

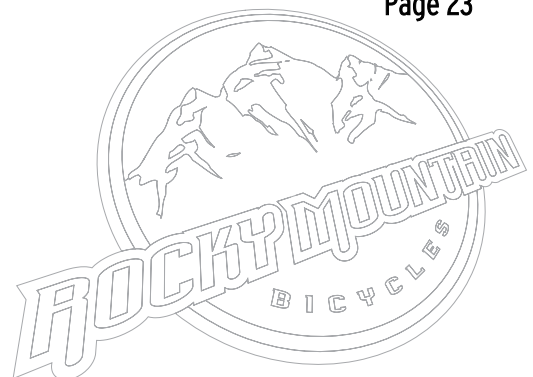


# 2006 Technical Manual

*Love the ride.™*

# Table of Contents

<b>1. Introduction</b>	<b>Page 2</b>
• Introductory Statement	
• Mission	
<b>2. RMX</b>	<b>Page 3</b>
• Design & Features	
• Assembly Instructions	
• DWG. No. 700008-01	
• DWG. No. 700008-02	
<b>3. Switch</b>	<b>Page 8</b>
• Design & Features	
• Assembly Instructions	
• DWG. No. 700001-01	
<b>4. Element</b>	<b>Page 11</b>
• Design & Features	
• Assembly Instructions	
• DWG. No. 700006-01	
• DWG. No. 700006-02	
• DWG. No. 700006-03	
<b>5. Slayer</b>	<b>Page 16</b>
• Design & Features	
• Assembly Instructions	
• DWG. No. 700008-01	
<b>6. ETSX</b>	<b>Page 19</b>
• Design & Features	
• Assembly Instructions	
• DWG. No. 700007-01	
<b>7. Torque Spec Sheet</b>	<b>Page 22</b>
<b>8. Warranty</b>	<b>Page 23</b>



## **INTRODUCTION**

No two riders are alike. That's why at Rocky Mountain we hand-build our bikes according to different platforms for different riding styles. The bikes may be different, but they all share our commitment to quality and innovation. Bikes built for people who love the ride.

## **OUR MISSION**

Our goal is simple: build a high-grade quiver of bikes that riders will love to ride. It's the approach we take when we design, test, and build our extreme freeride bikes, our road racers, or any of our excursion and city bikes.

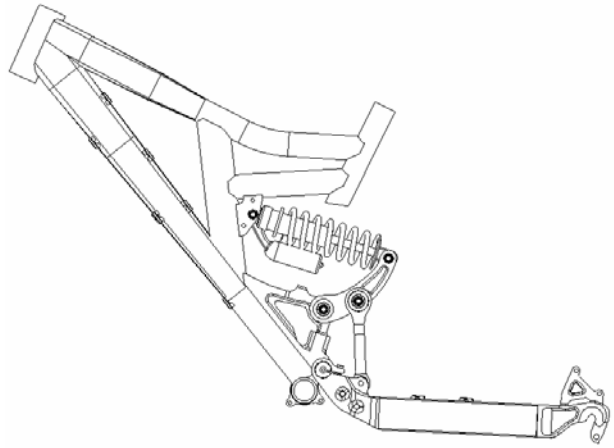
Whether you're looking for that certitude and grit to stick that big drop on the North Shore, the faith that you can push just a little harder to win your heat, or the peace of mind in knowing you have the reliability in your city bike to take you on your daily commute, you need to have confidence in your bike to really love the experience.

So, to ensure that every rider who rides a Rocky Mountain bicycle has the confidence that they have the best bike there is, we employ a higher standard of manufacturing. Visit our factory in Vancouver, BC, Canada, and you'll see this adherence to quality for yourself.

## RMX

### Design:

The RMX for 2006 uses the Thrustlink™ suspension which is custom tuned to be a fully rising rate suspension, so your ride's plush and responsive at the top end of the travel, but becomes more progressive at the bottom. The swingarm is optimized to deal with mammoth impacts, and will actually flex laterally (like a ski), creating a carving motion that gets you through tight berms faster. When you ride the RMX, you'll notice, responsive feel over all bump types due to the swingarm's center of mass being located so close to the main pivot.



### Features:

- Low front end to accommodate a shorter fork.
- 66.5° head angle - for optimal downhill handling.
- Easton 7005 RAD DH Taperwall Aluminum for unparalleled frame quality.
- 150mm rear axle space and 83mm BB, to create a more natural riding and jumping stance.
- Rocky Mountain patented RAD tube junction technique for a more precise finely crafted frame.
- Stronger front triangle design incorporating a custom bent Easton RAD top tube for improved standover height.
- 8 inches of rear travel.
- German engineered high load INA needle and cartridge bearings in pivot locations for maximum durability.
- Replaceable derailleur hanger.
- 44.5mm head tube for increased strength and durability.
- Cold-forged, CNC machined bottom bracket, swingarm yoke and dropouts for maximum strength and durability.
- Rocky Mountain hand built quality.
- All frames faced and chased for perfect build integrity.
- Strong durable powder coat finish.

## 2006 RMX FRAME ASSEMBLY

### 1. Main Pivot Bearing Assembly-Please Refer to Dwg. No. 700008-02

Lightly grease the inside of the main pivot shell and the outside of the main pivot Bearing Housing: #10-181092SIC, next press the Bearing Housing into the main pivot shell. **\*\*NOTE\*\*** Ensure the bearing sleeve hole is aligned with the grease-fitting hole at the rear of the main pivot shell.

2. Lightly grease both sides of the inside of the Bearing Housing: 181092SIC. Press in two Needle Bearings: 181071INA, one on each side of the housing. Ensure the grease seal inside the bearing is to the **outside** of the bearing housing.
3. Place the grease nipple O-ring: 180112CST onto the threaded side of the Grease Nipple: 13-180106FBY and install using a 7mm combination wrench or deep socket. Tighten the Grease Nipple so that the o-ring compresses slightly.
4. With the Thrustlink Swingarm: 105902RMH, install the plastic washers between the band clamps. Then, lightly grease and thread the M6 x 25mm Low Head Cap Bolt: 180519FBY into each side of the swingarm clamp sockets **\*\*NOTE\*\*** Do not tighten this bolt now.
5. Holding a Thrust Washer: 180234IGS on either side of the main pivot shell, carefully slide the Thrustlink Swingarm over the washers. Once the Swingarm is on, align the Thrust Washers with the main pivot shell. Then, slide the RMX Main Pivot Axle: #11-181089SIC into the needle bearings in the main pivot shell.
6. Next, the Main Pivot Inserts: 181072SIC should fit into each side of the swingarm clamps and around the main pivot axle. Tap into place, making sure the slot in the cap is aligned with the slot in the swingarm clamp.
7. Thread the M6 x 16mm Button Head Cap Screw: 180032FBY evenly through the main pivot inserts and into the main pivot axle, then torque to 50-70 in/lbs to eliminate any swingarm play. Once set, torque the swingarm clamp bolts to **80 inch lbs. The Button Head Cap Screw will remain installed at the end of this procedure to ensure a tight pivot assembly.**

### 8. Linkage Installation

Refer to drawing Nos. 700008-01 & 700008-02

Lightly grease the lower narrow end of the dog bone and press in 6-608V 2RS Cartridge Bearing: 181074INA. Installing 3 from each side, the bearing should sit evenly with the edge of the link. In the upper wider end of the dog bone using a high strength retaining compound i.e. Green Loctite press in 3804-2RS Cartridge Bearings: 181036INA

9. Insert the lower end of the Y-Link between the Swingarm clevis' with a Cartridge Bearing Shim Washer: 180200FBY on each side of the Y-link between the bearing and the clevis. Bolt the bottom end of the link to the Swingarm using the Swingarm Link Bolt: 180460RMB and torque to 100in/lbs.
10. Moving to the R & LH Link Plates: #180305RMB & 180306RMB. Using a High Strength Retaining Compound/ie:Green Loctite, press in a 3804-2RS Cartridge Bearing: 181036INA to each link plate. Next, lightly grease and install the Pivot Mount Inserts: 181038FLW to each side of the down tube

pivot hole. Mount the link plate on the outside of the Pivot Mount Insert then lightly grease and install the outer Cartridge Bearing Insert: 181039FLW. Bolt this junction together using the Pivot Mount/Link Plate Bolt (M8x60mm): 180456RMB and torque to 80in/lbs.

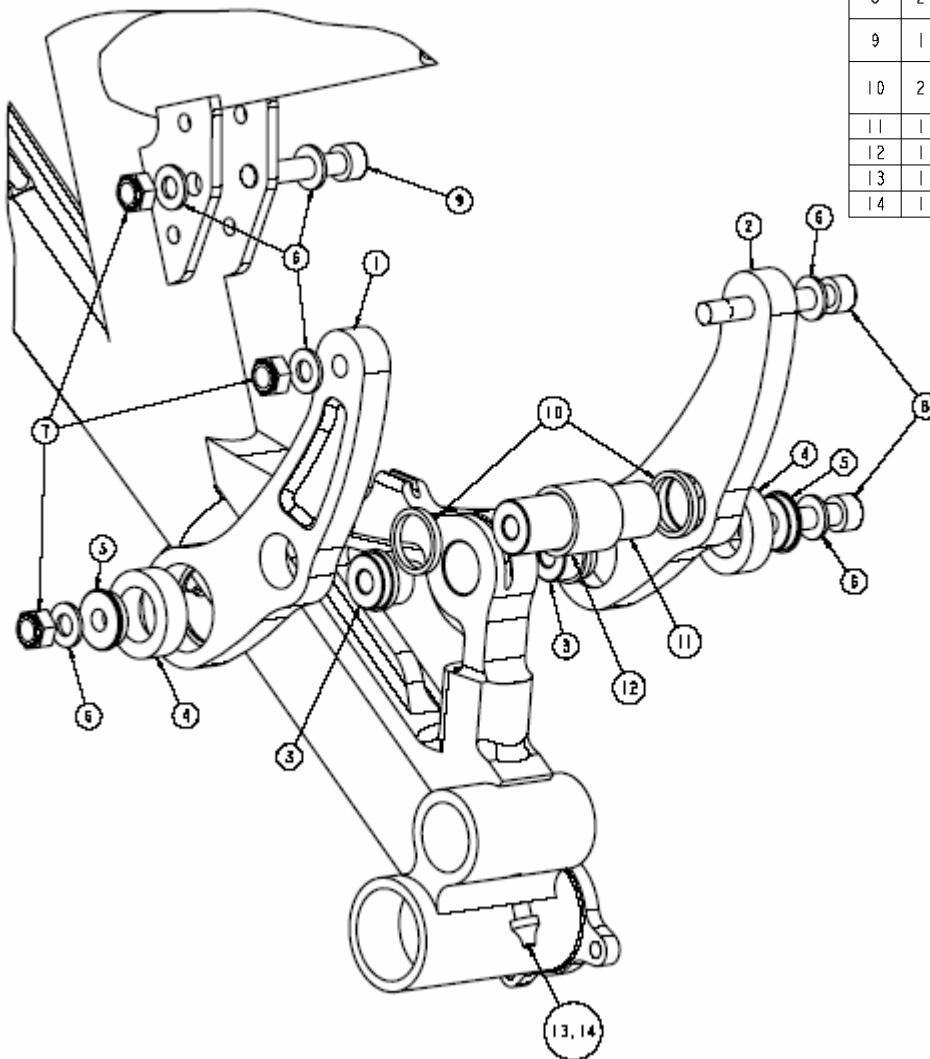
11. Now, using both exploded view drawings 700008-01 & 700008-02 as guides, **lightly grease and assemble the remaining parts** in this sequence. As the Y-Link and the Link Plates come together using the Link Plate/Link Pivot Axle: 180967UAT, be sure to install the Link Bearing Inner Ring: 180966UAT between the outside of the link plate and inside of the upper Y-link Cartridge Bearing and the Link Plate Spacer: 180969RMB between the Link plates. Using the Cartridge Bearing Inserts: 181039FLW bolt this junction together and torque to 80in/lbs.
12. Install the rear shock using the Frame Shock Mount Bolt: 180455RMB (M8x44mm) for the front and the Pivot Mount Link Plate Bolt-180456RMB (M8x60mm) for the rear and torque both to 100in/lbs.  
**\*\*Note\*\***: Some linkage bolts may need to be loosened for rear shock installation then re-torqued post installation.

**\*\*\*Note: Seat post must be inserted at least 100mm on this frame for warranty to remain valid.\*\*\***

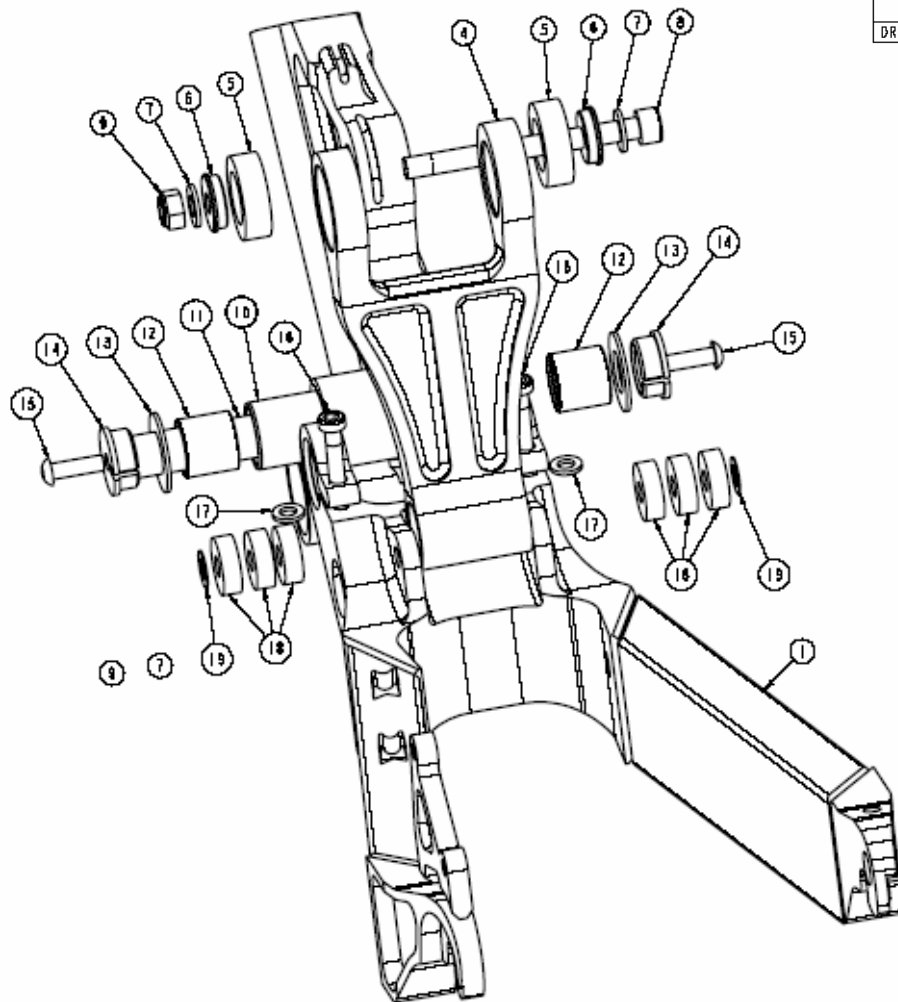
## RMX PIVOT MOUNT / LINKAGE EXPLODED VIEW

DRAWING TITLE:			REV
2006 RMX PIVOT MOUNT/LINKAGE EXPLODED VIEW			NIL
DRAWING SCALE:		DRAWING NUMBER:	SHEET
5:8 (unless noted)		700008-01	1 OF 1
DRAFTED BY: DOC	CHECKED BY: DOC	APPROVED BY: DOC	

Item	Qty	RMB P/N	Description
1	1	180306RMB	RMX LH Link Plate, Machine Polish
2	1	180305RMB	RMX RH Link Plate, Machine Polish
3	2	181038FLW	Pivot Mount Insert
4	2	181036ABI	3804 2RS Cartridge Bearing
5	2	181039FLW	Cartridge Bearing Insert - 20mm ID
6	6	180049FBY	M8 Flat Washer
7	3	180048FBY	M8 Lock Nut
8	2	180456RMB	Pivot Mount/Link Plate Bolt Grade 12.9, M8 x 60mm, Dacromet
9	1	180455RMB	Frame Shock Mount Bolt Grade 12.9, M8 x 44mm, Dacromet
10	2	180966UAT 180966YOZ	Link Bearing Inner Ring
11	1	180967UAT	Link Plate/Link Pivot Axle
12	1	180969RMB	Link Plate Spacer
13	1	180106FBY	Grease Nipple
14	1	180112CST	O-Ring



## RMX MAIN PIVOT / LINK EXPLODED VIEW



DRAWING TITLE:		REV
RMX MAIN PIVOT/LINK EXPLODED VIEW		NIL
DRAWING SCALE:	DRAWING NUMBER:	SHEET
5:8 (unless noted)	700008-02	1 OF 1
DRAFTED BY: DOC	CHECKED BY: DOC	APPROVED BY: DOC

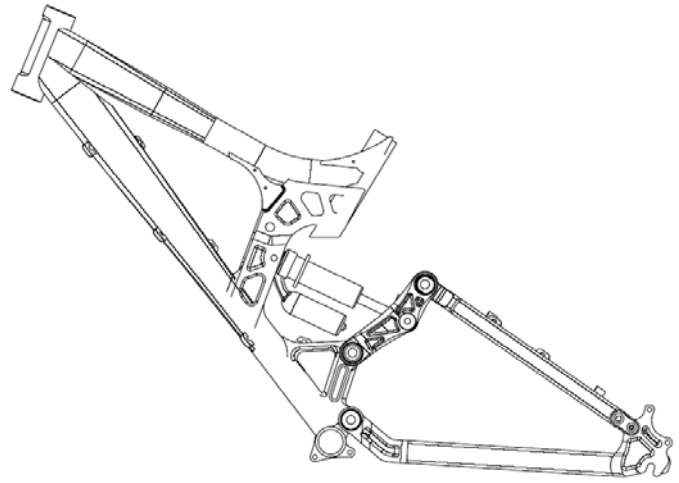
Item	Qty	RMB P/N	Description
1	1	105902RMH	2005 RMX Swingarm
2	1	180304UAT	Deraillleur Hanger (RMX)
3	1	180510RUX	Hanger Bolt
4	1	180303RMB	2005 RMX Link
5	2	1810361NA	3804 2RS Cartridge Bearing
6	2	181039FLW	M8 Bearing Insert - 20mm ID
7	3	180049FBY	M8 Flat Washer
8	1	180458RMB	Link Plate/Link Bolt, Custom Cut Grade 12.9, M8 x 89mm, Dacromet
9	1	180048FBY	M8 Lock Nut
10	1	181092SIC	Bearing Housing
11	1	181089SIC	RMX Main Pivot Axle
12	2	1810711NA 181071AB1	HK 1618 RS Needle Bearing
13	2	1802341GS	Thrust Washer
14	2	181072SIC	Main Pivot Insert
15	2	180032FBY	M6 x 16mm Button Head Cap Screw
16	2	180519FBY	M6 x 25mm Low Head Cap Screw
17	2	180019FBY	M6 Plastic Washer
18	6	1810741NA 181074AB1	608V 2RS Cartridge Bearing
19	2	180200FBY	Cartridge Bearing Shim Washer
20	1	180460RMB	Swingarm/Link Bolt, Cyl. Hd. Cap Bolt, Custom Cut, Grade 12.9, M8 x 67mm, Dacromet



## SWITCH

### Design:

Redesigned for 2006, the Switch comes with a rear triangulated four-bar linkage and 178mm (7") of rear travel on a full rising rate suspension - the more you compress it, the more resistance it creates - so you'll absorb high-speed stutters and soak up big hits. New, beefier "boxed in" strut plates efficiently transfer impact energy through the tubeset, while the front triangle creates more strength and standover height for maneuverability with an Easton RAD bent top tube. You'll also feel more lateral stiffness on the new Switch with its 12 mm thru axle pivots, outboard bearings and large section rectangular tubes.



### Features:

- Longer stroke Fox DHX shock (7"), full rising rate travel.
- Easton 7005 FS RAD DH Taperwall aluminum for uncompromised frame quality.
- Rocky Mountain patented RAD tube junction technique for a more precise finely crafted frame.
- Bent RAD top tube for increased standover height.
- Stronger "boxed in" strutplates to maximize lateral stiffness.
- Custom 12 mm through axles, wider pivots, and dual row angular contact bearings for maximum strength and durability.
- Rocky Mountain hand built quality.
- All frames faced and chased for perfect build integrity.
- Strong and durable powder coat finish.

## SWITCH FRAME ASSEMBLY INSTRUCTIONS

Refer to Drawing No 700001-01

### Bearing Installation:

*Warning: This is a difficult procedure that needs to be done by an experienced mechanic. Without a proper press and press-in tools parts can get damaged very easily. If there is any uncertainty understanding this procedure contact Rocky Mountain Bicycles for assistance at 800.663.2512.*

To begin, all surfaces need to be clean and free of any contaminants. It is recommended to use Loctite Primer 7649 on the link plates, swingarm and the bearings before installing bearings. This will speed the cure time but mostly will ensure proper cure of retaining compound. Once the primer is dry apply Loctite Bearing Retaining Compound 638 (Red or Green Loctite) or equivalent to each link as each bearing is being pressed in.

### Frame Assembly using New 2006 12mm Thru-bolt Hardware

Use Drawing No 700001-01 as a guide to finding the correct bolt lengths. **Assemble entire frame before torquing bolts.**

New for 2006 on all Switch models is 12mm thru-bolt aluminum hardware. These bolts will need a light film of grease to ease installation, however keep the threads clean and dry for the application of Loctite 242 (Blue Loctite) once inserted. With this new hardware comes the introduction of conical washers used at all bearing connection points. These washers need to be installed with the **narrow side facing the bearing race and the wider side against the frame or linkage**. A touch of grease will help keep these in place during assembly as well as repel water and prolong their life.

**Assembly:** All bolts should be inserted from the drive side through to the non-drive. Start by installing the front of the rear shock at the front mount position with the M8 x 37mm Sleeve bolt. Next, attach the rockerplates at the down tube (lower) pivot mount location - *assembly procedure is the same for all pivot points using the 12mm thru-bolts, **one** 12mm bolt w/6mm allen head, **two** conical washers; narrow side-bearing/wider side-frame or linkage and **one** 15mm nut per pivot location* - once the D/T pivot mount is assembled, insert the M8 x 55mm rear shock mount bolt with the shock between the rockerplates.

Moving to the rear stays, assemble the rear clevis pivot using the yellow IGUS bushings and inner ring then connect with the M6 x 20mm Countersunk bolt. The remaining procedure involves attaching the rear stays to the front triangle. Start with the main pivot. Using a dab of grease to hold them, place the conical washers narrow side against the bearings and insert the bolt through the drive side bearing and conical washer to help hold the one side in place while the non-drive side washer is centered and the bolt is inserted all the way. The same technique will be required for the S/S-upper rockerplate connection point. Once assembly is complete as per drawing no 700001-01, torque all bolts.

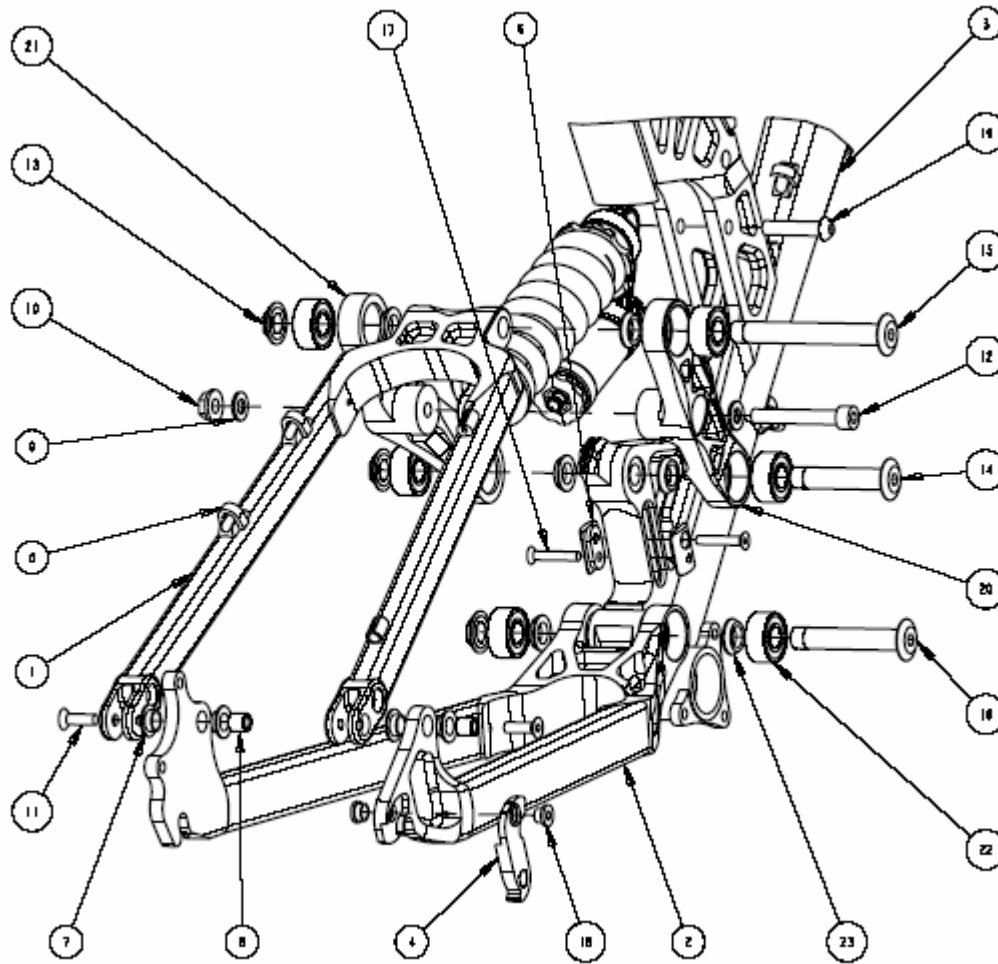
Torque spec for all 2006 RM bikes using 12mm thru-bolts is 90 in/lbs. Torque spec for all shock mounting bolts is 100 in/lbs. More torque specifications can be found on the RMB Bolt Torque Spec sheet within this document.

**\*\*\*Note: Seat post must be inserted at least 100mm on this frame for warranty to remain valid.\*\*\***

## SWITCH EXPLODED ASSEMBLY DIAGRAM

DRAWING TITLE: 2006 SWITCH: EXPLODED ASSEMBLY DIAGRAM		REV NIL
DRAWING SCALE: 0.400 (unless noted)	DRAWING NUMBER: 700001-01	SHEET 1 OF 1
DRAFTED BY: JS CHECKED BY: JR		DATE: 08-10-2005

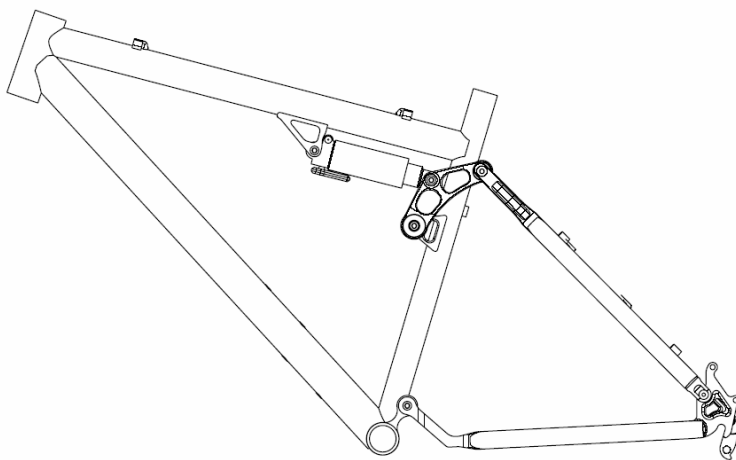
BILL OF MATERIALS			
IDX	QTY	PART #	DESCRIPTION
1	1	1056010RMH	2006 RMB: SWITCH, SEATSTAY ASSEMBLY
2	1	1056019RMH	2006 RMB: SWITCH, SWINGARM ASSEMBLY
3	1	1065040RMH	2006 RMB: SWITCH, FRONT TRIANGLE
4	1	109178UAT	DERAILLEUR HANGER
5	11	109203YDZ	CABLE CLIP, COVER FOR FLAT CABLE GUIDE
6	2	1098044UAT	FRONT DERAILLEUR ADAPTER
7	4	1800031GS	DROPOUT PIVOT BUSHING - IGUS I-glide 1280 bearing, id:10 od:12 i:s, 1811p
8	2	180026S1C	DROPOUT PIVOT INNER RING
9	2	180046FBY	STEEL WASHER, M8, ZP
10	1	180188FBY	LOCKNUT: M8-1.25, FLANGED, NYLOCK
11	2	180155FBY	FLT HD CAP SCREW, M8X20
12	1	180196FSL	SOCKET HEAD CAP SCREW: M8-1.25 X 55mm, w/40mm SHOULDER, GR.12.9, ZP
13	3	180202AIN	FLANGE NUT, M12 X 1, 23.5MM OD
14	1	180210RMB	FLANGE HD, THRU, BLT. 12MMX60 (180203AIN)
15	1	180212RMB	FLANGE HD, THRU, BLT. 12MMX96 (180203AIN)
16	1	180223RMB	FLANGE HD, THRU, BLT. 12MMX70 (180203AIN)
17	2	180235FBY	FLT HD CAP SCREW, M9X30
18	1	180519RUX	CHAINRING NUT/BOLT - M8-0.75 X 5mm BOLT w/4mm LONG NUT
19	1	180514AIN	SLEEVE BOLT, M8X37MM - w/M6 X 14.5 LOCKING CAP SCREW
20	1	181003UAT	ROCKERPLATE: RIGHTHAND
21	1	181004UAT	ROCKERPLATE: LEFTHAND
22	6	1810011NA	BEARING, INA, ID:12 OD:28X12mm, 3001-2RS
23	6	780204AIN	CONICAL WASHER, 12MM X 4MM THK.
24	2		



## ELEMENT

### Design:

The Element is simplicity in design at its best. We have done little to change it in the last 10 years - but why?...when it works so well. The platform consists of full-suspension cross-country bikes with incredible lateral strength for racing thanks to RMB's 3DLink™ system. And there is not more efficient suspension system in the world. Period. Proven to be 98% as efficient as a hardtail when climbing, the key is the shock is not a structural component of the frame and therefore the frame's stiffness isn't compromised by it. Engineered pivot placement optimizes pedal stroke and eliminates suspension "bob" for more power and traction to the rear wheel, while friction-free cartridge bearings allow for a super smooth ride over the technical sections and increased durability. These bikes are built to go fast.



### Features:

- Easton tubing for uncompromised build quality.
- Frame geometry optimized for 80 mm race set up.
- Fox float RP3 with Custom Valved Pro pedal rear shock for maximum suspension performance.
- Frames with size specific tubing - uncompromised frame quality across all sizes.
- Element 50, 70, Team - Carbon fiber seat-stays for increased performance and ride quality.
- Forged and polished link plates for an uncompromised finish.
- German INA needle and cartridge bearings in pivot locations for optimal performance and durability.
- Replaceable forged derailleur hangers.
- Hand powder coated paint job Element 10, 30, 50 & 70.
- High-Luster wet paint finish on Scandium Element Team.
- RMB Hand-built quality.
- Frames faced and chased for perfect build integrity.

## 3D LINK/ELEMENT REAR TRIANGLE ASSEMBLY

RH + LH LINK PLATE SUB-ASSEMBLY-PLEASE REFER TO EXPLODEDVIEW DWGS NO. 700006-02, 700006-03.

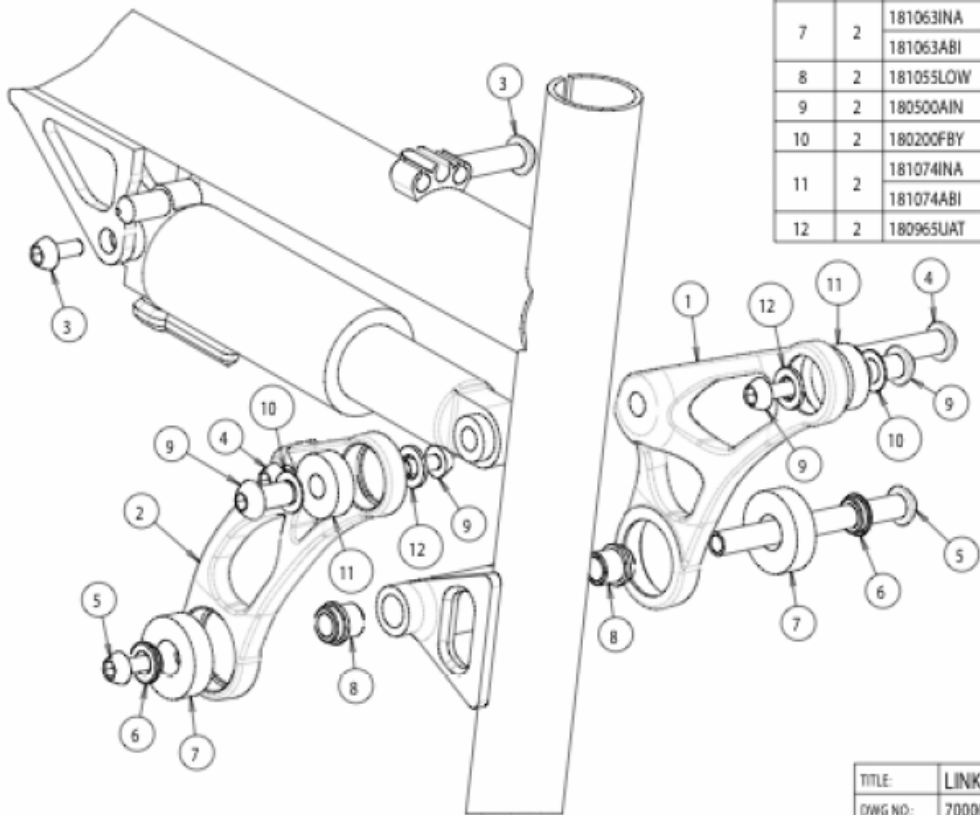
1. Begin the assembly process by prepping all the bearing/bushing components.
  - a. Starting with the right and left link plates. Ensure surfaces are clean and free of any contaminants. We recommend using a loctite prep to ensure the bearing retaining compound hardens completely.
  - b. Apply a film of retaining compound ie; green Loctite to the bearing hole in link plate. Press in the 2 Seattube Pivot Bearings: 181063INA.
  - c. Next, also using a film of retaining compound press in the 608V 2RS Upper Seatstay Cartridge Bearings: 181074INA to the other end of the link plate (smaller hole).
  - d. Now move to the bottom bracket pivot. This will also need a film of retaining compound in the BB pivot shell. Press in 2 61801 2RS Cartridge Bearings: (4 total) 181075INA to each side of the BB pivot. Grease the Main Pivot Bearing Inserts 181058UAT and slide them into the main pivot bearings. Moving to the chainstay rear dropouts, push in the yellow IGUS Dropout Pivot Bearings: 180003IGS into bored holes in dropout 2 each side-4 total. Insert Dropout Pivot Inner Rings: 181026SIC through IGUS Bearings. Inner ring must have a slight resistance fit but no tools or lubricant should be used to install it.
2. Begin the attachment of the link plates and rear stays by installing the Seattube Pivot Frame Inserts 181055LOW with a small amount of grease. Next, with the seattube Pivot Bearing Inserts 181054LOW installed into the larger cartridge bearing of the link plate mount the link plates onto the pivot frame inserts that are installed in the seattube pivot mount. Fasten this junction with the M8 x 79.5mm Sleeve Bolt: 180514AIN and torque to 80 in/lbs. The rear shock can now be installed using the M8 x 31mm Sleeve Bolt: 180502AIN for the front and M8 x 36mm Sleeve Bolt: 180503AIN for the rear. Torque these to 100 in/lbs.
3. Next, attach the stays together at the rear dropout by lining up the holes and inserting the M6 x 20mm Countersunk Bolt: 180191FBY. Apply a drop of blue threadlocker on the first four threads only and torque to 80 in/lbs.

## CHAINSTAY SUB-ASSEMBLY

1. Next, attach the chainstay via the main pivot using the M8 x 59.5mm Sleeve Bolt: #2-180501AIN. \*Note\*Be sure to insert the sleeve through from the drive side to the non-drive side\*\*. Now torque the bolt to 100 in/lbs.
2. Now connect the top of the seatstay to the link plates using the Cartridge Bearing Shim Washer 180200FBY and the Cartridge Bearing Inner Ring 180965UAT. \*Note\*Ensure that the Inner Ring (the thicker one of the two) is on the inside of the link plate bearing and the Shim Washer (thinner one) is on the outside of the link plate bearing. Fasten this junction using the M8 x 14.5mm Sleeve Bolt: #9-180500AIN and torque to 80 in/lbs.

\*\*\*Note: Seat post must be inserted at least 100mm on this frame for warranty to remain valid.\*\*\*

LINK PLATE ASSEMBLY DETAIL

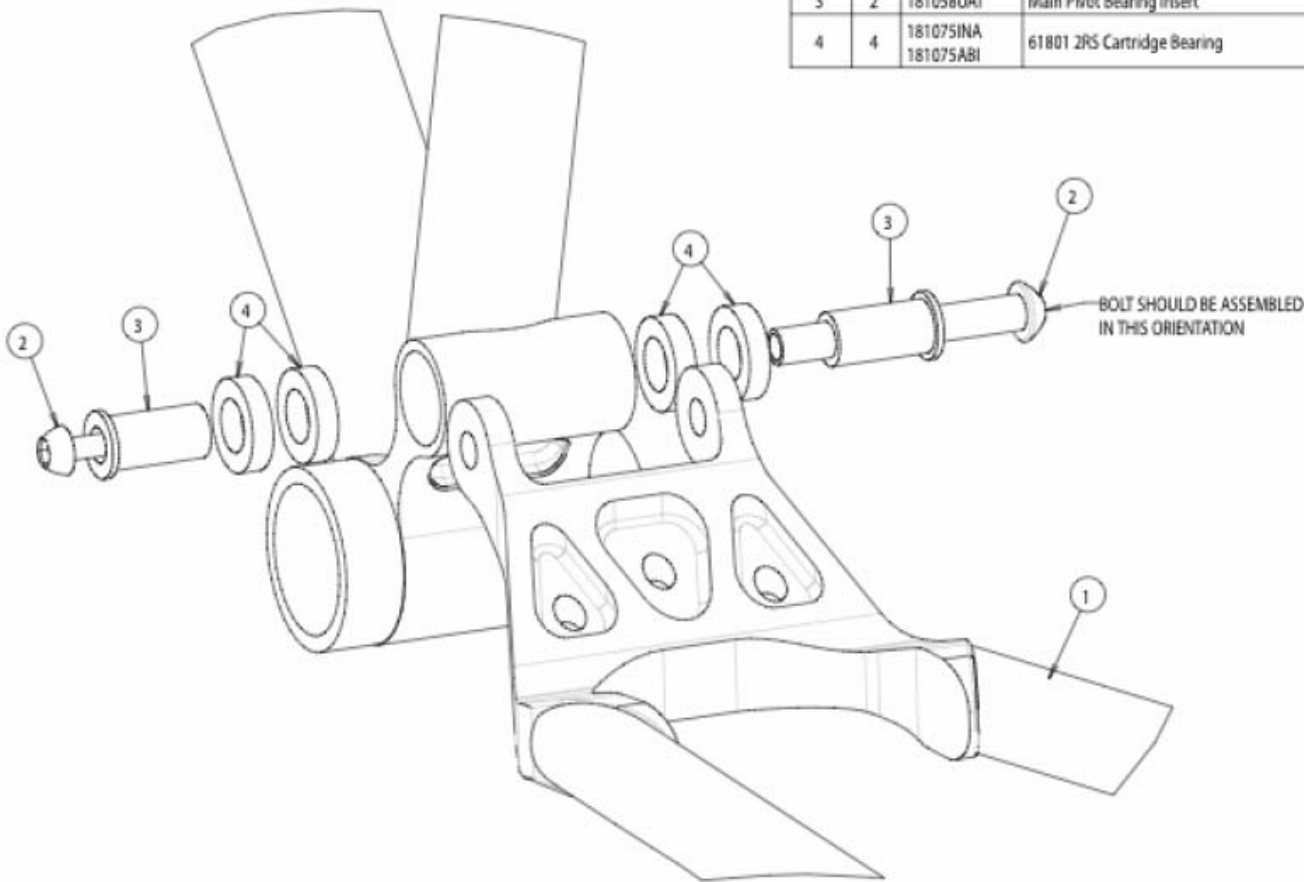


Item	Qty	RMB P/N	Description
1	1	181056UAT	Forged/polished RH Link Plate
	1	181068UAT	RH Link Plate - 15" Slayer, 15.0"/16.5" Element
2	1	181057UAT	Forged/polished LH Link Plate
	1	181069UAT	LH Link Plate - 15" Slayer, 15.0"/16.5" Element
3	1	180502AIN	Sleeve Bolt - M8 x 31mm
4	1	180503AIN	Sleeve Bolt - M8 x 36mm
5	1	180504AIN	Sleeve Bolt - M8 x 79.5mm
6	2	181054LOW	ST Pivot Bearing Insert
7	2	181063INA	ST Pivot Bearing
		181063ABI	
8	2	181055LOW	ST Pivot Frame Insert
9	2	180500AIN	Sleeve Bolt - M8 x 14.5mm
10	2	180200FBY	Cartridge Bearing Shim Washer
11	2	181074INA	608V 2RS Cartridge Bearing
		181074ABI	
12	2	180965UAT	Cartridge Bearing Inner Ring

TITLE:	LINK PLATE ASSEMBLY DETAIL			
DWG NO:	700006-01	REV:	C	DATE: 06-15-2004
MODELS:	2006 Element (ALL)			

ELEMENT BB PIVOT ASSEMBLY DETAIL

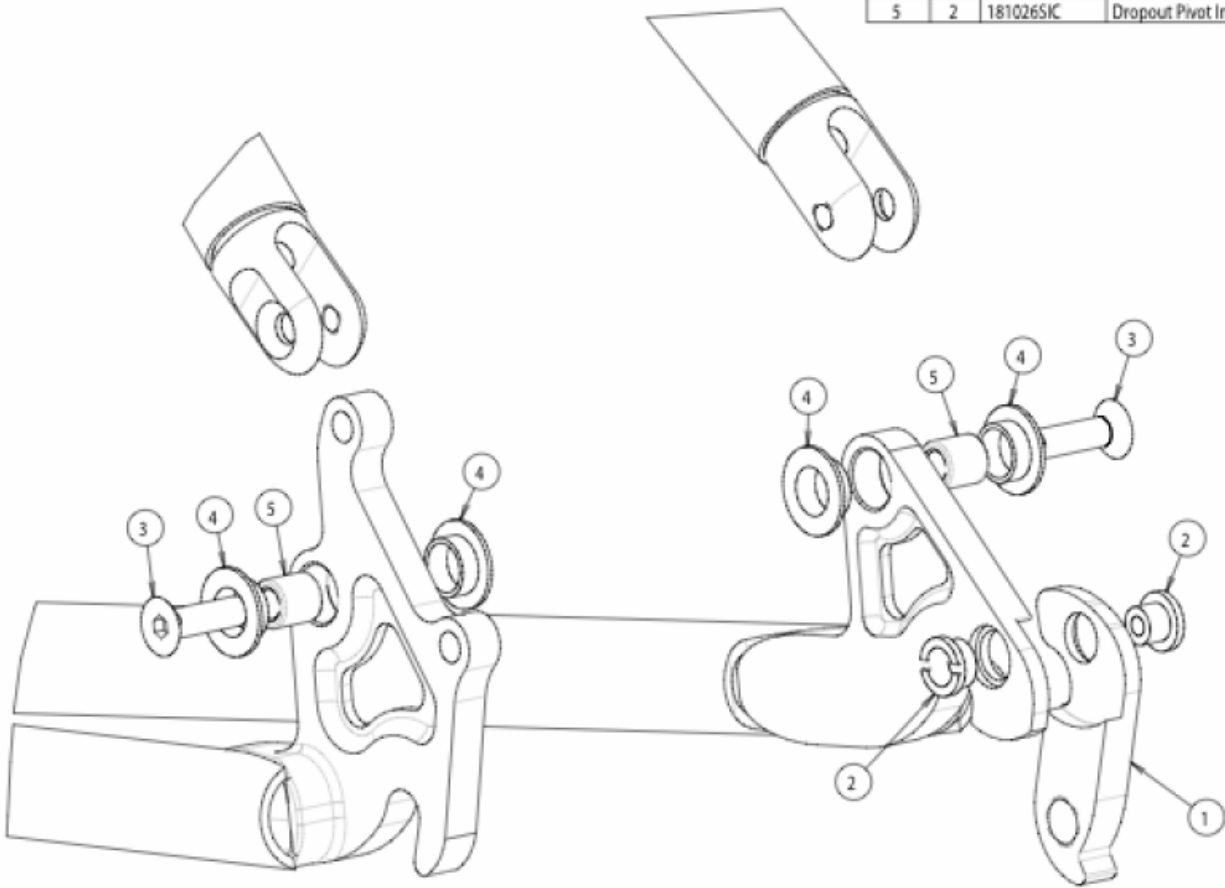
Item	Qty	RMB P/N	Description
1	1	105900RMH	Slayer Chainstay Assembly (ALL)
	1	105901RMH	Element Chainstay Assy (ALL)
2	1	180501AIN	Sleeve Bolt - MB x 59.5mm
3	2	181058LUAT	Main Pivot Bearing Insert
4	4	181075INA 181075ABI	61801 2RS Cartridge Bearing



TITLE:	BB PIVOT ASSEMBLY DETAIL				
DWG NO:	700006-02	REV:	C	DATE:	06-15-2004
MODELS:	2006 Element (ALL)				

ELEMENT DROPOUT PIVOT DETAIL

Item	Qty	RMB P/N	Description
1	1	109179UAT	Deraillleur Hanger
2	1	180510RUX	Hanger Bolt
3	2	180191FBY	M6 x 20 Countersunk SHCS
4	4	180003IGS	Dropout Pivot IGUS Bearing
5	2	181026SKC	Dropout Pivot Inner Ring



TITLE:	DROPOUT PIVOT DETAIL				
DWG NO.:	700006-03	REV:	B	DATE:	06-15-2004
MODELS:	2006Element (ALL)				

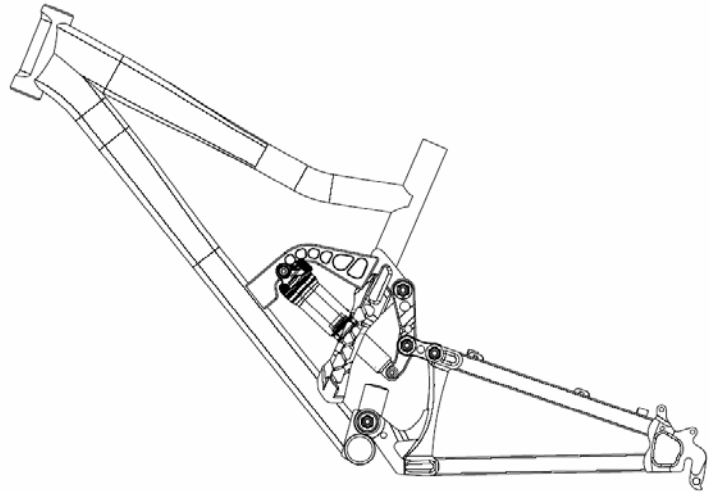


## SLAYER

### Design:

The big news for 2006 is the Slayer has undergone major changes that now push the sport of All-Mountain riding to a new level. The Slayer's new engineered geometry give it even greater climbing power, while traditional 4-Bar suspension problems of suspension rate, brake jacking, and suspension bob are eliminated with the new LC2R suspension, which places these chain and brake forces concentric to its main pivot point. The Slayer's optimal suspension rate is achieved by a thrust-link which engages the top link to create its rising rate, "infinite travel" feel. The LC2R suspension

is designed to let you take on more aggressive bigger drops and stutter bumps. Its low sprung weight and concentrated suspension mass allow the LC2R suspension to respond faster to ground forces and keep the rear wheel glued to the ground all the time.



### Features:

- Custom Easton AL7005-T6 alloy aluminum for uncompromised frame quality.
- 3.2 Kg (7lb) frame - optimized strength to weight ratio for aggressive All-Mountain riding.
- 6" rear travel - the All-Mountain sweet spot.
- Rising rate LC2R suspension for optimal suspension performance.
- Custom CNC'd aluminum pivot hardware.
- Strategically placed brake caliper eliminates brake jack.
- Pivot point engineering to eliminate pedal bob.
- Custom engineered bent top tube for lower center of gravity and more stand over room.
- Rocky Mountain hand built quality.
- All frames faced and chased for perfect build integrity.
- Strong and durable powder coat finish.

## SLAYER FRAME ASSEMBLY INSTRUCTIONS

Refer to Drawing No 700009-01

### Bearing Installation:

*Warning: This is a difficult procedure that needs to be done by an experienced mechanic. Without a proper press and press-in tools parts can get damaged very easily. If there is any uncertainty understanding this procedure contact Rocky Mountain Bicycles for assistance at 800.663.2512.*

To begin, all surfaces need to be clean and free of any contaminants. It is recommended to use Loctite Primer 7649 on the link plates, swingarm and the bearings before installing bearings. This will speed the cure time but mostly will ensure proper cure of retaining compound. Once the primer is dry apply Loctite Bearing Retaining Compound 638 (Red or Green Loctite) or equivalent to each link as each bearing is being pressed in.

### Frame Assembly using New 2006 12mm Thru-bolt Hardware:

Use Drawing No 700009-01 as a guide to finding the correct bolt lengths.

### Assemble entire frame before torquing bolts.

New for 2006 on all Slayer models is 12mm thru-bolt aluminum hardware. These bolts will need a light film of grease to ease installation, however keep the threads clean and dry for the application of Loctite 242 (Blue Loctite) once inserted. With this new hardware comes the introduction of conical washers used at all bearing connection points. These washers need to be installed with the **narrow side facing the bearing race and the wider side against the frame or linkage**. A touch of grease will help keep these in place during assembly as well as repel water and prolong their life.

**Assembly:** To ease assembly, all bolts should be inserted from the drive side through to the non-drive. Start by installing the front of the rear shock at the front mount position with the M8 x 45mm bolt. Next, install the Thrust link to the swingarm - *assembly procedure is the same for all pivot points using the 12mm thru-bolts, **one** 12mm bolt w/6mm allen head, **two** conical washers; narrow side-bearing/wider side-frame or linkage and **one** 15mm nut *per pivot location* - then install the Top link to the rear seat tube mount, making sure to include the 30mm sleeve to support the bolt in the middle of the mount. You can now attach the rear M8 x 35mm shock bolt to the Top link. Next is attaching the swingarm at the main pivot. Be sure to insert bolt from drive side to allow for chain clearance. Finish by connecting the Thrust link to the Top link. Once assembly is complete as per drawing no 700009-01, torque all bolts.*

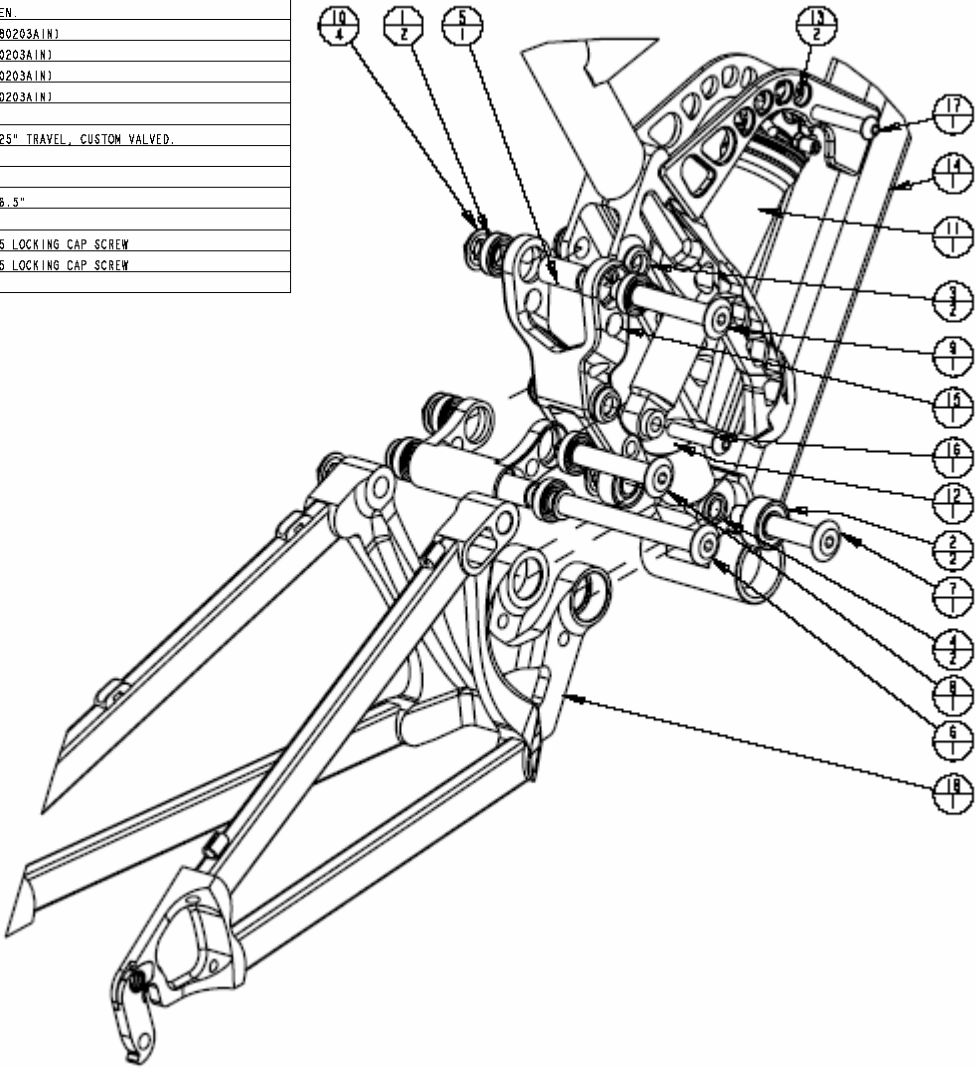
Torque spec for all 2006 RM bikes using 12mm thru-bolts is 90 in/lbs. Torque spec for all shock mounting bolts is 100 in/lbs. More torque specifications can be found on the RMB Bolt Torque Spec sheet within this document.

**\*\*\*Note: Seat post must be inserted at least 100mm on this frame for warranty to remain valid.\*\*\***

SLAYER EXPLODED VIEW

DRAWING TITLE:	SLAYER - EXPLODED VIEW		REV
DRAWING SCALE:	DRAWING NUMBER:	SHEET	A
0.400 (unless noted)	700009-01	1 of 1	
DRAFTED BY: DOC	CHECKED BY: DOC	APPROVED BY: DOC	

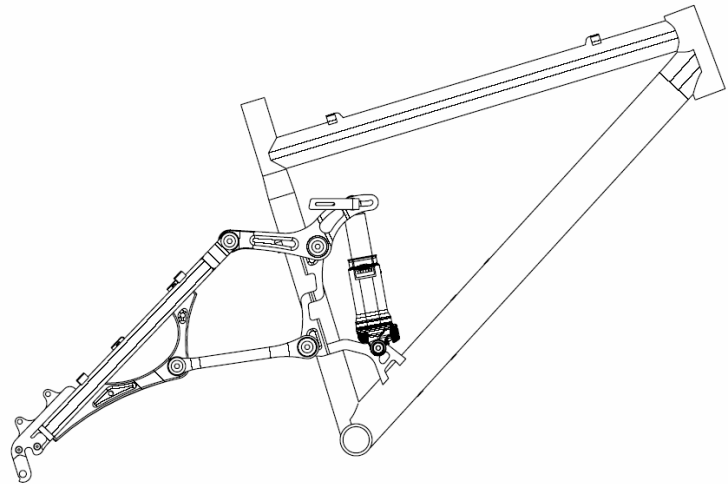
BILL OF MATERIALS		
IDX	QTY	PART # DESCRIPTION
1	2	181064ARI BEARING, INA, 12X24X6, 61901.
2	2	1810811NA BEARING, INA, ID:12 OD:28X12mm, 3001-2RS.
3	2	780204AIN CONICAL WASHER, 12MM X 4MM THK.
4	2	180205AIN CONICAL WASHER, 12MM, 2.5MM THK.
5	1	106206AIN CUSTOM SLEEVE, 12MM ID X 29.5MM LEN.
6	1	180222RMB FLANGE HD, THRU. BLT, 12MMX126 (180203AIN)
7	1	180220RMB FLANGE HD, THRU. BLT, 12MMX67 (180203AIN)
8	1	180223RMB FLANGE HD, THRU. BLT, 12MMX73 (180203AIN)
9	1	180221RMB FLANGE HD, THRU. BLT, 12MMX76 (180203AIN)
10	4	180202AIN FLANGE NUT, M12 X 1, 23.5MM OD
11	1	111304FOX FOX FLOAT RP3 XV, 7.875" LEN x 2.25" TRAVEL, CUSTOM VALVED.
12	1	133021CG PLASTIC PLUG, 28MM, DP1093.
13	2	SHOCK BUSHING, 22.2MM X 8MM
14	1	SLAYER FRONT TRIANGLE WELDMENT, 16.5"
15	1	109505UAT SLAYER TOP LINK
16	1	180514AIN SLEEVE BOLT, M8X37MM - w/M6 X 14.5 LOCKING CAP SCREW
17	1	180505AIN SLEEVE BOLT, M8X45MM - w/M6 X 14.5 LOCKING CAP SCREW
18	1	1056017RMB SWINGARM ASSEMBLY



## ETSX

### Design:

The ETSX - Energy Transfer System - suspension creates a plush and responsive feel through the use of co-rotating wishbone linkages - technology adapted from Formula One race car swingarms. The finely tuned virtual pivot trajectory move the rear wheel on a near-vertical path, with minimized chain growth through the pedaling portion of travel. New, longer travel for 2006, plus and increased shock stroke and new Fox RP3 shock stable platform technology (ProPedal) create an even plusher, more responsive ride. A stiffer downtube, more lateral rigidity, new custom hollow aluminum pivot hardware, and a stiffened swingarm, make the ETSX the ultimate choice for marathon riding.



### Features:

- Custom Easton tubing for uncompromised frame quality.
- Adjustable travel: 4", 4.5", 5" for ultimate Cross-Country marathon riding.
- Shock stroke increased from 1.5" and 2.0" for optimal suspension performance.
- Lower shock ratio and new RP3 shock stable platform technology.
- Stiffer 2" downtube (ETSX Team).
- New, stiffer external butted seat tube and larger seat tube diameter for increased strength and performance.
- Cam-actuated quick release on travel adjustment for ease of operation.
- New pivot hardware - 12 mm custom aluminum bolt hardware for increased strength and durability and an uncompromised finish.
- New square tubed, stiffer rear swingarm.
- Frames with size specific tubing - uncompromised frame quality across all sizes.
- Rocky Mountain hand built quality.
- All frames faced and chased for perfect build integrity.
- Strong and durable powder coat finish - ETSX 10, 30, 50 & 70.
- High-Luster wet paint finish on Scandium ETSX Team.

## ETS-X FRAME ASSEMBLY INSTRUCTIONS

Refer to Drawing No 700007-01

### Bearing installation:

*Warning: Bearing installation is a difficult procedure that needs to be done by an experienced mechanic. Without a proper press and press-in tools parts can get damaged very easily. If there is any uncertainty with this procedure contact Rocky Mountain Bicycles for assistance at 800.663.2512.*

To begin, all surfaces need to be clean and free of any contaminants. It is recommended to use Loctite Primer 7649 on the link plates and the bearings before installing bearings. This will speed the cure time but mostly will ensure proper cure of retaining compound. Once the primer is dry apply Loctite Bearing Retaining Compound 638 (Red or Green Loctite) or equivalent to each link as each bearing is being pressed in.

### Frame Assembly using New 2006 12mm Thru-bolt Hardware Installation:

Use drawing no 700007-01 as a guide to finding the correct bolt lengths.

#### Assemble entire frame before torquing bolts.

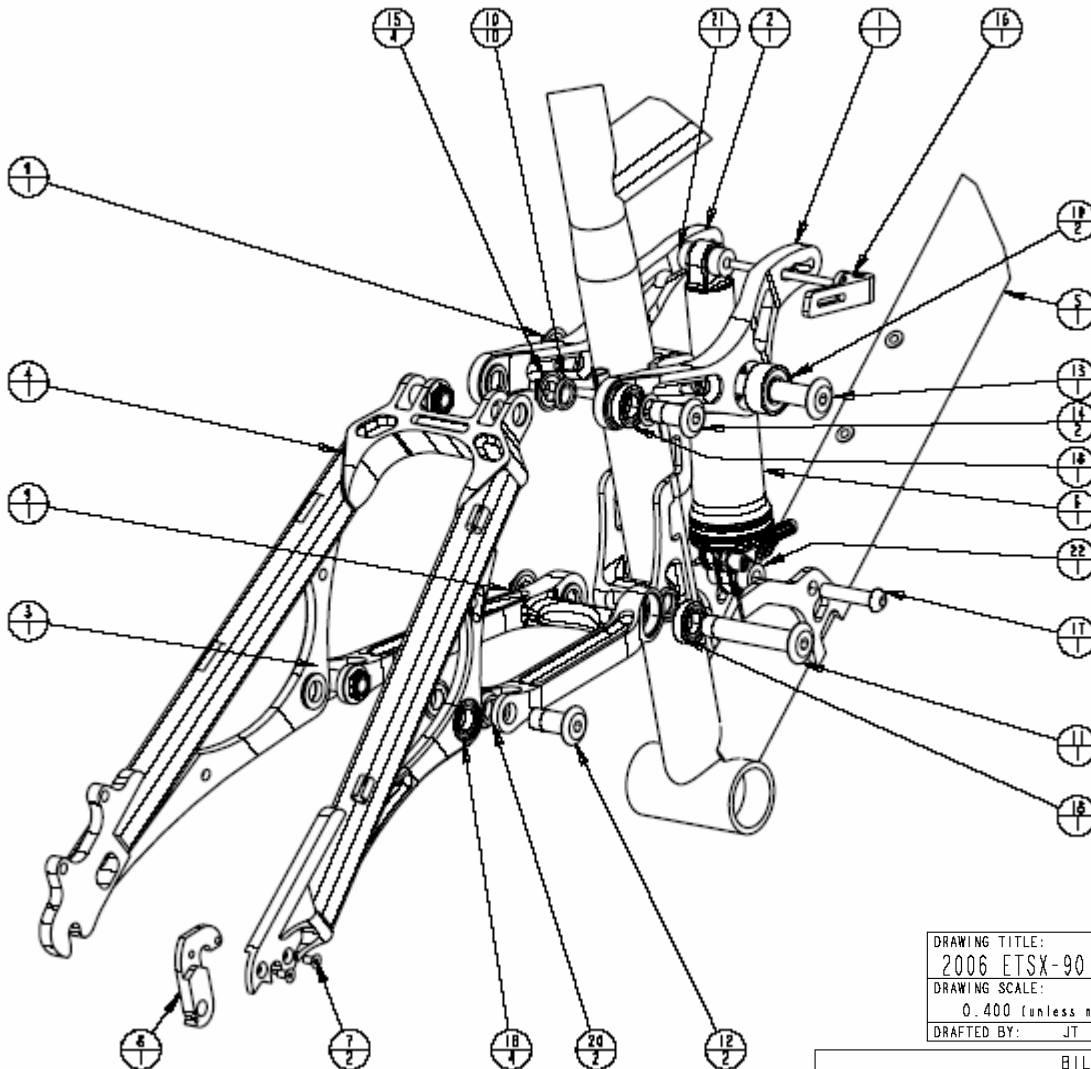
New for 2006 on all ETS-X models is 12mm thru-bolt aluminum hardware. These bolts will need a light film of grease to ease installation, however keep the threads clean and dry for the application of Loctite 242 (Blue Loctite) once inserted. With this new hardware comes the introduction of conical washers used at all bearing connection points. These washers need to be installed with the **narrow side facing the bearing race and the wider side against the frame or linkage**. A touch of grease will help keep these in place during assembly as well as repel water and prolong their life.

**Assembly:** Start by installing rear shock at the lower shock mount position with M8 x 37mm Sleeve bolt. Next install the upper link plates, then loosely install the upper shock mount QR lever through the front of the upper links and shock - *assembly procedure is the same for all pivot points using the 12mm thru-bolts, **one** 12mm bolt w/6mm allen head, **two** conical washers; narrow side-bearing/wider side-frame or linkage and **one** 15mm nut **per pivot location*** - then install the lower linkage and finally the swingarm to the upper and lower linkage. Once assembly is complete as per drawing no700007-01, torque all bolts.

Torque spec for all 2006 RM bikes using 12mm thru-bolts is 90 in/lbs. Torque spec for all shock mounting bolts is 100 in/lbs. More torque specifications can be found on the RMB Bolt Torque Spec sheet within this document.

\*\*\*Note: Seat post must be inserted at least 100mm on this frame for warranty to remain valid.\*\*\*

## ETS-X EXPLODED VIEW



DRAWING TITLE:	2006 ETSX-90 EXPLODE VIEWS AND FRAME BOM	REV
DRAWING SCALE:	0.400 (unless noted)	SHEET
DRAFTED BY:	JT	1 OF 1
CHECKED BY:	JT	
APPROVED BY:	JT	

BILL OF MATERIALS		
IDX	QTY	PART # DESCRIPTION
1	1	181000 2006 ETSX RIGHT ROCKER ARM
2	1	181001 2006 ETSX LEFT ROCKER ARM
3	1	181002 2006 ETSX LOWER LINK
4	1	1056006RWB ETSX ALUMINUM SWINGARM
5	1	1065018RWB 2006 ETSX FRONT TRIANGLE, 18.0"
6	1	111315/6 FOX RP3 SHOCK, 7.5" X 2" STK
7	2	180010F8Y FLT HD CAP SCR., PHIL HD, M4 X 8
8	1	180089UAT 10MM 2 BOLT DERAILLEUR HANGER
9	2	180202A1N FLANGE NUT, M12 X 1, 22.5MM OD
10	10	180205A1N CONICAL WASHER, 12MM, 2.5MM THK.
11	1	180208RWB FLANGE HD, THRU. BLT. 12MMX66 (180203A1N)
12	2	180209RWB FLANGE HD, THRU. BLT. 12MMX27, 22.2MM OD. (180203A1N)
13	1	180213RWB FLANGE HD, THRU. BLT. 12MMX77.5 (180203A1N)
14	2	180214RWB FLANGE HD, THRU. BLT. 12MMX25.5, 22.2MM OD. (180203A1N)
15	4	180215A1N FLANGE NUT, M12 X 1, 22.2MM OD. (180202A1N)
16	1	180441T1H 2006 QUICK RELEASE
17	1	180514A1N SLEEVE BOLT, M8X37MM - w/M6 X 14.5 LOCKING CAP SCREW
18	6	181064ARI BEARING, INA, 12X24X6, 61901
19	2	181061INA BEARING, INA, ID:12 OD:28X12mm, 3001-2RS.
20	2	780204A1N CONICAL WASHER, 12MM X 4MM THK.
21	1	SHOCK BUSHING, 28.5MM X 6MM
22	1	SHOCK BUSHING, 28.5MM X 8MM

# 2006 Full Suspension Frame Assembly Torque Specifications (Rev 1.0 - Aug/05)

Model	ETS-X SERIES	Bolt Torque	SWITCH SERIES	Bolt Torque	3D LINK SERIES	Bolt Torque
Part#	180514AIN (8M x 37mm Sleeve Bolt)	100 in/lbs	180514AIN (M8 x 37mm Sleeve Bolt)	100 in/lbs	180502AIN (M6 x 31mm Sleeve Bolt)	100 in/lbs
Desc.	Shock Mount Bolt		Frame/Shock Bolt		Frame/Shock Bolt	
Part#	180213RMB (12mm x 77.5mm Thru-Bolt)	90 in/lbs	180196FSL (M8 x 55mm)	100 in/lbs	180503AIN (M6 x 36mm Sleeve Bolt)	100 in/lbs
Desc.	Upper Link Plate/SeatTube Bolt		Shock/Rockerplate Bolt		Shock/Link Plate Bolt	
Part#	180208RMB (12mm x 66mm Thru-bolt)	90 in/lbs	180212RMB (12mm x 96mm Thru-bolt)	90 in/lbs	180500AIN (M6 x 14.5mm Sleeve Bolt)	80 in/lbs
Desc.	U-Link/SeatTube Bolt		Rockerplate/ SeatStay Bolt		Link Plate/ SeatStay Bolt	
Part#	180241RMB (12mm x 25.5mm Thru-bolt)	90 in/lbs	180210RMB (12mm x 60mm Thru-bolt)	90 in/lbs	180504AIN (M6 x 79mm Sleeve Bolt)	80 in/lbs
Desc.	Swingarm Bolts (upper)		Rockerplate/ Frame Insert Bolt		Link Plate/ SeatTube Pivot Bolt	
Part#	1880209RMB (12mm x 27mm Thru-bolt)	90 in/lbs	180223RMB (12mm x 70mm Thru-bolt)	90 in/lbs	180501AIN (M6 x 59mm Sleeve Bolt)	100 in/lbs
Desc.	Swingarm Bolts (lower)		Main Pivot Bolt		ChainStay/Main Pivot	
Part#						
Part#			180191FBY (M6 x 20mm C/Sunk)	80 in/lbs	180191FBY (M6 x 20mm C/Sunk)	80 in/lbs
Desc.			SeatStay/Chainstay Clevis Bolt		SeatStay/Chainstay Clevis Bolt	
Model	RMX SERIES	Bolt Torque	SLAYER SERIES	Bolt Torque	<i>Conversion Guide</i> 60 in/lbs or 5 ft/lbs or 7 Nm 80 in/lbs or 6.5 ft/lbs or 9 N.m 100 in/lbs or 8 ft/lbs or 11 Nm 240 in/lbs or 20 ft/lbs or 27 Nm	
Part#	180455RMB (M8 x 44mm Custom)	100 in/lbs	180---AIN (M8 x 44mm Sleeve Bolt)	100 in/lbs		
Desc.	Frame/Shock Bolt		Frame/Shock Bolt			
Part#	180456RMB (M8 x 60mm Custom)	100 in/lbs	180---AIN (M8 x 37mm Sleeve Bolt)	100 in/lbs		
Desc.	Shock/Link Plate Bolt		Top Link /Shock Bolt			
Part#	180458RMB (M8 x 89mm Custom)	80 in/lbs	180---RMB (12mm x 73mm Thru-bolt)	90 in/lbs		
Desc.	Link Plate/ "Y" Link" Bolt		Thrust Link/Top Link Bolt			
Part#	180456RMB (M8 x 60mm Custom)	80 in/lbs	180---RMB (12mm x 76mm Thru-bolt)	90 in/lbs		
Desc.	Link Plate / Main Pivot Bolt		Top Link/SeatTube Bolt			
Part#	180---RMB (M8 x 68mm Custom)	100 in/lbs	180---RMB (12mm x 126mm Thru-bolt)	90 in/lbs		
Desc.	"Y" Link"/Swingarm Bolt		Thrust Link/Swingarm Bolt			
Part#	180517RMB (M6 x 30mm Low Head)	80 in/lbs	180---RMB (12mm x 67mm Thru-bolt)	90 in/lbs		
Desc.	Swingarm Clamp Bolts		Main Pivot Bolt			
Part#	180032RMB (M6 x 16mm Button Head)	60 in/lbs				
Desc.	Pivot Axle Side Preload Bolts					

## WARRANTY

At Rocky Mountain Bicycles we stand behind every bike we build. If anything goes wrong with your bike, contact ANY authorized Rocky Mountain Bicycles dealer in your area. To locate your closest ROCKY MOUNTAIN® dealer, you can check the dealer listing on the website, log on to [www.bikes.com](http://www.bikes.com) or call our Customer Service department at (604) 527-9993 or fax at (604) 527-9977.

To help ensure any warranty issues or concerns you may encounter can be dealt with speedily, log on to [www.bikes.com](http://www.bikes.com), follow the links and register your new ROCKY MOUNTAIN®

We cover your frame from the date of purchase of your new ROCKY MOUNTAIN® according to the frame material and the type of use against defects in material and workmanship:

<b>CroMoly Steel - MTB</b>	Lifetime of Owner limited*
<b>Aluminum and Steel - Road</b>	5 years - limited*
<b>Aluminum - Hybrids</b>	Lifetime of Owner limited*
<b>Aluminum Front-Suspended**</b>	5 Years - limited*
<b>Aluminum Fully-Suspended**</b>	5 Years - limited* Hardware, suspension pivots and bushings, 1 year
<b>Downhill and Freeride</b>	3 Years - limited* Hardware, suspension pivots and bushings, 6 months.

\*Limited warranty refers to the limitation stated in sections 4, 5, 6, 7 and 8 in your ROCKY MOUNTAIN® Owner's Manual, also listed below. All frames covered for perforation and corrosion for one year from date of purchase.

\*\* Paint and decals are warrantied against defects in workmanship and materials for 1 year. Normal wear and tear are not covered.

### Length of Warranty of Components

The components, including the suspension fork, rear shock, drive train, brakes, wheels, seat post, saddle, handlebars and stem etc., are covered by the respective manufacturer's warranties.

### What is Not Covered

1. Normal wear and tear on tires, tubes, brakes, gear cables, brake pads etc., are not covered. Your authorized ROCKY MOUNTAIN® dealer will inform you of what these normal maintenance items consist of.
2. Consequential damage or any damage caused by accident, misuse or abuse.
3. Improper assembly and/or lack of proper maintenance, sandblasting, sanding, grinding, wire brushing, filing, welding, brazing, drilled holes, anodizing, repainting, or chrome plating is not covered under your warranty and may void the warranty of the component manufacturers. Internal rust perforation on CroMoly steel frames is not covered under warranty.



4. You take great personal risk and shall forfeit the warranty, as outlined in the Warranty Table, when you ride in extreme terrain as depicted in mountain bike videos. I.e. ride "trials" style courses, ride ramps, do stunts, ride on BMX tracks, ride in the city down stairs and embankments, or ride in other similar terrain. It is important to note that bent components, frames, forks, handlebars, seat posts, pedals, cranks and wheel rims are signs of accidents and/or abuse.
5. Labour not included.

### **What Will Void Your Warranty**

1. Competition racing and any commercial activity i.e. Rental fleets, courier use, Police or security use.
2. Installing or modified components other than those originally installed, or recommended by Rocky Mountain Bicycles.
3. Purchasing a Rocky Mountain Bicycle from an unauthorized dealer.

### **Making a Warranty Claim**

1. Contact ANY authorized Rocky Mountain Bicycles dealer in your area. If you do not know where your closest ROCKY MOUNTAIN® dealer is, you can check the dealer listing on the website, log on to [www.bikes.com](http://www.bikes.com) or call our Customer Service department at (604) 527-9993 or fax at (604) 527-9977.
2. You will need to provide your authorized ROCKY MOUNTAIN® dealer with proof that you are the first owner by showing your original sales receipt.
3. If you have moved or no longer do business with the ROCKY MOUNTAIN® dealer you bought your bike from, any other ROCKY MOUNTAIN® dealer you choose is authorized to handle your warranty questions. Your local authorized dealer will provide the quickest answers and solutions for your warranty questions.
4. Bring the complete bicycle to your authorized ROCKY MOUNTAIN® dealer for inspection.
5. If the frame is to be returned to the factory, you or your dealer will strip the frame of all components including the bottom bracket and headset prior to shipping.
6. Rocky Mountain Bicycles reserves the right to repair or replace warranty claims.

### **International Dealers Contact Your Local Distributor**