX7, selected; V5, V6: ECC 83 / 12AX7, standard; V7 - V10: 5881(6L6GC) matched set.
Fuses:	external:	2,5 AM (medium) at 230 Volts; 5 AM (medium) in the 100 and 120 Volts models.
	internal:	3,15 AT (slow) at 230 Volts; 6,3AT (slow) in the 100 and 120 Volts models.
CAUTION:		Replace fuses only against same type and rating!
Cooling:		two fans each 12 Volts DC - 1,2 watts;
Please Note:		To protect your amp from damage due to overheating, please ensure the cooling fans remains in operation at all times, especially during lengthy gigs or other occasions when your amp´s operating temperature is high. For recording in the studio or other applications that demand absolutely silent operation, you may disconnect the power supply to the fan pulling the central power supply plug. Ensure the fan is not off for longer than two to three hours.
Dimensions:		approx. 57,5 x 48 x 27 cm (l x h x d)
Weight:		approx. 24 kg
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 side and the 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 professional. Be sure the unit is switched off and unpluged!**
- **Caution! Tubes can get very hot and cause skin burns.**
- **Always use high quality cables.**
- **Never operate the amp through 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 to your own. Consult qualified service personnel!**
- **Never expose the amplifier to extreme humidity or dampness!**
- **Please read the instructions carefully before operating the unit!**
- **Only operate the amplifier in a manner it is designed for and therefore note this operational instructions!**

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