



TECHNICAL SERVICE BULLETIN #166

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Provided By: e*thirteen Technical & Engineering Dept.

Direct Questions To: support@ethirteen.com

Helix Cassette Lock-Screw Alignment Issue

THIS TECHNICAL SERVICE BULLETIN IS INTENDED FOR:

Distributors, dealers & end-users

PRODUCT INCLUDED

- Helix Race 12 Speed 9-52 cassettes produced in the second half of 2023. Official date codes TBD.

PRODUCT NOT INCLUDED

- TRS+ Cassettes, XCX+ Cassettes, Helix Race 11 Speed Cassettes, Helix Race 12 Speed 9-50.

BACKGROUND

- Helix cassettes use a small 3mm hex "lock-screw" as a secondary security feature to retain the steel and alloy portions of the cassette. This screw is installed as the final step of the cassette installation process and relies on the steel portion being fully clocked into position with the alloy section.

ISSUE

- It has come to our attention that with some 9-52 Helix Race cassettes produced in late 2023, the cutaway to align the steel and alloy portions may be slightly misaligned after assembly, resulting in the inability to install the screw. Based on initial reports, only a small number of incidents have been reported, and this issue does not impact ALL Helix Race 9-52 cassettes.

RESOLUTION

- If you are having trouble with the lock-screw alignment on your cassette, please first review the steps in our [Cassette install troubleshooting guide](#). In most cases installing the cassette on your bike and doing a few hard sprints/pedal strokes with the chain shifted into the 9-36T Steel Section should help to fully rotate/clock the steel cassette part into place and allow the lock-screw to be installed. If this does not resolve the clocking issue, the 2 points below will.
- Short-Term Solution: If you have reviewed our troubleshooting steps and attempted the above process, though the screw is still unable to be installed; the cassette can be used without the lock-screw. Being that the interlocking tangs on the alloy and steel cassette parts are responsible for locking the cassette together; it is safe/acceptable to use your cassette without the lock-screw. Using your cassette without the lock-screw will not impact performance.
- Permanent Solution:
 - e*thirteen has produced a revised lock-screw with a reduced head diameter. This screw can be used in this specific circumstance. To receive a revised replacement screw, please contact e*thirteen support at support@ethirteen.com or via the "ask us a question" button at support.ethirteen.com.
 - e*thirteen will be making a slight increase to the cut-away on the steel section of the cassette to further ensure that the lock screw fit will be resolved.

KEY POINTS

- e*thirteen has been made aware of a small number of cases of lock-screw hole misalignment on 9-52T Cassettes produced in the second half of 2023
- This issue is specific to a small number of 9-52 Helix Race 12 Speed Cassettes and does not affect other cassette models.
- If you have a 9-52 Helix Race 12 Speed Cassette with lock-screw alignment issues, you can contact e*thirteen support for a revised lock-screw at no charge.
- The lock-screw is a secondary security feature and is not load-bearing. The cassette can also be used without the lock-screw while waiting for a replacement screw.

IDENTIFICATION INFORMATION

- The image below shows an example of a misaligned 9-52 Helix Race Cassette for reference. Note how the cut-away on the largest steel (grey) cog does not perfectly align with the bore around the thread hole in the alloy cog.



About e*thirteen:

A global organization of expert designers, engineers, developers, manufacturers, marketers, sales teams, and customer service players, e*thirteen builds bold, best-in-class bicycle solutions. After 20 years of building unique solutions across a variety of industry needs, e*thirteen leads by providing bike retailers and riders with high-performance products with one goal – fearless engineering for the best and most reliable ride.