

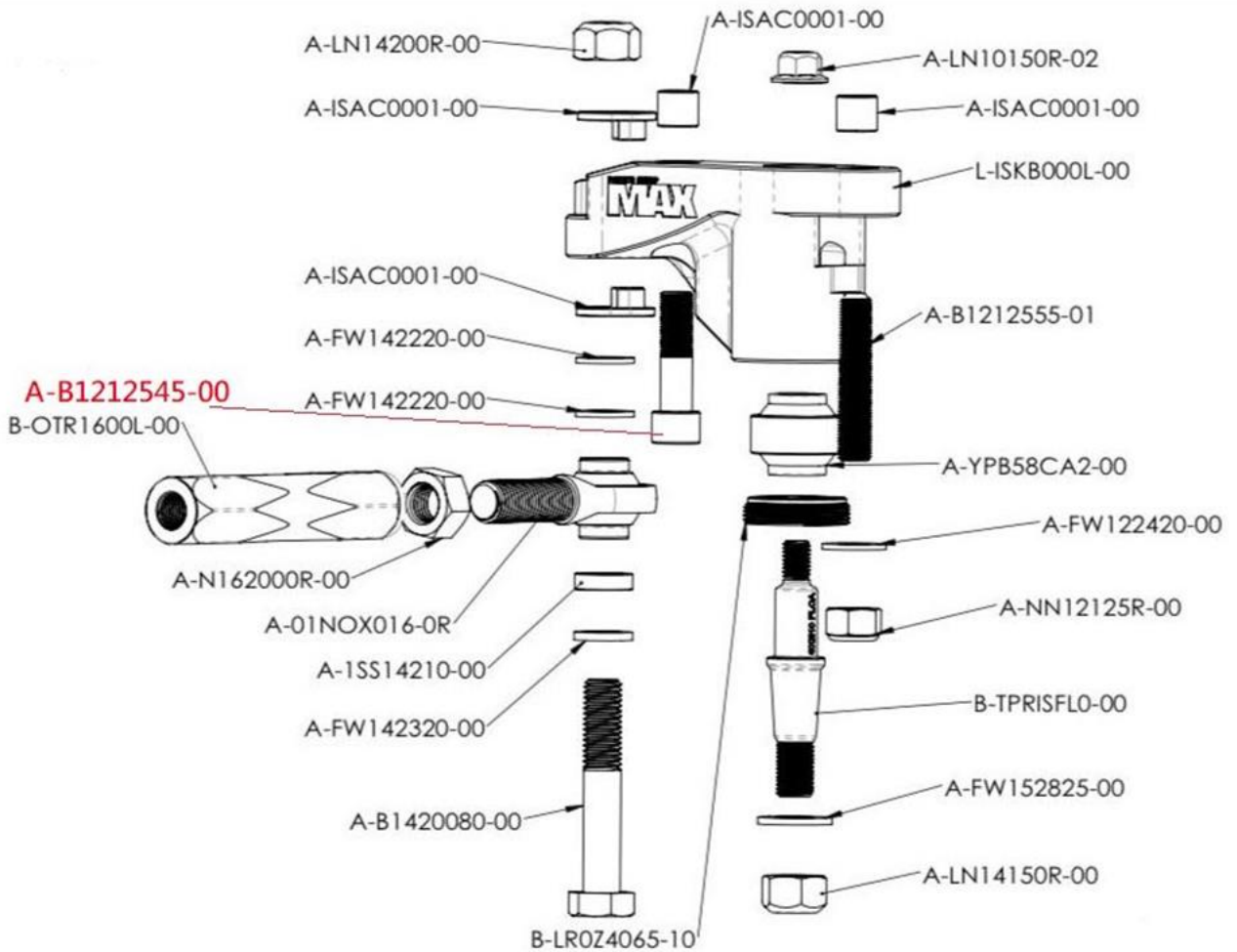
PARTS SHOP MAX

IS300 & JZX Super Angle Knuckle Brackets & Outer Tie Rods

Take 4 minutes & read all 9 points so your car is never damaged by ignoring this info.

1. We are providing high grade fasteners and a precise fit to the spindle. However, if the bracket is not attached properly and hardware is not kept tight, this is a potential shear point. Please follow these steps precisely during installation. Remember to check hardware often throughout the life of the part.

2. To identify which knuckle bracket is left and right... The white Parts Shop MAX logo is etched on the inward facing side of the knuckles. The tie rods attach to the rear of the knuckle brackets, and non-logo flat face is towards the brake rotor.



3. These lower knuckle brackets will be attached to the bottom of the OEM spindle first, & the front lower arm last to avoid stretching the M10 threads attaching taper pin to spherical bearing front lower joint, in other words you will not tighten the m10 on top of the taper and the m14 on the bottom of the taper at the same time, and following the correct order of install, you won't be able to do that. The black ball joint taper pin has already been factory tightened onto the spherical bearing using the M10p1.5 mm Distorted-Thread Flange Locknut, 54ft-lbs, & red loctite prior to sending you the parts because you will not be able to access the M10 when its time to tighten the M14 on the bottom of the taper because the knuckle bracket will already be installed on the knuckle. ONLY if you are replacing a bent taper pin (with a new flange nut supplied by us) should you apply red Loctite to the & tighten the m10p1.5 male thread & flange nut yourself. Otherwise please understand what to do yourself, on the initial install, with the remaining hardware in the points below.



4. Before installing the super steering angle knuckle bracket to your knuckle/spindle, thoroughly clean the threaded holes in the bottom of the stock spindle. with acetone to remove any grease from holes. Be sure threads are not damaged.

5. Remove the nylock nut, washer and M12p.25 55mm length Set Screw from the new bracket. Apply a generous amount of red loctite to the flat end of the set screw and fully thread it into the bottom of the front leg on your spindle so it firmly bottoms out for metal to metal contact, using an M6 Hex tool (allen wrench). We use a set screw here because we measured several OEM knuckle thread depths and they're all different.





6. You can now slide the knuckle bracket up onto the M12 stud in the bottom of the spindle and start the nylock nut. Apply a generous amount of Red Loctite to the M12x1.25 - 45mm length Socket Cap Head Screw. Be sure the anti-shear rings machined above the flat top top of the billet knuckle brackets slip fit snugly & fully into the unthreaded portion of the holes in the bottom of your spindles. Tighten both the SCH bolt and the nylock nut until the knuckle bracket is secure against the bottom of the spindle. Tighten the Hex head bolt using an M10 Hex socket and torque to 70 ft/lbs if your knuckle threads are same-as-new condition. Tighten the nylock nut to approx the same torque setting, although you will have to use a 19mm open end wrench to tighten this nut.

7. Now that the brackets are attached to your spindles, it's time to connect your lower control arms. We recommend using our adjustable lower control arms for best results. However, these brackets can be attached to stock lower arms. Install the black ball joint taper down through the tapered hole in the end of the arm. With anti-seize on the threads and NOT on the taper...



... **Set the car down on its own weight with a jack under the front lower arm**, The added pressure put on the taper in its seat, will keep it from spinning while tightening. Seat the taper firmly into the arm using the single M14p1.5 normal hex nut, so the taper can't spin, then remove to reuse on the opposite side. Next tighten the provided M14x1.5 all metal distorted thread lock nut after you slip the flat washer on the bottom of the taper/arm. **Follow this jack method otherwise you'll have trouble getting the stubborn metal lock nut on the bottom of the taper to tighten because the taper-pin/ball joint will spin and then your install will be delayed because these are one-time-use parts. Consider spares for incidents during competitions. We double-nut the M14 in a vise to torque the m10 side of the taper to 54ft-lbs. using red Loctite. You will shear the m10 side if you impact the M14 & hold the m10.**



8. You can now attach your outer tie rods and set your toe alignment. There are 4 ackerman adjuster settings. To adjust ackerman, you use the provided assortment of stainless steel inserts where the outer tie rods connect to the knuckle adapters to offset the tie rods inward or outward. Attaching the outer tie rods to the knuckles in the outermost position will result in less ackerman, closer to parallel steering. Move the tie rod pickup inboard from there to increase ackerman. Recommend static toe setting is 1/8" toe out to start. There is an assortment of washers and spacers on the outer tie rod through bolt to adjust bump steer.

9. If you have any additional questions about installation or car setup, contact us at 858-566-6969 (call or text) mon-fri 10:30-5:30pst. Or email at maxusa@partsshopmax.com





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