

The Next
BIG
 Hughes & Kettner



Clean to Crunch



Drive to HiGain



Punch & Sustain



Tone Shaping



Tube Tone



Tube Power



Headroom



Tube Protection



Stage Control



Integration



Power Soak



Recording Out

Tube Meister 18
 Manual 1.1

Rock on Stage
 Play at Home
 Record at Night

Important Safety Instructions!

Read before connecting!

This product has been built by the manufacturer in accordance with IEC 60065 and left the factory in safe working order. To maintain this condition and ensure non-risk operation, the user must follow the advice and warning comments found in the operating instructions. The unit conforms to Protection Class 1 (protectively earthed). If this product shall be used in vehicles, ships or aircraft or at altitudes exceeding 2000 m above sea level, take care of the relevant safety regulations which may exceed the IEC 60065 requirements.

WARNING: To prevent the risk of fire and shock hazard, do not expose this appliance to moisture or rain. Do not open case – no user serviceable parts inside. Refer service to qualified service personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to the presence of externally accessible hazardous voltage. External wiring connected to any terminal marked with this symbol must be a "ready made cable" complying with the manufacturers recommendations, or must be a wiring installed by instructed persons only.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.



This symbol, wherever it appears, tells you: Take care! Hot surface! To prevent burns you must not touch.

- Read these instructions.
- Keep these instructions.
- Follow all warnings and instructions marked on the product and in this manual.
- Do not use this product near water. Do not place the product near water, baths, wash basins, kitchen sinks, wet areas, swimming pools or damp rooms.
- Do not place objects containing liquid on the product – vases, glasses, bottles etc.
- Clean only with dry cloth.
- Do not remove any covers or sections of the housing.
- The set operating voltage of the product must match the local mains supply voltage. If you are not sure of the type of power available consult your dealer or local power company.
- To reduce the risk of electrical shock, the grounding of this product must be maintained. Use only the power supply cord provided with this product, and maintain the function of the center (grounding) pin of the mains connection at any time. Do not defeat the safety purpose of the polarized or grounding-type plug.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the device! Power supply cords should always be handled carefully. Periodically check cords for cuts or sign of stress, especially at the plug and the point where the cord exits the device.
- Never use a damaged power cord.
- Unplug this product during lightning storms or when unused for long periods of time.
- This product can be fully disconnected from mains only by pulling the mains plug at the unit or the wall socket. The product must be placed in such a way at any time, that disconnecting from mains is easily possible.
- Fuses: Replace with IEC127 (5x20mm) type and rated fuse for best performance only! It is prohibited to use "patched fuses" or to short the fuse-holder. Replacing any kind of fuses must only be carried out by qualified service personal.
- Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way, such as:
 - When the power cord or plug is damaged or frayed.
 - If liquid has been spilled or objects have fallen into the product.
 - If the product has been exposed to rain or moisture.
 - If the product does not operate normally when the operating instructions are followed.
 - If the product has been dropped or the cabinet has been damaged.
- Do not connect external speakers to this product with an impedance lower than the rated impedance given on the product or in this manual. Use only cables with sufficient cross section according to the local safety regulations.
- Keep away from direct sunlight.
- Do not install near heat sources such as radiators, heat registers, stoves or other devices that produce heat.
- Do not block any ventilation openings. Install in accordance with manufacturer's instructions. This product must not be placed in a built-in installation such as a rack unless proper ventilation is provided.
- Always allow a cold device to warm up to ambient temperature, when being moved into a room. Condensation can form inside it and damage the product, when being used without warming up.
- Do not place naked flame sources, such as lighted candles on the product.
- The device must be positioned at least 20 cm/8" away from walls with free air space inbetween, and there must be free air space of at least 50 cm / 20" immediately above the unit within which no object(s) may be placed or positioned.
- Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the product. When a cart is used, use caution when moving the cart/product combination to avoid injury from tip-over.
- Use only accessories recommended by the manufacturer, this applies for all kind of accessories, for example protective covers, transport bags, stands, wall or ceiling mounting equipment. In case of attaching any kind of accessories to the product, always follow the instructions for use, provided by the manufacturer. Never use fixing points on the product other than specified by the manufacturer.
- This appliance is NOT suitable to be used by any person or persons (including children) with limited physical, sensorical or mental ability, or by persons with insufficient experience and/or knowledge to operate such an appliance. Children under 4 years of age must be kept away from this appliance at all times.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock.
- This product is capable of delivering sound pressure levels in excess of 90 dB, which may cause permanent hearing damage! Exposure to extremely high noise levels may cause a permanent hearing loss. Wear hearing protection if continuously exposed to such high levels.
- The manufacturer only guarantees the safety, reliability and efficiency of this product if:
 - Assembly, extension, re-adjustment, modifications or repairs are carried out by the manufacturer or by persons authorized to do so.
 - The electrical installation of the relevant area complies with the requirements of IEC (ANSI) specifications.
 - The unit is used in accordance with the operating instructions.
 - The unit is regularly checked and tested for electrical safety by a competent technician.
 - The grounding of the center pin of the mains plug is maintained to reduce the risk of shock.

This is to certify that

Hughes & Kettner TubeMeister 18

complies with the provisions of the directive relating to electromagnetic compatibility 2004/108/EC, the low voltage directive 2006/95/EC and the energy-related products directive 2009/125/EC.

This declaration of conformity of the European Communities is the result of an examination carried out by the Quality Assurance Department of STAMER GmbH in accordance with European Standards EN55013, EN55020, EN61000-3-2, EN61000-3-3 for electromagnetic compatibility and EN60065 for low voltage.



Magdeburger Str. 8, 66606 St. Wendel, Germany

Lothar Stamer Dipl.Ing.
Managing Director
St. Wendel, 05/01/2011

Für die nachfolgend bezeichneten Erzeugnisse

Hughes & Kettner TubeMeister 18

wird hiermit bestätigt, dass sie den wesentlichen Schutzanforderungen entsprechen, die in der Richtlinie über die elektromagnetische Verträglichkeit 2004/108/EG, der Niederspannungsrichtlinie 2006/95/EG und der Richtlinie betreffend der umweltgerechten Gestaltung energieverbrauchsrelevanter Produkte 2009/125/EG festgelegt sind.

Diese Erklärung gilt für alle Exemplare und bestätigt die Ergebnisse der Messungen, die durch die Qualitätssicherung der Fa. STAMER Musikanlagen GmbH durchgeführt wurden. Zur Beurteilung des Erzeugnisses hinsichtlich elektromagnetischer Verträglichkeit wurden folgende Normen herangezogen: EN55013, EN55020, EN61000-3-2, EN61000-3-3.

Zur Beurteilung der Einhaltung der Niederspannungsrichtlinie wurde folgende Norm herangezogen: EN 60065

Diese Erklärung wird verantwortlich für den Hersteller



Magdeburger Str. 8, 66606 St. Wendel, Deutschland

abgegeben durch

Lothar Stamer Dipl.Ing.
Geschäftsführer
St. Wendel, den 01.05.2011

Version 3.0 03/2010

Technology of Tone

From day one Mr. Hughes and Herr Kettner have spent countless hours pouring their heart and soul into creating tonal masterpieces that deliver superior usability. Their mission is Technology of Tone: use all available technology to make great tone accessible to the discerning player.

Their search for the ultimate all-tube amp resulted in TriAmp - Technology of Tone at its best - and an impressive testament to the fact that purist tube tone, amazing tonal variety and superior usability can all be had in one extraordinary amplifier.

For TubeMeister, Mr. Hughes and Herr Kettner packed all their know-how and over a quarter of a century's passion for tube amps into a remarkably compact chassis. No wonder TubeMeister offers a wealth of sonic riches for the guitarist to mine. Thanks to German engineering, it can go from a roar to a whisper, shaking the boards on stage, tingling spines in the studio, and raising goosebumps in the still of night - even during silent recording

TubeMeister 18 Head

Serving up three different sounds at the touch of a footswitch, the soulful TubeMeister 18 Head is the go-to guitar amp for gigging. Its four-step power soak brings the sound of the big stage into small clubs and your own four walls. And courtesy of the built-in RED BOX and silent recording capability, you can lay down pro-quality tracks at any time day or night.

TubeMeister 18 Combo

The TubeMeister 18 Combo offers all the tasty features of the Head plus the shimmer and shine of a digital spring reverb. The Celestion 10" speaker was customdesigned specifically for the TubeMeister. Housed in a sophisticated Thiele-Small enclosure, it conjures a far bigger sound than anything one might expect from a combo.

TubeMeister 112 Cabinet

The TubeMeister 112 cab features a sweet Celestion Vintage 30 in a compact bass reflex housing. It's a steel fist in a velvet glove, delivering all the tonal subtleties of the TubeMeister 18 Head with a punch that will rock your world.

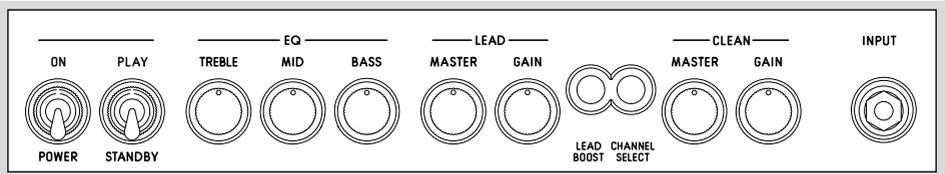
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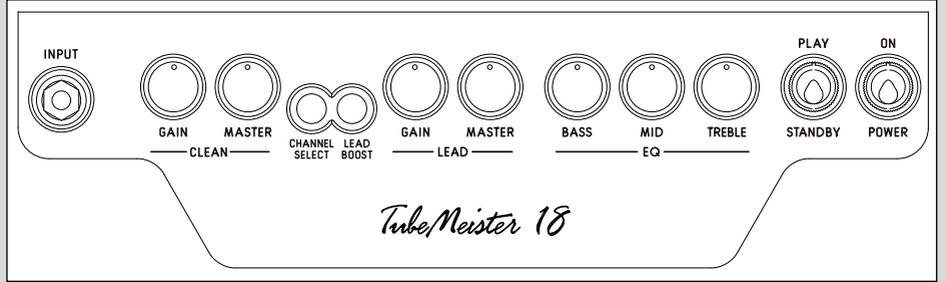
Things to Do Before Operating the Amp

- Please read these instructions carefully, particularly the notes on safety, before operating the amp.
- The manufacturer disclaims any liability or responsibility whatsoever for any damage or defect to this and other devices resulting from misuse.
- Before you plug the TubeMeister 18 into a mains power outlet, make sure its POWER and STANDBY switches are off (both pointing down) and that the voltage rating indicated on the amp's rear panel matches your local mains current.
- **HEAD only:** Please remember to always operate the amp with a speaker connected. The only exception to this rule is when the POWER SOAK is set to the SPEAKER OFF position. Always ensure the connected cabinet's impedance is no less than 8 Ω (see SPEAKER OUT for more on this).
- A word of warning before you fire up your TubeMeister 18: It's loud, and high volume levels can cause hearing damage.

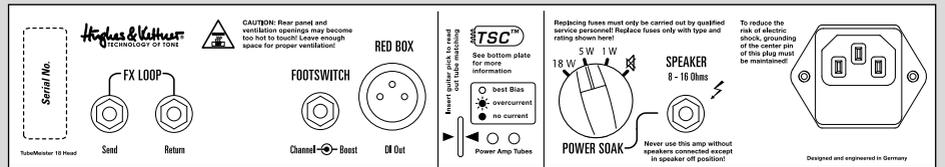
1 Connections and Control Features



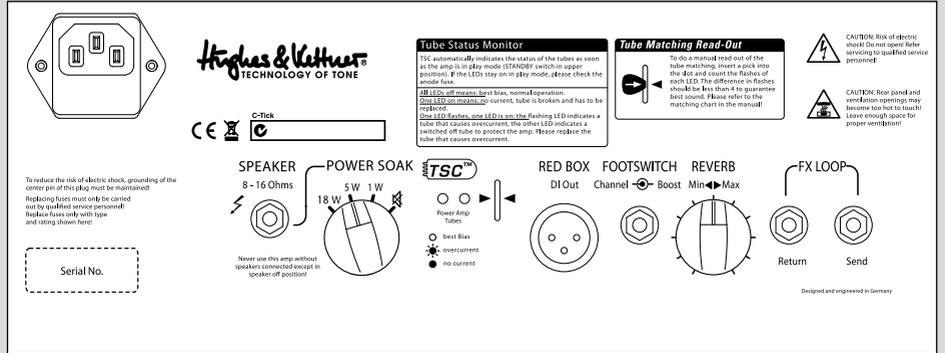
TubeMeister 18 Head Front Panel



TubeMeister 18 Combo Front Panel



TubeMeister 18 Head Rear Panel



TubeMeister 18 Combo Rear Panel

The TubeMeister 18 features independent GAIN and MASTER controls for the CLEAN and LEAD channels. Think of GAIN and MASTER as the yin and yang of sound-shaping rather than volume controls. They let you voice the TubeMeister 18's two channels. To set the basic volume level for the stage, rehearsal room, or living room, use the

POWER SOAK on the back of the amp. The best way to discover the amp's sonic possibilities is to experiment: Set the POWER SOAK to five-watt mode and all knobs to the 12 o'clock position. Then adjust GAIN/MASTER settings at will to get a taste of the very different flavors of preamp and power tube distortion.

TubeMeister 18

To avoid very loud and unwelcome surprises, make a habit of backing the VOLUME knob of the guitar connected to the TubeMeister all the way down before switching on the amp.

1.1 Front Panel

POWER/ON

Set this switch to ON to get the mains power flowing. The amp lights up and the tubes will begin to heat up.

PLAY/STANDBY

Give the tubes about 30 seconds to warm up; then you can flip the STANDBY switch to PLAY. The amp is now ready to operate. When taking a short break from playing, please use the STANDBY switch so the tubes remain at operating temperature. This protects them and ensures they last longer.

INPUT

Connect your guitar to this input using a shielded cord.

CHANNEL SELECT

This switch activates either the CLEAN or LEAD channel. Its LED lights up blue when you select the LEAD channel. Connecting a footswitch disables the front panel button. You can then switch channels via footswitch only, and the CHANNEL SELECT light indicates which channel is active.

CLEAN Channel

The CLEAN channel delivers warm tube tone. Its dynamic range is considerable, sweeping from pristine clean to throaty crunch sounds. Remarkably responsive to the various pickup types, it also reacts to the slightest nudge of the guitar's volume knob.

GAIN

The GAIN knob determines the CLEAN channel's input sensitivity. Depending on the output levels of the pickups in your instrument, the channel will begin to overdrive somewhere around the 12 o'clock setting. This knob does not influence the LEAD channel.

MASTER

This knob adjusts the CLEAN channel's volume without affecting the LEAD channel's volume.

LEAD Channel

The LEAD channel delivers harmonically rich tube distortion and plenty of gain reserves to go from edgy overdrive to soaring lead sounds. You can even clean up its tone by backing off the guitar's volume knob. This gives you a huge spectrum of sounds to play with simply by working the pickup selector switch and adjusting the volume knob.

GAIN

This knob adjusts the amount of tube distortion. To discover the amazing range of sounds that this channel puts at your fingertips, we recommend that you first set the GAIN knob to the 12 o'clock position, and then experiment with the guitar's volume knob, pickup selector, and the amp's BOOST switch.

MASTER

This knob adjusts the LEAD channel's volume. Again, first set GAIN to the 12 o'clock position and experiment. If you wish to conjure creamy lead tones, turn the knob well up to dial in smooth power amp saturation. If you're aiming for an edgier metal sound, say for heavy riffs, try backing off the MASTER knob and turning up the GAIN knob. Usually smooth power amp saturation is less desirable for this type of metal tone.

NOTE: Be advised that you cannot mute the TubeMeister 18 by turning the LEAD MASTER knob all the way down (to the far left position). If you wish to play at very soft levels, we recommend that you attenuate the amp's overall output by selecting either the five- or one-watt mode (see POWER SOAK) rather than backing the MASTER volume way down.

LEAD BOOST

This switch re-voices the LEAD channel to summon modern high-gain sound that pairs plenty of punch with endless sustain. Its LED lights up red when

BOOST is active. Connecting a footswitch disables the front panel button. You can then switch BOOST via footswitch only, and the button merely serves to indicate the function's status.

BASS, MID, TREBLE

Although the two channels share these common tone controls, their separate EQ filtering circuits are voiced differently to achieve optimum results for each channel.

1.2 Rear Panel

FX LOOP

This serial loop lets you patch in effects devices: Connect the SEND jack to your effects processor's input and the RETURN jack to the processor's output. The FX LOOP activates when you insert a 6.3 mm (1/4") plug into the RETURN jack.

TIP

You can also use the SEND jack to tap the preamp signal, for example, to patch it to another power amp or a tuner. Conversely, you can use RETURN to feed signals into the TubeMeister's power amp. In combination with the POWER SOAK and the RED BOX Recording Out, this gives you a powerful recording front end that offers very interesting re-amping and sound-shaping options for just about every conceivable signal.

REVERB (Combo only)

This knob adjusts the intensity of the onboard digital spring reverb. We configured the reverb circuit so that the effect is more pronounced with the CLEAN channel than with the LEAD channel.

FOOTSWITCH

This standard stereo jack plug (tip = CHANNEL SELECT; ring = LEAD BOOST) accepts a two-way footswitch such as the Hughes & Kettner FS-2. Button 1 switches between the CLEAN and LEAD channels, and button 2 switches LEAD BOOST on and off. It also accepts a one-way footswitch such as the Hughes & Kettner FS-1 for switching channels.

TIP: This port gives you another hip remote-control option: If you wish to control the TubeMeister 18 via MIDI, connect a MIDI switcher or looper to this jack.

RED BOX

Invented by Hughes & Kettner, the RED BOX has for years set the industry standard for analog guitar DI boxes with built-in speaker emulation. It converts the TubeMeister 18's speaker out signal, which is tapped post power amp and pre POWER SOAK, into a balanced, frequency-compensated signal that you can patch directly to a mixing console. This signal it sounds very authentic, much like that of a guitar amp, when rendered by a PA or studio monitors,.

Use a microphone cord to patch this signal to a mixing console. Make sure the mixing console's XLR input is set to line level. If the mixing console lacks XLR inputs or if these cannot be set to line level, you will need an XLR-to-6.3 mm-(1/4")-jack adapter readily available in music stores. The channels' MASTER settings directly affect the signal level, but the selected POWER SOAK mode does not.

TSC

We devoted an entire chapter to the TUBE SAFETY CONTROL. See section 3 to learn more about it.

POWER SOAK

Use this knob to adjust the TubeMeister 18's output power and set its basic volume level. This feature lets you enjoy the benefits of full-blown power amp saturation at low volume so you can play at home in your living room without alienating the neighbors. Its silent recording capability lets you capture genuine tube-driven tone via a mixing console without having to drive speakers. And if you want to rehearse in silence any time day or night, simply plug a set of headphones into the mixer.

The POWER SOAK is not just about managing volume; it's also about conjuring the right tone and response. For modern sounds that demand fast,

tightly focused response, set the POWER SOAK to full power and turn the MASTER knob down. If you want classic rock sounds replete with spongier power tube saturation, drop the POWER SOAK down to a lower setting and crank the MASTER knob to give those power tubes a workout.

The POWER SOAK offers the following modes:

Normal operation - full power at 18 watts

Power reduction to 5 watts

Power reduction to 1 watt

Mute (Speaker off) = 0 watts

Note that if you choose to mute the amp, you do not need to connect a speaker to the TubeMeister 18's SPEAKER output. Designed to enable silent recording, this option provides the full signal to the RED BOX output.

SPEAKER

Connect a speaker cabinet designed for guitar amps to this jack. Using a single speaker cord, you can connect any cabinet or combination of cabinets whose total impedance ranges between 8 Ω and 16 Ω. The formula below serves to calculate the overall impedance (R) of two cabinets (R1, R2).

For cabinets wired in series: $R = R1 + R2$

Example: If you connect two 8 Ω cabinets, the overall impedance is 16 Ω. However, very few modern cabinets are wired in series. Parallel circuits like that of the TubeMeister 112 cabinet are far more common.

For cabinets wired in parallel:

$$R = (R1 \times R2) / (R1 + R2)$$

Here's an example with 16Ω cabs:

$$R = (16 \times 16) / (16 + 16)$$

$$R = 256 / 24$$

$$R = 8$$

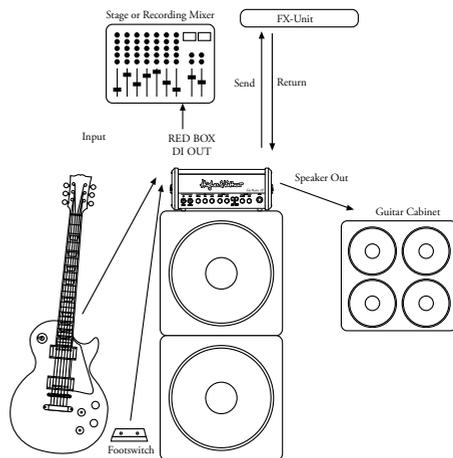
HEADS UP: On the Combo version, this jack is already occupied by the internal speaker. Of course, you are free to connect another cabinet to the

SPEAKER jack if you wish. To do so, simply unplug the built-in speaker.

MAINS IN

Connect the factory-included power cord (MAINS LEAD) to this socket. Ensure the amp's voltage rating matches your local AC voltage rating before you plug the cord into the wall socket. The shaft holding the mains fuses is located next to this socket. When replacing blown fuses, make sure you use specified replacement fuses only (see Technical Specifications).

2 Standard Setup/ Cable Connections



Rock on Stage



Play at Home



Record at Night

3 Tube Safety Control (TSC)

TSC adjusts bias to improve the amp's tonal and technical stability and extend power tubes' life. It does this automatically and continuously, so there is nothing for you to do.

Swapping tubes is more easily, quickly, and safely done than with a conventional amp. This is a big help not only in case of a defect, but also when you want to compare different brands of replacement tubes.

CAUTION: Replacing tubes is a job for qualified professionals! TSC merely spares the technician the biasing effort.

What do the LEDs indicate?

Each LED is assigned to the power tube occupying that same position. Getting a read-out of tubes' operating status and bias points is easy using any standard guitar pick.

3.1 Automatic status indications:

All LEDs light up and stay on.

All LEDs remain on for as long as the amp is in standby mode. They will extinguish when you flip the STANDBY switch to PLAY after about 30 seconds. If the LEDs remain illuminated, the most likely cause is a blown anode fuse that needs to be replaced by a technician. The anode fuse can trip if a tube is already defective when the amp is switched on, and TSC does not have enough time to measure idle current and shut the faulty tube down.

None of the LEDs lights up.

The power tubes are operating normally.

One LED lights up continuously.

The tube assigned to this LED is producing under-voltage. If the LED does not extinguish after a few minutes, this tube must be replaced.

One LED flashes constantly.

The tube assigned to this flashing LED is generating over-voltage. It has been shut down and must be replaced by a technician. If the second LED lights up continuously, this indicates it has also been shut down for safety reasons, but there is no need to replace it.

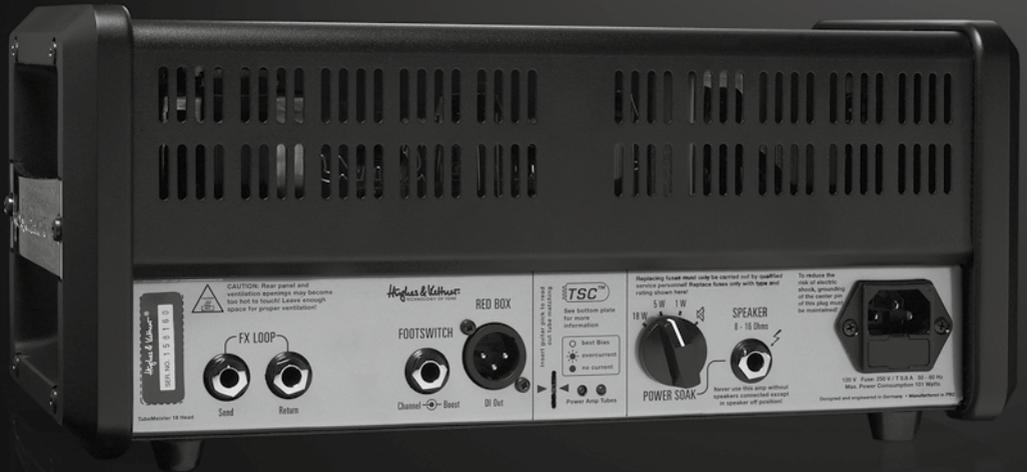
3.2 Manual Read-Out

TSC checks tubes' bias points to let you determine if pairs match. This is easily done by inserting a pick into the appropriate slot while the amp is on (rather than in STANDBY mode). The LEDs will flash. How many times the LEDs flash matters, but what matters more is the difference in flash counts. TSC will ensure optimum sound if the difference is no greater than four flash signals. If the difference in flash counts is greater than four, the device will continue operating safely so there is no real need to install a matched set. However, a matched set of tubes will improve the tone.

4 Technical Specifications

TubeMeister 18 Head & Combo	
Preamp tubes:	2 x 12AX7 / ECC83
Power tubes:	2 x EL84
Power output:	18 watts
Max. power consumption:	101 watts
Mains voltage tolerance range:	+/-10%
Ambient operating temperature range:	0° to +35° C
Mains fuse, 100 volts:	250 V / T 1.25 A L
Mains fuse, 120 volts:	250 V / T 1 A L
Mains fuse, 220-230 volts:	250 V / T 630 mA L
Mains fuse, 240 volts:	250 V / T 630 mA L
Input jack:	6.3 mm (1/4"), unbalanced, 1 MΩ
Send jack:	6.3 mm (1/4"), unbalanced, 250 Ω, max. + 6 dBV
Return jack:	6.3 mm (1/4"), unbalanced, 500 kΩ, -3 dBV
RED BOX Out:	XLR, balanced, 1360 Ω, max +6 dBV
Speaker Out:	6.3 mm (1/4"), 8 to 16 Ω
Footswitch:	6.3 mm (1/4"), stereo, tip=Channel, ring=Boost
TubeMeister 18 Head	
Dimensions:	356 x 156 x 150 mm
Weight:	5 kg
TubeMeister 18 Combo	
Dimensions:	395 x 360 x 260 mm
Weight:	9.4 kg
Speaker:	10" Celestion Custom Speaker
TubeMeister 112 Cabinet	
Speaker:	Celestion Vintage 30, 16 Ω
Power handling capacity:	60 watts
Speaker Out:	2 x 6.3 mm (1/4") jack, wired in parallel
Dimensions:	480 x 450 x 285 mm
Weight:	13.5 kg

The Next BIG Hughes & Kettner



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