

DBAIR

DBAIR
Air and Coil



DBAIR – Air volume replacement/Replace air can

1. Remove all the pressure from the air can
2. Remove O-ring AAD0136.
3. Using a strap wrench rotate the air can and push down to remove the air can.



O-ring AAD0136



4. Push down hard.

DBAIR –Replace the air volume replacement/air cans

A high volume air cans are available as tuning options.

O-Ring. - AAD0136



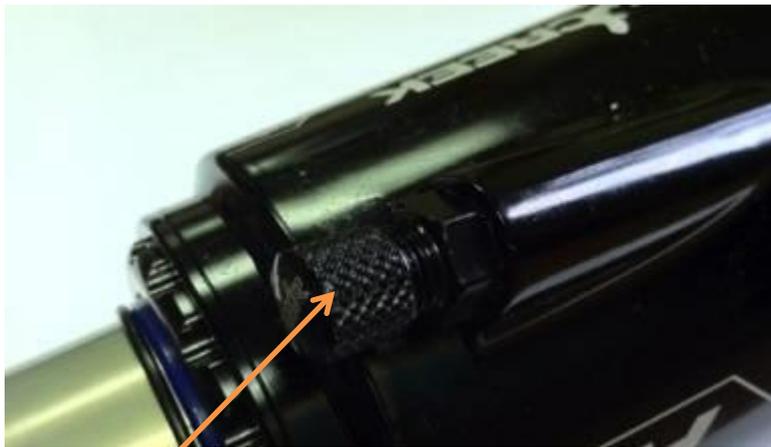
Volume Insert
AAD0212 - Small
AAD0213 - Large

Volume inserts are available to increase the progression of the air spring.

DBAIR – Air spring service

Air valve

1. Using a 3/8 wrench remove the air valve.
2. Remove the O-ring AD0111
3. Apply a thin layer of grease to O-ring AD0111 and AAD0197.
4. Apply Loctite 242 to the threads of the air valve.
5. Re-insert the air valve.
6. Install a new air valve cap.



AAD0139



Loctite 242 (Blue)

DBAIR – Air spring service

Assembly

Tools

- External BB tool
- Rubber strap wrench
- Vice
- Cane creek 8mm vice clamp
- Plastic protective guide sleeve.
- T20 Torx driver
- Adjustable wrench
- Shock lubricant
- Loctite 242 (Blue)



DBAIR – Air spring service

Removing the inner air can

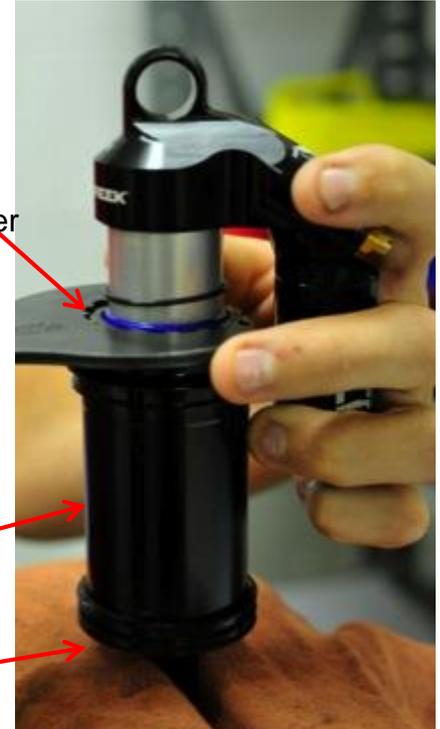
1. To remove the outer air can refer to DBAIR – Air Volume Change / Air Can Change
2. Insert the end eyelet into a vice
3. Place a protective sleeve around the shaft to prevent damage from BB tool.
4. Use the BB tool to unscrew the inner air can.
5. If necessary use a strap wrench on the inner sleeve to aid removal.



Air chamber head.

Internal air can.

End eyelet.



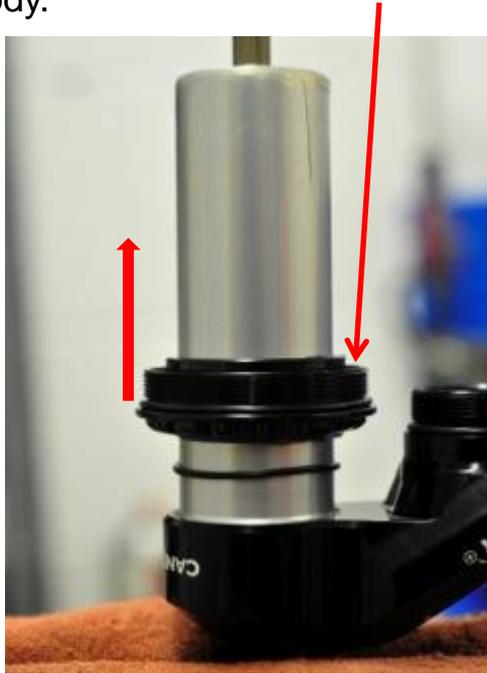
Removing the end eyelet

1. Move the inner air can to expose the damper shaft.
2. Using an 8mm shaft vice secure the damper shaft in a vice.
(Note: the shaft is hollow aluminium)
3. Use an adjustable wrench on the eyelet and remove from the damper shaft.



Removing the air piston and seal head

1. Remove the 3 T20 Torx screws from the air piston.
2. Pull the air piston from the 8mm shaft.
3. Slide the seal head off the shock body.

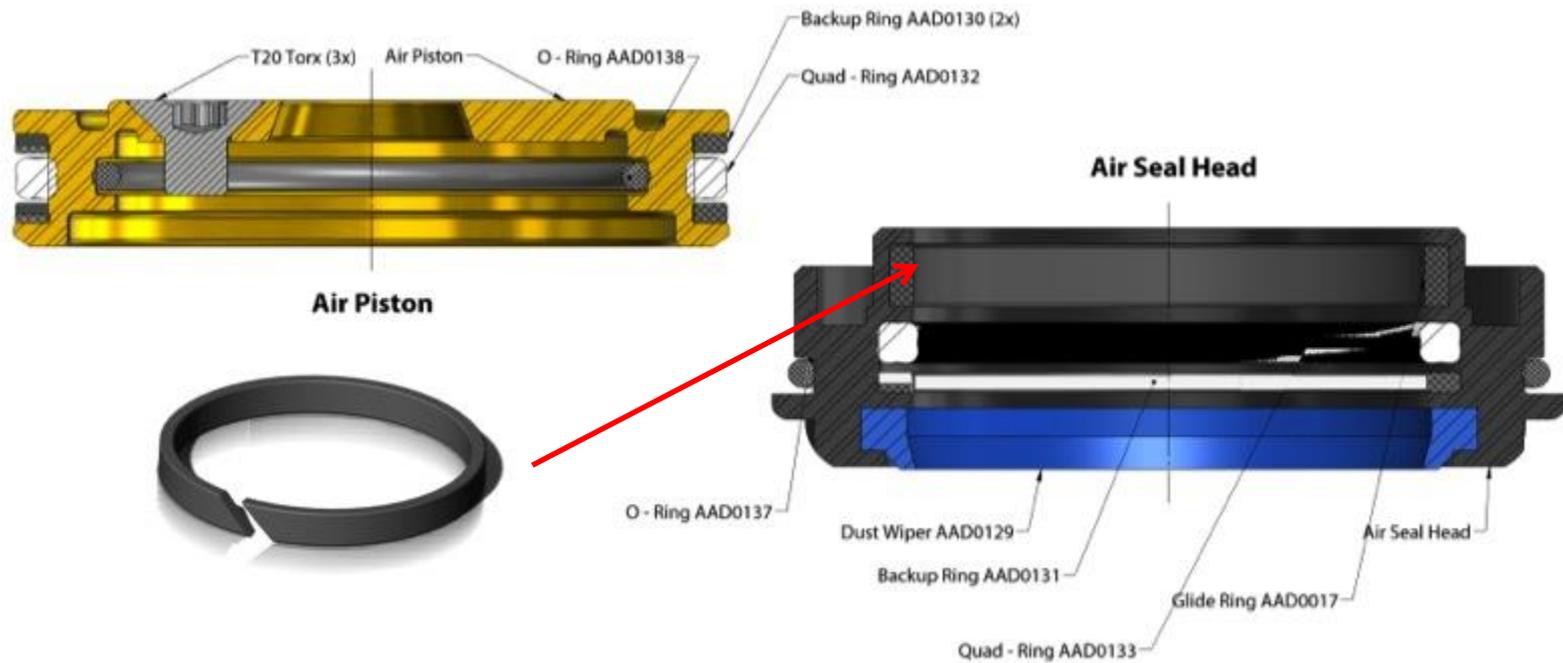


(3 x) T20 Torx screw



Removing seal head parts

1. Remove O-rings around the air piston.
2. Remove wiper rings, backup ring and glide rings.



Replace air piston O-rings

1. Apply a thin layer of lube to all parts before re-installing to air piston



Replacement of air chamber head

1. Apply lubricant to the seal head before replacing O-rings



DBAIR – Air spring service

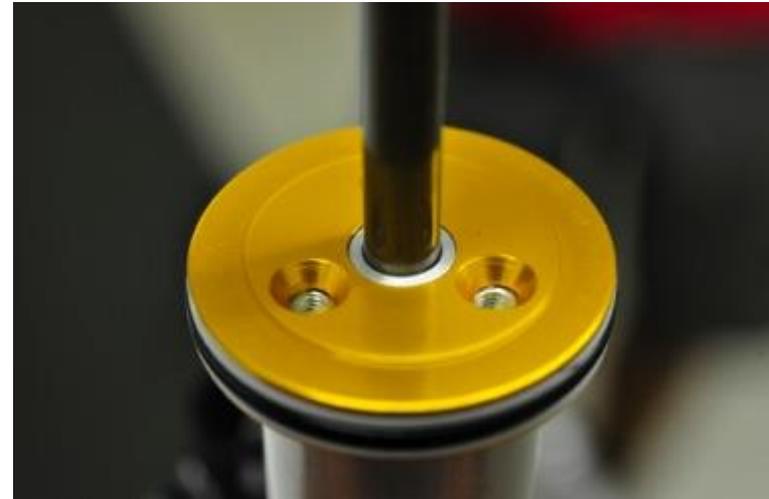
Install air seal head

1. Using a vice secure the damper assembly.
2. Loosely install the new O-ring DB11109.
3. Using a small amount of lubricant on the air sleeve install the seal head.
4. Once installed the air seal head should slide freely with no resistance from the outer damper tube.



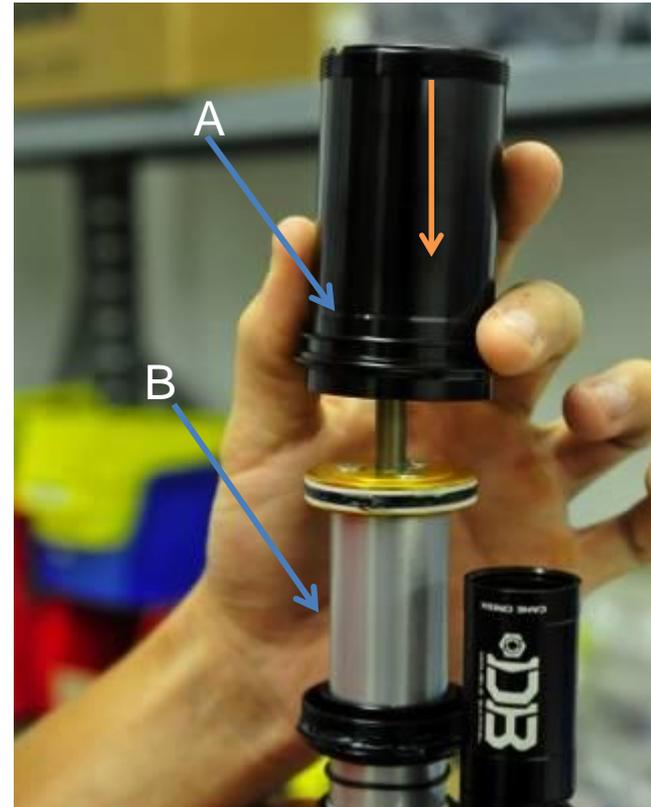
Air piston installation

1. Slide the air piston assembly onto the damper shaft.
(Note: When installing the air piston ensure the inner O-ring is not damaged. This allows the air spring to work correctly.)
2. Apply blue Loctite 242 to the 3 T20 Trox screws. Tighten evenly to 30-35 in-lb
3. Apply a small amount of shock lubricant to the air piston assembly



Install internal air can

1. Ensure the internal threads are facing the air piston and push down onto the shock body.
2. Slide air can A onto shock body B and tighten by hand.



DBAIR – Air spring service

Eyelet installation

1. Use soft vice clamps and install the shock into a vice.
 2. Install the rubber bumper (AAD0165).
 3. Apply blue Loctite to the threads and make sure the hole in the shaft is clear from debris. Insert the eyelet onto the threads
 4. Use an adjustable wrench to tighten the eyelet firmly.
- Note: the eyelet should come to a firm stop once tightened correctly.



DBAIR – Air spring service

Re-assemble air spring parts

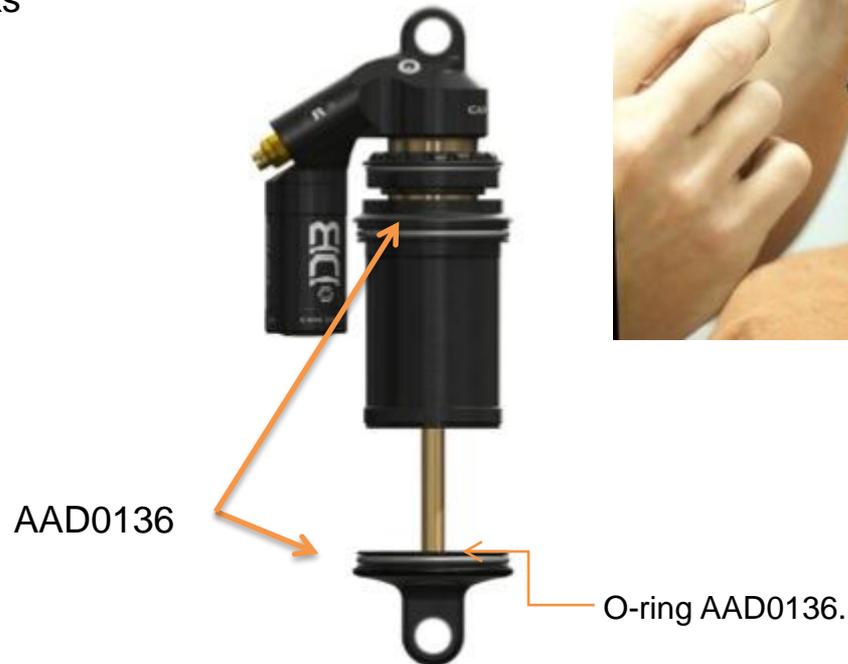
1. Secure the end eyelet in a vice.
2. Apply a thin layer of lubricant to the threads.
3. Ensure the inner air can is pushed up to the seal head and tighten by hand.
4. Install a protective sleeve around the shock to ensure no damage from the BB tool.
5. Using a BB tool tighten the assembly.



DBAIR – Air spring service

Install external air can

1. Apply lubricant to the outer shock O-rings AAD0136 and install outer air can.
2. Slide the outer air can until its touching the lower O-ring.
3. Re-install the O-ring AAD0136.
4. Re-pressurise and check for leaks



DBAIR & DBCOIL – Damper service



DBAIR and DBCOIL

Both air and coil shocks share many parts.

Please recognize the different shocks throughout this service.



DBAIR & DBCOIL – Damper service

Damper service

1. Required equipment:

- Torx wrench (DBT027) or T20 Torx wrench
- Head tool (DBT018)
- IFP wrench (DBT012)
- Cir clips (DBT025)
- Gas filling assembly (DBT016)

2. Remove the coil spring or air pressure from the DB Coil/Air.

3. Removing pressure from IFP chamber.

- i. Remove the Torx bolt and O-ring.
- ii. Insert the needle through the rubber plug.
- iii. Release nitrogen pressure from the shock body.
- iv. Use the IFP tool to lower the sealing head.
- v. Using cir clip pliers remove the clip.

4. Remove the reservoir end using seal head driver

5. Remove the shaft assembly from the shock body.

6. Remove the oil from the shock body.

Depressurisation complete.



DBAIR & DBCOIL – 댐퍼 서비스

DBT012
IFP tool

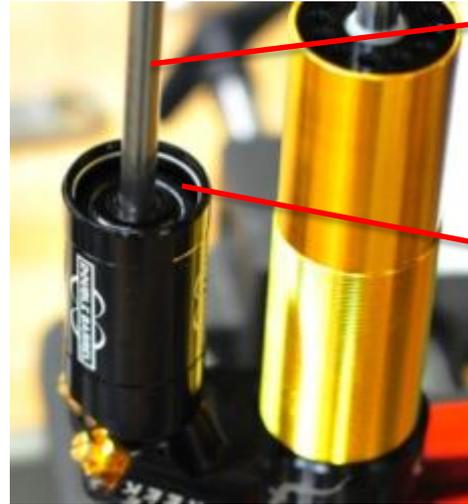
Circlip exposed

DBT025

Remove Torx
screw



Remove pressure from shock body



Remove circlip



Remove and burr

DBAIR & DBCOIL – Damper service



DBT018
(Head tool)

Extend the shock shaft then remove the seal head and remove the shaft assembly



Shock body

Shaft assembly



Empty shock

IFP service

1. Tools required
 - IFP tool(DBT012)
 - Strap wrench
2. Use the strap wrench to remove the IFP body.
3. Apply a thin layer of lubricant to the O-ring.
4. Replace the reservoir and tighten.
5. Before installation apply a thin layer of lubricant to the IFP piston rings and seal and replace is necessary..

Reassembling reservoir complete

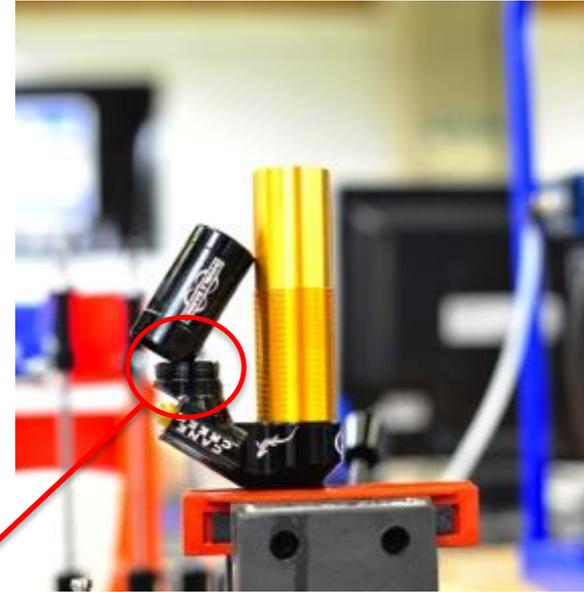
DBAIR & DBCOIL – Damper service



IFP Tool (measure depth before removal)



Strap wrench



Remove IFP



Lubricate o-ring

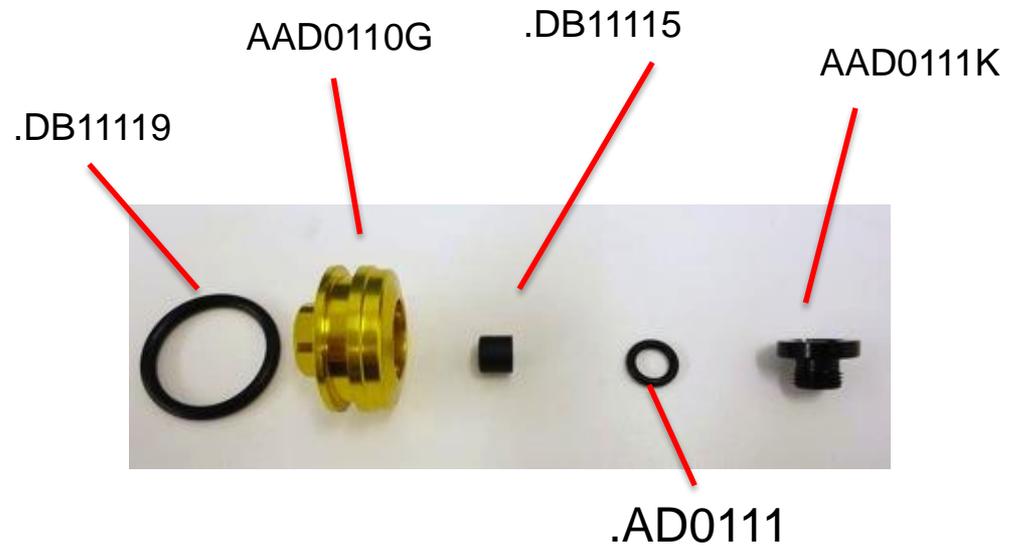


Glide rings

DBAIR & DBCOIL – Damper service

Reservoir end service

1. Required tools
 - Crank bolt tool
 - 12mm socket
1. Use the crank bolt tool to remove end sleeve.
2. Remove the seal plug.
3. Replace thread plug, end sleeve and O-rings.



DBAIR & DBCOIL – Damper service

Reassembling reservoir end

1. Insert a new self sealing valve into the reservoir assembly. Replace O-ring AD0111 (6.07 x 1.78)

2. Apply a small amount of blue Loctite to the threads.

3. Place a 12mm socket in a vice and insert the end into the socket. Use the crank bolt tool to secure end plug.

DB11115



AD0111



AAD0110G



AAD0111K



Shock body service

Disassembly the shock body for oil leak repairs.

1. Tools required

- Tube tool (DBT025)
- Strap wrench

2. Use the tube tool to remove the inner tube

3. Use the strap wrench on the outer tube to remove the tube from the eyelet assembly

Body removal complete.

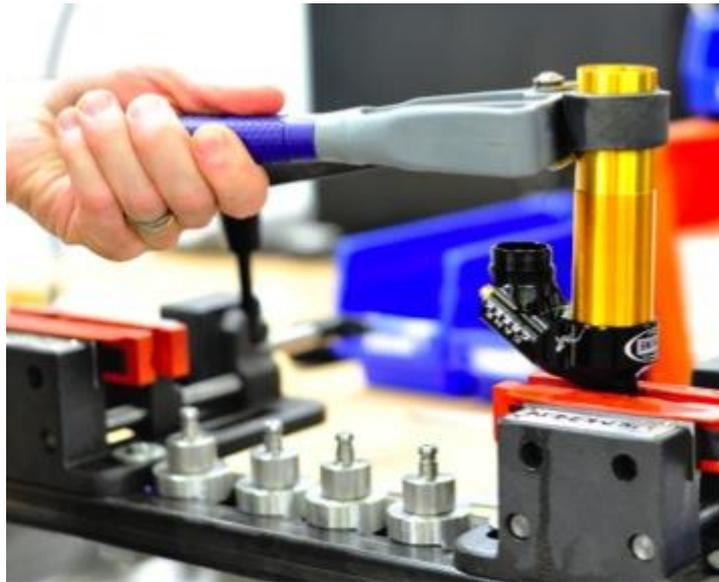


DBAIR & DBCOIL – Damper service

Shock body service



1. Pull the inner tube from the outer tube with the tube tool.



2. Using a strap wrench remove the outer tube.



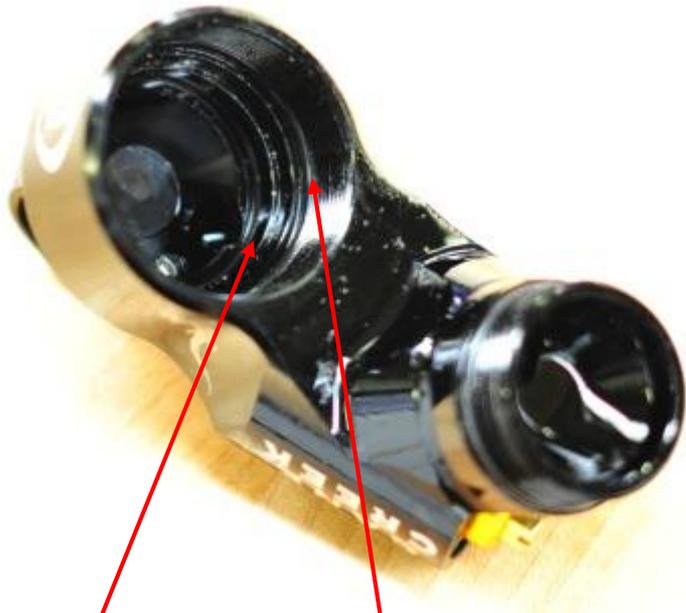
Shock body assembly

1. Tools required
 - Strap wrench
2. Required solutions
 - Loctite 271
3. Remove the two O-rings in the cylinder head.
4. Remove the O-ring on the seal head.
5. Apply a small amount of shock lube and replace both O-rings.
 - Outer tube – .DB11110
 - Inner tube – .DB11109
6. After applying a thin layer of lubricant on the outside edge of the top tube, use Red Loctite on the outside edge to the top ube.
7. Use a strap wrench to tighten the outer tube to the cylinder head.

Shock body reassembly complete.

DBAIR & DBCOIL – Damper service

Shock body disassembly



.DB11109

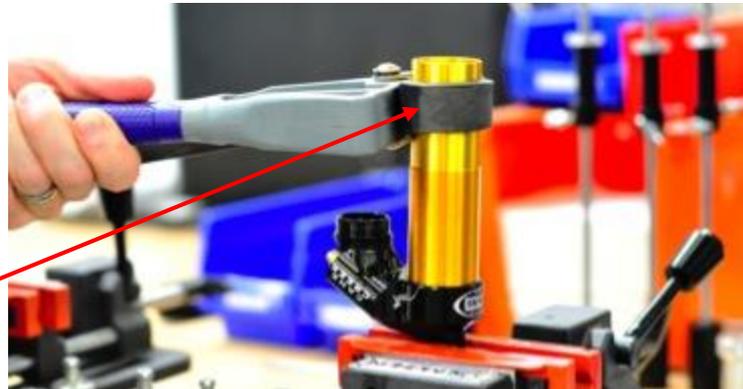
.DB11110

Cylinder head O-rings

Tighten outer tube using a strap wrench



Apply Loctite to the outer tube thread



Replacing the seal head

1. Tools required

- Vice shaft (DBT009)
- Heat gun
- Adjustable wrench
- Shaft clamps (.DBT010)



2. Solution required

- Loctite 271
3. Place the shaft assembly into a vice and secure. A large amount of pressure will be required to hold the damper shaft.
 4. Apply heat to the eyelet.
 5. Use an adjustable wrench to remove the eyelet from the damper shaft.
 6. Remove any old Loctite residue.
 7. Remove the external bumper, shaft seal and outer bumper.
 8. Replace the top outer bumper (.DB11266)
 9. Apply lubricant to the threads(.DBT010)
 10. Apply a thin layer of lubricant to the head seal.
 11. Without damaging the seal head carefully push down onto the damper shaft.
 12. Apply a thin layer of lubricant to O-ring (26.7x1.78).
 13. Replace the outer bumper if necessary (.DB11123)
 14. Apply red Loctite to the threads and install the eyelet. (Torque to 120 in-lb)

Head seal replacement complete.

Head replacement photos



Secure damper shaft
in a vice

DBT009



Use a heat gun to melt loctite before removal



Remove the eyelet using
an adjustable wrench

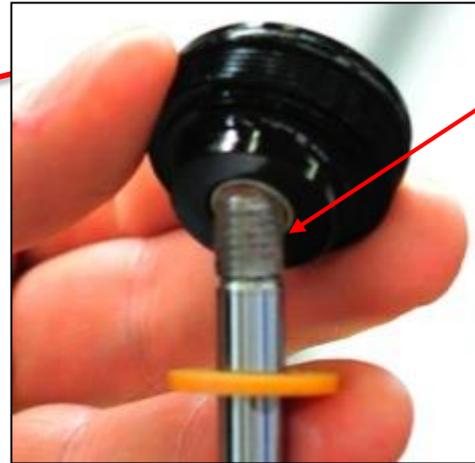
Replace head photos



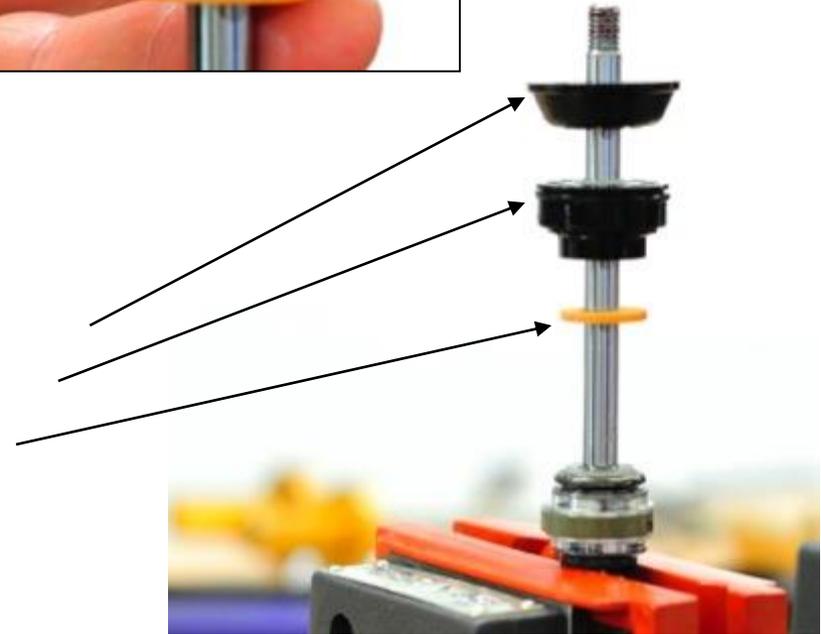
Bumper top
(.DB11266)



Lower bumper
Seal head
Top bumper



Install sleeve (.DBT010)
Ensure thread doesn't
damage seal head



Shaft Reassembly

1.Tools required

- Vice shaft (DBT009)
- 13mm wrench
- 13mm torque wrench

2.Replacing the piston:

- i. Remove the O-ring and glide ring on the piston.
- ii. Apply a thin layer of grease and replace:
 - O-ring – 20.00 x 1.00 (.DB11117)
 - Piston ring – (.DB11113)

3.Main piston replacement:

- i. Place damper shaft into a vice shaft(DBT009) and tighten. A large amount of force will be required to stop the shock from rotating
- ii. Remove the nut on the shaft.
- iii. Remove the washer along with the shim assembly.
- iv. Check wear on the piston and replace if necessary (.DB11227H).
- v. The main piston assembly is shown in the picture. For more information please refer to BOM.
- vi. Please keep the following precautions in mind when reinstalling the parts:
 - The rebound port is faced with the piston direction.
- vii. With the new piston installed on the shaft torque nut to 120 in-lb
- viii. Go to step 2

shaft reassembly complete.

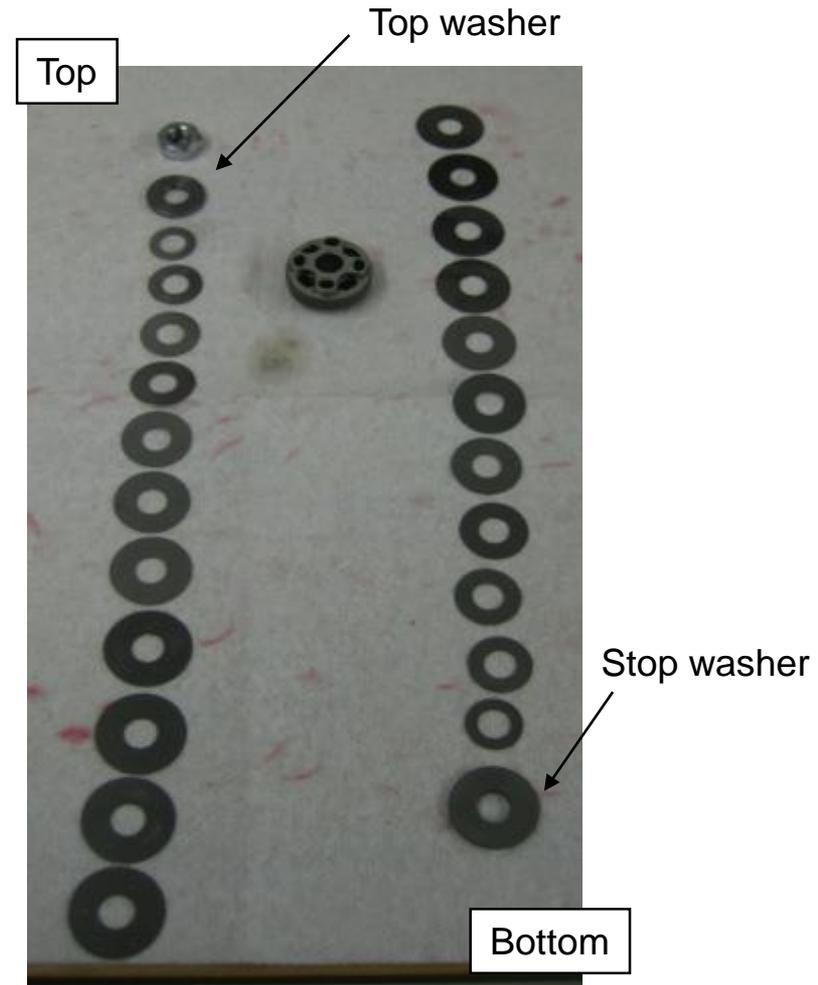
Shaft reassembly



Remove shaft nut



Correct orientation of the piston



Shim stack arrangement

Shaft reassembly photo



Torque shaft nut to 120 in-lb

Install shaft and fill

Shaft installation.

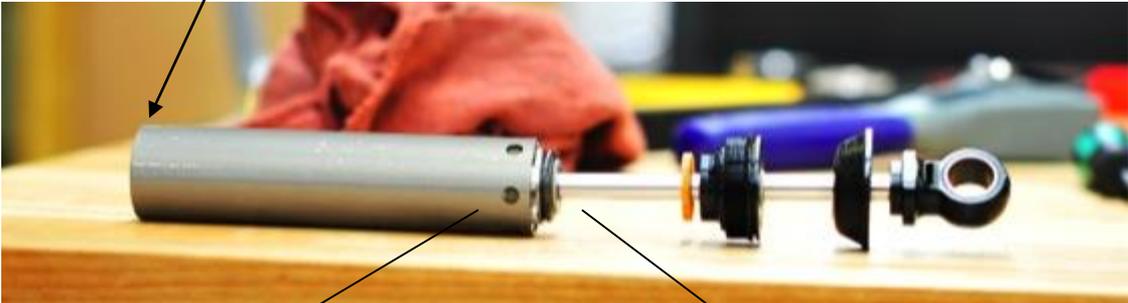
1. Tools required.

- Head spanner (DBT018)
2. Apply a thin layer of lubricant to piston glide ring.
 3. Holding the main piston rings and glide ring together slide the assembly into the inner tube.
 4. Ensure the grey inner tube engages on the O-ring located in the eyelet assembly.
 5. Replace the O-ring on the rear head (.DB11108) and apply lubricant.
 6. Insert the seal head into the outer tube and use a wrench to tighten (DBT018)
 7. Repeat several times, the inside shaft will rotate smoothly

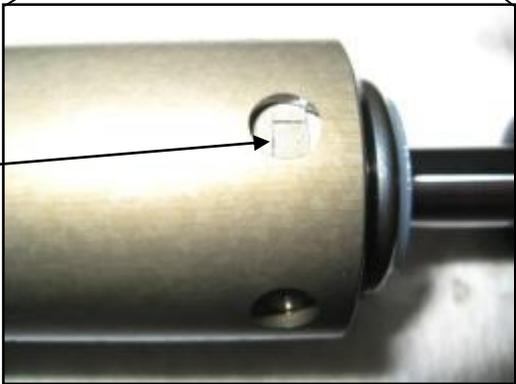
Shaft installation complete.

Shaft installation photos

Apply lubricant to the O-ring and outer tube



Caution:
Fully seated



Push the shaft assembly into the inner tube as shown



Install the inner tube into the outer tube



IFP assembly

IFP and quad rings



Complete assembly



*Note IFP may vary. *(This is the continuous band style)*

IFP height setting

1. Tools required

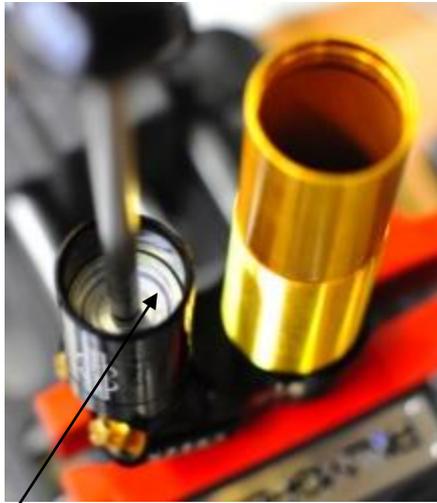
- IFP setting tool(DBT012)
- Clip wrench (DBT025)

2. 5mm IFP setting (measured from cylinder head)

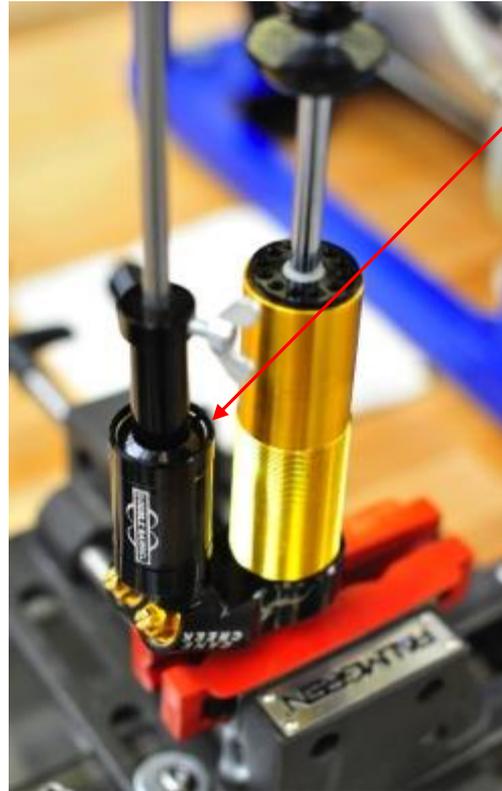
- i. Insert the IFP onto the IFP setting tool
- ii. Insert the IFP into the reservoir and install the circlip.
- iii. While pushing on the IFP in all directions, Pull the IFP until the circlip is reached.
- iv. With the IFP up against the circlip push the adjustment ring down until it stops.
- v. Pull the IFP until a there's 5mm gap between the adjustment ring.
- vi. Lock using the nut.

IFP set complete

IFP height setting photo



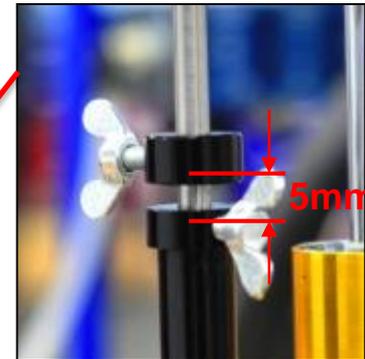
IFP setting tool



With the IFP pushed down install the clip



IFP set to 5mm



WARNING!

After filling the shock with oil the IFP should be 4-6mm from the cylinder head

Filling the shock

Fill shock with oil after assembly.

1. Tools required.

- Torx wrench (DBT027)
- IFP setting tool (DBT012)
- Clips wrench (DBT025)
- Gas filling assembly (DBT016)
- Filling machine (Ohlins #1840-01)
- M4 filling adapter (Ohlins #1820-04)

2. Solutions.

- Shock oil.

3. Turn the regulator to fill the shock with oil.

4. IFP mounted to 5mm height.

- i. Insert the IFP into the IFP setting tool.
- ii. Insert the IFP into the reservoir and replace clip.
- iii. Pull up on the IFP until it meets with the clip.
- iv. Slide the adjustable ring down until it meets with the IFP.
- v. Pull the IFP until there is a 5mm gap between the adjustable ring.
- vi. Lock the IFP tool lock nut.

5. Apply lubricant to the O-ring (4.5 x 1.5).

6. Follow the instructions of the oil fill machine.

7. Ensure the O-ring is in place and reinstall the Torx screw

Filling complete.



Tube filling photo



Ohlin's #1820-04

WARNING! – The IFP should be set 4-6mm from the cylinder head.



Oil machine
#1840-01)

Shock filling procedure

Tools required.

- 10mm socket driver
- 6mm socket driver
- IFP Setting tool (DBT012)
- Adjustable wrench (DBT018)

1. Fix the shock in a vice facing upwards.
2. Remove the high speed assembly.
3. Fill the valve assembly full with oil.
4. Insert the valve spring.
5. Carefully install the adjustment assembly allowing oil to escape from the bleed hole..
6. Ensure all adjusters are in the fully out position to allow full oil circulation.

Shock filling procedure

7. Use the IFP setting too to push the IFP down 10mm
8. Fill the shock body with oil until full.
9. Insert the shaft assembly until the holes are half closed.
10. Slowly insert the inner tube and shaft assembly into the shock body and allow oil to flow through the inner tube hole.
11. Slide the seal head down over the main shaft and insert into the outer tube.
12. At this point the shock is full with oil but still may have air bubbles present in the shock.

Shock fill procedure

13. Hold the shock with the cylinder head at the highest point.
14. At the shock head remove the 4mm Torx bolts.
15. Attach a funnel to the shock head and partially fill with oil.
16. Slowly cycle the main shaft and allow bubbles to escape to the funnel.
17. Using the IFP tool cycle the IFP until no bubbles are present in the funnel.
18. Remove the funnel and replace the Torx screw..

Shock fill complete

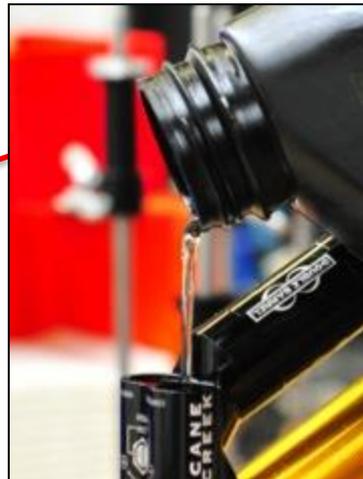
Oil fill photos



Poppet and springs removed from the shock head



Fix the shock in a vice to start the fill process



Barrel filled with oil



Oil fill photos



Install The poppet and spring



Installing the head assembly with the oil Bleed hole to prevent air ingress.



Oil Fill photos



Fill the shock body with oil
Until the reservoir is full



Use the IFP setting tool to set
the IFP.



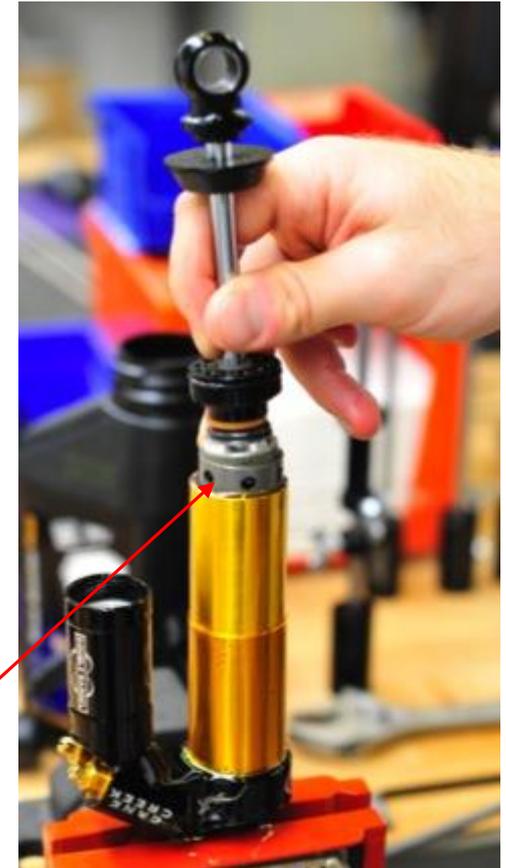
Fill photos



Insert the assembly into the inner tube so half of the hole is exposed.



Slowly insert the shaft assembly and allow oil to fill the empty space of the inner tube.



Fill photos



Keep cycling the shaft until no air bubbles no longer occur.



1. IFP setting tool installation

Fill photos



Using a funnel connected to the shock bleed port, cycle the shock stroke until no air bubbles are present.

Note: half fill the funnel to ensure no air is sucked into the shock when cycling the shaft

Fill photos



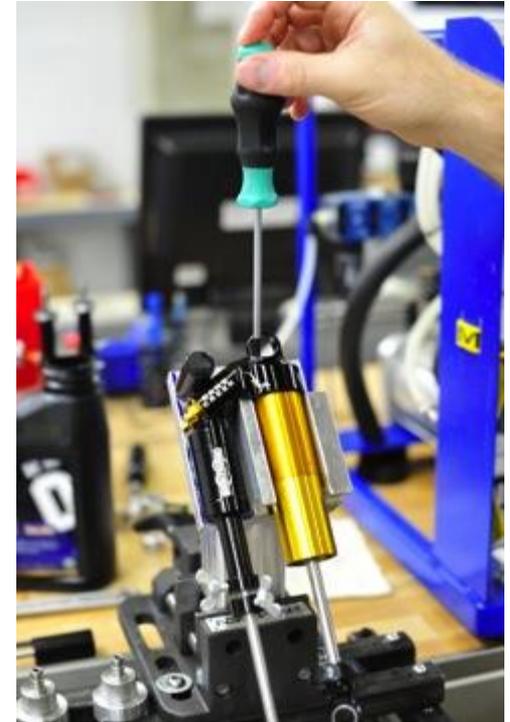
1. Cycle the main shock shaft until no bubbles appear in the funnel.
2. Ensure the damper shaft is cycled through its entire stroke.
3. Cycle the IFP until it touches the cylinder head until no air appears in the funnel

Set the IFP 5mm from cylinder head

Oil fill photos



Screw the adjusters in to make circlip installation easier



Fill port

Oil fill photos



Replace reservoir end cap and clip

Install the IFP to the correct depth using the IFP tool



Fill with nitrogen 10-12bar (145-175psi)

Reservoir end assembly

Reservoir end assembly parts
AAD0110G, AAD0111, DB11115,



Apply lubricant to the O-ring



Apply Loctite to the thread



Use a crank bolt tool to
remove inner plug



T20 Torx screw



워런티 파트 표

Application	Description	Part Number	Notes
Gas Leak			
	Gas Leak Kit	.DBREB4	Required to prevent gas leak
Oil Leak			
	Oil Leak Kit	.DBREB5	Gas leak kit (.DBREB4) Required 그리고 조절기를 제외한 모든 파트는 오일누출문제를 고칠 것 - 레저버 엔드와 IFP 업데이트 필요 - 실 헤드 업데이트 필요
Adjuster Leak			
	Adjuster Leak Kit	.DBREB6	가스누출키트(.DBREB4)필요, 오일누출 키트 (.DBREB5)필요 그리고 하나의 조절기로부터 모든 파트의 누출을 고치는 것 필요 - 손상된 조절기는 워런티 되지 않음 - 고속 조절기 주변의 작은 누출은 정상적임, 이것은 조립윤활유에서 나온 것임

Vendor	Part	Vendor Part Number	Cane Creek Part Number
Cane Creek			
	Circlip removal wrench		DBT025
	IFP setting tool		DBT012
	Gas Fill Assembly		DBT016
	Seal Head Spanner		DBT018
	Spherical bearing Installer/Remover		DBT003
	Valve Seat Driver		DBT004
	End Piece Assembly Block		DBT005
	Shaft Vice		DBT009
	Circlip installer for Poppet	A-310	DBT026
	Safety Torx wrench	TR20	DBT027
	Bushing Install/Remover		DBT024
	Seal Head Install Sleeve		.DBT010
Ohlins			
	Oil Fill Machine	1840-01	
	M4 Oil fill adaptor	1820-04	

1. Thread lock.

1. Loctite 271 (red)
2. Loctite 242 (blue)

2. Damper fluid.

1. Ohlin's shock oil (# 01304-01)
2. Motul VI400 shock oil

Damper properties

Parameter	Ohlins 01304-01	Motul VI400
Viscosity at 40°C	11.4	16.1
Viscosity at 100°C	4.35	6.2
Viscosity Index	367	400