

DFV | Club Race Damper Set Setup Addendum



This Öhlins damper set features adjustable shock length and spring preload. These independent adjustments provide significant tuning flexibility, but incorrect use will result in poor performance—even if ride height appears correct.

This addendum outlines the correct setup process for establishing shock length and spring preload.

Key Concepts

Shock Length — Sets Maximum Compression Travel

Determines how far the tire can travel into the fender.

- Shorter → More compression travel → Increased risk of contact and over traveling
- Longer → Less compression travel → Acts as a mechanical limit

Must be set based on actual vehicle (e.g. modified fenders, tire size, travel limitations, etc.).

Spring Preload — Sets Ride Height & Balance

Used to set ride height and corner balance.

- Does **not** control suspension travel
 - Must not compensate for incorrect shock length
-

Setup Procedure

1 — Set Shock Length (First)

- Install damper with loose length adjuster **without spring or bumpstop** (if possible)
- Install wheel/tire and fully compress suspension to bottom-out
- Check total tire clearance

Adjust length to eliminate contact while maximizing travel.

Suggested length is a starting point only and must be verified on the vehicle.

2 — Set Spring Preload

- Install spring package
 - Adjust preload for ride height
 - Finalize with corner balancing
-

Spring Package Requirements

- Main spring alone may be loose at full droop (normal for higher spring rates)
- **Helper spring may be required** to maintain seating

Critical: Total available spring travel (main + helper) remaining after preload, must **exceed damper stroke** to prevent coil bind. Damper strokes listed in mounting instruction.

Installation & Setup Record



Vehicle Suspension Installation & Initial Setup Documentation to be given to the installer to complete.

Vehicle Year	Make	Model	VIN (Optional)
Product Part No.	Installer / Dealer	Install Date	Mileage
Wheel/Tire Setup	Alignment Notes	Customer Name	Phone/Email

1. Original Ride Height Measurements

Measure vertically from wheel center to fender lip on level ground with proper tire pressures set.

LF	RF	LR	RR
mm / in	mm / in	mm / in	mm / in

2. Compressed Shock Length Comparison

Measure top of mount to center of hardware with shock compressed and bumpstop removed where applicable. Otherwise, take bumpstop length into account.

	OEM Shock	Öhlins Shock
Front	mm	mm
Rear	mm	mm

Note: Some applications may not allow bump stop removal due to internal bump stop design or integrated strut construction.

3. Initial Damper Settings

Measured from full stiff: turn adjuster fully clockwise, then back off desired number of clicks.

LF	RF	LR	RR
clicks	clicks	clicks	clicks

4. Spring Rate and Preload

Measure spring package length on the bench excluding hardware after preloaded.

Front Rate	N/mm / lb/in	Preload	mm
Rear Rate	N/mm / lb/in	Preload	mm

5. Final Installed Setup

Final ride height after installation and corner balance.

LF	RF	LR	RR
mm / in	mm / in	mm / in	mm / in

Important Information: This product is intended for off-road use only and not intended for street use. For installation, setup, ride height, fitment, or clearance questions, contact the installing dealer or the authorized Öhlins dealer the product was purchased from. Vehicle ride height, wheel/tire fitment, alignment settings, and suspension travel clearance are the responsibility of the installer.

Installer Signature	Customer Signature
Date	Customer Copy Retained
	Yes / No

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



Note!

Please note that there can be small differences between your product and the images in these instructions.

Note!

Please note that during storage and transport, especially at high ambient temperature, some of the oil and grease used for assembly may leak and stain the packaging. This will not cause damage to the product, wipe off the excessive oil or grease with a cloth.

Note! Springs are not included. A custom package must be specified separately in collaboration with an authorized Öhlins dealer. The installer is responsible for verifying proper fitment and safe operation.

Kit Contents			
	Description	Part No	Pcs
1	Shock absorber		2
2	Dust boot	10216-02	2
3	Plastic spring spacer	25602-01	2
4	Spring		0
5	Rubber spring spacer	25601-01	2
6	Upper spring seat	24637-01	2
7	Spacer	24629-25	2
8	Nut (M12)	95702-12	2
9	ABS cord clamp	24624-01	2
10	Nut flange (M8)	04777-02	2
11	Bolt (M6)	24617-01	2
12	Spacer		2
13	C-spanner	24639-01	1
14	C-spanner	24639-03	1
15	Öhlins sticker kit	10207-01	1
16	Öhlins emblem kit	10207-02	1
17	Öhlins Owners manual	07451-01	1

Note!

Before you install this product, check the kit contents. If anything is missing, please contact an Öhlins dealer.

Warning!

Before you install this product, read the Öhlins Owner's manual. This product is an important part of the vehicle and the vehicle stability.

Note!

Damper sets are off-road use only.

Club Race | DFV Damper Set for Subaru BRZ, Toyota 86/GR86 GT86, Scion FR-S

U40028-01 front

Mounting Instructions



MOUNTING INSTRUCTIONS

⚠ Warning!

It is advisable to have an Öhlins dealer install the shock absorber.

When installing, read your Vehicle Service Manual.

1

Raise the vehicle and put it on jack stands.

⚠ Warning!

Ensure that it is securely supported.

2

Remove the front wheels.

3

Loosen the bolts for the lower strut attachments.

⚠ Caution!

Support the wheel hubs in an appropriate way on each side of the vehicle so that the brake hose and/or drive shaft joint can not be damaged.

4

Loosen the upper attachment. Remove the original struts from the car.

5

Remove the brake hose brackets from the standard struts.

6

If using, cut the dust boot 20 mm from the lower end with a pair of scissors according to fig 2.

7

Fit the dust boot, the plastic spring spacer, the spring, the rubber spring spacer and the upper spring seat to the strut according to fig 1. Fit the top pin spacer, the top mount and the M12 lock nut. Tighten the lock nut to 35 - 40 Nm.

Solid top mount with camber adjustment is available as option (part number 25633-43 for left front and 25633-44 for right front (see fig 4). Height of the vehicle is needed to be adjusted when changing to solid top mounts.

Fig. 1

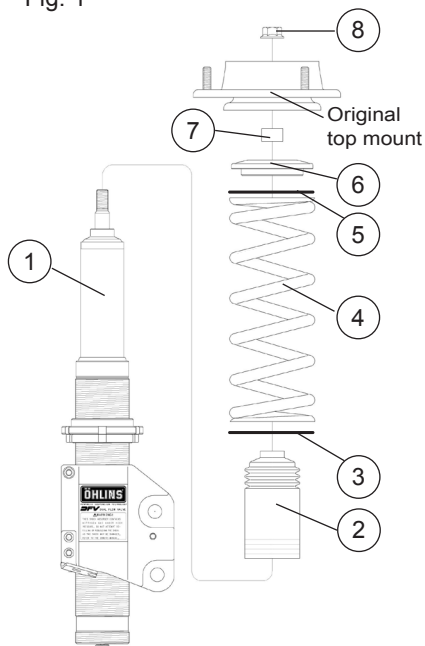
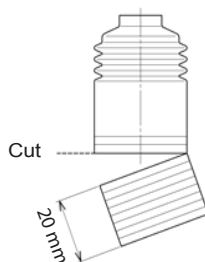


Fig. 2



MOUNTING INSTRUCTIONS

□ Note!

When tightening the top mount nut, the shock absorber shaft must be held in position with a 5 mm Allen key.

8

Install the Öhlins McPherson struts on the vehicle.

9

Fasten the upper attachments.

10

Raise the wheel hub with a jack to remove the freeplay of the lower strut attachment bolts before tightening them.

11

Adjust the preload and lower bracket position according to fig 5. Tighten the lower spring seat and the lock ring to 50 - 60 Nm).

12

Mount the ABS cord clamp to the Öhlins struts. Tighten the M6 bolts to 6 Nm. Fix the ABS cord by bending the ABS cord clamp according to fig 3.

13

Tighten the lower bracket Allen bolts to 10-15Nm. Mount the OEM ARB links with the spacer (10 mm) according to fig 3.

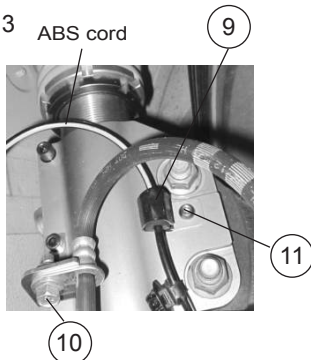
□ Note!

Make sure that all bolts are tightened to the correct torque and that nothing fouls or restricts movement of the strut when it is being fully compressed or extended. Test this over the whole steering range from lock to lock. This is very important if you have installed an after market sway bar end link!

14

Make sure that all removed parts are reinstalled in the same way as they were before the installation of the Öhlins shock absorber.

Fig. 3



⚠ Caution!

Assemble this spacer (10 mm) between the bracket and the ARB link.

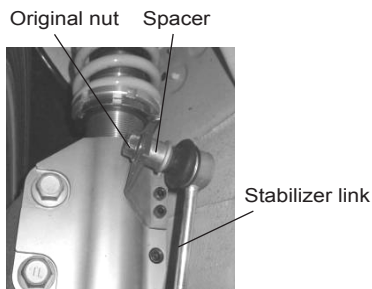
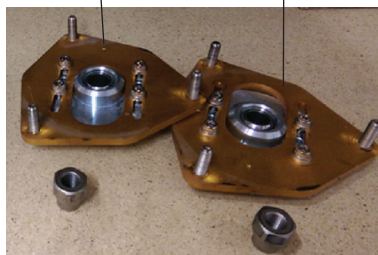


Fig. 4 Left front:
25633-43

Right front:
25633-44



ADJUSTMENTS

Strut Length (Sets Bottom-Out Point) Start with a strut length of 314 mm (top of mount to first lower clevis bolt).

For setup, install the damper with the length adjuster loose and the spring removed, then fully compress the suspension until the shock bottoms out. Check tire clearance at this point.

If contact occurs, lengthen the shock. If additional upward travel is desired and clearance allows, the shock may be shortened at installer discretion. NOTE the internal bumpstop is 20mm.

Spring Preload (Sets Ride Height)

After shock length is set, use spring preload to set ride height and corner balance.

With the high spring rates this kit is tuned for, the main spring may be loose at full droop (car lifted). A helper spring is required to keep the spring seated.

Target approximately 60% bump / 40% droop (~43 mm at wheel). This is a guideline, not exact.

SETUP DATA

Spring package	>105	mm
Minimal spring rate	70	N/mm
Maximum spring rate	110	N/mm
Clicker range	20	clicks
Target droop at wheel	43	mm

Öhlins products are subject to continuous improvement and development, therefore, although these instructions include the most up-to-date information available at the time of printing, minor updates may occur.

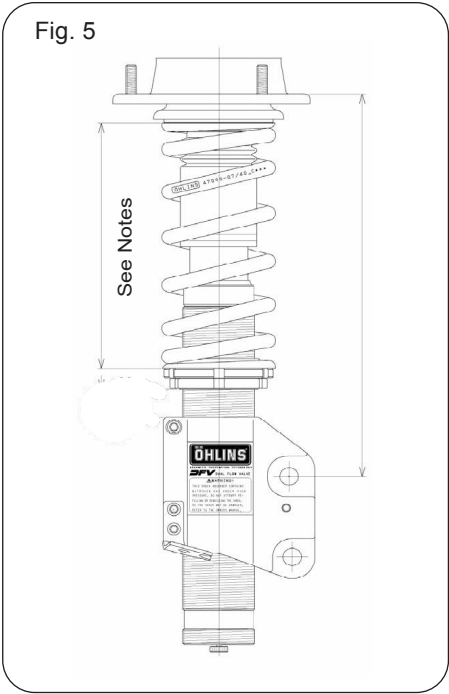
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To find the latest information contact an Öhlins distributor. Please contact Öhlins if you have any questions regarding the contents in this document.

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Fig. 5



⚠ Warning!

The shock adjustment range is limited to the thread indication line on the threaded shock body. Do not drive the car with this extended limit line exposed.



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☐ **Note!**

Please note that there can be small differences between your product and the images in these instructions.

☐ **Note!**

Please note that during storage and transport, especially at high ambient temperature, some of the oil and grease used for assembly may leak and stain the packaging. This will not cause damage to the product, wipe off the excessive oil or grease with a cloth.

Kit Contents

	Description	Part No	Pcs
1	Shock absorber		2
2	Dust boot	10216-01	2
3	Rubber spring spacer	25601-01	2
4	Spring		0
5	Spring seat	25618-11	2
6	Spacer	24629-26	4
7	Lock nut (M10)	24627-01	2
8	Adjuster	24631-04	2
9	Bushing spacer	24629-06	4

☐ **Note!**

Before you install this product, check the kit contents. If anything is missing, please contact an Öhlins dealer.

☐ **Warning!**

Before you install this product, read the Öhlins Owner's manual. This product is an important part of the vehicle and the vehicle stability.

Club Race | DFV Damper Set for Subaru BRZ, Toyota 86/GR86 GT86, Scion FR-S

U40028-01 rear

Mounting Instructions



MOUNTING INSTRUCTIONS

⚠ Warning!

It is advisable to have an Öhlins dealer install the shock absorber.

When installing, read your Vehicle Service Manual.

1

Raise the vehicle and put it on jack stands.

⚠ Warning!

Ensure that it is securely supported.

2

Remove the rear wheels.

3

Remove the lower and the upper attachments and remove the original shock absorbers.

4

If Using, cut the dust boot 70mm from the lower end with a pair of scissors according to fig 1.

5

Tighten the lower spring seat and the lock ring to 50 - 60 Nm.

Fit the two bushing spacers, the dust boot, the spring, plastic seat, the top mount, the spacer and the Lock nut according to fig 2. Tighten the lock nut to 20 Nm. Fit the adjuster to the damper according to fig 2.

Solid top mount is available as option (part number 25633-45 see fig 3). Note that you need two pieces for one car. Height of the vehicle is needed to be reset when changing to solid top mounts.

□ Note!

When tightening the top mount nut, the shock absorber shaft must be held in position with a 4 mm Allen key.

□ Note!

For one kit you need two top mounts with bearings.

Fig. 1

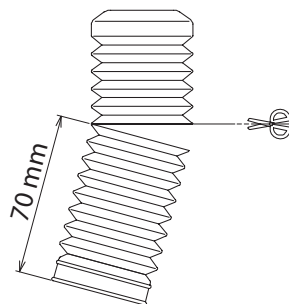


Fig. 2

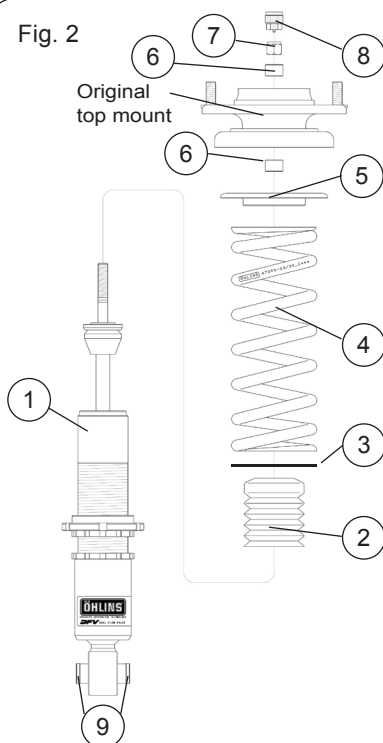


Fig. 3



MOUNTING INSTRUCTIONS

6

Install the Öhlins shock absorbers on the vehicle.

7

Fasten the upper attachments.

☐ **Note!**

Make sure that all bolts are tightened to the correct torque and that nothing fouls or restricts movement of the absorber when it is being fully compressed or extended.

8 - Optional

For easier access to the adjuster, drill a Ø20 hole in the side panel according to fig 4, and install the adjuster.

9

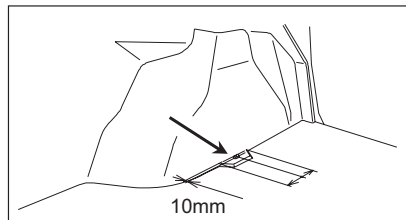
Make sure that all removed parts are reinstalled in the same way as they were before the installation of the Öhlins shock absorber.

Fig. 4

Left side of vehicle body inside trunk room.



Make a Ø20 mm hole in the side panel in the shown position.



Make a Ø20 mm hole in the center of the lip.

ADJUSTMENTS

Shock Length (Sets Bottom-Out Point)

Start with a shock length of 381 mm (top of mount to lower clevis bolt).

For setup, install the damper with the length adjuster nut loose and the spring and bump stop removed, then fully compress the suspension until the shock bottoms out. Check tire clearance at this point.

If contact occurs, lengthen the shock. If additional upward travel is desired and clearance allows, the shock may be shortened at installer discretion.

Spring Preload (Sets Ride Height)

After shock length is set, use spring preload to set ride height and corner balance.

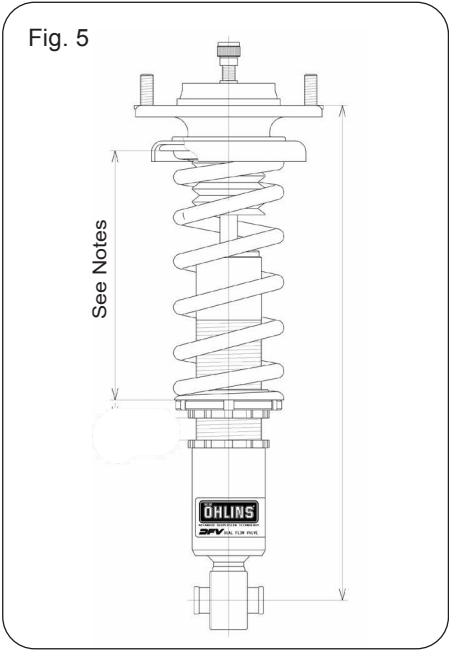
With the high spring rates this kit is tuned for, the main spring may be loose at full droop (car lifted). A helper spring is required to keep the spring seated.

Target approximately 60% bump / 40% droop (~43 mm at wheel). This is a guideline, not exact.

SETUP DATA

Spring package	>83	m m
Minimal spring rate	70	N/mm
Maximum spring rate	110	N/mm
Clicker range	20	clicks
Target droop at wheel	43	mm

Fig. 5



⚠ Warning!

The shock adjustment range is limited to the thread indication line on the threaded shock body. Do not drive the car with this extended limit line exposed.

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