

**DMS North America**

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[www.dmsnorthamerica.com](http://www.dmsnorthamerica.com)

**IMPREZA 40MM  
OWNERS MANUAL**

**DISCLAIMER**

THESE INSTRUCTIONS ARE DESIGNED TO SUIT  
DMS SUSPENSION KITS. DMS OR ITS AFFILIATES ARE NOT  
RESPONSIBLE FOR ANY FAILURES OR DAMAGE AS A  
RESULT OF IMPROPER INSTALLATION OR SETUP.

**IT IS IMPORTANT  
THAT THESE INSTRUCTIONS ARE  
READ CAREFULLY BEFORE USE AND SETUP.**

DMS SHOCK ABSORBERS ARE DESIGNED FOR COMPETITION AND  
HIGH END USE. AS SUCH THESE UNITS WILL REQUIRE  
MAINTENANCE AND REBUILDS FROM TIME TO TIME BASED ON  
USAGE AND CONDITIONS.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT  
YOUR LOCAL DISTRIBUTOR OR MANUFACTURER.

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## **CARSET INSTALLATION INSTRUCTIONS**

### SUBARU IMPREZA (all models)

DMS (all models) Shock Absorber Sets.

#### **Step 1.**

Jack up front of car and place securely on jack stands. Jack up rear of car and place on jack stands.



#### **Step 2.**

Record camber settings after removing all wheels. Remove all lines and ABS sensors from struts. Remove shock absorbers.

#### **Step 3.**

Transfer old top mount or install new top mounts on DMS suspension. Be careful not to rest suspension on adjuster knob at bottom of unit. New style Impreza is recommended to use DMS adapter plates with GC8 mount or 2005 STI rear suspension top mounts with no adapter plates. See instructions at end of this manual.

**NOTE** → If you use piro ball style top mounts (Like DMS CNC adjustable top mounts) you will need a DMS fitment kit for Subaru Impreza. Part number DMS-SUB-TM-KIT. This kit is supplied with all DMS Adjustable or Rigid Top Mounts.



#### **Step 4.**

Set lower spring platform so that spring is trapped (not loose). Then screw platform up an additional 20mm. This will provide a good starting point for ride height adjustments. Verify that top mounts function correctly and do not bind when rotated.



#### **Step 5.**

Fit strut to strut tower and torque m8 x1.25 nuts to OEM specs.



#### **Step 6.**

Fit knuckle into strut bracket. First fit bottom bolt. Pull up knuckle (as shown) to fit top bolt through adjustment washers. If necessary use plastic hammer to push bolt into place. Be careful of threads.





### Step 7.

Fit top bolt through adjustment washers if equipped. **DO NOT FORCE.** *Consult washer alignment settings for desired camber and placement listed below.*



### Step 8.

Attach brake lines and ABS lines (if equipped) using the DMS brackets provide in the kit. Torque lines to bracket using OEM factory specs. *Consult Brake Bracket Installation instructions below.*



**NOTE** → If you do not have brackets or are using struts in off-road use, a high quality “zip-tie” or “tie-wrap” is recommend that has a metal insert (as shown in diagram)

### Step 9.

Torque all bolts to Subaru OEM recommendations. Be sure to tension top shock absorber mounts (m8), top shock absorber (m12) and strut to knuckle bolts (m14) as well as all brake and ABS lines. ***Please read additional fitment instructions on preceding pages before continuing with setup.***



**Step 10:**

Fit wheels and lower car. Adjust ride height and settings as required or based on specifications in DMS Setup Guide. Do so only after car has settled or been driven around driveway or parking lot.

**\*\*\*CAUTION:** Before driving on the road be sure all bolts are tightened to Subaru factory recommendations for Impreza GC or WRX (verify application). \*\*\*

**\*\*\*CAUTION:** Use torque wrench to check wheels are tightened to Subaru recommendations for Impreza. \*\*\*

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## **Installation INSTRUCTIONS (continued)**

# INSTALLATION INSTRUCTIONS

## DMS top mount adapter plate

(only used if installing GC type mounts to GD type chassis)

### **Step 1.**

Remove the studs from the original Subaru top mount by securing plate over ledge and tapping out from the top with a hammer. Be sure to support mount sufficiently to avoid bending or damaging plate.

### **Step 2.**

Align the "AWD" marking on the Subaru mount to the outside as indicated on the DMS adapter plate. (Opposite of "GD IN arrows indicated)

### **Step 3.**

Install DMS adapter plate from the top and secure underside bolts with supplied nylock nuts. Mount is now ready for install.

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## **ABS and BRAKE BRACKET INSTRUCTIONS**

# INSTALLATION INSTRUCTIONS

DMS (all models) Brake and ABS Brackets.

### Step 1.

Look at each strut as shown in picture.



### Step 2.

Align the hole of bracket with M6 stud on the strut. Please Note: Front bracket is the same part for both sides, but it is installed opposite for LH and RH struts, as shown below. Rear brackets come in a LH and RH side version (as seen on the following page).



Front LH Side



Front RH Side



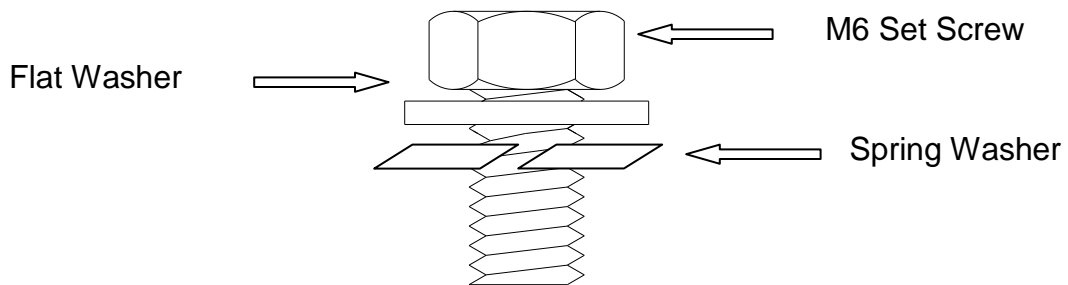
Rear LH Side



Rear RH Side

### **Step 3.**

Take the M6 Set Screw and put the spring washer on first and then the flat washer, as shown in the diagram below. Pass through the appropriate brackets and screw into strut housing. If two brackets are being installed, do not use flat washer. Torque to 5 Nm (1.5 ft/lb)



### **Step 4.**

Install the brake hose and ABS line (if equipped) to the appropriate bracket fitting and torque to OEM specifications.

### **Step 5.**

Recheck every step to ensure that the brackets and the hoses are all secure.



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## **PIRO BALL KIT INSTRUCTIONS**

### Piro-Ball Adapter Kit (all models) (Rebound Height Tuning Kit)

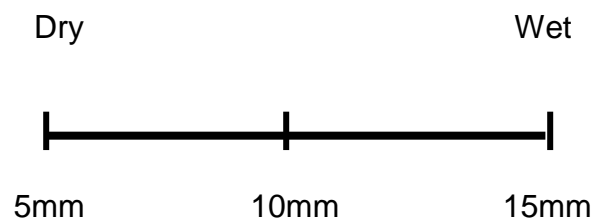
#### INSTALLATION INSTRUCTIONS

**NOTE** → If you use piro-ball style top mounts, these directions are for the proper fitment of the kit. Verify application ferrule thickness. These kits are supplied with all DMS Top Mounts.

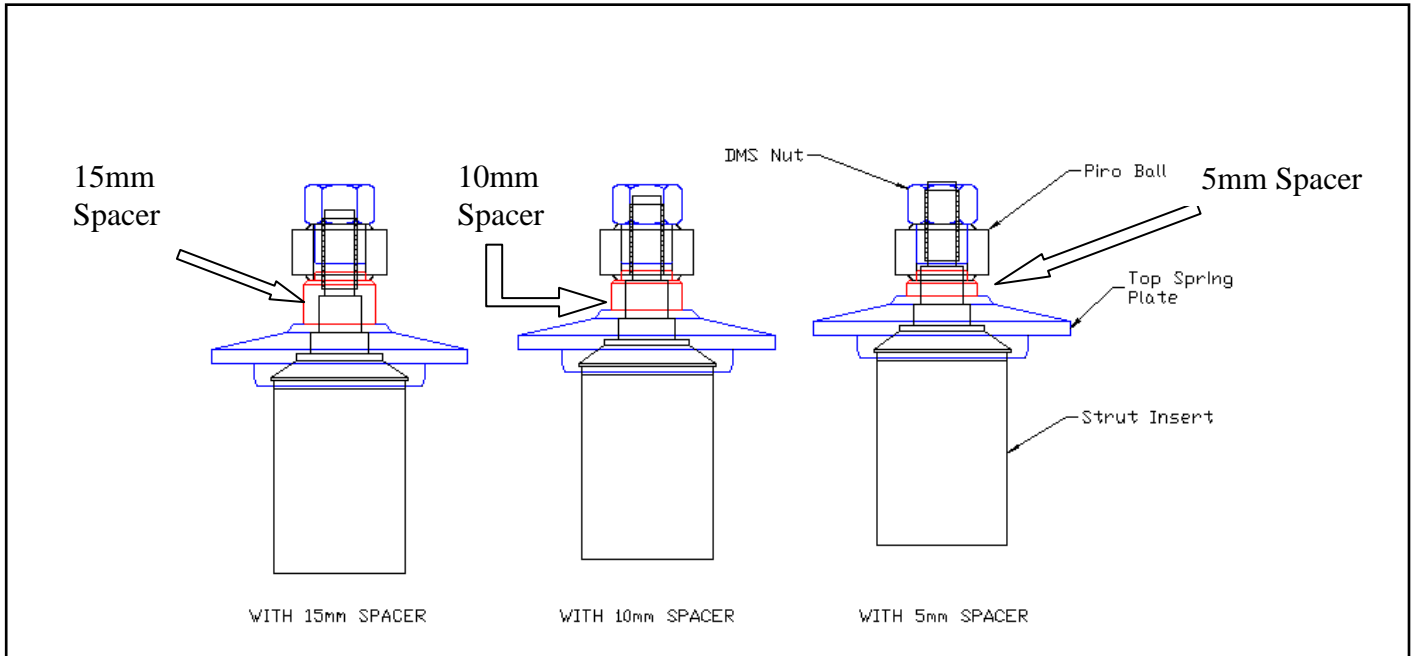
#### Introduction (for tuning kits only)

The DMS rear rebound spacer kit is designed to give autocross competitors various options in precision car setup. The kit contains various spacers that alter the maximum amount of full droop that the strut can travel. Consult your dealer for applications.

Below is a scale showing the usage of the different spacers:



On the following page is a diagram showing the increased droop using the different spacers and their correct location.



**Installation.**

Select the spacer that you wish to use (5mm spacer is standard for piro ball applications and DMS Top Mounts). Put the spring top hat on the top pin of the insert so it is seated properly. Place the appropriate spacer over the thread of the pin, and push down until it sits on top of the spring top hat. Some top mount kits will have a washer between spacer and spring top hat. Fit the Piro ball top mount and then fit the DMS top nut that is supplied. This will screw down into the piro ball. Torque to OEM Manufacturer specifications.

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**IMPREZA 40mm  
 SETUP  
 INSTRUCTIONS**

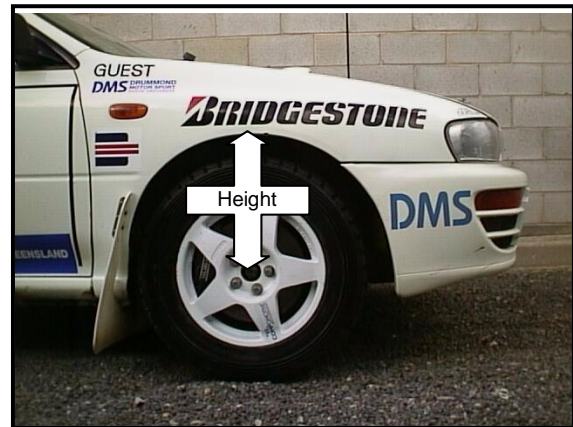
**SUBARU IMPREZA (all models)**

DMS 40mm (all types) Shock Absorber Sets.

**ADJUSTING THE RIDE HEIGHT**

**Step 1.**

To measure ride height of car  
 -park car on level surface  
 -be sure car is properly settled  
 (SHORT test ride will do so)  
 -measure ride height from  
 center of axle nut (wheel  
 center) to fenders edge



**Recommended Ride Heights**

Impreza 2000	MAX	MIN
FRONT	355mm	335mm
REAR	355mm	335mm

Impreza 2002 - 2007	MAX	MIN
FRONT	375mm	350mm
REAR	370mm	350mm

**\*\*\*CAUTION:** Higher or Lower ride heights than the maximum recommended will damage the shock absorbers and VOID any warranty. \*\*\*



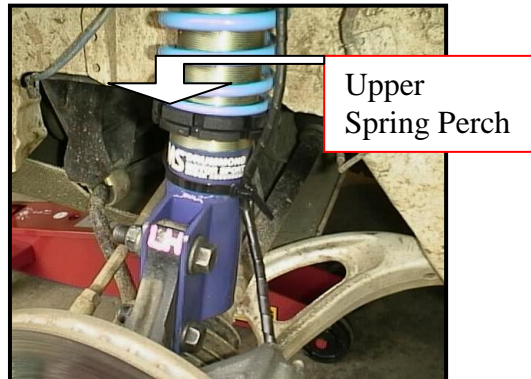
## Step 2.

Jack up front of car and place securely on jack stands. Jack up rear of car and place on jack stands. Remove wheels



## Step 3

Set upper spring platform so that desired ride height is achieved. Tighten bottom perch by hand or with **ONE** spanner wrench once the adjustment is complete. We recommend that the exposed threads be covered with race or a cloth type tape.



**\*\*\*CAUTION:** Do NOT over tighten perches with two wrenches, this can cause the seats to permanently seize or bind together.\*\*\*

## Step 4.

Fit wheels and lower car. Torque wheel bolts to OEM specifications.



## ADJUSTING DMS SHOCK ABSORBERS.

\*\*\***CAUTION:** Do NOT force the adjusters\*\*\*

\*\*\***CAUTION:** Only turn rebound adjuster clockwise \*\*\*

### Step 5.

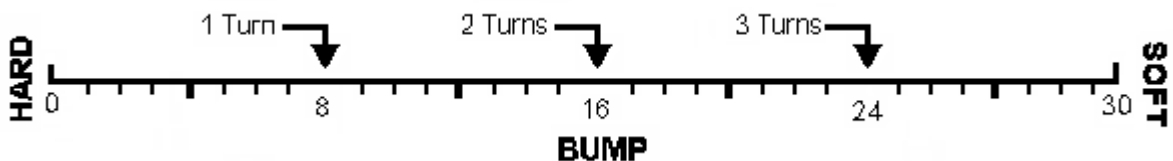
Directions for adjusting DMS suspension are also on the special DMS tool. There are 30 clicks of total adjustment (stainless steel knob) which can be turned clockwise or counterclockwise. Bump and rebound are adjusted simultaneously.



**Bump Adjuster**  
(stainless with yellow sticker)

To adjust bump, place bump adjuster (8mm) over stainless knob and rotate clockwise until it stops. This is full hard. Turn the adjuster in the opposite direction to achieve desired setting. 1 click = 45°

**30 clicks = full soft**  
**0 clicks = full hard**





**RECOMMENDED DMS SHOCK ABSORBER SETTINGS**

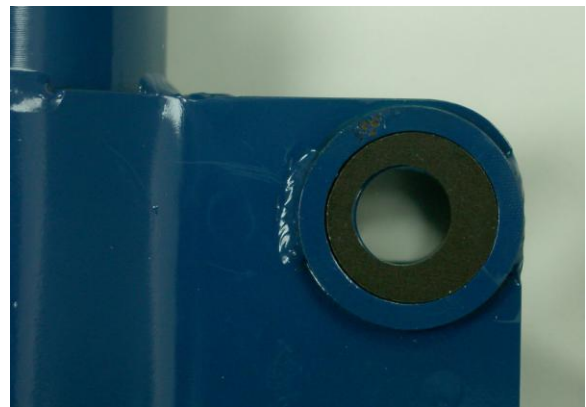
Impreza (all models)	Autocross	Street	Snow
FRONT	8	15	24
REAR	6	15	25

**RECOMMENDED DMS WHEEL ALLIGNMENTS**

Impreza (all models)	AUTOCROSS	STREET	SNOW
FRONT TOE	1.5mm out	.5mm out	.5mm out
REAR TOE	.5mm out	0	.5mm in
FRONT CAMBER	-2.5°	-1.5°	-1
REAR CAMBER	-1.5°	-1°	-0.5

**Step 6.**

DMS uses offset washers for the rear camber adjustment of all Subaru applications. The standard m14 bolt is used to secure the washers in place. Shown in the diagram to the right is the black washer positioned to allow for maximum negative camber. A list of all washers and provided offset is below.



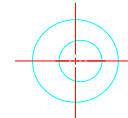
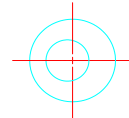
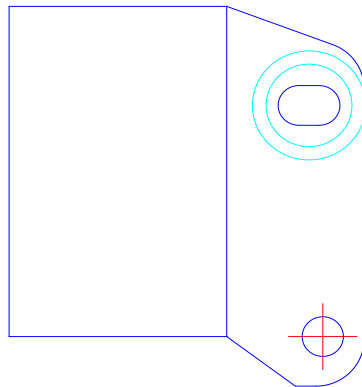


## DMS offset washer descriptions

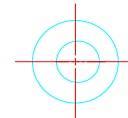
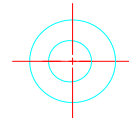
POSITION CAMBER WASHERS INTO THE RING THAT HAS BEEN WELDED ONTO THE BRACKET IN DESIRED POSITIONS.

MAXIMUM NEGATIVE CAMBER

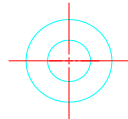
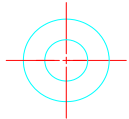
MINIMUM NEGATIVE CAMBER



1- 1.5mm OFFSET WASHER (BLACK)



2- 0.75mm OFFSET WASHER (GOLD)



3- 0.00mm OFFSET WASHER (SILVER)

### Step 7.

Tension all bolts to Subaru OEM recommendations. Be sure to tension top shock absorber mounts (m8), top shock absorber (m12) and strut to knuckle bolts (m14) as well as all brake and ABS lines.

### Step 8.

Fit wheels and lower car. Torque wheel bolts to OEM specifications.



**\*\*\*NOTE:** All settings recommended in this manual are intended for basic starting points. We do not assume that they will be correct for every application. Settings are based on the following:

- 1) Street = GOLD Type shock absorber with 225lb front and 180lb rear springs
- 2) Autocross = M2 Type shock absorber with 300lb front and 275lb rear springs
- 3) Snow = GOLD Type shock absorber with 225lb front and 180lb rear springs

**\*\*\*CAUTION:** Before driving on the road, be sure all bolts are tightened to OEM Manufacturers factory recommendations for each specific model. \*\*\*

**\*\*\*CAUTION:** Use torque wrench to check wheels are tightened to OEM or wheel manufacturers recommendations for each application. \*\*\*

**\*\*\* NOTE:** DMS shock absorbers are competition type units and as such from time to time will require routine maintenance. Neglect and insufficient use may drastically reduce time between servicing. Service kits are available from your local authorized DMS distributor. Rebuild kits are available through the facility at DMS North America. \*\*\*

If you have any problems or questions please call your local trained DMS representative or DMS North America.  
All contact info is on [www.dmsnorthamerica.com/distributors](http://www.dmsnorthamerica.com/distributors)