

Installation Instructions:

Slider™ - Dana Axles

<p>Kit Part Numbers & Applications</p> <p>Note: Sliders are Axle Specific, not vehicle/model specific.</p>	<p>Nth24200 (Dana 44-3 rears – iron, all years/all vehicle makes except as noted) Nth24201 (Jeep TJ Rubicon package Dana 44 front axles) Nth24202 (Do-It-Yourself version for adaptation to front axles) Nth24203 (Dana 30 Front - 93-98 ZJ, 97-06 TJ only) Nth24210 (Dana 35/35c rear - '83-'96 Jeep XJ, YJ & ZJ models), Nth24211 (Dana 35c rear - '97-'06 Jeep XJ, TJ, ZJ, and WJ models)</p> <p>All but the last two Slider models listed are designed to fit any vehicle with a normal <u>rear-type</u> axle housing. If your Dana 44 casting has a built-in spring perch (such as was used on Chevy, Dodge, and full-size Jeep front axles), you should use Nth24202 and will need to fabricate modifications (step 3c). Nth24201 is a bolt-on version specifically for Jeep TJ Rubicon front axles.</p> <p>NOTE: Dana 44 models DO fit the following REAR housings:</p> <ul style="list-style-type: none"> - Early-style (single pass. side rib) as from a Scout, Jeep SJ/J-truck, etc. - Late style (triple pass. side ribs) – original in TJ Wrangler, etc. - Rubicon TJ (triple ribs plus bottom drain) <p>NOTE: Dana 44 models do NOT fit the following axles:</p> <ul style="list-style-type: none"> - Nissan Titan pickups (iron Dana 44-3 with 'double-rib' around cover area) - ZJ & WJ V8-equipped Grand Cherokees (aluminum D44-4)
<p>Assumptions Equipment that must already be present on your vehicle</p>	<p>The rear axle tube diameter is 2.75" or less (can be up to 3.0" w/ modification). The casting is a normal, unmodified production casting The first 1.0" of the axle tubes to both sides of the differential casting are unobstructed by other brackets, etc.</p>
<p>Required Tools and Equipment (in addition to common hand tools)</p>	<p>None, though minor grinding/filing is needed on D44 models being used on 'early' type castings.</p>

Please take the time to read these instructions completely before beginning – they are long because we want you to get the installation right the first time with no unnecessary delays.

NOTICE: Risk of driveshaft &/or pinion damage using Slider™ without Nth^o Stinger™ center-mounted torque arm. All Nth^o axle Sliders are designed to include pinion yoke protection and all rear axle models are also designed to be the basis for mounting an Nth^o Stinger to provide maximum axle/pinion 'wind up' control. Since many vehicle models are built with multiple axle models (especially Jeep), the Stinger torque arms are made to be 'wheelbase specific' while the Sliders are made to be 'axle-specific' and so are sold as separate kit 'modules' to cover each possible combination of axle/vehicle. Also, not all aftermarket suspensions are compatible with a Stinger, so the Slider *can* theoretically be used alone without a Stinger torque arm, HOWEVER only with a Stinger mounted to a rear-axle Slider will you be assured that the Slider's leading edge cannot move high enough during axle wrap to contact and damage the driveshaft. While leaf-sprung vehicles (especially Spring-Over-Axle designs), are known for allowing excessive 'axle wrap' (aka pinion 'wind up') under heavy throttle with high traction or certain off-road conditions, conventional multilink+coil suspensions with rubber bushings can also have Slider-to-driveshaft clearance issues due to geometry issues in combination with axle wrap.

Also note that the driveshaft clearance 'notch' at the front of the skid is sized to clear the yoke-end of a slip-spline-type drive shaft (such as a stock Rubicon TJ shaft or a typical 'CV' rear driveshaft). This means that a Slider should not be used *without* a Stinger if a stock-type fixed-length driveshaft is still in use (such as comes on a non-Rubicon TJ or other Jeep models). It is the owner/installer's responsibility to make sure that contact cannot occur on your Slider-only application; Nth^o does not warrant either the Slider or damage to affected driveline parts due to contact and recommends the addition of the Stinger torque-arm to this Slider if your suspension design allows for one.

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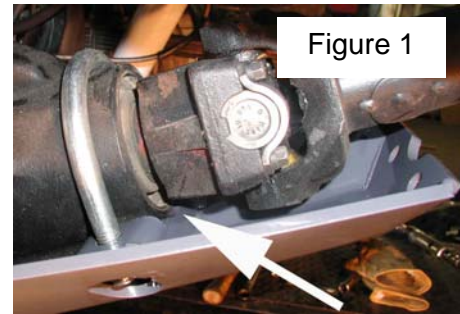
Step 1: Unpack boxes; Check contents against packing list; Verify parts in good condition. Be especially sure that you have the right parts for your application!

Step 2: Read all of the following instruction steps before beginning! Do not disassemble vehicle unless all parts are present and all tools and facilities required are available. Do not start or attempt this product installation if you are unsure of your abilities or do not have the resources listed above. If applicable, be sure to have all welding done by a certified person, and check/set all specified torques with a torque wrench...too tight is not just right!!

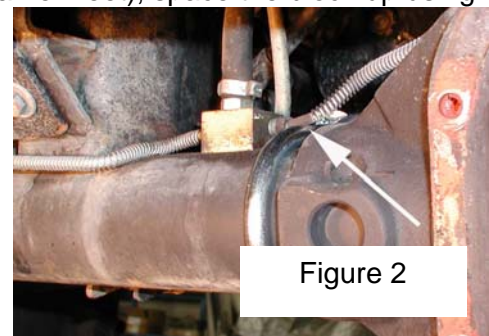
Pinion Yoke Stone Shields: Some aftermarket pinion yokes come with a pressed-on metal disc that shields the pinion seal from direct impact by stones, etc (factory Jeep/Dana axle yokes do not come with this shield – you can see the pinion seal). When using a Slider, this disc is not necessary because the Slider will effectively shield the pinion yoke/seal from stones, so you may remove the disc and leave it off if you discover a clearance issue with the ‘saddle’ of the Slider skid.

Step 3: Installation. For all but DIY applications, installing a Slider takes only minutes. Follow the appropriate step below for your model/application.

Step 3a: all Rear Axle applications. Position the Slider skid plate below the axle casting with the axle tube brackets seated onto the axle tubes to either side of the casting. Tip the front of the skid up, rotating around the axle tubes until the ‘saddle’ at the front is nested to the bottom surface of the casting at the very front (just behind the pinion yoke as in **figure 1**). As you are tilting up, watch the brake lines on the axle tube to make sure that the brackets fit between the tube and line as in **figure 2** – do not force the Slider! If the axle bracket is interfering with the brake line, you may do one of two things: File a notch in the bracket to clear the line, or move the lines. If you elect to move the lines, you may be able to simply gently bend the lines upward until they clear, but be careful not to kink or crack them! If the interference is too close to the junction block (where the two hard lines and the soft line from the frame meet), space the block up using washers as shims.

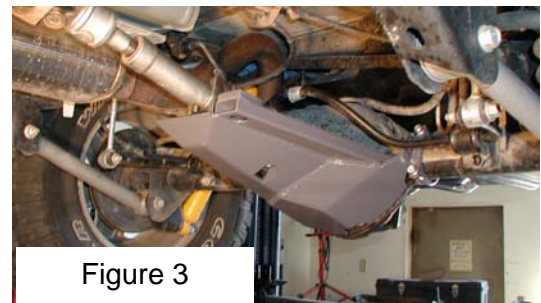


Once the skid is in position, drop the special ½” U-bolt down from above the pinion ‘snout’ of the casting and into the two holes in the saddle of the skid, then add the two ½” washers and lock nuts on each leg of the u-bolt and run them up snug for now. Next insert a 3/8” u-bolt into each side of the skid from behind the axle tubes – the upper legs of each should pass below the brake lines – then secure them with washers and 3/8” locknuts and tighten to 35 ft-lbs. Once the rear u-bolts are tight, torque the front ½” u-bolt to 55 ft-lbs.



NOTE: On TJ Wranglers, you must first temporarily unbolt at least one of the two ‘saddle brackets’ that hold the rear stabilizer bar to the axle in order to get the Slider into place. The Slider will clear the bar once it is installed, then reattach the brackets to the axle.

Also, the TJ brake line junction block is just far enough away from the u-bolt to allow simple bending to create enough clearance. **Figure 3** shows proper overall installation of the Slider skid.

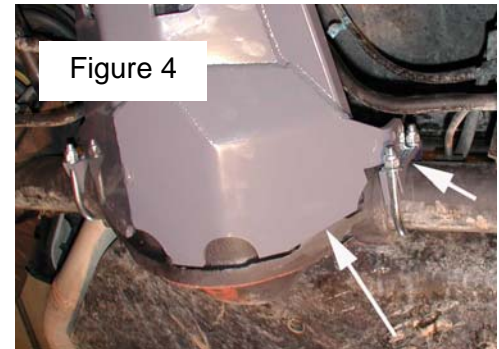


NOTE: TJ Dana 44 Axles. Nth° has found a few factory Jeep TJ Dana 44 castings that have extra-thick

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portions of the lower trunion ribs that can interfere with the rear edge of the Slider skid. **Figure 4** shows the extra-thick rib on one side (both sides will be thick) of an axle in a 2002 TJ: the long arrow shows the thick rib area and how it is contacting the skid before the clamp at the axle tube (short arrow) is seated on the tube. If your axle looks like this one, you will need to grind about 1/8" of material off of the trailing edge of the Slider to clear these 'extra-thick' rib segments – or you may grind away the extra material on the axle.

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NOTE: Jeep Dana 35 Axles have one long rib along each side of the pinion. A small amount of the very front of both ribs must be ground down to clear the main pinion u-bolt and allow it to be perpendicular to the centerline of the pinion.

Step 3b: TJ Wrangler Rubicon Front Axles (Nth24201) & Dana 30 Front Axles (Nth24203). Remove the nut from the LF LCA bolt at the axle end – leave the thick washer in place and do not remove the bolt – avoid turning the bolt at all if it has eccentric 'cam' washers since these are part of the vehicle's alignment (early TJ's have these, later ones do not and have thick-but-centered washers). Position the Slider skid plate below the axle casting with the axle tube bracket seated onto the axle tube next to the

Note: TJ Rubicon models have never been equipped with eccentric 'cam' bolts standard, but if you have retrofitted the factory 'cam bolts' to allow for caster adjustment, the slotted tab on the Slider should correspond to the slotted holes in the LCA axle bracket and allow unrestricted adjustment.

casting; the slotted tab on the driver's side of the skid will line up with the LF LCA bolt. Replace the nut on the LCA bolt; insert the 3/8" U-bolt into the clamp on the inboard side and secure with the two nuts and washers provided, then tighten the LCA nut and the u-bolt until they are just snug for now. Now tip the pinion-end of the skid up, rotating around the axle tube until the 'saddle' is nested to the bottom surface of the casting next to the pinion yoke. Insert the large 1/2" U-bolt from the above the pinion through the two holes in the 'saddle' and secure with two washers and nuts provided. You may now tighten all five fasteners. **Figure 5** is a close-up of the LCA tab of the Slider in place on a Rubicon axle.



Step 3c: Do-It-Yourself installations (Nth24202). A DIY Slider is generally a derivative of a Slider model that lacks one or two features of its 'parent model': It may have no provision for mounting a Stinger™ torque arm, and it is never finished (i.e. it's bare metal). A DIY Slider is intended to be the starting point for getting a Slider to fit a front axle housing that has 'unusual' casting features (almost always an integral leaf-spring perch.) Regardless of whether the leaf spring/perch is above or below the axle tube, the casting is usually extra long and shaped differently in the area of the perch. To make a DIY Slider fit, the 'wing' on the side that has the perch will need to be cut off and trimmed down until the skid will fit

the rest of the casting and allow the other trunion u-bolt and pinion u-bolt to be installed as shown above.

Once the Slider is held in place with the two bolts, an attachment must be fabricated to replace the tube-clamp that was removed from the spring-perch side. How this is done is up to the installer, and will depend substantially on whether the spring/perch are over or under the axle. Some suggestions:
For Spring-Under-Axles (such as Jeep SJ and J-series), the Slider may simply be welded to the U-bolt plate itself, or a tab may be welded to the Slider that 'piggy-backs' onto one or two of the spring's u-bolt nuts that are facing the ground.

For Spring-Over-Axles (such as Chevy and Ford trucks), a tab may be welded to the Slider that is deliberately trapped under the inboard spring u-bolt, or the Slider may be extended past the wider trunion

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and the original axle-tube clamp that was cut off may be re-attached and the third supplied u-bolt used outboard of the spring/perch on the tube itself.

Caution: Debris Accumulation on top of Slider. The Slider has drainage holes in the saddle and at the rear edge of the bottom surface to allow water to drain out. However, in order to make the Stinger/Slider skid fit tightly and smoothly to the differential casting, clearances are tight and mud or debris may still accumulate on top. Generally mud accumulation is not detrimental, but should still be cleared after an off-road trip – simply run a hose on top of the skid under the pinion yoke and let the water carry the mud away. Heavy clay-based mud and rocks/branches, etc. will obviously require manual removal.

