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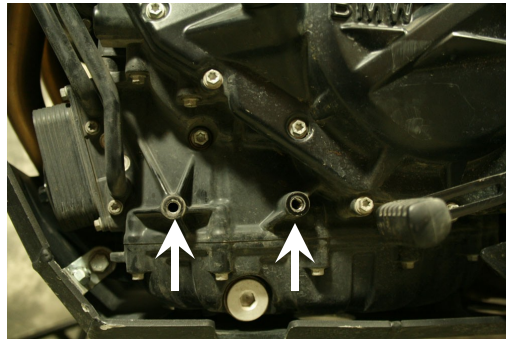
*Thank you for purchasing Happy Trails products. Our products are proudly hand made in Boise Idaho, USA. If you have any questions or concerns about the installation of this product, please contact us directly at 1-800-444-8770 or e-mail [installation@happy-trail.com](mailto:installation@happy-trail.com).*

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 page 3 of these instructions. If any parts or hardware are missing, contact us immediately at the number or email listed above.

### Step 1

On the left side of the motorcycle near the bottom of the engine case, locate the two mounting holes shown in Fig 1.

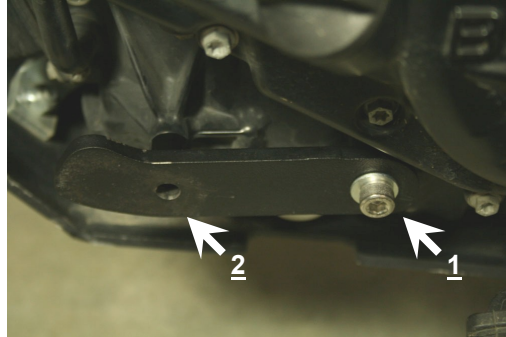
**Fig 1**



### Step 2

Place the steel mounting plate (MT2) onto the mounting holes as shown. A 3/4"x5/8L spacer fits between the plate and front mounting point, shown by arrow 2 in Fig 2. Place an M8x30S bolt with a M8 flat washer in the rear mounting point as shown on Fig 2. Tighten the bolt no more than finger tight.

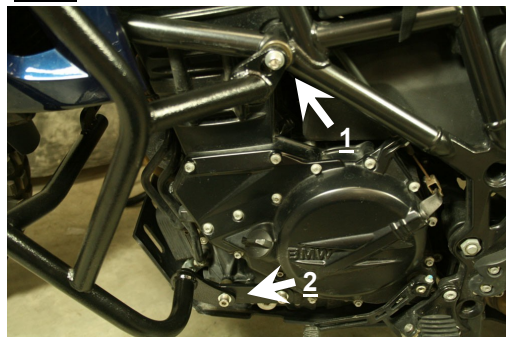
**Fig 2**



### Step 3

Using an appropriately sized Torx wrench, remove the motor mount bolt at arrow 1 in Fig 3. Insert a 2 1/8"x3/4"x1/2" spacer in the hole shown by arrow 1 in Fig 3. Place the left side engine guard on the motorcycle and attach it with an M10x110C bolt with a M10 flat washer in the upper mounting point shown by arrow 1 in Fig 3 and an M8x50S bolt with a M8 flat washer in the lower mounting point shown by arrow 2 in Fig 3. Tighten these bolts no more than finger tight.

**Fig 3**



**Step 4**

You may now move to the right side of the motorcycle.

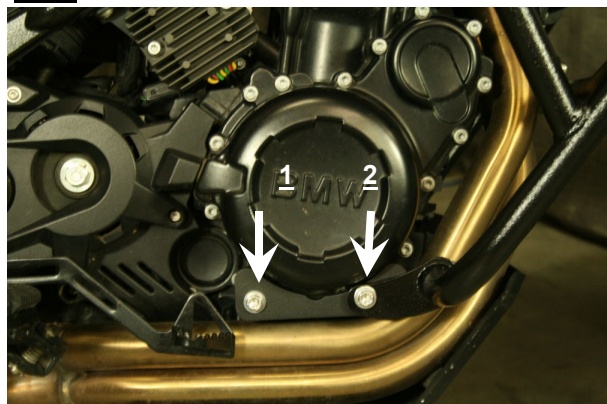
Using an appropriately sized Torx wrench, remove the motor mount bolt shown by the arrow in Fig 4. Use caution when removing this bolt because an aluminum spacer is placed between the motor and frame. The spacer will fall out when the motor mount bolt is removed.

Insert a 1.4"x3/4"x1/2" in the hole shown by arrow in Fig 4. Place the left side engine guard on the motorcycle and attach it with an M10x110C bolt and 3/8" flat washer in the upper mounting point.

**Fig 4****Step 5**

Locate the two holes shown with arrows in Fig 5. Place the engine guard mounting plate onto the holes as shown in Fig 5. Place a 1-1/4" spacer behind the bolt labeled 1 and thread an M8x60S bolt with a M8 flat washer into the hole marked 1 in Fig 4. Only tighten this bolt finger-tight.

Insert a 1 1/4" spacer behind the hole shown labeled 2 in Fig 5. Thread an M8x60S bolt and M8 flat washer through this hole no more than finger-tight.

**Fig 5****Step 6**

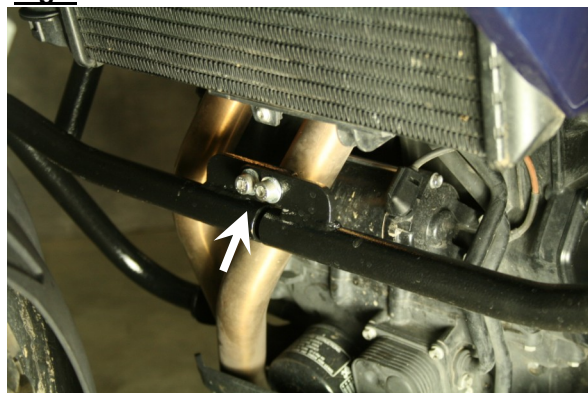
Note left side cross member tab goes in FRONT of right side tab.

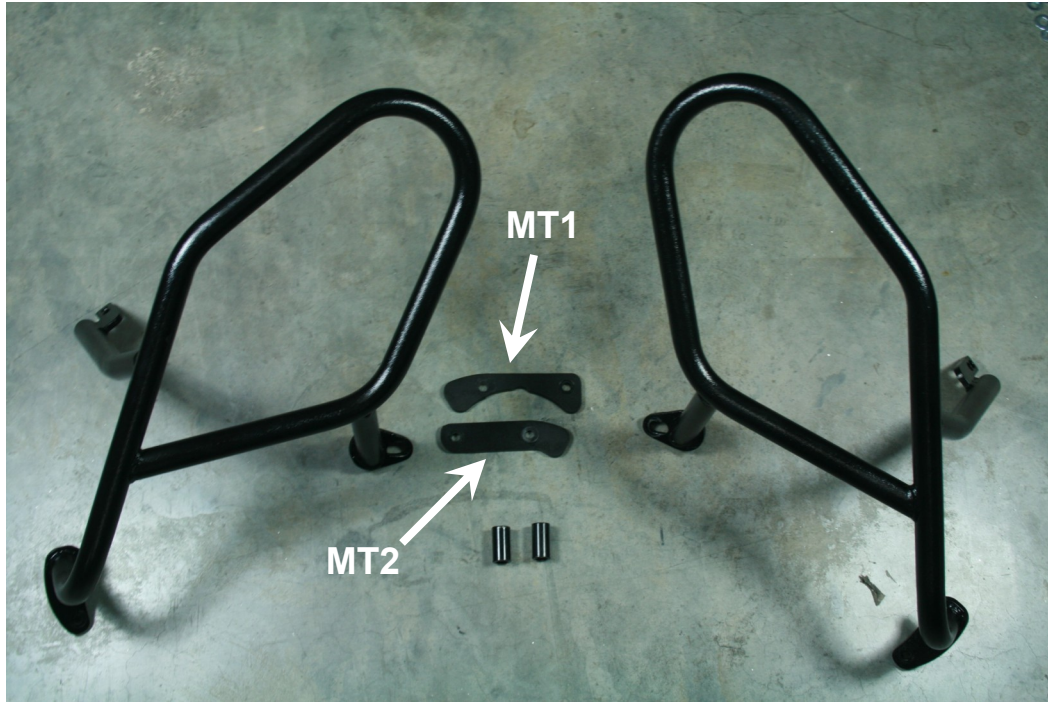
Place an M8 washer under the head of each bolt and insert two M8x25S bolts **through** the two holes in the cross member shown in Fig 6. Place an M8 washer and M8 Nylock nut on top of each washer.

You may now tighten all bolts completely.

Torque bolts to the following specifications:

M8	18ft/lbs
M10	47ft/lbs

**Fig 6**



**Hardware List:**

- 2 1/8"x3/4"x1/2" spacer
- 1.4"x3/4"x1/2" spacer
- Right side engine guard mount plate (MT1)
- Left side engine guard mount plate (MT2)
- Right side engine guard
- Left side engine guard

**Recommended Tools:**

- 6mm Allen (hex) wrench
- 13MM box end wrench
- 17MM box end wrench



**Happy Trails Products**

# BMW F650/800 Twin Engine Guard

