

Additional application for the DAMPER ZZ-R Spec DSC Plus has been confirmed for the TOYOTA ALPHARD/VELLFIRE (AGH4#/TAHA4#)

DAMPER ZZ-R ^{Spec} DSC Plus

Coil-over suspensions kit with electronically adjustable damping force. Wide range adjustability can finely balance driving performance and ride quality to meet your needs from the street to the circuit.



Front : 24mm Down / Rear : 25mm Down

[Click here for further information on DAMPER ZZ-R Spec DSC PLUS](#)

| (Vehicle) | (Model Year) | (Model) | (E/G Model) | (Code No.) | (JAN Code) |
|-----------------|--------------|------------------|--------------|------------|---------------|
| TOYOTA | | | | | |
| ALPHARD | 2023/06- | AGH40W,AGH45W | 2AR-FE | 98645 | 4959094986454 |
| ALPHARD HYBRID | | AAHH40W | A25A-5NM | | |
| ALPHARD HYBRID | | AAHH45W | A25A-5NM-4NM | | |
| VELLFIRE | | TAHA40W, TAHA45W | T24A-FTS | | |
| VELLFIRE HYBRID | | AAHH40W | A25A-5NM | | |
| VELLFIRE HYBRID | AAHH45W | A25A-5NM-4NM | | | |

Product Description

[Click here for price and availability](#)

- Industry first Full Auto Mode is able to automatically adjust the damping force depending on how the vehicle's balance changes depending on variables such as road condition and number of passengers.
- The UP/Down switch has been enlarged and an additional rotary switch has been employed to make complex operations easier.
- The damping force can be easily adjusted from a controller inside your vehicle (Choose from 96/64/32 levels of adjustment). By utilizing a stepping motor, a maximum of 96 levels of adjustment is possible to finely tune the vehicle setup for your desired ride quality.
- During map control mode, variables such as rotational G, acceleration G, and vehicle speed are taken into account when automatically adjusting the damping force. G can be displayed in real time and its peak value can be shown as well.
- Total of 22 presets can be saved. The ADVANCED mode allows complex and detailed management of the damping force.
- With the separately sold GPS sensor kit, the vehicle speed can be easily inputted.

| Product Specification | | |
|--------------------------|-------------------|-------------------|
| | Front | Rear |
| Length Adjustment | ○ | ○ |
| Shock Absorber Structure | Coilovers | Separate |
| Upright or Inverted | Upright | Upright |
| Upper Mount | Reinforced Rubber | Reinforced Rubber |
| Spring Rate kgf/mm | 6.5 | 9.5 |
| Free Length of Spring mm | 240 | 220 |
| Spring Type※ | BS | BS |
| Length Adjustment | -50 ~ 0 | -45 ~ -15 |



■ Remarks : 2WD/4WD Compatible. Unchecked with Well cab. Information on ride height from AAHH45W (ALPHARD HYBRID).

※Abbreviation for Spring Types 「ST:ID62 Straight Spring」, 「BS:Barrel or Tapered, Vehicle Specific Springs」

※Adjustability in ride height may vary between vehicles.

| Optional Parts | | | |
|-------------------------|----------|---------------------------------|--|
| Product Name | Code No. | Remarks | |
| DSC PLUS GPS Sensor Kit | 15214 | Easily input speed | |
| DSC PLUS Remote Switch | 15219 | Separate switch to change modes | |

Data taken from in house measurements. Measurements for the vehicle height may differ depending on the vehicle's grade and options. The distance from the ground to fender may differ even when your vehicle is set at the same measurements as the test vehicle. Please use the following data as a reference and adjust your vehicle height accordingly.

| メーカー (Manufacturer) | 車名 (Vehicle Name) | 型式 (Model) | 年式 (Model Year) | グレード (Grade) |
|------------------------|----------------------|---------------|--------------------|-----------------|
| TOYOTA | ALPHARD | AGH40W | 2023年9月 | Z |

| 確認車両情報 | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|-------------------------------|----------------------------|---------------------|---------------------|-----------------|
| 車両情報 (Vehicle Information) | 車重(kg) (Vehicle Weight) | 2080 | | |
| | 軸重(kg) (Axle Weight) | 1130 | 950 | |
| | タイヤサイズ (Tire Size) | 225/65 R17 | 225/65 R17 | |
| | ホイールサイズ (Wheel Size) | 17inch 6.5J Inset40 | 17inch 6.5J Inset40 | |
| | レバー比 (Lever Ratio) | 1.0 | 1.2 | |
| アライメントデータ (Alignment Data) | トー (Toe) | +0°01' | +0°18' | |
| | キャンバー (Camber) | -2°10' | -1°51' | |
| | キャスター (Caster) | +5°42' | - | |

| DAMPER ZZ-R Spec. | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|--------------------------|---|-------------------------------|---------------------------|-----------------------------------|
| DAMPER ZZ-R 仕様(Spec.) | スプリングレート(kgf/mm) (Spring Rate) | 6.5 | 9.5 | |
| | スプリング自由長(mm) (Free Length of Spring) | 240 | 220 | |
| | スプリング内径(mm) (Spring Inner Diameter) | φ62 - (φ115) - φ62 | φ91.5 - (φ145) - φ78.5 | |
| | 減衰力調整段数 (Damping force Adjustment) | 1段 ~ 32段 (HARD) (SOFT) | 1段 ~ 32段 (HARD) (SOFT) | DSC Plus装着時 32,64,96段へ変更可能 |
| | 地面~フェンダー(mm) (Ground~Fender) | 737 | 738 | |
| | 基準車高(mm) (Difference from Stock) | -33 | -31 | |
| | 車高調整範囲(mm) (Height Adjustment Range) | -50 ~ 0 | -40 ~ -5 | |
| | 最低地上高(mm) (Minimum Ground Clearance) | 108mm (リアサスペンションメンバー下マフラーパイプ) | | ※ホイールベース3000mmの為、 最低地上高100mm以上 |

| | | | |
|---|-----|-----|-----------------------------|
| 初めてご使用される際の推奨減衰力 (Recommended Damping force) | 28段 | 28段 | 左記に記載の減衰に合わせて てからご使用ください |
|---|-----|-----|-----------------------------|

※Product shipped at damping force of 16. Turn the dial all the way to the right for level 1 which is the hardest.

※During installation turn the dial all the way to the right and then make adjustment towards the left accordingly.

Product Description

- Cornering performance has been improved by lowering the center of gravity.
- Lower the vehicle for a more stylish form.
- Increase the damping force for better stability during higher speeds.
- Make adjustments to the damping force to optimize ride quality depending on number of passenger and road condition.
- The suspension has been made to allow sufficient bump and rebound stroke for optimal ride comfort.
- For vehicles above 80km/h increase the damping force by 4-6 clicks to improve vehicle stability.
- Developed to provide excellent ride quality for passengers in the 2nd and 3rd row seats.

DAMPER ZZ-R Spec & Vehicle Information



Data taken from in house measurements. Measurements for the vehicle height may differ depending on the vehicle's grade and options. The distance from the ground to fender may differ even when your vehicle is set at the same measurements as the test vehicle. Please use the following data as a reference and adjust your vehicle height accordingly.

| メーカー (Manufacturer) | 車名 (Vehicle Name) | 型式 (Model) | 年式 (Model Year) | グレード (Grade) |
|------------------------|----------------------|---------------|--------------------|------------------|
| TOYOTA | ALPHARD HYBRID | AAHH45W | 2023年7月 | Executive Lounge |

| 確認車両情報 | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|-------------------------------|----------------------------|---------------------|---------------------|-----------------|
| 車両情報 (Vehicle Information) | 車重(kg) (Vehicle Weight) | 2290 | | |
| | 軸重(kg) (Axle Weight) | 1200 | 1090 | |
| | タイヤサイズ (Tire Size) | 225/65 R17 | 225/65 R17 | |
| | ホイールサイズ (Wheel Size) | 17inch 6.5J Inset40 | 17inch 6.5J Inset40 | |
| | レバー比 (Lever Ratio) | 1.0 | 1.2 | |
| アライメントデータ (Alignment Data) | トー (Toe) | +0°04' | +0°06' | |
| | キャンバー (Camber) | -1°44' | -1°50' | |
| | キャスター (Caster) | +5°42' | - | |

| DAMPER ZZ-R Spec. | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|--------------------------|---|-------------------------------|---------------------------|-----------------------------------|
| DAMPER ZZ-R 仕様(Spec.) | スプリングレート(kgf/mm) (Spring Rate) | 6.5 | 9.5 | |
| | スプリング自由長(mm) (Free Length of Spring) | 240 | 220 | |
| | スプリング内径(mm) (Spring Inner Diameter) | φ62 - (φ115) - φ62 | φ91.5 - (φ145) - φ78.5 | |
| | 減衰力調整段数 (Damping force Adjustment) | 1段 ~ 32段 (HARD) (SOFT) | 1段 ~ 32段 (HARD) (SOFT) | DSC Plus装着時 32,64,96段へ変更可能 |
| | 地面~フェンダー(mm) (Ground~Fender) | 735 | 735 | |
| | 基準車高(mm) (Difference from Stock) | -24 | -25 | |
| | 車高調整範囲(mm) (Height Adjustment Range) | -50 ~ 0 | -45 ~ -15 | |
| | 最低地上高(mm) (Minimum Ground Clearance) | 108mm (リアサスペンションメンバー下マフラーパイプ) | | ※ホイールベース3000mmの為、 最低地上高100mm以上 |

| | | | |
|---|-----|-----|-----------------------------|
| 初めてご使用される際の推奨減衰力 (Recommended Damping force) | 26段 | 28段 | 左記に記載の減衰に合わせて てからご使用ください |
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DAMPER ZZ-R Spec & Vehicle Information



Data taken from in house measurements. Measurements for the vehicle height may differ depending on the vehicle's grade and options. The distance from the ground to fender may differ even when your vehicle is set at the same measurements as the test vehicle. Please use the following data as a reference and adjust your vehicle height accordingly.

| メーカー (Manufacturer) | 車名 (Vehicle Name) | 型式 (Model) | 年式 (Model Year) | グレード (Grade) |
|------------------------|----------------------|---------------|--------------------|-----------------|
| TOYOTA | VELLFIRE | TAHA40W | 2023年9月 | Z Premier |

| 確認車両情報 | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|-------------------------------|----------------------------|-------------------|-------------------|-----------------|
| 車両情報 (Vehicle Information) | 車重(kg) (Vehicle Weight) | 2180 | | |
| | 軸重(kg) (Axle Weight) | 1200 | 980 | |
| | タイヤサイズ (Tire Size) | 225/55 R19 | 225/55 R19 | |
| | ホイールサイズ (Wheel Size) | 19inch 7J Inset40 | 17inch 7J Inset40 | |
| | レバー比 (Lever Ratio) | 1.0 | 1.2 | |
| アライメントデータ (Alignment Data) | トー (Toe) | +0°06' | +0°11' | |
| | キャンバー (Camber) | -1°59' | -1°42' | |
| | キャスター (Caster) | +5°44' | - | |

| DAMPER ZZ-R Spec. | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|--------------------------|---|---------------------------|---------------------------|-----------------------------------|
| DAMPER ZZ-R 仕様(Spec.) | スプリングレート(kgf/mm) (Spring Rate) | 6.5 | 9.5 | |
| | スプリング自由長(mm) (Free Length of Spring) | 240 | 220 | |
| | スプリング内径(mm) (Spring Inner Diameter) | φ62 - (φ115) - φ62 | φ91.5 - (φ145) - φ78.5 | |
| | 減衰力調整段数 (Damping force Adjustment) | 1段 ~ 32段 (HARD) (SOFT) | 1段 ~ 32段 (HARD) (SOFT) | DSC Plus装着時 32,64,96段へ変更可能 |
| | 地面～フェンダー(mm) (Ground～Fender) | 745 | 742 | |
| | 基準車高(mm) (Difference from Stock) | -26 | -34 | |
| | 車高調整範囲(mm) (Height Adjustment Range) | -55 ~ 0 | -40 ~ -10 | |
| | 最低地上高(mm) (Minimum Ground Clearance) | 119mm (マフラーパイプ) | | ※ホイールベース3000mmの為、 最低地上高100mm以上 |

| | | | |
|---|-----|-----|-----------------------------|
| 初めてご使用される際の推奨減衰力 (Recommended Damping force) | 26段 | 26段 | 左記に記載の減衰に合わせて てからご使用ください |
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|------------------------|----------------------|---------------|--------------------|------------------|
| TOYOTA | VELLIRE HYBRID | AAHH45W | 2023年7月 | Executive Lounge |

| 確認車両情報 | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|-------------------------------|----------------------------|-------------------|-------------------|-----------------|
| 車両情報 (Vehicle Information) | 車重(kg) (Vehicle Weight) | 2330 | | |
| | 軸重(kg) (Axle Weight) | 1220 | 1100 | |
| | タイヤサイズ (Tire Size) | 225/55 R19 | 225/55 R19 | |
| | ホイールサイズ (Wheel Size) | 19inch 7J Inset40 | 19inch 7J Inset40 | |
| | レバー比 (Lever Ratio) | 1.0 | 1.2 | |
| アライメントデータ (Alignment Data) | トー (Toe) | +0°04' | +0°06' | |
| | キャンバー (Camber) | -2°06' | -1°51' | |
| | キャスター (Caster) | +5°31' | - | |

| DAMPER ZZ-R Spec. | | フロント (Front) | リア (Rear) | 備考 (Remarks) |
|--------------------------|---|-------------------------------|---------------------------|-----------------------------------|
| DAMPER ZZ-R 仕様(Spec.) | スプリングレート(kgf/mm) (Spring Rate) | 6.5 | 9.5 | |
| | スプリング自由長(mm) (Free Length of Spring) | 240 | 220 | |
| | スプリング内径(mm) (Spring Inner Diameter) | φ62 - (φ115) - φ62 | φ91.5 - (φ145) - φ78.5 | |
| | 減衰力調整段数 (Damping force Adjustment) | 1段 ~ 32段 (HARD) (SOFT) | 1段 ~ 32段 (HARD) (SOFT) | DSC Plus装着時 32,64,96段へ変更可能 |
| | 地面～フェンダー(mm) (Ground～Fender) | 743 | 745 | |
| | 基準車高(mm) (Difference from Stock) | -15 | -16 | |
| | 車高調整範囲(mm) (Height Adjustment Range) | -50 ~ 0 | -40 ~ -10 | |
| | 最低地上高(mm) (Minimum Ground Clearance) | 123mm (リアサスペンションメンバー下マフラーパイプ) | | ※ホイールベース3000mmの為、 最低地上高100mm以上 |

| | | | |
|---|-----|-----|-----------------------------|
| 初めてご使用される際の推奨減衰力 (Recommended Damping force) | 24段 | 26段 | 左記に記載の減衰に合わせて てからご使用ください |
|---|-----|-----|-----------------------------|

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