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2007 – Present JK Wrangler Modular Belly Pan System

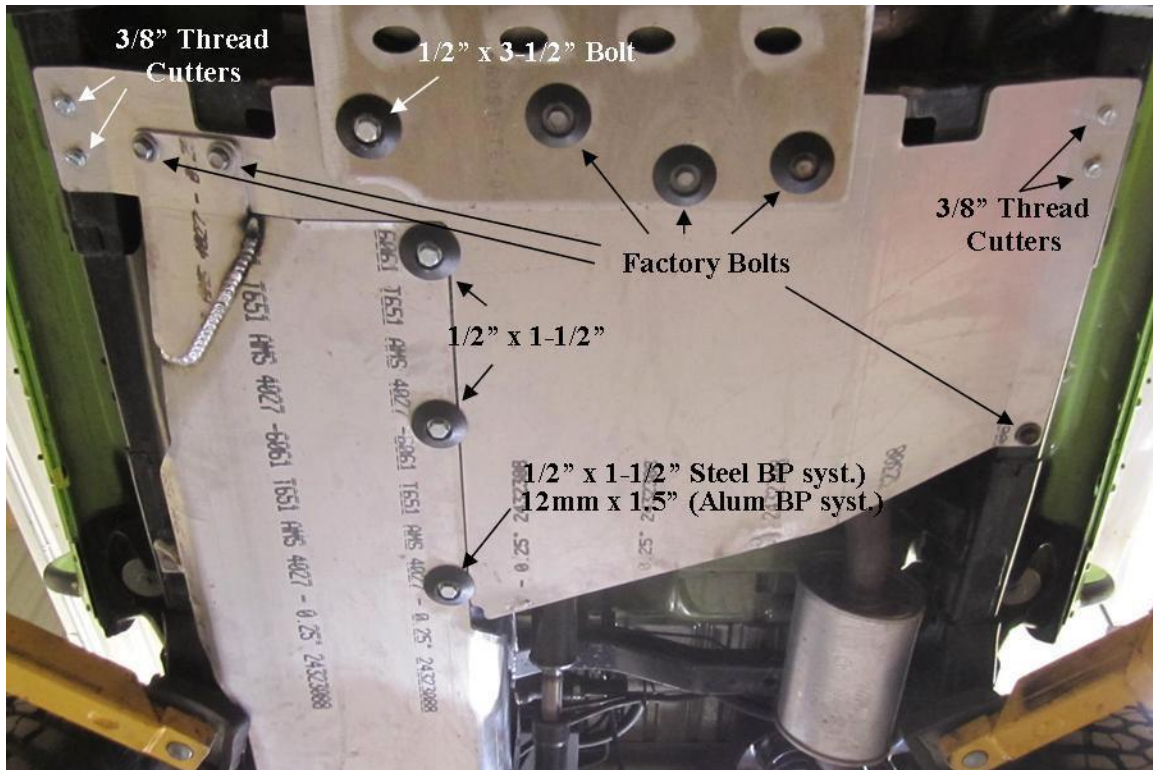
Thank you for purchasing TNT Customs modular belly pan system! With proper installation and maintenance this system should give you years of worry free operation.

Required Tools:

- Hand drill with a ½ chuck
- 5/16" drill bit
- Common hand or air tools

Do to manufacturing tolerances some bolt holes may need slight modification with a rat tail file or carbide air file.

Please refer to the below image when going through the various install steps.



Belly Pan Installation

STEP 1: Remove the factory transmission and transfer case skid plates (if equipped) and set aside, retain all factory hardware. **Do Not Remove** factory gas tank skid plate.

STEP 2: Install the TNT MBPS belly pan. With 2 of the factory 12mm bolts, position the belly pan under the Jeep. Install 2 12mm bolts in the slots one centered on the factory transmission crossmember and the one towards the driver's side. Next insert 1 12mm bolt at the rear of the skid plate on the driver's side frame. Tighten these three bolts hand tight and inspect alignment of the belly pan; due to slight variations between vehicles some clearancing of the mounting bolt slots may be required.

STEP 3: Center punch through the two holes on the outside flange of the belly pan at the front of the frame flange. Using the 1/8" drill bit drill a pilot hole, followed by a 5/16" hole. From the hardware kit select and install a 3/8" thread cutting bolt and flat washer. Repeat for opposite side.

STEP 4: Remove the 2 12mm bolts from the center of the MBPS belly pan to facilitate installation of the engine skid.

Engine Skid Installation *see appendix A for HEMI engine skid install*

STEP 1: Install the engine skid by reinstalling the 2 12mm bolt removed in the step above, place MBPS engine skid over the MBPS belly pan, reinstall the 2 12mm bolts through the engine skid and belly pan into the factory transmission crossmember threaded inserts. Select from the hardware kit the 1/2" x 3 1/2" bolt, washers and locking

nut. Insert the bolt with flat washer through the remaining hole in the engine skid and belly pan through the factory transmission crossmember and place a washer and locking nut on the bolt and tighten hand tight.

STEP 2: Select the appropriate front tubular frame struts, 2 - 3/8" x 1" bolts, washers and locking nuts from the hardware kit. Install the tubular struts by placing a 3/8" X 1" bolt through the engine skid plate from the inside.

NOTE:

*The bolt head should be towards the engine oil pan from proper clearance to the oil pan.
Failure to install hardware in the proper placement can result in damage to the oil pan
The curved or bent strut goes on the driver's side.*

Place the appropriate tubular strut over the bolt threads and secure with a flat washer and locking nut. The curved strut goes on the driver's side of the Jeep. *On 2012 and newer models slide the supplied piece of rubber hose over the transmission cooler line that is closest to the passenger side engine skid strut.*

STEP 3: Secure the struts to the frame side of the engine mounts using 2 – 3/8" x 3/4" bolts and flange nuts per side.

STEP 4: Tighten all fasteners installed to this point.

Gas Tank Skid Installation

NOTE:

TNT MBPS gas tank skids fit directly over the factory skid, do not remove factory skid.

STEP 1: Remove the 12mm bolts securing the factory gas tank skid along the passenger side frame rail. There will be one bolt on a 2dr and 2 bolts on a 4dr. Only remove these fasteners at this time.

STEP 2: Position the gas tank skid under the gas tank and lift it into position (a floor jack will make this easier). Loosely install a 12mm bolt through the gas tank and belly pan skid plates using the mounting hole that is at the rear of the MBPS belly pan. Ensure alignment of gas tank skid to belly pan, there should be an even +/- 1/8" gap between the gas tank skid and belly pan.

STEP 3: Ensure the gas tank skid is firmly seated to the bottom of the factory skid adjust as needed so the two skids are tightly together. Install the 12mm bolt(s) through the gas tank skid into the frame and tighten.

NOTE:

It may be necessary to remove the driveshaft to complete the following step.

STEP 4: Locate the rear tab on the inside of the gas tank skid along the driveshaft. Drill a 7/16" hole through the factory skid plate using the new MBPS gas tank skid as a guide. Install the supplied 3/8" X 1" Countersink bolt and nut. Reinstall rear drive shaft per factory guidelines if removed.

NOTE:

It may be helpful to remove the rear passenger's wheel/tire to complete the next step.

STEP 5: At the rear outside mounting point on the MBPS gas tank skid plate, drill a 7/16" hole through the factory skid plate using the hole in the MBPS gas tank skid as a guide. Install the supplied "L" bracket 7/16" X 1" bolt and nut. Reinstall the wheel/tire if removed; follow factory service manual guidelines for lug nut torque.

STEP 6: Locate the two bolt holes on the leading edge of the gas tank skid near the belly pan, install 2 - 12mm bolts.

NOTE:

The following bolts are difficult to get to. We suggest reaching up and over the belly pan from the front of the vehicle to place the washers and nuts. This should not be done unless the exhaust is cool to the touch.

STEP 7: Place a 1/2" X 1-1/2" bolt with washer through each hole and secure with a locking nut and washer. When installing an aluminum bellypan system use the supplied 12mm x 1.5" medium thread bolt and washer in the rear most hole location towards the center of the vehicle.

STEP 8: Tighten all bolts.

**Attachment 1
Parts List**

Engine Skidplate

- L&R tubular struts
- 6 - 3/8" X 3/4" bolts
- 6 - 3/8" flange nuts
- 2 - 3/8" washers
- 1ea, 1/2 x 3 1/2" bolt, 1 - 1/2" nut, 2 - 1/2" washers
- 6" Section of rubber hose (for 2012+ only)
- 2ea, 12mm locking nuts and flat washers (HEMI install only)

Belly Pan Skidplate

- 4 - 3/8" thread cutters
- 4 - 3/8" flat washers
- 1 - 12mm x 1.5" medium thread bolt
- 1 - 12mm washer

Gas Tank Skidplate



- 2 - 1/2" x 1 1/2" bolts
- 4 - 1/2" washers
- 2 - 1/2" nuts
- 1 - 3/8" x 1" countersink
- 1 - 3/8" X 1-1/2" bolts
- 2 - 7/16" x 1" bolts
- 2 - 7/16" washers
- 2 - 7/16" Nuts

Optional Items

- 7 - bolt protectors

Appendix A HEMI engine skid install

STEP 1: Verify that the through bolts for the engine rubber isolators are installed correctly. The bolt should be installed so that the head of the bolt is facing the front of the Jeep and the threaded portion of the bolt and securing nut is to the rear of the Jeep. If the bolt was installed in the opposite orientation the bolts will need to be removed and installed correctly before proceeding.

	<p>CAUTION:</p> <p>Removal of these bolts will cause the motor to fall out of the Jeep if it is not properly supported. Do not remove these bolts if you are not familiar with an operation of this type, We recommend you have a trusted 4wd shop install this product if any part of the installation is beyond your capabilities.</p>	
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STEP 2: Install the engine skid by reinstalling the 2 12mm bolt removed in the step above, place MBPS engine skid over the MBPS belly pan, reinstall the 2 12mm bolts through the engine skid and belly pan into the factory transmission crossmember threaded inserts. Select from the hardware kit the 1/2" x 3-1/2" bolt, washers and locking nut. Insert the bolt with flat washer through the remaining hole in the engine skid and belly pan through the factory transmission crossmember and place a washer and locking nut on the bolt and tighten hand tight.

STEP 2: Select the front tubular frame struts, 2 - 3/8" x 1" bolts, washers and locking nuts from the hardware kit. Install the tubular struts by placing a 3/8" X 1" bolt through the engine skid plate from the inside.

NOTE:

*The bolt head should be towards the engine oil pan from proper clearance to the oil pan.
Failure to install hardware in the proper placement can result in damage to the oil pan.*

Place the appropriate tubular strut over the bolt threads and secure with a flat washer and locking nut. The curved strut goes on the driver's side of the Jeep.

STEP 3: Select 2 – 12mm locking nuts and washers from the hardware kit and secure the struts to the frame side of the engine mounts by placing the struts over the ends of the engine isolator through bolts.

STEP 4: Tighten all fasteners installed to this point.

Return to the main instructions and continue with the MBPS gas tank skid installation.