

Installation instructions for 2019-2023 2.3T Ford Ranger Remote Automatic Transmission Dipstick

Before starting any work, be sure to read and understand these instructions, observe all safety procedures, the use of protective eyewear, clothing and gloves, is highly recommended, before using a floor jack and jackstands to raise the vehicle, be sure you have adequate knowledge of the equipment and how to use it safely. If you have any questions about your skills or equipment, have the dipstick installed by a competent automotive repair shop.

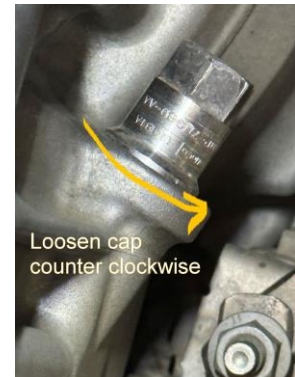
The MBS Ford Ranger remote dipstick comes pre-marked, if you wish to compare the markings, that can be done two ways, either hot or cold.

Hot: drive the vehicle 10-15 minutes, using a hoist or jack and jackstands, raise the vehicle high enough to access the dipstick area, be sure its level and secure.

WARNING! BE SURE VEHICLE IS SECURE BEFORE WORKING ON IT!

CAUTION EXHAUST SYSTEM IS VERY HOT, WEAR PROTECTIVE CLOTHING!

Clean the area around the factory dipstick cap before removing cap, use compressed air or a small brush for best results. The cap requires a 19mm tool for removal. Remove cap and check fluid level with the vehicle hot idling in park, check several times to verify level, note the fluid level for later. Cold: follow all the precautions above, allow the vehicle to sit for an extended period of time, it takes about an hour for the fluid to drain back into the pan, please follow the above procedure for cleaning the cap and checking the fluid level, note the fluid level for later.



It is important to clean the sealing surface of the transmission case. The lower fitting has a Dowty washer with Viton, it is a very good, long-lasting seal, it requires a clean surface for proper sealing, make sure the sealing surface is clean.



Install the lower fitting, the sealing washer is a rubber seal inside of a steel ring, it's not a crush washer, once it bottoms out, tighten it firmly, do not overtighten it, the fitting in the transmission case needs to be tight enough so when the hose fitting is tightened and removed the case fitting remains tight, it requires a 1 1/16" wrench.



Locate the unused factory bracket at the rear of the engine towards the firewall, it's on the passenger side, install the supplied 6mm U nut as shown, make sure the U nut is aligned with the hole in the bracket, there is also an additional Nylock conventional nut provided as an option to the U nut for high salt areas, or just as an optional fastener, it requires a 10mm wrench. **NOTE: BE SURE TO KEEP WIRE LOOMS AWAY FROM THE BRACKET AREA WHEN TIGHTENING DIPSTICK TO BRACKET.**



Install your MBS dipstick carefully down the back of the engine, it should be on the outside of the transmission wire looms and behind the O2 sensor loom, the shape of the stick should position it right on top of the transmission fitting, **NOTE: The stick is carefully formed to a specific shape, do not bend or kink the stick in any way**, it should be put in position in a gentle way to insure proper fit and accuracy. It should be routed down the side of its mounting bracket as shown, past the wire looms, it should come to rest close to its final position.



The dipstick should be positioned as shown, the built-in pad on the dipstick is designed to rest upon the aluminum housing at the back of the engine.



Position the stick as shown, the dipstick bracket should be close to the engine mounting bracket. now go under the vehicle and thread on the dipstick fitting onto the trans case fitting, it should thread on easily by hand, if you are having difficulty getting it started, make sure it is positioned like you see in the two images, gently thread on the fitting, thread it all the way down **BUT DO NOT TIGHTEN IT YET, LEAVE IT ONE TURN LOOSE** NOTE: Do not use tools to start fitting, it should start by hand.



Pull the dipstick bracket forward over the engine bracket, it is normal for the MBS side of the dipstick bracket to be tipped up at a slight angle after the dipstick hose is attached at the transmission. It may seem like it is too short to pull forward over the engine bracket, **at this time reach back and gently push the hose to the side of the aluminum housing at the back of the engine**, it needs to be positioned as shown in the image below, the dipstick bracket will hook over the front of the engine bracket, make sure the U nut is still in place.



The dipstick has been designed to be a very controlled, snug fit, the only way any kind of accuracy can be achieved with a pre-marked stick, as well as keeping it from contacting the firewall is to have the position of the stick carefully controlled, that is why it is very important that you follow the instructions, and the final positioning of your MBS remote dipstick matches that in the instruction images, especially with reference to the dipstick pad position and the aluminum housing. **It is important make sure the small wire loom does not get pinched between the engine bracket and the dipstick bracket.**



Bolt the dipstick bracket to the engine bracket using the supplied 6mm bolt and the U nut, there is also an optional Nylock nut provided, 10mm tooling is required. Now that the bracket is tight, and the dipstick pad is positioned correctly alongside the aluminum housing, you can tighten the dipstick fitting to the trans fitting, do not over tighten it, it should not be as tight as the case fitting, so upon dipstick removal the case fitting stays tight. You are now done with the complete installation of the

dipstick hose. You can install the dipstick itself and check the fluid level with ease, if you chose to compare the stock dipstick markings, now is the time to do that, either hot or cold, refer to your notes from the beginning of the installation.