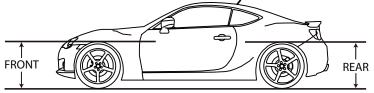
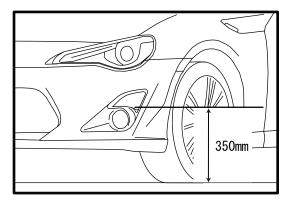


#### **VEHICLE RIDE HEIGHT**



**WARNING** ALWAYS PERFORM AN 4 WHEEL ALIGNMENT AFTER ALTERING VEHICLE RIDE HEIGHT.

\* Tire size and tread wear rate may alter results.



### WARNING

SUBARU BRZ

On the Toyota 86 / GT86, make sure that the fog lights are atleast 350mm above the ground. (\*based on Japanese safety regulations, check your local laws for details)

Front

250mm

size and supporting modifications.

**RIDE HEIGHT vs. STOCK** 

Front Height = -15mm Rear Height = -25mm

The numbers indicated in the charts represent data taken from the Cusco test vehicle. Use for

reference only, always measure and take into consideration alternate factors such as wheel

Rear A = 45 mm

Front A = 20mm

### 

Rear

On the Subaru BRZ, make sure that the fog lights are atleast 250mm above the ground. (\*based on Japanese safety regulation, check your local laws for details)

 $-35 \sim 0$  mm

### **TEST VEHICLE DATA SPEC**

🔊 \*Data below represents specifications from the Cusco test vehicle. Results may vary depending on year, grade, model.

VEHICLE	2012 Subar	u BRZ [DBA-ZC6]			
GRADE	S				
WHEEL SIZE	Front	7.5JJ-18 OFF +48			
	Rear	7.5JJ-18 OFF +48			
TIRE SIZE	Front	225/40-18	Rear	225/40-18	
TOE	Front	0 ±3mm	Rear	0 ±3mm	
CAMBER	Front	-0°40'±0°30'	Rear	-1°70' ±30'	
TOYOTA 86	Front	$-15 \sim 0$ mm	Rear	$-35 \sim$ 0 mm	

	Refer to the manufacturer factory service manual for the wheel alignment specifications.
N =	Refer to the manufacturer factory service manual for the wheel alignment specifications

 $-15 \sim 0$  mm

\*The suspension unit shown in the illustration may not depict actual unit.

965 60N CN-N3FS1 965 60N CP-N3GS1





# **STREET ZERO-A**



## **TOYOTA 86 / GT86 SCION FR-S SUBARU BRZ**

### **TABLE OF CONTENTS**

- Suspension kit contents ····
- Warning before starting ins
- How to read the warning ice
- Suspension assembly diagr
- Replacement parts list ……
- Front suspension removal 8
- Rear suspension removal &
- Coilover adjustment param
- Vehicle height reference …
- CUSCO test vehicle specifica



CONTACT: CUSCO USA INC.



### **ADJUSTABLE COILOVER SUSPENSION SYSTEM INSTALLATION MANUAL**

FULLY READ AND ACKNOWLEDGE BEFORE BEGINNING INSTALL

### [PART NO. 965 60N CN ] (HD RUBBER UPPER MOUNT) [PART NO. 965 60N CP] (PILLOWBALL UPPER MOUNT\*)

	1 P
stallation	
ons ·····	
ram ·····	2P
& installation ·····	
installation	
neter	7P
	7P
ation ·····	7P

 WARNING
 Damper adjustment is performed using the dial located on top of the shock absorber shaft.

16631 Gemini Lane Huntington Beach, CA 92647 USA Phone: (714) 907-0033 Fax: (714) 369-8142



### SUSPENSION KIT CONTENTS

Please confirm kit contents before starting installation

FRONT SUSPENSION KIT LH	x1	INSTRUCTION MANUAL	x1	
FRONT SUSPENSION KIT RH	x1	INSTALLATION MANUAL	x1	
REAR SUSPENSION KIT	x2			
HEIGHT ADJUSTMENT WRENCH	x2			

# WARNING BEFORE STARTING INSTALLATION



### **1)** BEFORE REMOVING EXISTING SUSPENSION UNIT

- GET FAMILIARIZED WITH THE MOUNTING AREAS AND ALL SURROUNDING COMPONENTS.
- CLEAN MOUNTING POINTS AND OTHER IMPORTANT AREAS WITH BRUSH.
- APPLY AND SOAK PENETRATION OIL BEFORE ATTEMPTING TO REMOVE RUSTED HARDWARE.
- DO NOT COMPLETELY DISCARD REMOVED COMPONENTS UNTIL THE NEW SUSPENSION IS FULLY INSTALLED.

### **)** WHEN INSTALLING NEW SUSPENSION UNIT

- CHECK PRODUCT PART NUMBER AND VEHICLE APPLICATION BEFORE HANDLING PRODUCT.
- INSPECT ALL INCLUDED COMPONENTS AND MAKE SURE NOTHING IS MISSING.
- CHECK TO SEE IF INSTALLED COMPONENT DOES NOT MAKE CONTACT WITH BODY, TIRES, OR WHEELS.



### ..... HOW TO READ THE WARNING ICONS

\*.....

-1 -

This installation manual contains these warning icons. Acknowledge each and every warning before starting.



### WARNING

Ignoring this warning icon may result in serious injuries or even death. Fully acknowledge the instructions and follow with extreme caution.

### CAUTION



Ignoring this caution note may result in injury or damages inflicted upon the product and/ or vehicle.

### **OTHER WARNING ICONS**







CHECK

DO NOT DISASSEMBLE / MODIFY

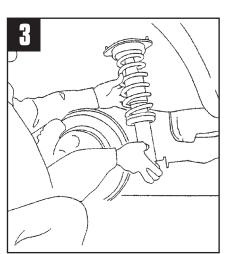


Coilover

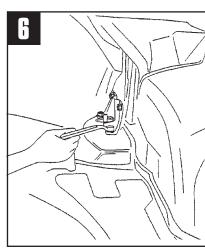
Torque Wrench

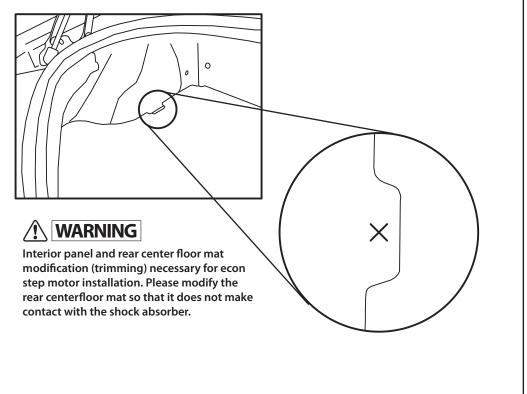
Jack Stands





Gently lower the hydraulic jack that is holding up the rear link and remove the bolt that mounts the bottom bracket. Using both hands, remove the suspension strut assembly from the vehicle. (Fig. B)





Install the rear upper strut nuts that were removed in step 5. (Torque Spec: 30N-m) Replace rear plastic trim with factory clips.











Hydraulic Jack

Open-end Wrench

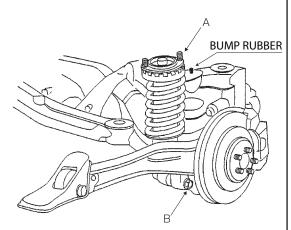
Eyelet Wrench

Ratchet Wrench

-6-

# REAR SUSPENSION

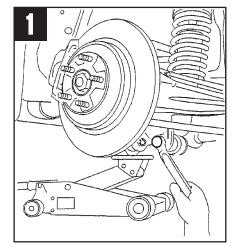
### **SCHEMATIC** <ASSEMBLY>



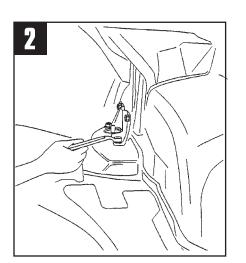


Completely remove both sides (L & R) of the suspension first before proceeding to install the new units. This applies to both front and rear.



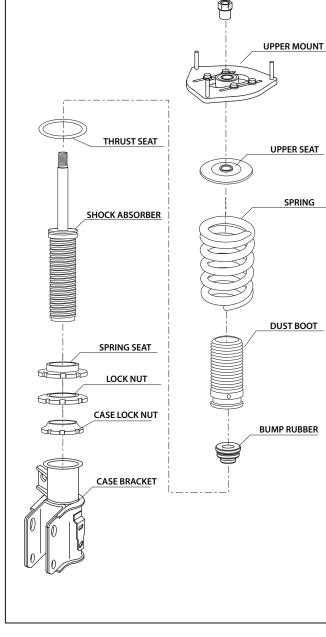


Place hydraulic jack under the lower arm and slightly raise up. Remove the flanged nut located on the bottom of the shock absorber. (Fig B.)



Remove the clips that hold the trunk space interior trim, exposing the strut tower. Remove the 2 nuts that hold the shock assembly to the strut tower. (Fig. A)

°



FRONT SUSPENSION ASSEMBLY DIAGRAM

PILLOW NUT

(TOROUE: 58N-m

### **WARNING** OEM FACTORY PARTS ARE NECESSARY FOR THIS INSTALL. PLEASE ACQUIRE BEFORE STARTING THE INSTALLATION P

_	
	SUBARU OEM PART NO.

SU003-03642 (2032 SU003-02889 (9023 SU003-02887 (9023 SU003-02870 (9023 SU003-02889 (9023

### 

Take extra care when assembling the suspension kit not to overtighten the upper most nut. Tightening above the indicated torque specification may cause irreversible damage to the shock absorber.

		CEMENT COMPON		
POSITION	PART DESCRIPTION	PART NUMBER	MSRP	NOTES
FRONT	Shock Absorber	00B 6KN F13B	\$347.00 (USD)	RH / LH
REAR	Shock Absorber	00B 6KN G11B	\$280.00 (USD)	RH / LH

### DAMPER ADJUSTMENT DIAL

Adjust the shock damper rate by first turning the dial all the way right, clockwise (0 step) as a reference. Each click indicates a single step increase, starting from the first click which is the hardest setting and the 40th click being the softest.



Never operate the vehicle with the shock absorber set at 0 (zero step). Always use with the damper parameter set only between 1 and 40.

### 

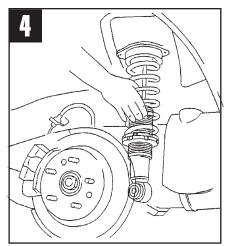
Always make sure that the left and right side damper settings are set at the same rate.



### Fragile: Do not apply stress to these areas

Leave the adjustment dial area free of any debris and do not hang any tools from this area.

### INSTALLATION

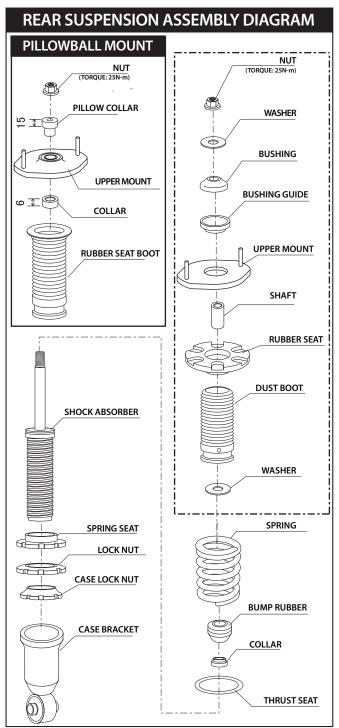


Place the shock absorber to the strut location and install the upper mount strut nuts. (Fig. A)

Install the bottom bracket bolt by raising and lowering the hydraulic jack to the position where the hole lines up. Insert flanged bolt and secure with flanged nut. It is highly recommended to use new OEM hardware.

ONT

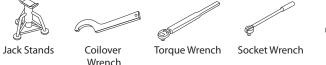
Torque according to the specification listed. (Torque Spec: 160N-m) (Fig. B)



The suspension unit shown in the illustration may not depict actual unit.

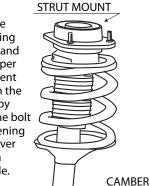
THE INSTALLA	TION PROCEDURES.
27CA000)	FRONT - UPPER MOUNT NUT
380008)	FRONT - SHOCK ABSORBER / KNUCKLE NUT
380003)	FRONT - SWAY BAR LINK / SHOCK ABSORBER NUT
350030)	REAR - SHOCK ABSORBER / LOWER ARM NUT
350029)	REAR - UPPER MOUNT NUT

# FRONT SUSPENSION WARNING OFM FACTORY PARTS WILL BE USED. PLEASE PREPARE NEW FACTORY COMPONENTS BEFORE STARTING INSTALLATION.



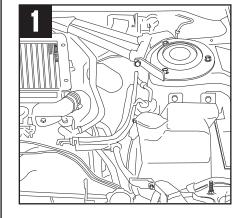
### **SCHEMATIC** <ASSEMBLY>

Align the knuckle to the bolt marking when removing and installing the upper camber adjustment bolt. Always turn the self locking nut by holding down the bolt side when tightening or loosening. Never torque or loosen from the bolt side.

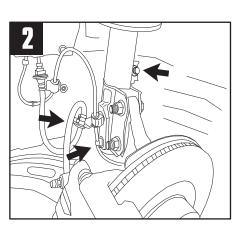


ADJUSTMENT BOLT

### REMOVAL

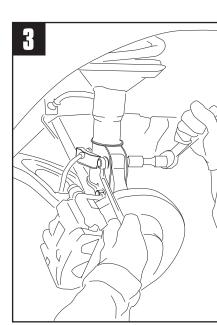


Loosen the 3 strut tower nuts inside the engine bay. Only loosen and do not remove these nuts just yet.



Remove the bolt that holds the brake line to the bracket and the nut connecting the sway bar end link.

Mark the knuckle and the upper bolt to the strut camber position. Remove the sensor harness bolt for vehicles equipped with an ABS system.



Lift the transverse arm area with the hydraulic jack, then proceed to loosen the 2 flanged nuts and bolts.

### DAMPER ADJUSTMENT DIAL

TRANSVERSE LINK

<u>/</u>Щ

Adjust the shock damper rate by first turning the dial all the way right, clockwise (0 step) as a reference. Each click indicates a single step increase, starting from the first click which is the hardest setting and the 40th click being the softest.

Completely remove both sides (L & R) of the suspension first before

proceeding to install the new units. This applies to both front and rear.



### 

Never operate the vehicle with the shock absorber set at 0 (zero step). Always use with the damper parameter set only between 1 and 40.

### 

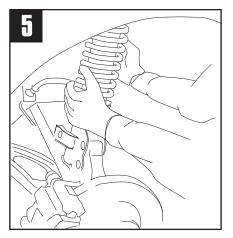
Always make sure that the left and right side damper settings are set at the same rate.



### Fragile: Do not apply stress to these areas

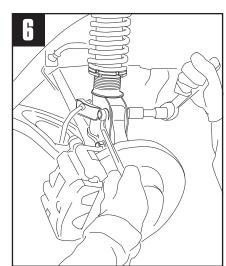
Leave the adjustment dial area free of any debris and do not hang any tools from this area.

### **INSTALLATION**



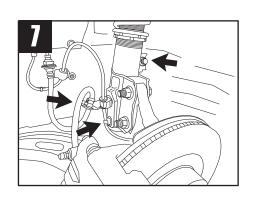
Mount the Cusco suspension to the upper strut area using the 3 factory OEM nuts. It is highly recommended to use new OEM hardware.

Torque according to the specification listed. (Torque Spec: 20N-m)



Install the bottom bracket bolts by raising the hydraulic jack to the transverse link where the 2 holes line up. It is highly recommended to use new OEM hardware. The nuts are self locking.

Torque according to the specification listed. (Torque Spec: 175N-m)



Install the sway bar link with a brand new factory nut and torque down. (Torque Spec: 74N-m)

Remove the hydraulic jack from underneath the vehicle. Re-install the brake hose to its designated strut tab. (Torgue Spec: 30N-m)

Re-install the ABS sensor harness to its designated bracket and torque down accordingly. (Torque Spec: 20N-m)

— 3 —







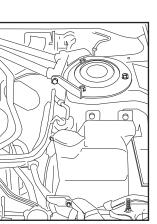




Hydraulic Jack

Open-end Wrench

Eyelet Wrench Ratchet Wrench



Hold the strut assembly while removing the three strut tower nuts that were loosened on step 1. Carefully remove the strut assembly from the vehicle.

WARNING Always use both hands when handling strut assembly. Dropping the unit may cause serious injury & damage to the component.

-4-

CAUTION Use caution when removing strut assembly not to damage the ABS sensor harness.