

## **HKS 80300-AN009**

# **HKS Hipermax S Series Coilovers Instruction Manual**

Model: 80300-AN009 for Nissan 370Z (VQ37VHR)

## **1. INTRODUCTION**

This manual provides detailed instructions for the installation, setup, operation, and maintenance of your HKS Hipermax S Series Coilovers, Model 80300-AN009. These coilovers are specifically designed for the 2009 and later Nissan 370Z with the VQ37VHR engine, offering enhanced performance and adjustable ride characteristics.

The HKS Hipermax S Series represents a new generation of suspension, combining advanced technology with HKS's extensive racing experience to deliver superior handling, ride comfort, and durability. Please read this manual thoroughly before installation and use to ensure proper function and safety.



*Image 1.1: Overview of HKS Hipermax S Series Coilovers components, including front and rear shock absorbers with springs, and adjustment tools.*

## 2. SAFETY INFORMATION

**Warning:** Installation of suspension components should only be performed by qualified professionals with appropriate tools and safety equipment. Improper installation can lead to serious injury or vehicle damage.

- Always use jack stands to support the vehicle when working underneath it.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure all fasteners are tightened to the manufacturer's specified torque values.
- After installation, perform a thorough inspection and a test drive in a safe area to confirm proper operation.
- Regularly inspect suspension components for wear, damage, or loose fasteners.

This product is intended for off-road or track use in some regions. Check local laws and regulations regarding vehicle modifications.

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## 3. PACKAGE CONTENTS

Before beginning installation, please verify that all components listed below are present and in good condition. Refer to the diagram for visual confirmation.

## セット内容の確認

取付け前に、下記のセット内容の有無・数量を確認してください。

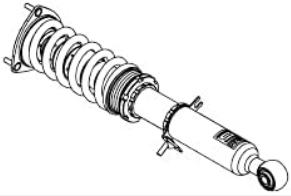
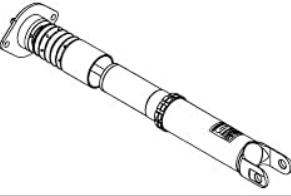
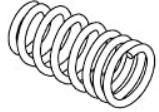
	フロントサスペンションASSY	2
	リアショックアブソーバASSY	2
	リアスプリング	2
	ライドハイトアジャスターASSY	2
	シート	2
	減衰力調整ダイヤル	1
	ボルト (M12)	2
	フックレンチ (12.7sq 穴付)	1
	ワッシャ	2
	フックレンチ	1
	スペーサー	4
	フランジナット (M12)	2
	取扱説明書 (本書)	1
	グロメット	2

Image 3.1: Diagram illustrating the complete list of components included in the HKS Hipermax S Series Coilovers kit.

**Table 3.1: HKS Hipermax S Series Coilovers Kit Contents**

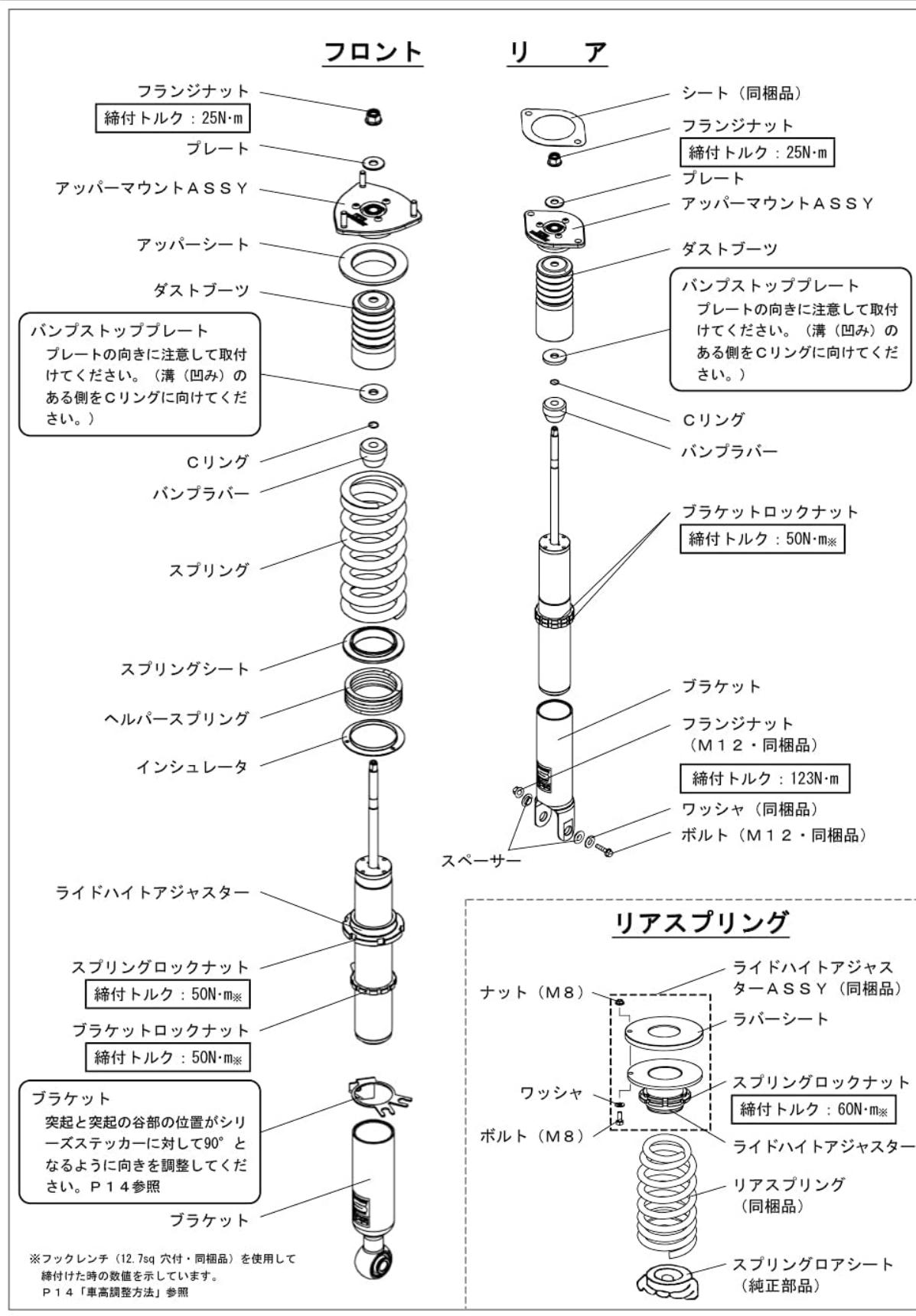
Item	Quantity
Front Suspension ASSY	2

Item	Quantity
Rear Shock Absorber ASSY	2
Rear Spring	2
Ride Height Adjuster ASSY	2
Seat	2
Damping Force Adjustment Dial	1
Bolt (M12)	2
Hook Wrench (with 12.7Sq hole)	1
Washer	2
Hook Wrench	1
Spacer	4
Warranty Card	1
Flange Nut (M12)	2
Instruction Manual (This document)	1
Grommet	2

## 4. INSTALLATION

This section outlines the general procedure for installing the HKS Hipermax S Series Coilovers. Always refer to a service manual for your specific vehicle (Nissan 370Z) for detailed removal and installation steps of OEM suspension components.

## サスペンションASSY構成図



イラストと実際の製品とは形状が異なる場合があります。

Image 4.1: Detailed configuration diagram for the HKS Hipermax S Series front and rear suspension assemblies, showing individual components and their arrangement.

### 4.1 General Installation Steps

1. **Preparation:** Lift the vehicle safely and support it with jack stands. Remove wheels.

2. **OEM Suspension Removal:** Carefully remove the original front and rear suspension assemblies according to the vehicle service manual.
3. **Coilover Assembly:** Assemble the HKS Hipermax S Series Coilovers. Pay close attention to the orientation of components like the bump stop plate (ensure the grooved/concave side faces the C-ring).
4. **Installation:** Install the new HKS coilover assemblies into the vehicle. Ensure all mounting points are correctly aligned.
5. **Tightening:** Tighten all bolts and nuts to the specified torque values.
  - Upper Mount Flange Nut: 25 N·m
  - Front Spring Lock Nut: 50 N·m
  - Front Bracket Lock Nut: 50 N·m
  - Rear Flange Nut (M12): 123 N·m
  - Rear Spring Lock Nut: 60 N·m
6. **Initial Ride Height Adjustment:** Perform an initial ride height adjustment as described in Section 5.1.
7. **Final Checks:** Reinstall wheels, lower the vehicle, and perform a final inspection of all installed components.

**Note:** The illustrations in this manual are for reference. Actual product shapes and specific vehicle mounting points may vary slightly. Ensure the protrusion and valley of the protrusion on the bracket are adjusted to be 90° to the sleeve case for proper ride height adjustment.

## 5. SETUP AND ADJUSTMENT

The HKS Hipermax S Series Coilovers offer extensive adjustability to fine-tune your vehicle's handling and ride comfort. Key features include a monotube design, inverted type for straight-type shocks, Dual PVS, WR Needle damping adjustment, Advanced Bump Rubber, PNE Coat, and reinforced rubber upper mounts.



単筒式	減衰力 30段階調整	全長調整式
倒立タイプ	専用スペシャル オイル	PNEコート
デュアルPVS	アルミブレケット	強化ゴム アッパー マウント
アドバンスド バンプラバー	WRニードル	仕様変更可
オーバーホール可	3年6万キロ保証	

※一部車両には採用していない部品があります。

#### 【単筒式を採用】

ハイバーマックスシリーズ伝統式の単筒式を採用。

#### 【ストラットタイプには倒立式を採用。】

応力に対してしっかりと剛性管を実現。走行時の様々な特性に有利に働き、優れたハンドリングや乗り心地が得られます。

#### 【DUAL PVS：デュアルプリロードバルブシステム】

S-style L, S-style C, MAX IV GT 20SPECにて採用し定評のあるプリロードバルブシステム（PVS）をデュアル化。伸び側の特性をスムーズにしつつ無駄な動きは抑えることで、路面に吸いつくような上質かつフラットな乗り心地がさらに洗練されたものとなりました。

#### 【WRニードル：ワイドレンジ減衰力調整機構】

ジェットニードルの形状を変更することでオイルの流れをスムーズにしつつ、最大流量の増加を図り減衰力30段調整のダイヤルによる変化量を拡大。従来モデルよりもソフト方向へセッティング幅が広がり、街乗り時のさらなる乗り味改善に効果を発揮します。

#### 【アドバンスパンプラバー】

バンプラバーをフルバンプ時の衝撃緩衝装置としてだけではなく、サスペンションチューニング要素としてセッティングにも活用。優れた柔軟性、耐久性を兼ね備えたバンプラバーを新規開発し、より自然で滑らかな走りを実現しました。

#### 【PNEコート】

全長調整式のネックとなっている鍛による固着を防止。また表面が滑らかになるため車高調性に要する力も少くなります。

#### 【強化ゴムアッパー マウント】

純正アッパー マウントより適度に引き締める目的で強化ゴムを採用。細かいボディ振動を吸収し、しなやかな走りを実現します。

#### 【美観へのこだわり】

アルミアッパー プレート採用機種にはレーザーマーキングによるロゴの刻印と端部の面取り加工を実施。手に触れたときの感触と見た目の質感向上を図りました。

#### 【3年6万キロ保証・オーバーホール可能】

従来のモデルより内部構造を大幅に見直し3年6万キロ保証を実現。社内試験機による評価だけでなく3年6万キロ以上の走行評価をおこない、耐久性を確認しています。

Image 5.1: Visual representation of key features of the HKS Hipermax S Series Coilovers, including internal components and design elements, alongside warranty details.

## 5.1 Ride Height Adjustment (Full Length Adjustable)

The Hipermax S Series features full-length adjustability, allowing you to change the vehicle's ride height without altering spring preload. This ensures optimal suspension travel regardless of ride height.

1. Loosen the spring lock nut and the bracket lock nut using the supplied hook wrenches.
2. Rotate the lower bracket to adjust the overall length of the coilover. Turning the bracket clockwise will lower the vehicle, and counter-clockwise will raise it.
3. Once the desired ride height is achieved, tighten both the spring lock nut and the bracket lock nut to their specified torque values (50 N·m for front, 60 N·m for rear spring lock nut).
4. Ensure the vehicle is on a level surface and measure the ride height at all four corners. Adjust as necessary to achieve an even stance.

## 5.2 Damping Force Adjustment (30-Step)

The coilovers feature a 30-step damping force adjustment mechanism (WR Needle) to fine-tune rebound and compression characteristics. This allows for a wide range of settings from soft for comfortable street driving to firm for aggressive track use.

1. Locate the damping force adjustment dial at the top of the front shock absorbers and at the bottom of the rear shock absorbers.
2. Turn the dial clockwise for firmer damping and counter-clockwise for softer damping. Each click represents one step of adjustment.
3. Start with a recommended setting (e.g., 15 clicks from full stiff) and adjust incrementally based on driving conditions and personal preference.
4. Always adjust both left and right sides equally to maintain balanced handling.

## 6. OPERATING GUIDELINES

After installing and setting up your HKS Hipermax S Series Coilovers, it is important to understand how they affect your vehicle's dynamics.

- **Break-in Period:** Allow for a break-in period of approximately 500-1000 miles (800-1600 km) for the suspension components to settle. During this time, avoid aggressive driving and extreme adjustments.
- **Alignment:** After any ride height adjustment, a professional wheel alignment is crucial to ensure proper handling, tire wear, and safety.
- **Driving Style:** Be aware that lowering your vehicle can reduce ground clearance. Exercise caution over speed bumps, potholes, and uneven terrain.
- **Seasonal Adjustments:** You may wish to adjust damping force settings for different seasons or driving conditions (e.g., softer for winter, firmer for summer performance).



*Image 6.1: A Nissan 370Z equipped with HKS Hipermax S Series Coilovers, demonstrating the lowered and enhanced stance of the vehicle.*

## 7. MAINTENANCE

Regular maintenance will ensure the longevity and optimal performance of your HKS Hipermax S Series Coilovers.

- **Cleaning:** Periodically clean the coilovers, especially after driving in harsh conditions (e.g., snow, salt, dirt). Use mild soap and water, then rinse thoroughly. Avoid high-pressure washers directly on seals.
- **Inspection:** Regularly inspect for signs of wear, damage, or leaks. Check for loose bolts, nuts, or worn bushings.
- **Thread Lubrication:** Apply a thin layer of anti-seize lubricant to the threaded sections of the shock body and ride height adjusters annually to prevent seizing, especially if you plan to make adjustments. The PNE Coat helps prevent rust and seizing.
- **Overhaul:** HKS Hipermax S Series Coilovers are designed to be overhaulable. If you notice a significant decrease in performance, persistent noise, or fluid leaks, consider having them professionally inspected and overhauled by an authorized HKS service center.

## 8. TROUBLESHOOTING

This section addresses common issues you might encounter with your coilovers.

**Table 8.1: Troubleshooting Guide**

Symptom	Possible Cause	Solution
<b>Uneven Ride Height</b>	Incorrect ride height adjustment; uneven spring preload; vehicle not on level ground during measurement.	Re-measure and adjust ride height on a level surface. Ensure spring lock nuts and bracket lock nuts are tightened correctly.
<b>Clunking/Rattling Noise</b>	Loose mounting bolts; worn bushings; spring coil bind; foreign object.	Inspect all mounting points and tighten to specifications. Check for damaged bushings or contact between components.
<b>Harsh Ride</b>	Damping force set too stiff; excessive spring preload; incorrect tire pressure.	Adjust damping force to a softer setting. Verify spring preload is within recommended range. Check tire pressure.
<b>Excessive Body Roll</b>	Damping force set too soft; insufficient spring rate for driving style.	Adjust damping force to a firmer setting. If issue persists, consult a professional for spring rate assessment.
<b>Fluid Leak from Shock Absorber</b>	Damaged seal; internal component failure.	This indicates a serious issue. Stop driving immediately and contact an authorized HKS service center for inspection and overhaul.

If you encounter an issue not listed here or if the suggested solutions do not resolve the problem, please contact HKS customer support or a qualified suspension specialist.

## 9. SPECIFICATIONS

Below are the general specifications for the HKS Hipermax S Series Coilovers, Model 80300-AN009.

- **Model Number:** 80300-AN009
- **Compatibility:** 2009+ Nissan 370Z (VQ37VHR)
- **Suspension Type:** Full-length adjustable, Monotube, Inverted (front)
- **Damping Adjustment:** 30-step (WR Needle)
- **Approximate Item Weight:** 50 pounds (22.68 kg)
- **Approximate Product Dimensions:** 64.2 x 27.9 x 19.6 inches (163.07 x 70.87 x 49.78 cm)
- **Manufacturer:** HKS

*Note: Spring rates and specific ride height ranges are typically provided in supplementary documentation or on the HKS official website for precise tuning.*

## 10. WARRANTY AND SUPPORT

HKS stands behind the quality and durability of its products.

### 10.1 Warranty Information

The HKS Hipermax S Series Coilovers come with a **3-year or 60,000 kilometer (whichever comes first) warranty**. This warranty covers manufacturing defects and ensures the product meets HKS's high standards for durability and performance. Please retain your proof of purchase for warranty claims. The coilovers are also designed to be overhaulable, allowing for extended lifespan and continued peak performance through professional servicing.

### 10.2 Customer Support

For technical assistance, warranty claims, or inquiries regarding overhaul services, please contact HKS customer support through their official website or your authorized HKS dealer. Provide your product model number (80300-AN009) and purchase details when seeking support.

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### Related Documents - 80300-AN009



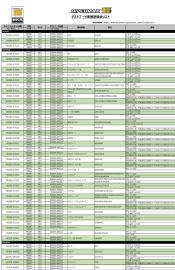
[HKS HIPERMAX S Suspension System Installation and Handling Manual for Hyundai IONIQ 5](#)

This manual provides comprehensive instructions for the installation, handling, and adjustment of the HKS HIPERMAX S suspension system, designed for the Hyundai IONIQ 5. It covers safety precautions, component lists, step-by-step installation guides for front and rear suspensions, damping force and ride height adjustment procedures, maintenance, troubleshooting, and development vehicle data.



[HKS HIPERMAX S Installation Manual for Tesla Model 3](#)

This manual provides detailed instructions for the installation, adjustment, and maintenance of the HKS HIPERMAX S suspension system for the Tesla Model 3. It covers safety precautions, parts list, front and rear suspension removal and installation, damping force adjustment, and ride height adjustment.



## HKS HIPERMAX S Dust Boot Vehicle Compatibility List

A comprehensive compatibility list for HKS HIPERMAX S dust boots, detailing part numbers, vehicle applications, and specifications for various car models.



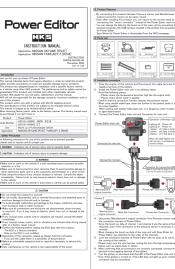
[HKS HIPERMAX MAX IV GT Installation Guide for Suzuki Swift Sport](#)

Comprehensive installation guide for the HKS HIPERMAX MAX IV GT suspension system designed for the Suzuki Swift Sport (ZC11S, ZC21S, ZC71S, ZC31S). This manual details parts lists, safety precautions, installation procedures for front and rear suspensions, ride height adjustment, and damping force adjustment.



HKS HIPERMAX G ( WRX STI VAB )

HKS HIPERMAX G WRX STI (VAB)



HKS Power Editor Instruction Manual for Nissan Skyline RV37 and Fairlady Z RZ34

Detailed instruction manual for the HKS Power Editor, a boost-up device for turbocharged vehicles like the Nissan Skyline RV37 and Fairlady Z RZ34. Covers installation, features, specifications, troubleshooting, and safety precautions.

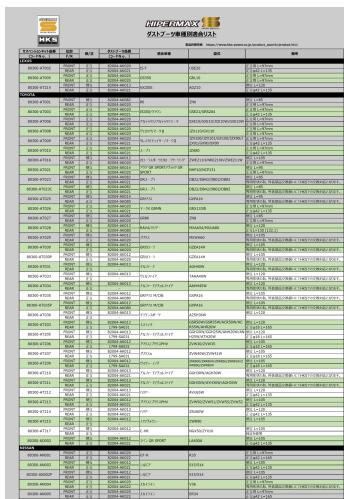


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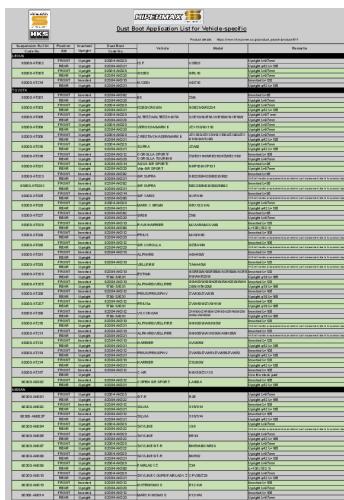
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[HKS HIPERMAX S Dust Boot Vehicle Compatibility List](#)

A comprehensive compatibility list for HKS HIPERMAX S dust boots, detailing part numbers, vehicle applications, and specifications for various car models.

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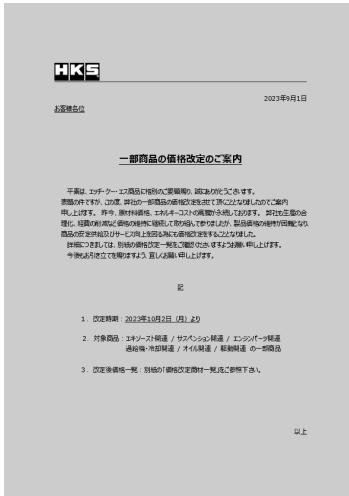


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parts III

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TOYOTA 80300-AT001 80300-AT00 ... 0-AD002 NISSAN 80300-AN001 80300-  
AN002 80300-AN002P 80300-AN004 80300-AN005 80300-AN007 80300-AN008  
**80300-AN009** 80300-AN010 80300-AN013 80300-AN014 Position Inverted/ F/R  
Upright FRONT REAR FRONT

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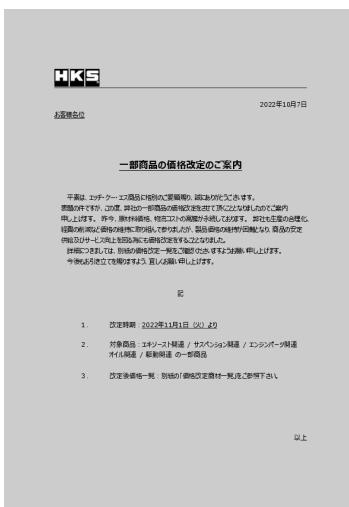
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通販・直営店・オンライン取扱 / オンライン取扱

3. 改定後価格一覧: 別紙の「価格改定資料一覧」をご参照下さい。

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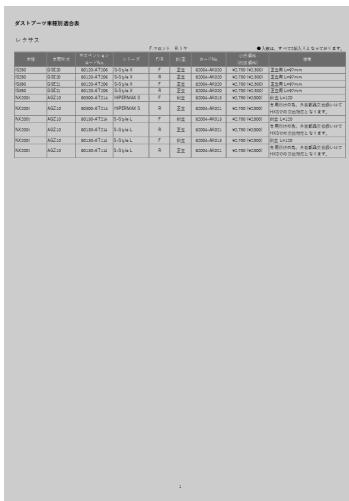
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オフィシャル店 / 直営店の一部商品

3. 改定後価格一覧: 別紙の「価格改定資料一覧」をご参照下さい。

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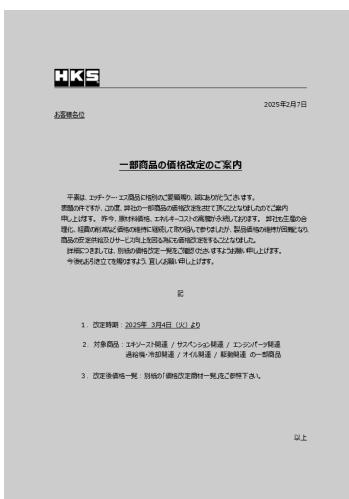
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[\[pdf\]](#) Catalog

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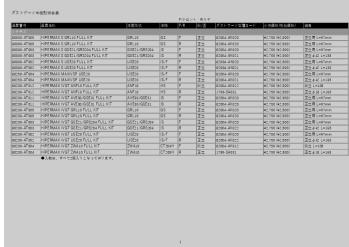
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