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Technical Support Line: (952) 985-5675 Email: sales@QA1.net

TK11 Tuning Kit Manual

Applicable for 7Q and 8Q series shocks
Also compatible with obsolete 70 and 82 Series

Material	Material Description	Quantity
7855-159	VALVE DISC, .670" X .318" X .006" 8PK	1
7855-160	VALVE DISC, .670" X .318" X .008" 8PK	1
7855-161	VALVE DISC, .670" X .318" X .010" 8PK	1
7855-162	VALVE DISC, .670" X .318" X .012" 8PK	1
7855-163	VALVE DISC, .750" X .318" X .006" 8PK	1
7855-164	VALVE DISC, .750" X .318" X .008" 8PK	1
7855-165	VALVE DISC, .750" X .318" X .010" 8PK	1
7855-166	VALVE DISC, .750" X .318" X .012" 8PK	1
7855-167	VALVE DISC, .827" X .318" X .006" 8PK	1
7855-168	VALVE DISC, .827" X .318" X .008" 8PK	1
7855-169	VALVE DISC, .827" X .318" X .010" 8PK	1
7855-170	VALVE DISC, .827" X .318" X .012" 8PK	1
7855-176	VALVE DISC, .902" X .318" X .004" 8PK	1
7855-171	VALVE DISC, .902" X .318" X .006" 8PK	1
7855-172	VALVE DISC, .902" X .318" X .008" 8PK	1
7855-173	VALVE DISC, .902" X .318" X .010" 8PK	1
7855-177	VALVE DISC, .902" X .318" X .012" 8PK	1
7855-201	BLEED SHIM 5PK / .010, 1 SLOT	1
7855-202	BLEED SHIM 5PK / .025, 1 SLOT	1
7855-203	BLEED SHIM 5PK / .025, 2 SLOT	1
7855-204	BLEED SHIM 5PK / .080, 1 SLOT	1
7855-205	BLEED SHIM 5PK / .080, 2 SLOT	1
7855-206	BLEED SHIM 5PK / .080, 3 SLOT	1
7857-104	PIN, DOWEL 3/64" X .250" 8PK	1
7857-105	CHECK BALL, 3/32" 8PK	1

Rebuild seal kits for small body Twin tube shocks:

P/N RK14- 7Q and 8Q series *Includes*

9044-114	CLOSURE NUT O-RING	1
9014-528	CLOSURE NUT WITH SEAL	1
9042-140	MAIN SEAL	1
9044-187	COMPRESSION TUBE TO GLAND O-RING	1
9013-186	HYPER SCREW	1
9005-313	SEAL RETAINING WASHER	1
9042-114	PISTON BAND	1
9044-115	TRAVEL INDICATOR	1
9044-234	Piston O-ring	1

P/N RK04- 70 and 82 series *Includes*

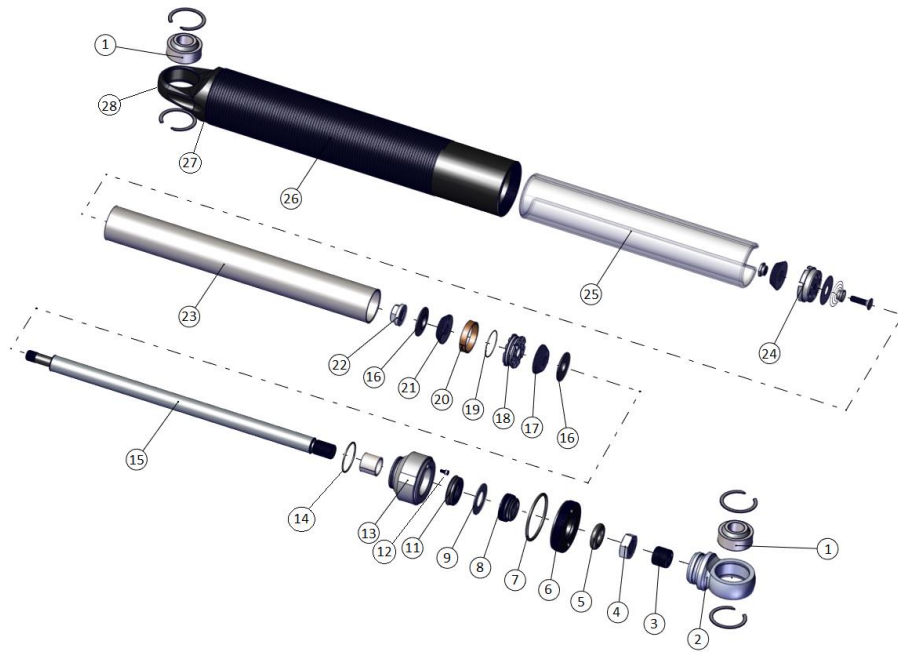
9044-115	INNER GLAND O-RING	1
9044-114	CLOSURE NUT O-RING	1
9046-103	WIPER, .500" ROD	1
9042-113	SEAL, U-CUP .500" ROD	1
9042-114	SEAL, PISTON BAND, 1" PISTON	1

Small Body Bleed Shim Info.

Spk P/N	Description	Slot Width	# Slots	Shim Thickness	Bleed Size Ø	Ind. P/N
7855-201	BLEED SHIM 5PK	0.010	1	0.006	.009	9055-413
7855-202	BLEED SHIM 5PK	0.025	1	0.006	.013	9055-414
7855-203	BLEED SHIM 5PK	0.025	2	0.006	.020	9055-415
7855-204	BLEED SHIM 5PK	0.080	1	0.006	.024	9055-416
7855-205	BLEED SHIM 5PK	0.080	2	0.006	.035	9055-417
7855-206	BLEED SHIM 5PK	0.080	3	0.006	.043	9055-418

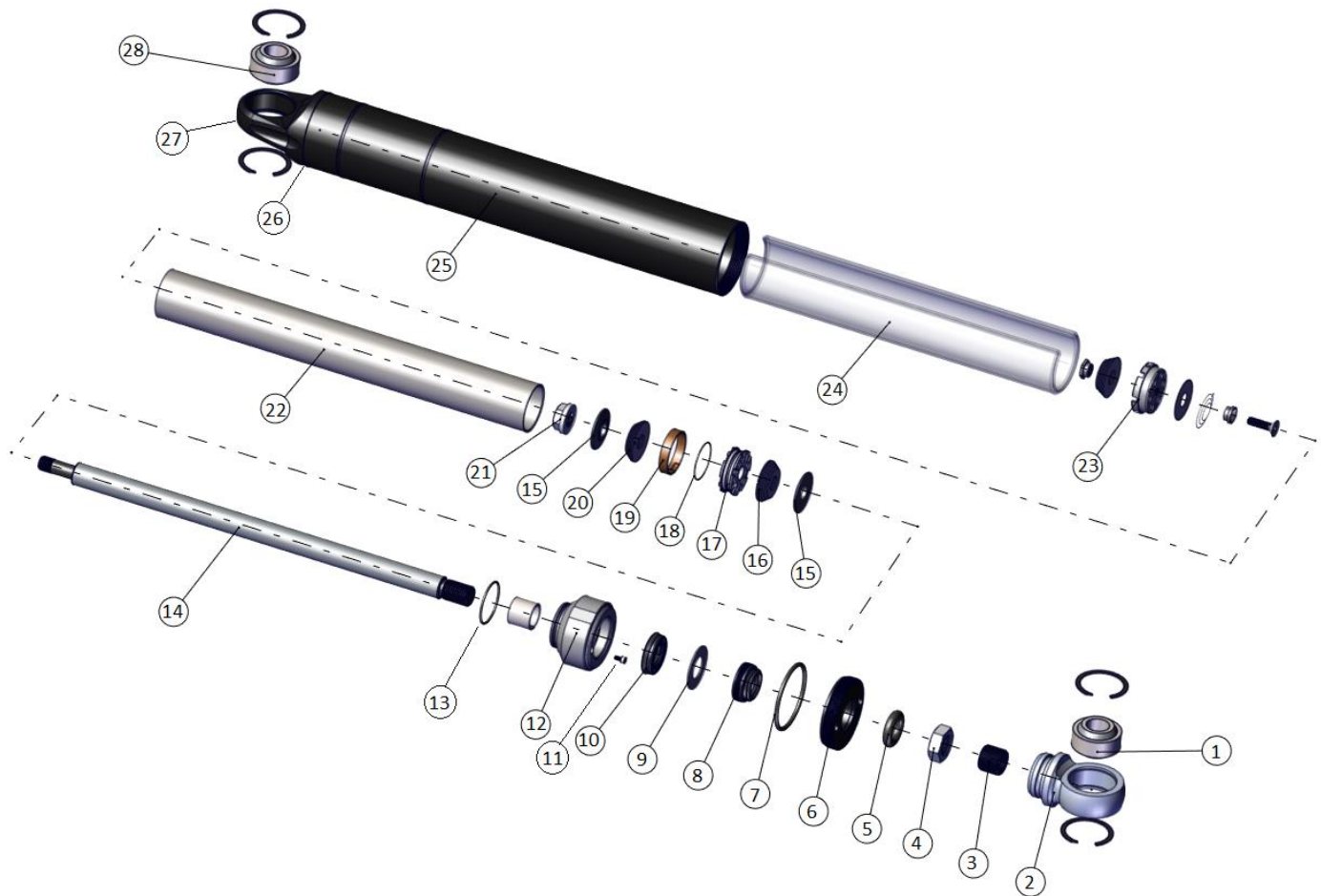
8Q Bearing Mount Parts List

SHOCK STROKE	GAS BAG USED
3"	9052-128
4"/5"	9052-129
6"/7"	9052-130
8"/9"	9052-130



Item	Part #	Description	Item	Part #	Description
15	9028-131	3" piston rod (OAL 5.93")	26	9782-220	5" body sleeve 7.65"
15	9028-132	4" piston rod (OAL 7.09")	26	9782-221	6" body sleeve 8.67"
15	9028-133	5" piston rod (OAL 8.09")	26	9782-222	7" body sleeve 9.67"
15	9028-134	6" piston rod (OAL 9.09")	26	9782-223	8" body sleeve 10.67"
15	9028-135	7" piston rod (OAL 10.09")	26	9782-224	9" body sleeve 11.67"
15	9028-136	8" piston rod (OAL 11.09")	28	9062-168	Aluminum Base
15	9028-137	9" piston rod (OAL 12.09")	24	9055-329	Base Valve Assembly
4	JNR7A	Aluminum Jam nut	7	9044-114	CLOSURE NUT O-RING
3	9033-117	9/16"-18 to 7/16"-20 Adapter	6,8	9014-528	CLOSURE NUT WITH SEAL
2,1	9036-105	Alum. bearing loop assembly	11	9042-140	MAIN SEAL
25	9052-128	3" Gas Bag (4.37" x 3.15")	14	9044-187	COMPRESSION TUBE TO GLAND O-RING
25	9052-129	4" Gas Bag (4.5" x 5.25")	12	9013-186	HYPER SCREW
25	9052-129	5" Gas Bag (4.5" x 5.25")	9	9005-133	SEAL RETAINING WASHER
25	9052-130	6" Gas Bag (4.5" x 7.38")	20	9042-114	PISTON BAND
25	9052-130	7" gas bag (4.5" x 7.38")	5	9044-115	TRAVEL INDICATOR
25	9052-130	8" Gas Bag (4.5" x 9")	27	9044-114	Body sleeve to body base O-ring
25	9052-130	9" gas bag (4.5" x 9")	13	9054-371	Gland assembly (includes bushing, seal and O-ring)
23	9053-132	3" compression tube 4.13"	18	9057-314	Linear/digressive 1" piston
23	9053-131	4" compression tube 5.61"	18	9057-304	Standard linear piston, 1"
23	9053-114	5" compression tube 6.61"	19	9044-234	Piston O-ring
23	9053-120	6" compression tube 7.62"	22	9014-418	Piston nut
23	9053-115	7" compression tube 8.63"	16	9027-112	Valve stack plate
23	9053-130	8" compression tube 9.63"	17	**	Compression shim stack
23	9053-129	9" compression tube 10.64"	21	**	Rebound shim stack
26	9782-218	3" body sleeve 5.18"	**	RK14	8Q series rebuild kit *incl. seals/O-ring for 1 shock
26	9782-219	4" body sleeve 6.65"	1	SIB8-101PK	Bearing kit (includes 2 bearings, 4 snap rings)

7Q Bearing Mount Parts List



Item	Part #	Description	Item	Part #	Description
14	9028-134	6" piston rod (OAL 9.09")	6,8	9014-528	CLOSURE NUT WITH SEAL
14	9028-135	7" piston rod (OAL 10.09")	10	9042-140	MAIN SEAL
14	9028-137	9" piston rod (OAL 12.09")	13	9044-187	COMPRESSION TUBE TO GLAND O-RING
4	JNR7S	Steel Jam nut	11	9013-186	HYPER SCREW
2	9036-148	Steel bearing loop assembly	9	9005-133	SEAL RETAINING WASHER
24	9052-130	6" Gas Bag (4.5" x 7.38")	19	9042-114	PISTON BAND
24	9052-130	7" gas bag (4.5" x 7.38")	5	9044-115	TRAVEL INDICATOR
24	9052-130	9" gas bag (4.5" x 9")	26	9044-114	Body sleeve to body base O-ring
22	9053-120	6" compression tube 7.62"	12	9054-371	Gland assembly (includes bushing, seal and O-ring)
22	9053-115	7" compression tube 8.63"	17	9057-314	Linear/digressive 1" piston
22	9053-129	9" compression tube 10.64"	17	9057-304	Standard linear piston, 1"
25	9770-112	6" body sleeve 8.67"	18	9044-234	Piston O-ring
25	9770-113	7" body sleeve 9.67"	21	9014-418	Piston nut
25	9770-115	9" body sleeve 11.67"	15	9027-112	Valve stack plate
27	9062-163	Steel Base	16	**	Compression shim stack
23	9055-329	Base Valve Assembly	20	**	Rebound shim stack
7	9044-114	CLOSURE NUT O-RING	**	RK14	8Q series rebuild kit *incl. seals/O-ring for 1 shock
			1	SIB8-101PK	Bearing kit (includes 2 bearings, 4 snap rings)

Rebuilding your QA1 Shocks

Tools needed for rebuilding:

7791-162	Closure Nut Wrench
7791-158	Piston Rod Bullet
SF16	1 Gal. 5wt. Shock Oil
Soft Jaw Vise or Shock Vise	
Torque Wrench with ½" Socket	
Soft Faced Mallet	
11/16" Wrench	
Paper towels	
Pick Set	
1.5 mm Allen Wrench	

Important: Before rebuilding or revalving your QA1 shocks, your work area must be clean. Shock performance is greatly affected by any contamination (i.e. dirt, dust, rag lint etc.).

DISASSEMBLY:

1. Check shock mount bearings or bushings for excessive wear or play and replace as needed.
2. Clamp shock body eyelet in a vise with the shaft pointing up.
3. Fully extend the shock rod from the body.
4. Using a closure nut wrench, unscrew the shock closure nut.
5. Use a pick tool to remove the closure nut O-ring.
6. Remove the shock rod assembly, gland, and compression (inner) tube by pulling up on the shock rod.
7. Remove the gas bag from the shock and set it aside in area where it will not collect debris.
8. Over a drain pan, gently tap the gland and shaft assembly away from the compression tube with a soft faced mallet.
9. Pour the oil from the shock body and compression tube. Watch for any debris in the used oil and properly dispose of the oil.
10. Clean the parts with mild solvent as necessary and set aside.
11. Clamp the piston rod eyelet in a vise with the piston pointing up.
12. Remove the ½" nut to access the piston valving. Remove the piston and the valving.
13. If not revalving, the rebound stack, piston, and compression stack need to be kept in their original order for re-assembly.
14. Remove the gland assembly, and the piston rod seal from the rod.
15. Remove seals, O-rings, and hyper screw from the gland.

ASSEMBLY:

1. Inspect the gland bushing for wear, and replace the gland assembly if the bushing is excessively loose on the shaft.
2. Install new seal and O-ring onto gland.
3. Reassemble the shaft with the travel indicator, closure nut, seal washer and gland assembly.
4. If revalving, go to page 7 and read the revalving instruction section now.
5. With shaft still in the vise, assemble the compression valving, piston, and rebound valving. The compression valve stack is on the bottom of piston and the rebound valve stack on top.
6. Torque the ½" lock nut to 12.5 ft/lbs. (150 in/lbs.).
7. Pour about an inch of oil into the shock body.
8. Layer the gas bag with a small amount oil and wrap around the compression tube.
9. Gently insert the compression tube and gas bag into the shock body, base valve first. Verify that the base valve is seated into base of the shock body properly.
10. **IMPORTANT:** Do not tear the gas bag or pinch it under the base valve. Also be sure to keep the top of the gas bag below the top of the compression tube once installed.
11. Fill the shock body and compression tube with shock oil to just above (1/8") the top of the compression tube.
12. Move the compression tube around in a circular motion to free any trapped air bubbles.
13. Insert the piston rod assembly, with the piston band, into the compression tube.
14. With the piston assembly submerged approximately 1", tap the shock rod eyelet with a soft mallet. This opens the compression valve stack to release any air trapped inside the piston.
15. Use your thumb/fingers to hold the compression tube down with one hand, cycle the piston rod assembly about 2 inches to cycle any trapped air out of the shock body.
16. Once there are no more air bubbles surfacing, raise the shock shaft until the piston is at the top of the compression tube.
17. While keeping the piston at the top of the compression tube, slide the gland into the shock body and push down so it seats into the compression tube. Oil should come up through the gland bleed hole. **NOTE:** Remember we are attempting to build a shock without any air trapped inside.
18. Keep the shock fully extended and slide the rod seal into the gland if out of place with the retaining washer on top. Push the closure nut O-ring into the outer groove of the gland and install the hyperscrew.
19. Wipe away or soak up any oil that is now on top of the gland assembly.
20. Install and tighten the closure nut.
21. Invert the shock and wipe off any excess oil.
22. Stroke the shock and check for smooth operation. Rough or jerky movement indicates that air is trapped inside - repeat the steps above.
23. If you compress the shock and the piston rod shoots back out, you likely have too soft of a basevalve compared to the compression valving on the piston. If the basevalve is softer than the compression stack on the piston, the rod will spring back after the shock is compressed. If this happens, double check the basevalve to make sure it is valved properly to the corresponding compression (page 7).

Small Body Twin Tube Valving 7Q and 8Q

	1	2	3	4	5	6	7
Base			.670 x .006		.670 x .008	.670 x .010	.670 x .012
Valve		.750 x .006	.750 x .006	.750 x .008	.750 x .008	.750 x .010	.827 x .012
		.827 x .006	.827 x .006	.827 x .008	.827 x .008	.827 x .010	.902 x .012
	.902 x .006	.902 x .006	.902 x .006	.902 x .008	.902 x .010	.902 x .010	.902 x .012
C							
O			.670 x .006		.670 x .006	.627 x .008	.670 x .012
M		.750 x .006	.750 x .006	.750 x .008	.750 x .008	.750 x .008	.827 x .012
P		.827 x .006	.827 x .006	.827 x .006	.827 x .008	.827 x .008	.902 x .012
	.902 x .006	.902 x .006	.902 x .006	.902 x .006	.902 x .008	.902 x .008	.902 x .012
Piston	9057-304	9057-304	9057-304	9057-304	9057-304	9057-304	9057-304
Bleed Shim	9055-415	9055-415	9055-415	9055-415	9055-415	9055-415	9055-415
	.902 x .004	.902 x .004	.902 x .004	.902 x .006	.902 x .006	.902 x .006	.902 x .012
R		.827 x .006	.827 x .006	.827 x .008	.750 x .008	.827 x .010	.827 x .012
E			.670 x .006	.750 x .008	.750 x .010	.750 x .010	.750 x .010
B				.670 x .008	.670 x .010	.670 x .010	.670 x .012

**Basevalve valving determined by compression valving only.



COMPRESSION
SIDE



REBOUND
SIDE



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READ ALL INSTRUCTIONS CAREFULLY AND THOROUGHLY PRIOR TO STARTING INSTALLATION. PRODUCTS THAT HAVE BEEN INSTALLED ARE NOT ELIGIBLE FOR RETURN. USE THE PROPER JACKING LOCATIONS. DEATH OR SERIOUS INJURY CAN RESULT IF INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED. A GOOD CHASSIS MANUAL, AVAILABLE AT YOUR LOCAL PARTS STORE, MAY ALSO AID IN YOUR INSTALLATION.

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