

DARKMATTERX

DM-1 PRECISION SHIFT ARM INSTALLATION GUIDE



Preparation and Safety

Before doing any work on the vehicle, ensure that the vehicle is safely secured onto a lift or jack-stands with all safety pins or latches in place to prevent a serious injury from taking place. The vehicle needs to be high enough off the ground to crawl or stand under. When working under the vehicle, always wear eye protection to prevent foreign debris from getting into your eyes. Having a light under the vehicle is a must, and will make the install process much smoother! If you can, having an extra set of hands will speed up the process.

Disclaimer

The DM-1 Precision Shift Arm's fit all Subaru STI's, all pre 2015 Subaru WRX's, and any other model that has a DM-1 or DM-1 V2 Shifter. Some of the interior removal steps in this guide may differ from model to model but are widely similar in nature. Mounting the DM-1 Precision Shift Arm in the vehicle is done in the same manner as this guide regardless of model/year.

Technical Support

Technical support is available for you in the event that you need it! Please read through the manual before reaching out with a question. You can reach us at support@darkmatterx.com

DM-1 Precision Shift Arm Kit Contents

Before starting the install procedure, locate all the components in the kit by removing the DM-1 Precision Shift Arm and the supplied hardware.

1.) DM-1 Precision Shift Arm



2.) Hardware:

- a. (1) Rubber u-joint boot
- b. (2) Stainless steel hose clamps
- c. (1) 8MM Shoulder bolt
- d. (1) M6 Top lock nut
- e. (4) Thrust washers
- f. (1) 6MM Washer



Recommended Tools

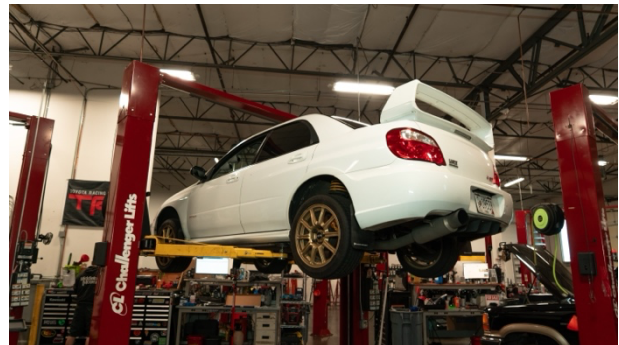
The following is a list of our recommended tools for the install:

- 1.) 3/8" Drive Wrench
 - a. 13mm Socket
- 2.) 10mm Box Wrench
- 3.) 12mm Box Wrench
- 4.) 14mm Box Wrench
- 5.) Hammer
- 6.) 8mm Punch
- 7.) 4mm Allen Wrench

1.) PUT THE VEHICLE IN A SAFE POSITION

Put the vehicle in a safe position so that you can access the underside of the shifter and transmission.

*Tip: Putting the transmission in reverse or 6th gear can help with the removal of the factory shift arm



2.) REMOVE THE FACTORY SHIFT ARM

Start on the inside of the vehicle by removing the shift boot and center console trim that surrounds the shifter.

The center console trim components have clips going around their perimeters. Working your way around the trim, pull straight up and the clips will release from the center console assembly.

Remove the single bolt and nut connecting the factory shift arm to the DM-1 or DM-1 V2 shifter.



Go underneath of the vehicle and remove the (3) bolts holding the shifter stay bracket to the transmission, this will provide additional room to access the roll pin connecting the factory shift arm to the transmission.



Place the punch directly over the roll pin and drive it out completely by tapping a hammer on the punch. If the roll pin is having a hard time coming loose, try soaking it in penetrating oil. This can help break it free easier.



Once the roll pin has been removed, set it to the side as it will be re-installed back onto the vehicle.

The shift arm is now free to be removed from the vehicle, slide it out of the rubber shifter boot.



Slide the shift arm off the pictured transmission shaft.



1.) INSTALL THE DM-1 PRECISION SHIFT ARM

Feed the DM-1 Precision Shift Arm up through the transmission tunnel so that the u-joint is exposed underneath of the vehicle. The top section of the new shift arm should be resting in place near the shifter connection point. Place the supplied rubber boot, and two hose clamps onto the u-joint with a flat head screw driver.

Ensure that the rubber u-joint boot overlaps the coated surface of the u-joint so that no bare metal is exposed and secure the hose clamps.



Slide the new shift arm onto the transmission shaft and install the roll pin back through the shift arm and the shaft. Make sure to align the holes in the shaft and the new shift arm when installing the roll pin.

This is an example of what the roll pin should look like when it has been installed into the new shift arm and transmission shaft.

Bolt the shifter stay bracket back onto the transmission, and put the shifter stay back into the bracket by securing it with the same bolt.



Next, install the new shift arm onto the shifter by using the provided hardware. The (4) supplied thrust washers need to be placed in-between the shifter and the new shift arm. These washers need to go on each side, (2) on the left and (2) on the right. The thrust washers **MUST** have their gray sides facing the shifter and shift arm on each side. The shiny sides of the washers should face each other when installing them together on each side. The washers come pre-greased, below is a reference.



CORRECT

WRONG

WRONG

Start by inserting the first (2) thrust washers on the drivers side, and placing the supplied shoulder bolt through the first hole of the shift arm so that it holds the washers in place.



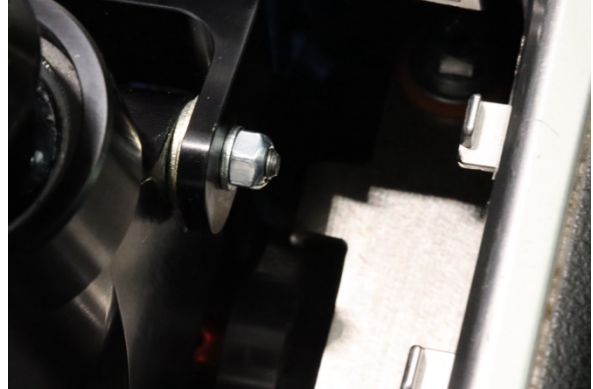
Align the top throw selection holes on the shifter with the bolt and washers, and push the bolt through just enough to place the next washers on the passenger side.



Gently insert the last (2) washers ensuring they do not drop, and finish pushing the shoulder bolt all the way through the shift arm. The threads should be sticking out on the passenger side and the bolt head should be flush against the shift arm.



Double check that the bolt head is flush against the shift arm and that there is **NO GAP** before tightening it. If you do have a gap, use your hands to push the bolt in all the way, slightly wiggling the shifter or shift arm can help align the two parts together. Once the bolt is seated, place the supplied washer over the threads and install the top lock nut onto the shoulder bolt. You will feel some resistance when tightening this nut because the threads are distorted to help it have a tighter hold on the threads. The nut needs to be tightened until it makes contact with the washer, and then approximately another $\frac{1}{4}$ - $\frac{1}{2}$ turn in.



Check the operation of your shifter and transmission by selecting all the gears and checking that everything is functioning properly. Install all interior pieces back in place.

This completes the install for the DM-1 Precision Shift Arm. Before driving the vehicle, it is a good idea to double check that all of the steps have been completed and all bolts are properly secured back into place.