

2006 Fork Service Manual

Rev NC

Table of Contents

Description	Page
Introduction	3
Front Suspension Terminology	4
Section 1 - Disassembly/Assembly Instructions – Damping Systems A-B Kits	8 - 15
Section 2 - Disassembly/Assembly Instructions – Spring Systems C Kits	15 - 25
Section 3 - Disassembly/Assembly Instructions - Castings D-E Kits	27 - 32
Troubleshooting Chart	33
Technical Information – Oil Levels, Torque Specs, Ect.	34 - 35
Service Kit Charts	36 - 45

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INTRODUCTION

This manual is intended to guide the user through basic service of Manitou Empire front forks. Service is supported by the identification of common parts and assemblies that have been assembled into Service Kits. The purpose of this manual will be to describe conditions that may drive the need for service and to provide installation instructions for the kits.

Due to the time-consuming nature of suspension fork service, at this time our primary focus is to offer service kits that minimize the amount of downtime and labor involved.

Important information is highlighted in this manual by the following notations:

WARNING
Failure to follow WARNING instructions could result in severe injury or death to the person inspecting or repairing the suspension fork or the user.

CAUTION
A CAUTION a caution indicates special precautions that must be taken to avoid damage to the product.

NOTE
A NOTE provides key information to make procedures easier or clearer

GENERAL WARNING: Suspension forks by design can contain preloaded springs, gases and fluids under extreme pressure and warnings contained in this manual must be observed to reduce the possibility of injury or possible death. Following these instructions can help you reduce the risk of being injured. Any questions in regards to the information in this manual should be directed to Answer Products Customer Service at (661) 257-4411.

WARNING: Suspension forks uses preloaded spring(s) to provide compression spring resistance. This system must be relieved of preload prior to servicing. Failure to relieve air pressure could result in injury or possible death.

CAUTION: Suspension forks use precision machined aluminum and other soft alloy components. Using correct tools for assembly is essential to prevent damage.

FRONT SUSPENSION TERMINOLOGY

Air Cap – Top cap that threads into top of air/spring leg (this is the left leg of the fork as you are seated on the seat). Forks may be controlled with an air/spring or a coil spring. The air cap contains the Schrader Valve, which is used to control the spring rate or SAG of air forks.

Air Spring – A mechanism that is used to control the SAG of an air fork.

Arch – A support that connects the two outer lower legs of the casting so as to keep them moving in unison.

Black Nitrate Leg Coating – New coating for steel stanchion legs that reduces stiction.

Boss – The word used to describe an outer casting that has brake posts for V-brakes or cantilever brakes.

Bottom Out Bumper – A rubber or elastomer device that absorbs the shock that occurs when a suspension is compression to its limit.

Bushings – A cylindrical sleeve between a fork stanchion tube (inner leg) and a fork outer casting (slider), which facilitates the sliding movement between these two parts.

Cartridge Damping – Provides better oil flow, bump sensitivity, and improved damping control in long travel applications.

Click-It Remote – A handle-bar lever actuated system that controls the lock out function on front and rear suspension products. It is activated by pressing the Red Lock button and unlocked by pressing the Green Release Lever.

Coil Spring – A coiled piece of metal that acts as a spring to help suspend a fork.

Coil Spring Air Assist – A new feature for 2005 that utilizes a full length coil spring and allows you to increase the spring rate of the fork by adding air as a booster to that coil spring.

Compression – The phase of the suspension operation in which the wheel travels up, or travels closer to the frame. The suspension forks reaction to a bump in the trail.

Compression Damping – Restriction of the rate that the suspension compresses under load.

Convertible Travel – A system used to alter the travel of a suspension fork. It requires moving a travel clip on the compression rod to a different position. This operation is accomplished by disassembling the fork and physically moving the travel clip on the compression rod.

Crown Steerer Assembly – the stanchion legs (inner legs), the fork crown, and the steer tube pressed together as one assembly. This assembly is then finished by adding all of the fork internals and then outer casting (slider).

Damping – A function that modifies the rate of suspension compression or rebound.

Detent – An indentation that causes a rotating adjuster to stop at fixed increments.

Drop Out – The end of an outer casting (slider) where the wheel attaches.

Dust Boot – Usually a piece of rubber in the shape of a cylinder with baffles to allow it to compress as the fork compresses through its travel. Its function is to help keep dirt and water from getting into the inner legs of the fork.

E2 Air System – Lightweight alternative to coil springs for steel legged forks, elimates the need for spring changes for various rider weights.

FRONT SUSPENSION TERMINOLOGY (CONT.)

FFD – Fluid Flow Damping. A Manitou patented low cost oil damping system. The compression damping is non-adjustable and the rebound damping may be non-adjustable or adjustable damping.

Fork Crown – The component that joins the stanchion tubes (inner legs) to the steer tube of the fork.

Hydraulic Fork Oil – Oil used in suspension designs to provide damping. It has special characteristics that determine how it reacts when exposed to compressed air, how it changes viscosity when its temperature changes, and how it moves through valves.

Hydraulic Lock Out – a condition caused when the mixture of air and damping oil is out of balance. It is caused when there is too little air space in a chamber, not allowing the fork to compress through its travel.

IS2 Intergrated Stem System – intergrates top triple clamp with bar mount, eliminating the need for a stem. Flip Flop mount allows for 45mm or 60mm stem measurements and spacers allow bar height adjustments. Includes shims for both 31.8 and 25.4mm handlebars.

Infinite Travel System (IT) – A handle-bar mounted air travel adjust system that allows the rider to change the fork travel (and ride height) without a spring rate change. The travel can be changed from full compression to full rebound and at any place in between.

Intrinsic Damping– speed sensitive SPV based damping system for long travel applications. Provides better sensitivity to small bumps and superior bottoming resistance.

Lock Out – a special function that restricts the compression of the fork from moving. It is generally controlled by an external knob that is activated when a rider does not want the fork to move, thus eliminating extra energy needed to overcome the bobbing forces of the fork.

MCU – (Micro-Cellular Urethane) Special urethane that is filled with tiny air cells that act like springs when the elastomer is compressed.

No Boss - The word used to describe an outer casting that has no brake posts for V-brakes or cantilever brakes. This casting is to be used for disk brakes only.

No Tools SPV Volume Adjust – A new system designed to work with SPV as a control of the compression ramp up rate of the fork. It has a 4-position range of adjustments from linear to very progressive, adjustment doesn't require a socket.

No Tools Hex Lock Axle – Update of patented Hex Lock through axle provides simple and effective wheel removal system without requiring tools. Features dual quick release to remove pinch pressure and the axle is tighten and lossened with hand turned side tension bolt.

Oil Damping – A system that uses the resistance to oil flow through holes in a valve to provide a means to alter the rate of suspension compression or rebound.

Oil Level – The level of damping oil needed for the optimal damping performance of a suspension. It is measured as the air space distance between the top of the stanchion leg (inner leg) and the height of the oil inside of the leg. The fork must be completely extended in order to get an accurate measurement.

O-Ring – A soft, flexible neoprene or Buna rubber ring with a round cross-section, which is used for sealing and retention.

FRONT SUSPENSION TERMINOLOGY (CONT.)

Oil Weight – A description of the relative viscosity of oil, such as hydraulic oil. Oil with low weight numbers (5wt or 7wt) flows through the valving with less resistance than higher weight numbers (10or 15 wt).

One Point Five Standard - 1.5 inch interface standard for frame head tubes, headset, cups, stem, and steer tubes which allows for the lightest weight and strongest design in 170mm single crown forks. This design greatly improves the control and steering precision of the fork. It is used predominately on forks with longer travel and the intended use is for more hardcore, extreme riding.

Outer Casting – (see Slider)

Preload – A condition of compressing a spring or elastomer before the operating loads are put on the suspension, so that it provides a stiffer spring rate.

Piston – In front suspension, the part of the damper that slides back and forth inside of the damping leg that houses the valves. It can also refer to the air piston in the air/spring assembly that slides back and forth compressing the air, thus causing a change in the spring rate of the suspension.

Porosity – The condition or property of having pores in a material that will allow gas or liquid to pass through it.

Platform Plus Damping – A new damping system found on 2005 Rear shocks (featured on Metel and Radium's). This system will establish a pedaling efficiency platform similar to SPV, but is done through unique valving that is not adjustable (helps in bump control).

Rapid Travel II, Wind Down – Systems that are used to control the travel of suspension forks. Also known as RTII, and WD. RTII is used for the specific purposes of controlling the travel in two conditions: climbing and descending. WD is an incremental travel adjustment between two set limits and does not affect the spring rate of the fork as severely as RTII.

Quad Ring seal – New seal that replaces standard o-rings in designs that require more efficient air and oil sealing methods.

Rebound – The phase of the suspension operation in which the wheel returns to its original position on the ground after compression.

Rebound Damping – Restriction of the rate that the suspension rebounds when the compression load is relived.

Remote Lock out system – A handle-bar lever actuated system that controls the lock out function on front and rear suspension products.

Reverse Arch Technology – Also known as RA. It is a system that is designed to move the arch of a fork to the backside of a fork, rather than the conventional front position. It was designed to provide greater rotational torque strength to an outer casting (slider), without adding additional weight to the fork.

Snap Valve SPV– High platform, low threshold SPV damping system that is resistant to pedaling induced movement but still offers bottoming resistance and small bump sensitivity.

Sag – The amount a suspension fork compresses at rest with a normal load (rider's weight).

Schrader Valve – Valve used to introduce air into a chamber.

FRONT SUSPENSION TERMINOLOGY (CONT.)

Seal – A part, usually neoprene rubber or Buna, that keeps contaminants out and/or working fluids in.

Semi Bath – A lubrication system that uses a lubricating oil to keep the bushing surface and stanchion legs (inner legs) as friction free as possible during movement of the stanchion legs.

Spring Rate – The rate at which the resistance of a spring increases as it is compressed.

SPV – (Stable Platform Valve) new damping system that allows the rider to set the pedaling platform that he desires to pedal most efficiently in all situations. It is dependent on the pressure that the SPV valve experiences from the movement of the wheel vs. the terrain and the platform that is set by pressure introduced to other side of the SPV valve through changes of air pressure working on the damping oil.

SPV Evolve – The latest version of SPV damping technology that has increased its performance with modifications to the original design.

Slider/Outer Casting – The tube (outer casting leg) of the suspension fork that0. remains fixed to the wheel. It slides up and down on the stanchion leg (inner leg).

Stanchion Clamps - (Double-Triple Clamps) the portions of the fork crown that clamp around the stanchion legs above and below the head tube of the bicycle frame on specific long travel applications.

Stanchion Legs – The suspension tube (inner leg) fixed to the fork crown. It remains stationary during the operation of the suspension.

Steer Tube – The long cylindrical tube that extends from the top of the fork crown. Its function is to be inserted into the bicycle head tube and attach the suspension to the bicycle frame.

Thru Axle – (Hex-lock) A device used for mounting a thru axle hub to special outer legs that are not made for standard quick release hubs. Manitou's Hex-lock (thru axle) system is a special patented system utilizing a hex shaped end that increases the stiffness of the fork and reduces slippage in the joint between the axle clamps and the axle.

Top Out Bumper – A rubber, coil spring, or elastomer device that absorbs the shock that occurs when the load is taken off a suspension so that it is allowed to rebound to its limits

TPC – (Twin Piston Chamber) a patented damping system that has independent pistons for rebound and compression. The system utilizes a mixture of air and oil in the damping leg of the fork to enhance the damping performance.

TPC+ - A variation of TPC that has added a floating piston to the compression damper to enhance the performance of the compression damping under the load of bigger hits.

Travel – The amount that a wheel moves between the most compressed and the most extended states of the suspension

Viscosity – A description of how a liquid flows. Liquids with higher viscosity are thicker flow less easily or quickly than liquids with low viscosity. This has an affect on the damping speeds of rebound and compression.

Volume Control – A new system designed to work with SPV as a control of the compression ramp up rate of the fork. It has a range of adjustments from linear to very progressive.

Wiper Seal – A rubber material that is used as a seal to keep dirt and water out of the outer casting legs. It is not designed to keep air pressure or extreme oil pressure in.



Fig. 1



Fig. 2

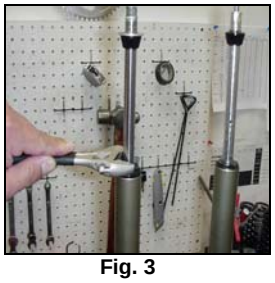


Fig. 3

FFD and TPC Damping System Service

Disassembly Instructions for FFD and TPC Damping

1. First the rebound knob will need to be removed. Screw the rebound all the way in (clockwise), and then remove the 2mm hex screw inside the knob by turning it counter- clockwise. Remove the knob by pulling gently away from the fork.
2. Use an 8mm hex wrench to turn the damper shaft **clockwise** until it can be pushed into the casting. (see Fig. 1)
3. From the left leg dropout (Left when sitting on the bike), use a 10 or 11mm wrench to remove the compression rod screw.
4. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. The fork uses the Semibath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan.
5. **For forks with Non-Adjustable compression damping:**
    a. Using a 26mm socket unscrew the damping assembly top cap from the crown. It may be necessary to twist the assembly like you would be unscrewing a screw and gently pull upward to free the assembly from the crown. Fig 2 **(Note: there will be a small amount of oil that comes out of the inner leg, when the assembly is pulled from the crown)**
6. **For forks with Adjustable compression damping/Lock out**:
    a. Twist the knob all the way counter-clockwise to reduce the amount of compression damping on the system.
    b. Unscrew the 2mm Allen screw that holds the adjuster knob to the damping assembly.
    c. Remove the adjuster knob and unscrew the compression assembly from the crown using a 20mm socket. It may be necessary to twist the assembly like you would be unscrewing a screw and gently pull upward to free the assembly from the crown. Fig. 2 **(Note: there will be a small amount of oil that comes out of the inner leg, when the assembly is pulled from the crown)**
7. **For forks with Remote Lock-Out compression damping:**
    a. Make sure that the Lock out is in the off position.
    b. Unscrew barrel adjuster in a counterclockwise direction until it stops.
    c. Unscrew the set screw on the lever using a 2mm allen wrench.
    d. Pull the cable out of the lever and remove the housing from the cable.
    e. Unscrew the top cap of the Lock out assembly from the fork crown using socket (Answer p/n: 83-2503) or an adjustable wrench.
    f. Pull Lock out assembly out of crown by twisting the assembly like unscrewing a screw and applying an upward pressure. Slowly pull assembly out of crown and watch out for some excess damping oil to come out of inner leg as the piston at the end of the assembly comes out of crown.
8. Turn fork upside down over drainage pan to empty Damping oil from the inner leg. Stroke the Damper shaft on the bottom of the inner leg 3-5 times to purge the leg of oil that is caught below the Rebound piston.
9. Unscrew Damper end cap from the bottom of the right leg and then carefully pull the damping assembly out of inner leg. See Fig. 3

Assembly of FFD and TPC Damping System

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

10. Install the damping assembly into bottom of inner leg. Be sure to apply a thin layer of Prep M grease onto piston ring that is around the piston at top of assembly. Install the assembly and tighten end cap to specified torque value.
11. Turn Crown/steer/leg assembly right side up, so that the crown of the assembly is facing you. Extend the the damping assembly all the way out and then pour damping oil (P/N: 85-0023) into the right inner leg. Fill leg about ¼ full. Take a rag and cover the top of the right inner leg and then stroke the the damping assembly up and down about 5 times. This will insure that oil gets below the piston and not create an air space.
12. Extend the damping assembly all the way out and then fill the inner leg to the specified oil level in the Fastener Torque and Setup Levels Chart at the end of the manual.

WARNING All top caps for Damper and Spring systems must be properly tightened prior to use. Failure to do so could result in injury or possible death.

13. **For forks with Non-Adjustable FFD:**
    a. Put a little bit of Prep M grease (Ref Answer Products PN 85-0031) on o-ring found on the lower piston of the FFD assembly.
    b. Install the FFD Assy into the top right hand of the crown/steer using a 27mm socket. Tighten per the Axel Schematic and Torque Specification Table.
14. **For forks with Adjustable compression damping/Lock out**:
    a. Fill right leg with damping oil using 5wt Motorex fork oil (Ref Answer Products PN 85-0023) to the height noted in the Axel Schematic and Torque Specification Table. Cover the opening at the top of the right leg of the crown/steer with a rag and cycle the fork six times. Recheck oil level and add/drain to meet the level requirement.
    b. Put a little bit of Prep M grease (Ref Answer Products PN 85-0031) on the urethane or brown rubber o-ring found on the lower piston of the Lock out assembly.
    c. Twist the Hex shaped aluminum shaft that sticks up from the top cap counter clockwise until it stops (the system is completely open to oil flow at this point).
    d. Using a motion like screwing in a screw. Twist the assy. and apply a little pressure to insert the piston part of the mechanism past the threads at the top of the inner leg. Then push the assy. into the leg until the threads on the cap intersect the threads inside the inner leg, screw the cap. Tighten per the Axel Schematic and Torque Specification Table.
    e. Once the cap is tightened, twist the Hex shaped shaft clockwise until it stops (this is the locked out position). Insert the springs into opposite holes in the top cap and then place the ball bearings on top of the springs (place a little dab of grease on spring to hold ball bearing in place).
    f. Place the adjuster knob onto the hex shaped aluminum shaft and seat it onto the top cap and ball bearing. Position the adjuster cap so that the lever part of the cap is at the farthest point to the back of the crown.
    g. Insert 2mm fixing screw and tighten to secure the knob. Twist the knob counter clockwise to activate the fork suspension. Compress the fork several times to circulate the oil through the system and then activate the Lock out system by moving the lever clockwise to its stopping point at the back of the crown. The fork should have approximately 5 mm of progressive travel before it locks out.

Assembly of FFD and TPC Damping System – Cont.

15. **For forks with Remote Lock-Out compression damping:**
    a. Fill right leg with damping oil using 5wt Motorex fork oil (Ref Answer Products PN 85-0023) to the height noted in the Axel Schematic and Torque Specification Table. Cover the opening at the top of the right leg of the crown/steer with a rag and cycle the fork six times. Recheck oil level and add/drain to meet the level requirement.
    b. Put a little bit of Prep M grease (Ref Answer Products PN 85-0031) on the urethane or rubber o-ring found on the lower piston of the Lock out assembly.
    c. Using a motion like screwing in a screw. Twist the assy. and apply a little pressure to insert the piston part of the mechanism past the threads at the top of the inner leg. Then push the assy. into the leg until the threads on the cap intersect the threads inside the inner leg, screw the cap down using the cut out 22mm socket. Tighten per the Axel Schematic and Torque Specification Table.
    d. With the lever in the released position (Red Lever will be up), install the Remote Lock-Out cable by inserting it into the bottom of the clamp and up through the lever. Pull the slack out of the cable and tighten down the 2mm anchor screw on the lever. You should have approximately a 2mm gap between the lever and the housing when it is properly installed. (See Figure 3)
    e. Run the cable of the top of the lever and then through the hole on the back of the lever.
    f. Bend the cable in towards the stem at a 90degree angle, trim the cable so that it is the same length as the lever itself and then install the cable end crimp. (See figure 4)
    g. Screw the barrel adjuster out in a clockwise direction until you just remove the slack in the cable. If you tighten the cable to much the lock out will not release and the fork will not move.

16. Turn completed crown/steer/leg assembly upside down, so that the compression rod and damper shaft are facing you. You will see a bottom out bumper on the damper shaft; slide this bumper down towards the end cap that is threaded into the inner leg. This will help in keeping the shaft extended as you install the outer casting. You could also insert air into the damper leg through the Schrader valve on top of the right leg (SPV models). This extra pressure will help to keep the shaft from moving.
17. Replace the o-ring at the end of the rebound shaft, if not you will risk having a leak in that area.
18. Extend the rebound damper out from end cap as far as it will go and then slide bottom out bumper towards the end cap as far as it will go. The bumper will help to hold the damper shaft in place as you are inserting the inner legs into the casting.
19. Press inner legs into casting about half way and then inject Semi Bath oil (5/40wt. synthetic oil, P/N: 85-0022) into outer casting, holding fork at 45 degree angle to the ground with bottom of fork in the air (drop outs up). Inject **16cc's** of oil into each outer leg. It is recommended to use a syringe to inject oil.
20. Press inner leg assembly into outer leg casting until damper shaft contacts casting. Adjuster hex shaft should protrude slightly from casting.
21. Use an 8mm hex wrench to turn the damper shaft **counterclockwise**, threading it into the casting. Tighten per the Schematic and Torque Specification Table for your fork.
22. Install rebound adjuster knob if applicable. Knob should turn uninhibited until the indicator is stopped by the casting (if applicable). If not, remove knob and reinstall on hex shaft in 1/6 turn increments until full travel is reached.
23. Install the compression rod screw and tighten per the Black Schematic and Torque Specification Table.
24. **For forks with the Wind Down system:** follow steps 2 – 5 from the Wind Down Travel Adjust assembly instructions.

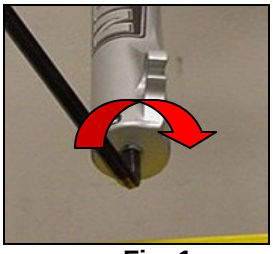


Fig. 1



Fig. 2



Fig. 3

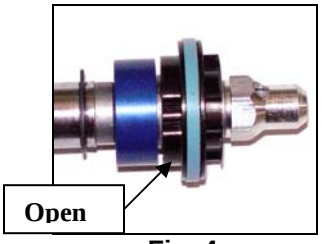


Fig. 4

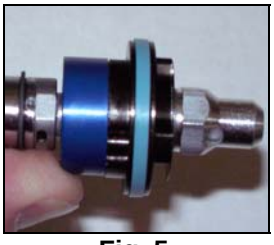


Fig. 5

SPV Damping System Service

Disassembly Instructions for SPV Damping

5. The rebound knob needs to be removed. Screw the rebound all the way in (clockwise), and then remove the 2mm hex screw inside the knob by turning it counter- clockwise. Remove the knob by pulling gently away from the fork.
6. Use an 8mm hex wrench to turn the damper shaft **clockwise** until it can be pushed into the casting. (see Fig. 1)
7. From the left leg dropout (Left when sitting on the bike), use a 10 or 11mm wrench to remove the compression rod screw.
8. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. The fork uses the Semibath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan

WARNING This fork uses compressed air as part of the SPV damping system and must be relieved of pressure prior to servicing. Failure to relieve air pressure could result in injury or possible death.

9. Remove Schrader valve dust cap from Red Hex Shaped Top Cap on the top right of the crown. Release all air pressure from the Schrader valve. (Fig. 2)
10. Remove SPV Volume Control Cap (Red Hex Shaped Top Cap) from top right of the crown with a 24mm Socket. Turn fork upside down over drainage pan to empty Damping oil from the inner leg. Stroke the Damper shaft on the bottom of the inner leg 3-5 times to purge the leg of oil that is caught below the Rebound piston.
11. Unscrew Damper end cap from the bottom of the right leg. (Fig. 3)
12. Pull the SPV Damping assembly out of inner leg. To check the function of the SPV valve: Visually inspect the gap between the SPV valve and the bottom of the damping piston. It should have approximately 1mm of space (Fig. 4). The valve should spring back to its open rested position after compressing it with your fingers (Fig. 5). If the valve is not responsive or all the time closed, it is bad and the assembly needs to be repaired or replaced.

Assembly of SPV Damping System

WARNING All top caps for Damper and Spring systems must be properly tightened prior to use. Failure to do so could result in injury or possible death.

1. Install SPV damping assembly into bottom of other inner leg. Be sure to check the function of the SPV valve and apply a thin layer of Prep M grease onto o-ring that is around the piston at top of assembly. Install the assembly and tighten end cap to specified torque value.(Fig. 6)
2. Turn Crown/steer/leg assembly right side up, so that the crown of the assembly is facing you. Extend the SPV damping assembly all the way out and then pour damping oil (P/N: 85-0023) into the right inner leg. Fill leg about ¼ full. Take a rag and cover the top of the right inner leg and then stroke the SPV damping assembly up and down about 5 times. This will insure that oil gets below the piston and not create an air space.
3. Extend the damping assembly all the way out and then fill the inner leg to the specified oil level in the Fastener Torque and Setup Levels Chart at the end of the manual
4. Insert the Volume control assembly into the top of the right inner leg and tighten it to specified torque value. Be sure that you unscrew the red 16mm Hex shaped Volume control nut all of the way out counterclockwise until it is flush with the black outer surface of the cap, after you tighten the entire assembly into the inner leg.



Fig. 6



Fig. 7



Fig. 8

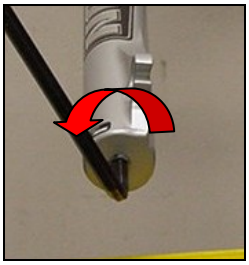


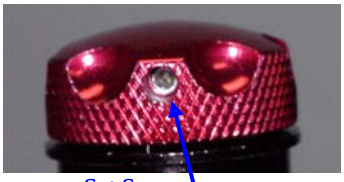
Fig. 9

Assembly of SPV Damping System-Cont.

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

1. Turn completed crown/steer/leg assembly upside down, so that the compression rod and damper shaft are facing you. You will see a bottom out bumper on the damper shaft; slide this bumper down towards the end cap that is threaded into the inner leg. This will help in keeping the shaft extended as you install the outer casting. You could also insert air into the damper leg through the Schrader valve on top of the right leg (SPV models). This extra pressure will help to keep the shaft from moving.
2. Replace the o-ring at the end of the rebound shaft (Fig. 7), if not you will risk having a leak in that area. On the Nixon, Minute, and Stance Forks there are two different O-rings which may have been used on your fork. Use the same color o-ring as the original when you replace it, both styles will be included in your service kits (Fig. 8).
3. Extend the rebound damper out from end cap as far as it will go and then slide bottom out bumper towards the end cap as far as it will go. The bumper will help to hold the damper shaft in place as you are inserting the inner legs into the casting.
4. Press inner legs into casting about half way and then inject Semi Bath oil (5/40wt. synthetic oil, P/N: 85-0022) into outer casting, holding fork at 45 degree angle to the ground with bottom of fork in the air (drop outs up). Inject **16cc's** of oil into each outer leg. It is recommended to use a syringe to inject oil.
5. Press inner leg assembly into outer leg casting until damper shaft contacts casting. Adjuster hex shaft should protrude slightly from casting.
6. Use an 8mm hex wrench to turn the damper shaft **counterclockwise**, threading it into the casting (Fig. 9). Tighten per the Schematic and Torque Specification Table for your fork.
7. Install rebound adjuster knob if applicable. Knob should turn uninhibited until the indicator is stopped by the casting (if applicable). If not, remove knob and reinstall on hex shaft in 1/6 turn increments until full travel is reached.
8. Install the compression rod screw and tighten per the Black Schematic and Torque Specification Table.
9. **For forks with the Wind Down system:** follow steps 2 – 5 from the Wind Down Travel Adjust assembly instructions.
10. Pressurize the SPV system to 50psi and check for proper damping function.

Use: 8mm Allen wrench, 2mm Allen wrench, 11mm Nut Driver or open end wrench, Syringe for Semi Bath Oil, Air pump



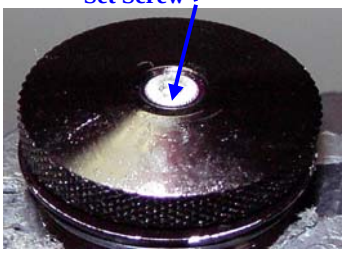


Fig 1 and 2

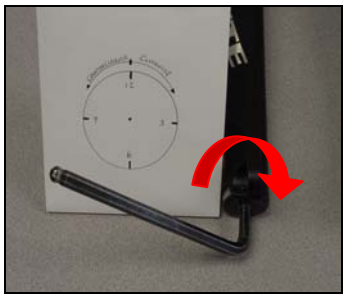


Fig. 3



Fig 4



Fig. 5



Fig. 6

Cartridge Damping System Service

All Cartridge Damping systems are serviced the same regardless of which forks they are used in, the only difference between the different models is the length of the cartridge body, compression assembly and/or in some instances the length of the rebound assembly. A chart of the dimensional differences is provided at the end of the section for your reference. All knobs, o-rings, seals and end caps are the same. One of the advantages to the system is the fact that you can service the system without having to remove the outer legs from the fork.

Cartridge Damper System Removal

Remove the cartridge from the fork:

1. Screw the rebound adjuster in clockwise fully so you are at the max. rebound position. Remove the rebound knob from the bottom of the fork by unscrewing the fixing bolt with a 2mm allen wrench. Pull the knob out of the rebound assembly.
2. Remove the compression knob from the top of the fork using a 2mm allen wrench. Remove the detent balls and springs after pulling off knob. (See Fig 1 and 2) Red knob is for CID systems and Black is TPC systems.
3. Invert the fork and insert 8mm Allen wrench into the end of the Rebound Shaft on the bottom of the right leg. Turn the wrench in a ***Clock Wise*** direction in order to loosen the damper shaft in the casting. (See Fig.3) You are turning the Damper Shaft in a way that causes it to disappear into the casting leg.
4. Screw in the Rebound Casting Plug (Answer P/N**-****) or a rubber stopper into the lower casting to keep the semi-bath from leaking out. **Note: if you suspect that the cartridge is leaking into the outer leg omit this step and drain the oil from the casting**. (See fig. 4)
5. Turn the fork back upright and remove the cartridge from the fork using a 22mm socket by unscrewing it counterclockwise.

CTPC+ Damper Rebuild Instructions

Disassembly

Place Cartridge assembly in bicycle work stand or secure with Cartridge Clamp Blocks (Answer P/N **-****) with the cartridge in an upright position.

1. Using a 22mm socket remove the TPC+ compression assembly from the cartridge by unscrewing it counterclockwise. Once you have completely unscrewed the assembly, pull it out of the cartridge.
2. Pour out the oil in the cartridge and using a **mm or adjustable wrench, remove the rebound assembly by unscrewing it counterclockwise. Once you have completely unscrewed the assembly, carefully pull it out of the cartridge so that you don't damage the piston rings on the threads in the cartridge.
3. Clean the cartridge body and check for scratch or imperfections in the inner walls of the tube.

Reassembly

Place Cartridge assembly in bicycle work stand or secure with Cartridge Clamp Blocks (Answer P/N **-****) with the cartridge upside down.

5. Lightly coat the piston ring on the rebound assembly with Motorex grease. Insert the assy. into the cartridge body being careful not to damage the piston ring on the threads. Also apply a small amount of blue Loctite to the threads of the end cap. (see Fig. 6)
6. Using a 22mm or adjustable wrench, tighten the rebound assy. end cap in a clockwise direction to 50 in/lbs (5.65 N-M).



Fig. 7



Fig. 8



Fig. 9



Fig. 10

Cartridge Damping System Service - cont.

Reassembly-Cont.

1. Turn the cartridge right side up and fill half way with Motorex 5w Shock oil. Stroke the rebound assembly several times to remove any air that maybe trapped under the piston. Pull the rebound assembly to the bottom of its stroke.
2. Finish filling the cartridge body to the correct level listed in table. In order to determine the proper oil level, measure from the top of the cartridge body to the top surface of the oil (see Fig. 7) or use Oil Level tool.
3. Lightly coat the piston rings on both pistons on the TPC+ compression assembly with Motorex grease. Apply a small amount of blue Loctite to the threads on the cartridge body. Insert the assy. into the cartridge body being careful not to damage the piston rings as they enter the cartridge body. (Fig. 8)
4. Using a 22mm or adjustable wrench, tighten the compression assy. top cap in a clockwise direction to 50 in/lbs (5.65 N-M).

CID (Intrinsic) Damper Rebuild Instructions

Field service of the CID cartridge is not recommend as it is necessary to pull a slight vacuum on the CID Assy to make sure that the IFP is properly positioned. To do this you must have vacuum tool. (Answer P/N **-****) Also a clear plastic tube is used in these instructions for demonstration purposes, actual cartridge is metal.

Disassembly

Place Cartridge assembly in bicycle work stand or secure with Cartridge Clamp Blocks (Answer P/N **-****) with the cartridge in an inverted position.

1. Using an adjustable wrench, remove the rebound assembly from the cartridge by unscrewing it counterclockwise.(Fig. 9) Once you have completely unscrewed the assembly, carefully pull it out of the cartridge so that you don't damage the piston rings on the threads in the cartridge.
2. Pour out the oil in the cartridge and using a 22mm socket, remove the CID Compression assembly by unscrewing it counterclockwise. Once you have completely unscrewed the assembly, pull the assy. from the cartridge body. (Fig. 10) Clean the cartridge body and check for scratch or imperfections in the inner walls of the tube. Next examine the compression assy., make sure that the CID valve body is free to move (i.e. will open and close), it is not necessary that it spring to the open position, only that it has full travel.

Reassembly

Place Cartridge assembly in bicycle work stand or secure with Cartridge Clamp Blocks (Answer P/N **-****) with the cartridge right side up.

1. Lightly coat the piston ring and IFP on the CID compression assembly with Motorex grease and apply a small amount of blue Loctite to the threads of the cartridge body. Insert the assy. into the cartridge body being careful not to damage the piston ring and o-ring as they enter the body. Screw the top cap on about 6 turns. DO NOT tighten the top cap down before you pull the vacuum on the IFP.
2. Insert the vacuum tool (p/n **-***) into the open end of cartridge body, pull back fully on the plunger and hold for 60 seconds, this creates a vacumm to make sure that the IFP is fully extended. (Fig. 11)
3. Using a 22mm socket wrench, tighten the CID top cap in a clockwise direction to 50 in/lbs (5.65 N-M).
4. Turn the cartridge upside down at 45 degree angle and fill half way with Motorex 5w Shock oil. Lightly tap the side of the cartridge body several times to remove any air that maybe trapped between the IFP and the CID Piston.



Fig. 11



Fig. 12



Fig. 13



Fig. 14

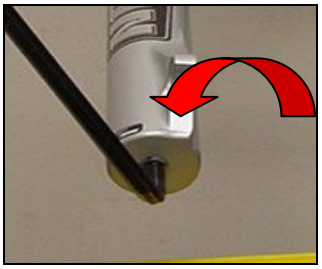


Fig. 15

Cartridge Damping System Service - cont.

Reassembly-Cont.

5. Turn the cartridge body so that it is fully upright and completely fill the body with 5wt shock oil (Fig. 12). Pull the rebound assy. out so that it is in the fully extended position, the valve assembly is closest to the end cap, from here slide the endcap back down the shaft 10mm. It is easiest to measure from the nut to the flange on the endcap. (see Fig. 13)
6. Lightly grease the piston ring on the rebound shaft. Carefully insert the assy. into the cartridge body taking care that the piston ring isn't damaged by the threads of the body.
7. As you tighten the cap down, oil and trapped air is going to bleed out of the small hole in the side of the cap. This is supposed to happen to insure that there is no air in the system. It is recommended to wrap a shop towel around the cartridge body below the end cap to catch this so it doesn't create a mess in the work area.
8. Stroke the rebound assembly several times to dislodge any air that is trapped in the CID. Allow the cartridge to sit for a few minutes, remove the rebound assy. Remove the rebound assy, fully refill the damper cartridge with shock oil. Regrease the rebound piston lightly as before and apply a drop of Loctite to the threads of the endcap.
9. Carefully insert the assy. into the cartridge body taking care that the piston ring isn't damaged by the threads of the body. Again you will have a small amount of oil and air bleed out of the hole in the endcap and this is normal.
10. Tighten down the end cap in a clockwise direction to 50 in/lbs (5.65 N-M)

Cartridge Damper System Reinstallation

To reinstall the cartridge in the fork:

1. Make sure that the rebound adjuster is screwed in clockwise fully.
2. Replace the o-ring on the rebound shaft to match the one that was installed when you removed the assy. (either black or clear)
3. Slightly compress the fork and insert the Cartridge Damper System into the fork leg. Turn the cartridge clockwise to engage the threads of the rebound assembly.
4. Release the fork so it extends to its full travel. If you drained the Semibath oil previously, add the proper weight and amount as listed in the table. Using a 22mm socket screw the top cap into the fork and tighten it to ** in/lbs (** N-M)
5. Invert the fork, remove the Rebound Casting Plug (Answer P/N**-****) or rubber stopper from the lower casting.
6. Insert an 8mm Allen wrench into the end of the Rebound Shaft on the bottom of the right leg. Turn the wrench in a ***Counterclockwise*** direction in order to tighten the damper shaft in the casting. (See Fig.15) You are turning the Damper Shaft in a way that causes it to thread out of the casting leg. The end of the damper shaft should be flush with the end of the casting. (See Below)



7. Thoroughly clean the area in the end of the rebound shaft of any trapped semi-bath oil. Otherwise it will give the appearance that the fork is leaking.
8. Install the rebound adjustment knob and secure it with the screw using a 2mm allen wrench. Apply a drop of blue LocTite and tighten to 10 in/Lbs (**N-M)
9. Turn the fork upright, install the detent springs and balls in to the top cap. Install the compression adjusting knob and screw. secure them using a

Fig. 11

Fig. 12

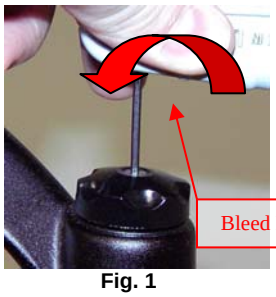


Fig. 1


Fig. 2

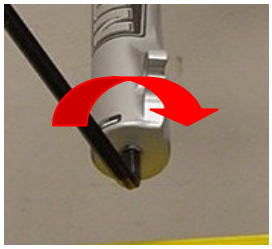

Fig. 3


Fig. 4


Fig. 5

Coil Spring Service Instructions

Removal Coil Spring Assembly

WARNING This fork uses a preloaded coil spring provide spring resistance. The spring must be relieved of its preload prior to servicing. Failure to do so could result in injury or possible death.

For Forks with Pre-Load adjuster assemblies (coil spring systems):
To Change the Spring:

1. Rotate the Pre-Load adjuster knob all of the way counter clockwise to reduce the pre-load on the spring. Rotate adjuster on top left of fork crown counterclockwise until it stops. This will relieve spring tension on the fork.
2. Remove the adjuster knob from the top of the Pre-Load adjuster assembly, by unscrewing the 2mm Allen head screw. (See Fig 1)
3. Use a 20mm socket and unscrew the remainder of the assembly from the crown. Pull the spring out of the fork. (See Fig 2)
4. Generously grease the spring and insert it into the inner leg. The spring needs to seat onto the top of the compression rod.
5. Screw the preload assembly into the inner leg and tighten per the fastener torque guide at the end of this manual.
6. Install the adjuster knob and 2mm hex screw.

For a complete teardown of the spring system including the compression rod:

1. You must remove the outer casting from the inner legs:
    a. From the left leg dropout (Left when sitting on the bike), use a 10 or 11mm wrench to remove the compression rod screw.
    b. From the right leg dropout, if the fork has adjustable rebound, the knob will need to be removed. Screw the rebound all the way in (clockwise), then remove the 2mm hex screw inside the knob by turning it counter clockwise. Remove the knob by pulling gently away from the fork
    c. Use an 8mm hex wrench to turn the damper **clockwise** until it can be pushed into the casting. (See Fig. 3)
    d. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. If the fork uses the Semi-bath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan.
2. Then remove the end cap from the bottom of the left leg and remove the compression rod assembly and spring through the bottom of the leg. (See Fig. 4)
3. Turn the fork over, rotate the preload adjuster on top left of fork crown counterclockwise until it stops. This will reset the preload in the lowest tension setting when you rebuild the fork.
4. Remove the adjuster knob from the top of the Pre-Load adjuster assembly on the top of the crown on the left side of the fork, by unscrewing the 2mm Allen head screw.
5. Unscrew the assembly from the crown and then pull it out of the inner leg.

Installing Coil Spring Assembly

1. Reassemble the compression rod assembly and install in the fork leg.
2. Generously grease the spring and insert it into the inner leg. The spring needs to seat onto the top of the compression rod. (See Fig. 5)
3. Screw the preload assembly into the inner leg and tighten per the fastener torque guide at the end of this manual.
4. Install the adjuster knob and 2mm hex screw.
5. **For Grease Forks** - Remove rubber fork boots from the casting and slide them onto the inner legs of the crown/steer assy. Lightly grease the bushings on the inside of the outer leg casting and on the lower portion of the inner legs below the boots using a thick grease such as Motorex Bike Grease 2000. Proceed to Step 6.
6. **For Semibath Forks** - Press inner legs into casting about half way and then inject Semi Bath oil (5/40wt. synthetic oil, P/N: 85-0022) into outer casting, holding fork at 45 degree angle to the ground with bottom of fork in the air (drop outs up). Inject **16cc's** of oil into each outer leg. It is recommended to use a syringe to inject oil.
7. Press inner leg assembly into outer leg casting until damper shaft contacts casting. Adjuster hex shaft should protrude slightly from casting.
8. Use an 8mm hex wrench to turn the damper shaft **counterclockwise**, threading it into the casting. Tighten per the Schematic and Torque Specification Table for your fork.
9. Install rebound adjuster knob if applicable.

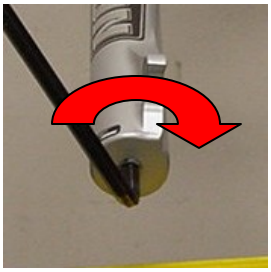


Fig. 1



Fig. 2



Fig. 3



Fig. 4

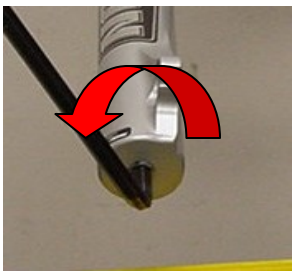


Fig. 5

Air Assist System Service Instructions

Removal of Air Assist Spring and Compression Rod Assembly

WARNING This fork uses compressed air to supplement the spring resistance and must be relieved of pressure prior to servicing. Failure to relieve air pressure could result in injury or possible death.

1. Remove all of the air pressure from the Schrader valve on top of the crown on the left side (Black top cap), by depressing the Schrader valve. Be sure to hold fork with the top of the crown facing upwards. **Note**: When the air is released, there is a mixture of the oil and air inside the leg.
2. If you have not removed the Outer casting follow these instructions, then proceed to next step:
    a. From the left leg dropout (Left when sitting on the bike), use a 10 or 11mm wrench to remove the compression rod screw.
    b. From the right leg dropout, if the fork has adjustable rebound, the knob will need to be removed. Screw the rebound all the way in (clockwise) remove the 2mm hex screw inside the knob by turning it counter clockwise. Remove the knob by pulling gently away from the fork.
    c. Use an 8mm hex wrench to turn the damper **clockwise** until it can be pushed into the casting. (See Fig. 1)
    d. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. If the fork uses the Semi bath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan.
    e. Unscrew the end cap on the bottom of the inner leg and remove compression rod assembly. This will consist of a compression rod, bottom and top out bumpers, the end cap, and should be followed by a coil spring (See Fig.2). This spring is the one that would be changed if the fork's spring rate needed to be changed beyond the capabilities of the air pressure.
3. Change the quad seal and inspect the finish of the interior of the inner leg. If the seam in the leg is not smooth, replace the Crown Steerer assy, as this is why the system is failing.

Installation of the Air Assist Spring System

WARNING All leg caps for Damper and Spring systems must be properly tightened prior to use. Failure to do so could result in injury or possible death.

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

1. Generously grease the spring and insert it into the inner leg. The spring needs to seat onto the top cap. (Fig. 4)
2. Apply a small amount of Prep M grease onto the threads at the bottom of the left inner leg with your finger.
3. Screw the Compression rod assembly into the inner leg and tighten the end cap per the fastener torque guide at the end of this manual. (See Fig. 3)
4. **For Grease Forks** - Remove rubber fork boots from the casting and slide them onto the inner legs of the crown/steer assy. Lightly grease the bushings on the inside of the outer leg casting and on the lower portion of the inner legs below the boots using a thick grease such as Motorex Bike Grease 2000. Proceed to Step 6.
5. **For Semi bath Forks** - Press inner legs into casting about half way and then inject Semi Bath oil (5/40wt. synthetic oil, P/N: 85-0022) into outer casting, holding fork at 45 degree angle to the ground with bottom of fork in the air (drop outs up). Inject **16cc's** of oil into each outer leg. It is recommended to use a syringe to inject oil.
6. Press inner leg assembly into outer leg casting until damper shaft contacts casting.
7. Use an 8mm hex wrench to turn the damper shaft **counterclockwise**, threading it into the casting. Tighten per the Schematic and Torque Specification Table for your fork. (Fig. 5)
8. Install rebound adjuster knob if applicable.
9. Screw in the comp rod bolt. Tighten to the recommended torque listed in the Schematic and Torque Specification Table



Fig. 1


Fig. 2

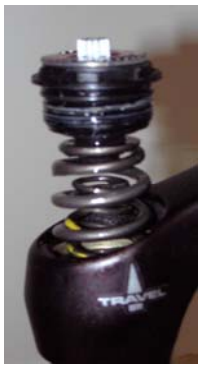


Fig. 3


Fig. 4


Fig. 5

Wind-Down Travel Adjust Service Instructions

WARNING This fork uses a preloaded coil spring provide spring resistance. The spring must be relieved of its preload prior to servicing. Failure to do so could result in injury or possible death.

Removal Wind Down Travel Adjust Assembly

1. Make sure that the Travel Adust is in its fully extended position(Fig 1). Rotate adjuster on top left of fork crown counterclockwise until it stops. This will relieve spring tension on the fork.
2. Remove the adjuster knob from the top of the Wind Down adjuster assembly on the top of the crown on the left side of the fork, by unscrewing the 2mm Allen head screw. Remove the o-ring that is located on the indicator dial.
3. Use a 28mm socket and unscrew the remainder of the assembly from the crown (Fig. 1). The spring will be attached to the bottom of the assembly, when you pull it from the inner leg. (Fig. 3)
4. Pull the spring out of the Travel Adjust assembly.
5. If spring will not come out, you must take the outer casting off of inner legs.:
    a. From the left leg dropout (Left when sitting on the bike), use a 10 or 11mm wrench to remove the compression rod screw.
    b. From the right leg dropout, if the fork has adjustable rebound, the knob will need to be removed. Screw the rebound all the way in (clockwise) remove the 2mm hex screw inside the knob by turning it counter clockwise. Remove the knob by pulling gently away from the fork
    c. Use a 8mm hex wrench to turn the damper **clockwise** until it can be pushed into the casting. (see Fig. 4)
    d. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. If the fork uses the Semibath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan.
    e. Then remove the end cap from the bottom of the left leg and remove the Wind Down compression rod assembly and spring as a single unit through the bottom of the leg (Fig. 4).
    f. You will find that on earlier production fork models, that there is a nylon washer at the top of the compression rod assembly that is holding the spring in place. Hold the spring in one hand and the compression rod assembly in your other hand and pull the apart from each other at a slight angle to each other.
    g. Once you have the two apart, remove the Allen bolt on top of the compression rod with a 4mm Allen wrench and remove the nylon washer. Re-install the bolt without the washer, it will not affect the operation of the Wind Down mechanism and insure that you will not have to take the whole fork apart in the future to change ride kit springs.
    h. **Note**: the spring that you remove should have another spring (booster spring) intertwined within it
6. If you had to remove the outer casting, reassemble the compression rod assembly and then follow instructions for Installation of Outer Casting.
7. Optional Ride Kits - If you need to adjust to overall ride characteristics either softer or firmer, purchase and/or install as follows (Kit Part Numbers can be found in the Service Part section of this manual):
    a. Soft - Remove the Booster Spring
    b. Firm - Purchase Firm Ride Kit and install the Booster Spring
    c. Extra Firm - Purchase Extra Firm Ride Kit and install the Booster Spring
8. To remove the booster spring from the main spring; grasp the flat end of the booster spring with a pair of needle nose pliers and twist it in a clockwise direction to unscrew it from the main spring.
9. To install a booster spring into a main spring catch the flat end of the booster spring under the flat end of the main spring and twist it counterclockwise into the main spring. Make sure that the booster spring is threaded all of the way down into and contained by the main spring. Before inserting it back into the inner leg.



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

Wind-Down Travel Adjust Service Instructions

Installation for Wind Down Travel Adjust Assembly-

WARNING All leg caps for Damper and Spring systems must be properly tightened prior to use. Failure to do so could result in injury or possible death.

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

If you removed the Outer casting:

1. Reassemble the compression rod assembly and install in the fork leg.(Fig. 6)
2. Generously grease the spring and insert it into the inner leg. The spring needs to seat onto the top of the compression rod. (Fig. 7)
3. Insert the wind down top cap assembly into the spring; the "D" shaped portion of the adjuster assembly must fit into the "D" shaped end of the main spring.
4. Screw the assembly into the inner leg and tighten per the fastener torque guide at the end of this manual.
5. Install adjuster knob and 2mm hex screw. Turn the knob counterclockwise until it stops. This insures that the fork is in its longest travel position. If the travel indicator arrow on the crown is not lined up with the maximum travel point on the indicator dial, continue to turn the knob counterclockwise until the indicator points to maximum travel.
6. **For Grease Forks** - Remove rubber fork boots from the casting and slide them onto the inner legs of the crown/steer assy. Lightly grease the bushings on the inside of the outer leg casting and on the lower portion of the inner legs below the boots using a thick grease such as Motorex Bike Grease 2000. Proceed to Step 8.
7. **For Semibath Forks** - Press inner legs into casting about half way and then inject Semi Bath oil (5/40wt. synthetic oil, P/N: 85-0022) into outer casting, holding fork at 45 degree angle to the ground with bottom of fork in the air (drop outs up). Inject **16cc's** of oil into each outer leg. It is recommended to use a syringe to inject oil.
8. Press inner leg assembly into outer leg casting until damper shaft contacts casting. Adjuster hex shaft should protrude slightly from casting.
9. Use an 8mm hex wrench to turn the damper shaft **counterclockwise**, threading it into the casting. Tighten per the Schematic and Torque Specification Table for your fork.
10. Install rebound adjuster knob if applicable.
11. Install the compression rod screw and tighten per the Schematic and Torque Specification Table.

If you only removed the Top Cap:

1. Generously grease the spring and insert it into the inner leg. The spring needs to seat onto the top of the compression rod.
2. Insert the wind down top cap assembly into the spring; the "D" shaped portion of the adjuster assembly must fit into the "D" shaped end of the main spring. (Fig. 8) Screw the assembly into the inner leg and tighten per the fastener torque guide at the end of this manual.
3. Install adjuster knob and 2mm hex screw. Turn the knob counterclockwise until it stops. This insures that the fork is in its longest travel position. If the travel indicator arrow on the crown is not lined up with the maximum travel point on the indicator dial, then the fork must be reclocked.
    a. To Reclock the fork loosen the compression rod bolt on the bottom of the outer casting
    b. Continue to turn the knob counterclockwise until the indicator points to maximum travel on the knob.
    c. Retighten the compression bolt per the fastener torque guide at the end of this manual.

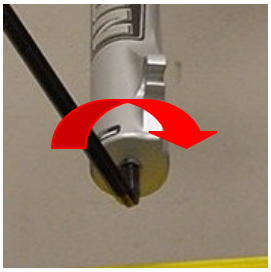


Fig. 1



Fig. 2



Fig. 3

Air Spring System Service Instructions

Removal of Air Spring and Compression Rod Assembly

WARNING This fork uses compressed air to provide spring resistance and must be relieved of pressure prior to servicing. Failure to relieve air pressure could result in injury or possible death.

1. Remove all of the air pressure from the Schrader valve on top of the crown on the left side (Black top cap), by depressing the Schrader valve. Be sure to hold fork with the top of the crown facing upwards. **Note**: When the air is released, there is a mixture of the oil and air inside the leg that maybe discharged.
2. If you have not removed the Outer casting follow these instructions, then proceed to next step:
    a. From the left leg dropout (Left when sitting on the bike), use a 10 or 11mm wrench to remove the compression rod screw.
    b. From the right leg dropout, if the fork has adjustable rebound, the knob will need to be removed. Screw the rebound all the way in (clockwise) remove the 2mm hex screw inside the knob by turning it counter clockwise. Remove the knob by pulling gently away from the fork.
    c. Use a 8mm hex wrench to turn the damper **clockwise** until it can be pushed into the casting. (see Fig. 1)
    d. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. If the fork uses the Semibath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan.
3. Unscrew the end cap on the bottom of the inner leg and remove compression rod assembly. This will consist of a compression rod, bottom and top out bumpers, the end cap, and should be followed by a coil spring and then another rod (air push rod). This spring is the one that would be changed if the fork's SAG needed to be changed beyond the capabilities of the air pressure.

There are now two ways to remove the air piston from the inner leg:

A. An Air Piston Removal tool has been developed that will enable you to remove the piston without having to take the fork apart. (P/N: 85-8062**)**.
    1. Remove air dust cap covering the Schrader Valve.
    2. Depress Schrader valve to release air pressure.
    3. Remove air cap on top of leg with 20mm socket.
    4. Drain the oil off of the piston if it is present.
    5. Insert Air Piston Removal Tool into the air piston and turn handle counter-clockwise until tight to lock it in the air piston. Fig 2 for insertion example.
    6. Pull out the tool and the Air Piston will come with it. You may need to gently rock the piston back and forth to clear the threads in the top of the leg. Fig. 3
    7. See Installation of the Air Piston for Air Spring Forks instructions on next page

B. Without this tool, you will need to follow the procedures in the following section**.**
    10. Remove air dust cap covering the Schrader valve.
    11. Depress Schrader valve to release air pressure.
    12. Remove air cap on top of Left leg with 20mm socket.
    13. Remove left leg end cap and compression rod assembly from inner left leg. Then remove spring and Air piston rod.
    14. Use a long narrow rod approximately 18"/458mm long and no greater than ¼"/7mm in diameter and insert it into the left inner leg from the bottom of the leg. Be sure to direct the rod through the center of the negative spring assembly that is about halfway up the inner leg.
    15. Once the rod has contacted the air piston, use a rubber mallet and tap the piston out through the top of the inner leg. **Caution:** Do not allow rod used for pushing piston out to contact the inside wall of inner leg during procedure, the surface of the leg could be damaged.
    16. For Reinstallation see Installation of Assembly for Air Spring Forks

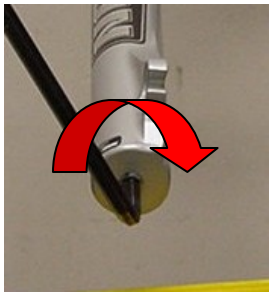


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

E2 Air System Service Instructions

Removal of Air Spring Assemblyssion Rod Assembly

WARNING This fork uses compressed air to provide spring resistance and must be relieved of pressure prior to servicing. Failure to relieve air pressure could result in injury or possible death.

1. Remove air dust cap covering the Schrader valve.
2. Depress Schrader valve to release air pressure.
3. Remove air cap on top of Left leg with 20mm socket.
4. Remove rebound adjuster knob using a 2mm hex wrench.
5. From the right leg dropout, use 8mm hex wrench to turn the damper shaft clockwise until it can be pushed into the casting. (See Fig. 1)
6. Remove 11mm hex bolt (Compression Rod bolt) from bottom of Left leg.
7. Remove crown/steer/inner leg assembly from the outer leg casting.
8. Remove the bottom out bumper, washer and Spacer (if applicable) from the Compression rod. (See Fig. 2)
9. Push the Piston and Compression Rod out of the top of the leg by pushing on the Compression Rod. You may need to use a screwdriver or long allen wrench placed in the end of the Compression Rod to fully remove it from the leg as the leg is longer than the Comp Rod. (See Fig 3)
10. For Reinstallation see Installation of Spring Assembly for E2 Air Spring Forks

Assembly Instructions

Installation of Spring Assembly for E2 Air Spring Forks

WARNING All leg caps for Damper and Spring systems must be properly tightened prior to use. Failure to do so could result in injury or possible death.

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

1. Re-install the air push rod, positive spring (that has been well greased), and compression rod assembly. The Air Push Rods are color coded to the fork travel, a 120mm travel fork is red, 100mm is white, and 80mm is black. (See Fig. 4)
2. Apply a small amount of Prep M grease onto the threads at the top of the left inner leg with your finger.
3. Apply a small amount of Prep M grease around the outside diameter of the new air piston.
4. Insert the air piston, larger cupped side down (See photo below – Piston shown top up) into the inner leg through the threaded area at the top of the inner leg. Use your fingers to push the piston past the threads into the leg. (See Fig. 5)



5. Using a long screwdriver or rod, push the piston fully into leg sp that is in contact with the Compression Rod.
6. Pour about 3cc of a 40wt or greater automotive oil into the top of the piston and then install the air cap assembly. Tighten per the Fastener and Torque Values section.
7. Fully extend the damper shaft and slide the rubber bumper and spacers against the inner leg end cap, also slide the rubber bumber and spacers down to the end of the inner leg on the Compression Rod. Lightly grease the bushings on the inside of the outer leg casting using a thick grease such as Motorex Bike Grease 2000. Insert the crown/steer assembly into the outer legs to the upper bushing.
8. Push the outer legs past the lower bushing and reinstall the 4mm bolt and tighten 8mm damper fitting in a **counterclockwise direction**. Tighten per the Fastener and Torque Values section.

***Use a shock pump (p/n 85-4069) to fill the air system to the recommended levels as outlined in the Black Fastener and Torque Values.

R7 Air System Service Instructions



Fig. 1



Fig. 2



Fig. 3

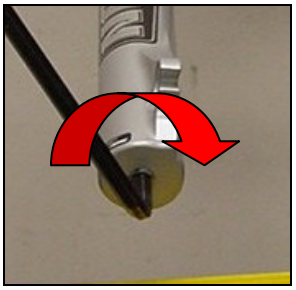


Fig. 4

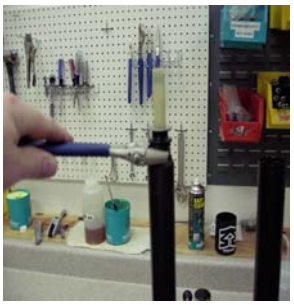


Fig. 5

Removal of Air Piston and Compression Rod Assembly

WARNING This fork uses compressed air to provide spring resistance and must be relieved of pressure prior to servicing. Failure to relieve air pressure could result in injury or possible death.

There are now two ways to remove the air piston from the inner leg.

A. An Air Piston Removal tool has been developed that will enable you to remove the piston without having to take the fork apart. (P/N: 85-8062**)**.

1. Remove air dust cap covering the Schrader Valve.
2. Depress Schrader valve to release air pressure.
3. Remove air cap on top of leg with 20mm socket. (Fig. 1)
4. Drain the oil off of the piston if it is present.
5. Insert Air Piston Removal Tool into the air piston and turn handle counter-clockwise until tight to lock it in the air piston. (Fig. 2 Demonstrates what you are trying to do)
6. Pull out the tool and the Air Piston will come with it. You may need to gently rock the piston back and forth to clear the threads in the top of the leg. The Compression Rod and negative spring will remain in the fork. (Fig. 3)
7. For reinstallation see Air Piston, see Installation of the Air Piston for R7 Air Spring Forks instructions on next page

B. Without this tool, you will need to follow the procedures in the following section**.**

1. Remove air dust cap covering the Schrader valve.
2. Depress Schrader valve to release air pressure.
3. Remove air cap on top of Left leg with 20mm socket.
4. Remove rebound adjuster knob using a 2mm hex wrench.
5. From the right leg dropout, use 8mm hex wrench to turn the damper shaft clockwise until it can be pushed into the casting. (Fig. 4)
6. Remove 11mm hex bolt (Compression Rod bolt) from bottom of Left leg.
7. Remove crown/steer/inner leg assembly from the outer leg casting.
8. Remove the end cap on the Left inner leg and remove Compression rod/ negative spring assembly. (Fig. 5)
9. Push the Air Piston out of the top of the leg by pushing on the Compression Rod. You may need to use a screwdriver placed in the end of the Compression Rod to fully remove it from the leg as the leg is longer than the Comp Rod.
10. For Reinstallation, see Installation of Spring Assembly for E2 Air Spring Forks



Fig. 6



Fig. 7

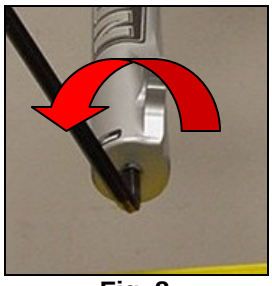


Fig. 8

Assembly Instructions

Installation of the Air Piston for R7 Forks

1. Apply a small amount of Prep M grease onto the threads at the top of the left inner leg with your finger.
2. Apply a small amount of Prep M grease around the outside diameter of the new air piston.
3. Insert the air piston, larger cupped side up (the end with the glide ring goes up, See Fig. 6) into the inner leg through the threaded area at the top of the inner leg. Use your fingers to push the piston past the threads into the leg.
4. Using a long screwdriver or rod, push the piston fully into leg sp that is in contact with the Compression Rod.
5. Pour about 3cc of a 40wt or greater automotive oil into the top of the piston and then install the air cap assembly. Tighten per the Fastener and Torque Values section
   ***Use a shock pump (p/n 85-4069) to fill the air system to the recommended levels as outlined in the R7 Fastener and Torque Values Chart in the back of this manual.

Installation of Air Piston and Compression Rod Assembly for R7 Forks

WARNING All leg caps for Damper and Spring systems must be properly tightened prior to use. Failure to do so could result in injury or possible death.

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

1. Re-install the Compression rod, Negative spring (that has been well greased), and end cap. Torque the end cap to 35-50 in-lbs. (Fig. 7)
2. Apply a small amount of Prep M grease onto the threads at the top of the left inner leg with your finger.
6. Apply a small amount of Prep M grease around the outside diameter of the new air piston.
7. Insert the air piston, larger cupped side up (the end with the glide ring goes up, See Fig. 6) into the inner leg through the threaded area at the top of the inner leg. Use your fingers to push the piston past the threads into the leg.
8. Using a long screwdriver or rod, push the piston fully into leg so that is in contact with the Compression Rod.
9. Pour about 3cc of a 40wt or greater automotive oil into the top of the piston and then install the air cap assembly. Tighten per the Fastener and Torque Values section.
10. Fully extend the damper shaft and slide the rubber bumper and spacers against the inner leg end cap, also slide the rubber bumper and spacers down to the end of the inner leg on the Compression Rod. Lightly grease the bushings on the inside of the outer leg casting using a thick grease such as Motorex Bike Grease 2000. Insert the crown/steer assembly into the outer legs to the upper bushing.
11. Push the outer legs past the lower bushing and reinstall the 4mm bolt and tighten 8mm damper fitting in a **counterclockwise direction**. (See Fig. 8) Tighten per the Fastener and Torque Values section.
    ***Use a shock pump (p/n 85-4069) to fill the air system to the recommended levels as outlined in the R7 Fastener and Torque Values.



Fig. 1

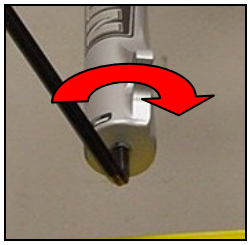


Fig. 2



Fig. 3



Fig. 4

IT Air System Service Instructions

Removal of IT Air Spring and Travel Adjust Assembly

WARNING This fork uses compressed air to provide spring resistance and must be relieved of pressure prior to servicing. Failure to relieve air pressure could result in injury or possible death.

1. **Important: Y**ou must remove all of the air from the left leg of the fork before disassembling the IT System. It is advisable to to have the fork inverted and pointed away from your face, as there may also be a discharge of a mixture of air and oil when you depress the Schrader valve core (this is similar to the discharge when you depress the valve core on any of the Manitou Air or SPV forks).
2. On the bottom of the left leg (leg that has the Disk Brakes mounts on it), there is a Schrader valve protruding from it. Unscrew the valve cap and follow either of these two methods for releasing all of the air from the system. (See Fig. 1)
3. Depress the valve core and let all of the air out. Now depress the IT lever on the bike's handlebar and release it. Once again, depress valve core in the Schrader valve to release any air in the leg. Do this a couple of times, until all of the air is released.

a. If you have a helper, have them hold the IT lever on the handlebar down as you depress the valve core. This will let all of the air out at one time.

4. Now that all of the air is released, Remove the casting:
   a. From the left leg dropout (Left when sitting on the bike), use a 12mm wrench to remove the compression rod nut.
   b. From the right leg dropout, remove the rebound knob. Screw the rebound all the way in (clockwise), remove the 2mm hex screw inside the knob by turning it counter clockwise. Remove the knob by pulling gently away from the fork.
   c. Use a 8mm hex wrench to turn the damper **clockwise** until it can be pushed into the casting. (see Fig. 2)
   d. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. The fork uses a Semibath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan.
5. Use an Adjustable Wrench and unscrew the black end cap that is threaded into the bottom of the left inner leg. (See Fig. 3)
6. Pull the lower IT assembly from the inner leg. There may be a small amount of oil that comes out of the inner leg as you remove the lower IT assembly. This is the lubricating oil used to allow the air piston on the lower shaft assembly to move freely.
7. Now it is time to remove the IT upper assembly. Release the IT control wire from the control lever (if attached) by unscrewing the fixing screw on the lever that holds the cable tight. Use a 2mm Allen Wrench to unscrew this screw and then pull the cable out of the lever.
8. To remove the upper IT assembly, use a slotted 22mm 6 point socket (P/N: 83-2503), a 22mm Open End wrench, or an adjustable wrench. Unscrew it by turning counter-clockwise. **Note: Be aware of the IT control Wire spinning around when unscrewing the top cap** (See Fig. 4)
9. Pull the upper assembly out of the inner leg.

Assembly Instructions

Troubleshooting Tips

** If the fork starts to lose travel from an extended position to a shorter position by itself, the damage is most likely centered on the Quad ring around the outside of the piston.

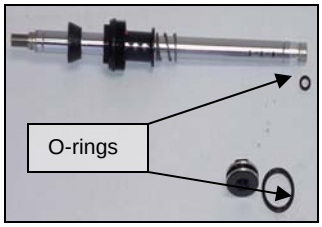


Fig. 5

**If the fork extends from a shorter travel to a longer travel by itself, the failure can be involving the smaller Quad ring that is located under the piston on the inside diameter of it where the shaft of the upper assembly intersects the lower assembly and piston. The shaft is sealed against leakage at this point to define the two different chambers. (Fig. 5) Always check two things when you have the system apart.

**Use a straight edge and lay it next to the inner shaft that is attached to the top cap of the upper assembly to insure that that shaft is not bowed at any point. We found that in the assembly of these pieces, the shaft is pressed into the top cap and occasionally if it is over-pressed, the shaft will bow. This means that, where the bow is in the travel of the shaft, it will cause the Quad ring that it is passing through, to distort. Thus air transfers from one chamber to the other and the fork will extend by itself. If this is the case, you will need a new top assembly and an O-ring kit. (Refer to Figure 6)



Fig. 6

**Make sure that the valve core in the Schrader valve is tight and does not stick open or closed. If this is faulty, replace this valve core with a new one. Any bicycle tube valve core will work, as well as any valve cores that we currently use on any of our other products.

Note: Always replace all o-rings and seals provided in the IT O-ring kit, each time you take the system apart, this will insure that you receive maximum performance.

Installation of the IT Control Wire

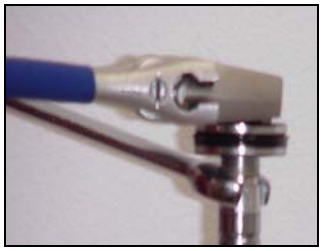
1. In order to change the inner control wire, start by following IT disassembly steps 1, 2, 6, 7, & 8.
2. Once you have the upper assembly out of the fork, use the adjustable wrench and the 12mm Open End wrench to unscrew the top cap from the shaft of the assembly. Refer to Figure 7 at the right.
3. As you unscrew the top cap, you will feel a little tension created by a spring that is under the cap. Separate the top cap from the shaft once you have completely unthreaded the two pieces.
4. Pull on the inner wire in order to remove the machined stopper with the cable end in it from the shaft.
5. You can now unhook the cable from the stopper and from the cable head end, pull the cable through the spring, the top cap, and the outer cable housing. Refer to Figure 8 at the right.
6. Reverse the above steps to replace the cable.
   Note: The inner cable can be replaced with a standard bicycle derailleur cable It is recommended to replace the two O-rings on the stopper each time that it is removed from the shaft, in addition to the Black Buna O-ring that is on the shaft below the threads.


Fig. 7


Fig. 8

Replacement of Piston Quad Rings

1. Refer to Figure 10 for wrench placement. Hold the 12mm wrench in place on the flats that are on the piston seat and turn the piston with the adjustable wrench in a counter clockwise motion to unscrew the piston from the shaft.
2. Once the piston is off of the shaft, you will see a small Black Quad ring inside the top of the shaft that you just unscrewed the piston from. Replace this Quad ring with a new one from IT O-ring kit. Be sure that the new quad seal is seated in the shaft and rests flat against the shelf inside of the shaft. (Refer to Figure 9)
3. Install the Air Piston back onto the shaft in the reverse of the way you removed it. Tighten the piston to 15inlbs (1.7Nm) onto the shaft.
4. Remove the large Quad ring on the outside of the piston, Discard this Quad ring and replace it with a new one. Be careful not to twist it in the groove that it rests in.


Fig. 10

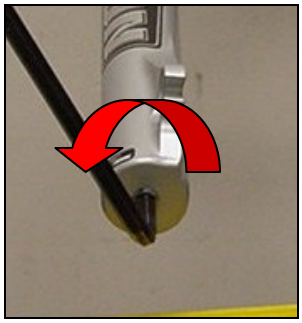


Fig. 11



Fig. 12

Assembly Instructions

Installation of the IT Air Spring and Travel Adjust Assembly

WARNING All leg caps for Damper and Spring systems must be properly tightened prior to use. Failure to do so could result in injury or possible death.

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

1. It is recommended that when reassembling the IT system that you start by installing the lower assembly into the bottom of the inner leg first. Be sure to apply a small amount of Prep M grease to the Quad ring on the outside of the piston, in the hole in the piston and onto the threads of the inner leg before inserting the assembly into leg.
2. Twist the shaft assembly as you insert piston past the threads of inner leg. Tighten end cap to 25-35inlbs (2.8-3.9Nm). It might be necessary to use a socket and extension thru the top of the fork leg and engage the head on the top of the piston so that you can screw in the quad seal past the threads in the leg.
3. Put a small amount of Motorex grease on the end of the Upper Assembly shaft, and then insert the assembly into the fork inner leg.
4. As soon as contact is made with the hole in the top of the air piston/lower assembly, twist the upper assembly like screwing in a screw to guide the upper assembly shaft into the hole without damaging the Quad ring seal in the shaft of the lower assembly.
5. After reinserting the upper assembly into the fork but before screwing the top cap in, pour about 8-10cc's of Air Piston Oil (40wt. automotive oil maybe substituted) into the fork leg through the top of the crown.
6. Torque the top cap to **in/lbs using the slotted 22mm socket.
7. Replace the Outer Casting if it has been removed as follows:
    a. Replace the o-ring at the end of the rebound shaft, if not you will risk having a leak in that area.
    b. Extend the rebound damper out from end cap as far as it will go and then slide bottom out bumper towards the end cap as far as it will go. The bumper will help to hold the damper shaft in place as you are inserting the inner legs into the casting.
    c. Press inner legs into casting about half way and then inject Semi Bath oil (5/40wt. synthetic oil, P/N: 85-0022) into outer casting, holding fork at 45 degree angle to the ground with bottom of fork in the air (drop outs up). Inject **16cc's** of oil into each outer leg. It is recommended to use a syringe to inject oil.
    d. Press inner leg assembly into outer leg casting until damper shaft contacts casting. Adjuster hex shaft should protrude slightly from casting.
    e. Use an 8mm hex wrench to turn the damper shaft **counterclockwise**, threading it into the casting. (See fig. 11) Tighten per the Schematic and Torque Specification Table for your fork.
    f. Install rebound adjuster knob if applicable.
    g. Install the compression rod screw and tighten per the Black Schematic and Torque Specification Table.
8. Feed the inner wire through the cable housing and secure one end of the of the housing into the gold cable guide, then feed the end of the inner wire through the hole in the black cable stop on the lever.
9. The inner wire now feeds through the hole in bottom of the lever, over the top of the lever and through the hole in the back of the lever.
10. Pull the inner wire until there is no slack in the cable. Be sure to set a 2mm gap between the front of the lever and the top of the cable stop to insure that you have not over tightened the cable before you tighten the 2mm Allen bolt on the front of the lever to cinch the inner wire. (Refer to Figure 12)
11. The last step is to cut the inner wire that is left hanging on the backside of the lever and then installing the cable end to prevent it from fraying.
12. Pressurize the system and check for proper function. It is fastest if you have someone depress the control lever and hold it while you pump air into the system. This way the system equalizes immediately. If you do not have a second person to help, just add air to the system and then periodically depress the lever to equalize the pressure.



Fig. 1



Fig. 2



Fig. 3



Fig 4

Outer Casting Service

There are two different ways that castings are retain on the fork legs, one version is accessed through the top of the fork legs and the other is accessed on the bottom of the each casting leg.

Disassembly Instructions for Style 1

WARNING This fork uses a preloaded coil spring provide spring resistance. The spring must be relieved of its preload prior to servicing. Failure to do so could result in injury or possible death.

1. Turn spring preload adjuster knob counter clockwise until it stops. Remove 2mm hex screw on spring preload adjuster knob and remove knob on the top left side of the fork.
2. Remove preload adjuster using 18mm socket.
3. Remove top leg cap on right hand side using 24mm socket. (Fig. 1)
4. Compress fork and remove the spring, MCU, and top cap assy. If you need to make a spring rate change separate the individual pieces, change to the required spring and reassemble.
5. Invert fork and tap on work bench to remove plastic spacer from inside of left inner leg.
6. Using a ¼ inch drive 4mm hex on an extension or Answer p/n 85-3006, remove the comp rod screws from inside the bottom of both inner legs. (See Fig 2 and 3)
7. Pull off outer leg from crown/steer assy.
8. To remove compression rods, remove the compression rod clips (slotted washer if installed) and the black rubber bottom out bumper. Feed the compression rod up through the inner leg.
9. The rubber fork boots can now be removed from the casting at this time and replaced if necessary.

Assembly Instructions

1. Remove rubber fork boots from the casting and slide them onto the inner legs of the crown/steer assy.
2. Lightly grease the bushings on the inside of the outer leg casting and on the lower portion of the inner legs below the boots using a thick grease such as Motorex Bike Grease 2000.
3. Reinstall compression rods into the inner legs if necessary.
4. Reinstall the bottomout bumpers and clips.
5. Slide the outer leg onto the crown/steer assy, make sure the arch is facing to the rear.
6. Using a ¼ inch drive 4mm hex on an extension or Answer p/n 85-3006, tighten the comp rod screws from inside the bottom of both inner legs. Torque per Fastener Torque and Setup Levels section.

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression rod bolts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

7. Snap boots over dust seal of outer leg casting.
8. Install plastic spacer into left inner leg. See Fig. 4 for order.
9. Grease spring heavily with Motorex Bike Grease 2000.
10. Extend fork and install the spring preload, MCU, and spring assy.
11. Tighten preload adjuster using 18mm socket to torque Listed in Fastener and Setup Levels section.
12. Install preload adjuster knob using 2mm hex screw.

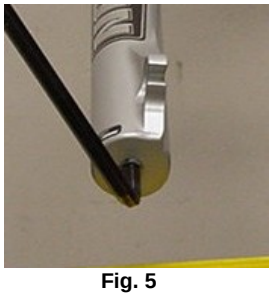


Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

Disassembly Instructions for Style 2

1. From the left leg dropout (Left when sitting on the bike), use a 10 or 11mm wrench to remove the compression rod screw.
2. From the right leg dropout, if the fork has adjustable rebound, the knob will need to be removed. Screw the rebound all the way in (clockwise) remove the 2mm hex screw inside the knob by turning it counter clockwise. Remove the knob by pulling gently away from the fork.
3. Use a 8mm hex wrench to turn the damper **clockwise** until it can be pushed into the casting. (see Fig. 5)
4. Remove crown/steer/inner leg assembly from the outer leg casting by pulling firmly on the casting. If the fork uses the Semibath Lubrication system, use caution as the oil that is in the casting will be released when the casting is removed, it is best to do this over some type of catch pan.

Assembly Instructions

WARNING When installing the outer Leg Casting to the Crown Steer Assy, Compression Rod bolts and Damper Shafts must be properly tightened prior to use. Failure to do so could result in injury or possible death.

1. Turn completed crown/steer/leg assembly upside down, so that the compression rod and damper shaft are facing you. You will see a bottom out bumper on the damper shaft; slide this bumper down towards the end cap that is threaded into the inner leg. This will help in keeping the shaft extended as you install the outer casting. You could also insert air into the damper leg through the Schrader valve on top of the right leg (SPV models). This extra pressure will help to keep the shaft from moving. (See Fig. 6)
2. Replace the o-ring at the end of the rebound shaft, if not you will risk having an oil leak in that area. (See Fig. 7) There are 2 styles of o-ring which are used, be sure to replace with a matching o-ring. (See Fig. 8)
3. Extend the rebound damper out from end cap as far as it will go and then slide bottom out bumper towards the end cap as far as it will go. The bumper will help to hold the damper shaft in place as you are inserting the inner legs into the casting.
4. **For Grease Forks** - Remove rubber fork boots from the casting and slide them onto the inner legs of the crown/steer assy. Lightly grease the bushings on the inside of the outer leg casting and on the lower portion of the inner legs below the boots using a thick grease such as Motorex Bike Grease 2000. Proceed to Step 6.
5. **For Semibath Forks** - Press inner legs into casting about half way and then inject Semi Bath oil (5/40wt. synthetic oil, P/N: 85-0022) into outer casting, holding fork at 45 degree angle to the ground with bottom of fork in the air (drop outs up). Inject **16cc's** of oil into each outer leg. It is recommended to use a syringe to inject oil. (See Fig. 9)
6. Press inner leg assembly into outer leg casting until damper shaft contacts casting. Adjuster hex shaft should protrude slightly from casting.
7. Use an 8mm hex wrench to turn the damper shaft **counterclockwise**, threading it into the casting. Tighten per the Schematic and Torque Specification Table for your fork.
8. Install rebound adjuster knob if applicable.
9. Install the compression rod screw and tighten per the Black Schematic and Torque Specification Table.
10. **For forks with the Wind Down system:** follow steps 2 – 5 from the Wind Down Travel Adjust assembly instructions.

Use: 8mm Allen wrench, 2mm Allen wrench, 11mm Nut Driver or open end wrench, Syringe for Semi Bath Oil, Air pump



Fig. 1

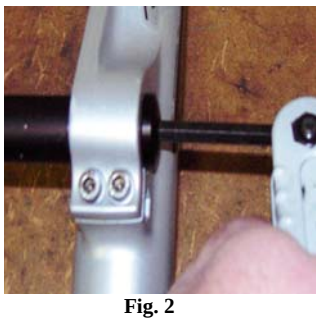


Fig. 2

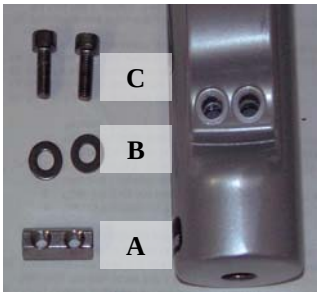


Fig. 3



Fig. 4



Fig. 5

32mm Leg Thru Axle and Quick Release Thru Axle Instructions

Standard Hex Thru Axle

Removal Instructions

Removal of Hex Thru Axle

1. Loosen the two 3mm clamp-fixing bolts on the right fork leg. (See Fig. 1)
2. Remove the Thru Axle nut from the right side of the Thru axle.
3. Loosen the two 3mm clamp-fixing bolts on the left fork leg.
4. Push the Hex Thru Axle out of the dropouts from left to right and completely remove it and the front wheel from the fork.

Assembly Instructions

Installation of Hex Thru Axle

1. Insert the Clamp Nuts (See Fig.3 – A) into the small hexagonal hole in each of the dropouts.
2. Insert 2 Spacer/Washers p/n 062876 (See Fig.3 – B) in the slot of each dropout. (See Fig. 4)
3. Start two clamp fixing bolts (See Fig.3 – C) in each dropout. Do not tighten these bolts down at this time.
4. Hold the wheel between the dropouts of the fork.
5. Insert Hex Thru Axle small hex first into the outside of the left drop out (as you are facing fork) and push it through the hub of the wheel, and into the right drop out.
6. Thread the Thru Axle nut into the end of the axle that is in the right drop out. Thread the Thru Axle Nut in about half way in; do NOT tighten it down fully.
7. Set the end of the axle flush with the outside of the left drop out. Tighten the 3mm clamp fixing bolts to specified torque value as called out in the Schematic and Technical Specification Chart at the end of manual.
8. Finish the installation by tightening axle nut to specified torque value and then tighten the clamp fixing bolts on the right drop out to the specified torque. **(See Fig. *)**

Quick Release Hex Thru Axle

Removal of the QR Thru Axle

1. Pull down on the QR lever on the right fork leg to relieve the tension on that fork leg. Fig. 5 shows the QR Lever in the open position.
2. Unscrew the QR Axle Bolt on the right hand side of the fork.
3. Pull down on the QR lever on the left fork leg to relieve the tension on that fork leg.
4. Unless you need to replace a component of the QR system, do not proceed further.
5. Remove the bolt in the center of the Pivot Cylinder of the QR Lever.
6. Remove the Pivot Cylinder from the Lever.
7. Remove the Shim, Adapter, spring and Hex Nut from each fork leg.
8. Inspect all parts for wear. If any parts show signs of wear, replace all components on the side as a system. Mixing new and used parts will result in accelerated wear when the parts are reassembled.



Fig. 6



Fig. 7



Fig. 8



Fig. 9

32mm Leg Thru Axle and Quick Release Thru Axle Instructions

Assembly Instructions

1. Install a Spacer/Washer p/n 062876 (See Fig 6–B) into the slot in the right drop out.
1. Install spring p/n 069641 (See Fig.6-C) into counter bore of the right drop out of the casting.
2. Install a Hexagonal Nut p/n 066484 (See Fig.6-A) into the small hexagonal hole in the drop out of the fork leg. (See Fig. 7)
3. Place an adapter p/n 066487 (See Fig.6-D) on top of spring; the adapter is symmetrical so its orientation is not critical. Place a shim p/n 069647 (See Fig.6-E) on top of adapter. (see Fig. 8)
4. Install pivot cylinder p/n 066479 (See Fig.6-F) into the bore of the QR Lever p/n 066490 (See Fig.6-G).
5. Install an M5x32 bolt p/n 069638 (See Fig.6-H) through the hole in the pivot cylinder that you installed in the QR Lever. The bolt head must sit in counter bore in the Pivot Cylinder.
6. Insert the M5x32 bolt through the shim, adapter and the spacer/washer and screw it into hexagonal nut in the drop out. The QR Lever should be oriented so that in the closed position it points up to the top of the casting. DO NOT tighten the bolt at this time. Make sure that the bolt is inserted through the spacer/washer, in the slot in the drop out, as they can slid around during assembly. (See Fig. 9)
7. Insert the Hex axle p/n 064590 into the casting, from left to right, starting with the end that has the small hex first.
8. Apply Grease to threads of Axle Bolt p/n 066471 and hand screw it into the Hex Axle, but only screw it in a few threads, do not tighten the Axle Bolt yet.
9. Make sure right lever is in closed position, as shown below. The torque setting on the QR Lever Bolt is: 30-40 lb-in [3,39-4,51 N-m] You want to use the lowest torque possible and still retain the axle properly:



   a. Start by first torquing the QR Lever Bolt to 30 lb-in [3.39 N-m].
   b. Open the lever and then close it, check for smooth operation of the lever and if the axle is properly retained.
   c. If it is possible to move the axle side to side, close the lever and increase the torque on the bolt by 2.5 in/lbs. and retry the lever
   d. Repeat the steps above until you achieve proper operation of the Quick Release.

10. Repeat # 1-10 for the other side of the casting.
11. Remove the Axle Bolt and the Hex Axle
12. Hold the wheel between the dropouts of the fork.
13. Insert Hex Thru Axle small hex first into the outside of the left drop out (as you are facing fork) and push it through the hub of the wheel, and into the right drop out.
14. Thread the Axle Bolt into the end of the axle that is in the right drop out. Thread the Axle Bolt in about half way; do NOT tighten it down fully.
15. Set the end of the axle flush with the outside of the left drop out. Tighten the QR on the left fork leg.
16. Hand tighten the Axle bolt on the right side drop out.
17. Finish the installation by tightening the quick release on the right fork leg.

Travis Thru Axle and Quick Release Thru Axle Instructions



Fig. 1

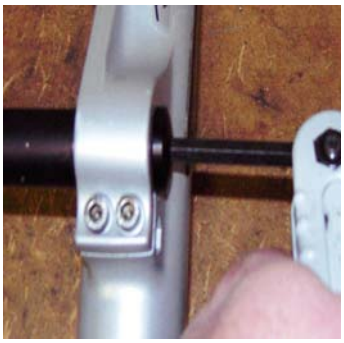


Fig. 2



Fig. 3



Fig. 4

Standard Hex Thru Axle

Removal Instructions

Removal of Hex Thru Axle

1. Loosen the two 3mm clamp-fixing bolts on the right fork leg.
2. Remove the Thru Axle nut from the right side of the Thru axle.
3. Loosen the two 3mm clamp-fixing bolts on the left fork leg.
4. Push the Hex Thru Axle out of the dropouts from left to right and completely remove it and the front wheel from the fork.
5. Check for any cracks around the Axle bearing area on the Outer Casting. If there are any found, replace the casting.

Assembly Instructions

Installation of Hex Thru Axle

1. Insert the Clamp Nuts into the small hexagonal hole in each of the dropouts.
2. Insert a Spacer/Washer (062876) in the slot of each dropout.
3. Start two clamp fixing bolts in each dropout. Do not tighten these bolts down at this time.
4. Hold the wheel between the dropouts of the fork.
5. Insert Hex Thru Axle small hex first into the outside of the left drop out (as you are facing fork) and push it through the hub of the wheel, and into the right drop out.
6. Thread the Thru Axle nut into the end of the axle that is in the right drop out. Thread the Thru Axle Nut in about half way in; do NOT tighten it down fully.
7. Set the end of the axle flush with the outside of the left drop out. Tighten the 3mm clamp fixing bolts to specified torque value as called out in the Schematic and Technical Specification Chart at the end of manual.
8. Finish the installation by tightening axle nut to specified torque value and then tighten the clamp fixing bolts on the right drop out to the specified torque. **(See Fig. *)**

Quick Release Hex Thru Axle

Removal of the QR Thru Axle

1. Pull down on the QR lever on the right fork leg to relieve the tension on that fork leg.
2. Unscrew the QR Axle Bolt on the right hand side of the fork.
3. Pull down on the QR lever on the left fork leg to relieve the tension on that fork leg.
4. Unless you need to replace a component of the QR system, do not proceed further.
5. Remove the bolt in the center of the Pivot Cylinder of the QR Lever.
6. Remove the Pivot Cylinder from the Lever.
7. Remove the Shim and Hex Nut from each fork leg.
8. Inspect all parts for wear. If any parts show signs of wear, replace all components on the side as a system. Mixing new and used parts will result in accelerated wear when the parts are reassembled.
9. Inspect for any cracks around the Axle bearing area on the Outer Casting. If there are any found replace, the casting.

Travis Thru Axle and Quick Release Thru Axle Instructions

Assembly Instructions

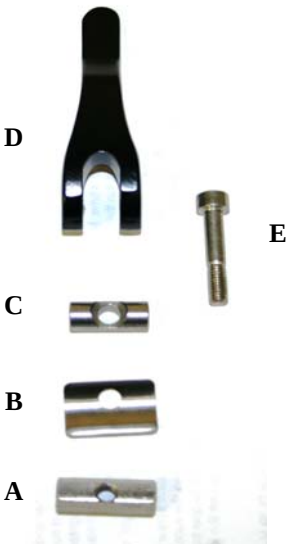


Fig. 5



Fig. 6



Fig. 7



Fig. 8

1. Install a Spacer/Washer (p/n 062876) into the slot in the right drop out.
2. Install a Hexagonal Nut p/n 066484 (See Fig.5-A) into the small hexagonal hole in the drop out of the right fork leg.
3. Place a shim p/n 066488 (See Fig.5-B) on top of drop out in the semicircular area. (See Fig.6)
4. Install pivot cylinder p/n 066479 (Fig.5-C) into the bore of the QR Lever p/n 066490 (See Fig.5-D).
5. Install an M5x32 bolt p/n 069638 (See Fig.5-E) through the hole in the pivot cylinder that you installed in the QR Lever. The bolt head must sit in counter bore in the Pivot Cylinder. (See Fig. 7)
6. Insert the M5x32 bolt through the shim, and the spacer/washer and screw it into hexagonal nut in the drop out. The QR Lever should be oriented so that in the closed position it points up to the top of the casting. DO NOT tighten the bolt at this time. Make sure that the bolt is inserted through the spacer/washer, in the slot in the drop out, as they can slid around during assembly. (See Fig. 8)
7. Insert the Hex axle (p/n 069635) into the casting, from left to right, starting with the end that has the small hex first.
8. Apply Grease to threads of Axle Bolt (p/n 066471) and hand screw it into the Hex Axle, but only screw it in a few threads, do not tighten the Axle Bolt yet.
9. Make sure right lever is in closed position, as shown. The torque setting on the QR Lever Bolt is: 30-40 lb-in [3,39-4,51 N-m] You want to use the lowest torque possible and still retain the axle properly:



   a. Start by first torquing the QR Lever Bolt to 30 lb-in [3.39 N-m].
   b. Open the lever and then close it, check for smooth operation of the lever and if the axle is properly retained.
   c. If it is possible to move the axle side to side, close the lever and increase the torque on the bolt by 2.5 in/lbs. and retry the lever
   d. Repeat the steps above until you achieve proper operation of the Quick Release.

10. Repeat # 1-10 for the other side of the casting.
11. Remove the Axle Bolt and the Hex Axle
12. Hold the wheel between the dropouts of the fork.
13. Insert Hex Thru Axle small hex first into the outside of the left drop out (as you are facing fork) and push it through the hub of the wheel, and into the right drop out.
14. Thread the Axle Bolt into the end of the axle that is in the right drop out. Thread the Axle Bolt about half way in, DO NOT tighten it down fully.
15. Set the end of the axle flush with the outside of the left drop out. Tighten the QR on the left fork leg.
16. Hand tighten the Axle bolt on the right side drop out.
17. Finish the installation by tightening the quick release on the right fork leg.

Manitou Fork Technical Information

2006 Oil Levels

			Oil Level			
			Minimum		Maximum	
Platform	Damping System	Travel	Inches	MM	Inches	MM
Empire	FFD	60 or 75	4.3	110	4.9	125
Axel/Trace	FFD/Lockout	80, 100 or 120	4.3	110	4.9	125
	Remote Lockout	80, 100 or 120	4.1	104	4.7	119
Splice	FFD and TPC/Lockout	80, 100 or 120	4.3	110	4.9	125
	Remote Lockout	80, 100 or 120	4.1	104	4.7	119
	Platform+	80, 100 or 120	2.9	73	3.4	88
R7	FFD	80 or 100	4.3	110	4.9	125
	Platform +	80 or 100	2.9	73	3.4	88
	TPC/Lockout	80 or 100	4.3	110	4.9	125
	Snap Valve SPV	80 or 100	4.2	108	4.8	123
	Remote L/O	80 or 100	4.1	104	4.7	119
Black	FFD & TPC Lockout	80, 100, 120 or RTWD	4.5	115	4.9	125
	Platform+	80, 100 or 120	2.9	73	3.4	88
	SPV	80, 100 or 120	2.7	68	2.8	72
	Remote L/O	80, 100 or 120	4.1	104	4.7	119
Minute	Platform+	100, 130	3.1	80	3.3	85
	TPC Lockout	100/130 RTWD	3.5	90	3.7	95
	SPV	100, 130	3.0	75	3.1	80
	SPV	130mm IT TA	3.3	85	3.5	90
Nixon	CTPC+	145	3.7	95	3.9	100
	CID	145mm IT TA	*Full	*Full	*Full	*Full
Gold Label	FFD	80, 100	4.3	110	4.5	115
Stance	FFD / Single Crown	All Travels	3.3	85	3.7	95
	TPC+ / Dual Crown	150 or 170	8.7	220	9.4	240
Travis	CTPC+ / Single Crown	150	3.7	95	3.9	100
	CTPC+ / Single Crown	180	4.3	110	4.5	115
	CTPC+ / Single Crown	203	4.9	125	5.1	130
	CTPC+/ Dual Crown	180	4.3	110	4.5	115
	CTPC+/ Dual Crown	203	5.5	140	5.7	145
	CID All Models	180 or 203	*Full	*Full	*Full	*Full

***Consult the 2006 Service Manual Cartridge Damping Section for correct full damper bleed process.**

TABLE 6 – RECOMMENDED TORQUE SPECIFICATIONS

ITEM	TORQUE SPECIFICATION
TRAVIS INTEGRATED STEM	5.7 - 6.8 Nm (50 - 60 in/lb)
DUAL CROWN CLAMPS	11.3 - 12.4 Nm (100 - 110 in/lb)
HEX AXLE BOLTS (4 pieces)	5.0 - 6.2 Nm (45 - 55 in/lb)
HEX AXLE THRU BOLT	2.8 - 3.4 Nm (25 - 30 in/lb)
REMOTE HANDLEBAR CLAMP	0.45 - 0.68 Nm (4 - 6 in/lb)
REMOTE LEVER (cable clamp screw)	0.34 - 0.56 Nm (3 - 5 in/lb)

TABLE 1 – WHEEL CLEARANCE

FORK MODEL	MINIMUM BRAKE ARCH CLEARANCE (See Figure A)	MAXIMUM TIRE WIDTH (See Figure B)
LOLA	13 mm	47 mm
EMPIRE	13 mm	47 mm
TRACE	8.5 mm	60 mm
AXEL	8.5 mm	60 mm
SPLICE	8.5 mm	60 mm
BLACK	8.5 mm	60 mm
R7	10 mm	60 mm
MINUTE	8.5 mm	63 mm
NIXON	17 mm	65 mm
GOLD LABEL	14.2 mm	65 mm
STANCE	12 mm	65 mm
TRAVIS	11.4 mm	70 mm

TABLE 3 – SAG MEASUREMENT

FORK TRAVEL	SAG
60 mm	9 - 12 mm
75 mm	12 - 15 mm
80 mm	12 - 16 mm
100 mm	15 - 20 mm
120 mm	18 - 30 mm
130 mm	26 - 33 mm
145 mm	29 - 37 mm
150 mm	30 - 45 mm
170 mm	34 - 50 mm
180 mm	36 - 54 mm
203 mm	40 - 60 mm

TABLE 5 – DUAL CROWN SIZING

CUP-TO-CUP MEASUREMENT*	DUAL CROWN SIZE
STANCE	
130-160 mm	Small (flat upper crown)
155-185 mm	Large (drop upper crown)
TRAVIS	
130-169 mm	Small (flat upper crown)
150-185 mm	Large (drop upper crown)

*Cup-to-cup measurement is the distance from the bottom of the lower headset cup to the top of the upper headset cup.

TROUBLESHOOTING

Symptom	Cause	Solution	Service Manual Section
Air Loss	Schrader Valve leaks	Tighten Valve core, replace bad parts as needed.	**1**
	Air Cap O-ring leaks	Make sure O-ring is seated properly, replace parts as needed.	
	Air Piston leaks	Check oil volume on top of piston, replace parts as needed.	
	Air Top Cap leaks	Check O-ring, tighten cap to proper Torque, replace parts as needed.	
Oil leaks from Wiper Seals	Seal not seated properly	Remove Casting from Inner Legs, reinstall or replace seals	
	Nicks or scratches on inner legs	Replace Crown/Steerer/Inner Leg Assembly	
	Too much Semi Bath oil	Follow instructions for removal and installation of Outer Casting	
	Wear	Remove Casting from Inner Legs, reinstall or replace seals	
Oil leaks from bottom of Casting	Rebound damper shaft leaks	Replace Rebound Damping assembly	
	Rebound damper shaft O-ring damaged	Replace O-ring on threaded end of Rebound Damping assembly	
	Compression Rod Bolt leaks	Check O-ring on bolt to see if it is damaged and then reinstall	
Lack of Travel	Tight Bushings	Resize bushings or replace with new ones if damaged	
	Hydraulic lock out	Replace Rebound Damping assembly	
	Semi Bath oil volume	Follow instructions for removal and installation of Outer Casting	
	Damper oil volume	Check oil level, Replace Rebound Damping assembly if needed	
	Fork alignment	Visually inspect fork, call Answer Products Customer Service	

TROUBLESHOOTING (CONT.)

Symptom	Cause	Solution	Service Manual Page
Fork Top out	Loss of Rebound Damping	Replace Rebound Damping assembly	
	Top out spring damaged	Inspect and replace Top out spring if needed.	
	Damping oil volume not correct	Check oil level, Replace Rebound Damping assembly if needed	
Fork Bottom out	Too much SAG	Refer to SAG Set up in Tuning section of Owners Manual	
	Bottom out Bumper damaged	Inspect and replace Bottom out Bumper if needed	
	Damping oil volume not correct	Check oil level, Replace Rebound Damping assembly if needed	
Play in Fork	Loose bushings	Resize bushings or replace with new ones if damaged	
	Loose Compression Rod bolt	Tighten bolt to specified torque	
	Loose Rebound damping shaft	Tighten Shaft to specified torque	
	Loose press fit tolerances	Call Answer Products Customer Service	
Air Assist Problems	Various	See Air Assist Troubleshooting Guide	
Lock Out Problems	Various	See Lock Out Troubleshooting	
Remote Lockout Problems	Various	See Remote Lockout Section	

		Trace								
Model		Comp	Elite FFD		Super FFD-R		Platinum Lockout		Platinum ClickIt Lockout	
Travel (mm)		80 or 100	80	100	80	100	80	100	80	100
Comp Damp FFD	**A**		85-5253							
Lock Out - TPC	**A**		85-5318				85-5318			
Remote L/O Assy *	**A**		83-2407						83-2407	
Click-It Remote L/O Lever -Left *	**A - STD Shock**		83-5558						*83-5558	
Click-It Remote L/O Lever -Right *	**A - STD Fork**		83-2629						83-2629	
Click-It Remote L/O Cable *	**A**		83-2973						83-2973	
Click-It Remote L/O Cable Guide *	**A**		83-2183						83-2183	
Click-It Remote L/O O-Ring Kit *	**A**		83-2408						83-2408	
Click-It Remote Lever Jelly Beans			83-2987 (10 pack)						83-2987 (10 Pack)	
Rbnd Damp - Non Adj	**B**		85-5254							
Rbnd Damp - Adj	**B**		85-5255		85-5255					
Pre Load Adj	**C**		85-4810							
Crn/Str/Leg	**D**									
	***Steel S/T (26")		83-5560	83-5561	83-5560	83-5561	83-5560	83-5561	83-5560	83-5561
	***Blk AL S/T(26") STD/SM		83-5562	83-5563	83-5562	83-5563	83-5562	83-5563	83-5562	83-5563
Outer Leg Assy	**E**									
STD	Black (26")	83-5564								
STD	Silver (26")	83-5565								
STD	Red (26")	83-5566								
STD	White	83-5567								
Sticker Kit	**F - For Dark Colors**	83-5568								
	F - For Light Colors	83-5569								
Ride Kits	**G**									
	***Soft	83-2135	83-2135	83-2138	83-2135	83-2138	83-2145	83-2148	83-2145	83-2148
	***Medium	83-2136	83-2136	83-2139	83-2136	83-2139				
	***Firm	83-2137	83-2137	83-2140	83-2137	83-2140	83-2146	83-2149	83-2146	83-2149
	***X-Firm	83-2610	83-2610	83-2611	83-2610	83-2611				
Comp Rod/	**H**									
	80	85-4921	85-4921							85-4921
	100	85-4921	85.4921							85-4921
Comp Rod Bottomout Spacers	**H**	TBD1	83-5577	83-5578	83-5577	83-5578	83-5577	83-5578	83-5577	83-5578
Bushing Kit	**E**	83-2596								
Knob Kit	**I**	83-2595								
Boot Kit	**J**	85-5390								
Dust Seal Kit	**K**	83-5583								
O-Ring Kit	**K**		85-5555							
Click-It L/O Retro Kits (NOT WARRANTY I	**A**		83-2977						83-2977	
		Trace - Air Fork Specific Kits								
		Elite Air FFD		Super Air FFD-R		Platinum Air Lockout		Platinum Air ClickIt		
		80	100	80	100	80	100	80	100	
Air Cap	**C**	83-2398								
Ride Kits	**G**									
	Negative Spring - STD	TBD								
Air Push Rods	**H**									
	80	83-2592		83-2592		83-2592		83-2592		
	100		83-2593		83-2593		83-2593		83-2593	
Air Piston Kit	**G**	83-5580								

Axel

Model		Comp			Elite FFD			Super FFD-R			Platinum Lockout/ Remote L/O		
Travel (mm)		80	100	120	80	100	120	80	100	120	80	100	120
Comp Damp FFD	**A**				85-5253								
Lock Out - TPC	**A**				85-5318						85-5318		
Remote L/O Assy *	**A**				83-2407						83-2407		
Click-It Remote L/O Lever -Left *	**A - STD Shock**				83-5558						83-5558		
Click-It Remote L/O Lever -Right *	**A - STD Fork**				83-2629						83-2629		
Click-It Remote L/O Cable *	**A**				83-2973						83-2973		
Click-It Remote L/O Cable Guide *	**A**				83-2183						83-2183		
Click-It Remote L/O O-Ring Kit *	**A**				83-2408						83-2408		
Click-It Remote Lever Jelly Beans					83-2987 (10 Pack)						83-2987 (10 Pack)		
Rbnd Damp - Non Adj	**B**				85-5254								
Rbnd Damp - Adj	**B**				*85-5255			85-5255					
Pre Load Adj	**C**	85-4810											
Crn/Str/Leg	**D**												
	***Steel S/T (26")	83-5560	83-5561	83-2586	83-5560	83-5561	83-2586	83-5560	83-5561	83-2586	83-5560	83-5561	83-2586
	***Blk AL S/T(26") STD/SM	83-5562	83-5563	83-2587	83-5562	83-5563	83-2587	83-5562	83-5563	83-2587	83-5562	83-5563	83-2587
Outer Leg Assy	**E**												
STD	Black (26")	83-2125											
STD	Silver (26")	83-2131											
STD	White	83-2339											
STD	Candy Red	83-2337											
STD	Matte Silver	83-2338											
NB, STD DO	Black (26")	83-2126											
NB, STD DO	Silver (26")	83-2132											
NB, STD DO	White	83-2336											
NB, STD DO	Candy Red	83-2333											
NB, STD DO	Matte Black	83-2334											
NB, STD DO	Matte Silver	83-2335											
Sticker Kit	**F**	83-2588											
											RTWD P/N listed if standard		
Ride Kits	**G**										travel use Super P/N		
	Negative Spring - Ti												
	***WD Booster										83-2144	83-2147	
	***X-Soft												
	***Soft	83-2135	83-2138	83-2141	83-2135	83-2138	83-2141	83-2135	83-2138	83-2141	83-2145	83-2148	83-2141
	***Medium	83-2136	83-2139	83-2142	83-2136	83-2139	83-2142	83-2136	83-2139	83-2142			83-2142
	***Firm	83-2137	83-2140	83-2143	83-2137	83-2140	83-2143	83-2137	83-2140	83-2143	83-2146	83-2149	83-2143
	***X-Firm	83-2610	83-2611		83-2610	83-2611		83-2610	83-2611				
Comp Rod/	**H**												
	60												
	80	85-4921											
	100	85-4921											
	120	85-4921											
	70-100 RT Wind Down										83-2153		
	90-120 RT Wind Down												83-2153
Comp Rod Bottomout Spacers	**H**	83-5577	83-5578	83-5579	83-5577	83-5578	83-5579	83-5577	83-5578	83-5579	83-5577	83-5578	83-5579
Bushing Kit	**E**	83-2596											
Air Piston Kit	**G**												
Knob Kit	**I**	83-2595											
Boot Kit	**J**	85-5390											
Dust Seal Kit	**K**	83-5583											
O-Ring Kit	**K**	85-5555											
Click-It L/O Retro Kits (NOT WARRANT	**A**				83-2977						83-2977		

Axel - Air Fork Specific Kits

		Elite Air FFD			Super Air FFD-R			Platinum Air Lockout/ Remote L/O		
		80	100	120	80	100	120	80	100	120
Air Cap	**C**	83-2398								
Air Push Rods	**H**									
	80	83-2592			83-2592			83-2592		
	100		83-2593			83-2593			83-2593	
	120			83-2594			83-2594			83-2594

		Splice																
Model		B-610	B-611	B-612	B-630	B-631	B-632	B-650	B-651	B-620	B-621	B-622	B-640	B-641	B-642	B-660	B-661	B-662
Code		Comp			Elite			Super RTWD		Comp Air			Elite Air			Platinum Air Lockout		
Travel (mm)		80	100	130	80	100	130	70-100mm	100-130mm	80	100	130	80	100	130	80	100	130
Comp Damp FFD	**A**	83-2174																
Lock Out - TPC	**A**	83-2276														83-2276		
Remote L/O Assy *	**A**	83-2406																
Click-It Remote L/O Lever -Left *	**A - STD Shock**	83-5558																
Click-It Remote L/O Lever -Right *	**A - STD Fork**	83-2629																
Click-It Remote L/O Cable *	**A**	83-2973																
Click-It Remote L/O Cable Guide *	**A**	83-2183																
Click-It Remote L/O O-Ring Kit *	**A**	83-2409																
Click-It Remote Lever Jelly Beans		83-2987 (10 Pack)																
Rbnd Damp - Non Adj	**B**		83-2175								83-2175							
Rbnd Damp - Adj	**B**						83-2176								83-2176			
Pre Load Adj	**C**			83-2177														
WD Adjuster Cap Assy	**C**							83-2178	83-2179									
Air Cap	**C**													83-2184				
Air Assist Cap	**C**			83-2184														
Crn/Str/Leg	**D**																	
	***Steel S/T (26")	83-2185	83-2186	83-2597	83-2185	83-2186	83-2597	83-2191	83-2598	83-2185	83-2186	83-2597	83-2185	83-2186	83-2597	83-2185	83-2186	83-2597
	***Blk AL S/T(26") STD/SM	83-2599	83-2600	83-2601	83-2599	83-2600	83-2601	83-2602	83-2603	83-2599	83-2600	83-2601	83-2599	83-2600	83-2601	83-2599	83-2600	83-2601
Outer Leg Assy	**E**																	
STD	Black (26")	83-2195																
STD	Silver (26")	83-2196																
STD	White	83-2310																
STD	Bike Blue	83-2306																
STD	Candy Chrome	83-2307																
STD	Matte Black	83-2308																
STD	Matte Silver	83-2309																
NB, STD DO	Black (26")	83-2197																
NB, STD DO	Silver (26")	83-2198																
NB, STD DO	Red (26")	83-2315																
NB, STD DO	White	83-2314																
NB, STD DO	Candy Chrome	83-2311																
NB, STD DO	Candy Blue	83-2316																
NB, STD DO	Matte Black	83-2312																
NB, STD DO	Matte Silver	83-2313																
Sticker Kit	**F - For Dark Colors**	83-2199																
	F - For Light Colors	83-2200																
Ride Kits	**G**																	
	***WD Booster							83-2208	83-2210									
	***X-Soft	83-2201	83-2202	83-2203	83-2201	83-2202	83-2203											
	***Soft	83-2204	83-2205	83-2206	83-2204	83-2205	83-2206	83-2207	83-2209									
	***Medium	83-2211	83-2212	83-2213	83-2211	83-2212	83-2213											
	***Firm	83-2214	83-2215	83-2216	83-2214	83-2215	83-2216	83-2217	83-2218									
	***X-Firm	83-2219	83-2220	83-2423	83-2219	83-2220	83-2423											
	***XX-Firm	83-2612	83-2613		83-2612	83-2613												
Comp Rod/Travel Adjust	**H**																	
	80	83-2414			83-2414					TBD			TBD			TBD		
	80 Air Asist																	
	100		83-2414			83-2414					TBD			TBD			TBD	
	100 Air Asist																	
	130			83-2413			83-2413					TBD			TBD			TBD
	130 Air Asist																	
	70-100 RT Wind Down							83-2415										
	100-130 RT Wind Down								83-2415									
Comp Rod Bottomout Spacers	**H**	83-2605	83-2606	83-2421	83-2605	83-2606	83-2421	83-2606	83-2421	83-2605	83-2606	83-2421	83-2605	83-2606	83-2421	83-2605	83-2606	83-2421
Bushing Kit	**E**	85-5321																
Knob Kit	**I**	83-2604																
Dust Seal Kit	**K**	83-2419																
O-Ring Kit	**K**	83-2419																
Click-It L/O Retro Kits (NOT WARRANTY ITEM)	**A**	83-2978																

		Black										
Model		Comp			Elite			Super		Platinum Air Lockout		
Travel (mm)		80	100	120	80	100	120	70-100mm	90-120mm	80	100	120
Comp Damp FFD	**A**	85-5800										
Lock Out - TPC	**A**	85-5868										
SPV Volume Adj.	**A**	85-5871										
Remote L/O Assy *	**A**	83-2305	83-2405		83-2405	83-2405		83-2405	83-2405	83-2405	83-2405	
Click-It Remote L/O Lever -Left *	**A - STD Shock**	83-5558										
Click-It Remote L/O Lever -Right *	**A - STD Fork**	83-2629										
Click-It Remote L/O Cable *	**A**	83-2973										
Click-It Remote L/O Cable Guide *	**A**	83-2183										
Click-It Remote L/O O-Ring Kit *	**A**	83-2410										
Click-It Remote Lever Jelly Beans		83-2987 (10 Pack)										
Rbnd Damp - Non Adj	**B**		85-5556									
Rbnd Damp - Adj	**B**		85-5306		85-5306							
SPV Rebound	**B**	85-5869										
SPV Valve		83-2746										
Pre Load Adj	**C**	83-2616										
WD Adjuster Cap Assy	**C**							85-5304				
Air Cap	**C**									85-5803		
IT Top Assy	**C**	83-2317										
IT Top Cable Guide	**C**	83-2318										
IT HB Lever	**C**	83-2319										
Crn/Str/Leg	**D**											
	***Steel S/T (26")	83-2617	83-2620	83-2257	83-2617	83-2620	83-2257	83-2265	83-2257	83-2619	83-2622	83-2623
	***Blk AL S/T(26") SPV	*83-2260	*83-2264	*83-2267	*83-2260	*83-2264	*83-2267	*83-2264?	83-22577	*83-2262	*83-2264	83-2269
	***Blk AL S/T(26") STD/SM	*83-2258	*83-2259	*83-2260	*83-2258	*83-2259	*83-2260	*83-2259?	83-2260	83-2261	83-2263	83-2270
Outer Leg Assy	**E**											
STD	Black (26")	85-5806										
STD	Silver (26")	85-5807										
STD	Red (26")	85-5808										
STD	White	85-5809										
STD	Silk Blue	83-2297										
STD	Cobalt	85-5824										
STD	Orange	85-5825										
STD	Yellow	85-5826										
STD	Candy Chrome	85-5827										
STD	Candy Red	85-5828										
STD	Candy Blue	85-5829										
STD	Matte Silver	83-2299										
NB, STD DO	Black (26")	85-5830										
NB, STD DO	Silver (26")	85-5831										
NB, STD DO	Red (26")	85-5832										
NB, STD DO	White	85-5833										
NB, STD DO	Silk Blue	83-2298										
NB, STD DO	Cobalt	85-5834										
NB, STD DO	Orange	85-5835										
NB, STD DO	Yellow	85-5836										
NB, STD DO	Candy Chrome	85-5837										
NB, STD DO	Candy Red	85-5838										
NB, STD DO	Candy Blue	85-5839										
NB, STD DO	Matte Black	83-2502										
NB, STD DO	Matte Silver	83-2300										
Sticker Kit	**F - For Dark Colors**	83-2424										
	F - For Light Colors	83-2278										
Ride Kits	**G**											
	***WD Booster							TBD	83-2147			
	***X-Soft	83-2279	83-2284	83-2289	83-2279	83-2284	83-2289			85-5573		
	***Soft	83-2280	83-2285	83-2290	83-2280	83-2285	83-2290	TBD	85-5847	85-5575	85-4985	85-4988
	***Medium	83-2281	83-2286	83-2291	83-2281	83-2286	83-2291			85-5577	85-4986	85-4989
	***Firm	83-2282	83-2287	83-2292	83-2282	83-2287	83-2292	TBD	85-5853	85-5579	85-4987	85-4990
	***X-Firm	83-2283	83-2288		83-2283	83-2288						
Comp Rod/Travel Adjust	**H**											
	80	83-2274			83-2274					85-5857		
	100		83-2274			83-2274					85-5860	
	120			83-2274			83-2274					85-5860
	70-100 RT Wind Down							TBD				
	90-120 RT Wind Down								85-5864			
	IT Bottom Assy	83-2321										
	Lower Spring End Cap Assy	85-5364										
Comp Rod Bottomout Spacers	**H**	83-2275	83-2425	83-2426	83-2275	83-2425	83-2426	83-2425	83-2426	83-2275	83-2425	83-2426
Air Push Rods	**H**											
	80									85-4422		
	100										85-4427	
	120											85-4428
Bushing Kit	**E**	85-5321										
Air Piston Kit	**G**									85-5266		
Knob Kit	**I**	85-5865						85-5867		85-5866		
Dust Seal Kit	**K**	85-5281										
O-Ring Kit	**K**	85-5282										
Click-It L/O Retro Kits (NOT WARRANTY ITEM)	**A**	83-2979	83-2980		83-2979	83-2980		83-2980	83-2980	83-2979	83-2980	

		R7							
Model		Comp		Elite		Super		Platinum	
Travel (mm)		80	100	80	100	80	100	80	100
Comp Damp FFD	**A**	83-2647							
Lock Out - TPC	**A**					83-2651			
Comp Damp Platform Plus	**A**			83-2648					
Remote L/O Assy *	**A**	83-2407							
Click-It Remote L/O Lever -Left *	**A - STD Shock**	83-5558							
Click-It Remote L/O Cable *	**A**	83-2973							
Click-It Remote L/O Cable Guide *	**A**	83-2183							
Click-It Remote L/O O-Ring Kit *	**A**	83-2408							
Click-It Remote Lever Jelly Beans		83-2987 (10 Pack)							
Rbnd Damp - Adj	**B**	83-2652							
SPV Snap Valve Rebound	**B**	83-2653							
Air Cap	**C**	83-2654							
IT Top Assy	**C**	83-2317							
IT Top Cable Guide	**C**	83-2318							
IT HB Lever	**C**	83-2319							
Crn/Str/Leg	**D**								
	***Steel S/T (26")	83-2655	83-2658						
	***Blk AL S/T(26") SPV							83-2656	83-2659
	***Blk AL S/T(26") STD/SM			83-2657	83-2660	83-2657	83-2660		
Outer Leg Assy	**E**								
STD	Black (26")	83-2661							
STD	Red (26")	83-2672							
STD	White	83-2975							
STD	Bike Blue	83-2675							
STD	Silk Blue	83-2681							
STD	Cobalt	83-2680							
STD	Yellow	83-2676							
STD	Merida Green	83-2751							
STD	Candy Chrome	83-2678							
STD	Candy Red	83-2677							
STD	Candy Blue	83-2679							
STD	Matte Black	83-2673							
STD	Matte Silver	83-2674							
NB, STD DO	Black (26")	83-2662							
NB, STD DO	Red (26")	83-2682							
NB, STD DO	White	83-2976							
NB, STD DO	Bike Blue	83-2685							
NB, STD DO	Silk Blue	83-2744							
NB, STD DO	Cobalt	83-2690							
NB, STD DO	Yellow	83-2686							
NB,STD DO	Merida Green	83-2752							
NB, STD DO	Candy Chrome	83-2688							
NB, STD DO	Candy Red	83-2687							
NB, STD DO	Candy Blue	83-2689							
NB, STD DO	Matte Black	83-2683							
NB, STD DO	Matte Silver	83-2684							
Sticker Kit	**F - For Dark Colors**	83-2663							
	F - For Light Colors	83-2664							
Ride Kits	**G**								
	Negative Spring - STD	83-2665	83-2696	83-2665	83-2696	83-2665	83-2696		
	Negative Spring - Ti							83-2666	83-2697
Comp Rod/Travel Adjust	**H**								
	80	83-2667		83-2667		83-2667		83-2667	
	100		83-2668		83-2668		83-2668		83-2668
	IT Bottom Assy	83-2321							
Bushing Kit	**E**	85-5321							
Air Piston Kit	**G**	83-2669							
Knob Kit	**I**	83-2670							
Dust Seal Kit	**K**	85-5281							
IT O-Ring Kit	**K**	83-2443							
Click-It L/O Retro Kits (NOT WARRANTY ITEM)	**A**	83-2977							

		Minute					
Model		1:00		2:00	3:00		4:00
Travel (mm)		100	130	100-130 RTWD	100	130	130
Lock Out - TPC	**A**			85-5897			
Comp Damp Platform Plus	**A**	83-2839					
SPV Volume Adj. - No Tools	**A**				83-2840		
Rbnd Damp - Adj	**B**	85-5126					
SPV Rebound	**B**				83-2448		83-2841
SPV Valve					83-2747		
WD Adjuster Cap Assy	**C**			83-2451			
Air Cap	**C**				83-2449		
IT Top Assy	**C**						83-2446
IT Top Cable Guide	**C**						83-2318
IT HB Lever	**C**						83-2319
Crn/Str/Leg	**D**						
	***Steel S/T (26")	83-2843					
	***Blk AL S/T(26") SPV		83-2844		83-2845	83-2846	
	***Blk AL S/T(26") SPV & IT						83-2847
Outer Leg Assy	**E**						
NB, STD DO	Textured Black	83-2825*					
NB, STD DO	Textured Gray	83-2828*					
NB, STD DO	Black (26")	83-2794*					
NB, STD DO	White	83-2796*					
NB, STD DO	Candy Blue	83-2431*					
NB, STD DO	Matte Black	83-2457*					
NB, STD DO	Textured Black, Integrated	83-2848					
NB, STD DO	Textured Grey, Integrated	83-2849					
NB, STD DO	Matte Silver	83-2459*					
NB, STD DO	Gloss Silver	83-2795*					
NB, Hex Axel	Textured Black	83-2826*					
NB, Hex Axel	Matte Black	83-2458*					
NB, Hex Axel	Black	83-2797*					
NB, Hex Axel	Textured Gray	83-2829*					
NB, Hex Axel	Silver	83-2798*					
NB, Hex Axel	White	83-2799*					
NB, Hex Axel	Matte Silver	83-2460*					
NB, Hex Axel	Textured Black, Integrated	TBA					
NB, Hex Axel	Textured Grey, Integrated	TBA					
NB, QR Hex Axel	Matte Black	83-2823					
NB, QR Hex Axel	Matte Silver	83-2824					
NB, QR Hex Axel	Matte White	83-2802*					
NB, QR Hex Axel	Textured Black	83-2827*					
NB, QR Hex Axel	Tex. Grey	83-2830*					
NB, QR Hex Axel	Tex. Grey, Intergrated	83-2850					
Sticker Kit	**F - For Dark Colors**	83-2852					
	F - For Light Colors	83-2851					
Ride Kits	**G**						
	***WD Booster			83-2478			
	***X-Soft	83-2853	83-2858		83-2862		
	***Soft	83-2854	83-2859	83-2468	83-2863		
	***Medium	83-2855	83-2860		83-2864		
	***Firm	83-2856	83-2861	83-2473	83-2865		
	***X-Firm	83-2857	TBD8		83-2866		
Comp Rod/ Travel Adjust	**H**						
	100	83-2869			83-2870		
	130		83-2869			83-2870	
	100-130 RT Wind Down			83-2867			
	115-145 RT Wind Down						
	120-150 RT Wind Down						
	IT Bottom Assy						83-2868
	Lower Spring End Cap Assy						
Comp Rod Bottomout Spacers	**H**	TBD1	TBD2		TBD1	TBD2	
Air Push Rods	**H**						
	100				83-2871		
	130					83-2483	
Bushing Kit	**E**	85-5964					
Thru Axel	**E**	83-2397					
Air Piston Kit	**G**			83-2494			
Knob Kit	**I**	83-2873					
Dust Seal Kit	**K**	85-5293					
O-Ring Kit	**K**	83-2486					
IT O-Ring Kit	**K**						83-2487
Click-It L/O Retro Kits (NOT WARRANTY ITEM)	**A**	83-2981					

		Nixon				
Model		Comp	Elite	Super Air	Super Air Intrinsic	Platinum Intrinsic
Travel (mm)		145	115-145 RTWD	145	145	145 IT
TPC - Cartridge	**A**		83-2811			
CID - Cartridge	**A**				83-2812	
Cartridge Damping Rebuild Parts						
Cartridge Rebound Assy	**A**			83-2813		
Cartridge TPC+ Assy	**A**			83-2814		
Cartridge CID Assy	**A**			83-2815		
Cartridge Body	**A**			83-2816		
Cartridge End Cap	**A**			83-2817		
Spring Cap	**C**	83-2450				
WD Adjuster Cap Assy	**C**		83-2451			
Air Cap	**C**			83-2449		
IT Top Assy	**C**					83-2446
IT Top Cable Guide	**C**					83-2318
IT HB Lever	**C**					83-2319
Crn/Str/Leg	**D**					
	***Steel S/T (26")	83-2818				
	***Blk AL S/T(26") SPV	83-2819		83-2820		TBA
	***AL 1.5 S/T	83-2822		83-2821		TBA
Outer Leg Assy	**E**					
NB, STD DO	Textured Black			83-2825		
NB, STD DO	Textured Gray			83-2828		
NB, STD DO	Black (26")			83-2794*		
NB, STD DO	White			83-2796*		
NB, STD DO	Candy Blue			83-2431		
NB, STD DO	Matte Black			83-2457		
NB, STD DO	Matte Silver			83-2459		
NB, STD DO	Gloss Silver			83-2795*		
NB, Hex Axel	Textured Black			83-2826		
NB, Hex Axel	Matte Black			83-2458		
NB, Hex Axel	Black			83-2797*		
NB, Hex Axel	Textured Gray			83-2829		
NB, Hex Axel	Silver			83-2798*		
NB, Hex Axel	White			83-2799*		
NB, Hex Axel	Matte Silver			83-2460		
NB, QR Hex Axel	Matte Black			83-2823		
NB, QR Hex Axel	Matte Silver			83-2824		
NB, QR Hex Axel	Matte White			83-2802*		
NB, QR Hex Axel	Textured Black			83-2827		
NB, QR Hex Axel	Tex. Grey			83-2830		
Sticker Kit	**F - For Dark Colors**	83-2831	83-2832	83-2833		83-2834
	F - For Light Colors					
Ride Kits	**G**					
	***WD Booster		83-2478			
	***X-Soft	83-2465		83-2466		
	***Soft	83-2467	83-2468	83-2469		
	***Medium	83-2470		83-2471		
	***Firm	83-2472	83-2473	83-2474		
	***X-Firm	83-2475	83-2476	83-2477		
Comp Rod/Travel Adjust	**H**					
	145	83-2836		83-2483		
	115-145 RT Wind Down		83-2835			
	IT Bottom Assy					83-2480
Comp Rod Bottomout Spacer	**H**			83-2485		
Air Push Rods	**H**					
	145			83-2483		
Bushing Kit	**E**			85-5964		
Thru Axel	**E**			83-2397		
Air Piston Kit	**G**			83-2494		
Knob Kit	**I**			83-2837		
Dust Seal Kit	**K**			85-5293		
O-Ring Kit	**K**			83-2486		
IT O-Ring Kit	**K**			83-2487		

		Stance								
Model		Static		Blunt			Flow		Kingpin	
Travel (mm)		80	100	130	150	170	100/130 RTWD	120/150 RTWD	150	170
Comp Damp FFD	**A**	83-2886								
Comp Damp TPC+	**A**	83-2888							83-2887	
Rbnd Damp - Non Adj	**B**	83-2889								
Rbnd Damp - Adj	**B**	83-2890		83-2890		83-2891	83-2890			83-2891
Spring Cap	**C**	83-2894							83-2895	
WD Adjuster Cap Assy	**C**						83-2892	83-2893		
Crn/Str/Leg	**D**									
	***Steel S/T (26")	83-2896			83-2898		83-2896	83-2898		
	***Blk AL S/T(26") STD/SM								85-5903	
	***Blk AL S/T(26") LG								85-5962	
	***AL 1.5 S/T	83-2897			83-2899	83-2900	83-2897	83-2899		
	***Blk Al Top Clamp - Large								85-5965	
	***Blk Al Top Clamp - Small								85-5966	
Outer Leg Assy	**E**									
NB, STD DO	Silver (26")	83-2427								
NB, STD DO	Matte Black	83-2361								
NB, STD DO	Charcoal	83-2360								
NB, Hex Axel	Matte Black	83-2363								
NB, Hex Axel	Charcoal	83-2362								
Sticker Kit	**F - For Dark Colors**	83-2364								
	F - For Light Colors	83-2365								
Ride Kits	**G**									
	***WD Booster						83-2371	83-2373		
	***X-Soft	83-2366			83-2367				83-2367	
	***Soft	83-2368			83-2369		83-2370	83-2372	83-2369	
	***Medium	83-2374			83-2375				83-2375	
	***Firm	83-2376			83-2377		83-2378	83-2379	83-2377	
	***X-Firm	83-2380			83-2381				83-2381	
	***XX-Firm	83-2614			83-2615				83-2615	
Comp Rod/Travel Adjust	**H**									
	80	83-2901								
	100		83-2902							
	130			83-2903						
	150				83-2903				83-2903	
	170					83-2906				83-2906
	100-130 RT Wind Down						83-2904			
	120-150 RT Wind Down							83-2905		
	Lower Spring End Cap Assy	83-2907							83-2907	
Comp Rod Bottomout Spacers	**H**	83-2393		83-2394	83-2395		83-2396	83-2395		
Bushing Kit	**E**	85-5964								
Thru Axel	**E**	83-2397								
Thru Axel Quick Release Kit	**E**	TBD								
Knob Kit	**I**	83-2391								
Dust Seal Kit	**K**	83-2392								
O-Ring Kit	**K**	83-2838								

Gold Label Jump Series			
Code		Series 1	Series 2
Travel (mm)		80, 100	80, 100
Comp Damp FFD	**A**	83-2808	
Rbnd Damp - Adj	**B**	85-5126	
Spring Cap	**C**	83-2790	
	***Steel S/T (26")	83-2791	
	***AL 1.5 S/T	83-2793	
Outer Leg Assy	**E**		
NB, STD DO	Textured Black	83-2825*	
NB, STD DO	Textured Gray	83-2828*	
NB, STD DO	Black (26")	83-2794	
NB, STD DO	White	83-2796	
NB, STD DO	Candy Blue	83-2431*	
NB, STD DO	Matte Black	83-2457*	
NB, STD DO	Matte Silver	83-2459*	
NB, STD DO	Gloss Silver	83-2795	
NB, Hex Axel	Textured Black	83-2826*	
NB, Hex Axel	Matte Black	83-2458*	
NB, Hex Axel	Black	83-2797	
NB, Hex Axel	Textured Gray	83-2829*	
NB, Hex Axel	Silver	83-2798	
NB, Hex Axel	White	83-2799	
NB, Hex Axel	Matte Silver	83-2460	
NB, QR Hex Axel	Matte Black	83-2823*	
NB, QR Hex Axel	Matte Silver	83-2824*	
NB, QR Hex Axel	Matte White	83-2802	
NB, QR Hex Axel	Textured Black	83-2827	
NB, QR Hex Axel	Tex. Grey	83-2830*	
Sticker Kit	**F - For Dark Colors**	83-2803	
	F - For Light Colors	83-2804	
Ride Kits	**G**		
	***Firm	83-2805	
	***X-Firm	83-2806	
	***XX-Firm	TBD	
Comp Rod/Travel Adjust	**H**		
	80	85-4491	
	100		83-2789
Bushing Kit	**E**	85-5964	
Thru Axel	**E**	83-2397	
Knob Kit	**I**	83-2809	
Dust Seal Kit	**K**	83-5293	
O-Ring Kit	**K**	83-2838	
Grind Bolt	**K**	85-4487	

		Travis								
Model		Single 150mm	Single 180	Single 203	Single Intrinsic 180	Single Intrinsic 203	Triple 180	Triple 203	Triple Intrinsic 180	Triple Intrinsic 203
Travel (mm)		150	180	203	180	203	180	203	180	203
TPC+ - Cartridge	**A**	83-2908	83-2909	83-2910			83-2911	83-2912		
CID - Cartridge	**A**	83-2912			83-2913	83-2914			83-2915	TBD
Cartridge Damping Rebuild Parts										
Cartridge Rebound Assy	**A**	83-2813								
Cartridge TPC+ Assy	**A**	83-2917					83-2917			
Cartridge CID Assy	**A**				83-2918	TBD			83-2918	TBD
Cartridge Body	**A**	83-2916	83-2919	83-2920	83-2919	83-2920	83-2982	TBD	83-2982	TBD
Cartridge End Cap	**A**	83-2817								
Spring Cap	**C**	83-2921					83-2983			
Crn/Str/Leg	**D**									
	***Steel S/T (26")	83-2922								
	***Blk AL S/T(26") STD/SM						83-2926			
	***Blk AL S/T(26") LG						83-2927			
	***AL 1.5 S/T	83-2923	83-2924	83-2925	83-2924	83-2925				
	***R/L Inner leg (T/C Forks)						TBD 6	TBD 6?	TBD 6	TBD 6?
	***Blk Al Top Clamp - Large						TBD 7			
	***Blk Al Top Clamp - Small						TBD 8			
NB, Hex Axel	Matte Black	83-2928								
NB, Hex Axel	Matte Silver	83-2929								
NB, QR Hex Axel	Matte Black	83-2930								
NB, QR Hex Axel	Matte Silver	83-2931								
NB, QR Hex Axel	Matte White	83-2932								
NB, QR Hex Axel	Textured Black	83-2933								
NB, QR Hex Axel	Tex. Grey									
Sticker Kit	**F - For Dark Colors**	83-2935								
	F - For Light Colors	83-2936								
Ride Kits	**G**									
	***X-Soft	83-2765	83-2770	83-2775	83-2770	83-2775	83-2770	83-2775	83-2780	83-2957
	***Soft	83-2766	83-2771	83-2776	83-2771	83-2776	83-2771	83-2776	83-2781	83-2958
	***Medium	83-2767	83-2772	83-2777	83-2772	83-2777	83-2772	83-2777	83-2782	83-2959
	***Firm	83-2768	83-2773	83-2778	83-2773	83-2778	83-2773	83-2778	83-2783	83-2960
	***X-Firm	83-2769	83-2774	83-2779	83-2774	83-2779	83-2774	83-2779	83-2784	83-2961
Comp Rod/	**H**									
	150	83-2962								
	180		83-2962		83-2962		83-2962		83-2962	
	200			83-2963		83-2963		83-2963		83-2963
Comp Rod Bottomout Spacers	**H**	83-2962								
Bushing Kit	**E**	83-2965								
Thru Axel	**E**	83-2966								
Thru Axel Quick Release Kit	**E**	83-2967								
Knob Kit	**I**	83-2837								
Dust Seal Kit	**K**	83-2969								
O-Ring Kit	**K**	83-2970								