

TC Electronic RH450 & RS cabs

Bass amplifier and cabinets

TC Electronic are known worldwide for their excellent guitar processors, but 2009 saw the launch of the RH450 transistor bass amp and matching cabs.

David Heap

The first striking attribute of the RH450 is its dimensions: only 275 x 290 x 66mm and weighing in at a paltry 4kg. The main casing is sandblasted, die-cast aluminium with a recessed, plastic front panel. Along the right-hand side, the moulding is shaped flat so the unit can be stood on end, with the opposite side occupied mostly by a large handle. Four rubber feet are attached to the base, alleviating any movement from vibration when sat atop bass cabs.

Performing Musician

TC Electronic RH450, RS210, RS212 & RS410

A brand-new design this year, TC Electronic seem to be leaps and bounds ahead of their rivals with this deafeningly loud, compact amplifier with good solid features and highly manageable speaker cabs.

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This amp is truly all about electronics and packs an array of features aimed firmly at achieving superb sounds with very little effort, while for the touring musician there is an auto-sensing circuit that adjusts the internal power supply to suit the voltage in different countries.

Amp features

On the front panel, the single input accepts both passive and active basses, and alongside this is the Gain control and overload LED. Apart from Master volume, all the control knobs are of the infinite type and just turn round and round, which is a little disconcerting when the amp is switched off, but once it's on, all becomes clear.

There are small LEDs around each knob, showing the amount of gain, or cut and boost, depending on the relevant section, which is an effective visual indication of the position of the controls.

The centre section houses four controls for the EQ — Bass, Lo-mid, Hi-mid and Treble — and each has a cut of -24dB, with the first three boosting +15dB and the Treble +12dB. The two mid ranges are fixed, 2.1-octave types, the bass and treble shelving, while the default frequency settings are 280Hz, 400Hz, 800Hz and 1600kHz respectively. Now for the clever bit: there is a Shift button, which when activated allows the frequencies of each EQ to be changed parametric-style from 71Hz to 1120kHz, 100Hz to 1600kHz, 200Hz to 3150kHz and 400Hz to 6300kHz respectively, ensuring an extremely wide diversity of tone.

Following on from the EQs is the TubeTone

control, simulating a combination of pre-and post-EQ sounds, from clean warmth to heavy overdrive and full-on distortion. The last knob in line is the Master volume used to set the overall output. To the far right of the panel is a headphone jack, which enables monitoring of the bass and any signal connected to the Aux In socket on the rear of the amp.

Above the rotary controls is an always-active chromatic tuner, which indicates the note played, as well as using symbols to show pitch movement up and down and in tune. There are three memories to store different settings, which is handy not only for sound changes but guitar swaps as well, where there are differing instrument levels and tones.

The two remaining buttons are Shift and Mute. Shift changes the Gain to SpectraComp, a TC compressor that allows independent compression of the low, mid and high frequencies, ensuring just the right amount is added to each individual string, and this button also changes the TubeTone control to adjust the current memory volume. Mute silences the output, but still allows the tuner to work, and while in this mode the small LEDs around the Bass control act as a high-resolution pitch indicator, supporting the main display above.

The rear panel carries the mains socket and integrated switch, a dual-purpose Speakon socket accepting a jack or Speakon plug, and a five-pin DIN socket for connection to the RebelControl footswitch. There are two XLR outs, with the first supplying a 96kHz/24-bit AES/EBU digital format for connection to a digital audio interface, and the second a standard line



Prices

RH450	£899
RS210	£449
RS212	£549
RS410	£799

Tech Spec

RH450

- 450W @ 4Ω.
- Four-band adjustable parametric EQ.
- Three memory presets.
- Onboard compressor.
- Simulated Tube drive.
- Digital out.
- Dimensions (WDH): 275 x 290 x 66mm.
- Weight: 4kg.



Connections on the rear of the RH450 include an XLR 24-bit/96kHz AES/EBU out for connecting to a digital audio interface, plus a five-pin DIN socket for the optional RebelControl footswitch.

out to mixing desks and so on, and this has an accompanying Pre/Post EQ switch. Finishing off the rear functions are two mini-jacks to connect external sound sources (backing tracks, clicks etc.), plus input and output jacks to insert effects into the sound chain or just to link amps together.

As mentioned, there is an optional RebelControl footswitch (£135) offering remote control of Mute and the three memories, as well as featuring a 'window' to display tuning, all housed in a sturdy metal casing.

Cabinet choice

There are three cabinet configurations available in the series — a 2 x 10, 2 x 12 and 4 x 10 — and these are loaded with custom-made Eminence drivers and designated RS210, RS212 and RS410 respectively. Manufactured from a hardwood, they have carved rounded corners, sturdy metal front grilles, recessed back panels and large recessed handles. The wood is treated with a black 'skid-free' surface, and the company logo adorns the lower left corner of each cab.

The 2 x 10 and 2 x 12 share the same front profile of 356 x 664mm, but the latter has more air inside, as the back is extended from 356 to 498mm, allowing more excursions from the 12-inch speakers. The 4 x 10 is still quite compact at the same width, but 596mm high and 427mm deep, and is front ported while the previous two are rear ported. When stood vertically, the top speaker in each of the two smaller cabs carries a dual-concentric tweeter with a 33mm aluminium Eminence coil for high-frequency definition, while the 4 x 10 has them in the top two when stacked normally. As well as featuring two pairs of quarter-inch jacks and Speakon sockets, which can be used in any configuration to connect cabinets together, the rear panel offers a rotary control to adjust the amount of HF level.

Hits the spot

This tiny amp has all the features and power expected of a much larger product and is

very, very loud. The default tone arrangement hits all the right spots, with cut and boost at just the right frequencies. For those with a more discerning ear, being able to 'move' these frequencies parametrically is a real bonus, as I discovered when plugging in an electro-acoustic bass. Completely different tones were needed, but the RH450 delivered them flawlessly. Being able to store these settings is another bonus, and three memories

will be ample for most bass players.

The onboard tuner is superb, with arrows indicating flat or sharp and a circle when in tune, and in mute mode the bass indicator is brilliant for those small increments of adjustment. The tuner is set at the standard 440Hz reference, but may be adjusted anywhere between 438Hz and 445Hz for those that require this feature.

As expected from TC, the compression is superb, behaving slightly differently, as promised, across all six bass strings, while the Tube drive delivers a deep warmth that is unexpected from such a small box.

Cabinet design appears a little quirky at first, but the various stackable options suit almost any scenario. The full rig of RS212 on the bottom with the RS410 and RS210 stacked on top produces an awesome sound with much



more volume than I could use sensibly — more on par with a 750W or 800W amp, I would have thought.

Serious sound

This is some serious piece of kit. The clever designs and functions on the amp ensure that no feature is redundant. The rotary LEDs are a little disconcerting to use at first, but for quick visual reference they turn out to be fantastic, as is the onboard tuner, which is such a simple thing to incorporate but is again just so useful for speed of setup and reference. The three channels worked for me too: one for my Yamaha six-string, one for my five-string, and the last for my Washburn acoustic, each set up with completely different parametric tone, tube sound, compression and volumes. Brilliant! My only slight criticism would be the Master volume control, which seems to turn all the power in very quickly at around the nine o'clock position, and I never really needed to turn it up past this.

As expected, each of the cabinets has its own distinctive tone, and I tried every combination of the three. The RS210 offered surprising amounts of volume with no distortion, as did the RS212, while the larger RS410 is above par compared to many other current manufacturers. Probably my favourite configuration would be an RS210 and RS212 for portability and overall sound. Laid horizontally, they produce the same punch as a 4 x 10, but, with the option of stacking them vertically, the 12s still kick along the floor while the 10s are at head level — great to be able to hear your music at a sensible volume without drowning out the PA. Rehearsals and home practice have never been easier, with this small, manageable 21kg cab and the excellent, tiny RH450 bass head. My back as well as my ears loves them. Check them out on the TC website for some great demos from players and company technicians. ■ PM

Tech Spec

RS210

- 2 x 10-inch custom Eminence drivers.
- Dual-concentric tweeter.
- Rear ported.
- Dimensions (WDH): 356 x 356 x 664mm.
- Weight: 21kg.

RS212

- 2 x 12-inch custom Eminence drivers.
- Dual-concentric tweeter.
- Rear ported.
- Dimensions (WDH): 356 x 498 x 664mm.
- Weight: 24kg.

RS410

- 4 x 10-inch custom Eminence drivers.
- Two dual-concentric tweeters.
- Front ported.
- Dimensions (WDH): 664 x 427 x 596mm.
- Weight: 37kg.