



# **BYPASS SHOCK BLEEDING INSTRUCTIONS**

## **Re-Assembly and Bleeding**

### **Bleeding the Housing**

- **Starting with End Cap Installed**
  
- **Mount End Cap in a Vise**
  - Housing is inverted, "Seal Cap Side" at the top
  
- **Install all Rebound Adjusters (RED)**
  - Ensure all parts move freely
  
- **Install Reservoir (HOSE)**
  - Thread on Hose to Black Remote Cap
  - Connect Hose to the Reservoir Feed on the Housing
  - Push Reservoir Over Black Remote Cap
    - Use white grease on the Remote Cap Outer Seal
    - Push until Snap-Ring Groove is visible
  - Insert Snap-Ring
    - Ensure fully seated
  
- **Install Reservoir (PIGGYBACK)**
  - Thread the Remote Cap onto the Reservoir Feed on the Housing
  - Push Reservoir Over Black Remote Cap
    - Use white grease on Remote Cap Outer Seal
    - Push until Snap-Ring Groove is visible
  - Insert Snap-Ring
    - Ensure fully seated
  
- **Insert Floating Piston**
  - Use white grease on the IFP Seal
  - Ensure orientation is correct
    - Thread must be accessible to cycle IFP
  - Ensure the Wear Band is installed
  
- **Fill the Housing with Oil (OVERLAPPING TUBES)**
  - Fill until 1" from the top lip of the Housing
  - Ensure the Oil level is above the Reservoir Feed and Compression Holes
  - Air will bubble out and oil levels will drop, make sure to replenish
  - Install Compression Adjusters (Blue)
    - Some oil may come out when doing so, this ensures there is no air left in the valve
  
- **Fill the Housing with Oil (STAGGERED TUBES)**
  - Fill until oil is level with the bottom of the thread of the LOWEST Compression Tube
    - Install the Compression Adjuster (Blue)
  - Repeat for all Compression Adjuster Tubes
  - Fill until 1" from the top lip of the Housing
  - Ensure the Oil level is above the Reservoir Feed and Compression Holes
  - Air will bubble out and oil levels will drop, make sure to replenish

- **Cycle the floating piston to make sure all air is out Reservoir.**
  - Air will bubble out and oil levels will drop, make sure to replenish
  - Add oil as needed to keep above Reservoir Feed and Compression Holes
    - Do not let the Oil level drop below the holes as this will pull air into the Reservoir and Tubes
  - The use of a vacuum pump will greatly reduce the time to get all of the air out of the body.
  - Ensuring ALL of the air is out of the body during this process will make the shocks work as necessary, without accelerated fade due to aeration. TAKE AS MUCH TIME AS NECESSARY
  - Once all air is out, preload the IFP 1" to maximize the Oil level
    - Push the IFP up, and pull out 1"
  
- **Add any necessary Oil**
  - DO NOT LET THE OIL LEVEL DROP BELOW RESERVOIR FEED/COMPRESSION HOLES
    - This drastically reduces the bleeding time

### Cycling the Shaft

#### **Double Check:**

- Shaft is in good condition
- Rod End installed correctly with at Least Red 262 Loctite
- Seal Cap seals were installed correctly and adequate white grease was used
- Compression and Rebound shim stacks are oriented correctly
- The piston is orientated correctly
  - The wear band is in good condition
- Shaft Spacer is installed
- Shaft Nut is torqued to:
  - **55 Ft-lbs**
  
- **Push the Seal Cap up against the Rod End**
  
- **Insert the Shaft Assembly and begin cycling the Piston**
  - The goal is to push any air out of the piston and any leftover air out of the adjuster tubes
    - Closing the Valves forces all the oil through the piston, good for getting air out of the piston
    - Opening the Valves allows oil into the bypass tube, which will push air out.
    - Start with the tubes closed
    - Open the Rebound Tubes and cycle
    - Open the Compression Tubes and cycle
  - Start slowly and begin to go faster
  - Pulling up too fast will cause a pressure imbalance and aerate the oil
  - Cycle the Piston through each zone
  
- **Add or remove necessary Oil to cycle the Piston**
  - Remove Oil as you push the shaft down to avoid losing displaced oil
  - Add Oil as you pull the Shaft up to ensure the Oil level doesn't drop below the Reservoir Feed/Compression Holes

- **Push the Piston all the way down into the Bump zone**
  - Use a soft mallet to hammer on the end of the rod end
  - This pops open the compression shims and pushes air through
- **Repeat this process until there are no bubbles in the oil**
- If a big air pocket is released, it is best to let as much air float to the top before continuing to cycle to avoid mixing the air back into the oil.
- **Once the air is out of the Oil:**
  - Pull the Shaft up, adding Oil until the Shaft Spacer is level with the edge of the housing
    - Keep the Seal Cap pressed against the Rod End
    - Ensure the Oil level does not drop low enough to allow air through the Piston
    - Ensure not to pull the Piston out as this will start the entire process over
- **Push the Seal Cap down against the Shaft Spacer**
  - Loosen the Black Seal Cap Ring from the Seal Cap
- **Once the Seal Cap is against the spacer, slowly push the Seal Cap down into the shock until the Outer Seal is level with the edge of the housing**
  - Twisting the shaft assembly will allow air to escape more easily
  - Some oil will come out around the seal cap, this is fine. It helps ensure there is enough Oil and no air left.
    - Tie a rag around the housing to catch excess oil
- **Once the seal gets to the edge of the housing, push down hard on the Seal Cap and push into the Housing**
  - Push down until it is past the Snap Ring Groove
  - DO NOT push down from the Rod End
- **Install Snap Ring**
  - Ensure properly seated
- **Use Compressed Air and Brake Cleaner to blow excess oil out**
- **Push the IFP up until the Seal Cap hits the Snap Ring**
- **Hand Tighten Knurled Seal Cap Ring**
  - Install Dust Seal
  - Clean one more time
- **Compress the Shaft all the way**
  - Watch Reservoir to make sure the Floating piston has moved
- **Install Nitrogen Side Remote Cap**
  - Use White Grease on Remote Cap Seal
  - Push into Reservoir past the Snap Ring Groove
  - Install Snap Ring
    - Ensure properly seated

- **Install Schrader Core**
  - Ensure Schrader Core Seal is lubricated
  - Do Not Over Torque
  
- **Ensure ALL Snap Rings are in place and Seated Properly**
  - **Seal Cap**
  - **Remote Cap (x2)**
  - **End Cap**
    - **Bolt-On End Cap Only**
  
- **Charge the Shock to 200 PSI**
  - Watch to ensure the Shaft extends fully
  - Pull up on the Rod End to ensure it doesn't move up anymore
    - If the rod end moves up when pulled on, this means the shock is under filled. The process will need to be repeated.
    - Ensure IFP is preloaded 1"
  - Watch for leaks in the Hose Fittings, Seal Cap, End Cap, or Adjusters
    - Address as necessary
  
- **Tighten Knurled Seal Cap Ring**
  - Tighten Set Screw
  
- **Install Schrader Cap**