

**KUSTOM DOUBLE CROSS** £1,999  
AMPS



PHOTOGRAPHY BY: JOBY SESSIONS



# Kustom Double Cross £1,999

This revived American brand ups the ante with a rock monster to take on the big boys *by Mick Taylor*

## What we want to know

**1 Who is Kustom?**  
The brand was born in the mid-1960s and is best known for its car seat-inspired, sparkly-padded Tuck 'N' Roll vinyl cabinets. Today, Kustom is under the ownership of the Hanser Music Group, a large US distributor that also owns BC Rich guitars, Traben basses and Michael Kelly guitars.

**2 Doesn't Kustom just make more cost-effective amps?**  
Nope. While the company does make good value smaller and practice amps (new HV series reviews coming soon), its serious valve amp aspirations were born with the Coupe series of 2005, designed by noted amp man James Brown (no, not the Godfather Of Soul).

**3 Who is this amp for?**  
Make no mistake, Kustom is absolutely serious about going head-to-head with the likes of Mesa, Peavey, Randall et al in the rock and metal market. This is aimed squarely at pro-minded heavy rock and metal players.

**W**hile not exactly practical for life on the road, Kustom's definite kitschy-cool Tuck 'N' Roll appeal hooked in plenty of 1960s and 1970s musos. Amps, PAs, organs and Talk Boxes found their way onto the stages of Stevie Wonder, Jeff Beck, Johnny Cash and countless other rock and pop luminaries. The brand languished in the 1980s until it was revived in the mid-1990s, and is now steered by ex-Peavey big hitter Bill Xavier and amp designer James Brown, who achieved considerable success on the Peavey Classic Series, 5150 and early JSX series amplifiers.

Now comes Kustom's flagship Double Cross, a no-nonsense all-valve, pro-oriented rock and metal monster. Built partly in China, but assembled and finished in the USA, it's a new design that isn't so much Swiss Army knife, as infinitely twistable broadsword...

As Brown points out, the Double Cross's styling shouts rock and metal. The lacquered metal front panel continues Kustom founder Bud Ross's original automobile styling idea, with a distinct 'truck front grille' look. It's then finished with quality vinyl covering over the sturdy ply cab.

The amp itself is based around a three-channel design, designated Rhythm, Lead I and Lead II, indicated with a coloured LED behind the channel name when it's

selected. "I chose to make the Lead I channel have a little bit more scooped-out middle," says Brown, "so it sounds more like a typical chunky rhythm sound. Lead II is more of that cranked-up, screaming lead tone. Most of the time I find that guys either like a nice tight distortion, or they like it kinda thick and buzzy."

Switching comes courtesy of the included five-button footswitch; one-touch operation for instant channel

changes, plus boost on/off and effects loop on/off. The high-quality switch has matching LEDs to the head, so you know what's selected. One hidden feature of the switch is that you can program the effects loop to switch in automatically to any or all of the channels or the boost mode: neat. It connects via a quarter-inch stereo/TRS jack lead – easy and cheap to replace if you need to – and the whole shebang will work off an external MIDI controller too.

"Most of the time I find that guys either like a nice tight distortion, or they like it kinda thick and buzzy" **James Brown**



The Cross system enables you to shape the tone and response to your liking

## The Rivals

**Mesa's Dual Rectifier** (£2,299) is the go-to pro hard rock and metal head, having built an awesome reputation over the last 20 years. The **Peavey 6505+** (£1,182) is the latest iteration of its flagship metal amp, birthed originally of Eddie Van Halen and Kustom's James Brown. Ed now has his own **EVH 5150III** head (£1,649). Then there's the **Hayden Classic Lead 80** (£1,249), **Marshall JVM410H** (£1,029), **Blackstar S1-200** (£1,199), **Randall V2NHE Ninja** (£1,299), **Rivera K Tré Reverb** (£1,921), **Diamond Nitrox** (£1,690) – there are a lot out there!



## The unique combination of features enables you to dial a tone that - and here's the important part - 'feels' right under your fingers

There are two input options 'tight' and 'normal'. James Brown: "We're used to seeing amps with two inputs, but nobody uses the low-gain input, so that's a waste of time. The tight input tightens up the attack and you can hear how it's floppier in the normal input. Like this [tight] is your Angus input and this is the Malcolm input [normal]."

Each channel has its own set of gain, volume and EQ controls. Starting with the rhythm channel, you also get drive and bright switches for further tonal shaping. The two lead channels introduce the Double Cross raison d'être, because mounted within the Gothic cross symbol are four mini switches, one set per channel. Brown explains how the circuit works in our interview on p110, and there's an excellent explanation in the manual. In short, they're essentially gain and tone-shaping switches to enable you to get the right balance of gain, cut, saturation, resonance and

note-definition in your sound. The switches are: 'bright' for a quick and tight attack; 'drive' for an increase in gain, compression and saturation; plus 'tight stage' and 'thick stage', which each bring in another half a 12AX7 valve for more gain in the upper and lower frequency spectrums. While it sounds complicated, anyone who's plugged into a high-gain amp and wanted, say, more pick dynamics, better note articulation, or maybe a more squashy, maxed-out feel, will soon get the point.

The front panel is finished up with a global master volume and a boosted volume level. The boost works as an addition to the master, so they're not separate volumes; boost is always extra over the master setting. On the subject of power, James Brown has chosen six output valves instead of the usual four for around 100 watts, he explains why in our interview. Standard issue are 6L6s but you can use EL34s for a different tonal response

should you so desire thanks to the included auto bias switch.

A quick look at the rear panel reveals some nice inclusions. Brown's excellent speaker-emulated DI from the Coupe series is included (hooray, a credible alternative to mic'ing for live use), as is a series effects loop with send and return levels. Send ranges from -10dB to 0dB to deal with a wide range of pedals and rack units.

Like the vast majority of modern multi-channel amps, inside the circuit is based around custom-designed, through-plated PCBs mounted on metal standoffs from the sturdy steel chassis. A quick poke around suggests that it's not bullet-proof, but to be fair that's par for the course in this type of amp: very few manufacturers are doing it significantly better.

### Sounds

Starting off with a Celestion Vintage 30-loaded closed-back 4 x 12 and plugging a Strat into the normal input, the rhythm channel has plenty of the low-end bloom, fatness and character you'd associate with a 6L6 amp. It offers cleaner Hendrix and Stevie Ray tones - not what you might expect from a metal amp, though reverb is the obvious omission. Leaning on the masters, there's plenty of

makes-you-blink attack and punch, which you can soften with the EQ, or by balancing the gain and master, pushing the front end all the way to a vintage-y drive, all the more so when you switch to a Les Paul's humbuckers for a satisfying classic rock crunch. This channel alone would make a good single-channel blues-rocker, with plenty of headroom for some tasty pedals. The EQ is powerful but, for another option, the 'tight' input seems to reduce some of the lower mids and bass - very useful in a busy band mix where you need to cut through and hear individual notes in chords more clearly, especially with a bottom-heavy guitar such as a Les Paul.

Switching to Lead I the noticeable mid-scoop bias accentuates a Strat's thinner middle, which can result in a little wiriness; switching in the 'thick stage' on the Double Cross switch adds extra gain and a touch of pick-sensitive compression. Pseudo-Blackmore tones are here when you crank it, but it's humbucker players who have most to gain, quite literally.

So, a suitable humbucker guitar, Lead I, all switches out, gain at 12-o'clock: the distortion is thick and full with a fuzzy edge that's tamed or accentuated by tweaking the powerful treble pot. Adding in the drive switch brings yet more saturation to the party and also a touch of compression where the notes bloom noticeably as they sustain out. Thick stage brings in more to the low mid-range adding girth, especially around the middle strings, at the slight expense of note definition. Tight stage adds it back in with an apparent kick in the upper mids and high-end. This is melting modded Marshall territory and then some, and there's still plenty of gain left for the truly troubled among you.

Switching to Lead II with the same settings, there's an immediate and obvious kick in note articulation and mid-range aggression, where Lead I's fuzzy distortion is toned, tightened and brought forward a decade or two. More modern metal fans will doubtless prefer this for its cut, especially for



Despite its metal tendencies, the rhythm channel is great for bluesy playing



solos and single-note passages; fusioners too, using the tight input to keep it all together for maximum articulation. The Double Cross switches work much the same as they do in Lead I that, when used in conjunction with the normal and tight inputs – and indeed the individual channel master/overall master balance – returns an incredibly wide range of textures and responses for any style of music that requires tons of gain. Moreover, that tweakability comes into its own at real gigging volumes to make sure you're hearing and, perhaps more importantly, feeling it like you want to.

### Verdict

There's no doubt the Double Cross is a flexible, fine-sounding amp for high-gain styles and it's a capable blues machine in the rhythm channel too. It hits the market at a time where the post-metal melee seems to be giving way to more classic and hair metal bands: perfect. The unique combination of features enables you to dial a tone that – and here's the important part – 'feels' right under your fingers, as well as sounds how you like it to. From Southern rock, through EVH and on to crushing modern metal, it covers a lot of ground.

Whether the majority of heavy rock guitar players can be bothered to engage with it and take time to understand it fully will be the acid test, as will players' willingness to accept Kustom alongside brands such as Mesa/Boogie, Randall, Krank and indeed the UK's own Blackstar. On its quality and performance alone, there's absolutely no reason why we shouldn't: this is a raucous rocker alright. **G**

### The Bottom Line

**We liked:** Aesthetics; infinite gain tweakability; good real-world feature set

**We dislike:** Expensive for a part-Chinese-built amp

**Guitarist says:** A true rock and metal monster that stands head to head with the leading names out there



### Kustom Double Cross

**PRICE:** £1,999

**ORIGIN:** USA / China

**TYPE:** All-valve three-channel combo with solid-state rectification

**POWER:** 100 watts

**VALVES:** 5 x 12AX7, 1 x 12AT7, 6 x 6L6

**CONTROLS:** Each channel has independent volume, gain, presence, treble, middle, bass. Lead I and Lead II channels have independent gain, tight stage, thick stage and bright switches; rhythm channel has drive and bright switches. Master volume, boost level

**FOOTSWITCH:** Included – three channel change, boost on/off, effects on/off

**ADDITIONAL FEATURES:** Two speaker outs with 4-, 8- and 16-ohm settings, MIDI switchable, series effects loop with send and return levels, XLR direct output with straight and angled 4 x 12 cabinet emulation and level control, bias switch to enable use of either EL34 or 6L6 valves

**WEIGHT (kg/lb):** 19.5/43

**DIMENSIONS:** 304(w) x 686(h) x 276(d)

**OPTIONS:** None

**RANGE OPTIONS:** Combo muted, but not yet confirmed

**John Hornby Skewes & Co**  
**01132 865381**

### Test results

<b>Build quality</b>	★★★★☆
<b>Features</b>	★★★★★
<b>Sound</b>	★★★★☆
<b>Value for money</b>	★★★★☆

**GUITARIST RATING** ★★★★★



James Brown in the sound-isolated Kustom facility at Hanser Music Group, Kentucky

## The Brown Sound

James Brown, Kustom's chief engineer, shares his tone secrets

**W**e tracked down Kustom's softly-spoken Southern rocker to get the designer's eye view of the Double Cross...

### How do you approach a new amplifier design?

"You learn something from every amp you do. My brother has a saying – experience is what you get when you don't get the results you intended, and that's the case for sure.

"When I first came here to work for Kustom, I went back and I looked at a lot of old Kustom amps and I was trying to come up with features from the old days that we could use at 'new' Kustom. One of the first things I found was this amp that had master volumes

on both channels. So I tweaked it a little bit and integrated it in to the Coupe Series.

"One of the premises when I started the Double Cross was to solve some of that problem where in amp design you always add more and more tubes to get extra gain: more gain, more gain! And the problem you run into is that the sound gets more and more compressed. It doesn't matter how hard you hit it, it doesn't cut through – you hit it harder and harder and it doesn't get any louder, unless you're playing cleaner."

### How have you addressed that with the Double Cross?

"I remembered that a lot of times, guys would use multiple



“I was trying to do something different that doesn’t dramatically change the tone, but is more like if I was there tweaking your amp” **James Brown**

used the ‘cross’ reference is because it all sort of blends together; sort of like a mix.

**You’re using six 6L6s for just over 100 watts in the Double Cross – why not four?**

“It’s about 110 watts with 6L6s in it; about 120 with EL34 and it uses six tubes instead of four because we have a special bias circuitry in here that partially self biases the tubes. I found that a lot of people like self-biased amps, but of course they generate a lot of heat and they don’t get real loud because the power is low. So what I did I put a little bit of fixed bias voltage in there with a self-biasing resistor and what you get is a combination effect – it controls its bias a little bit. It’s something that’s been tried in the past but people kinda gave up because they were always just trying to get more power.

“There’s also a 12AT7 in there to help protect the power amp, like if you have a power tube that’s not quite perfect, they can cause the bias to start drawing current and eventually they can thermally run away. It’s not a phase inverter – it’s between the phase inverter and the power amp and it actually buffers it. The purpose of that is

so you can use smaller resistors for the grid bias voltage, and by lowering that voltage it holds the power tubes down and keeps them from taking off. That’s something for reliability; so I don’t get the phone call from the guy on the road somewhere in-between the second and third set because his amp shut down...”

**How difficult is it for you trying to break through in a market so heavily dominated by famous names such as Marshall, Fender and Mesa/Boogie?**

“Yeah it’s hard, but I have some experience of doing that in the past [James is referring to the Peavey Classic Series and 5150]. In some respects it’s easier for us at here at Kustom, because we don’t have to maintain what the people’s expectations are from the old days. If I was at Fender, I’d have to maintain that classic Fender sound – it’s the same with Marshall. I don’t have to worry about that, so I pick and choose what’s cool about the old Kustoms and stuff I’ve learned from doing other amps to come up with something cool with stuff that guys are looking for right now – not what they were looking for 30 years ago.”

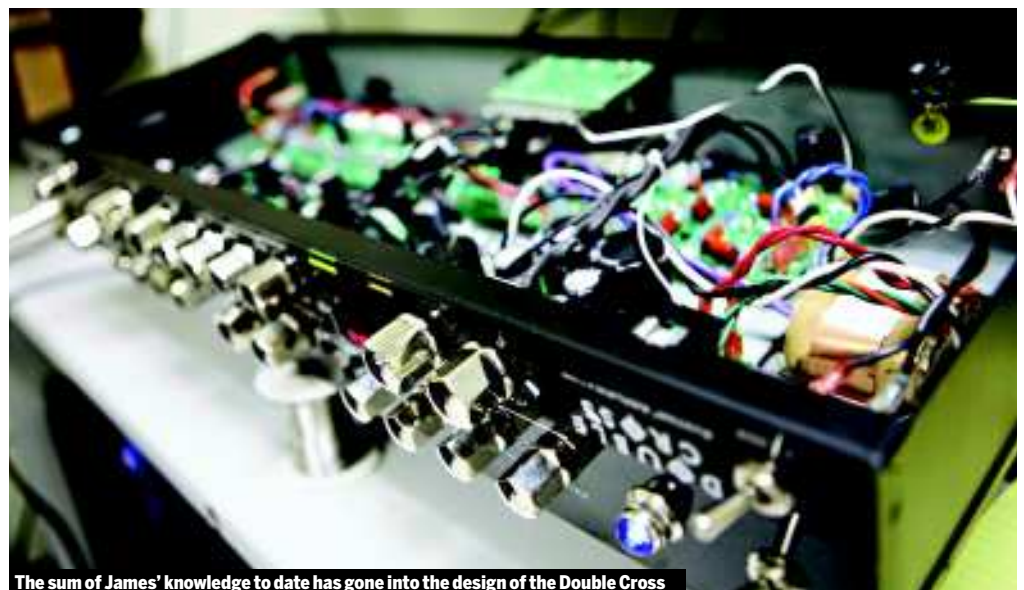
amps when they record and the reason they do that is literally because when you play with a lower-gain amp it’s more dynamic and the heavier amp is more rich and has a thick distortion to it, so the whole point was that if you could figure out how to do both of those in the one amp I think you’d solve a lot of problems. So instead of adding those tubes in series like we always do, I figured out there was a spot in there where we could add things in parallel and get a better result. It’s not as much gain, but it doesn’t interfere with the original tone as much, so it’s kinda like playing multiple amps at once in a way.”

**Is that the motive behind those Double Cross switches?**

“The Cross system enables more flexibility. It allows you to tweak the gain and add these different tubes in and out of the circuit in different ways. A lot of other amp designers will just have different EQs and things like that, but I was trying to do something different that

doesn’t dramatically change the tone, but is more like if I was there actually tweaking your amp. Maybe you want it to be a little tighter on the attack, or maybe a little bit more singing – that sort of thing.

“There are four switches and you turn ‘em to the middle to turn ‘em on and the reason we



The sum of James’ knowledge to date has gone into the design of the Double Cross