



INSTRUCTION MANUAL

A'PEX N1 DAMPER Height Adjustable Coil Over Damper Kit PRODUCT CODE 269AM020

(Table1) Vehicle Application

Application Vehicle	Vehicle Model	Engine Model	Year
MITSUBISHI LANCER EVOLUTION	CT9A	4G63	03-

1. Preface

Thank you for purchasing the *A'PEX N1 DAMPER* system

These shocks have been designed to replace the factory shock absorbers.

Please refer to the contents of this manual for proper installation and use.

Please read the instruction manual carefully to prevent accidents and bodily harm.

INSTALLATION SHOULD ONLY BE PERFORMED BY AN EXPERIENCED INSTALLER.

Please consult the dealer of purchase for a qualified installation facility near you.

Installation of this unit may not be legal for use on pollution controlled vehicles in California and may never be used upon a public highway.

Please contact the dealer of purchase with a valid receipt if the product has been damaged during shipping or has a manufacturer defect. Never disassemble or discharge the shocks. All warranties expressed or implied will be voided if evidence of tampering exists. This product must be returned complete with all relevant packing included for warranty to be honored.

Installation Precaution

- Please read the contents of this manual before attempting installation.
- These shocks have been designed to be use with the factory upper mounts. Do not use upper mounts from other manufacturers with this product.
- This manual is intended for experienced installers with adequate knowledge of vehicle repair, service and installation. Installation should be performed at a qualified service center or dealers with proper equipment.
- Be sure to keep this manual stored in a safe place for future reference.
- In the case of transferring ownership, always give this manual to the new owner.

Product Number
4298-0100-ME

2. Table of Contents

	Page
1. Product Name, Product Code, Vehicle Application, Preface	1
2. Table of Contents	2
3. (Table2) Signal Words and Their Meaning	2
4. Check First	3
5. (Table3) Contents Table	3
6. (Table4) Manual Information	3
7. Assemble Diagram Front	4
8. Assemble Diagram Rear	5
9. About <i>A'PEX NI DAMPER</i> Usage	6
10. To The Installer	7
11. Installation Process	7
12. Cautions After the Shocks Have Been Installed	8
13. How to Adjust Ride Height	8
14. About the Springs	9
15. About Vehicle Maintenance	9
16. Contact	9

3. Signal Words and Their Meaning

We have included various cautions and recommendations to prevent any harm to you or other people. These safety recommendations have been separated into categories with SIGNAL WORDS to denote the importance of each point. Please be sure to read all of these cautionary points to ensure safe installation of this product. Do not attempt installation of this product without a clear understanding of the risks involved.

(Table2) Signal words and their meaning

Signal word	Signal Word Meaning
⚠ DANGER	Failure to comply may result in potential death or severe injury to the user and third parties.
⚠ WARNING	Failure to comply may result in potential death or severe injury to the user and third parties.
⚠ CAUTION	Failure to comply may lead to light/medium injury and damage to the product and surroundings.
PLEASE	Failure to comply may affect product performance and may lead to product damage.

4. Check First

- *A'PEX NI DAMPERS* are engineered according to specific vehicle applications. Please confirm that this product matches with the vehicle application you have chosen.
- This product is composed of components listed in the contents table. Please notify the dealer of purchase for any missing or damaged components.
- Notify your dealer of purchase for any damaged or missing components **BEFORE installation.**
- Installation of the shock absorbers should be performed at an experienced shop, repair facility, or adequately equipped facility. A'PEX Integration Inc. is NOT responsible for any injury or damages incurred from the improper installation and use of this product.

5. (Table3) Contents Table

Product Code	Product Name	Amount	Comments
269AM020 (Full Kit)	FRONT (Right and Left are identical) SHOCK ABSORBER	2	
	REAR (Right and Left are identical) SHOCK ABSORBERS	2	
	SPRING (FRONT)	2	(7inch-448lb/in) (180mm-8kgf/mm)
	SPRING (REAR)	2	(7inch-336lb/in) (180mm-6kgf/mm)
	HEIGHT ADJUSTMENT WRENCH	2	
	NUT (M10×P1.25)	10	
	HEXAGON WRENCH	1	
	INSTRUCTION MANUAL	1	

6. Manual Information

No	Print Date	Product Number	Version
1	MAR 15 2005	4298-0100-ME	Ver.1

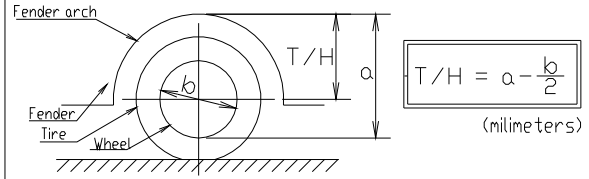
7. Assemble Diagram(Front)

< ⚠ Caution >
 The recommended height is for reference purposes only. Vehicle condition, grade, year, and options will affect actual ride height. Please adjust lower spring seat to attain recommended vehicle height.

*Fig #1

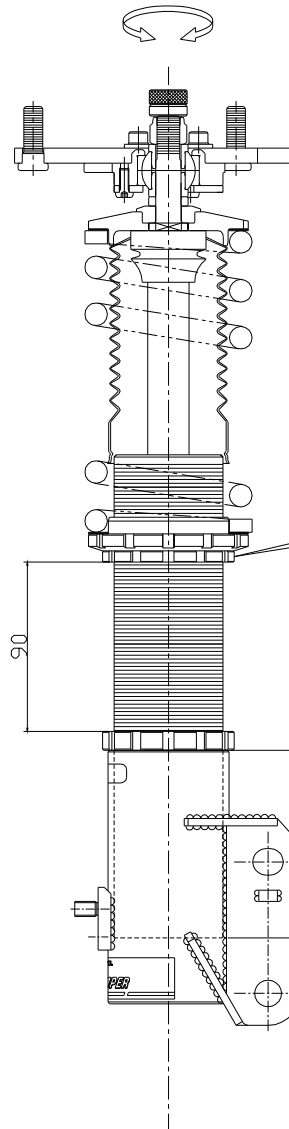
<What is trim height?>

→ Trim height(T/H) is the distance between the center of the wheel and the top of the fender arch when the vehicle is on the ground.
 *Be sure to settle suspension after lowering.



<Ride Stiffness Adjustment>

Adjust Ride Stiffness by rotating the knob of the Quick Adjuster.
 · Looking from top: Turn Right(Harder)
 · Looking from top: Turn Left(Softer)



Lock Nut Torque Specifications(M50×1.5)
 Over 3.5kgf · m(over 34.3N · m)

Recommended Ride Height

<<Target Height>>

Trim Height	Lowering Amount	Adjustment Range
360	-25	Up Side approx. 20 Down Side approx. 95

*Fig #3

The recommended height figures listed above have taken the total shock stroke length into account. When setting the shocks to a custom height, be sure to check clearance levels between the shock and vehicle. Make sure that the shock absorber has ample clearance with the wheel.

< ⚠ WARNING > *Fig #2

Keep the Adjust Case insertion position over 80mm as shown to the right, (Figure on the diagram denotes factory settings.) Imported setting of this position may cause maximum stroke and damage the shock absorber.

8. Assemble Diagram(Rear)

< ⚠ Caution >

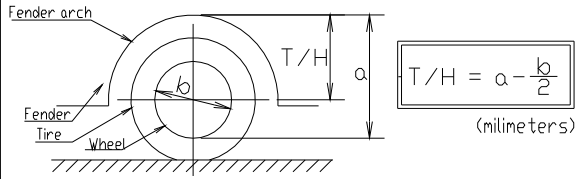
The recommended height is for reference purposes only. Vehicle condition, grade, year, and options will affect actual ride height. Please adjust lower spring seat to attain recommended vehicle height.

*Fig #1

<What is trim height?>

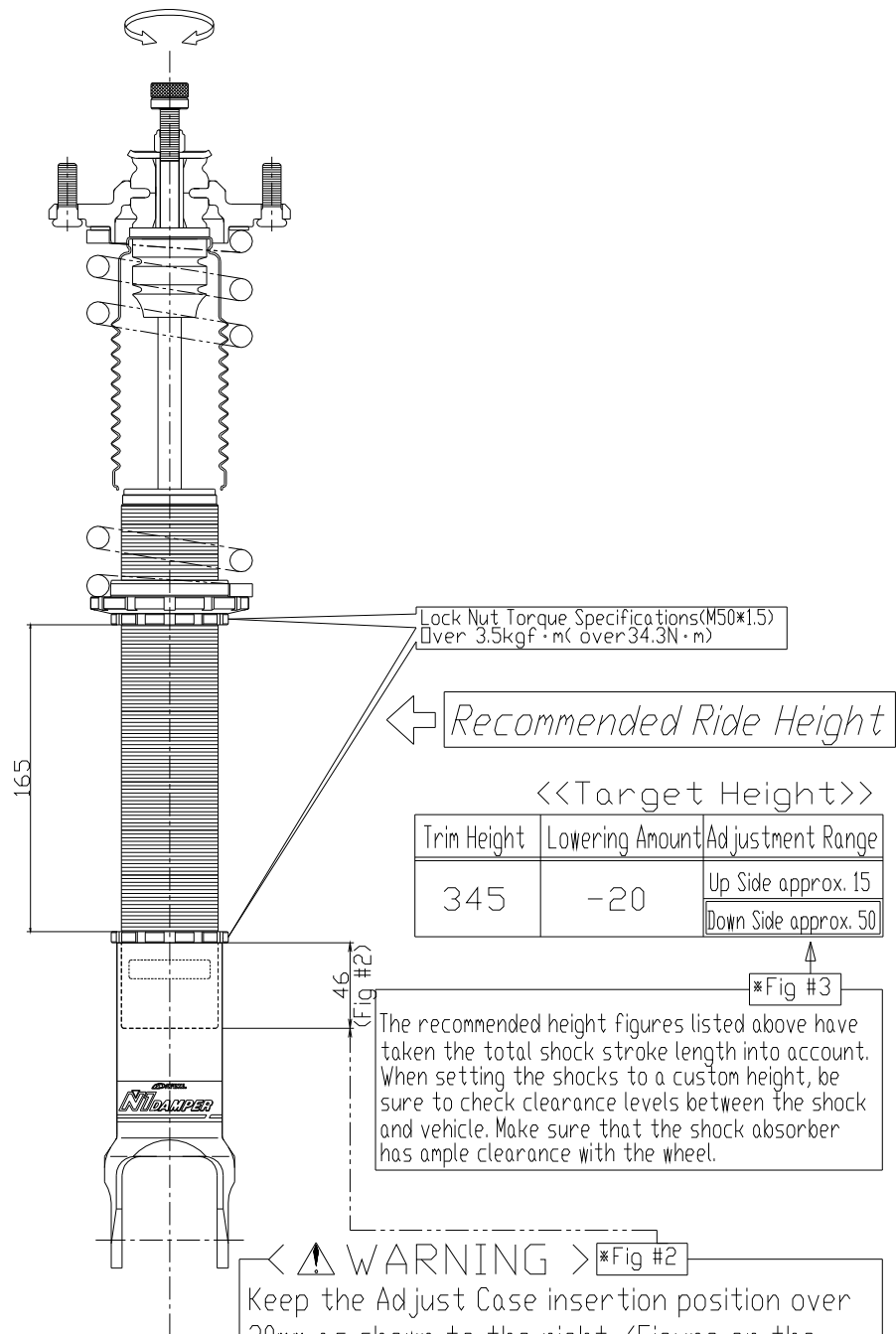
→ Trim height(T/H) is the distance between the center of the wheel and the top of the fender arch when the vehicle is on the ground.

*Be sure to settle suspension after lowering.



<Ride Stiffness Adjustment>

Adjust Ride Stiffness by rotating the knob of the Quick Adjuster.
 • Looking from top: Turn Right(Harder)
 • Looking from top: Turn Left(Softer)



Lock Nut Torque Specifications (M50*1.5)
 Over 3.5kgf·m (over 34.3N·m)

Recommended Ride Height

<<Target Height>>

Trim Height	Lowering Amount	Adjustment Range
345	-20	Up Side approx. 15 Down Side approx. 50

*Fig #3

The recommended height figures listed above have taken the total shock stroke length into account. When setting the shocks to a custom height, be sure to check clearance levels between the shock and vehicle. Make sure that the shock absorber has ample clearance with the wheel.

< ⚠ WARNING > *Fig #2

Keep the Adjust Case insertion position over 30mm as shown to the right, (Figure on the diagram denotes factory settings.) Imported setting of this position may cause maximum stroke and damage the shock absorber.

9. About *A'PEX NI DAMPER* Usage

⚠ DANGER

- Contents under extremely high gas pressure. Avoid storing this unit near high temperatures. Failure to do so may result in explosion.

⚠ WARNING

- This product has been engineered exclusively for the vehicle listed above. **DO NOT** install or use this product with any other type of vehicle. Failure to do so may result in injury and death.
- Installation of this product should be performed using the **VEHICLE SERVICE MANUAL** procedures for the applicable vehicle.
- Installation should **ONLY** be performed by an experienced installer. Failure to do so may result in improper installation and may lead to accidents. Installation should be performed at a certified and established repair center.
- **PLEASE USE THE FACTORY UPPER MOUNTS** for the *NI DAMPERS*. A'PEX Integration Inc. is **NOT** responsible for and injury or damages incurred through the use of other manufacture's products.
- Always use the included Bump Stops. Failure to do so may result in the shortened life of the shocks, poor performance, abnormal spring setting, and damage to the shocks.
- Never excessively lower the vehicle. This could lead to suspension failure, damage to the fender, damage to the wheels, and product failure. If the vehicle is lowered excessively, stop the vehicle and raise the ride height as soon as possible at a qualified repair shop.
- Be sure to test driver the vehicle after installation. Be sure to double check installation and tighten any bolts and components.
- Be sure to adjust ride height to conform to any local and federal laws. A'PEX is not responsible for any citation resulting from illegal adjustment of ride heights. Consult your local law enforcement agency to confirm legal ride height and headlight/bumper heights.

⚠ CAUTION

Rock and debris from snow and dirt driving can lead to oil leaks from the shocks. Be sure to check for excess debris on shaft of the shock to prevent this from happening.

PLEASE

- Strut type shock absorbers have a minimum amount of clearance between the cylinder case and the outer case to prevent friction. Some models may emit a slight noise or minor vibration. This is normal.
- In case of unusually excessive noise, check for proper installation of the shocks and check for any problems with the vehicle first. In the unlikely event of a product failure, discontinue use immediately, write down the product code, vehicle type, serial number, and place of purchase and contact your dealer of purchase.
The following symptoms are normal:
 - Internal Shock Absorber Sound: A whooshing sound coming from within the shock.
 - Strut Type Clearance Relation Sound: A slightly rattling sound coming from the cylinder case of the shock is normal.

10. To The Installer

⚠ DANGER

- **Never tighten the upper mount with an impact wrench.** Tighten the upper mounts according to the recommended torque specification listed below. Failure to do so may result in damage to the upper mount, bolt and may cause product failure.

Bolt size	Recommended torque	Comments
M10×1.25	17.6~23.5N·m(1.8~2.4kgf·m)	Standard Type
M12×1.25	27.4~34.3N·m(2.8~3.5kgf·m)	Standard Type
M12×1.25	36.3~50.0N·m(3.7~5.1kgf·m)	Strut type

- **Lower Spring Seat Torque Specifications**

Components	Tightening Torque	Comments
Lower Spring Seat, Lock Nut	Over 34.3N·m(3.5kgf·m)	All Vehicles

⚠ WARNING

- Always replace all 4 shocks at once.
- **Be sure to use the included nylon nut.** Always tighten to recommended torque specifications.
- **Never use an impact wrench or gun to install this product.** Failure to do so may result in severe thread damage.

⚠ CAUTION

- After installation, be sure to check if all nuts and bolts have been tightened to manufacture specifications. Also, check for ample clearance between the tire, fender, and any other related suspension components.
- Never hold the piston rod or cylinder case using tools. This could lead to oil leaks from the piston rod and cylinder case.
- Do not drop this product or scratch the piston rod.

PLEASE

- Be sure to return this manual to the owner after installation.

11. Installation Process

⚠ DANGER

- Always refer to the vehicle service manual when installing this product. Always use the appropriate tools and tighten to recommended torque specifications. Be sure to follow A'PEX recommended installation procedures when they differ from the factory procedure.
- Tighten the Lock Nut to the recommended torque specifications after confirming that there is no spring play with the lower spring seat. Failure to do so may cause the Lock Nut to loosen and lead to accidents.
- Always tighten the Lower Spring Seat and Lock Nut to the recommended torque specification.

⚠ CAUTION

- Hand tighten the lower spring seat against the spring so that there is no play between the spring and seat. Use the assembly diagram to adjust the lower seat to the recommended ride height.
- The recommended height is for reference purposes only. Vehicle condition, grade, year, and options will affect actual height. Please adjust the lower spring perch to obtain recommended trim height.
- When removing the spring form the shock absorber, lower the spring seat to relieve pre-loaded tension, or use a spring compressor. Be sure not to scratch the threaded outer case when using a spring compressor.
- Always test drive that the vehicle and check for any loose components or clearance problems.

12. Caution After the Shocks Have Been Installed

⚠ DANGER

- Some shock absorbers differ in construction for the left and right sides. Be sure to confirm proper sides by using the CONTENTS TABLE. Improper installation may lead to serious damage and accidents.

13. How to Adjust Ride Height

⚠ CAUTION

- Always use a lift, jacks, or jack stands when adjusting ride height. Raising the vehicle without the proper equipment may cause the unstable vehicle to fall leading to serious injuries.
- Be sure to adjust the left and right side height of the vehicle evenly. When adjusting the ride height, use an alignment tester or corner weight gauge. Improper alignment can lead to serious accidents.
- Be sure to tighten the lock nut. A loose lock nut is extremely dangerous. Please be sure to tighten the nut using the included wrench.
- Lowering the vehicle too much will result in inadequate stroke for the shock. This can lead to unstable handling and could cause accidents. Adjust the vehicle height to a well-balanced height.
- Vehicle height can be adjusted by adjusting the lower spring seat position. The lower spring seat will change 1.5mm per rotation. Adjustment amount and actual vehicle height may NOT be the same.

14. About the Springs

⚠ DANGER

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| <ul style="list-style-type: none">● Use care when handling the springs. Handling the springs using tools, hitting the spring with a hammer, grinding the spring with a file, and cutting the spring will compromise the spring performance. This could lead to spring damage. |
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⚠ CAUTION

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| <ul style="list-style-type: none">● Spring type will differ according to vehicle application. We recommend the springs included in the CONTENTS TABLE. Use of different springs must take vehicle type, acceptable stroke, and vehicle weight into account. Please contact your local dealer for more assistance. |
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15. About Vehicle Maintenance

PLEASE

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| <ul style="list-style-type: none">● Installation of this <i>A'PEX NI DAMPER</i> may cause the vehicle alignment to change. Improper alignment will cause abnormal tire wear. <u>Be sure to check alignment after installation using an alignment tester or corner weight scale.</u>● The <i>A'PEX NI DAMPER</i> allows for a wide range of vehicle ride heights. However, excessive vehicle lowering may cause dangerous handling characteristics and is not recommended. Please adhere to the recommended vehicle ride heights as close as possible. Also, take vehicle chassis clearance into account when lowering.● The <i>A'PEX NI DAMPER</i> allows for a wide range of vehicle ride heights. Excessive ride height changes can put excessive strain on the axles of a vehicle. Be sure to check for adequate grease and lubrication on the axles.● The <i>A'PEX NI DAMPER</i> allows for a wide range of vehicle ride heights. Excessive lowering may cause problems in tire and fender clearance as well as clearance with other suspension components. Take all of these factors into account when lowering the vehicle.● Shock absorbers will wear according to usage. Life expectancy will range according to driving style. Please contact your dealer of purchase to obtain information on recharging the shocks. |
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16. Contact

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