



How to change the Serpentine Belt on your 2005 – 2010 Jeep Grand Cherokee Laredo








WARNING: WORKING ON ANY VEHICLE OF ANY KIND IS INHERENTLY DANGEROUS. PLEASE FOLLOW ALL SAFETY REGULATIONS AND MAKE SURE TO WEAR YOUR PERSONAL PROTECTION EQUIPMENT



Introduction: These instructions are geared towards beginner to intermediate level mechanics willing to put a little bit of work into their own vehicle. Here, this document will show how to change the serpentine belt on a 2005-2010 Jeep Grand Cherokee Laredo. The serpentine belt is vital to the operation of the vehicle. The belt runs along different pulleys in the front of the engine that powers multiple devices. The devices it powers are the alternator, power steering pump, water pump, air conditioner compressor, and air pump. All these pieces of equipment are vital in the operation of your vehicle. This process is extremely simple yet rewarding once completed. Once beginning, make sure to follow all steps to completion to avoid any complications before, during, and after maintenance.

Tools Required and Safety Gear Required

<p>Socket Wrench:</p> 	<p>15 MM Socket Wrench attachment:</p> 
<p>Compatible Serpentine Belt:</p> 	<p>Gloves:</p> 
<p>Safety Glasses:</p> 	<p>Coveralls:</p> 

Safety Equipment Required:

STEPS 1-13 will show you step-by-step how to complete replacement of your serpentine belt. These steps are vital for this correct installation, please follow them to completion so that no mishaps or injuries occur.

1.

- Gather the tools needed for maintenance.
 - Have ready your socket wrench with the 15MM attachment.
 - Have your new serpentine belt ready.
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2.

- Make sure the vehicle is placed on solid flat ground and has been off for at least 1 hour for the engine to cool.
 - Make sure that the vehicle is in park and the parking brake is engaged. The reason why the parking brake should be engaged is to eliminate the hazard of the truck rolling whilst working in the engine compartment.
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3.

- Open the front driver door and pull the engine hood lever.
- It is located just to the left of the brake pedal. Once pulled you will hear and see the hood is slightly unlatched



4.

- Make your way to the front of the car
- The hood should be slightly unhatched and can be opened.
- You will need to slightly reach with your fingers under the hood and push down on the safety lever to fully release the latch.



5.

- Once the hood is up and the engine is exposed, you will conduct a quick safety inspection of the work area to make sure that there is no foreign hazardous debris in the area.
- This is your time if you have not done so already to put on your personal protection equipment (PPE).



6.

- After the safety check is complete, please make sure that you are wearing your PPE.
- An example of what a damaged belt looks like is shown. In this picture, the belt is clearly missing half of the belt. Driving with this type of belt is not only dangerous for yourself but for the other people on the road around you. This will need to be changed as soon as possible.
- Now we will remove the damaged serpentine belt.



7.

- To remove the damaged serpentine belt, grab the socket wrench with the 15mm attachment
- Make sure you have the socket wrench set to the tighten position.
- Place it on the belt tensioner.
- The belt tensioner is located on the left side of the engine block directly above the radiator tube.



8.

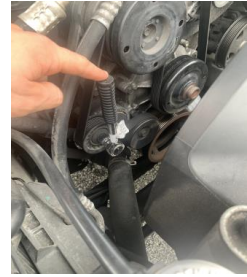
- With the socket wrench in position, turn the wrench in the clockwise direction and hold in position!
- Use slight force as the tensioner might be locked into position from not being shifted after long periods.
- When turned clockwise, you will see the belt lose tension. While holding the wrench in position, begin to use your free hand to remove the belt.

9.

- Once belt is fully removed, release the tension on the socket wrench.
- Dispose properly of the damaged belt in the respectable trash bin.
- After removal and disposal, check all pulleys and equipment to make sure that there is no visible damage.

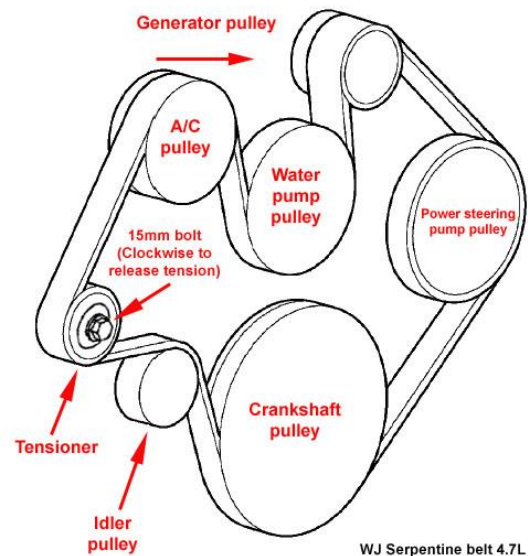
10.

- With the old (damaged) belt off, the new belt is now ready to be installed.
- The new serpentine belt MUST follow a specific pattern for it to be installed right.
- If the socket wrench has been removed from belt tensioner, place it back into position.



11.

- Once the socket wrench is in position, begin by placing the new belt on top of the A/C pulley and follow the diagram pattern.
- Follow up by placing the belt under the Water pump pulley
- Up and over the Generator pulley
- Around the right side of the Power steering pump pulley
- Around the bottom of the Crankshaft pulley and placed atop of the Idler pulley.
- Once the belt is on top of the Idler pulley, the belt tensioner will need to be used to place the belt in the final position.
- Turn the socket wrench in the clockwise direction about 45 degrees and place the remaining belt around the tensioner and release.



12.

- The new serpentine belt should now be successfully installed, make sure the new belt is securely placed evenly along ALL pulleys!
- The new belt should look like the figure to the right.
- After making sure the belt is properly on, remove all and any tools or objects from the work/belt area.



13.

- We will now test the new belt.
- Make your way to the driver's seat of the vehicle and turn over the vehicle.
- Make your way back to the front of the vehicle and observe the new belt.
- Make sure that the belt pulley is not wobbling while turning. This can be a sign of a bad installation and the vehicle needs to be turned off immediately before any damage occurs!
- If no wobbling occurs, then you have just successfully installed a new serpentine belt for your 2005-2010 Jeep Laredo.
- You can now close the hood of the vehicle and turn off the vehicle.



Conclusion: This is the end of the installation; I hope that from these instructions you have learned something new. It is highly rewarding when you are able to complete tasks yourself and without any other physical help. By doing this task yourself you have saved yourself a great deal of money by not going to a mechanic which could have cost you around \$200-300 dollars depending on where you go. In the future, I highly recommend that you try to do any vehicle maintenance yourself to the best of your knowledge. If there is something too big, however, make sure you take it to a trained professional.

References

Safety Glasses -

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Belt Diagram - https://jeepspecs.com/wj-generation/wj-jeep-parts-equipment/serpentine-belts/attachment/serpentine_40/

Jeep Logo - <https://www.allpar.com/cdn-cgi/image/format=auto,onerror=redirect,width=1920,height=1920,fit=scale-down/https://www.allpar.com/attachments/jeep-logo-jpg.68727/>

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