MY23 Rail FAQ

What is different about the frame compared to previous versions?
Alloy Rail frames have updated motor mounting to accommodate the Bosch smart system Performance Line CX motor. See service manual for details. All the other outstanding features, like RIB, ABP and 85 nm of torque, remain.

Carbon Rail frames have Bosch smart system motors as well as:

- – Slash-inspired geometry – 64.5-degree head angle and longer reach
- – Bigger 1.8" head tube and 34.9 mm seat tube
- – Capacity for larger 750 watt-hour battery

Are the alloy frames compatible with the 750 Wh smart system battery?
No. We have limitations with alloy that we don't have with carbon that prevent the use of the longer 750 Wh battery with the Removable Integrated Battery, which is a feature that's more useful to most riders.

Are the carbon frames that come with 750 Wh batteries compatible with the new smaller BES3 batteries?
No. We don't have battery spacers to allow the carbon frames to use smaller batteries than the stock 750 Wh battery. One exception is the size S in carbon bikes comes with and is only compatible with the 625 Wh battery due to reach and standover constraints.

Do any frame sizes feature curved top tubes for lower standover?
Size S in both carbon and alloy have very slight curves in the top tube. Size S carbon models come with 625 Wh batteries as there is not enough room in the downtube for the bigger 750 Wh battery. However, smaller riders do tend to use less battery.

What is the maximum tyre size?
29x2.6"

Is it compatible with other wheel/tyre sizes?
The alloy frame is only compatible with standard-width 29er wheels/tyres.

With the Mino Link in the high position, the frame on Rail carbon models is compatible with a 27.5" rear wheel for riders who want more bum-to-tyre clearance on steep descents or more agile rear-wheel handling. NOTE: the smaller rear wheel will reduce your speed by about 8% compared to what the display says. This cannot be adjusted by Trek retailers at this time. Contact Bosch for more information.

How much dropper post insertion does the frame have?
Alloy frames: S – 220 mm; M – 230 mm; L – 260 mm; XL – 300 mm
Carbon frames: S – 230mm; M – 230 mm; L – 260 mm; XL – 310mm

Are these bikes tubeless-compatible? What additional parts are required?
The Rail 7 and up come with a complete tubeless system, including sealant, strips and valves.

The Rail 5 includes tubeless tape but requires sealant and valves (546195)

Does it have any accessory mounts (kickstand, racks, mudguards, lights)?
All frames still have a rear kickstand mount.

What is the maximum fork axle-to-crown and/or travel?
586mm (170mm travel)

Are the carbon frames with 1.8" lower head tubes compatible with 1.5" steerer forks?
Yes, with an aftermarket reducer from FSA.

Are alloy frames compatible with 1.8" steerer forks?
No.

Which Mino Link position does the bike come with?
All Rail models are dispatched in the Low position.

What size hardware is required for aftermarket shocks?
See service manual.

Which version of Knock Block does it use?
Knock Block 2.0 with a 72-degree steering radius. It is compatible with the infinite-radius chip, but we strongly recommend using the Knock Block chip if using a Kiox display mounted on the top tube.

Are all sizes compatible with a water bottle?
S – (coming in 2022) – compatible only with the Bontrager Voda 15 bottle. Requires the bottle cage spacer that is installed on the bike on delivery (see frame diagram for more details). Size S models with AirWiz will not fit any bottle due to AirWiz clearance.

M – requires the bottle cage spacer that is installed on the bike on delivery. Size M frames with AirWiz require the bottle cage to be positioned as far toward the headtube as possible.

L & XL – compatible with water bottles

What is the rear brake mount? Max rotor size?
180 mm direct mount. Up to 203 mm with the correct adapter.

For the front brake: please refer to the fork manufacturer.

Are any of the new Bosch smart system components backwards-compatible?

No. The new smart system motor, battery, charger, display and remote will not work with previous-generation components.

Are spare keys available?
Yes. Spare keys are available through the lock manufacturer, ABUS. They'll need the key code printed on a card that's included with the bike. The key code is also stored in the remote and can be accessed by an authorised retailer in the Diagnostic Tool 3, or by the rider using the eBike Flow app.

What is the range?
Range depends on many factors, but on average, the range will be 3-6 hours. To calculate an approximate range based on factors such as rider weight or terrain, check out Bosch's handy range calculator here: https://www.bosch-ebike.com/en/service/range-cockpit/

Is it compatible with Range Boost?
Rail models are NOT compatible with Range Boost.

Does it have wiring for lights or other electronic accessories?
It does have a pre-installed wire for a headlight. See the frame diagram for exact location and routing.

How long does it take the battery to charge?
The compact and lightweight 4A Charger takes six hours to fully charge the battery, and just over two hours for a 50% charge. Previous-generation Bosch chargers are not compatible with the new smart system batteries.

How often will over-the-air firmware updates be scheduled? Can riders revert back to a previous version if they don't like the update?
There will be multiple firmware updates per year. Updates on bug fixes and improvements in system efficiencies cannot be reverted. Some updates on feature changes are reversible, for instance, riders have the ability to revert from having eMTB mode back to the standard four support modes.

Is there an app with the new Bosch smart system?
Yes! The Bosch eBike Flow app gives both iOS and Android users access to numerous functions, integrates other apps such as Apple Health and synchronises activity data automatically. The Flow app can now easily receive updates 'over the air' keeping your bike and app always up-to-date and with the latest features.

Does your phone need to be physically connected to the bike to take advantage of the features?
No. Get on, start pedalling and the smart activity tracking of the eBike Flow app is activated – regardless of whether the smartphone is in your pocket or attached to the handlebars. Thanks to the in-pocket feature, you can keep your cockpit reduced to the essentials.

Is there any Trek customisation within the eBike Flow app?
Yes. The eBike Flow app can recognise your Rail bike, customise the app display and help you find local Trek retailers. In addition, there will be additional features unique to Trek in the future. Your over-the-air app updates will include these features.

Can I customise the assist levels within the eBike Flow app?
Yes. The eBike Flow app offers user-defined assist modes. Support-per-cent and support dynamic can be adjusted, while speed and max torque can be reduced (useful where speeds are restricted or with new riders that need to build experience at lower speeds/torque).

Are software updates still required to be performed at the retailer?
No. The new Bosch smart system will do updates 'over the air'. The new Rail with Bosch smart system is regularly upgraded with new functions and always remains up-to-date – thanks to updates via the eBike Flow app.

Is there a diagnostic tool for retailers?
The DiagnosticTool 3 enables trained Bosch retailers to quickly read out and rectify error messages. In addition, using a detailed maintenance log from the DiagnosticTool 3, cyclists can be provided with a detailed eBike diagnostic report for a comprehensive overview of the service performed.

Are any new tools needed to service new Rail with smart system?
There is an update to the diagnostic tool, and no physical dongle connection necessary.

Why does the Rail use a wired speed sensor when Bosch offers a wireless one?
We tested both and found the wired sensor to be more robust and reliable.

Is the Rail compatible with the Bosch Connect unit?
Yes, but you have to remove the motor armour for it to fit.