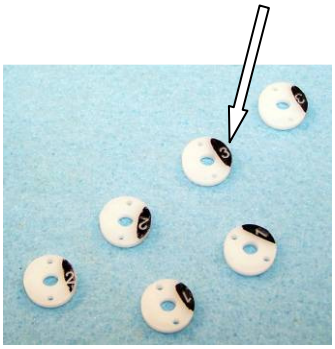
Shocks (Associated V2)

S1) Set the buggy aside for now and prepare a clean area to build the shocks. We suggest you leave one pair of shocks in their bag while you build the other. We're going to be building the rear shocks (ASC 7478) now. Open the bag and remove the contents. We've seen different combinations of sub-bags, so your parts may be packaged differently than shown here. Check the set-up sheet for the pistons and oil (not included) that you will use.



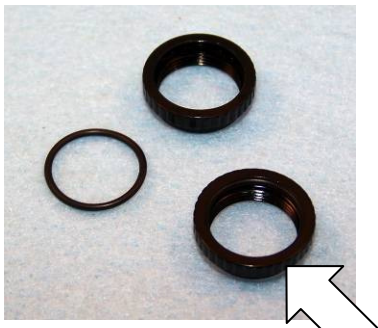


TEAM TIP: Use a felt pen to lightly color the area of each piston where the numbers are molded into them. Be very light as you run the marker over the piston so ink does not run down into the molded number. Now your pistons will be easy to identify.



S2) Find the four black O-rings, the shock bodies, and the shock collars. You'll notice one pair of the black O-rings is larger than the other (large and small arrows, respectively); slip one large ring inside each black collar. This O-ring helps prevent the collar from moving due to vibration, keeping your ride height even through a run. Screw the collars onto the shock bodies, knurling side up.





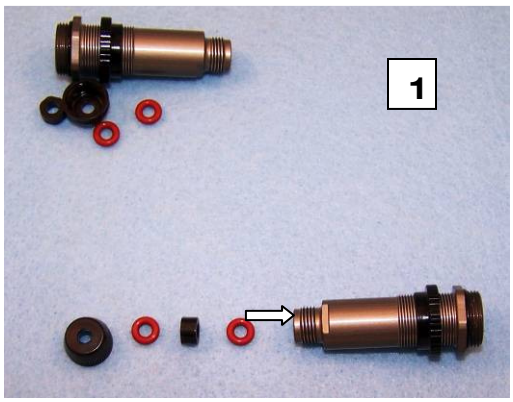


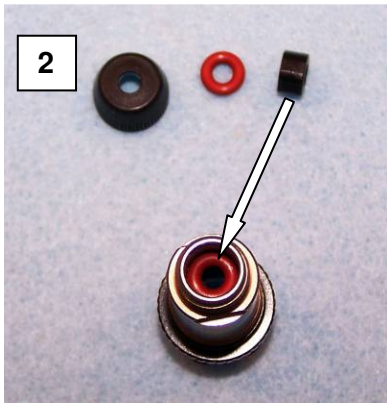
S3) Slip the other pair of O-rings over the small area of threads toward the top of the shock bodies. The O-ring sits in a groove just above the hex machined into the shock body (check the arrow). You'll have to stretch the O-rings to get them over the threads, but be careful not to tear or break them. Team drivers stretch and work the O-rings around in their hand before putting them on.

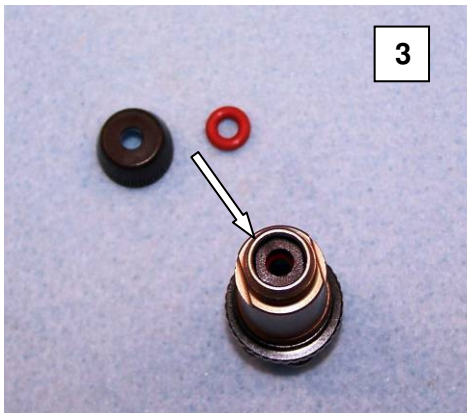




S4) Now assemble the four small orange O-rings, two thick black spacers, and the small cartridge caps. Apply a coating of shock oil to one of the O-rings and push it into the bottom of the shock body. One of the shock ends is about the right size to push it in the body. Next, put in the one of the black spacers, and then add a second orange O-ring, again coated in shock oil.









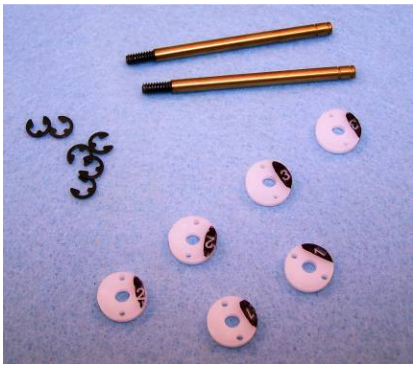
TEAM TIP: Many drivers prefer to use ASC 1105 Green Slime on the O-rings instead of shock oil.

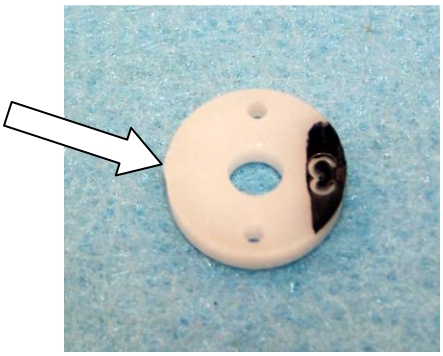


S5) Screw the cartridge cap onto the bottom of the shock body. No need for the gorilla here, just a nice snug fit will do.

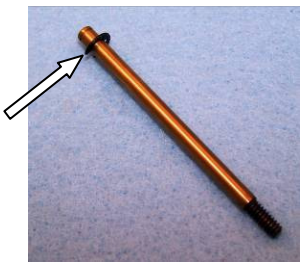
S6) Repeat steps S4 and S5 for the other shock body.

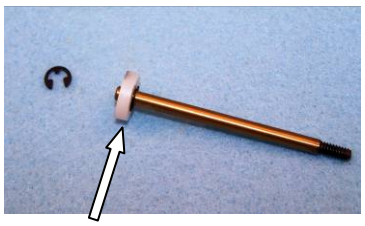
S7) Set the assembled shock bodies aside briefly and find the shock shafts, E-clips, and shock pistons. Inspect the pistons and remove any burrs (the arrow points at a small one) with a hobby knife or fine flat file. Take care to leave the outer edge as round and smooth as possible so it doesn't scratch the shock body in use. If you check all the pistons now you won't have to worry about it when you're at the track changing set-up. Reference the set-up sheet and select the pair of pistons you'll be using.

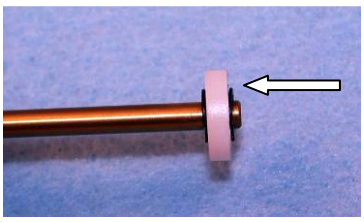




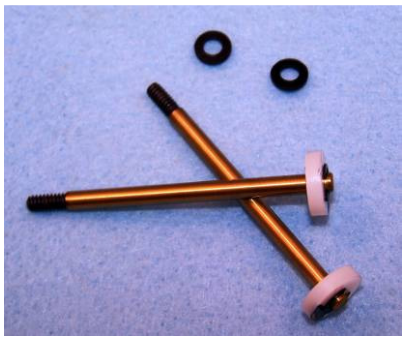
S8) Pop an E-clip on one shaft in the lower groove, closest to the threaded end. Slip one of the pistons onto the shaft until it touches the E-clip. (Make sure these are the right pistons; double check the set-up sheet if you need to, nobody's watching!) Then snap a second E-clip just above the piston. If the gorilla launches the E-clip across the room don't worry, there are plenty of spares!







S9) Repeat step S8 for the other shock shaft.

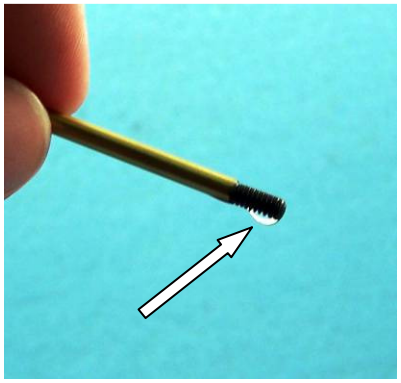


S10) Reference the set-up sheet to see if you'll need any internal limiters. Look at the "shock length" entry; built normally with no internal limiters, the V2 shocks will be the following lengths:

Front: 3.02"
Rear: 3.55"

If the listed shock length is shorter than that, you'll need to add internal limiters to make up the difference. Here we are using standard .030" limiters to achieve a rear shock length of 3.52" (one per shock). If the listed shock length is a touch *longer*, that's OK, you can unscrew the shock eyelet (installed in step S13 below) to achieve the extra length.

S11) Put a drop of shock oil over the threads on one of the sock shafts, and insert the shaft into the top of the shock body, threads first. The oil helps protect the O-rings as the shaft glides through. Here too, many team drivers use Green Slime on the threads instead of oil. Repeat for the other shock shaft and body.

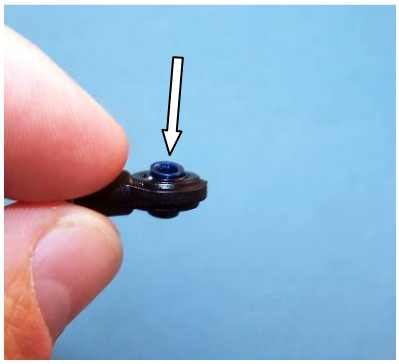






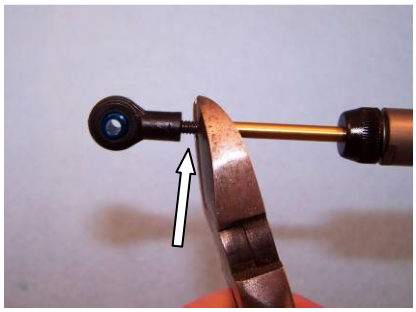
S12) Find the shock ends and balls. Pop the balls into the shock ends using a pair of pliers.





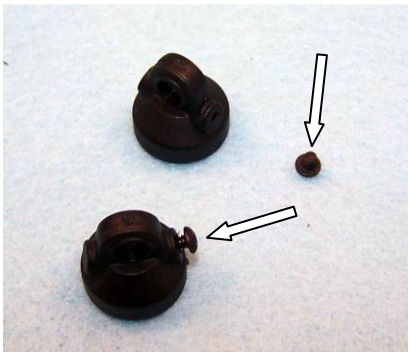
S13) Screw the shock ends onto the shock shaft. Be careful not to mark or score the shock shaft: either use a soft rag in the jaws of a pair of pliers, or as shown carefully grip the shaft with a pair of wire cutters *just* above the threads; this small area will be taken up by the spring cup. Screw the shock ends on until they tighten up. If you need extra shock length (from checking back on step 10), unscrew the ends up to two turns. Each turn out adds approximately .030" to the overall shock length.







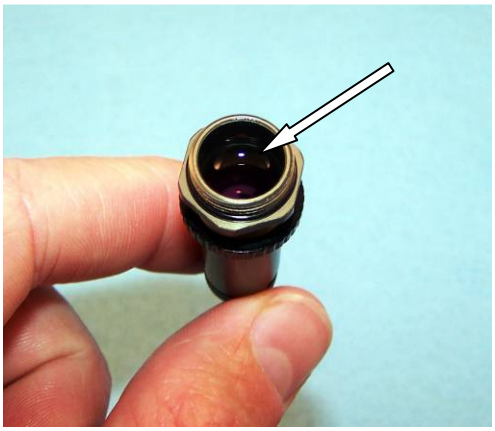
S14) Find the shock caps and the small 2-56 1/8" button head screws. Use a screw to pre-tap the small bleed hole in each shock cap. This will make installation easier when you bleed the shocks below.

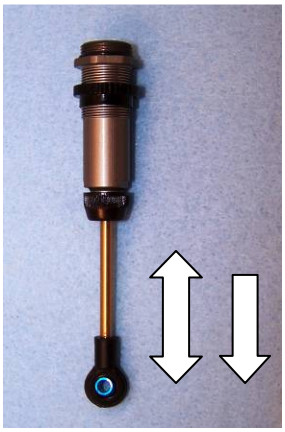


TEAM TIP: Some drivers will set aside this pair of shocks now and build up the other pair until they reach this point, then fill and bleed all the shocks together. This allows them to deal with the oil mess just once, but they must take care to get the correct oil in the correct shocks.

S15) We're ready to fill and bleed the shocks! Pick a shock and move the piston all the way to the bottom. Now pour in oil until the shock body is about 75% full. Team drivers tilt the body on an angle and pour the oil along the side to help prevent air bubbles from forming.

Slowly work the shock shaft up and down to let any air bubbles beneath the piston to escape. Be careful the piston does not come out of the oil, as that will just trap more air! Finish with the piston in the down position. If you can, set the shock aside for a bit to let all the air bubbles rise and escape.





S16) This step can feel like you need three hands. Make sure you have a towel ready to soak up the excess shock oil, and put one of the 2-56 1/8" button head screws on a wrench. Fill up one of the shock bodies all the way, to the point of nearly overflowing. Pick up one of the molded shock caps, with your finger closing the bleed hole, and fill it about 1/3rd with shock oil. Quickly flip the cap over and install it on the top of the shock. Make sure the shock cap threads squarely on the shock body; having to unscrew and refill the cap is better than replacing a cross-threaded shock cap. Keeping the bleed hole up, tighten the shock cap completely.





S17) With a rag around the bleed hole, slowly push the shock shaft all the way into the shock to bleed out excess shock oil. This should just take one firm stroke; hold the shock shaft all the way into the body until oil has stopped coming out of the cap. If no oil comes out, you need to repeat step S16, adding oil at the start.



S18) Finally, install the 2-56 1/8" button head screw while the shaft is fully compressed. Clean up the oil and work the shock a few times; the compression and extension strokes should feel nice and even over their entire lengths. After compression, the shaft should 'rebound' around 1/8". If the shaft will not go all the way into the body, or it rebounds further than desired, open up the bleed screw and compress the shock shaft a few times, pushing out more oil. If the shaft doesn't push out at all, or it sounds like there's excessive air in the shock body, you'll need to take off the shock cap and repeat steps S16 and S17.



S19) Set the completed shock pair and spring cups aside for now; everything else (extra shock pistons, E-clips and perhaps shock spacers) can go in your spares. Grab the other shock package (probably ASC 7474, the fronts) and repeat these instructions for the other pair!

TEAM TIP: Notice that the spring cups that came with the front shocks are different than those with the rears. The fronts are Team Associated's offset spring cups, which raise the spring up and aid in setting ride-height with certain springs and set-ups. If you ever find that the shock collars are against the top of the shock body and you still wish to lower the ride height, try switching the front spring cups with the rears.



After all four shocks are built, set all the shocks and spring cups aside for a few moments and lets go on to Bag H.