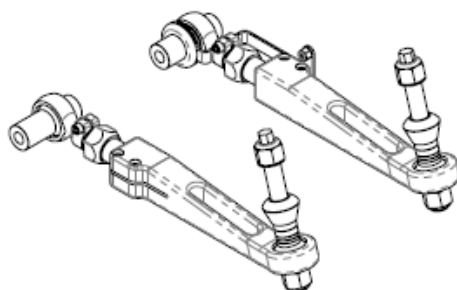


Front Lower Control Arms Installation Instructions SPL FLCA G8X IX

NOTE: TWO ARM ASSEMBLIES PER KIT.



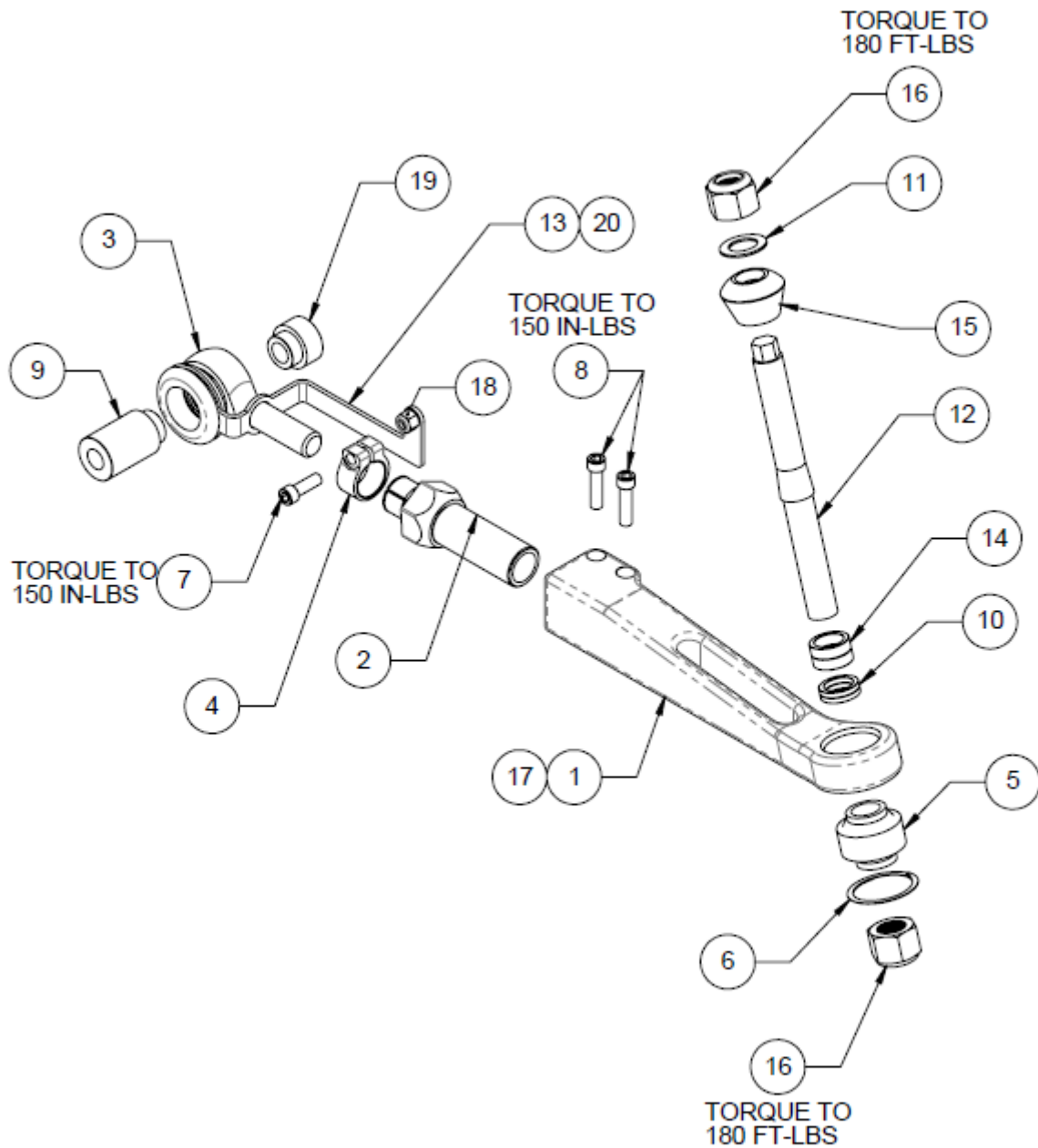
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	22101R	ARM 1 - RIGHT, FRONT LOWER CAMBER	1
2	90017	DOUBLE ADJUSTER	2
3	JM12T-58-18-F1	ROD END	2
4	90010	CLAMP, SPLIT SHAFT, 5/8	2
5	HIN10T-F1	BEARING, SPHERICAL	2
6	62002	RETAINING RING, SPIRAL, INTERNAL	2
7	52001	BOLT	2
8	52002	BOLT	4
9	90177	SPACER	2
10	90113	SPACER, FLAT	4
11	53001	WASHER, SHIM	2
12	40033	TAPERED STUD, LOWER CONTROL ARM, BMW	2
13	31311	BRACKET, HEIGHT ADJUSTER, G8X	1
14	90114	SPACER, FLAT	4
15	90504	SPACER, KNUCKLE, F8X	2
16	54005	NUT, NYLOCK	4
17	22101L	ARM 2 - LEFT, FRONT LOWER CAMBER	1
18	54009	NUT, HEX, NYLOCK	1
19	90176	SPACER	2
20	66002	GROMMET, 1-3/8 HOLE, 1.00 ID, 1/8 THK	1

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SPLPARTS INC.

SIZE: A PART NO.: FLCA G8X IX INS REV: D
FILE: SCALE: 1:3 SHEET: 1 OF 2

NOTE: ITEMS 13 AND 18 USED ON DRIVERS SIDE ONLY.



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SPLPARTS INC.

SIZE	PART NO.	REV.
A	FLCA G8X IX INS	D
FILE	SCALE	SHEET
	1:4	2 OF 2



Introduction

Thank you for your purchase of this SPL Parts performance suspension product. These products are intended to provide experienced chassis tuners enhanced performance and flexibility in dialing-in your suspension settings. Please read these instructions fully before attempting installation. If you have further questions contact us at: tech@splparts.com. The SPL team is here to help.

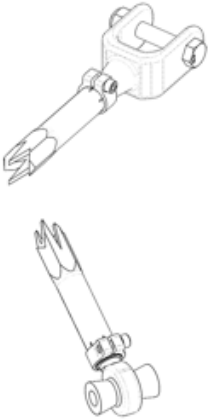
A Few Words About Product Safety:

Within these Installation Instructions important safety information is generally preceded by one of three signal words indicating the relative risk of injury. The signal words mean:

⚠ WARNING A hazardous situation which, if not avoided, could result in death or serious injury. You CAN be KILLED or Seriously HURT if you do not follow instructions.

⚠ CAUTION A hazardous situation which, if not avoided, could result in minor or moderate injury. You CAN be moderately HURT and may suffer property damage if you do not follow instructions.

NOTICE Careful attention is required to this instruction or operation but does generally not relate to personal injury. Damage to you SPL product or other property may result if you do not follow instructions.

	 WARNING <u>Modified suspension settings:</u> <u>Repetitive Inspection &</u> <u>Maintenance required to</u> <u>reduce risk of accident.</u>  www.splparts.com	
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⚠ WARNING

Installation of your SPL components and enhanced suspension performance may result in your vehicle handling differently than as factory equipped. Your choice of tire and wheel combinations, camber and toe-in settings may reduce braking performance and/or result in excessive wear or damage to SPL and OEM components during competition, track day or high-stress on road use. Contacts with other vehicles, pot holes or uneven road surfaces may result in overload stresses to fasteners, heim joints and other components initiating either immediate or accelerated failures. Torque settings of cap bolt/control arm and other fasteners may change as a result of vehicle use. Torque settings below 180 ft-lbs on SPL cap bolt/lower control arm and settings other than recommended for other suspension components may result in bending, premature wear and failure. ***To reduce risks of accident and serious injury always:***

- Routinely inspect OEM suspension and steering components, braking system and SPL components including control arms, fasteners and heim joints for indications of overload stress, bending or physical damage (however, slight). Remove fasteners and heim joints as necessary to reveal potential damage within sleeves and joints. Best practices for competition and track includes inspection before and after each session, capturing driver input regarding any impacts, unusual vibration, or suspension feedback.
- **Immediately remove and replace any OEM or SPL component or fastener with indicated or suspected damage (including bending or damaged threads).**
- Do Not modify or substitute SPL components, over torque fasteners through use of impact or air tools or configure suspension settings outside of those recommended by OEM or established through owner testing of vehicle.
- Use of oversize tire/wheel combinations may increase stopping distances, modify ride height, roll centers and/or compromise performance of vehicle stability control and other systems.
- **Certain states regulate on highway suspension modifications. Vehicle owner and driver responsible for compliance with all equipment laws and regulations.**
- **All Occupants Buckle UP, USE Supplemental Restraints, and required SCCA or other club crash protection.**

⚠ WARNING SPL recommends professional installation of these components by technicians having access to vehicle lift, safety glasses/personal protective gear and experience with OEM maintenance techniques, recommendations, safety messaging, torque & other specifications.

⚠ WARNING Cancer and Reproductive Harm – www.P65Warnings.gov.



Safety Requirements:

- **⚠ WARNING** Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- **⚠ CAUTION** Always use properly rated jack stands or an automotive lift when working under your Vehicle.

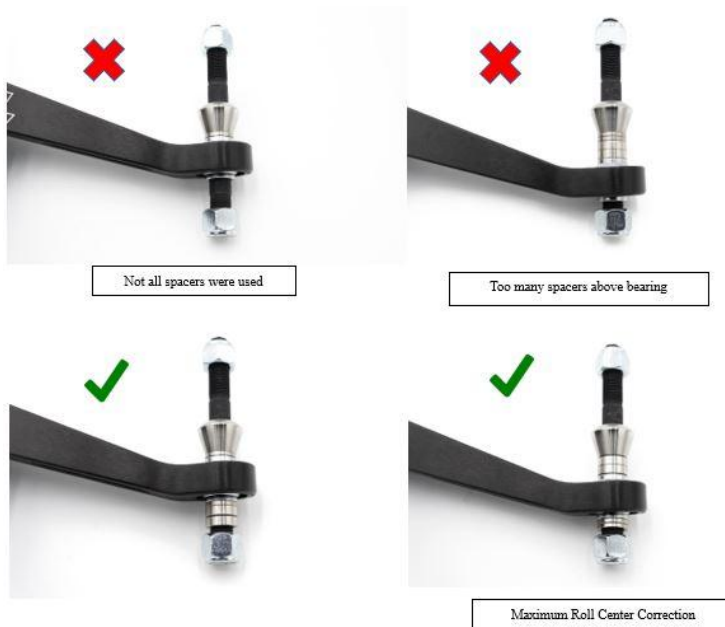
Tools Required:

- Ratchet
- Ratchet Extension
- Sockets (6mm, 8mm, 16mm, 18mm, 21mm,)
- Torx Socket (T40)
- Wrench (12mm, 18mm, 21mm, 24mm)

Procedure:

1. **⚠ CAUTION** Raise and secure the front end of the car and remove the front wheels.
2. Remove the metal and plastic undertrays that are in your way using 8mm and 16mm sockets.
3. Remove the ball joint nut at steering knuckle using a 21mm wrench. If the ball starts to spin at the knuckle, you may need to use an open face wrench and the T40 torx to remove the nut. Remove the nut and bolt at the subframe end of the arm using an 18mm socket and wrench.
4. Use a prybar to remove arm from steering knuckle, then remove the control arm. The ball joint isn't a press fit, so it should come out fairly easily.
5. Install the height sensor bracket (13) by removing the rod end (3) from the driver's side LCA (the logo faces the front of the vehicle) and slide the bracket onto the rod end, thread the rod end back in, then place the spacer (9) to locate it in position. Install the ride height sensor into the bracket. Attach the OE ride height sensor arm to this bracket. This places the ride height sensor at OE location relative to the lower control arm.

6. Place the OEM arm next to the SPL arm, and lengthen the SPL arm to match the OEM arm as closely as possible. Adjust from the hex on the adjuster, do not rotate only the adjuster or only the rod end. This is best done by holding both the rod end and body of the arm in place, and rotating the adjuster by itself. This is explained visually at the end of the instructions in more detail.
7. The stud (12) can now be installed into the knuckle. You will place the tapered spacer (15) onto the stud so that it seats onto the taper. You will then place this assembly with the domed side of the tapered spacer into the knuckle from the bottom. Slide the washer (11) onto the top, then finger tighten the nut (16) until the hex is exposed. Using a 12mm wrench to hold the stud in place, tighten the locknut with a 24mm wrench. Gradually tighten retaining nut to 40 ft. lbs.



8. Now you will determine the number of roll center spacers (10, 14) you will use above the bearing (5). Using none mimics OEM roll center and should be used if the car is at stock ride height. Any spacers installed ABOVE the bearing will increase roll center correction. Any spacers not used above the bearing must be placed below the bearing to allow the assembly to be tightened. Do not add more than ½" of roll center correction (both of the #14 larger roll center spacers above the bearing), otherwise you risk bending or breaking the assembly. Below are pictures showing how to properly install the stud. Once you have spacer orientation decided, gradually tighten retaining nut to 40 ft. lbs.
9. Using calibrated torque wrench (never air or impact tools) gradually tighten the upper retaining nut to 180 ft. lbs. **NOTICE** Make inspection and confirmation of 180 /ft. lbs. torque setting part of your routine pre-use and race preparations and maintenance. Consult you SPL instructions and tech@splparts.com for additional set-up recommendations, warnings, and product safety information.



10. Using calibrated torque wrench (never air or impact tools) gradually tighten the lower retaining nut to 180 ft. lbs. **NOTICE** Make inspection and confirmation of 180 /ft. lbs. torque setting part of your routine pre-use and race preparations and maintenance. Consult you SPL instructions and tech@splparts.com for additional set-up recommendations, warnings, and product safety information.
11. https://youtu.be/ho_MjyE93OU
12. Install the SPL Parts Control Arm at subframe end with the OEM bolt where the two FLCA Spacers (9, 19) should fit, then install at the knuckle. **The clamping mechanism on the arm should be facing the rear of the vehicle, with the logo facing forwards. If the arm is installed on the wrong side of the vehicle, you can have contact issues with the swaybar.** Tighten the bolts at the subframe to 74ft. lbs. (100N/M).
13. If you have a lowered vehicle, you must sweep your suspension from full droop to full compression and lock to lock to ensure the bearing (5) does not go out of articulation anywhere in the suspension travel. Not doing this could result in **dangerous** bearing failure. We suggest removing the spring from the shock/coilover to make sure the suspension is travelling through its full sweep, as the shock should be the limiting factor of your travel, not our arm. Make sure that there are no contact issues anywhere in the sweep as well.
14. **NOTICE** Following installation have the car professionally aligned, as replicating the original settings is nearly impossible. It may be necessary to adjust the toe in order to drive the car to an alignment shop if you either added or subtracted camber. Take these instructions with you to ensure that the parts are adjusted correctly.
15. **WARNING** Check all torques after the first 100 and 500 miles of driving, or after your first two sessions at the track if it is a track car, to make sure that nothing has loosened up due to vibrations. Maintain a full copy of SPL Instructions and product safety messaging with your vehicle maintenance records.
16. Using calibrated torque wrench (never air or impact tools) gradually tighten retaining nut to 180 ft. lbs. **NOTICE** Make inspection and confirmation of 180 /ft. lbs. torque setting part of your routine pre-use and race preparations and maintenance. Consult you SPL instructions and tech@splparts.com for additional set-up recommendations, warnings, and product safety information.

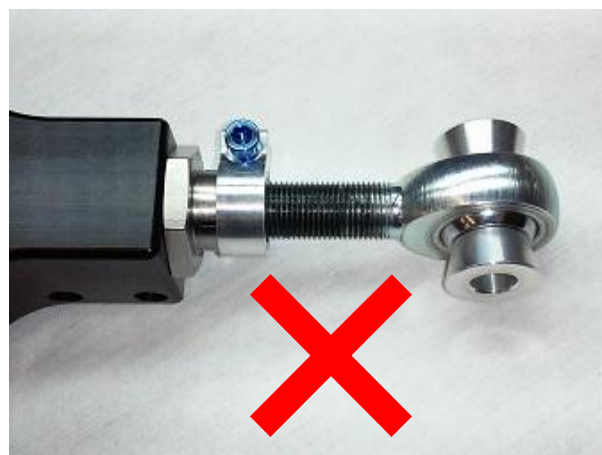
SPL Double Adjuster

The hybrid adjuster is what is known as a **double adjuster**. On the outside, the thread is left-handed. On the inside, the thread is right-handed. When the suspension arm is installed, turning the hybrid adjuster will allow you to lengthen/shorten the assembly.

When lengthening/shortening, be sure to keep the arm and rod end from freely rotating when you turn the adjuster. Do not make the following mistakes (threading out **only** the adjuster or threading out **only** the rod end):

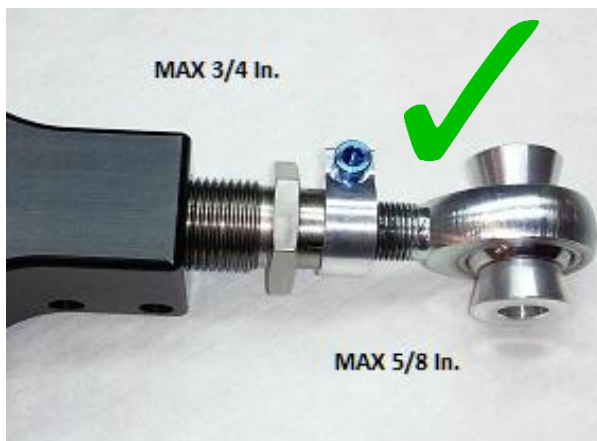


Overextended adjuster.



Overextended rod end.

The next picture shows a properly threaded adjuster. The rod end (heim joint) will thread out about 2/3 the length of the adjuster. Note the maximum adjustment limits shown.



You'll notice in the pictures that the threads of the rod end and the adjuster have some dark material on them. That is anti-seize compound we apply to all of our products so that adjustments should be easy and trouble free for quite some time.



SPL™ LIMITED WARRANTY¹

What is Covered? Subject to the terms, exclusions and limitations herein, SPL Parts, Inc. ("SPL") exclusively warrants to the owner of the vehicle SPL components are initially installed on, SPL will, according to terms herein, repair or replace defects in SPL materials or workmanship that upon SPL's inspection are determined to exist as of the date of sale to the initial end user/customer (hereafter "Customer").

- The term of this Limited Warranty shall be twenty-four months from SPL delivery to first end user/Customer.

What is Not Covered?: Your SPL Limited Warranty does not cover: (1) defect in a SPL component causing or contributing to damage to the motorized chassis, body, emissions, belting/airbags, electrical system or other vehicle system or component separately warranted or supplied by a manufacturer other than SPL, (2) SPL components used in competition or other events which may involve unforeseen vehicle components, suspension set ups and contact between vehicles and obstacles, (3) damage to SPL components or your vehicle from additions, alterations, or other products or components not supplied by SPL, (4) damage or degradation of performance from failure to adequately inspect, maintain, adjust or service as recommended or required, damage resulting from improper suspension set-up, loading, accident, collision, vandalism, abuse, misuse, neglect, fire, flood, normal wear, (5) *damage caused or related to use of SPL control arms or other parts as a tie-down for dyno testing or transport* (6) *labor, consequential, incidental, punitive or other damages or costs, including those incurred in removing or delivering your SPL component to SPL for inspection, repair or replacement.*

Obtaining Warranty & Customer Service: For questions or claims contact: SPL Warranty, 30307 Ranch Road 12, Unit 100, Dripping Springs, Texas 78620; Tech@splparts.com. Please have proof of purchase available.

Remedy Limited to Repair/Replacement by SPL. Limited time for Filing Warranty Claims. BINDING, SINGLE CLAIM ARBITRATION-Venue: Upon Customer's removal and delivery to SPL, SPL inspection and SPL determination of a covered defect, *the exclusive remedy provided hereunder shall at SPL's option be repair or replacement of the defective SPL component. Written notice of any claim for breach/damages related to this Limited Warranty must be provided SPL within 20 days of customer notice or concern with a defect and in all instances within 30 days of the date your Limited Warranty expires (i.e. not later than twenty-five months from delivery). For separate, valuable consideration received; all claims arising from or related to purchase or use of SPL components shall exclusively be maintained as a separate action by each Customer with jurisdiction, venue and determination applying Texas state law (without reference to treaties or conflict of law provisions) through binding arbitration before a neutral selected by Customer from the JAMS® panel closest to Austin, Texas. To the extent permitted by law, each party shall bear its own costs and fees.*

Other Exclusions –Limitation of Damages - Your Rights Under State Law.

In consideration of the purchase price negotiated, SPL shall not be liable for: costs incurred by Customer removing, transporting or presenting components to SPL for repair or replacement under this Limited Warranty (expedited or other shipping is Customer's responsibility), any time loss, rental costs, towing or for any incidental, consequential, punitive or other damages Customer may incur arising or in any way related to Customer's negotiation, purchase and use of SPL components. Your exclusive remedy hereunder is repair or replacement as described above. By claiming the benefits of this Limited Warranty Customer agrees: (a.) your sole and exclusive remedy in any proceeding for *breach* of this express Limited Warranty is money damages in an amount equal to the *lesser* of the purchase price of the covered SPL part or the reasonable cost for material and labor necessary to repair or replace SPL components that Customer proves at *arbitration* should have been done hereunder but were not; (b.) your sole and exclusive remedy in a proceeding for *breach* of any applicable implied warranty is money damages in an amount equal to the *lesser* of the purchase price of the covered SPL part or the amount Customer proves at *arbitration* equal to the reasonable cost for material and labor necessary to correct the defect(s) in SPL components upon which the finding of breach of implied warranty is based. This Limited Warranty of repair or replacement shall not be construed as a representation or warranty of future performance. The duration of any implied warranty shall be limited to the term of express Limited Warranty provided above. By making a claim under this Limited Warranty you acknowledge receipt of these terms and agreement to be bound thereby.

No employee or other agent of SPL is authorized to amend or waive this written Limited Warranty or make additional representations or warranties regarding any SPL features, performance, workmanship or materials. This Limited Warranty shall be construed according to Texas Law without reference to treaties or conflict of law principles.

This Limited Warranty gives you specific rights. You may also have other rights that vary from state to state. For example, some states do not allow limitations of how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the limitations and exclusions herein may not apply to you. All other warranties are hereby disclaimed, except to the extent prohibited by applicable law.

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