

MOTERRA

Chain Ring Lock Ring Upgrade

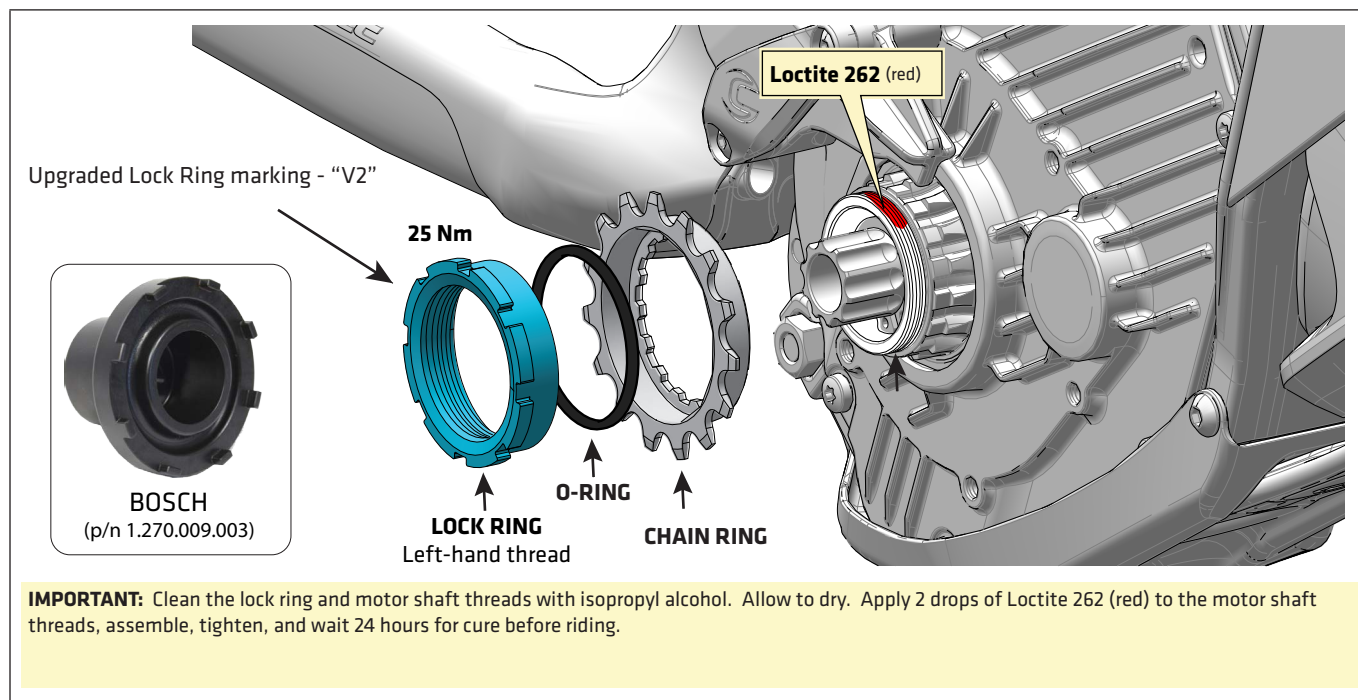


Figure A.

Service Information:

This SERVICE BULLETIN provides instructions for the MOTERRA bikes chain ring lock ring to be proactively replaced. The upgraded lock ring is identified with a "V2" laser etching on the side. This operation can be performed by Authorized Cannondale dealers.

Cause of the Replacement:

The current lock ring may develop lateral play over time with the chain ring. The consequence of this play will be including a premature wear on the axle due to a lack of torque.

Required Action:

We are asking Cannondale Dealers to perform a proactive replacement of the chain ring lock ring equipped on these bikes.

The given recommendation from our owner manual supplement requires a 1000 km maintenance; this service bulletin is to replace the lock ring before the required standard maintenance. The "old" lock ring should not be used anymore and scrapped.

Bike material codes:

This bulletin affects all MOTERRA bikes shipped from CSG until 31/01/2017.

Material Code	Material Description
C65107M60	27.5 M Moterra LT 1 NSP
C65157M60	27.5+ M Moterra 1 BLK
C65207M60	27.5 M Moterra LT 2 BLU
C65257M60	27.5+ M Moterra 2 GRV
C65357M30	27.5+ M Moterra 3 GRN
C65357M60	27.5+ M Moterra 3 NB

WARNING

Remove the battery from the bike before performing any work. Accidental activation of the drive system can cause serious personal injury.

WARNING

Information intended for use only by Authorized Cannondale Dealers. Special tools and skills are needed. Bike Owners must not perform the work described. Serious injury or damage can result.

If you have any questions a, please call the appropriate contact for your region.

See **Cannondale** on page 2.

PROCEDURE

Disassembly

1. Dismantle the crank arms (Internal hex key with width across flats of 8, ISIS crank puller).
2. Lock rear wheel.
3. Dismantle lock ring (2) using locking ring tool (1) (BOSCH p/n 1.270.009.003).

Attention: Lock ring is Left-hand thread! Turn clockwise to remove. Lock ring tool is NOT identical to spider tool.

4. Remove chain.
 5. Remove O-Ring (3) and carefully check for damage. Re-use only intact O-rings.
 6. Pull off chain ring (4).
- Newer drive units additionally have a bearing protection ring (5) installed behind the chain ring. Remove if present.

Reassembly

1. Thoroughly clean the shaft end and motor shaft tooth profile with a clean shop towel.
2. Clean, lightly grease and replace the bearing protection ring onto the motor shaft.
3. Thoroughly clean the shaft fine threads of the shaft with isopropyl alcohol and the clean shop towel.

Allow to dry.

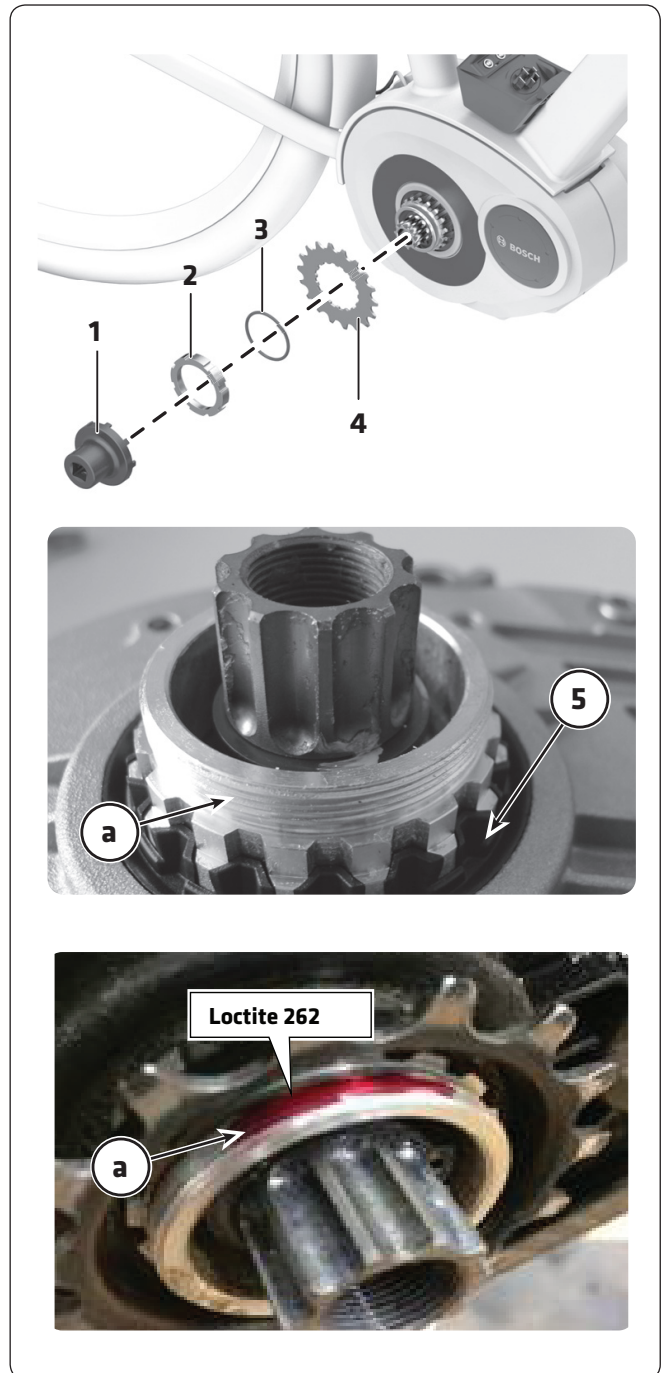
Apply 2 drops of Loctite 262 (red) onto the fine threads (a) of the motor shaft.

4. Install the chain ring onto the shaft end.
5. Clean, lightly grease and install the O-Ring.
6. Clean the lock ring and internal threads with isopropyl alcohol. Hold the chain ring with a chain tool and install the V2 Lock ring and tighten with a torque wrench to **25 N-m**.
7. Lightly grease ISIS splines and internal threads. Remount crank arms and tighten with a torque wrench to (45-55 N-m) depending on manufacturer's instructions.
8. Remount the chain.
9. **Wait 24 hours before riding to permit Loctite 262 to fully cure before riding again.**

For Loctite instructions:

Go to <http://tds.loctite.com/tds5>

Enter "262" in search bar; select language.



Cannondale Regional Contact Information

REGION	COUNTRY	TELEPHONE
North America	US/Canada	1-800-BIKE-USA
	UK	01202732288
Europe	Finland	0942451582
	Italy	0294756239
	Spain	911980754
	Belgium	025885776
	France	0482810011
	Switzerland	0615880767
	Germany	07614888022
	Netherlands	0541820906
	Denmark	89882940
	Sweden	0844683769
	Norway	62783001
	Portugal	211141321
	Austria	021675922
	Luxembourg	027860715
Asia	China	862164468999
	Japan	0663301801
	Australia	0383278080