



**HAPPY-TRAIL.COM**

*Dual Sport & Adventure Touring Specialists*

*Thank you for purchasing Happy Trails products. Our products are proudly hand made in Boise Idaho, USA. If you have any questions or concerns about the installation of this product, please contact us directly at 1-800-444-8770 or e-mail [installation@happy-trail.com](mailto:installation@happy-trail.com).*

Before you begin, place the bike on a hard level surface where you have room to work. Lay out the parts included in this kit and compare to the parts list on these instructions. If any parts or hardware are missing, contact us immediately at the number or email listed above.



We have an installation video that can help you attach your bars! You can simply scan the QR code with your phone to take you there, or you can find it on our channel, **HappyTrailsMoto**, on YouTube!

**If your bike is outfitted with Kawasaki's stock skid plate or lower frame sliders, these will need to be removed in order to install the Happy Trails lower engine guards as they are not compatible.**

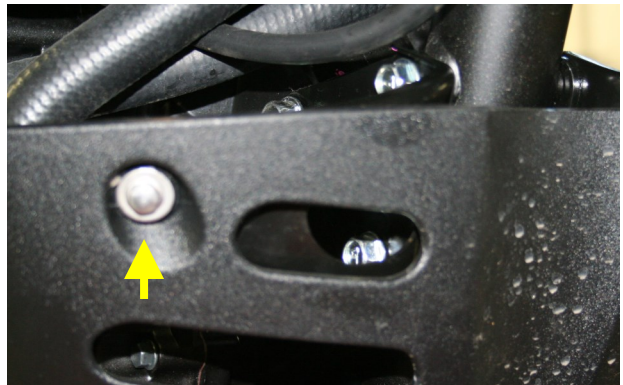
## Step 1:

If one is installed, you will need to remove the stock skid plate. Using an 8mm socket and a 10mm end wrench or socket, remove the 4 bolts from the bottom and front of the skid plate. See Figures 1A and 1B. You will NOT need any of this hardware for the installation of the engine guard. **(If you have frame slider bars, you will need to remove the rear-most bolts using a 12mm socket and remove the bars as well)**

**Figure 1A**



**Figure 1B**

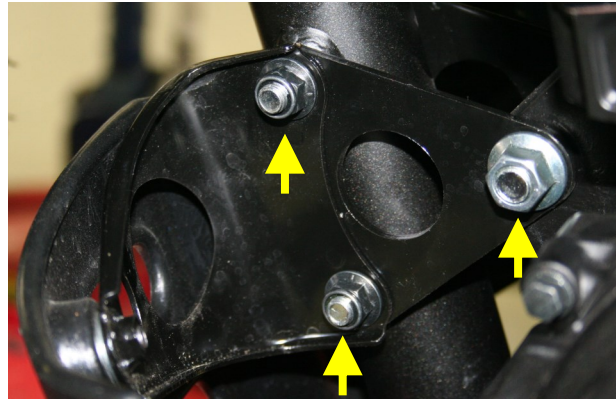


## Step 2:

Using a 14mm socket with extension and 14mm wrench, remove the front engine mount bolt. Using a 12mm socket with extension and 12mm wrench, remove the remaining two frame bolts and (if installed) frame sliders. You can now remove the OEM skid plate mount brackets. See Figure 2.

**Note: We recommend the use of medium strength thread lock on each bolt installed to help prevent them from backing out while riding.**

**Figure 2**



**If you don't have an aftermarket skid plate or upper engine guards installed, follow step 3. If you have a Happy Trails or other compatible brand of skid plate, upper engine guard, or both installed, follow steps 4 A, B, or C. Instructions are for Happy Trails products only. Installation with other brands may differ.**

## Step 3:

The first step is to install the optional steel triangles that you purchased. Place the triangles where the OEM skid plate brackets previously were and replace the 12mm factory bolt in the lowest mount point and the 14mm factory bolt at the rear-most mount point. These can be fully tightened.

Now, line the front mount arms of the lower guard up to the top-most mount point of the triangles and run the 8x100mm SH bolt through with two 8mm flat washers, the two 1/4" L x 3/4" W spacers, and an 8mm nyloc nut. The spacers are to be placed between the front mount arms and the triangles to take up the dead space as shown in Figure 3. Leave this bolt finger tight.

Next, line up the rear mount tabs on the guard to the threaded mount points in the frame and install the two 8x20mm SH bolts with flat washers through the tabs and into the frame. Make any adjustments needed for proper fitment and begin fully tightening each bolt left loose starting from one end to the other. You will need a 6mm Allen wrench and 13mm socket for the 8x100mm SH bolt and a 5mm Allen wrench for the 8x20mm BH bolts.

## 4A - Happy Trails skid plate only:

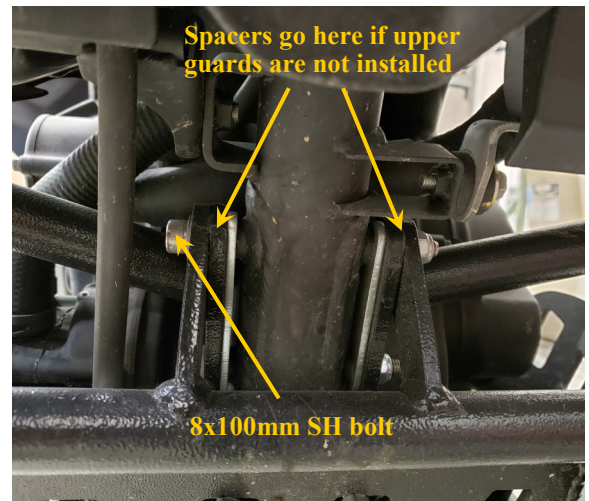
First, you will need to unbolt the two rear 8x25mm button head (BH) bolts using a 5mm Allen wrench and remove the aluminum spacers that were used during installation of the skid plate. The spacers will no longer be needed as the mount tabs on the lower engine guard take their place, but you will reuse the 8x25mm BH bolts.

Once this is done, allow the skid plate to drop enough so that you can slip the guard's rear mount tabs between the bike frame and the plate. You might need to loosen the U-bolt at the front of the plate for it to fall enough to provide room. Line up the lower guard tabs and the skid plate to the mount point on the frame and begin threading the bolts with 8mm flat washers back in. Leave them loose for now to allow for adjustment.

Now, line the front mount arms of the engine guard up to the upper hole in the engine triangle mount point and run the provided 8x100mm socket head (SH) bolt along with two 8mm flat washers and the 1/4" L x 3/4" W aluminum spacers through the hole and loosely thread the 8mm nyloc nut onto the bolt. The spacers are to be placed between the guard mount arms and the triangles on both sides of the frame. See Figure 3.

Make any necessary adjustments and then begin tightening down any loose bolts starting from one end to the other.

**Figure 3**



#### **4B - Happy Trails upper engine guards only:**

First, remove the top-most 8x90mm (SH) bolt securing the upper guard mount tabs to the bike frame and set it aside. It won't be reused. Now, slip the front mount arms of the lower guard over top of the upper engine guard mount tabs as shown in Figure 3 on the last page and run the provided 8x100mm SH bolt through with 8mm washers and an 8mm nyloc nut. Leave this hand tight only. The 1/4"L x 3/4"W aluminum spacers won't be needed as the upper guard tabs will take up that space.

Next, line up the mount points at the rear and thread the provided 8x20mm BH bolts with washers into the frame.

Make any necessary adjustments and then begin tightening down any loose bolts starting from one end to the other. You will need a 6mm Allen wrench and 13mm socket for the 8x100mm SH bolt and a 5mm Allen wrench for the 8x20mm BH bolts

#### **4C - Happy Trails upper engine guards and skid plate:**

Start by following the first two paragraphs of step 4A on the previous page to install the lower guard at the rear mounting location. Then follow the first paragraph of step 4B to install the lower guard at the front mounting location.

Make any necessary adjustments and then begin tightening down any loose bolts starting from one end to the other. You will need a 6mm Allen wrench and 13mm socket for the 8x100mm SH bolt and a 5mm Allen wrench for the 8x20mm BH bolts

#### **(Optional) Step 5:**

If desired, you may install the foot pegs to your guard once it is installed. You will need a 19mm open end wrench and 8mm Allen wrench to install the pegs on the bar.

Place the foot peg on the lower guard such that the notch in the tab at the end of the bar matches up with the tab at the end of the foot peg. Insert a 12x25mm BH bolt through the foot peg and mount tab on the bar and secure it with a 12mm nyloc nut as shown in Figure 5. Repeat for other side. Torque bolts to 33 ft/lbs

**\*Please check the rivets in the foot pegs to make sure the rivet is fully mushroomed. If not, take a hammer and gently mushroom the rivet. This will ensure the rivet does not fall out.**

**Figure 5**



**You're done! Time to ride!**

**Hardware Kit:**

- Qty 1: 8x100 SH bolt
- Qty 2: 8x20 BH bolts
- Qty 4: 8mm flat washers
- Qty 1: 8mm nyloc nut
- Qty 2: 12x25mm BH bolts
- Qty 2: 12mm nylock nuts
- Qty 2: 1/4"L x 3/4"W x .319" ID spacers
- Qty 1: Foot peg pair

**Tools Required:**

- 6mm Allen Wrench
- 8mm Allen Wrench
- 8mm Socket
- 10mm End wrench or Socket
- 12mm Socket
- 12mm End Wrench
- 13mm Socket
- 14mm Socket
- 14mm End Wrench
- 19mm End Wrench
- Socket Extension