The 2012 Smarta LX from The Electric Transport Shop starts at £999: does the performance match the price? We tried the Smarta LX8 to find out.
The Electric Transport Shop is a sort of mini-chain, founded in Cambridge in 2005, but now with retail outlets in London, Oxford, Cambridge and Bristol. They made headlines recently with their offer of a ten year battery warranty (alongside regular servicing) and they stock no fewer than 18 different brands of e-bikes and kits as we go to press, as well as unassisted cycles. Bikes can be supplied mail order as well as through the shops.

The Smarta range is the ‘house’ brand, available only from them in the UK. The other two models, alongside the LX we tested, are the cross-bar framed GT (also from £999) and a folder, the FX, from £1149.

The LX has a number of options available: the basic £999 specification includes a three-speed hub gear, but our test bike had the wider-range 8-speed hub (£200 extra), making it the LX8. It also had the optional throttle control (£50).

Other options, not fitted to our machine, include a 14 Ah battery instead of the standard 10Ah model (an extra £150), upgraded control electronics offering a claimed 50% extra peak power (£150) and more puncture-resistant tyres (£70). Additional 10 Ah batteries cost £350, and chargers £95.

There is a warranty of two years on the frame, and one year on the electronic components including the battery, unless you go for the 10 year battery warranty arrangement – see their website or contact them for full details.

**ON THE BIKE**

Our Smarta was delivered almost fully assembled in a huge box, with just the handlebars to fix in place, folding pedals to unfold, and the battery to charge.

First impressions of the LX are good: the finish is really well done in a solid-looking, sparkle-effect dark blue paintjob with simple graphics. The low step-through frame is made from substantial oversized tubing, with discreet braces triangulating the swooping main boom. With the battery tucked in behind the seat tube it’s just a bit longer than a standard bike, but still looks quite normal.

Handling the bike reveals several thoughtful touches even before you step aboard. It stays securely upright on its two-legged stand, and the front wheel is prevented from flopping round by the neat steering stabiliser just behind the front fork. This is effectively a spring, strong enough to hold the steering when the bike’s parked but sufficiently weak not to affect the bike’s handling while it’s being ridden. They’re common in mainland Europe and work a treat.

Back to more fundamental matters, and the bike sits on two 26” wheels, the front hosting the hub motor, and the rear with the 8-speed Shimano hub gear: as we explained last issue, this is a good choice for most riders. Unless you live somewhere exceptionally hilly, it should provide low enough gears to get you home even if the battery is exhausted.

Tyres are 1.75”-wide Tracer City Classics, not a familiar brand for me but they look fine. The wheels were well built, with stainless spokes and deep-section alloy rims.

The brakes are combination of low-maintenance roller brake at the back, plus a V-brake on the front wheel.

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**Specification**

<table>
<thead>
<tr>
<th>Weight overall (inc batteries):</th>
<th>26.7 kg</th>
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<tbody>
<tr>
<td>Battery weight:</td>
<td>4.06 kg</td>
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<tr>
<td>Bike only weight:</td>
<td>22.6 kg</td>
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<tr>
<td>Battery type: Lithium-ion</td>
<td></td>
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<tr>
<td>Battery capacity: 360 Watt hours (10Ah 36V)</td>
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<tr>
<td>Gearing: 8-speed Shimano Nexus hub gear.</td>
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<tr>
<td>Brakes: Front: Promax V-brakes; rear Shimano IM70 roller brake.</td>
<td></td>
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<tr>
<td>Lighting: rear battery LED fixed to rack.</td>
<td></td>
</tr>
<tr>
<td>Other accessories fitted: steering stabiliser, chainguard, mudguards, carrier rack, two leg stand, bell.</td>
<td></td>
</tr>
<tr>
<td>Price as tested: £1249. Prices start at £999.</td>
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</tbody>
</table>
The battery pack slides down behind the seatpost and locks in place.

Covering the rust-proof chain is a neat plastic chainguard so you don’t have to tuck trousers into socks to keep clean.

Full good-quality mudguards are also fitted, along with an alloy rear rack, which provides plenty of side support so that panniers can’t swing into the back wheel. The long wheelbase means that there’s no problem at all with clearance for your heels, so even the largest of panniers will fit well here.

The battery is of the familiar aluminium-cased variety, with a row of LEDs for charge status display on the top, and a fold-out handle. I’m told it includes a battery management system which monitors each cell individually and “performs cell balancing functions” – a rarity apparently at this price point, and this should help with battery longevity and performance.

As usual the battery holds the key captive when switched on. It slides down the rail behind the seat-tube easily, engaging with contacts mounted onto the frame. The control electronics are concealed in the box below the battery, where they seem well protected. The saddle tips forward via a lever release so that you can remove the battery without losing your seat height adjustment.

The wiring on the Smarta LX is also tidily done. Cables run within the frame up to the handlebars, and when they emerge they’re bundled into neat groups. In-line connectors mean individual items can be easily detached for fault-finding or replacement. Each brake is equipped with a cut-out switch (so when you squeeze either, power assist is cut) and there’s also a run to (the optional) full-grip throttle, mounted on the right-hand side.

That means there’s no room for the twist shifter for the bike’s gears on that side, so it’s mounted on the left – this puts the lettering upside down, but really makes no difference in use. Squeezed up against this shifter is the control console, offering on/off, three power levels, and a four-LED battery charge status display.

The Smarta apparently uses a form of regenerative braking, re-charging the battery to an extent whenever the bike’s rolling with the motor switched off, with the motor operating as a generator. But the effect is subtle: it doesn’t take off much power, and I didn’t notice significant extra drag when freewheeling or pedalling unassisted - indeed I didn’t know it was going on until I looked at the specification. There is no control for this, so it’s ‘always on’. There can’t be a huge benefit, I suspect, if it isn’t providing a noticeable braking effect.

Finally, a quick mention of the adjustable stem and the bars themselves. The stem unlocks without tools (slide the safety tab, then lift the lever) and then you can freely position the handlebars at a height and angle to suit – the wide range is welcome on this one-size-fits-most frame. Because the bars are also swept back, changing their angle has a noticeable effect: it should be a bike which can be tweaked to fit a wide height range well.

At over 22 kg for the bike, plus 4 kg for the battery, the LX8 is no lightweight, but that’s not out of order at all for a fully-equipped transport bike.

**ON THE ROAD**

Let’s first get the ‘normal bike’ aspects out of the way first, before we get to the interesting electric side of things!

My first thought on the LX was that this is a very comfortable bike – there’s the usual wide and soft saddle, but there’s also a certain stability that comes from the longer-than-usual wheelbase, and the width of those swept-back handlebars. It does promote an upright riding position, with most of the weight on the saddle, not on the wrists. You’re unlikely to suffer from numb hands on this machine.

This weight distribution means that the suspension forks play less of a role, I feel, than the cushioning from saddle and tyres – in particular the back tyre. I’m a fan of big tyres – they soak up vibration, make it much harder to damage your wheels on potholes, and modern ones roll well too.

Brakes and gears worked well: there’s not much more to say. All standard components which work as expected.

So to the power assist. This Smarta is set up with a ‘pure throttle’ – in other words, the twist-grip throttle on your right hand controls motor power directly, whether you’re pedalling or not (this is currently legal in the UK, but not in other EU countries – though it can be switched to EU-legal ‘only while pedalling’ mode easily for travelling abroad, apparently). So you can scoot along and never use your legs at all if you wish – though you’ll need to keep the throttle twisted all the time, which is hard on the wrist. And you’ll get cold, if like us you’re riding it in winter.

But the Smarta has a ‘pedelec’ system, too. The power level you select on the display unit is applied automatically after a turn or so of the pedals – with no need to move the throttle at all. But if you do twist the throttle, this over-rides any power level setting you may have selected on the display.

**HIGH POINTS:**
- Powerful assist
- With optional throttle, very effective control system
- Well designed, good details
- Practical specification
- Comfortable ride
- Well-established supplier

**LOW POINTS:**
- Not the lightest of bikes
- Not silent
- Basic display
- One frame size only

**GOOD FOR:**
- Those wanting solid performance at mid-range price
- Everyday, all-weather riders
- Anyone who values comfort and usability
- Hilly terrain riders

**Available from:**
- The Electric Transport Shop. Tel 01223 247410 or see www.electricbikesales.co.uk

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It’s far easier to use than to explain. The upshot is that you can use the throttle for assistance from a standstill – accelerating away from the lights for example – then once you’re away and pedalling, just let go of the throttle and the motor will continue to assist automatically at the level you’ve chosen. So for longer stretches your wrists stay relaxed, while motor power continues. And there’s no need to keep tweaking the display settings – which is a bit of a stretch incidentally for one’s left hand. Those with shorter thumbs might need to take a hand off the bars to get to the buttons easily.

The motor isn’t silent, giving out a muted buzz as it pulls you up to speed, but it’s at a sub-annoying level and any traffic noise drowns it out. But it really can pull: at full power it would whisk me up to speed to assist automatically at the level and the motor will continue to assist at the level throttle and the motor will continue to assist at the level. The makers say it’s geared to optimise acceleration and hill-climbing: it did do very well indeed on both. On most ‘normal’ hills around mostly flat York it would power up without even significant loss of speed, and no signs of struggling. It was very hard to stall it even on the steepest of gradients: I did find some really ridiculous gradients which could defeat it on motor alone, but every system has its limits. Add some pedalling, of course, and you can get up almost anything.

**My first thought on the LX was that this is a very comfortable bike...**

Battery life was much as expected for a 360 Wh pack, and despite the cold weather it managed three and a bit of my 10-mile commutes between charges, with a heavy rider and generous use of power assist – with a few extra hills on the way for good measure. For a longer commute in real hills the higher-capacity battery option might be wise, but most users will have plenty of power with the standard pack.

**SUMMARY**

I was seriously impressed with the Smarta LX: despite a very much mid-range price it is well specified, with a front light the only real omission (one which can be easily and cheaply remedied). More than that, though, it gives the impression of being designed by an enthusiast, who appreciates the real-world utility of little touches like that steering stabiliser, the cushioning of wide tyres and the comfort of swept-back handlebars. As this hints, it’s not for anyone looking for a racing bike – but for dependable transport.

The electrics don’t disappoint either, with really good hill-climbing and powerful assist, all with a versatile and intuitive control system, taking advantage of the current legality in the UK of a ‘pure’ throttle. The throttle’s certainly an option I’d recommend.

Sure, you can spend more and get a fancy informative display and component upgrades, or a completely silent machine. But for most riders wanting a well designed, very usable machine for transport and leisure riding the Smarta should deliver real value.

Peter Eland

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