#30 8306 XRAY ALU SHOCK ABSORBER-SET - SHORT

Premium XRAY aluminum shock absorbers are specially developed and designed to work with the XRAY T2'008 platform. These unique black hardcoated aluminum shocks are loaded with all of the features needed for today's racing.

The unique XRAY aluminum shock absorbers have pistons with two different number of holes (2, 3) and three different hole diameters (1.1, 1.2, 1.3mm) and all pistons are ultra-true and round thanks to a very special mould design, resulting in ultra-free movement of the piston inside the shock body.

The XRAY aluminum shock absorbers come with all the necessary parts to build one pair of shocks (2 shocks). Springs and shock oil are not included and must be purchased separately.

FEATURES

- The aluminum shock body is precision CNC-machined on the world's most precise German long-turn CNC machine and every piece is robot-inspected and measured to ensure maximum precision and tolerance. This is especially important with the inner diameter of the shock body to ensure that each one has an identical inner diameter to guarantee ultra-free shock piston movement. The aluminum shock body is machined from exclusive Swiss 7075 T6 aluminum ensuring maximum strength and rigidity. The shock bodies are black hardcoated using XRAY's own fully robotic colorcoating line with purpose-mixed color fluids, ensuring a very even layer of color coating is applied to each shock body. After the coating process, every shock body is manually checked with high-precision calipers to ensure that the inner diameter of each shock body is exactly within the very stringent tolerances.
- The shock cartridge has been designed for the self-centering shim to hold 1 silicone O-ring, guaranteeing perfect alignment in the shock body. A finely-threaded aluminum shock lower cap secures the silicone O-ring and shim in the shock body.
- Finely-threaded spring preload collars are used to make ride height quick and easy. Even in very dirty conditions it is still possible to very precisely adjust ride height.
- The upper aluminum cap features a small vent hole that makes shock assembly very predictable and easy, since excess shock oil will escape through this vent hole ensuring that only the proper amount of the oil is inside the shock assembly. A super-soft silicone membrane supported by a miniature foam pad (inserted inside the membrane) provides proper dampening characteristics.

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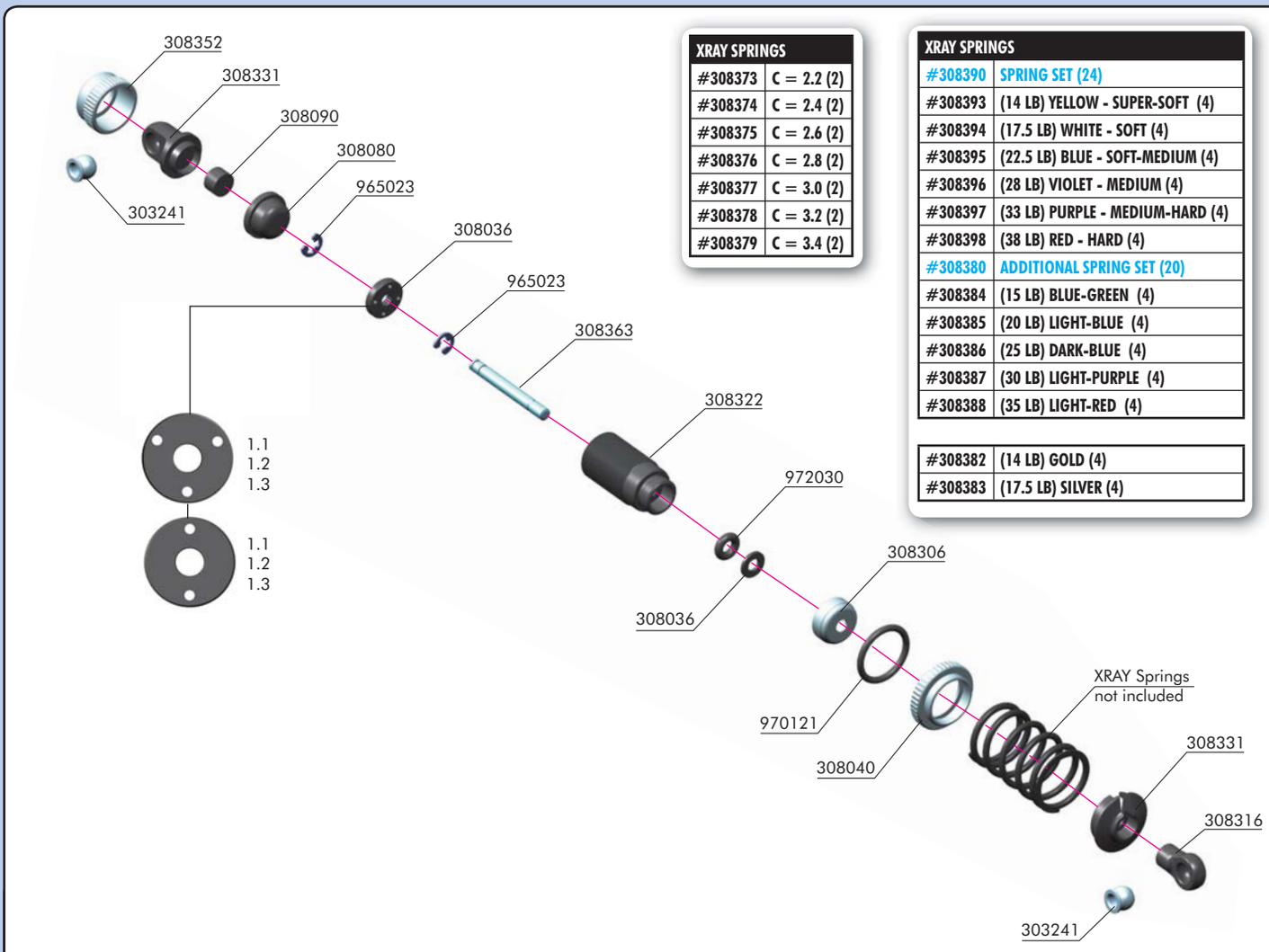


XRAY SPRINGS	
#308373	C = 2.2 (2)
#308374	C = 2.4 (2)
#308375	C = 2.6 (2)
#308376	C = 2.8 (2)
#308377	C = 3.0 (2)
#308378	C = 3.2 (2)
#308379	C = 3.4 (2)

XRAY SPRINGS	
#308390	SPRING SET (24)
#308393	(14 LB) YELLOW - SUPER-SOFT (4)
#308394	(17.5 LB) WHITE - SOFT (4)
#308395	(22.5 LB) BLUE - SOFT-MEDIUM (4)
#308396	(28 LB) VIOLET - MEDIUM (4)
#308397	(33 LB) PURPLE - MEDIUM-HARD (4)
#308398	(38 LB) RED - HARD (4)
#308380	ADDITIONAL SPRING SET (20)
#308384	(15 LB) BLUE-GREEN (4)
#308385	(20 LB) LIGHT-BLUE (4)
#308386	(25 LB) DARK-BLUE (4)
#308387	(30 LB) LIGHT-PURPLE (4)
#308388	(35 LB) LIGHT-RED (4)

#308382	(14 LB) GOLD (4)
#308383	(17.5 LB) SILVER (4)

30 3241 BALL UNIVERSAL 5.8 MM HEX (4)
30 8036 COMPOSITE NON-ADJUSTABLE PISTONS
30 8040 SHOCK ADJ. NUT ALU + O-RING (4+4)
30 8080 SHOCK ABSORBER MEMBRANES (4)
30 8090 SHOCK FOAM INSERTS (4)
30 8306 XRAY T2'008 ALU SHOCK ABSORBER-SET 4-STEP (2)
30 8316 T2 COMPOSITE SHOCK BALL JOINT - OPEN (4)
30 8322 T2'008 ALU XRAY SHOCK BODY FOR #308306 (2)
30 8331 T2'008 COMPOSITE FRAME SHOCK PARTS 4-STEP - SHORT
30 8352 T2 ALU SHOCK CAP-NUT WITH HOLE (2)
30 8363 T2'008 HARDENED SHOCK SHAFT FOR ALU SHOCKS (2)

96 1032 WASHER S 3.2 (10)
96 5023 E-CLIP 2.3 (10)
97 0121 O-RING 12.1x1.6 (10)
97 2030 SILICONE O-RING 3x2 (10)

30 8380 ADDITIONAL XRAY ULTIMATE RACING SPRINGS (20) - REAR
30 8390 XRAY SELECTED ULTIMATE RACING SPRINGS (24) - REAR
30 8382 XRAY PROGRESSIVE SPRING-SET D=1.4 (14 LB) GOLD (4)
30 8383 XRAY PROGRESSIVE SPRING-SET D=1.5 (17.5 LB) SILVER (4)

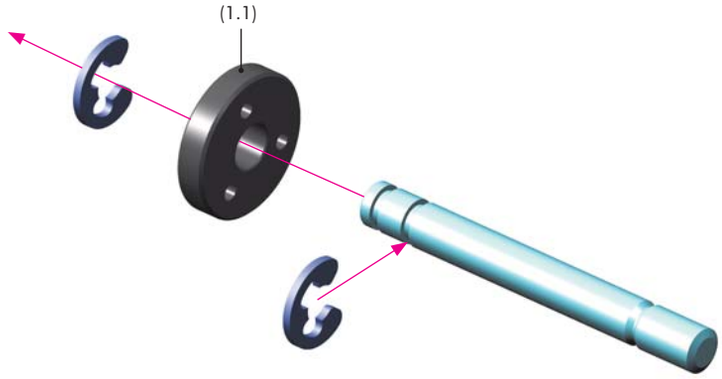
30 8373 XRAY SPRING-SET C = 2.2 (2)
30 8374 XRAY SPRING-SET C = 2.4 (2)
30 8375 XRAY SPRING-SET C = 2.6 (2)
30 8376 XRAY SPRING-SET C = 2.8 (2)
30 8377 XRAY SPRING-SET C = 3.0 (2)
30 8378 XRAY SPRING-SET C = 3.2 (2)
30 8379 XRAY SPRING-SET C = 3.4 (2)

965023
C 2.3

2x

INITIAL ASSEMBLY

3 HOLE PISTON
(1.1)



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970121
O 12.1x1.6

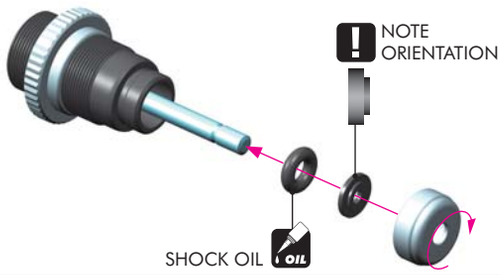
2x

CUTAWAY VIEW

Be careful not to cross-thread the collar on the shock body.

972030
O 3x2

2x



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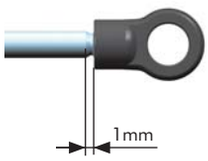
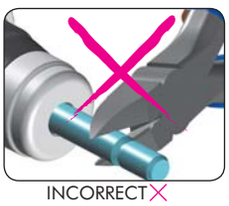
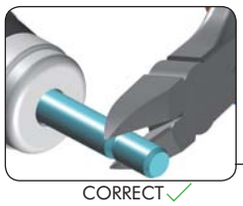


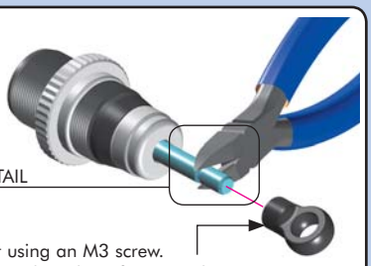
USE ONLY ball-joints #308316



INCORRECT ✗



CORRECT ✓



HINT: Pre-thread the ball joint using an M3 screw.
WARNING! Be careful not to pre-thread too far, since the ball joint may split or the plastic threads may strip out

2x

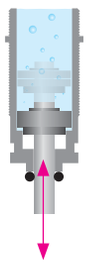
SHOCK FILLING

❶ Fully extend the piston rod so the piston is at the bottom of the shock body.

❷ Hold the shock upright and slightly overfill the shock body with shock oil.

❸ Let the oil settle and allow air bubbles to rise to the top. Slowly move the piston up and down until no more air bubbles appear. Add shock oil as necessary.

❹ Pull the piston rod most of the way out of the shock body. Let the shock rest for 5 minutes to allow the air bubbles to escape.



2x

CUTAWAY VIEW

After you insert the membrane ensure that it sits properly all around the alu cup properly.

2x

When installing the shock cap assembly on the shock body, some oil will leak out... this is normal.

Fully tighten the cap and clean off any excess oil.

After the shock is assembled, the shock rod will push itself out of the shock body fairly quickly.

Follow the next procedure to adjust the rebound.

SHOCK OILS			
#359210	100cSt (XRAY 20W)	#359245	450cSt
#359215	150cSt	#359250	500cSt
#359220	200cSt (XRAY 25W)	#359260	600cSt (XRAY 35W)
#359225	250cSt	#359270	700cSt
#359230	300cSt	#359280	800cSt
#359235	350cSt (XRAY 30W)	#359290	900cSt
#359240	400cSt	#359301	1000cSt (XRAY 40W)
		#359302	2000cSt (XRAY 50W)

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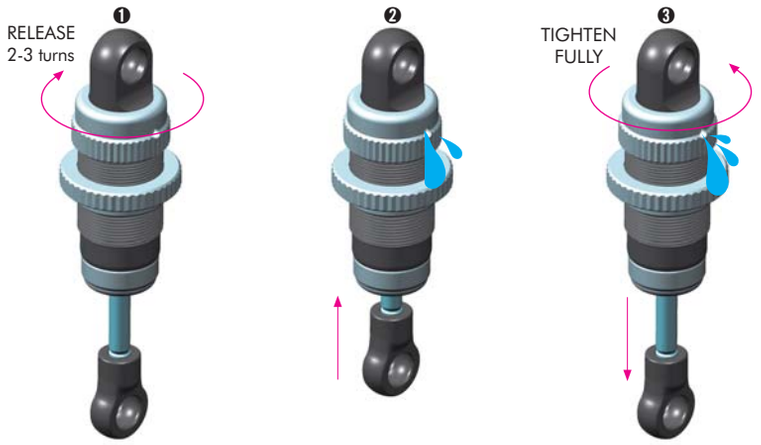
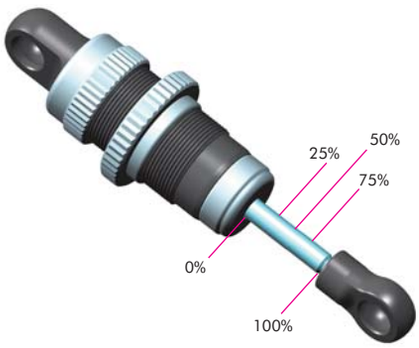
REBOUND ADJUSTMENT



REBOUND CHECK



After the shock is assembled you have to set the shock rebound.

❶ Release the shock cap by 2-3 turns.

❷ Push the shock shaft fully up. For the first time the extra oil will release through the hole in the alu cap-nut.

❸ Tighten the shock cup. When tightening the shock cap, extra oil will again release through the hole in the alu cap - nut. When tightening, the shock shaft will push out from the shock body.

Rebound Check

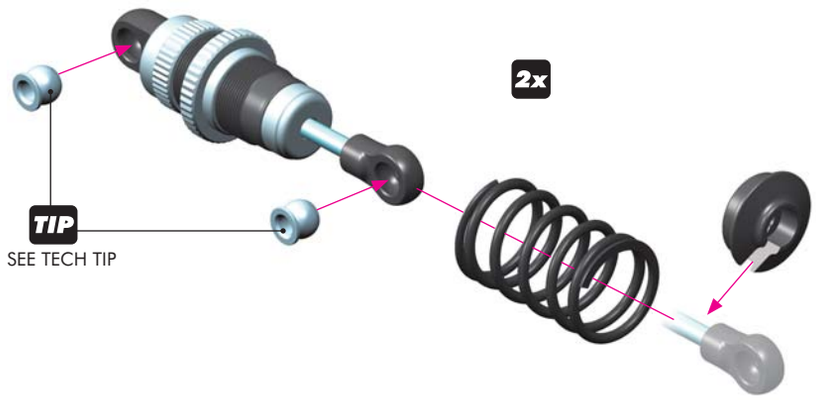
It is very important to push the shock shaft into the shock body slowly otherwise air can come into the shock body which would create bubles.

100%	rebound - repeat step 2 and 3 two - three times
75%	rebound - repeat step 2 and 3 until the shock shaft will push out 75% of its length
50%	rebound - repeat step 2 and 3 until the shock shaft will push out 50% of its length
25%	rebound - repeat step 2 and 3 until the shock shaft will push out 25% of its length
0%	rebound - repeat step 2 and 3 until the shock shaft will push out 0% of its length

If the shock shaft does not rebound enough, you will have to refill the shock with shock oil, and then repeat the bleeding and rebound adjustment procedure.

SHOCK LENGTH ADJUSTMENT:

It is VERY important that all shocks are equal length. Fully extend the shock absorber and measure the end-to-end length; we recommend using digital calipers to give an accurate measurement. If a shock absorber is shorter or longer than others, adjust the shock length by tightening or loosening the ball joint on the shock rod.

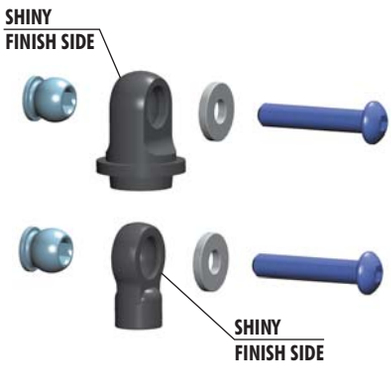


TECH TIP

Follow this tech tip to properly install pivot balls into the top pivot and bottom ball joint.

Parts needed:
- M3 x 16 SH screw
- M3 shim

Note that the composite parts have two sides, noticeable around the pivot ball hole: one side has a shiny finish, the other side has a regular finish.



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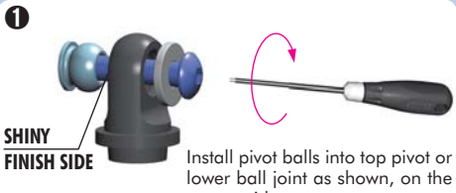
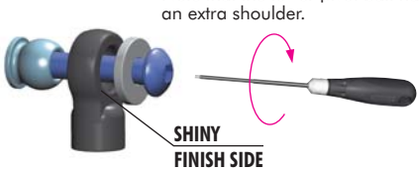


Install pivot balls into top pivot or lower ball joint as shown, on the proper sides.

Note that the lower pivot ball has an extra shoulder.



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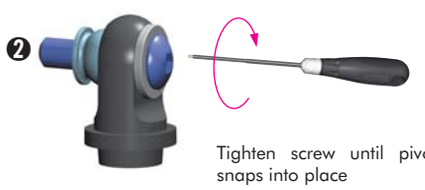

Tighten screw until pivot ball snaps into place

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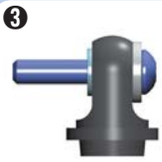
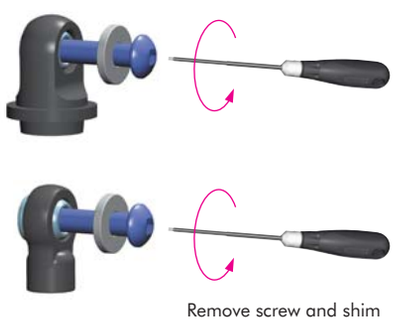


Ensure pivot balls move freely

❹



Remove screw and shim