MEGA CARBON MX GUIDE - HOW TO FIT MX REAR TRIANGLE TO MEGA CARBON 290 FRAME

Welcome to the party, business up front, party at the back. Developed with our athletes for a no compromise dedicated mullet set-up. This guide shows you how to install your new MX rear triangle to your Mega Carbon 290 and join the party. This is also a good opportunity to change your gear cable, bleed your brakes and clean/grease pivots. No bearings need removed or fitted for this conversion. If you are unsure on fitting the kit or do not have the correct tools, please consult with a reputable local mechanic or your Nukeproof dealer to install. This is a full and concise guide, but any queries please contact your dealer or email us at ***info@nukeproof.com***

KIT CONTENT

TOOLS REQUIRED –

- Allen Keys
- Torque Wrench
- Cable Cutters
- Chain Link Splitter
- Hollowtech Tool (Shimano Cranks Only)
- Grease
- Thread Lock (Loctite 243)
- Bleed Kit
- Hose cutter
- Cassette Lockring tool
- Chain Whip
- TORX Keys

PARTS REQUIRED –

- Inner Gear cable
- Cable End
- Olive and Barb to match your brake

REMOVAL OF COMPONENTS AND 290 REAR TRIANGLE

It is important the exploded diagram is referenced while changing the rear triangle.

STEP 1 – REMOVE REAR WHEEL

Shift gears into the smallest cassette sprocket, put clutch into open position (Shimano) or Cage Lock (Sram), remove rear axle with 5mm Allen Key and remove wheel from bike. Set aside rear axle.

STEP 2 – REMOVE CHAIN

Using a Split-Link tool, split chain link and remove chain from bike. Set aside to refit later.

1. Locate joining link and separate with Split-Link tool

STEP 3 – REMOVE DERAILLEUR AND GEAR HANGER

Undo inner gear cable bolt of derailleur, snip off cable end and dispose, undo derailleur hanger bolt and set derailleur aside. Remove outer cable ferrule and set aside to re-use. Remove inner cable and dispose. The Universal Derailleur Hanger (UDH) (17) removal and fitting is detailed in the following SRAM video and document. Please remove the UDH Stop Bolt (18) with a 3mm Allen Key and set aside. The UDH hanger and bolt can be referenced in the exploded diagram and coloured **GREEN**.

SRAM UDH Video
SRAM UDH Document

1. Undo gear cable bolt on derailleur

2. Trim cable to remove cable end

3. Remove gear cable

4. Remove rear derailleur from bike

5. Remove UDH to SRAM instructions with 8mm Allen Key, note reverse thread

6. Remove UDH Stop Bolt with 3mm Allen Key

STEP 4 – REMOVE REAR BRAKE

Remove nut cover from brake hose, partially loosen hose nut, pull the hose to unseat the hose olive from the brake lever, once unseated fully undo the bolt and remove hose from lever. Trim off olive and barb from hose, losing this hose length is not a concern as your new MX rear triangle is shorter. Undo Brake Mount Bolts (20) with a 4mm Allen Key, remove caliper with Brake Mount still attached (19) and pull hose through frame, careful to wipe up any lost hydraulic fluid and set caliper aside. The Brake Mount and Bolts are shown as **GREEN** in the exploded diagram.

1. Remove nut cover from brake

2. Partially loosen hose nut and pull hose to unseat

3. Remove hose from brake

4. Trim off Olive and Barb

5. Set aside hose cover and nut

6. Undo Brake Mount Bolts with 4mm Allen Key

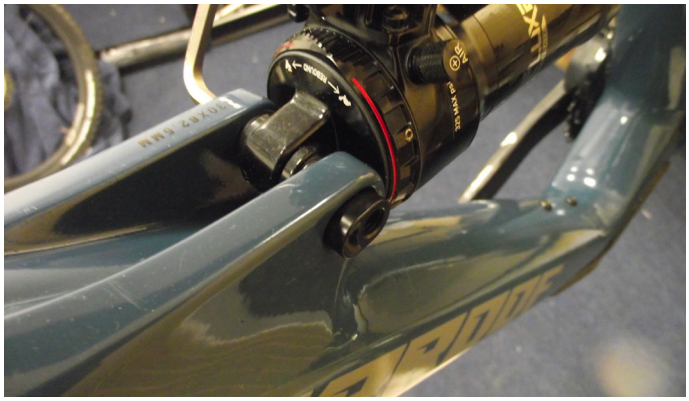
7. Pull brake hose through frame

8. Brake removed from bike

STEP 5 – REMOVE REAR SHOCK

Remove rear shock – To remove the rear shock, you need to undo both upper and lower Shock Bolts (3), these are shown in **BLUE** in the exploded diagram. Remove the Shock Bolts (3) with a 5mm Allen Key, Shock Bolt Nut (28) and rear shock, place aside. This will give access to the Swing Link (27).

1. Undo upper shock bolt with 5mm Allen Key



2. Remove Shock Nut Bolt (28) from frame

3. Remove lower shock bolt with 5mm Allen Key

4. The Swing Link is now accessible

STEP 6 – REMOVE HORST LINK PIVOT AND AXLE

The Horst Link Pivot and Axle connects the chainstay and seatstay of the rear triangle. This is made up of parts 13/14/16 and shown as **ORANGE** in the exploded diagram. Two 6mm Allen Keys are required to remove. Hold the inside Allen Key static and loosen with the outside Allen Key. Repeat for drive and none drive side. The seatstay will need lifted to remove Horst Link Washers (14) x4, the bearings and Horst Link Bearing Spacer (16) does not need removed, these are pre-installed to the MX kit.

1. Using two 6mm Allen Keys undo the Horst Link Pivot and Axle (13). Note inside Allen Key stays static and outer is used for loosening

2. Horst Link Pivot and Axle (13) removed

3. The Chainstay and Seatstay can now be separated, revealing the 4 Horst Link Washers (14)

4. Set parts aside for refitting

STEP 7 – REMOVE SEAT STAY CLEVIS BOLTS

The Seat Stay Clevis bolts connect the seatstay to the Swing Link (27), it is made up of parts 6/7/8/10 and shown as **GREEN** in the exploded diagram. This needs to be removed from the drive and none drive side. Loosen the Seat Stay Clevis Bolt (10) from the inside of the Swing Link with a 6mm Allen Key, remove parts and set aside. The Seat Stay Clevis Lock Ring (8) does not need removed. The seatstay can now be removed from the bike.

1. Seat Stay Clevis Bolts (10) can now be removed

2. Using a 6mm Allen Key remove bolts from each side of the Swing Link (27)

3. The Seatstay can now be removed, careful not to drop Seatstay Clevis Washers (7) and Nuts (6)

4. Set aside Seatstay Clevis Bolts (10), Washers (7) and Nuts (6)

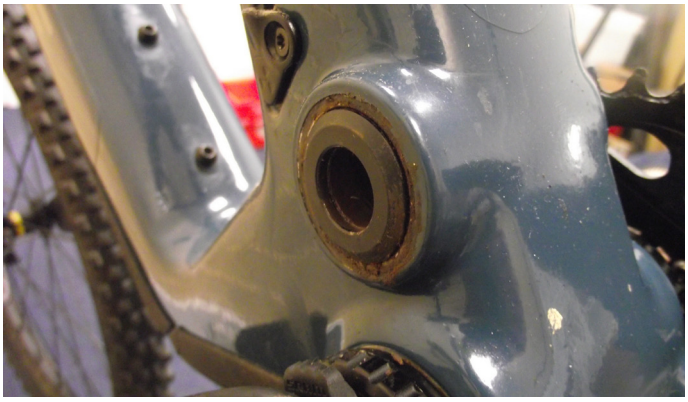
5. 29” Seat Stay Removed from bike

STEP 8 – REMOVE MAIN PIVOT AXLE

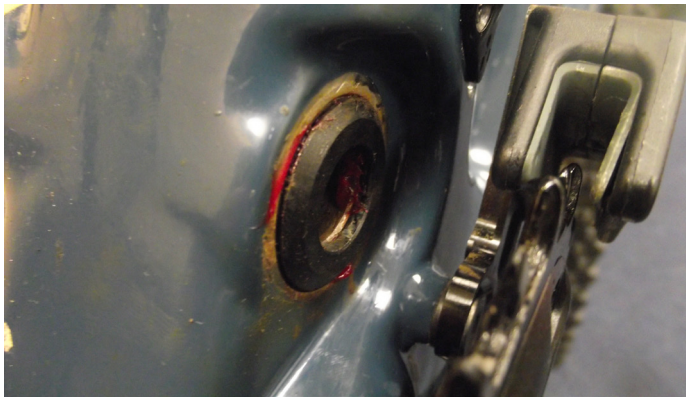
The Main Pivot Axle connects the chainstay to the front triangle of the bike, it is made up of parts 11/12/21/22 and shown as **RED** in the exploded diagram. Undo the Main Pivot Axle (21) with an 8mm Allen Key and place all parts aside. The Main Pivot Bearing Spacer (12) does not need removed. The chainstay can now be removed from the front triangle.

1. 29” Chainstay can now be removed

2. Remove Main Pivot Axle (21) with 8mm Allen Key



3. Remove Main Pivot Washer (11) from non-drive side



4. Remove Main Pivot Washer (11) from drive side

5. Removed Main Pivot Washers (11), Main Pivot Axle (21) and Collect Washer (22)

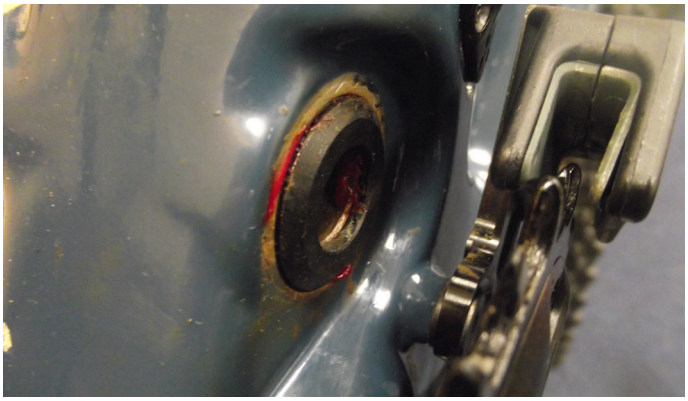
6. Chainstay removed from bike’

INSTALLATION OF MX REAR TRIANGLE

Please reference the 2nd page of the exploded diagram for parts that will need greased and thread locked. Please reapply grease and thread-lock to areas in the diagram to ensure smooth action of the MX rear triangle and to ensure pivots stay tight.

STEP 9 – INSTALL MAIN PIVOT AXLE AND MX CHAINSTAY

You can now install the MX chainstay to your frame. Please clean the parts to ensure there is no debris, parts 11/21/22 will need fresh grease. The Main Pivot Axle (21) thread will need thread-lock. Install Main Pivot parts as shown in diagram, place the Main Pivot Washers (11) first and tighten the Main Pivot Axle (21) to 19Nm with an 8mm Allen Key Torque Wrench.



1. Grease Main Pivot Washers (11) and place on drive and non-drive side

2. Place MX Chainstay to frame and install Main Pivot Axle (21) and Collect Washer (22)

3. Tighten to 19Nm with an 8mm Allen Key Torque Wrench

STEP 10 - INSTALL SEAT STAY CLEVIS BOLTS

You can now install the seatstay to the Swing Link (27). Clean the parts and apply fresh grease Seat Stay Clevis Bolt (10) and Seat Stay Clevis Washer (7). The Seat Stay Clevis Bolt (10) threads will need new thread-lock. Place the Seat Stay Clevis Washers (7) into the Swing Link (27), grease will hold these in place. Offer up seatstay to Swing Link careful not to dislodge Washers. Install Seat Stay Clevis Bolts (10) and Seat Stay Clevis Nut (6) and tighten to 19Nm with a 6mm Allen Key Torque Wrench. Repeat for both sides.

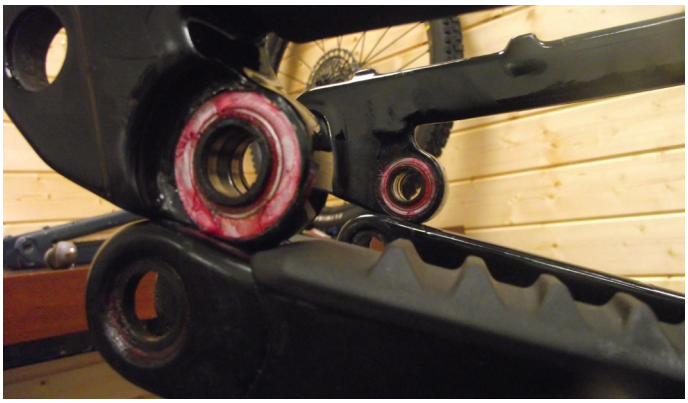
1. Grease and fit Seat Stay Clevis Washers (7) to each side of the Swing Link

2. Install the Clevis Nut (6) to each side of the Seat Stay

3. Install the Seat Stay Clevis Bolts (10) and tighten to 19Nm with a 6mm Allen Key Torque Wrench

STEP 11 - INSTALL HORST LINK PIVOT AND AXLE

You can now connect the seatstay and chainstay together. Please clean all parts before refitting. The female part of the Horst Link Pivot Axle and Bolt (13) will need fresh grease. The male part Horst Link Pivot Axle and Bolt (13) will need new thread-lock. Place the Horst Link Washers (14) on each side of the chainstay bearings, these can be held in place with fresh grease. Offer the seatstay and chainstay together, careful not to dislodge the washers. Install the female part of the Horst Link Pivot Axle and Bolt on the outside of the frame, thread in the male part Horst Link Pivot Axle and Bolt from the inside of the frame. Loosely tighten the male bolt, hold static and fully tighten the female side with a 6mm Allen Key Torque wrench to 12Nm.



1. Rest the Seatstay on top of the Chainstay, place the 4 Horst Link Washers (14) each side of the bearings, grease will hold these in place

2. Slide the Seatstay and Chainstay together and thread the Horst Link Axle and Bolt (13) together. Male on inside and Female on outside

3. 6mm Allen Key on inside of stays is held static, 6mm Allen Key Torque Wrench on outside used to tighten

STEP 12 – REFIT SHOCK

You can now reinstall your shock to the frame. Fit Shock Nut Bolt (28) to frame. Only the lower Shock Bolt (3) needs thread-lock. Place shock in mount positions, install both Shock Bolt (3) to frame and tighten with a 5mm Allen Key Torque Wrench to 15Nm.

1. Fit Shock Nut Bolt (28) to frame

2. Install shock and Shock Bolts (3) and tighten to 15Nm 5mm Allen Key Torque Wrench

STEP 13 – INSTALL UDH HANGER

Install UDH Hanger – Please reference the SRAM video and document to install the UDH hanger. The hanger needs installed with an 8mm Allen Key Torque Wrench to 25Nm. The UDH Stop Bolt (18) needs fitted to the MX rear triangle and tightened to 3Nm with a 3mm Allen Key Torque Wrench.

SRAM UDH Video
SRAM UDH Document

1. Fit UDH and tighten to 25Nm with 8mm Allen Key Torque Wrench, note reverse thread

2. Install UDH Stop Bolt (18) to 3Nm with a 3mm Allen Key Torque Wrench

STEP 14 – INSTALL DERAILLEUR

Refit your derailleur to the bike, please follow manufacturers guidelines on installation and set-up. Pass outer cable through rear triangle and install new inner gear cable, refit ferrule to outer gear cable, install inner cable to derailleur, trim inner cable and fit cable end.

Shimano Derailleur Install Manual
SRAM Derailleur Install Manual

STEP 15 – TRANSFER ROTOR AND CASSETTE TO NEW WHEEL AND INSTALL TO BIKE

Before fitting the chain and disc brake caliper, the new 27.5'' rear wheel will need installed. Please follow the manufacturers instruction manuals to correctly install your disc and cassette.

Shimano Center-Lock and 6 Bolt Disc Rotor
Shimano Cassette Install
SRAM Center-Lock and 6 Bolt Disc Rotor
SRAM Cassette Install

The rear through axle needs installed with a 5mm Allen Key and tightened to 12Nm. Lightly grease the axle threads before installing.

STEP 16 - INSTALL CHAIN

Please reference manufacturer install guides for chains, your chain may need trimmed to account for the shorter MX rear triangle. Once you have checked the chain length and trimmed if appropriate you can connect the joining pin.

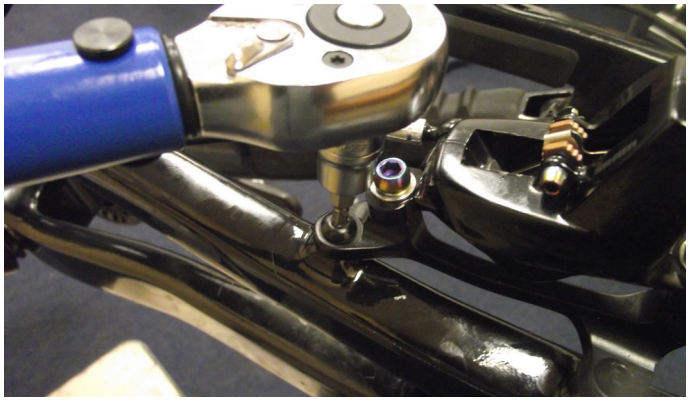
Shimano Chain Install
SRAM Chain Install

STEP 17 – INSTALL REAR BRAKE

Firstly pass rear hose through MX rear triangle and frame. Install the caliper and Brake Mount (19) to the rear triangle. The Brake Mount Bolts (20) need thread lock and tightened to 10Nm with a 4mm Allen Key Torque Wrench. Please refit hose to the lever following the manufacturer instructions to install and bleed.

Shimano Disc Install
SRAM Disc Install

3. Thread brake hose through MX triangle and front frame



4. Install Brake Mount Bolts (20) to 10Nm with a 4mm Allen Key Torque Wrench

STEP 18 – GO SHRED

Nukeproof does not bear responsibility for any part damaged by incorrect use of incorrect tools or installation, any doubts please contact a reputable local mechanic or your dealer. All frame spares are available through an authorised dealer.