

VERUS ENGINEERING

Camber Plates – FRS/BRZ/GT86

Installation Manual



VELOX

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Document Revisions

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1	01/23/2016	E. Hazen	Initial Release
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1. Overview:

Detailed instructions on installing the Verus Engineering Camber Plates for the FT86 Chassis

2. Difficulty:

Novice

3. Time Required:

90-180 minutes

4. Tools Needed:

- Jack/Jack stands (or lift)
- 12mm Socket
- 17mm Socket
- 19mm Socket
- Ratchet
- Impact gun (highly recommended)
- Needle nose pliers
- 5mm allen wrench
- 6mm allen wrench
- 19mm wrench
- Spring compressor tool

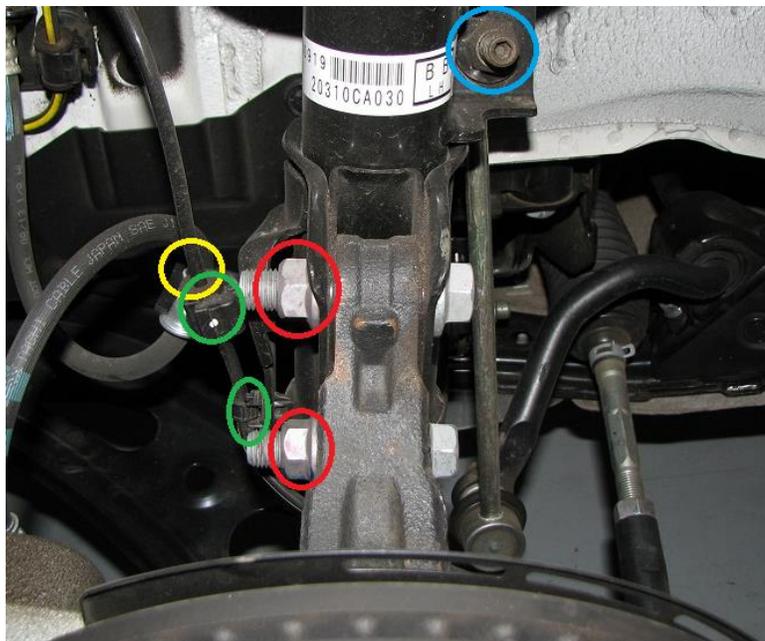
**5. Assembly Parts:**

- Assembled cambered plates
- (2) Top Nuts
- (2) Lower Bushings



6. Installation:

- 6.1. We are not responsible for damage to your vehicle by following this manual.
- 6.2. Loosen the lug nuts on the front two wheels while the car is still on the ground (or with an impact in the air).
- 6.3. Jack the front half of the vehicle up by your favorite method and let the car down on jack stands ensuring the front wheels remain in the air.
- 6.4. Remove both front wheels from the car.
- 6.5. Looking at the shock absorber from the wheel well, you will need to remove the two wheel speed sensor wire clips (circled in green), the 12mm brake line bolt (circled in yellow), the 17mm sway bar nut (circled in blue) and finally the two 19mm knuckle bolts/nuts (circled in red).



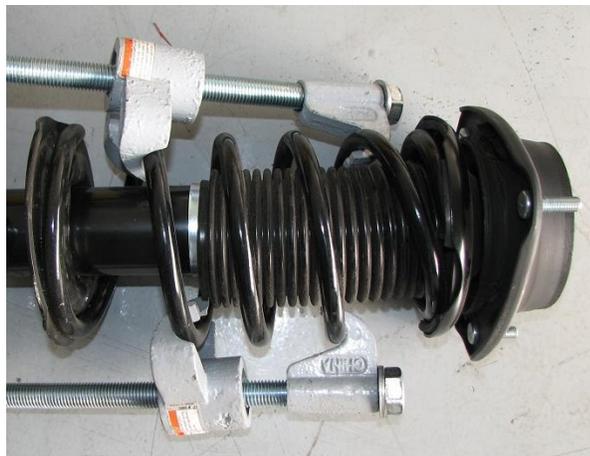
6.6. The knuckle will swing outward and the shock assembly will be nearly free. From the top there are (3) 12mm nuts (shown below) to remove and the shock assembly will come completely out.



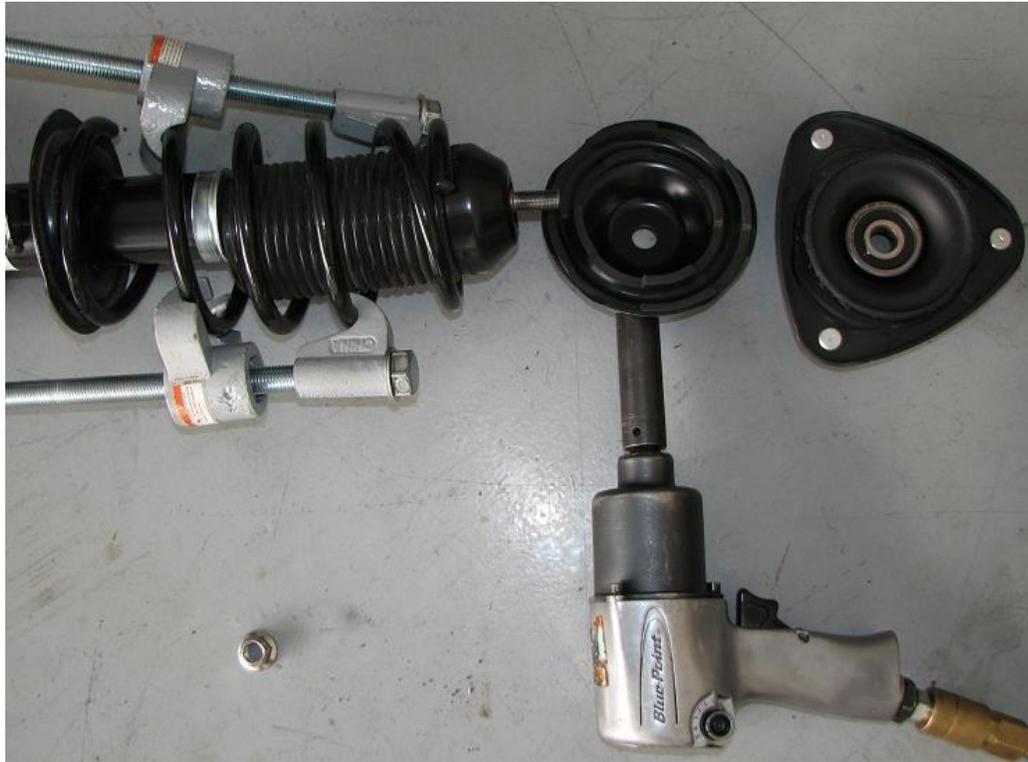
6.7. The shock absorber assembly will be completely free now.



6.8. Using a spring compressor of your choice, compress the spring slightly so no pressure is on the top hat.



- 6.9. Using a 17mm, in the case of an OEM replacement, and an impact, remove the top hat nut from the assembly. The nut is a distorted thread locking nut, so it will take quite a bit of persuasion to fully unthread, hence the impact to help removal.



- 6.10. There is a left hand and a right hand camber plate. Ensure you grab the correct side by placing it in the chassis of the freshly removed shock assembly. The camber plate's slot should face laterally, with no indication of a front to rear movement. Below, on the left side the correct base is placed on the passenger strut, while the right picture is incorrect base placed on the passenger strut. Note the angle of the adjustment slot. **The plates are also marked with a P (Passenger) and D (Driver) for USDM cars on the bottom of the camber plates.**



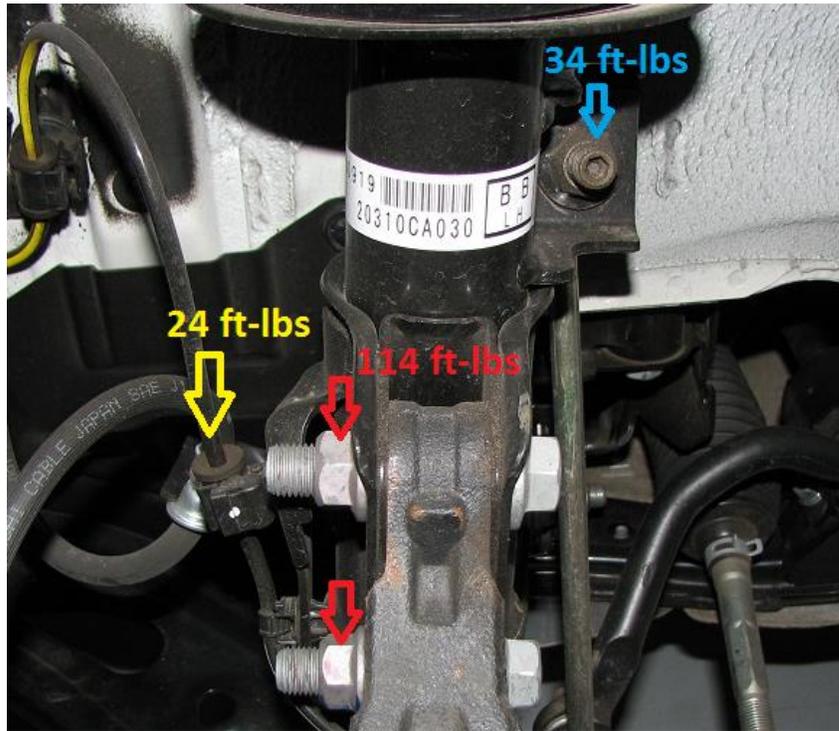
- 6.11.** Place the bottom of the top hat **with the bushing on the bottom side of the spherical** and the new camber plate on the shock absorber. With the supplied 19mm nut, thread the camber plate on as far as it can go by fingers.



- 6.12.** Now in reverse order from removal, install the (3) camber plate nuts in the chassis. These 12mm nuts are torqued to 17 ft-lbs.



- 6.13.** Moving to the wheel well we tighten the stabilizer nut to 34 ft-lbs (17mm, shown in blue), the brake hose bolt to 24 ft-lbs (12mm, shown in yellow), and the knuckle bolts/nuts to 114 ft-lbs (19mm, shown in red).



- 6.14.** Install the (2) plastic clips that retain the wheel speed sensor onto the shock absorber assembly.
- 6.15.** To finally tighten the top hat nut fully, use the 6mm allen wrench and the 19mm wrench. Tighten this to 41 ft-lbs.



- 6.16.** Using the 5mm Allen wrench, you can set camber. It is recommended to adjust camber in the air so that the anodizing on the plate does not get scratched. ***Maximum torque for the adjuster bolts is 98 in-lbs (8 ft-lbs)!***



- 6.17.** It is recommended to get an alignment after installing the camber plates.
- 6.18.** Enjoy the freshly installed camber plates. Please contact Verus Engineering with any comments, concerns, or questions via e-mail at sales@verus-engineering.com!