# Predictive Steering<sup>™</sup> Hub

EDICTIVE E E R I N G



# Service Manual



# SRAM LLC WARRANTY

#### EXTENT OF LIMITED WARRANTY

Except as otherwise set forth herein, SRAM warrants its products to be free from defects in materials or workmanship for a period of two years after original purchase. This warranty only applies to the original owner and is not transferable. Claims under this warranty must be made through the retailer where the bicycle or the SRAM component was purchased. Original proof of purchase is required. Except as described herein, SRAM makes no other warranties, guaranties, or representations of any type (express or implied), and all warranties (including any implied warranties of reasonable care, merchantibility, or fitness for a particular purpose) are hereby disclaimed.

#### LOCAL LAW

This warranty statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state (USA), from province to province (Canada), and from country to country elsewhere in the world.

To the extent that this warranty statement is inconsistent with the local law, this warranty shall be deemed modified to be consistent with such law, under such local law, certain disclaimers and limitations of this warranty statement may apply to the customer. For example, some states in the United States of America, as well as some governments outside of the United States (including provinces in Canada) may:

- a. Preclude the disclaimers and limitations of this warranty statement from limiting the statutory rights of the consumer (e.g. United Kingdom).
- b. Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations.

#### For Australian customers:

This SRAM limited warranty is provided in Australia by SRAM LLC, 1000 W. Fulton Market, 4th Floor, Chicago, IL, 60607, USA. To make a warranty claim please contact the retailer from whom you purchased this SRAM product. Alternatively, you may make a claim by contacting SRAM Australia, 6 Marco Court, Rowville 3178, Australia. For valid claims SRAM will, at its option, either repair or replace your SRAM product. Any expenses incurred in making the warranty claim are your responsibility. The benefits given by this warranty are additional to other rights and remedies that you may have under laws relating to our products. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

#### LIMITATIONS OF LIABILITY

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event shall SRAM or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages.

#### LIMITATIONS OF WARRANTY

This warranty does not apply to products that have been incorrectly installed and/or adjusted according to the respective SRAM user manual. The SRAM user manuals can be found online at sram.com, rockshox.com, avidbike.com, truvativ.com, or zipp.com.

This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturers specifications of usage or any other circumstances in which the product has been subjected to forces or loads beyond its design.

This warranty does not apply when the product has been modified, including, but not limited to any attempt to open or repair any electronic and electronic related components, including the motor, controller, battery packs, wiring harnesses, switches, and chargers.

This warranty does not apply when the serial number or production code has been deliberately altered, defaced or removed.

This warranty does not apply to normal wear and tear. Wear and tear parts are subject to damage as a result of normal use, failure to service according to SRAM recommendations and/or riding or installation in conditions or applications other than recommended.

Wear and tear parts are identified as:

- Dust seals
- Bushings
- Air sealing o-rings
- Glide rings
- Rubber moving parts
- Foam rings
- Rear shock mounting hardware and main seals
- •Upper tubes (stanchions)
- Stripped threads/bolts (aluminium, titanium, magnesium or steel)
   Brake sleeves
- •Brake pads
- Chains
- Sprockets
- Cassettes
- Shifter and brake cables (inner and outer)
- •Handlebar grips
- Shifter grips
  Jockey wheels
- Disc brake rotors
- Wheel braking surfaces
- Bottomout pads
- Bearings
- •Bearing races •Pawls
- Transmission gears
- Transmission gears

- Spokes
- Free hubs
  - Aero bar pads
- Corrosion
- Tools
- Motors
- Batteries

Notwithstanding anything else set forth herein, the battery pack and charger warranty does not include damage from power surges, use of improper charger, improper maintenance, or such other misuse.

This warranty shall not cover damages caused by the use of parts of different manufacturers.

This warranty shall not cover damages caused by the use of parts that are not compatible, suitable and/or authorised by SRAM for use with SRAM components.

This warranty shall not cover damages resulting from commercial (rental) use.

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# **SAFETY FIRST!**

We care about YOU. Please, always wear your safety glasses and protective gloves when servicing SRAM products. Protect yourself! Wear your safety gear!

# Hub Service

We recommend that you have your SRAM hubs serviced by a qualified bicycle mechanic. Servicing SRAM products requires knowledge of bicycle components as well as the special parts and tools used for service.

For exploded diagram and part number information, please refer to the Spare Parts Catalog available on our web site at sram.com/service.

For order information, please contact your local SRAM distributor or dealer.

Information contained in this publication is subject to change at any time without prior notice. For the latest technical information, please visit our website at sram.com/service.

Your product's appearance may differ from the pictures/diagrams contained in this publication.

# Tools Needed for Service

- Nitrile gloves
- Apron
- Clean, lint-free rags
- 1.5 mm hex wrench
- Punch



- Soft faced mallet
- SRAM Butter
- (2) SRAM Bearing Press Tool 275377
- Wheels Manufacturing® Press-1 Sealed Bearing Press Kit or similar
- Predictive Steering<sup>™</sup> Hub Bearing Set Front

SRAM Bearing Press Tools 275377

# SAFETY INSTRUCTIONS

Always wear nitrile gloves when working with bicycle grease.

# Exploded View with the Spacer Sleeve



# Exploded View without the Spacer Sleeve



## Bearing Removal



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aside to expose the bearing.

Use a 1.5 mm hex wrench to loosen the set screw on the drive side of the hub.

While holding the non-drive side end cap in place, unthread the drive side end cap by hand.



Remove the axle and dust shield from the non-drive side of the hub.

Remove the dust shield from the axle and clean it with a rag.





Insert a punch through one side of the hub, and use a soft faced mallet to tap the punch along the perimeter of the opposite bearing to remove the bearing. Repeat this process to remove the other bearing.

Hubs with spacer sleeve: remove and discard the spacer sleeve. The sleeve is not needed in the Predictive Steering<sup>™</sup> hub.





### Bearing Installation



Apply a thin layer of SRAM Butter grease to the bearing bores on both sides of the hub.



Install a new bearing into the non-drive side of the hub with the colored side facing outward.



Slide a SRAM 275377 bearing press tool onto the threaded rod of the Press-1 bearing press tool. Insert the threaded rod of the bearing press through the non-drive side of the hub shell. Slide the second SRAM 275377 bearing press tool onto the threaded rod.

Thread the bearing press handle onto the threaded rod. Turn the threaded handle clockwise to press the bearing into the non-drive side bearing bore until it is hand tight. The bearing should sit approximately 1 mm below the outer edge of the bearing bore.

Remove the bearing press tool.

## NOTICE

Do not overtighten the bearing.

To prevent damage to the bearing, make sure that the bearing press tool contacts both the inner and outer races of the bearing.



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Install a new bearing into the drive side of the hub with the colored side facing outward.

### NOTICE

Do not reinstall a spacer sleeve into the hub. The spacer sleeve may cause play in the hub.



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Slide a SRAM 275377 bearing press tool onto the threaded rod of the Press-1 bearing press tool. Insert the threaded rod of the bearing press through the drive side of the hub shell. Slide the second SRAM 275377 bearing press tool onto the threaded rod.

Thread the bearing press handle onto the threaded rod. Turn the threaded handle clockwise to press the bearing into the drive side bearing bore until it is hand tight. The bearing should sit approximately 1 mm below the outer edge of the bearing bore.

Remove the bearing press tool.

#### NOTICE

Do not overtighten the bearing.

To prevent damage to the bearing, make sure that the drift contacts both the inner and outer races of the bearing.

Applying excessive force while installing the second bearing may result in damage to one or both bearings.





Install the dust shield onto the axle so that the chamfer is flush with the axle shoulder.



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Install the axle through the non-drive side of the hub and thread the end cap onto the axle. While holding the axle, thread the drive side end cap on until the end cap lightly contacts the bearing. Then tighten the set screw to  $0.4 \text{ N} \cdot \text{m}$  (3.5 in-lb).

#### NOTICE

Do not over tighten the end cap. Overtightening the end cap will prematurely wear out the bearings.

If there is still play in the hub, loosen the set screw and tighten the end cap slightly more. Then tighten the set screw to  $0.4 \text{ N}\cdot\text{m}$  (3.5 in-lb). Repeat until there is no play in the hub.



This concludes the service for Predictive Steering<sup>™</sup> hubs.



"We will revolutionize the relationship that our users have with SRAM products, cultivating a bond between the rider and bicycle. Our technical communication will be delivered in innovative and exciting ways, with deliberation and accuracy that inspires loyalty and trust across the globe."

-SRAM TechCom Vision Statement



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