Cobra Trailer™ “Smooth Ramp Slider” Instructions

The trailer ramp tray forward ends are attached to the aluminum floor channels with metal sliders (in some cases bolt heads) and bolts. Later trailers may have added plastic washers but they quickly wear and do not protect channels from damage. As the ramp is extended or retracted the bolt threads gouge and wear away the aluminum channel track. This causes the rough movement and grinding. The Smooth Ramp Slider (SRS) kit fixes that, permanently. No more grinding. The ramp will glide as smooth as if it were on ball bearings.

The SRS slide is machined from Ultra High Molecular Weight Polyethylene (UHMW PE), one of the most wear, abrasion, and impact resistant long chain polymers known. UHMW has a very low coefficient of friction, next to Teflon. It’s self-lubricating, so no maintenance required and should outlast your trailer.

Tools needed (Cobra used different versions of hardware over the years – so this is a rough guide to a smooth outcome):

To remove floor channel stop bolts, some trailers require a #3 Phillips head screwdriver (next size larger than “standard #2), others use carriage bolts. A 10mm or 11mm (7/16) wrench, scissors or utility knife, a file (“smooth” single cut, 6” size is convenient) or flat stick and wet/dry abrasive paper. Time required: 20 – 40 minutes. Difficulty level: Even a pilot can do it.

Remove rear stop bolts (pre-1989 trailers with steel floor channels with welded rear stops, instead remove front stop bolts). With ramp in trailer (retracted), offset jack end of ramp to one side or the other to remove stop bolts at end of each floor channel. These bolts are secured under the trailer floor with a locknut and washer, lift tailgate part way to access. Some bolts are straight, while others appear to be intentionally bent and may need to be driven out with punch and hammer. Remove short length of rubber hose “bumpers” from bolts if used (some trailers do not have rubber hose bumpers). Trim the bumper as needed so it is 1/2” (13mm) or less in length. Save all removed hardware for re-installation later.

Extend ramp to rear, stopping just before ramp’s forward ends would fall to ground (no slide stops!). Place ramp jack end on ground or on creeper or furniture dolly if available (not necessary, but makes it easier to move forward ramp ends as needed). Move each ramp slide to the rear out of its channel, one at a time, resting ramp forward end on rear of trailer. Remove original slide, bolt and all hardware from ramp front attach end. This hardware will fortunately not be reused.

Carefully inspect floor channel inside edges and top for burrs and rough areas. No need to remove enough material blend in dings and divots. Just remove burrs to make it smooth enough that you can stuff some paper towel or rag into the rail slot and slide it in each direction without it catching or tearing – no sharp edges. If using a file as suggested, applying chalk to file

will help prevent it loading with aluminum. If you don't have a file card to clean file, a few backward file strokes on a piece of scrap copper pipe will remove aluminum clogging. Some prefer to use wet/dry paper, 220 to 330 grit should do. Wrap paper around a flat stick (like a paint stirrer etc.).

WARNING – To avoid damage, do not use a power driver for following steps. Install and tighten SRS bolt by hand or hand tools only! The original Cobra slide hardware is installed loosely to allow the ramp jack end to pivot up and down enough to go from the trailer to the ground. The SRS elastomeric spacer, installed in the following steps, will eliminate all or most of this looseness and potential rattle, while still allowing vertical movement.

If it did not come pre-installed, place black or white 1/4" long elastomeric "spring" spacer on bolt first (refer to picture on last page). Next place washer on bolt and insert bolt assembly down through ramp front attach hole. Note pattern on SRS bolt head or place a felt tip mark on bolt head to allow you to count bolt turns of thread engagement. By hand, thread bolt a turn or two into SRS (with SRS slot grooves aligned with trailer floor rails). Unscrew bolt while gently pulling bolt from SRS slider to determine where thread engagement starts – note the orientation of the bolt head mark. Screw bolt into SRS 4 or 5 turns with fingers (note number of turns as info will be used later).

Insert each SRS slider into its track and move SRS slider past the stop bolt holes. Lift jack end of ramp and retract ramp into trailer. Go to forward tray ends to finish tightening SRS bolts. Count the bolt head turns while tightening. Add turn count to previous 4 or 5 turns and tighten no more than 9 turns total – ideally the rubber "spring" spacer should not bulge - loose is better than too tight – the SRS slider is like a locknut, it won't come undone even though it is not tightened down all the way. The SRS slider grooves will remain a loose sliding fit in the floor rail slots. The "just snug" or slightly loose bolt attach, with rubber spring spacer, allows vertical movement at the jack end of the ramp.

If you lose count of turns while installing bolts, unscrew SRS bolt all the way until you can start to lift it out of the hole with finger pressure. Insert it back down and gently finger tighten a turn or so. Now with gentle upward pressure, unscrew until bolt again lifts free. Insert back down and be sure thread again just engages – start tightening and counting turns from this spot, 9 turns maximum. If bolt end extends much below slider it may drag against bottom of rail.

Offset jack end of ramp to one side or the other to obtain clearance to install stop bolt on each side. If originally used on your trailer, push ½" length rubber hose bumpers (not supplied with SRS kit) into end of track (it's okay if hose bumper extends a little above track slot, it will get pushed down with stop bolt). Silicone spray lube or silicone grease in and on rubber hose can ease installation. Soapy water works also or assembly can be done dry with a little more effort. Install stop bolts, washer and locknut, tighten to snug. Note that the rubber hose bumpers are

of less importance with the SRS sliders so long as ramp is extended with reasonable care, slowing when approaching full extension.

Test: Pick up rear end of ramp to a little above trailer floor level and extend. Place extended jack end of ramp on ground. Pick up ramp only an inch or two above ground and push towards trailer – the locking pins (small screws that extend down through underside of each ramp tray near front attach) should hit the lip of the trailer floor and prevent ramp retraction until the ramp rear is lifted higher – this trailer feature is intended to prevent partial ramp retraction while loading glider.

That's it, you are done with the old grind . . . enjoy the new smooth!

Rubber spacer "spring", under bolt head, may be black or translucent white.