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MANUAL

HEAD/COMBO

Puretone

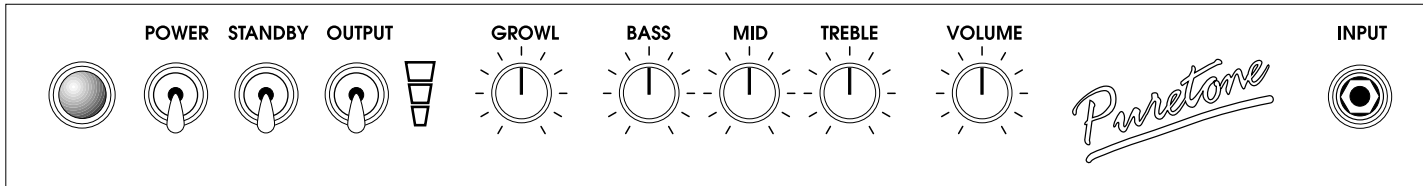
ALL-TUBE
GUITAR AMPLIFIER

 ENGLISH

 DEUTSCH

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
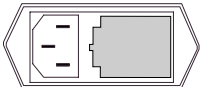
Hughes & Kettner[®]
TECHNOLOGY OF TONE



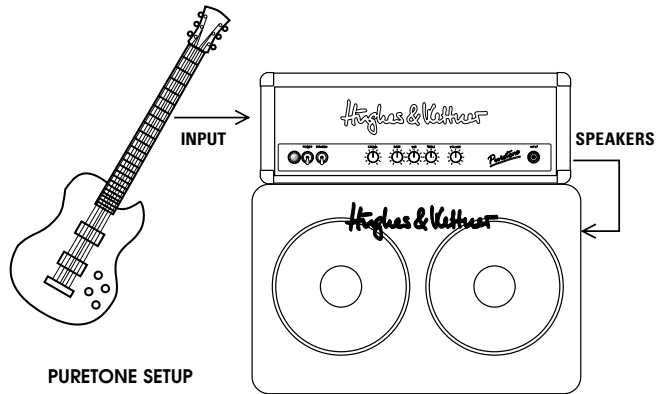
PURETONE COMBO

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|--|--|---|--|--|---|---|---|
| <p>NEVER USE AMP WITHOUT SPEAKERS CONNECTED!</p> | <p>SPEAKERS 8 - 16 OHMS</p>  <p>20 watts into 8 ohms 25 watts into 16 ohms</p> | <p>OUTPUT POWER</p>  <p>100 % 80 % 50 %</p> | <p>Hughes & Kettner MADE IN GERMANY</p> | <p>CAUTION! TO PREVENT THE RISK OF FIRE AND SHOCK HAZARD DON'T EXPOSE THIS APPLIANCE TO MOISTURE OR RAIN. DO NOT OPEN CASE. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p> |  <p>REAR PANEL MAY BECOME TOO HOT TO TOUCH! LEAVE ENOUGH SPACE FOR PROPER VENTILATION!</p> | <p>CE ANODE FUSE T 0.5 A</p> | <p>50 - 60 Hz. MAX. POWER CONSUM. 222 VA MAINS IN + VOLTAGE SELECTOR: REPLACE FUSES ONLY WITH SAME TYPE + RATING 230 V → T 1.6 A • 100V → T 3.15A • 117 V → S8 3.15 A</p>  |
| | | | | <p>Ser. No.</p> | | | |

PURETONE HEAD

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PURETONE COMBO



PURETONE SETUP

[ENGLISH](#)

[DEUTSCH](#)

CONGRATULATIONS AND THANK YOU FOR CHOOSING THE HUGHES & KETTNER PURETONE!

The Hughes & Kettner Custom Tube Series models are all amps with distinctive personalities tailored to individual expression. Built for tube purists, each amp in this line is a no-frills, straightforward original. Each one delivers the goods in terms of tone, quality of components, workmanship and aesthetic design, living up to the most discerning standards - no ifs, ands or buts.

A purist's dream, the concept behind the PURETONE is as simple as it is uncompromising - a single channel for a sweeping range of stunning sounds. As its name would suggest, the PURETONE offers just that - pure, unadulterated sound. Every component, every inch of wiring was designed with a single goal in mind: to ensure that your signal reaches your ears in a pristine state.

Nothing gets lost along the way, your tone isn't colored by inferior components. You can even cut the tone controls out altogether with the GROWL knob. Thus you can make even the finest nuances in your playing audible. Depending on your guitar's volume knob setting and how hard you bear down on the strings, you can evoke anything from crystal-clear clean tone to blues crunch and even rough-and-ready overdrive. In a nutshell, a world of killer tone is right there at your fingertips. The PURETONE gives you exactly what guitarists all over the world want: freedom of expression.

Next to its exceptional sound quality, the hallmarks of the PURETONE are reliability and stage-worthiness. Every amp of the Custom Tube Series is equipped with tubes that live up to the highest standards for quality and thus guarantee maximum dependability under even the most demanding conditions.

These qualities and its unique aesthetics make the PURETONE a highly individual amp for equally individual guitarists.

WE WISH YOU ALL THE FUN AND SUCCESS IN THE WORLD WITH THE TONE OF YOUR NEW PURETONE!

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BEFORE POWERING UP

- Check that the local current and the amp's AC power rating are identical before you plug the PURETONE's mains cable (power cord) into an AC outlet.
- Ensure that air can circulate freely around your amp's ventilation slots.
- Place the amp on a stable platform where it is not exposed to mechanical shocks and temperature extremes which may damage the amp or endanger the safety of bystanders.
- Hughes & Kettner is not liable for any damage to the amp due to improper use.

NOTE: Although we select our tubes according to the highest standards for quality, these are nonetheless sensitive components. Their service life may be shortened considerably by improper handling. Just like a top-notch athlete, they need to warm up before they're off to the races. Always power the amp up in STANDBY mode and wait one to two minutes before you flip the switch from STANDBY mode to ON.



1.0 JACKS AND CONTROL FEATURES

FRONT PANEL:

INPUT: Plug your guitar into this jack (it accepts all standard guitar input levels).

VOLUME: Determines the PURETONE output level. At higher levels, the amp will crank out that trademark Class A grind. You'll find it easy to go from clean to dirty sounds and vice versa by simply manipulating your guitar's volume knob.

BASS, MID, TREBLE: 3-band voicing section. Mid and Treble influence one another, an attribute considered normal and desirable in a tube amp. Boosting treble decreases midrange honk and vice versa: jacking up the mids cuts back on top-end shimmer. You'll find that this feature offers a fairly staggering range of subtle tonal variations.

GROWL: Cuts the tone controls out of the circuit. When it is set to the far right position, the voicing section is bypassed entirely. The sound of your guitar comes through completely unfiltered.

OUTPUT SELECTOR (NOTE: On the PURETONE head, this switch is located on the rear panel.):
The PURETONE is a very loud amp. This kind of power can be undesirable in some situations, which is why the amp is equipped with the OUTPUT POWER circuit. Use this switch to select the desired level of power amp performance depending on the given venue and application. You can cut power output from 100% to 80% (switch set to the 12 o'clock position) and on down to 50%.

STANDBY: Be sure to wait one to two minutes after turning on the POWER switch before you flip this switch. It assures that the tubes warm up gradually when you first power up the PURETONE and mutes the amp during breaks. In the latter case, the tubes stay nice

and toasty so that they don't have to heated up again when you're ready to get back to playing.

POWER: The PURETONE's mains power switch.

RED MAINS LED: The red LED illuminates when the PURETONE is powered up.

REAR PANEL

MAINS IN: Connect the factory-included Euro-norm mains cord 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 mains fuse bracket is located next to this socket. When replacing blown fuses, make sure you use specified replacement fuses only (see Technical Specifications).

ANODE FUSE: This is the holder for the power tubes' anode fuses. Here too, make sure you use specified replacement fuses only when replacing blown fuses. If a replacement fuse blows after just a short while in operation, you should definitely have the power tubes checked for defects.

OUTPUT: On the PURETONE head, the OUTPUT POWER switch is located on the rear panel. (For more info, check out the description above.)

SPEAKERS: The PURETONE features two speaker outputs for connecting speakers with an overall minimum impedance of 8 ohms. This means that you can connect either an 8-ohm cabinet or two 16-ohm cabs to the PURETONE head. On the combo version, the output is factory-connected to the internal 16-ohm speaker. You'll find the connector for an external cabinet behind the rear panel next to the connector for the internal speaker. Bear in mind that if you want to connect additional speakers, you can only connect a 16-ohm cabinet. However, if you first disconnect the internal speaker, you can connect an 8-ohm cab.



2.0 STANDARD SETUP/CABLE CONNECTIONS

3.0 REPLACING TUBES, MAINTENANCE AND CARE

The PURETONE ships with EL34 and 12AX7. Once they've been burned in (initial continuous operation under a load), these undergo an in-depth selection process where their electrical values and mechanical status (microphonics) are checked. Beyond that, they're installed in a finished amp and their sound is auditioned in a listening benchtest. One of the most important steps is power tube matching, a process whereby tubes with the same characteristics are selected and combined to make matched sets.

WHEN IS IT A GOOD IDEA TO REPLACE TUBES?

The tubes in the PURETONE are exemplary in terms of quality, workmanship and long service life. If you nevertheless come across a problem, please be sure to run down the following checklist before you swap out your old tubes for new ones:

Was the fault or failure of the power tube caused by the tube itself or a flawed peripheral device or component, perhaps a defective speaker cable? (If you don't get to the bottom of the problem and remedy it, it may crop up again even after you replace the tubes.)

Did the mains voltage fluctuate or spike while the amp was on? In all-tube amps, over-voltage surges in the mains net can certainly blow fuses or even the amps. Over-voltages are often caused by generators or improperly installed high-current power circuits.

Did a fuse blow even though none of the tubes is actually defective? An old fuse, tube de-ionization or mains voltage power surges could conceivably have caused it to blow. In this case, replacing tubes of course is a waste of money and time.

Tubes definitely show signs of wear when their service life is coming to an end, such as increased microphonics, noise, muddier tone through loss of high-end frequencies, degraded performance, etc. You should take these indications seriously and replace old tubes because not only do these side effects take their toll on sound quality, they also indicate the affected tube is about to fail.

WHAT SHOULD YOU KEEP IN MIND WHEN YOU'RE REPLACING TUBES?

The golden rule: Replacing tubes is a job best left to qualified professionals. Accordingly, these guidelines are addressed to reputable technicians who earn their living with a screwdriver: Pull the mains plug of the PURETONE and allow for a discharge time of at least two minutes before removing the sheet metal panel on the rear of the amp. Once the panel is off, you can cautiously ease the tubes out of their sockets. A single power tube may only be replaced if the replacement tube is precisely matched to the original, in other words, it has the same characteristics. As a rule, if you are replacing power tubes, use matched sets only.

NOTE: You may install new, matched power amp tubes into the PURETONE without having to bias the amp anew. The new set may even have characteristics that differ from those of the old set, just make absolutely sure that the tubes are matched. The Class A circuit ensures that the amp is biased automatically, so to speak.

HOW CAN YOU EXTEND THE SERVICE LIFE OF TUBES?

Never operate the PURETONE without connecting a load (loudspeaker)! With this in mind, you should always use high-quality, heavy-duty speaker cables that won't crimp or snap. Use the STAND BY switch! Warming tubes up unnecessarily wears them out that much quicker. Make a habit of shutting down the anode voltage via the Standby function and you'll enjoy many more hours of operation.

Avoid exposing the amp to vibrations, especially when it's powered up. Switch the amp off a good while before moving the amp so that the tubes can cool off completely first.



HERE ARE A FEW MORE BASIC RULES THAT WILL EXTEND THE SERVICE LIFE OF YOUR AMP ENORMOUSLY IF YOU FOLLOW THEM:

- Make sure all peripheral devices and connecting cables are in a state of good repair! - Ensure plenty of air can circulate around the amp's ventilation slots at all times your PURETONE's life depends on it.- Definitely avoid exposure to mechanical shocks and extreme heat, dust and particularly moisture.
- Be very careful about the kind of peripheral devices you connect to your amp and always check out their specs before you plug them in. Never connect speaker cabinets with an impedance (ohm) rating lower than the PURETONE is designed to handle. Under no circumstances should you connect devices with high output signal levels (e.g. power amps) to your amp's input.
- Be sure the AC power source delivers the current that your amp is designed to handle before you plug it in. When in doubt about the local rating, ask the venue's sound technician or a stage hand.
- Refrain from DIY repairs! To be on the safe side, you should also have a qualified technician replace internal fuses.

4.0 TROUBLESHOOTING

1) *The PURETONE won't power up when you switch it on:*

- It's not getting AC power. Check the mains cable to see if it is connected properly!
- The mains fuse is defective. Replace the fuse with another fuse of the same type. If this fuse also blows, be sure to talk to your local Hughes & Kettner dealer.

2) *The PURETONE is connected properly, but no sound is audible.*

- One or several GAIN or MASTER controls are turned all the way down. Dial in higher settings.
- A shorted external speaker cable caused one of the fuses to blow. Have a qualified technician change the fuse (ensure the replacement fuse bears the proper rating).

5.0 TECHNICAL SPECIFICATIONS

PREAMP SECTION:

INPUT -10 dBV / 1 M Ohm

POWER AMP SECTION OUTPUT POWER

40 watts into 8 Ohms
25 watts into 16 Ohms

FREQUENCY RESPONSE 20 Hz - 50 KHz

LOUDSPEAKER (COMBO) 12" Celestion Vintage 30, 16 Ohms

GENERAL DATA

INPUT POWER 230 volts AC (European version)
117 volts AC (North American version)
100 volts AC (Japanese version)

MAXIMUM POWER CONSUMPTION 222 VA

POWER SUPPLY FUSE 1,6 A Slo-blo (230-volt version)
3,15 A Slo-blo (117-volt version)
3,15 A Slo-blo (100-volt version)

ANODE FUSE 1 x 500 mA Slo-blo

DIMENSIONS (W X H X D)

Head: 24.6" x 12.6" x 10.2" (625 x 320 x 260 mm)
Combo: 24.6" x 20.5" x 9.8" (625 x 520 x 250 mm)

WEIGHT

Head: 37 lbs (17 kg) Combo: 55 lbs (25 kg)

