

**OS Giken LSD (BMW-L2) Installation Reference for BMW E92 335i / E87 135i  
(Final Gear Ratio 3.46)**

**Necessary Items**

2 x Genuine BMW Oil Seal  
Parts # 33 10 7 505 605



1 x Genuine BMW Final Gear Bolt Set  
Parts # 33 13 2 227 347 (10 Bolts)  
(Smaller bolt head than originally installed bolts)



2 x OS250R LSD Oil 1 Liter Can  
Parts Cleaner  
Bolt Cement (Extra Hard Type)  
Grease

**Special Tools**

Vise Grip  
(Top of the vise grip is shaved and pointed to fit in the circlip hole)



Sander (Small Size)



### Before the installation

Please see if the final gear ratio is 3.46. If it is not 3.46, OS LSD may not fit into your vehicle. Some vehicles have welded final gear. In this case, you can not install OS Super Lock LSD BMW-M2 Type because you can not reuse the final gear.



### Installation

1. Take out genuine part oil seals from both side of the career. Oil seals will break therefore please prepare spare oil seals for both side (2 x Part # 33 10 7 505 605)
2. Take out circlips from both side of the career. At this time, please remember that which clip is from which side because these circlips are used for position adjustment as well. The circlips are installed very hard. Please use appropriate tool to prevent injury or loss of the circlips.



3. Remove the open differential. At this time, please keep the bearings and the final gear for reuse. Before the final gear installation to OS LSD, please wash carefully the final gear (Especially bolt holes) and smaller head final gear bolts (Genuine BMW Final Gear Bolt Set Part # 33 13 2 227 347) with parts cleaner. After that, apply grease slightly between bolt head and differential case. Make sure that the grease does not touch the bolt spline. Also, please apply bolt cement on the bolt spline.
4. When installing the final gear on OS LSD, please use designated final gear bolts (Genuine BMW Final Gear Bolt Set Part # 33 13 2 227 347). When screwing the bolts, the bolts are needed to be screwed at 21 kg. Shave the career as the pictures shown until OS LSD fits into the career. At this time, please shave the career gradually, trying to fit OS LSD again and again. Please do not over shave it.





5. After OS LSD installation, please reinstall the circlips and use new oil seals (Parts # 33 10 7 505 605). At this time, please return circlips to their original position. Hit the circlips carefully from inside to outside to make them fully extended and installed. Please do not switch side circlips from original position.
6. Please lean the differential case as following picture and add 2 Liter of OS250R LSD Oil in it. (When it comes to regular oil change, please jack up rear side of the vehicle or the oil can not be filled by 2 Liter.)



### General Warning

1. OS Super Lock LSD BMW-L2 installation needs to shave genuine part differential career. Please read installation reference. If you over shave it, it may break and damage your vehicle. If you would like us to install it, please send differential career assembly to OS Giken Japan at your expense. We will charge for the installation fee.
2. Information on this sheet is based on Japanese Model BMWs and it may not be applicable to BMWs in other countries.
3. You may not install OS Super Lock LSD BMW-L2 Type to BMWs with special grade, model or option.
4. Please be aware of potential risks and hazards when installing our products. We do not take any responsibility for any loss and/or injury occurred when our products are modified, re-used and/or ill-fitted.
5. Specification may be changed without notice.