

HIPERMAX III

ADVANCED EFFECT ON SUSPENSION SYSTEM

Installation Guide

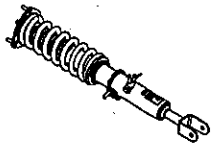
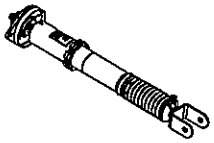


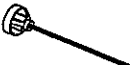




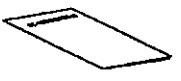
This manual assumes that you have and know how to use the tools and equipment necessary to safely perform service operations on your vehicle. This manual assumes that you are familiar with typical automotive systems and basic service and repair procedures. Do not attempt to carry out the operations shown in this manual unless these assumptions are correct. Always have access to a factory repair manual. To avoid injury, follow the safety precautions contained in the factory repair manual.

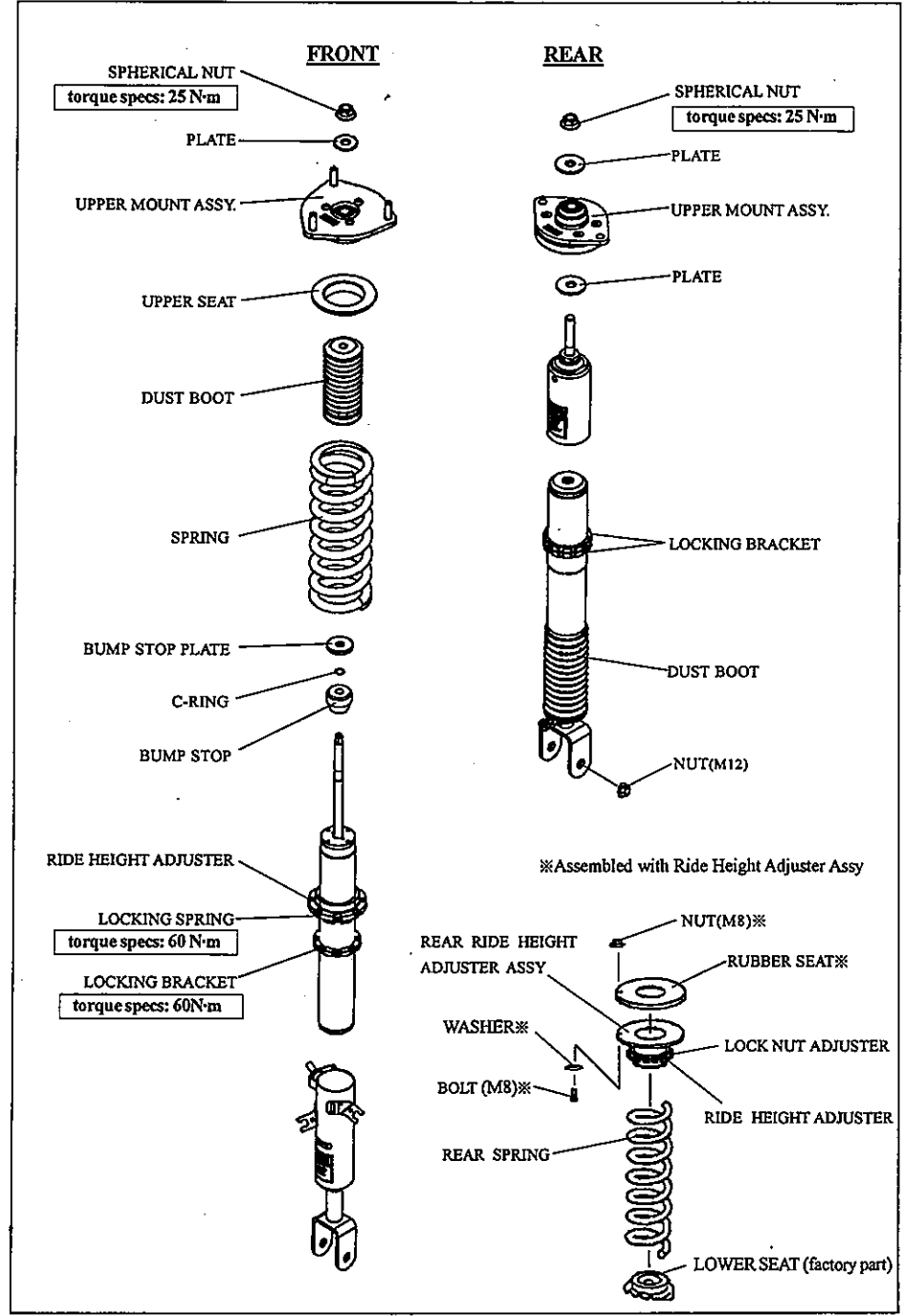
Vehicles Application Chart

Product	HIPERMAXIII
Product Category	AUTOMOBILE PARTS
Part No.	80140-BN009 FULL KIT
Part No. of Manual	E04415-N22100-00
Vehicle	NISSAN 350Z / Infinity G35 Sport Coupe
Model	Z33 / V35
Engine	VQ35DE
Remarks	

Damper Components

Parts List

	Front Damper Assy	2
	Rear Damper Assy	2
	Rear Spring	2
	Rear Ride Height Adjuster Assy	2
	Adjustment Knob	1
	Nut(M12)	2
	Spanner Wrench(Small)	1
	Spanner Wrench(Large)	2
	Tie Wrap	8
	Installation Guide	1



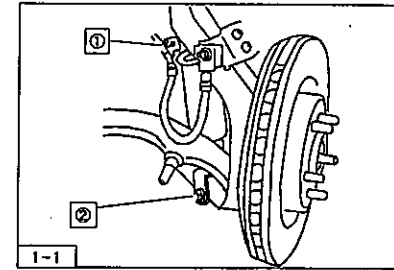
⚠ CAUTION

- Perform installation after the vehicle has cooled down sufficiently.
- For height adjustments, only adjust height within the range specified in this manual.
- If adjusted above or below the specified range, the damper and/or vehicle may become damaged.
- If there is too much play in the springs, the springs may fall off of the spring seats and cause damage to the dampers and/or vehicle.

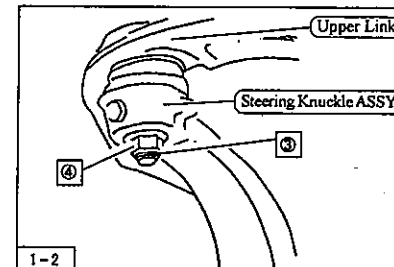
1. Removing the factory front dampers

⚠ WARNING

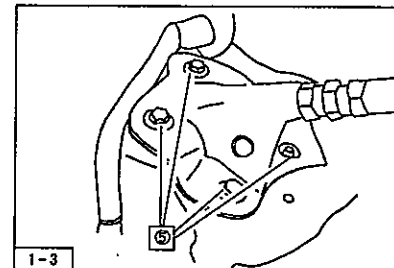
When installing this product, do not use scissor-jacks supplied with the vehicle. Use of unstable scissor-jacks can lead to severe bodily injury or death. Always use vehicle lifts/hoists, or garage jacks with jack-stands.



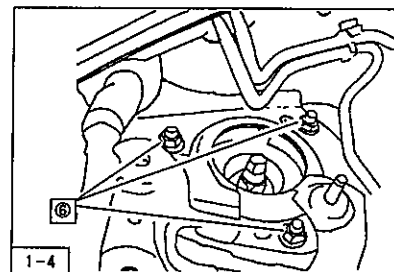
1. Jack up the vehicle and remove wheels.
2. Remove the nut for the brake line. (Diagram 1-1, ①)
3. Remove the bolt and nut from the lower damper. (Diagram 1-1, ②)



4. Remove the cotter pin. (Diagram 1-2, ③)
5. Remove the nut from the upper link. (Diagram 1-2, ④)
6. Detach the steering knuckle assembly from the upper link.



7. Remove the bolt and nut from the tower bar. (Diagram 1-3, ⑤)
※ There is no tower bar in V35.



8. Remove the nuts from the upper mount. (Diagram 1-4, ⑥)
9. Remove the dampers from the vehicle.

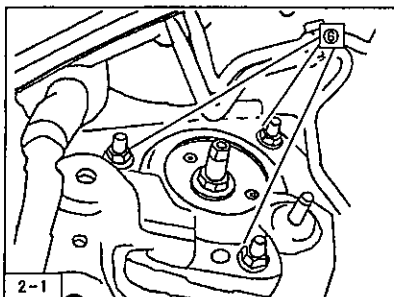
⚠ NOTICE

When removing the factory damper assembly, make sure not to pull on the brake line and ABS sensor. When these are pulled, it may damage the brakes.

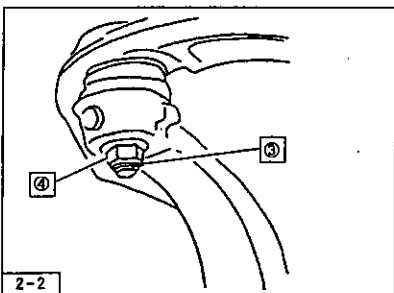
2. Installing the front dampers

⚠ NOTICE

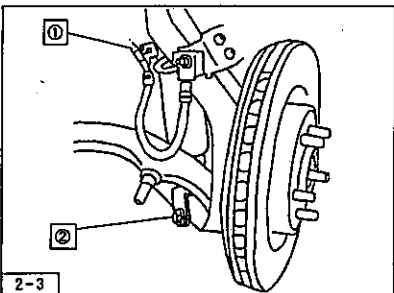
Refer to the service manual for torque specs when tightening bolts and nuts.



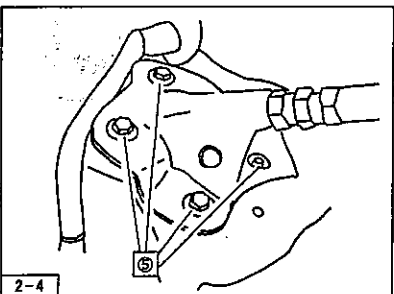
1. Install the nuts for the upper damper. (Diagram 2-1,⑥)
(torque specs: 35~42N·m)



2. Install the nut for the upper link. (Diagram 2-2,④)
(torque specs: 54~64N·m)
3. Install the cotter pin. (Diagram 2-2,③)

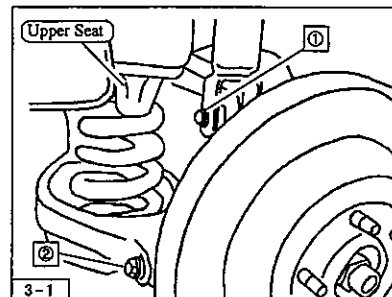


4. Install the bolt and nut for the lower damper. (Diagram 2-3,②)
(torque specs: 70~85N·m)
5. Install the nut for the brake hose. (Diagram 2-3,①)
(torque specs: 20~23N·m)

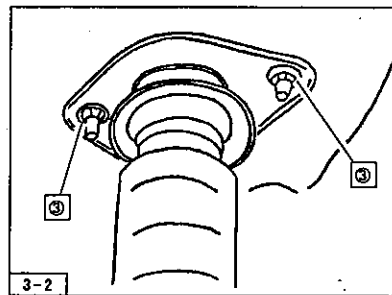


6. Install the bolt and nut for the tower bar. (Diagram 2-4,⑤)
(torque specs: 24.5~31.4N·m)
※There is no tower bar in V35.
7. Mount the wheels back on and lower the vehicle.

3. Removing the factory rear dampers

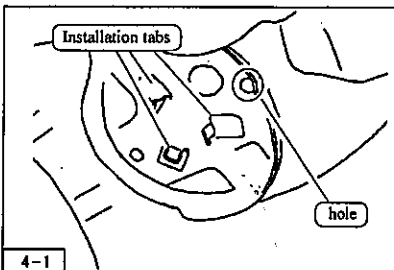


1. Jack up the vehicle and remove wheels.
2. Remove the bolt for the lower damper. (Diagram 3-1,①)
3. Remove the bolt and nut from the rear lower link. (Diagram 3-1,②)
4. Remove the spring and upper seat from the vehicle.



5. Remove the nuts for the upper damper. (Diagram 3-2,③)
6. Remove the dampers from the vehicle.

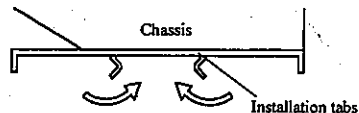
4. Installing the rear dampers



1. Use the included bolts, washers, nuts, and rubber seat to install the Rear Ride Height Adjustment Collar onto the vehicle. (Diagram 4-1-1, 4-1-2, 4-1-3)

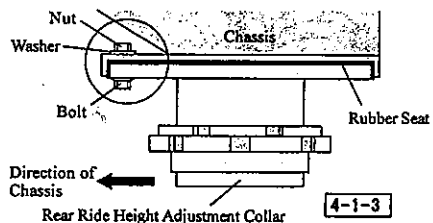
Installation of the rear ride height adjustment collar

- ① Bend the three installation tabs of the upper spring perch. Make sure it does not come in contact with the inner walls of the Rear Ride Height Adjustment Collar.

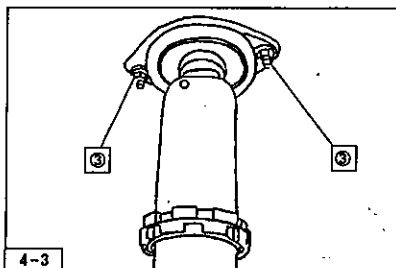


4-1-2

- ② Secure the rubber seat using the bolt, washer, and nut as shown in the diagram.



4-1-3



4-3

2. Install nuts for the upper damper. (Diagram 4-2, ③) (torque specs: 26-30N·m)

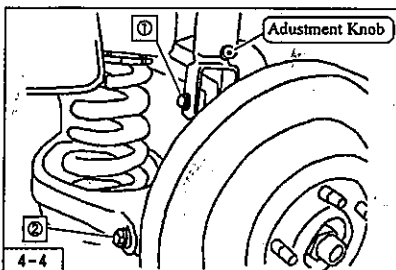
3. Install the bolt and nut for the rear lower link. (Diagram 4-3, ②) (torque specs: 65-80N·m)

4. Install the spring onto the vehicle.

5. Install the bolt and nut (M12, included) for the lower damper. (Diagram 4-3, (torque specs: 100-120N·m)

※A Adjustment Cable w/Dial is suitable for the vehicle inside, and, in the case of installation, please install damper ASSY.

6. Mount the wheels back on and lower the vehicle.



4-4

CAUTION

After re-mounting the tires, check to make sure that the product does not come into contact with the wheels/tires. Re-alignment will also be necessary.

5. Adjusting the Dampening

Dampening adjustment and range

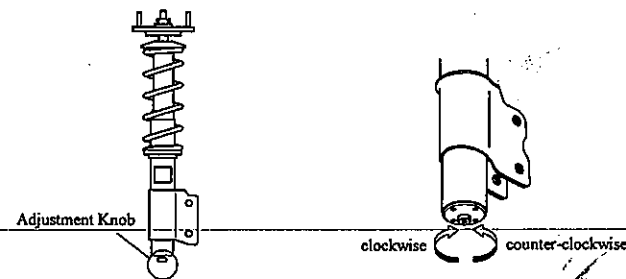
- For the shock type, insert the shaft of the adjustment dial tool into the top center of the damper.
- For the McPherson type struts, there is an adjustment knob on the bottom section of the damper. To stiffen the dampening ⇒ Turn the adjustment knob clockwise. To soften the dampening ⇒ Turn the adjustment knob counter-clockwise.

	Softest Setting	Initial Setting	Stiffest Setting *
Z33	30 clicks back from the stiffest setting	20 clicks back from the stiffest setting	First click back from turning the knob clockwise as far as it goes
V35	30 clicks back from the stiffest setting	[FRONT] 25 clicks back from the stiffest setting [REAR] 30 clicks back from the stiffest setting	First click back from turning the knob clockwise as far as it goes

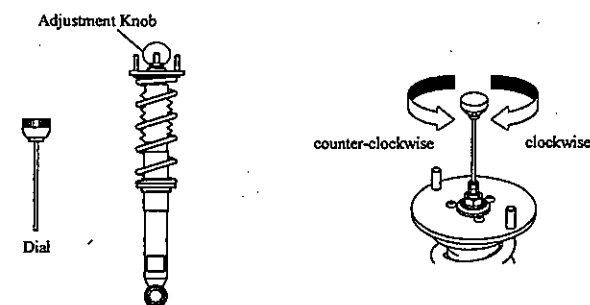
*Stiffest is the 0 click position

- The Initial Setting is the setting brand new out of the box.
- Some dampers may go back over 30 clicks, but do not exceed 30 clicks.
- Make sure that the left and right sides are set at the same dampening rate.
- Not doing so may result in unsafe characteristics.
- DO NOT force the adjustment knob once it stops. Overturning may damage the damper internals.

Strut Type



Standard Type



6. Adjusting the Ride Height

HKS has pre-set the ride height prior to shipment

Z33 Vehicle Height Data (mm)	FRONT				REAR			
	When Shipped	During Testing	Upper Limit	Lower Limit	When Shipped	During Testing	Upper Limit	Lower Limit
Height	668	←	677	653	688	←	699	650
Height From Factory	-9	←	0	-24	-11	←	0	-49
Shock Body Length	485	←	491	482	261	←	277	239
Spring Length	243	←	243	250	-	-	-	-
Thread Length	50	←	56	40	45	←	52	21

V35	FRONT				REAR			
	When Shipped	During Testing	Upper Limit	Lower Limit	When Shipped	During Testing	Upper Limit	Lower Limit
Height	695	←	700	680	707	←	711	661
Height From Factory	-5	←	0	-20	-4	←	0	-50
Shock Body Length	485	←	488	482	261	←	277	239
Spring Length	243	←	243	250	-	-	-	-
Thread Length	50	←	53	40	45	←	47	22

Check the following when the vehicle height is changed.

- Make sure there is no play in the spring when the damper is fully extended.
- Make sure the damper does not come in contact with any part of the vehicle chassis. (ex. driveshaft, suspension arm, etc.)

CAUTION

There is a limit to shock body length adjustment. Do not exceed the minimum or maximum figures as calculated in the table below. Using the vehicle with the dampers exceeding minimum or maximum shock body length adjustment can lead to damage to the dampers.

Further, check for any contact between the dampers and the suspension arms, wheels, etc. If driven while these parts are coming into contact with the dampers can lead to damage to the dampers and/or the vehicle.

6. Adjusting the Ride Height

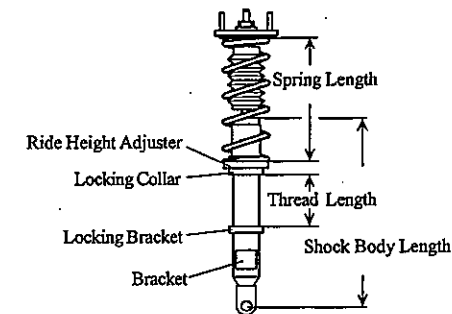
Front

Spring Length (Preload) adjustment

- 1) Use the two Hook Wrenches (included), and loosen the Locking Collar from the Adjustable Spring Perch.
- 2) Turn the Adjustable Spring Perch to set height.
- 3) When the desired height is obtained, securely tighten the Locking Collar against the Adjustable Spring Perch using two Hook Wrenches to specified torque specs.

Shock Body Length Adjustment

- 1) Loosen Bracket and Locking Bracket.
- 2) To set height, turn the Locking Collar to increase Shock Body Length, and turn the Adjustable Spring Perch to decrease Shock Body Length.
- 3) When the desired height is obtained, securely tighten the Bracket and Locking Bracket using the supplied Hook Wrench. Using a torque wrench, tighten to 100 Nm as shown in Diagram 5-1.



Rear

[Shock body side] Height Adjustment:

- 1) Use the supplied Hook Wrench (Large) to loosen the Locking Brackets (2) and Bracket.
- 2) Loosen and lower the Locking Brackets to where they do not come into contact with the Bracket when moved. Tighten the Locking Brackets to the cylinder with the double-nut.
- 3) When raising height [extending the shock body], rotate the upper Locking Bracket. When lowering height, rotate the lower Locking bracket. When rotating, use the supplied Hook Wrench and hook it onto the Locking Bracket Hole.
- 4) Loosen the two Locking Brackets, and tighten and torque the Bracket and Locking Brackets.

[Ride Height Adjuster side] Height Adjustment:

- 1) Loosen Ride Height Adjuster and Locking Collar.
- 2) To set height, turn the Ride Height Adjuster to adjust height.
- 3) When the desired height is obtained, securely tighten and torque the Ride Height Adjuster and Locking Collar.

