

Time Warp

Over six decades on from his early creations, the production vision of designer Nathan 'Nat' I Daniel still shines. But what place does Danelectro have in today's different world?

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DANELECTRO '57 GUITAR & '59 DIVINE £799 & £899

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What You Need To Know

1

Are Danos still made from plywood and hardboard?

Back in the 50s, Danelectro pioneered a very different construction using a wood frame (poplar and/or pine) topped front and back with Masonite, better known in the UK as hardboard. These new models use a "semi-hollow body with centre block...[with] a composite/solid wood construction".

2

These don't seem particularly cheap, do they?

Agreed. Since owners the Evets Corporation started making reissues of the originals back in 1998, prices have slowly crept up. The guitars are made in Korea, not China, and with the exception of the tuners use virtually zero 'off the shelf' parts. Our models also feature upgraded Vintage 50s pickups.

3

Do they still offer the 'Page' model?

Yes, currently it's the '59M NOS+ (from £599) based on Jimmy Page's original Danelectro 3021, first introduced in '58. Page's guitar is built from two originals and was modded with Grover open-back tuners and a Leo Quan Badass bridge. If you're in any doubt about what a Danelectro can do, find Led Zepp at Knebworth on YouTube: *Kashmir* is Dano-powered!

While there are probably enough tomes written on the big brands from the 50s and 60s to fill a small library, Danelectro and the guitars and amps that the company made – also under both the Silvertone and Airline brand names – are far less documented. Thankfully, Doug Tulloch's *Neptune Bound: The Ultimate Danelectro Guitar Guide*, originally published in 2008 by Centerstream Publications, is the bible for anyone interested in the unique story of Danelectro, ourselves included. And as we paraphrase elsewhere in this feature, it's quite a story. While repros of many original models have been in circulation since 1998 – a far longer period than Danelectro originally made guitars – it seems we still can't get enough of these unique designs. Every year, the Dano owners release a trickle of new designs and it's about time someone started to document these!

Our review duo was launched back at the start of 2020, along with the more Mosrite-inspired '66 12 String, some left-handed models and that latest incarnation of the 'Page' '59M NOS+ with an expanded choice of colours. But both of our new guitars here look rather familiar, don't they? Let's take a closer look.

'57 Guitar

Nat Daniel's take on the affordable production electric guitar was not a million miles away from what Leo Fender was creating on the other side of the continent: a single-cutaway, slab-bodied electric with

a 21-fret bolt-on neck and two single-coil pickups. The 'peanut' shape we see here is slightly larger than the Telecaster: 457mm (18 inches) long, 367mm (13.25 inches) wide and 41mm (1.6 inches) deep compared with the Telecaster (whose measurements are closer to 400mm/15.75 inches long, 324mm/12.77 inches wide and 45mm/1.8 inches deep). The design went through a couple of incarnations, beginning in 1954, before it found its stride as the U series of 1955 introducing the famous Masonite-topped, semi-solid body construction.

Our '57 is effectively based on the 1957 U-2 (there was a single-pickup U-1 and triple-pickup U-3 plus a U-2 six-string bass that was introduced in 1956) and in basic style isn't very different from numerous contemporary models we've seen over the past two decades. As per the original we have the distinct 'Coke bottle' headstock and the clear plastic 'D' logo'd pickguard.

Exactly what body materials Danelectro uses today isn't offered up on the company's website, although the top and back are definitely some kind of compressed wood, approximately 3.5mm thick, which looks more like MDF than hardboard or the original Masonite.

"Masonite is, of course, a brand name for pressed wood," says Evets' Steve Ridinger. "I think today many people call that material MDF. For our guitars we use a much more dense type of pressed wood than what might be commonly called MDF. The benefit of the hardboard material is it increases body resonance."

1. These aged Gotoh tuners might ape the budget style of yesteryear but they're a welcome high-quality addition here

2. Back in the day Danelectro used a varying number of screws to hold the neck to the body. The modern reissues invariably use five screws on the single-cut designs like this '57 Guitar



In a guitar like a Strat, you have the pickup in a cavity so it largely just picks up the sound from the strings. But in Danelectro guitars with the hardboard, there are many sound reflections inside the mostly hollow body: sound is bouncing off the back and front inner surfaces of the guitar body, and the pickup is receiving all of that reflected sound."

The frame here is a soft, creamy coloured wood that could be one of a number of timbers and is different from the plywood of earlier reissues. It's pretty hollow, although the sides are kept quite thick and there's still a large wood block underneath the bridge.

"We switched from the plywood frame to a spruce frame in the middle of last year," continues Steve. "There are two benefits to this solid-wood spruce frame. Firstly, better tone. Spruce is, of course, a tonewood and the glue in the plywood layers tends to impede sound vibration. Secondly, there's less chance of the frame chipping in spots where the wood is thin – namely, the neck pocket."

Today's Dano necks are much more conventional than the original design: maple with a two-way adjustable truss rod and a pau ferro fingerboard. Back in the day, Danelectro used Brazilian rosewood for the fingerboard – imagine that!

But it's not a slavish reissue. The famous aluminium nut, for example, is replaced here with nicely cut bone. That original 'four-way adjustable' bridge (up, down, forward and back) with its Brazilian rosewood saddle is updated with the more contemporary Danelectro design that has adjustable metal saddles. It still mounts in the same fashion as the originals: it sits above the face of the guitar resting on two height-adjustable screws at the front and is held in place by the single screw that mounts through the back of bridge into the body. The saddles look like solid versions of Fender's pressed steel Strat types with a central locking bolt and two screws for individual height adjustment. Rather oddly, the very nice Gotoh Deluxe three-on-a-strip tuners and their cream buttons are aged while everything else looks brand-new.

THE RIVALS

Silvertone's 1303/U2 (£199) is a very affordable take on the Danelectro U-2, though it's spec'd with a mahogany body and maple top. The quality of the 1423 (£279) we took on Longtermers test back in 2018 really wasn't bad.

Godin's Radiator (£799) is far from a Dano in looks but thanks to its full-face scratchplate in mother-of-pearl, it certainly evokes the 50s. Powered by dual Godin Custom humbuckers, it features a wrapover bridge.

Eastwood's range of retro-inspired electrics is a treasure trove of retro designs inspired by the likes of Airline, Mosrite and Wandre. There are even versions of old Yamaha and Ibanez classics. Alongside the Dennis Fano-designed Rivolta models (from £834) is a repro of Charvel's Surfcaster (£772) with a pair of Dano-style lipstick pickups.

UNDER THE HOOD

50s models for today's musician

Both guitars have rear-mounted controls. The '57's are accessed via a circular plastic plate held in place by a single central bolt, screwing into a metal bracket that isn't fixed to anything: it's a simple clamp that's not easy to screw back in after you've removed it. The '59's smaller cavity has a coverplate and three screws – both follow the original designs.

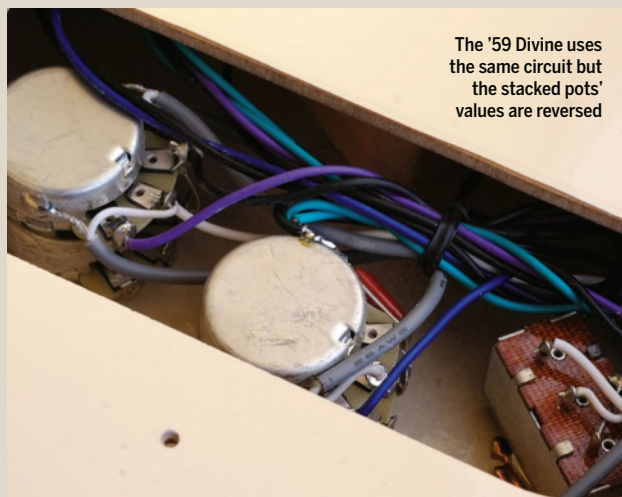
Both also use dual concentric stacked pots that allow you to see the unusual values when removed: the volume uses a linear taper B100kohm pot; the tone is a log taper A1Meg (1,000kohms) with a 0.1microfarads tone cap. So the volume's value is clearly designed to tame some of the highs, and the tone allows a wide taper with considerable roll-off. Although the plastic television-style knobs on the '57 feel a little insubstantial they do work well – especially the tone.

However, the '59 is wired in reverse: the larger outer control knob affects the tone and the top pointer knob the volume. It's not wired incorrectly and the pots are stacked in the opposite manner. The knobs here do seem even more flimsy and that pointer knob points in towards the bridge; on all the original Dano brochures they mostly pointed outwards. It's easy to change, which we did.

Originally, you'd see these electronics wrapped in copper foil, and by 1962 Danelectro promoted 'Total Shielding' "from static and interference caused by neon, flashing lights, motors, other nearby noise sources", says Dano. Remember, Nat Daniel was a skilled electronics engineer and during World War II he worked as a civilian engineer. In the *Neptune Bound: The Ultimate Danelectro Guitar Guide* book, his son Howard relates that "he found a simple, economical way to equip military jeeps and motorcycles with shielding to prevent the electronic 'noise' their engines generated from interfering with the reception of critical battlefield radio messages". Perhaps deemed less important today, there's no shielding here with the exception of some foil on the '59's coverplate.



Inside the '57 you can see the stacked volume and tone controls



The '59 Divine uses the same circuit but the stacked pots' values are reversed



These stacked controls are a bit part of the Dano recipe. On the '57, the larger outer knob controls volume; the smaller, upper knob is for tone. The stack closest to the three-way toggle switch is for the neck pickup; below that the second stack is for the bridge pickup

'59 Divine

Thanks to Jimmy Page, the double-cutaway 'shorthorn' design will be burned into every guitarist's psyche for evermore. And judging by the number of shorthorn models currently offered, it's easily the most popular. Modelled on the top-of-the line 1959 Deluxe (originally the model 6026), construction here is identical to the '57 – shape aside, of course – although here the gloss cream finish covers top, back and sides and we have a brown binding to the top and back edges. Another difference, certainly on the other two '59 Divine colour options (Dark Walnut and Flame Maple), are wood veneers on the top and back.

The same 'Coke bottle' headstock is retained. The pickguard would originally have been white or walnut-painted Masonite that was glued to the top but here it's a rather sharp-edged brown opaque plastic that's screwed to the top.

Danelectro used a different number of screws to secure the necks on its various models back in the day and that's reflected here with five screws on the '57 and four

THE DANO STORY

The fast read on how Danelectro came to be

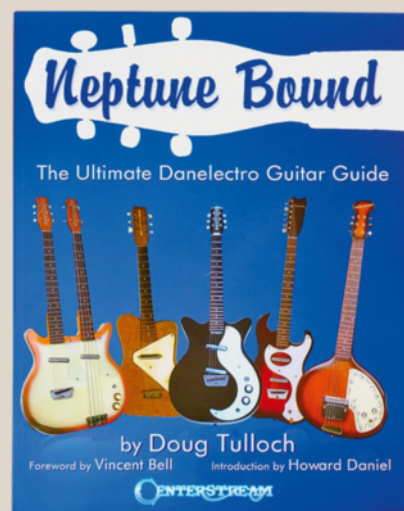
History might have consigned Danelectro to the cheap and cheerful basket but Nathaniel Daniel shone very brightly back in the forward-looking America of the 1950s and 60s. He'd begun making amps in the bedroom of his parents' New York apartment before moving to a loft in Lower Manhattan, becoming Daniel Electrical Laboratories. His first big customer was Epiphone. Post-WWII he reopened his business in Red Bank, New Jersey, as the Danelectro

Nat was all about making high-quality amps and guitars at prices beginners could afford

Corporation, soon picking up large contracts with the two major retail chains Sears Roebuck and Montgomery Ward to supply amps under the respective names of Silvertone and Airline. He moved into the guitar business in 1954 (making both Danelectro and certain Silvertone models) and relocated to larger premises in Neptune City, New Jersey, by the end of the decade. By the time he sold up to MCA in 1966, Danelectro employed around 500 people. Quite an operation.

Many of Nat Daniel's 'firsts' were not patented, such as the six-string bass in 1956, the 31-fret Guitarlin in 1958, and the 12-string electric guitar in 1961. There was also the famous Silvertone 'amp-in-case' guitar that sold for under \$50, and a 'Convertible' beginner acoustic that could be purchased with or upgraded to an electric semi with a pickup kit. Nat was all about making high-quality amps and guitars at prices beginners could afford. There's little doubt that he helped spread rock 'n' roll across America and beyond. Early Dano/Silvertone users read like a who's-who of rock 'n' roll... Hendrix, Jimmy Page, Eric Clapton and thousands more.

In many ways his methods and the materials he used were just as innovative – certainly as ingenious – as that whippersnapper Leo Fender across the continent in California. By the time the U series appeared in 1955 he'd settled on what looked like a solidbody but was actually a sealed semi-hollow design made from a frame (and with a centre block that stops just behind the bridge) of stapled pieces of polar and pine with a Masonite (hardboard) top and back. Oh, and don't forget the glued-on textured vinyl that covered the sides. Necks were made from poplar, originally with a square and hollow aluminium rod reinforcement before the 'Never Warp' neck with its two steel rods appeared in 1956. Later, a neck-tilt adjustment was added almost a



decade before the folk at Fender used it – and they still do, of course. And don't forget the stacked volume and tone controls, which also pre-dated Fender's use on the Jazz Bass by a good few years.

Although the story stopped in 1969 after MCA pulled the plug, the popularity of these funky guitars didn't. The brand reappeared with new owners in the late 90s and has been producing pretty much constantly over the last two decades, invariably Korean-made instruments (some from China) that certainly uphold many of those original design principles as we document in our review.

Reference: *Neptune Bound: The Ultimate Danelectro Guitar Guide* by Doug Tulloch



3. In Danelectro lore this is known as the 'Coke bottle' headstock. Instead of the usual aluminium nut, here on both our review models it changes to bone

4. These pointer-style knobs were another style used by Danelectro. Oddly, however, their functions are reversed so that top pointer is the volume and the larger circular knob controls the tone



on the '59, which more likely would have had three screws in a straight line back in the 1950s. Both necks sit on a similar length heel platform that's slightly thinner in width than the neck on the '59 and quite a lot narrower on the '57 on the treble side – this was originally where the upper strap button would have been placed. Today, that button sits at the tip of the heel.

Another thing separating the two models is the actual placement of the single-coil pickups, even though both use two single coils. The centre of the '57's bridge pickup sits approximately 35mm in front of the bridge; the neck single coil is 135mm away. The '59's pickups are slanted so the treble side sits closer to the bridge than the bass side: 26mm to 32mm for the bridge pickup and 113mm to 120mm for the neck. This placement means that you'd expect a little more treble cut on the '59's bridge pickup and less depth on its almost mid-placed 'neck' pickup. Conversely, we'd expect the '57's bridge pickup to have less treble while the neck pickup should be a little deeper sounding. We'll see.

Feel & Sounds

Both guitars weigh in the same and are nicely light, too – they hang well from a strap, though. The extended heel stops directly under the 14th fret and houses the upper strap button, and despite the guitars' differing outlines, the heel's position means fluid upper-position fretwork is somewhat compromised on the '59, and slightly more so on the '57.

If you like slim necks, you'll feel at home here and we could be describing a contemporary shred-friendly design. 1st fret depth on both is 19.9mm, filling out a little by the 10th to 22mm. In profile we have a flattish 'C' without the shoulder of a D shape, which is combined with a pretty flat fingerboard radius that we measured at 392mm (16 inches), not the quoted 356mm (14 inches). This slightly unusual feel is enhanced by a medium width wire that is a little on the low side (around 2.67mm by 1mm), and you can't help thinking a slightly higher wire with just a slightly rounder fingerboard would elevate these further. Mind you, both are set up nicely

The Danelectro sound shoots for character, which frankly both of these models have in abundance

and intonation is very good – unlike some originals we've played over the years. Scale length, by the way, is 635mm (25 inches), the same as PRS.

Quite possibly the last guitar you'd want to take out on a long covers or function gig, the Danelectro sound shoots for character, which frankly both of these models have in abundance. We discuss the new Vintage 50s single-coil pickups elsewhere in this feature (see the Lip Gloss box, over the page) but our first impressions are that the output is low and bass is light. The '57 sounds a little thicker at the bridge, more clouded at the neck, and there's quite an open midrange. In the mixed pickup position, due to the series wiring, the volume leaps, thickening

LIP GLOSS

A deep look at the Danelectros' unique single-coil pickup

One aspect of the new '59 Divine is the 'Vintage 50s' pickups. "The pickups are a great replica of the best 50s pickups," Steve Ridinger of Dano owners the Evets Corporation told us at the guitars' launch at NAMM earlier this year. "We looked at a lot of old pickups and analysed them," he said. "All this time we thought the magnet was Alnico 5 but we found they were using Alnico 6 – and it was a sand-cast magnet, which means it has pits all over it and that affects the tone. So after we sand-cast the magnet we sand-blast it to give it even more texture."

"Then we analysed the old lipstick tubes and found they were [brass, but an alloy of] 80/20 copper/zinc versus the ones we've been making, which have been 70/30. It's a very musical material: cymbals are made out of 80/20 brass and the originals had a thinner wall thickness, too, so we replicated that."

Famously, the pickup doesn't use a bobbin so the 42 gauge wire was wound directly around that magnet, wrapped with tape and then stuffed into the cover. "We found that the 42 gauge plain enamel wire, which was used on the originals, was only available in the USA," Steve continued, "so we buy that and ship it to Asia where we make the pickups. Anyway, we're hearing more top, more bottom, a warmer, more open sound."

The DC output was invariably lower than, say, a Strat's single coil, around 3kohms to

4kohms it would seem, although you'd expect quite a variation with such a basic design. These new ones certainly replicate that: ours all measured (at output) approximately 3.02k, lower than previous reissues we've measured, which have been closer to 4.5k.

The 'lipstick tube' name was never used by Danelectro. Instead, they were known as the 'split-shell' pickup: "The only metal-enclosed guitar pickup to avoid 'shorted turn effect'. This irritating electrical effect is due to currents induced in the case itself and results in a loss of high-frequency response. The split-shell pickup, exclusive with Danelectro, checks the path of these currents."

"Danelectro bought the lipstick casings [for the pickups] from a manufacturer who serviced the cosmetics industry"

"The effect they are talking about is that of eddy currents," explains pickup-making veteran Kent Armstrong, the son of Dan who famously used up leftover Dano parts to build a number of Dan Armstrong-modified Danelectros. This was before creating his famous see-through acrylic-bodied guitars for Ampeg, which, incidentally, used a very similar bridge design to Danelectro. "Eddy currents are formed when any metallic material is perpendicular to a magnetic

field," he says. "However, with the design of all pickups the low voltages and weak magnetic fields' high frequencies are not enough to induce eddy currents that make any audible difference. There will always be some people that will convince themselves that their magical ears can hear the difference but the physics simply doesn't hold up."

"If the magnetic field itself was alternating then this could be a big problem but as it is in a permanent state the effect is very small. The Danelectro pickups were not the first, and certainly not the only, fully enclosed Faraday box-type pickup. The real and obvious advantage of this casing is to stop RF [radio

frequency] noise. I would imagine that the claim that the split-tubes limit the eddy current would be due to the fact that there is no surface large enough that is 'perpendicular' to the magnetic field for the eddy currents to actually form. While this may be theoretically true, if the eddy currents were a problem in the first place, it is pretty much inconsequential voodoo when it comes to guitar pickups!"

In his ground-breaking early 80s book, *American Guitars*, Tom Wheeler tackles the lipstick association. "Players often joke that the company's long, rounded pickups look like lipstick tubes: according to George Wooster [once Danelectro's production manager], that's exactly what they are. Danelectro bought the lipstick casings from a manufacturer who serviced the cosmetics industry and then sent them to another contractor for plating before the pickup winding and magnets were installed."

It's become legend that these tubes, presumably intended to be used as covers for the lipstick, were 'surplus' but this, too, is refuted by Nat Daniel's son Howard in *Neptune Bound: The Ultimate Danelectro Guitar Guide*, and you must remember Danelectro was making a huge number of guitars – estimated by Wooster in *American Guitars* to be between 150 and 200 per day in peak times. That would require a lot of surplus. Jerry Jones, the Nashville-based luthier who specialised in improved Dano-style instruments, is quoted as saying, "As far as I know, Danelectro probably procured their lipstick casings from the same source we used: Lakewood Medal Products in Waterbury, Connecticut."



5. These new Vintage 50s single coils are unique to the '59 Divine and '57 models. They switch to an Alnico 6 magnet and the famous lipstick tube covers are thinner and made of a slightly different material

6. It's always good to see a proper metal jack plate on any electric. Like so many of the parts used on these Danelectros they are proprietary, not the off-the-shelf parts you'll find on many lower-end guitars

the mids a little but still with a punchy clarity that reminds us of Supro's Vistatone single coil: sparkle, some balls and quite a gnarly grind. For many, this is *the* Dano sound and you can use the volume and tone stacks to subtly shade what you're hearing.

Obviously in the same camp, the '59 sounds just a little spikier at the bridge, the neck has more clarity (not surprisingly bearing in mind its position) and the series mix sounds marginally more focused. Through a clean amp with lashings of reverb and some tremolo, you're in a David Lynch film soundtrack with either model: hugely evocative. Add a little hair and the quite dynamic voice breaks up nicely.

Plug the '59 into a gusty gained Marshall-y voice and the sound is pretty spectacular: grimy, punky, garage-rock



Kicking in various overdrives and fuzzes helps to beef up the sound but the general bass-light character, as well as the bright attack, is really quite distinct. While these very 50s/60s sounds are probably the main appeal, plug into a seemingly inappropriate and gusty gained Marshall-y voice and the sound is pretty spectacular: grimy, punky, and Stooges garage-rock in spades.

The stacked volume/tone controls take some getting used to and the '59's pointer knobs especially feel a bit Toy Town; it's easy for that pointer knob to catch the raised indicator of the lower tone knob so both volume and tone move together. It's also plain confusing that the '59's functions are reversed (see *Under The Hood*, page 97). The '57's controls do feel better behaved. Even if we could, we're not sure we'd head to a stage with the '59 as is. Well, not unless we had some gaffer tape handy. The actual tapers are okay, though, especially the range of the tone. As set, the neck pickups on both are louder than the bridge but on the '59 especially it gives three distinct levels as well as sounds: bridge, neck, both.



The '57's mixed pickup position has sparkle, balls and quite a gnarly grind: it's 'the' Dano sound

Verdict

With the huge amount of choice in the lower-end of the guitar market, Dano's original budget value seems rather compromised. These are the highest priced original-style Danos by quite a margin but that is reflected by the new Vintage 50s Lipstick pickups, the body construction, the bone nut and Gotoh tuners.

It would be quite hard to say these two Danos are the 'best' of the contemporary models we've played and heard over the past couple of decades. With so many different versions of – broadly speaking – the same thing since that first 1998 repro U-2, it's a bit of a blur. Still, these are very tidy 'improved' versions and both have oodles of original Dano character. Sonically, the '57 here is a significant improvement over our U-2, which is at least a decade old.

Certainly if you're chasing a retro voice, be it early electric blues (Danos and Silvertones were always loved for slide, too) or something with a trashier edge, you'll find it here. But then as Jimmy Page proved, you can certainly make a *Kashmir*-sized racket with one of these. Every home should have one! **G**

7. This modern version of Dano's 'four-way' adjustable bridge has individual metal saddles that replace the original-style bridge, which used a one-piece rosewood saddle with only approximate intonation. The thick back wall also stops the bridge from sinking: a common problem on originals and earlier reissues



DANELECTRO '57 GUITAR

PRICE: £799

ORIGIN: Korea

TYPE: Single-cutaway semi-hollow electric

BODY: Composite top and back over solid-wood frame

NECK: Maple, C profile, bolt-on

SCALE LENGTH: 635 mm (25")

NUT/WIDTH: Bone/42mm

FINGERBOARD: Pau ferro, small white dot inlays, 356mm (14") radius

FRETS: 21, medium

HARDWARE: Hardtail U3 bridge with adjustable saddles, 3-on-a-plate Gotoh Deluxe tuners (aged)

STRING SPACING, BRIDGE: 54mm

ELECTRICS: Twin Alnico 6 Vintage 50s single-coil lipstick pickups, 3-way toggle, stacked volume/tone for each pickup

WEIGHT (kg/lb): 2.7/5.94

OPTIONS: None

RANGE OPTIONS: The only other single-cut Dano is the '56 Baritone (£629)

LEFT-HANDERS: Not this model but lefty versions of the '59M NOS+ ('Page' model), Vintage 12 String and Baritone are available

FINISHES: Limo Black (as reviewed), Jade Green – both with cream coloured vinyl sides

8/10

PROS Like the '59 Divine, this is a classy repro with solid-wood frame and improvements such as the pickups, bone nut and tuners; wide tonal range and better knobs!

CONS Quite highly priced when compared with other models; no gigbag included



DANELECTRO '59 DIVINE

PRICE: £899

ORIGIN: Korea

TYPE: Double-cutaway semi-hollow electric

BODY: Composite top and back over solid-wood frame

NECK: Maple, C profile bolt-on

SCALE LENGTH: 635 mm (25")

NUT/WIDTH: Bone/42.69mm

FINGERBOARD: Pau ferro, small white dot inlays, 356mm (14") radius

FRETS: 21, medium

HARDWARE: Hardtail U3 bridge with adjustable saddles, 3-on-a-plate Gotoh Deluxe tuners.

STRING SPACING, BRIDGE: 54mm

ELECTRICS: Twin Alnico 6 Vintage 50s single coil lipstick pickups, 3-way toggle, stacked volume/tone with pointer knobs for each pickup

WEIGHT (kg/lb): 2.7/5.94

OPTIONS: None

RANGE OPTIONS: Shorthorn designs include the 'modded' '59M NOS+ (from £599). The Stock '59 is the closest to original spec double-cut (£489)

LEFT-HANDERS: See '57 Guitar

FINISHES: Fresh Cream (as reviewed) Dark Walnut, Flame Maple – all with cream coloured sides

8/10

PROS Smartly made version of the original Deluxe model with quirks included; improved pickup spec and body materials; combined pickup series sound is where the money lies

CONS Slightly highly priced; no gigbag; those stacked pointer control knobs won't be for everyone