

# **AMP RESEARCH**

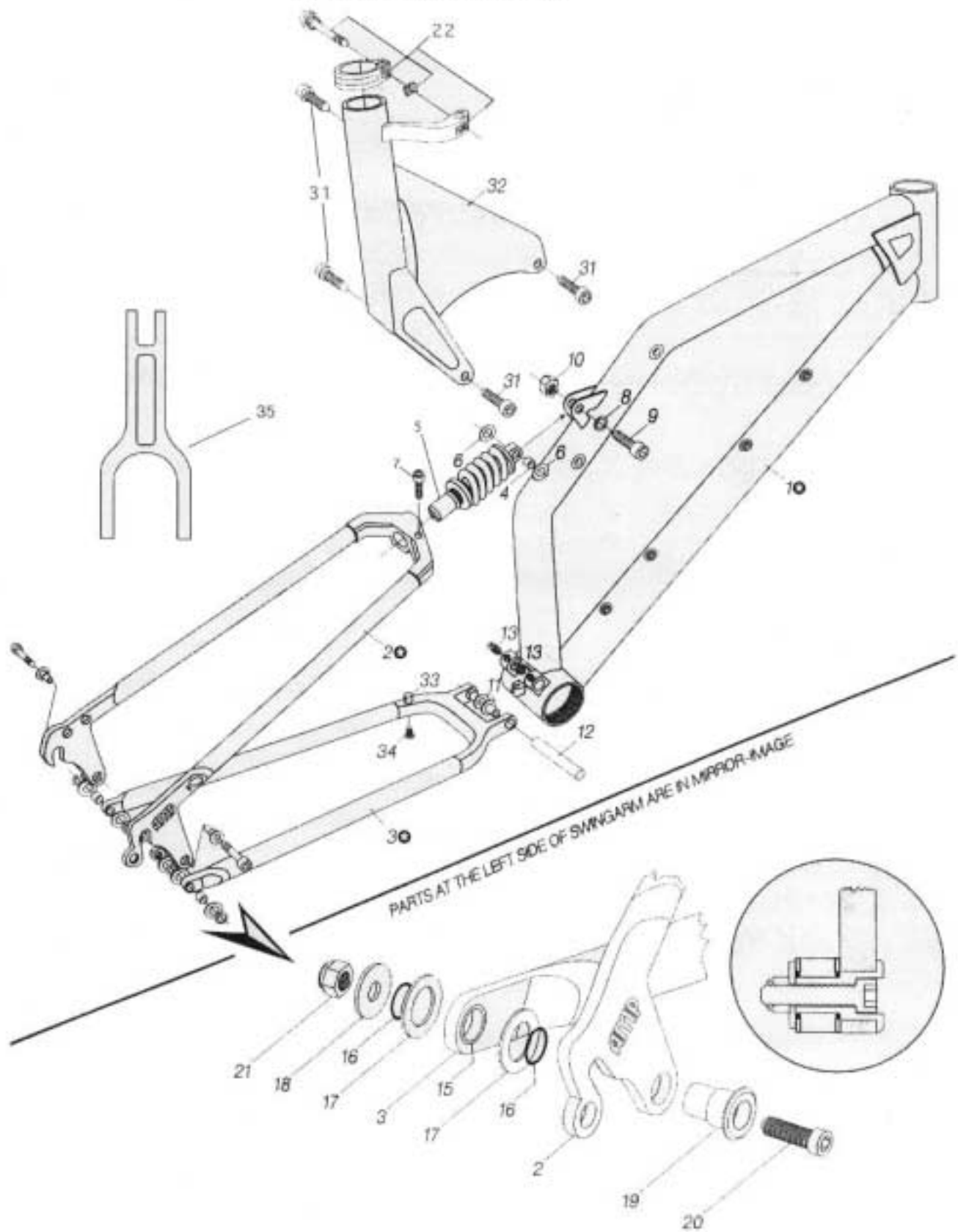
## AMP Research Suspension Frame Owner's & Service Manual

### **B4/B5**

- I. INTRODUCTION
  - A. Owner's Responsibilities
  
- II. INSTALLATION AND SET-UP
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  - B. Shock Disassembly
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# B4/B5 EXPLODED VIEW

\*B4 Shock/Rear Triangle Shown



### B4/B5 PARTS LIST

Picture Number	Description	Part Number
1	Front Triangle (Small)	
1	Front Triangle (Medium)	
1	Front Triangle (Large)	
2	B4 Shockstay Aluminum*	10-1016D-23
2a	B5 Shockstay Aluminum*	10-1648D-22
3	B4 Swingarm Aluminum*	10-1062D-23
3a	B5 Swingarm Aluminum*	10-1706D-21
4	Shock Spacer	10-00692-20
5	B4 Shock Assembly (with spring)	10-01795-22
5a	B5 Shock Assembly (with spring)	10-01778-22
6	Washer-Nylon	10-02013-20
7	Bolt for Shockstay Clamp	10-02128-20
8	Washer	20-02022-20
9	Bolt	10-02014-20
10	Nut Self locking	10-02015-20
11	DU Bearing	20-02001-10
12	Axle	10-00776-20
13	Socket Set Screw	20-02195-10
15	Bearing DU Garlock	20-02004-10
16	O-Ring	10-02112-20
17	Washer-Nylon	10-02113-20
18	Washer Aluminum	10-02114-20
19	Pivot Pin	10-00877-20
20	Socket Cap Screw	10-02183-20
21	Nut	10-02184-20
22	Quick Release	10-03130-20
32	Seat Subframe S/M/L	
33	Cable Guide	20-01137-21
34	Bolt for Cable Guide	20-02045-20
35	B5 Linkage	21-01682-20

## **I. INTRODUCTION**

### **CONGRATULATIONS!**

In purchasing a AMP Research Mountain Bike, you've selected a quality, hand-made product on the cutting edge of bicycle design.

To help you get the most out of your AMP Research product, we've included this owner's manual with your purchase. It's designed to help you understand how your AMP Research Mountain bike functions and to provide you with some important safety information. It should also serve as a springboard to help you learn more about cycling from other sources.

As you read the manual, please keep in mind that it is not intended to serve as a complete guide to proper riding technique. You can and should, obtain more information on riding technique and laws pertaining to cycling from sources such as your local library, book store, cycling club or bike shop. Likewise, this manual is not intended to be a guide to bicycle maintenance and repair. We strongly recommend having all your bicycle maintenance and repair work performed by your local AMP Research dealer. We're proud to sell you a bike that uses high technology to make your life more fun. You'll enjoy our cutting edge technology whether you ride for fitness, family recreation, or the personal accomplishment that comes with competition.

Maintenance is important to keep your AMP Research Mountain bike operating properly. For this reason, we urge you to consult with your authorized AMP Research dealer about maintenance. If you don't maintain your bike in proper operating condition, your bike's performance and safety may diminish.

#### **SOME GREAT COMMON SENSE ADVISE:**

1. Always wear a helmet when riding. Please familiarize yourself with local and state laws regarding helmet usage.
2. Familiarize yourself with your bicycle and its controls before riding.
3. Be sure your bicycle is in proper operating condition before each ride.
4. Check saddle, handlebars, handlebar stem, brakes levers and SPD pedals. Make sure they are all properly attached.
5. Check all quick release mechanisms for proper adjustment and attachment.
6. Avoid riding at night or in inclement weather. If you do get caught in a shower, remember that braking distances increase in wet weather. If you must ride at night, wear reflective clothing and equip your bicycle with front and rear lights.

#### **A. OWNERS RESPONSIBILITIES: Why you should read this manual**

1. Before riding your AMP Research Mountain bike, please read this manual carefully. Familiarize yourself with the proper operation of the bicycle before taking it out onto the trail. If you have any doubts about your ability to safely operate your bicycle, don't ride it. Instead, bring it to your local AMP Research dealer for a more detailed description of how your bicycle functions.
2. Do not misuse your bicycle. Exercise good judgment and common sense while riding any bicycle. You'll get more enjoyment out of your cycling, and your equipment will last longer.
3. Be sure your bicycle is in proper working condition before it is ridden. Pay particular attention to these areas:
  - The bicycle should fit the intended rider.
  - The handlebar and saddle should be correctly positioned and securely fastened. The minimum insertion marks on the handlebar stem and seatpost should never be visible above the headset or seat tube when in use.

**Saddle height:** Your saddle should be high enough so there is a slight bend in your leg at the bottom of the pedal stroke. Measure this distance (from crank spindle center to the top of the saddle) and write it down. You can also mark your seat post with a pencil. Also, your saddle should be flat - parallel to the ground.

AMP Research mountain bikes are equipped with a quick release lever on the seat post. This is so you can lower your saddle for a lower center of gravity and better bike handling when you're descending rough terrain. Generally, you won't pedal much with your saddle lowered. When you reach the bottom of the hill, you raise your saddle back to its normal height for normal pedaling.

Your seat post quick release uses a cam-lock mechanism just like that on the wheel's quick release. Refer to the wheel quick release instructions for information on how to use the seat post quick release properly. Observe the minimum insertion mark on the seat post, so enough of the post is inserted in the frame.

### C. SADDLE POSITION

Correct saddle adjustment is an important factor in getting the most performance and comfort from your bicycle. Your dealer will have positioned the saddle where experience tells them most people find it comfortable. If you find the saddle position is not comfortable, there are adjustments you can make.

A saddle can be adjusted in three directions:

1. Up and down adjustment. Your leg length determines the correct saddle height. The saddle is at the correct height for you when, while seated on the saddle and the with the crank arms parallel to the seat tube, you can just reach the "down" pedal with one heel. To check for correct saddle height:



- Sit on the saddle;
- Place one heel on a pedal;
- Rotate the crank arm with your heel on it in the down position and the crank arm is parallel to the seat tube.

If your leg is not completely straight or just touching the center of the pedal, your saddle height needs to be adjusted.

To adjust the saddle height, loosen the seat quick release and move the seat post up or down as required. Then make sure that the saddle is parallel to the top tube of the bike, and re-tighten the seat quick release tight enough so that you cannot twist the saddle out of alignment. Under no circumstances should the seat post project from the frame beyond its "Minimum Insertion" or Maximum Extension" mark.

**WARNING:** If your seat post projects from the frame beyond the minimum insertion or maximum extension mark the seat post may break, which could cause you to lose control and fall.

2. Front and back adjustment. Loosen the saddle clamping mechanism and slide the saddle back or forward on its rails. Start with the saddle clamped in about the middle, then adjust forward or back until you find the position which is most comfortable for you, then re-tighten the saddle quick release mechanism as tight as you can.

3. Saddle tilt adjustment. Most people prefer a horizontal saddle; but some riders prefer to have the saddle nose tilted up just a little, and others prefer it to be tilted down just a little. Saddles with saddle brackets can have their tilt adjusted by loosening the saddle bracket nuts, tilting the saddle to the desired position, and re-tightening the saddle bracket nuts. Saddles with single-bolt toothed rocker tilt mechanism seat posts are adjusted by loosening the clamp bolt(s) with an Allen wrench, tilting the saddle, and then re-tightening the clamp bolt(s) as tight as you can.

**WARNING:** After any saddle adjustment, be sure to tighten the saddle adjusting mechanism properly before riding. A loose saddle clamp or seat post binder can cause damage to the seat post, or can cause you to lose control and fall. A correctly tightened saddle adjusting mechanism will allow no saddle movement in any direction. Periodically check to make sure that the saddle adjusting mechanism is properly tightened.

#### **D. HANDLEBAR HEIGHT AND ANGLE**

The AMP Research Mountain bike comes equipped with a stem which clamps directly on to the outside of the steering tube. You may be able to change bar height by adding or removing height adjustment spacers. Otherwise, you'll have to get a longer stem with a higher rise. Consult your AMP Research Dealer.

**CAUTION:** On some bicycles, changing stem height can affect the tension of the front brake cable, causing the disc brake to drag. Take your bicycle to your local AMP Research Dealer for correct brake adjustment before riding it.

You can change the angle of the handlebar or bar end extensions by loosening their binder bolt, twisting the bar or extension to the desired angle, re-centering it and re-tightening the binder bolt tight enough so that the bars or extensions can't twist in relation to each other and the stem.

**WARNING:** Failure to properly tighten the stem binder bolt and the handlebar binder bolt of the bar end extension clamping bolts may compromise steering action, which could cause you to lose control and fall. If you can twist the stem in relation to the front wheel, turn the handlebars in relation to the stem, or turn the bar end extensions in relation to the handlebar and then tighten the bolts.

#### **E. CONTROL POSITION ADJUSTMENT**

The brake and shifting controls on your bike are positioned where they work best for most people. The angle of the controls and their position on the handlebars can be changed. Ask your dealer to show you how, or to make the adjustments for you.

**Brake levers:** On AMP Research mountain bikes the brake levers can be adjusted to larger or smaller hands. A set screw on the brake lever housing provides this adjustment. You should consult your authorized AMP Research dealer before you adjust the brake levers.

**WARNING:** The shorter the brake lever reach, the more critical it is to have correctly adjusted brakes, so that full braking power can be applied within available brake lever travel. Brake lever travel insufficient to apply full braking power can result in loss of control, which may result in serious injury or death.

#### **F. SAFETY EQUIPMENT**

**WARNING:** Many states require specific safety devices. It is your responsibility to familiarize yourself with the laws of the state where you ride and to comply with all applicable laws, including properly equipping yourself and your bike as the law requires.

##### **1. HELMET**

While not all States require bicyclists to wear approved protective headgear, common sense dictates that you should wear an ANSI or Snell approved helmet whether the law requires it or not. Most serious bicycle injuries involve head injuries which might have been avoided if the rider had worn a helmet. Your AMP Research dealer has a variety of attractive helmets, and can recommend one to suit your needs. But the "right" helmet is not just a fashion statement. It must fit correctly and be worn correctly to do its real job. Ask your local AMP Research dealer to help you with the fit and adjustment of your helmet.

**WARNING:** Always wear a helmet when riding your bike. Always keep the chin strap securely buckled. Failure to wear an approved helmet may result in serious injury or death.

##### **2. REFLECTORS**

Reflectors are important safety devices which are designed as an integral part of your bicycle.

Federal regulations require every bicycle to be equipped with front, rear and wheel reflectors. The size, performance and location of each reflector is specified by the U.S. Consumer Products Safety Commission. The reflectors are designed to pick up and reflect street lights and car lights in a way that helps you to be seen and recognized as a moving bicyclist.

Your AMP Research Mountain bike is shipped in the travel case which does not allow for the reflectors to be installed at time of delivery to you. It is your responsibility to install the reflectors as per the instructions on the packaging that is included with your bicycle.

**WARNING:** Failure to install your reflectors may reduce your visibility to others using the roadway. Being struck by other vehicles often results in serious injury or death. Remember: reflectors are not a substitute for lights. Always equip your bicycle with all state mandated lights.

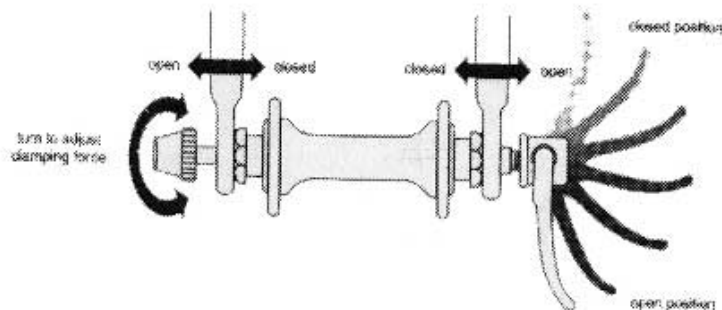
### 3. LIGHTS

If you ride your bike after dusk, your bicycle must be equipped with lights so that you can see the road and avoid road hazards; and so that others can see you. Vehicle laws treat bicycles like any other vehicle. That means you must have a white front and red rear light operating if you are riding after dusk. Your bike dealer can recommend a battery or generator powered lighting system appropriate to your needs.

**WARNING:** Reflectors are not a substitute for proper lights. It is your responsibility to equip your bicycle with all state mandated lights. Riding after dusk and in the dark without reflectors and lights is extremely dangerous.

### G. QUICK RELEASE WHEELS.

In transporting your bicycle or repairing a flat tire, there will probably be times when you need to remove the wheels of your bicycle. In most cases, AMP Research Mountain bike feature quick release mechanisms that make removing and replacing wheels easy. These quick release mechanisms are located on the hubs and seat posts. The wheel quick



release mechanism consists of five parts: An adjusting nut, two spiral springs, a skewer that goes through the hollow wheel hub axle, and a quick release lever that is attached to the skewer. **Note** that the small end of the spiral spring faces inboard toward the wheel.

This mechanism is a cam action device. **IT IS NOT A NUT AND BOLT DEVICE.** Make sure your wheel is securely tightened in place in the bicycle frame dropouts by following these steps when installing a front or rear wheel.

1. To remove your front wheel: Note that the word "OPEN" is engraved on the inside of the curved surface of the quick release lever. To remove your front wheel, flip the quick release lever to the open position. The open position is outward from the bicycle. In this position the bicycles front tire can now be removed form the forks dropouts. You may also need to loosen the adjusting nut by turning it counter clockwise a turn or two,

2a. To re-install your front wheel, first make sure the quick release lever is in the OPEN position as described above. Place the front wheel in the fork dropouts, making sure that the hub axle is all the way in the dropouts.

2b. With the wheel in the dropouts and centered between the fork blades, start to flip the quick release lever toward the closed position, inward, parallel to the bicycle and facing toward the rear of the bicycle. Just as you start to flip the quick release lever from the OPEN to the CLOSED position, you should feel resistance to this motion. You should have to begin to force the quick release lever closed. If you do not feel such resistance, you will need to tighten the adjusting nut clockwise. Try turning the adjusting nut clockwise one full turn, with the quick release lever in the OPEN position. Then try turning the quick release lever again toward the CLOSED position. If you still do not feel resistance to turning the lever turn the adjusting nut clockwise a half turn and check again for closing resistance. Repeat this step until you do feel resistance to moving the quick release lever from the OPEN toward the CLOSED position. Now, as you move the quick release lever form the OPEN to the CLOSED position, you will feel increasing resistance as the cam mechanism tightens the hub axle into the dropouts. Be sure to position the lever in the fully CLOSED position. When correctly tightened as instructed above, the quick release lever should be parallel to the bicycle, facing toward the rear.

**CAUTION:** Do not attempt to tighten the wheel on the bicycle by holding the adjusting nut and turning the quick release lever. This is a cam action device and you can only safely tighten the wheel in the dropouts by following the adjusting steps noted above.

2c. Now that you understand how a quick release mechanism works, perform this check to make sure you have the wheel securely locked in place in the fork dropouts. With one hand on the handlebars, lift the front wheel off the ground. Then, with the other hand, strike the front wheel with a firm, downward blow. If the wheel does move in the dropouts, repeat step 2b and 2c until the wheel does not move in the dropout when you strike it. Once your wheel is securely in place, be sure to close the brake quick release lever before riding your bicycle.

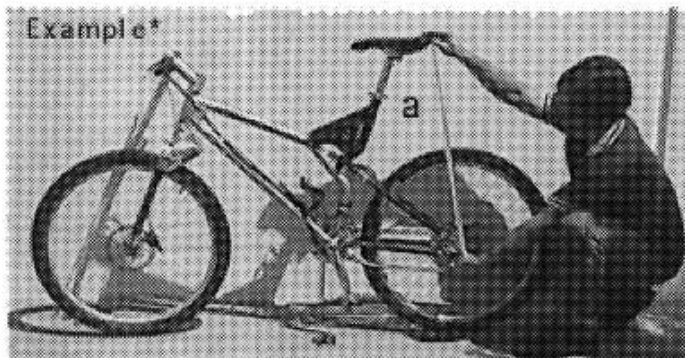
3a. To remove a rear wheel, first shift the chain to the smallest freewheel cog on the rear wheel and the smallest chainwheel. Then turn the quick release lever to the OPEN position. If the inflated tire won't fit through the brake pads, open the brake quick release. Lift the bike up so the rear wheel is off the ground. Pull the rear derailleur backward, toward the rear of the bicycle so it will be clear of the freewheel cogs. The rear wheel should then be easily removed from the dropouts.

3b. To re-install a rear wheel, first make sure the chain is shifted onto the smallest chainwheel. Pull the rear derailleur all the way to the rear of the bike and slip the wheel into the dropouts. Make sure the wheel rim is centered between the shockstay and the swingarm. If you cannot move the wheel axle in the dropouts so it is centered, have your authorized AMP dealer check the rim for alignment or check for a bent axle, and have them make the necessary adjustments or repairs. If you have opened the brake quick release be sure to close it after the wheel is tightly in place in the dropouts as described in steps 1 through 3a above.

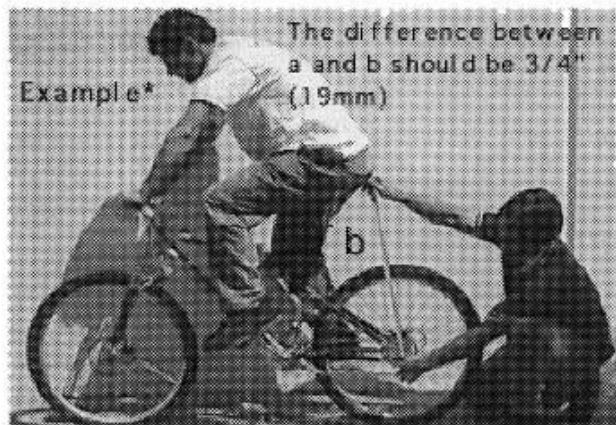
**CAUTION:** Never ride any bicycle with the quick release levers in the open position. Always check quick release levers and brake operation before each ride.

## H. SUSPENSION TUNING

### 1. Setting Suspension "Sag" (preload)



Example\*



Example\*

The difference between a and b should be 3/4" (19mm)

a. Suspension sag has been set at the factory. However, after the first ride it is advisable to check sag. Measure the distance from the bottom of the seat to the rear axle with no weight on the bike (distance a on figure). Sit in your normal riding position and have someone take a measurement of the same points (distance b in figure). The difference between these two measurements (a and b) should be 3/4". Turn the preload adjuster on the shock until the specified amount of sag is achieved.

b. Do not ride with excessive preload. If the piston starts "kicking" (i.e. making a metal-to-metal knocking sound) especially going downhill under braking, you have too much preload on the shock.

c. Do not be tempted to make the rear end "lock-out" by cranking up the preload. Learn to ride suspension as it was designed, with movement in both directions. Coil bind may result from too much preload which could damage the frame.

2. The shock shafts for both the frame and fork will have a slight amount of oil on them. This is normal with the movement of the piston in and out of the shock assembly.



3. **Compensator Adjuster Explanation** - The compensator on the shock does two things. First, it pressurizes the shock oil and second it changes the feel of the shock on sharp impacts.

The benefits of pressurizing the oil are: 1) it dissolves any air bubbles that may have been trapped in the oil during assembly. This prevents the sound of air flowing through the valve hole, and 2) it pressurizes the shock seals providing a better sealing system because the seals are tighter against their mating surfaces.

The adjuster on the shock changes the feel of the ride on sharp impacts. Adjusting the dial "in" stiffens the ride on sharp impacts while adjusting the dial "out" softens the ride on sharp impacts.

The compensator system works in the following way: Adjusting the dial "in" limits the amount of deflection in the compensator spring and in turn, the floating compensator piston. Very little compensator piston movement (dial adjuster "in") stiffens initial shock movement because the floating compensator piston moves very little before oil starts flowing through the valve hole. More compensator piston movement (dial adjuster "out") softens initial shock movement because the floating compensator piston has more allowable deflection. This increased movement translates to a softer feel on sharp impacts.

### III. MAINTENANCE

No regular maintenance is required. All bearings are maintenance free. Constant riding in mud and muddy sand may reduce bearing life. It is important to keep pivot points clean by rinsing with water. Do not use any type of lubricant on bearings after rinsing off your frame. Lubricants will attract dirt and carry it into the pivot points where it will act as an abrasive. If the bearings need to be changed, bearings and pins must be changed simultaneously. See your authorized AMP Research Dealer or contact AMP Research for replacement. Oil viscosity and spring rates can be changed for different damping characteristics. The spring provided will work well for most riders between 140 and 190 lbs. See your AMP Research dealer or call AMP Research for details.

Torque Specifications for the frames:

FRAME	Bolt Size	Grade	Torque (N-m)	Torque (Ft-Lb)	Torque(In-Lb)
Horst-Link	M5 x 20	8.8	5.5	4.1	48.7
Shockstay Link Pivot (B-5)	M6 X 20	8.8	9.5	7	84.1
Shock Link Pivot (B-5)	M6 X 20	8.8	9.5	7	84.1
Shock Frame Pivot	M6 x 25	8.8	9.5	7	84.1
Link Frame Pivots (B-5)	Custom	Alu	2.7	2	23.9
Seat Stay Bolts	M6 x 16	8.8	9.5	7	84.1
Shockstay Shock Sleeve (B-4)	M6 x 16	8.8	9.5	7	84.1

#### A. CHANGING THE SPRING B4/B5

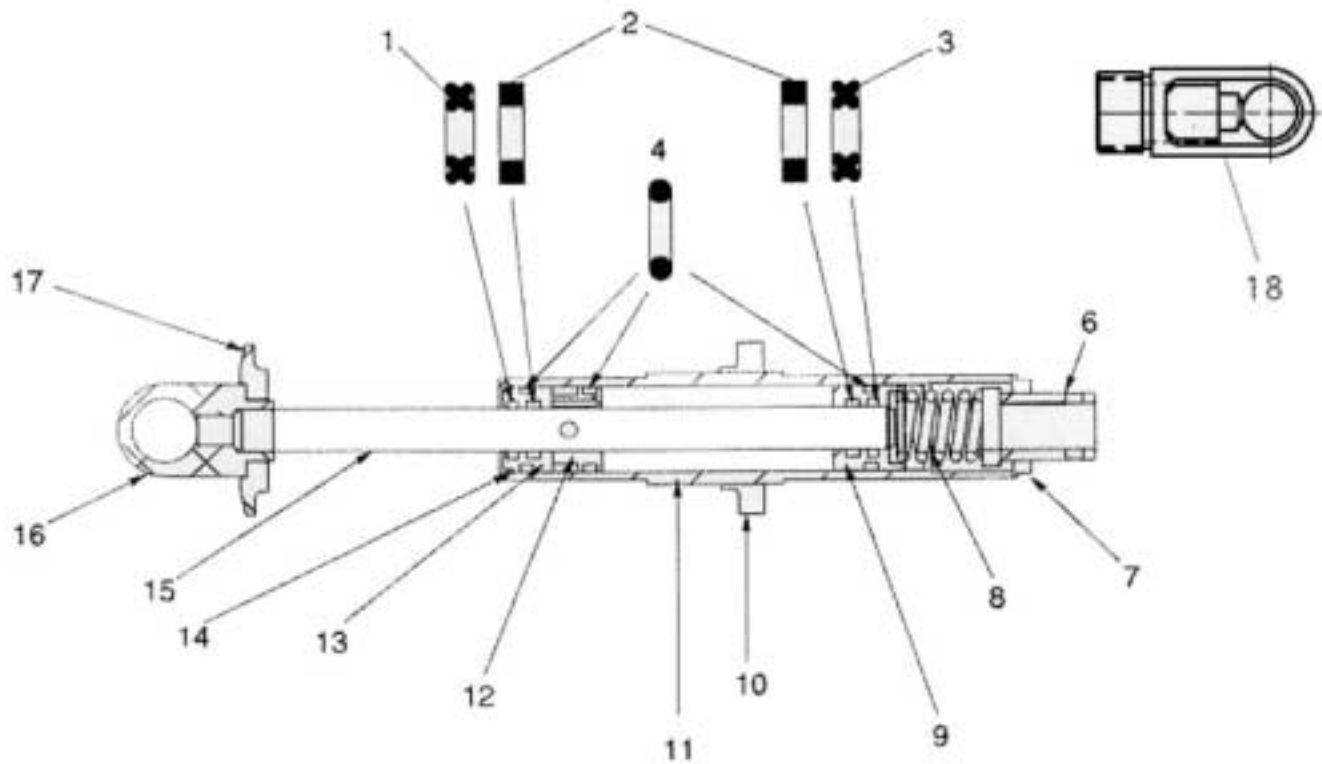
##### TOOLS REQUIRED

4mm Allen wrench  
5mm Allen wrench  
10mm wrench

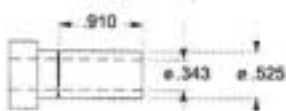
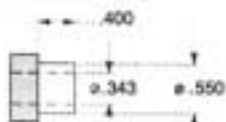
1. Remove shock from frame by removing Allen screws and nylon washers.
2. Loosen preload adjuster and remove spring retainer.
3. Remove spring and replace with new one.
4. Make sure spring is seated properly on preload adjuster and install spring retainer.
5. Mount shock back on frame.
6. Re-set spring preload as described in owners manual (Section H).

NOTE: Always use Loctite 242 on the Allen screws and never over tighten screws. Slightly more than hand tight is plenty.

B4/B5  
COMPENSATOR SHOCK PARTS



Oil Level Setting Tool



Seal Holder Setting Tool

PICTURE NUMBER	DESCRIPTION	PART NUMBER
1,3	QUAD RING - 011	10-02188-20
2	TETRA SEAL -011	10-02189-20
4	O-RING - 014	10-02191-20
6	COMPRESSIONADJUSTER	10-01738-20
7	ENDCAP	10-01737-20
8	COMPENSATORSPRING	10-01769-20
9	COMPENSATORSEALHOLDER	10-01736-20
10	PRELOADADJUSTER	10-00995-20
11	SHOCKBODY	10-01680-20
12	PISTON	20-00993-20
13	SEALHOLDER	10-01681-20
14	WIRE CLIP	10-01700-20
15	SHOCK SHAFT ASSY. B4/B5	10-00992-20/21
16	SHOCKEYELET	10-00994-20
17	SPRINGCOLLAR	10-00997-20
18	B5 SHOCK ENDCAP/ADJ. ASSEMBLY	10-01802-21

## **B. SHOCK DISASSEMBLY**

### **TOOLS REQUIRED**

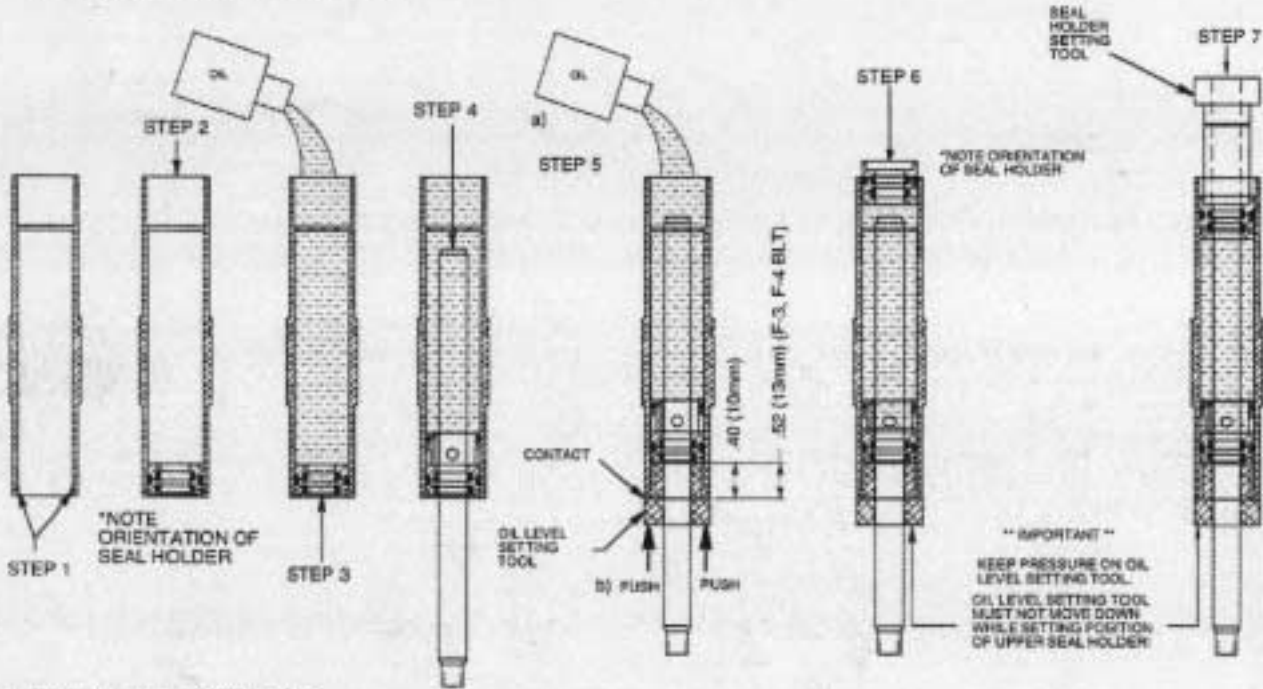
4mm Allen wrench  
10mm wrench  
5/16" x 3" Pin (a 5/16" or 8mm bolt will work)  
Vise  
Shock Clamp Tool (#10-00780-10)

1. Remove shock from bike
2. Place shock body (Part 11) in shock clamp tool
3. Place shock clamp tool (with shock in it) in vice with compression adjuster (Part 6) facing upward
4. Using an 11/16 inch open end wrench, remove shock end cap (Part 7)
5. Once shock end cap is removed, the compensator spring can be removed (Part 8)
6. Remove shock from vice and clamping tool
7. Pull out shock shaft so it is completely extended (Part 15)
8. Clamp shock shaft (Part 15) in clamping tool
9. Put shock clamp/shock in vice with shock eyelet (Part 16) facing upward
10. Remove shock eyelet using 5/16" pin, unscrew shock eyelet (Part 16)
11. Push shaft through (from threaded end of shaft). The bottom seal holder (Part 9) will come out as well as the shock shaft/piston (Parts 15 and 12) assembly
12. Use a large Allen wrench or similar tool to push out top seal holder (Part 14)
13. Remove seals and clean parts thoroughly

## **C. SHOCK ASSEMBLY**

### **TOOLS REQUIRED**

4mm Allen wrench  
10mm wrench  
5/16" x 3" Pin (a 5/16" or 8mm bolt will work)  
Vise  
Oil level setting tools B4/B5 (#10-1739A-10), (#10-01739B-10).  
Seal kit (#10-03135-10)  
Automatic Transmission Fluid (Dexron or Mercon) or Finishline Shock oil (5, 7.5 or 10 weight)



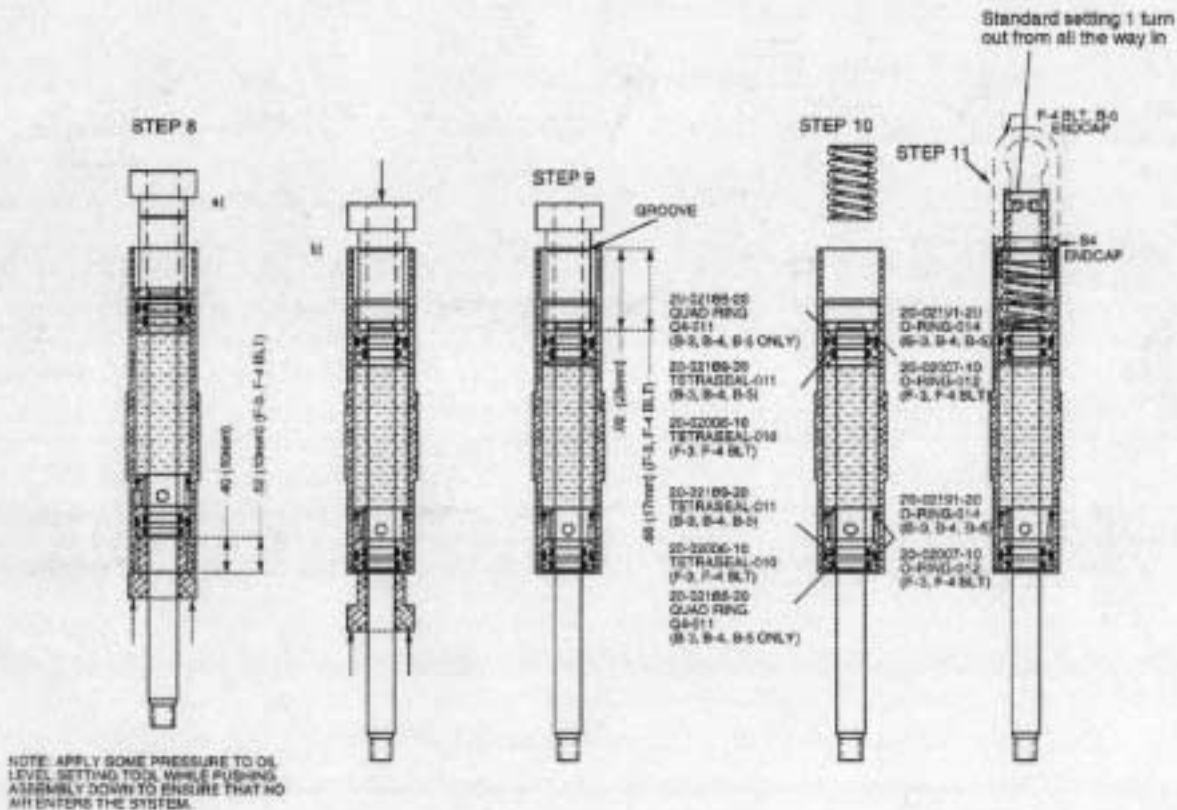
- STEP 1) PLACE WIRE RING IN GROOVE.  
 STEP 2) PUSH LOWER SEAL HOLDER INTO PLACE AGAINST WIRE RING.  
 STEP 3) COVER HOLE IN SEAL HOLDER WITH FINGER AND FILL SHOCK BODY WITH OIL.  
 STEP 4) SLIDE SHAFT WITH PISTON DOWN THROUGH OIL SLOWLY UNTIL SHAFT BOTTOMS ON LOWER SEAL HOLDER.  
 \*NOTE: KEEP HOLE IN LOWER SEAL HOLDER COVERED WITH FINGER UNTIL SHAFT STARTS TO PROTRUDE THROUGH. THIS WILL PREVENT MOST OIL FROM DRAINING OUT.  
 STEP 5) a) REFILL SHOCK BODY WITH OIL.  
 b) USING APPROPRIATE OIL LEVEL SETTING TOOL, PUSH LOWER SEAL HOLDER UP UNTIL SETTING TOOL CONTACTS SHOCK BODY.  
 \*NOTE: DO NOT PUSH UP ON SHAFT. PUSH ONLY ON LOWER SEAL HOLDER WITH OIL LEVEL SETTING TOOL.  
 STEP 6) PUSH UPPER SEAL HOLDER INTO PLACE ON SHAFT.  
 STEP 7) USE SEAL HOLDER SETTING TOOL TO MAKE SURE UPPER SEAL HOLDER IS FULLY SEATED IN OIL.  
 \*NOTE: BE CAREFUL NOT TO DAMAGE OUTER O-RING ON THREADS IN SHOCK BODY.

\*NOTE ORIENTATION OF SEAL HOLDER

\*\* IMPORTANT \*\*

KEEP PRESSURE ON OIL LEVEL SETTING TOOL. OIL LEVEL SETTING TOOL MUST NOT MOVE DOWN WHILE SETTING POSITION OF UPPER SEAL HOLDER.

\*\*\*NOTE: WE RECOMMEND USING AMP SERVICE TOOLS ALTHOUGH REBUILD CAN ALSO BE DONE WITHOUT TOOLS USING THE DIMENSIONS SHOWN IN DRAWING.



NOTE: APPLY SOME PRESSURE TO OIL LEVEL SETTING TOOL WHILE PUSHING ASSEMBLY DOWN TO ENSURE THAT NO AIR ENTERS THE SYSTEM.

- STEP 8) USE SEAL HOLDER SETTING TOOL TO PUSH ENTIRE ASSEMBLY DOWN UNTIL LOWER SEAL HOLDER STOPS ON WIRE RING.  
 STEP 9) MAKE SURE GROOVE IN SEAL HOLDER SETTING TOOL IS EVEN WITH TOP OF SHOCK BODY AFTER SETTING UPPER SEAL HOLDER.  
 STEP 10) PLACE SPRING RETAINER AND COMPRESSOR SPRING IN SHOCK HOUSING.  
 STEP 11) COMPRESS SPRING AND SCREW ON ADJUSTER AND ENDCAP. TURN ADJUSTER ALL THE WAY IN AND BACK OUT 1 TO 2 TURNS.  
 (ADJUSTER: B-3, B-4, B-5 ONLY)

\* NOTE: SPRING RETAINER ADDED FROM AUGUST PRODUCTION ONWARD SHOULD BE RETROFITTED TO ALL PRIOR SHOCKS TO PREVENT THE SPRING FROM TOUCHING SHAFT

## IV. WARRANTY

AMP Research Suspension forks are covered under a six (6) month limited warranty on pivots and one (1) year on Materials and Manufacturing defects for parts and labor. The AMP Research suspension frames are covered under a one (1) year limited warranty on materials and manufacturing defects parts and labor. See Exhibit A for other warranties. During the warranty period, any part found to be defective under the terms of this limited warranty will be, at the manufacturer's option, repaired or replaced free of charge. Shipping charges and Dealer labor charges will be the responsibility of the original purchaser.

This Limited Warranty is made only to the original owner of this new AMP Research frame and fork and must be purchased from an authorized AMP Research dealer, and it shall remain in force only as long as the original owner retains ownership of the AMP Research frame and fork. This Limited Warranty is not transferable.

In order to obtain service under this Limited Warranty, the original owner must deliver the AMP Research frame and fork to an authorized AMP Research dealer, or AMP Research directly, together with the proof of purchase/bill of sale or other dated proof of purchase document identifying the AMP Research frame and fork by serial number.

This limited warranty does not apply to normal wear and tear, nor to defects, malfunctions or failures that result from an accident, abuse, misuse, neglect, normal wear and tear, improper installation, improper maintenance, unauthorized modification, use of unauthorized replacement parts, or misuse (including without limitation, bicycle racing, bicycle motocross, stunt bicycling or similar activities) of the AMP Research frame and fork.

This limited warranty is the only express or limited warranty applicable to AMP Research frame and forks. Any implied warranties, including warranties of merchantability and fitness for a particular purpose, shall be limited in scope and duration in accordance with this limited warranty. AMP Research shall not be responsible for any direct, incidental, consequential or exemplary damages suffered by any party. The foregoing statements of warranty are exclusive and in lieu of all other remedies.

This limited warranty gives you specific legal right; you may also have other legal rights which vary from state to state or province to province. Some states or provinces do not allow limitations or exclusion of incidental or consequential damages; so, the above limitations and exclusions set forth herein may not apply to you.

The limited warranty set forth herein may not be extended, enlarged or otherwise modified by any AMP Research dealer, agent or employee, and AMP Research does not assume any liability or make any warranty except as stated in the limited warranty.

## EXHIBIT A

AMP Research suspension frames and forks are covered under a limited warranty for parts and labor:

- Main Frame, Shockstay and Swing Arm - One (1) Year Warranty
- Hydraulic Shocks - Six (6) Months Warranty
- Pivot Pins and Bearings - Six (6) Months Warranty
- Fork - One (1) Year Warranty
- Springs - Lifetime Warranty

During the warranty period, any part found to be defective under the terms of this limited warranty will be, at the manufacturer's option, repaired or replaced free of charge. Shipping charges and Dealer labor charges will be the responsibility of the original purchaser.

All warranty claims must be sent with proof of purchase (copy of original invoice, date purchased and serial number\*), freight prepaid, to AMP Research, 23531 Ridge Route, CA 92653.

\* If the serial number does not appear on your paperwork, it can be found on the steering clamp of your fork and/or on the bottom bracket of the frame (i.e. F####). All returns to AMP Research must be accompanied by a return authorization number which can be obtained by calling AMP Research at 714-461-5990. Office hours are 8:00am to 5:00pm Pacific Standard Time. Only items with an R/A number written on the outside of the box and shipped freight prepaid will be accepted. Along with the item there should be a brief note describing what needs to be repaired, a return shipping address, daytime phone and, if a warranty is requested, a copy of the original sales receipt. Warranty or repair work will not begin until this information is received. All items will be shipped back UPS ground within 48 hours of when they are received. Unless other arrangements are made, items repaired or replaced under warranty will be shipped back freight prepaid and items sent in for repair will have return freight added to the repair bill. UPS Red label (Next day), Blue label (2 day), or 3 day select is available at an additional cost. All products should be sent back clean and stripped of parts.

Outside the U.S.A. - Same as above except that all items should be sent back via U.S. Air Mail for fastest, most economical service. All freight charges, duties, customs and brokerage fees are the responsibility of the shipper.