



Photo A



Photo B



Photo C



Photo D



Photo E



Photo F



Photo G



Photo H



Photo I



Photo J

## **SHOCK DISASSEMBLY:**

**IMPORTANT:** Before starting any service procedures on an MRP suspension shock, make sure to note all adjustment settings so you can resume to their position once service is completed: High-Speed Compression (clicks from fully open or FFO), Low-Speed Compression (clicks from fully closed or FFI), Rebound (clicks FFI) and Spring Preload (distance from shock head to preload ring).

1. Set all adjustment knobs to the fully open position (FO, all knobs completely turned counter-clockwise).
2. Remove the mounting hardware on both ends of the shock using a vise or pliers. (Photo A)  
**TECH TIP:** For 2-piece aluminium reducers, it is easier to use a vise to prevent damaging the hardware. For 3-piece hardware, it is easier to remove a spacer from one side then use the DU Pusher tool (LK-TL269) to push out the sleeve.
3. Secure the shock in a vise with the piggyback head down, using a rag in the vise to prevent scratching the head.
4. Turn the preload ring clockwise (from top) the preload ring to loose the spring and when it is loose enough, push down the bumper and then push down on the spring to get the spring clip out. (Photos B&C)
5. Remove the Schrader valve cap with a flat screwdriver then remove the pressure from the reservoir by pushing on the valve core pin. (Photo D)
6. Unscrew the reservoir cap using the LK-TL350 tool (or a 4mm spanner wrench, Photo E). If the reservoir is turning with the cap and you are unable to unscrew it, hold the reservoir with the LK-TL265 reservoir holder tool (Photo F).
7. Using a 24mm wrench, unscrew the seal head and gently pull out the shaft assembly from the shock body. (Photos G & H)
8. Screw the LK-TL241 floating piston puller onto the piston inside the reservoir and gently pull it out. (Photos I & J)
9. Empty the reservoir and the body assembly and safely dispose of the oil. Clean and inspect all internal surfaces for any wear or scratching.

### **PLEASE REFER TO THE FOLLOWING SECTIONS BEFORE REASSEMBLING THE SHOCK:**

- CARTRIDGE ASSEMBLY SERVICING
- SHAFT ASSEMBLY SERVICING
- HEAD, BODY AND RESERVOIR SERVICING
- SHOCK REASSEMBLY
- OTHER SERVICING



Photo K



Photo L



Photo M



Photo N



Photo O



Photo P



Photo Q



Photo R



Photo S



Photo T



Photo U



Photo V

## **CARTRIDGE ASSEMBLY SERVICING:**

### **Disassembly:**

1. If no service is needed to the compression cartridge assembly, jump to the next section.
2. In order to remove the cartridge assembly, you must first remove the High-Speed (HSC) and Low-Speed compression (LSC) knobs.
3. Use a 1.5mm Allen key to loosen the set screw on the side of the LSC knob (red) and gently pull up the knob while being careful not to lose the balls and springs located under it. Remove those (Photos K & L).
4. Use a 1.5mm Allen key to loosen the set screw on the side of the HSC knob (black). Remove the balls, springs and the cap located under the HSC knob. (Photos M & N).
5. Inspect the seals under both knobs and replace if needed.
6. Use the LK-TL337 cartridge tool and a ratchet to unscrew the cartridge and remove it from the shock. (Photos O, P & Q)
7. Use a pick to remove the small plastic spacer that might have remained inside the head (Photo R).
8. To disassemble or re-assemble the cartridge, use c-clip pliers to remove or re-install the small clip holding the cartridge parts together (Photo S).
9. Clean the cartridge and inspect all seals, piston, shims and the plastic spacer for any wear or tear. Replace if necessary (Photo T).

### **Reassembly:**

1. Clean the inside of the piggyback head using brake cleaning fluid or similar. Put back together all the cartridge parts and reinstall into the clean head.
2. Apply some o-ring grease (Molykote) on the cartridge piston seal and onto the plastic spacer area to help the insertion of the cartridge.
3. Apply some non-permanent thread-locking fluid (blue Loctite) onto the threads of the cartridge holder (Photo U). Place the cartridge assembly onto the LK-TL337 cartridge tool.
4. Gently screw the cartridge down into the head until it is seating firmly then tighten by hand using a ratchet (Photo V).
5. Flip the shock and reinstall the cap, the springs and the balls under the HSC knob (black). Apply some bearing grease underneath the knob and reinstall it. Tighten both set screws using a 1.5mm Allen key while pushing down on the knob (Photo M).
6. Repeat the above procedure for the other springs, balls and the red LSC knob (Photo L & K).



Photo AA



Photo BB



Photo CC



Photo DD



Photo EE

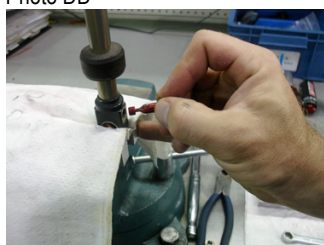


Photo FF



Photo GG



Photo HH



Photo II

## **SHAFT ASSEMBLY SERVICING:**

### **Disassembly:**

1. Secure the shaft assembly into a vise with the rebound knob down (Photo AA). Use a 13mm wrench to remove the FUJI locknut atop the shaft. Gently remove the shims and main piston (Photo AA & BB).
2. Slide down the seal head away from the jet. Use a heat gun or propane torch under the jet's washer to break the permanent thread locking fluid (red Loctite) then remove the jet using a 4mm Allen key (Photo CC).
3. Slide up the seal head and inspect for sign of wear on the seals, wearband and o-rings. If necessary, replace worn parts using a 90° pick (Photo DD). Inspect the bottom-out bumper for any cracks or other damage and replace if necessary.
4. To replace the seals of the rebound knob, first remove the rebound rod by sliding it out (Photo EE).
5. Unscrew gently the red knob while taking special care of the ball and spring located in the knob (Photo FF).
6. Inspect the knob for any wear. If you see dust or dirt from the inside, you will need to change the o-ring in the eyelet using a 90° pick (Photo GG).
7. Before reassembly, inspect the main piston, rebound jet and shims for wear or damage (Photo HH).
8. To replace a worn or damage eyelet, secure the shaft into the vise using a shaft holder. Remove the eyelet using the LK-TL268 eyelet and head torque tool and a ratchet. You might need to heat the end of the shaft with a heat gun or propane torch to break the permanent thread locking fluid (red Loctite, Photo II).

### **Reassembly:**

1. To reinstall a new eyelet, apply some permanent thread locking fluid (red Loctite) on the shaft's threads and screw on the new eyelet. **Torque to 30 ft-lb.**
2. Apply some grease to the rebound knob then reinstall it making sure the ball and spring are properly aligned (Photo FF).
3. Apply grease on the rebound rod and slide it in the shaft making sure it is seated properly against the rebound knob. Unscrew the rebound knob to lower the rod at its maximum (Photo EE).
4. Apply some o-ring grease (Molykote) on the internal seals of the seal head. Carefully slide the bottom-out bumper and seal head assembly over the shaft (Photo DD).
5. Apply non-permanent thread locking fluid (blue Loctite) on the shorter threaded area of the rebound jet and screw it on the top of the shaft. **Torque to 150 in-lb.** (Photo CC). Then slide the compression shim stack, main piston (with triangular shape facing down), rebound shim stack, washer and tighten in place using the M8 FUJI lock nut. Blow compressed air between the shims to clean then **torque to 140 in-lb.**



Photo LL

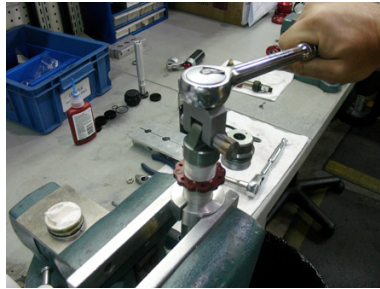


Photo MM



Photo NN

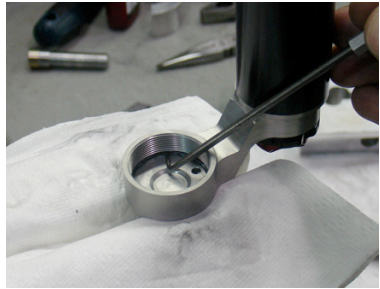


Photo OO



Photo PP



Photo QQ



Photo RR



Photo SS

## **HEAD, BODY AND RESERVOIR SERVICE:** **Disassembly:**

1. To remove the reservoir, secure the shock in a vise by the reservoir using the LK-TL265 body holder. Use the LK-TL268 eyelet and head torque tool with a ratchet to remove the head assembly from the reservoir one half-turn at a time to prevent the body from hitting the vise (Photo LL). You might need to heat the threaded area with a heat gun or propane torch to break the permanent thread locking fluid (red Loctite).
2. To remove the body from the head assembly, secure the body in a vise using the LK-TL264 body holder and the LK-TL268 eyelet and head torque tool with a ratchet (Photo MM). You might need to heat the threaded area with a heat gun or propane torch to break the permanent thread locking fluid (red Loctite).
3. Using a 90° pick, replace all the o-rings located in the piggyback head. Inspect the body, preload ring and reservoir for wear or damage and replace if necessary (Photo OO, PP & QQ).

## **Reassembly:**

4. First, make sure that the preload ring is threaded onto the body. Then, apply thread-locking fluid primer (Loctite #7649) on the threaded areas of the body and the piggyback head.
5. Secure the body in a vise using the LK-TL264 body holder. Apply some permanent thread-locking fluid (red Loctite) on the first few threads of the body (Photo RR).
6. Thread the piggyback head assembly onto the body using the LK-TL268 eyelet and head torque tool with a ratchet and **torque to 50 ft-lb.** (Photo MM).
7. Turn the head and body assembly upside down in the vise and make sure the cartridge assembly is in place or else refer to the CARTRIDGE ASSEMBLY SERVICING procedures.
8. Apply a small amount of permanent thread-locking fluid (red Loctite) on the long threaded area inside the reservoir then screw in the reservoir by hand onto the head assembly (Photo SS).