



nismo

INSTALLATION INSTRUCTIONS

TY-530-N13

1. DESCRIPTION: NISMO SUSPENSION KIT

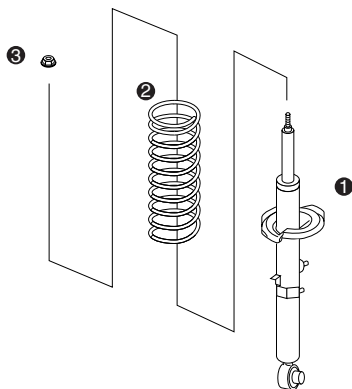
2. APPLICATION: 370Z

3. PART NUMBER: E3110-1EA00-US

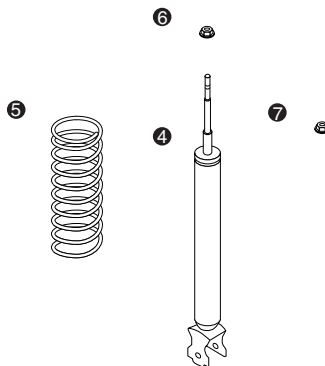
4. KIT CONTENTS:

| Item No. | Qty | Service Part Number | Description |
|----------|-----|---------------------|------------------------------------|
| 1 | 1 | E6110-1EA25 | Front shock absorber assembly (RH) |
| | 1 | E6111-1EA25 | Front shock absorber assembly (LH) |
| 2 | 2 | E4010-1EA00 | Front spring |
| 3 | 2 | 01223-00301 | Nut (Front) |
| 4 | 2 | E6210-1EA25 | Rear shock absorber assembly |
| 5 | 2 | E5020-1EA00 | Rear spring |
| 6 | 2 | 55269-4U00A | Nut (Rear) |
| 7 | 2 | 55269-AG00E | Nut (Rear lower link) |
| 8 | 1 | TY-530-N13 | Installation Instructions |

■ FRONT



■ REAR



Component parts

① Front shock absorber (RH)×1
Front shock absorber (LH)×1

② Front spring×2
③ Nut (Front)×2
④ Rear shock absorber×2
⑤ Rear spring×2

⑥ Nut (Rear)×2
⑦ Nut (Rear lower link)×2



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5. TOOLS REQUIRED:

- Torque wrench
- Ratchet wrenches
- Pliers
- Combination wrenches (12mm, 14mm, 17mm)
- Socket (12 mm, 17 mm)
- Tools to remove wheels from vehicle
- Drift pin
- Universal joint or swivel socket (12mm)


6. INSTALLATION NOTES AND PRECAUTIONS:


★ You will see various symbols in this manual. They are used in the following ways:

| | | |
|--|----------------|---|
|  | WARNING | This is used to indicate the presence of a hazard that could cause death or serious personal injury. To avoid or reduce the risk, the procedures must be followed precisely. |
|  | CAUTION | This is used to indicate the presence of a hazard that could cause minor or moderate personal injury or damage to your vehicle. To avoid or reduce the risk, the procedures must be followed carefully. |

A) Before Installation

1. After opening the packing, check to see if any parts are missing and that the product is not damaged.
2. This product should be installed with proper installation tools.
3. Install this product while observing all warnings and precautions stated in this manual.

| | | |
|--|----------------|---|
|  | WARNING | <ul style="list-style-type: none"> ● When removing and installing the coil springs, compress the spring evenly by approximately 1.0 in (2.5 cm). If not compressed evenly, the coil spring may come out of the spring compressor unexpectedly, resulting in serious injury. ● Do not make any alteration or modification to this product. Serious injury may result. ● Do not drop any of the components. If a spring is dropped, it may jump in an unexpected direction, resulting in serious injury. If a shock absorber is dropped it may be damaged and no longer function properly. ● After installation, check for tire clearance and interference between the body and suspension parts. Do not drive the vehicle if interference is found. Tire interference could cause tire failure and lead to an accident and serious injury. |
|--|----------------|---|

| | | |
|--|----------------|---|
|  | CAUTION | <ul style="list-style-type: none"> ● Before installation, confirm application and part number. If the product is installed on an improper vehicle, it may result in vehicle damage or an accident. ● The specified torque shown in this manual must be used. Tightening bolts above the specified torque may result in damage. ● Do not use an impact wrench for installation or removal of the piston rod lock nut as it may cause damage to the shock absorber. ● After installation, be sure to check to make sure that the tires, wheels, suspension parts and body do not interfere with each other. |
|--|----------------|---|

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B) Before Using



WARNING

- Read your Vehicle Owner's Manual to assist you in the safe operation of your vehicle. Failure to do so may result in an accident and serious injury.
- Always observe rules, regulations and posted speed limits when operating any motor vehicle. Always wear your seatbelt.
- After installation, test-drive the vehicle for about 30 miles (50 km) at speeds less than 40 mph (60 kph). Avoid any quick maneuvers.
- If any abnormal noises are heard or abnormal vibrations are felt, immediately stop the vehicle in a safe place and check your vehicle. Driving with an abnormal condition may result in an accident and serious personal injury.
- Do not use the product for anything other than the purpose described in this manual. Any accident or injury incurred by improper use of this product is the sole responsibility of the user.

NOTE

- The minimum distance between the ground and the bottom of the vehicle becomes less after the installation of this product.
- When driving over bumps or unpaved or rough roads, lower speed may be necessary to avoid damage from contact between the road and the vehicle's body.

7. INSTALLATION PROCEDURE



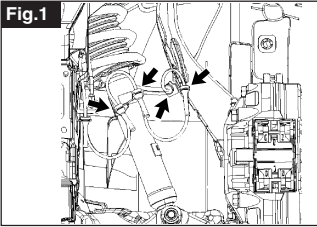
WARNING

- Installing the shock absorber by any other method than described in this manual may result in an accident and serious injury.
- Tightening torque specifications listed in this manual must be followed.
- Before installation, be sure to place the jack (or hoist) at the correct jack-up point to lift the vehicle and secure with suitable stands. Always chock the appropriate wheels.
- Never get under a vehicle while only supported by a jack.
- Do not use vehicle jack to install this kit. (Vehicle jack is not meant for this type of work)

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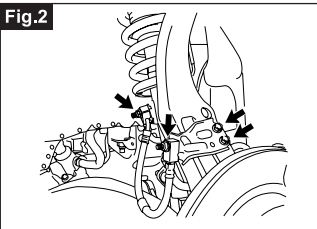
A) Removal of Front Shock Absorber

Fig.1



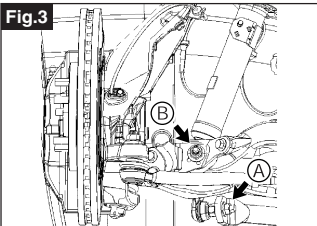
- 1) Lift the vehicle and remove wheels. Secure the vehicle on a hoist or with suitable stands. Place wheel chocks at the appropriate wheels if not hoisted.
- 2) Remove ABS harness (2 position) from shock absorber. (Fig. 1)
- 3) Remove brake hose from shock absorber.

Fig.2



- 4) Remove brake hose bracket from steering knuckle. (Fig. 2)

Fig.3



- 5) Remove stabilizer bar connecting rod from stabilizer. (Fig. 3-**A**)

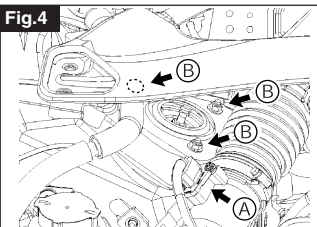
<Inside engine room>

- 6) Disconnect AF sensor connector both side. (Fig. 4-**A**)

⚠ CAUTION

- After disconnect protect and cover AF sensors from getting damaged.

Fig.4



- 7) Remove three nuts from strut tower by using universal/swivel socket (12mm) with extension. (Fig. 4-**B**)

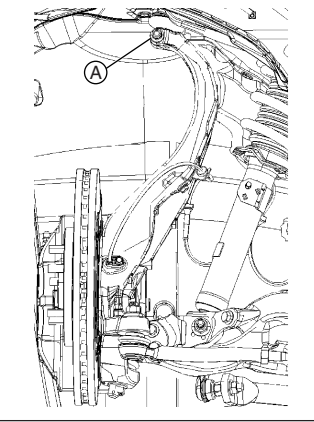
⚠ CAUTION

- The shock absorber may fall after removing the three nuts. Be sure to hold the shock absorber while removing the nuts.

- 8) Remove stabilizer connecting rod in the lower link side. (Fig. 3-**B**)

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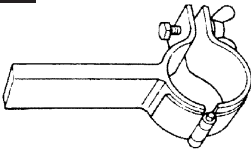
Fig.5



- 9) Remove connecting part of upper link from steering knuckle. (Fig. 5-(A))
- 10) Remove shock absorber mount bracket, and remove shock absorber assembly.

B) Dis-assembly of Front Shock Absorber

Fig.6



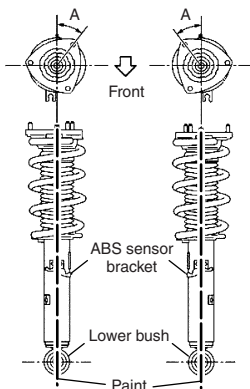
Strut attachment

Front shock absorber should be re-assembled with strut attachment (special tool : ST3565 2000). (Fig.6)

⚠ CAUTION

- Do not discard upper mount attachment and dust boot. Reuse them with NISMO shock absorber and coil spring.

Fig.7

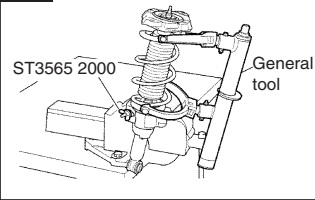


Angle(A) : 35.4 deg.

- 1) Before disassembly, Paint upper mount bracket, mount rubber, coil spring and shock absorber in line. (Fig. 7)

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Fig.8

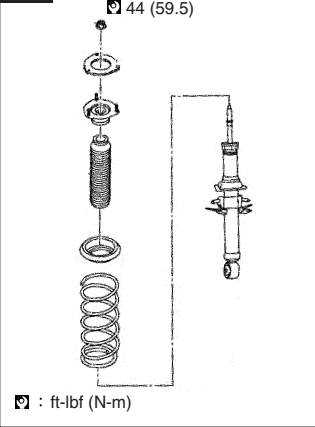


- 2) Attach the strut attachment to the front shock absorber, and then hold the strut attachment and front shock absorber in vise. (Fig.8)

CAUTION

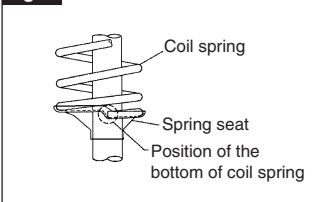
- When installing strut attachment (SST) to shock absorber, wrap a shop cloth around shock absorber to protect it from damage.

Fig.9



- 3) Compress standard coil spring by spring compressor, and remove nut of upper mount.
- 4) Re-assemble the components, and temporarily tighten the piston rod lock nut as shown in the figure. (Fig.9)

Fig.10



- a. Insert shock absorber through the coil spring.
- b. Assembly dust boot, upper mount bracket and mount rubber over the shock absorber.
- c. Compress NISMO coil spring by spring compressor, and install it to the shock absorber.

CAUTION

- Position the coil spring to set the smaller diameter side of the spring for bottom, and then install by aligning with insulator groove so that lower end of the spring onto the appropriate location. (Fig. 10)

- d. Secure piston rod nut on shock absorber with upper mount bracket.
- e. Reuse gasket over the studs on upper mount bracket.

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⚠ CAUTION

- When attach the components to the shock absorber, be sure to prevent piston rod of shock absorber from being damaged.
- When attach dust boot to upper mount bracket, soap or the like can use as a lubricant if it is hard to install.
Do not use machine oil as a lubricant.
- Set upper mount bracket in direction with line you mark before disassembly.

5) Tighten the piston rod lock nut to the specified torque. (Fig.9)

⚠ CAUTION

- Do not use an impact wrench for tightening of piston rod lock nut.
- Replace piston rod lock nut with new ones. (Use included nuts)

6) Loosen the spring compressor and remove from coil spring.

⚠ CAUTION

- Loosen spring compressor while making sure coil spring attachment position does not move.

7) Remove the strut attachment from the shock absorber.

C) Installation of Front Shock Absorber

Perform in the reverse order of removal, taking care of the following step.

⚠ CAUTION

- When putting the stabilizer connecting rod in the lower link, do not hit the ball joint of the stabilizer connecting rod with a hammer.

- When lastly tighten the rubber bushing while installing the components of suspension, set the vehicle to curb weight condition and on the ground.

1) Insert shock absorber assembly from under the vehicle.

<Engine room>

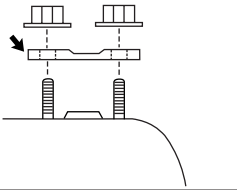
2) Place strut tower reinforce bracket over the studs.

(Fig. 11)

⚠ CAUTION

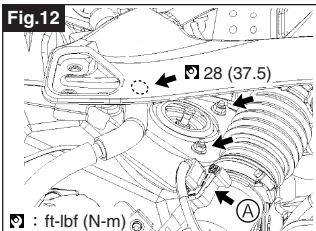
- It is necessary not to make a mistake in the direction of the bracket referring to the figure.

Fig.11



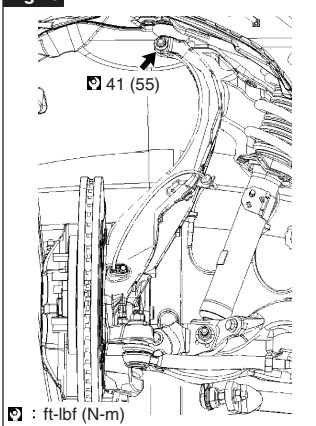
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Fig.12



- 3) Tighten three nuts on strut tower. (Fig. 12)
- 4) To reconnect AF sensor. (Fig. 12-A)

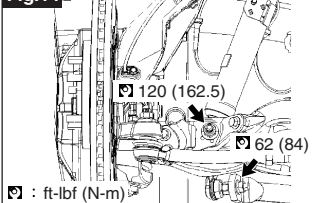
Fig.13



<Under vehicle>

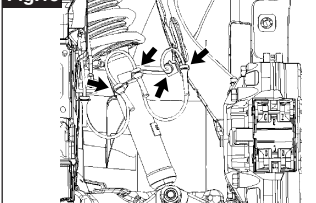
- 5) Tighten connecting part of upper link from steering knuckle. (Fig. 13)

Fig.14



- 6) Insert stabilizer bolt through bracket, shock absorber and secure with nut. (Fig. 14)
- 7) Secure all bolts and nuts to specified torque.
- 8) Install stabilizer bar to the linkage and secure to specified torque.

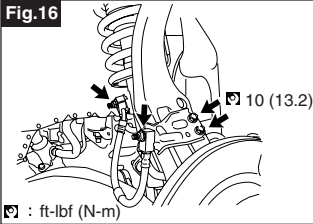
Fig.15



- 9) Insert ABS harness into shock absorber bracket clip. (Fig. 15)

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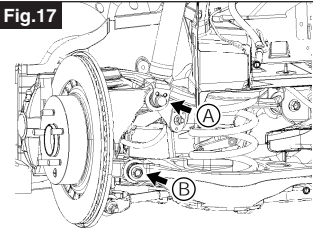
Fig.16



- 10) Install brake hose bracket over stud and secure with nuts. (Fig. 16)

D) Removal of Rear Shock Absorber and Spring

Fig.17



- 1) Lift the vehicle and remove wheels. Secure the vehicle on hoist or with suitable stands. Place wheel chocks at the appropriate wheels if not hoisted.
- 2) Place jack under rear lower link. Raise suspension slightly. Loosen bolt from lower end of shock absorber then pull out bolt. (Fig. 17-**A**)
- 3) Remove two nuts securing shock absorber assembly to body in wheelhouse. (Fig. 20)

CAUTION

- The shock absorber may fall after removing the two nuts. Be sure to hold the shock absorber while removing the nuts.

- 4) Save gasket, cover, mount bracket and bound bumper form a standard shock absorber. (Fig. 18 – ①, ②, ③, ④, ⑤, ⑦)
- 5) Remove (outboard) bolt and nut securing rear lower link to axle assembly. (Fig. 17-**B**)
- 6) Slowly lower the jack and remove coil spring.

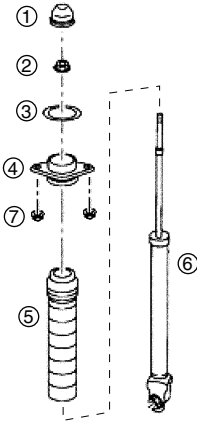
NOTE

- If the rear lower link does not swing down because of friction force, lower the link by hand.

- 7) Remove bushing from coil spring.

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Fig.18



Re-assembly of Rear Shock Absorber

Re-assemble shock absorber by referring to figure at left. (Fig. 18)

NOTE

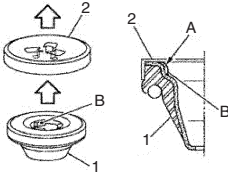
- Reuse all of the parts except the nut on top. Before reusing, check each part for damage or cracks. Replace any parts that show damage.

- ① Nut. Tighten to 20 – 24 ft-lbf (27 – 33 N-m)
- ② Washer
- ③ Shock absorber mount seal
- ④ Shock absorber mount bracket
- ⑤ Bound bumper (bump rubber)
- ⑥ Shock absorber
- ⑦ Nut

E) Installation of Rear Shock Absorber and Spring

Fig.19

Vehicle body side



Caution of installation

- Make sure that the upper sheet is installed as shown in the figure. (Fig. 19)

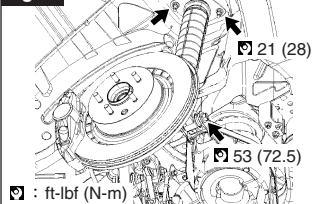
CAUTION

- Securely put a projection (A) of the inside of the upper sheet (1) into the bracket (B) in the vehicle body side in advance.

- When lastly tighten the rubber bushing while installing the components of suspension, set the vehicle to curb weight condition and on the ground.

1) Install spring by aligning with insulator groove.

Fig.20

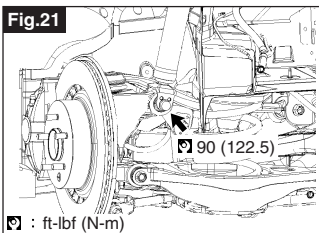


NOTE

- See to confirm correct coil spring orientation by NISMO parts number direction before assembly.
- 2) Set the jack under the rear lower link. Slowly raise the jack to the point where the rear lower link can be attached to the axle assembly. Install bolt and nut to the rear lower link and the axle assembly. (Fig. 20) (A .drift pin may be necessary to align ball joint so bolt may be inserted all the way through).

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Fig.21



- 3) Compress the shock absorber by hand and install in position with the lower end on the axle assembly. Insert lower shock absorber bolt and temporarily tighten by hand. (Fig. 20)
- 4) Guide the upper end of the shock absorber onto the attaching studs. (It may be necessary to raise the jack further to accomplish this). Install the upper shock absorber nuts and tighten them to the specified torque.
- 5) After installing the wheels, set the vehicle to curb weight condition. Tighten the lower shock absorber bolts to the specified torque. (Fig. 21)
- 6) Tighten bolts and nuts of rear lower links and axle assemblies to the specified torque.

Technical Data

| | | Front | Rear |
|----------------|--|---------------------|-------------|
| Shock absorber | Damping force at 12 in/sec (0.3 m/sec) | Rebound lbf (N) | 555 (2,469) |
| | | Compression lbf (N) | 388 (1,728) |
| Coil spring | Spring rate | 450 (79) | 508 (89) |
| | Vehicle height reduction | -0.4 (-10) | -0.4 (-10) |

NOTE

- Vehicle height will change after the installation of this suspension kit. Wheel alignment may need adjustment. Specifications for proper wheel alignment are contained in the following table.
- The headlights may also need to be re-aimed after the installation of this kit.

Wheel Alignment Specifications

| Adjustment Items | | Front | Rear |
|------------------|----------|---------------------------|--------------------------------|
| Camber | (degree) | $-0^{\circ}45' \pm 45'$ | $-1^{\circ}45' \pm 30'$ |
| Caster | (degree) | $5^{\circ}10' \pm 45'$ | No adjustment necessary |
| Kingpin angle | (degree) | $7^{\circ}45' \pm 45'$ | No adjustment necessary |
| Toe-in | in (mm) | IN 0.08 – 0 in (2 – 0 mm) | IN 0.21 – 0.08 in (5.4 – 2 mm) |

