



Install Directions

Clutch Over-Center Spring





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From all the asses at Angry Ass, thanks for purchasing an Angry Ass clutch over-center spring!

Please read this entire installation manual prior to attempting to install or use the Angry Ass clutch over-center spring to ensure proper installation and safe use.

The Angry Ass clutch over-center spring should only be installed by persons skilled in vehicle component installation and performance. Angry Ass Limited shall not be held liable for any damage or personal injury (including direct, indirect, or consequential damage) sustained as a result of improper installation of the Angry Ass clutch over-center spring or its use and maintenance contrary to the instructions and warnings contained herein.

If you have any questions regarding the installation and/or proper use of the Angry Ass clutch over-center spring, or this manual, please contact Angry Ass via our official website at: www.Angry-Ass.com.

All statements made are made in respect to the Angry Ass clutch over-center spring "as is." Any modifications to the Angry Ass clutch over-center spring or its improper installation, use or maintenance that is not in accordance with this installation manual, may result in severe damage to the pedal system and/or vehicle as a whole, as well as personal injury. Angry Ass Limited reminds you to be responsible and stay safe!!

Thanks again for choosing Angry Ass!



PARTS LIST

The following parts are contained in your kit:

1. 1X Clutch over-center spring
2. 1X Loctite 243
3. 1X Super Lube Synthetic grease with PTFE

TOOLS & SHOP SUPPLIES

You will need the following:

1. 13mm wrench (2X if possible or a 1/2" wrench will work as a second 13mm)
2. 17mm wrench
3. 10mm socket
4. 13mm socket
5. 17mm socket
6. Flat head screwdriver
7. Phillips screwdriver
8. Ratchet for sockets
9. Torque wrench
10. Paper towels or shop rags

NOTE

This is a generic install set based on an E34 chassis install. Because of the wide variety of chassis that these parts were used on we are currently unable to fully detail install on every chassis. We are working on remedying this! If you have any questions during install, please reach out to us.



1. Begin by removing your under-dash panel to gain access to the pedal assembly. Typically, this consists of several Phillips screws and a few flat head quarter turn retainers.
2. Disconnect the clutch switch wiring. Next loosen the main pedal bolt using your 17mm wrench and socket enough so that you can pivot the clutch switch bracket out of the way. This allows the pedal additional travel and will aid in the install of the spring assembly.
3. Next using a 13mm and 17mm wrench or socket unbolt the clutch master cylinder fit bolt and nut from its rod end to the clutch pedal. Using a 10mm wrench or socket unbolt the master cylinder from the pedal bracket. This is done purely to gain additional work space.
4. With room to work its now time to remove your old clutch over-center spring. Using your 17mm and 13mm unbolt the fit bolt and nut that attach the clutch over center spring to the pedal assembly. **The spring can still be under pressure so use CAUTION while removing and avoid pinch points.**
5. With your shop rag or paper towel remove any old excess grease from the attachment points on the clutch pedal and the spring pivot perch/groove.
6. Verify that your clutch over-center spring upper spring perch and jam nut are tight and the spring has no play. You can use a 13mm wrench and a 1/2" wrench if needed.
7. Remove the supplied bolt from the pivot nut of the clutch over-center spring assembly and apply Loctite 243 to its threads.



8. Open the supplied grease and apply a generous amount to the base of your clutch over-center spring assembly and to the faces of the rod end. See Figures 1, 2 and 3.



Figure 1



Figure 2



Figure 3

9. Apply remaining grease to the spring pivot perch/groove on the pedal bracket.

10. Next using your 13mm wrench and 13mm socket attach the clutch over-center spring to the clutch pedal with the pivot nut and supplied bolt with Loctite 243. Torque to 24Nm with your torque wrench.



11. Place the base of the clutch over-center spring on the pivot/perch and ensure that the pivot tangs are in the groove, see Figure 4. **This can take some effort, use CAUTION, and avoid pinch points!**



Figure 4

12. With the clutch over-center spring in place, it is time to start reassembly. Pivot the clutch switch bracket back into position making sure it engages its location points on the bracket. These are the tiny points that locate the switch bracket.

13. Tighten the pedal pivot bolt and nut using your 17mm wrench and socket, torque to 47 Nm. Reconnect wiring for clutch switch.



14. Apply Loctite 243 to the master cylinder mounting hardware and using a 10mm wrench or socket bolt the master cylinder back to the pedal bracket. Torque to 10 Nm.

15. Using a 13mm and 17mm wrench or socket attach the master cylinder through its rod end and to the clutch pedal. Torque to 24 Nm.

16. With the pedal assembly reassembled it is time to bed in the bushings of your clutch over-center spring assembly. The bushings used for the main shaft and pivot are ultra-low friction bronze that are oil and PTFE (Teflon) embedded and require initial bedding in for quiet and smooth operation. What you are about to hear has been described as *the call of the Angry Ass* . . . or something akin to a 100-year-old door being opened and closed.

17. To bed in the bushings, you will need to work the spring assembly through its entire range of motion multiple times. There is a chance in the beginning where the pedal will stick and requires you to manually lift it, this is normal during bedding and will be eliminated with use. This is a case of more is better, you will notice after about 20 cycles things quiet down and begin to get smoother.

18. Once you have bedded the bushings its time to reassemble your dash panels.

Please let us know if you need any assistance or have any questions. Thanks again from all of us at Angry Ass!



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