

PROPHET / RUSH

Tech Note

TROUBLESHOOTING COMMON SOURCES OF NOISE

NOISE SOURCE	HOW TO CORRECT IT
WHEEL QUICK RELEASE	Remove the quick release wheel; inspect the skewer, lever, and frame for damage. Tighten the quick release, very tight.
REAR DERAILLEUR HANGER	Remove the hanger. Clean and inspect the hanger and the dropout. Apply a light film of bike grease between the hanger and dropout. Apply Loctite 242 (blue) to the hanger bolt threads and tighten to 5 N•m (44 In•Lbs). Be sure to check alignment of derailleur following remounting. Be sure to readjust wheel quick release so it is very tight. Replacement hanger kit # KF051/
LEFTY CLAMP BOLTS	Apply Loctite 242 (blue) to the bolt threads and tighten clamp bolts to: Aluminum Lefty - 7 N•m (60 In•Lbs), Carbon Lefty - 9 N•m (80 In•Lbs)
CASSETTE LOCKRING	Follow manufacturer's recommendation for service.
SHOCK MOUNT HARDWARE	Remove the mounting hardware and rear shock. Clean and inspect the shock bolts, shock bushings, and frame and swingarm mounting points. The shock bolts should be straight. The shock bushing should be in good condition and frame and swingarm mounting points should be smooth, without signs of deep scratches, heavy wear, or other damage. A light film of grease can be used where the eyelet reducers (bushings) rest against the frame. Don't grease the bolt shafts; it can attract dirt and cause premature wear. Reinstall shock with the head of the long bolts on the non-drive side. Apply Loctite 242 (blue) to the shorter bolt threads and tighten to 5 N•m (44 In•Lbs). Replacement hardware kit # : RUSH - KF110/, PROPHET- KF101/. Obtain replacement shock bushings from the shock manufacturer.
SWINGARM PIVOT ASSEMBLY	Remove the pivot axle nut, pivot axle, and bearing spacers. Clean and inspect the parts and frame pivot. Check for signs of excessive wear or damage. Check the frame pivot axle hole. Wipe clean the swingarm pivot bearings with a shop towel. The bearing should appear to be in good condition, seated firmly in the swingarm without signs of corrosion or mechanical damage. Rotate the inner bearing race with your finger. Rotation should be quite and smooth. The bearings should not feel gritty or rough. Replacement parts: KF100/ (pivot axle, pivot nut, 2 spacers), KB61902 (1 pivot bearing) [Order 2 bearings]
BB AND CRANK SYSTEM	Follow the manufacturer's recommendation for service.

A POTENTIAL SOURCE OF NOISE

If addressing ordinary maintenance issues and the specific troubleshooting information listed in Table 1. does not eliminate noise, a rare condition in the swingarm may be present.

The condition is caused by a small non-structural plate located inside the swingarm between the main pivot and seat stays. When the plate moves under a load, it rubs against the pocket in which it rests. This creates a "creak or click" sound. Only swingarms with codes in Table 2. can have this condition. The condition is rare even in a swingarm with the code. The test to confirm the condition is explained on page 2. For questions about the test, please contact Cannondale Tech Support.

CANNONDALE USA (CUSA)

Cannondale Bicycle Corporation
172 Friendship Road
Bedford, Pennsylvania 15522
(Voice): 1-800-BIKEUSA
(Fax): 814-623-6173
custserv@cannondale.com
URL: <http://www.cannondale.com>

CANNONDALE AUSTRALIA (CA)

Unit 6, 4 Prosperity Parade
Warriewood N.S.W 2102
Australia
Phone (02)9979 5851
Fax(02)9979 5688
cannondaleaustralia@cannondale.com

CANNONDALE JAPAN (CJ)

12-5 Harayamadai
5-cho Sakai City
Osaka, Japan 590-0132
(Voice): 011.81.722.99.9399
(Fax): 0722-93-6166
cjcustserv@cannondale.com

CANNONDALE EUROPE (CE)

mail: Postbus 5100
visits: Hanzepoort 27
7570 GC Oldenzaal
Netherlands
(Voice): +31 541 573580
(Fax): 31-5415-14240
servicedeskeurope@cannondale.com

HOW TO TEST

Due to the mechanical skill required, the following test should only be performed by an Authorized Cannondale Retailer.

Only swingarms with the codes listed can be affected. Swingarms with other codes are not affected.

Table 2.

BIKE MODEL	SWINGARM CODE
PROPHET 4X, MX	5DPTSP00
PROPHET, PROPHET SL	5DPTSJ00
RUSH	6DRHSJ00



Figure 1 - Code Location (Rear View Of Swingarm Main Pivot)

1. Remove the swingarm and the rear derailleur hanger.
2. Secure the swingarm in a large soft jaw bench vice as indicated in Figure 2.

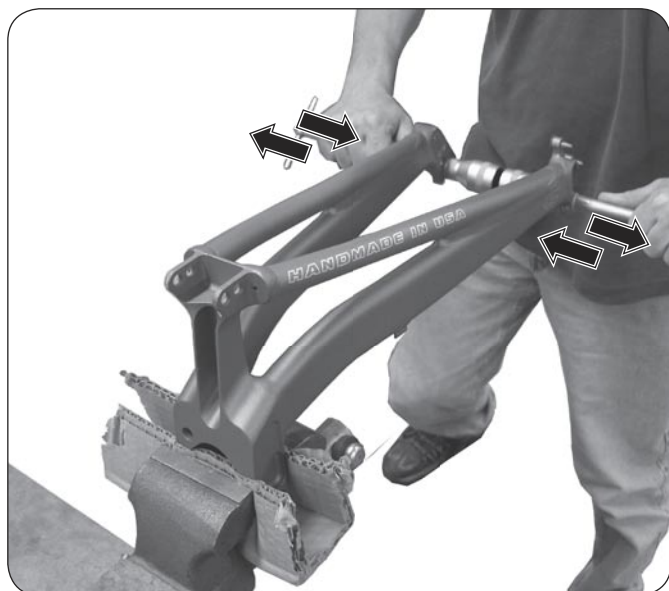


Figure 2

IMPORTANT : Use very heavy cardboard to protect the swingarm from marring or scratches and use only enough clamping force to hold the swingarm securely. For the photo, we used the cardboard U-channel used on the top tube of most of our bike packaging. Its heavy and will work nicely.

3. Use drop out alignment tools to induce a slight lateral (side-to-side) movement into the swingarm.

DO NOT OVERLY COMPRESS OR EXPAND THE CHAINSTAYS ONLY SMALL MOVEMENT IS NEEDED TO PRODUCE THE CREAK OR CLICK IN AN AFFECTED SWINGARM.

4. If a faint and repeatable “creak or click” is heard at the chainstay hot box area, the condition is present. Contact Cannondale Tech Support.

If a “creak or click” is not heard; then the condition is not present in the swingarm. The swingarm is ok. Reassemble the bike according to the appropriate owner’s manual supplement and instructions.