



Micatech V-Pilot Luggage Installation Instructions for V-Pilot Side Cases BMW R1200GS and R1200GS Adventure

Overview

Thank you for purchasing the Micatech V-Pilot Luggage. Please read through the installation instructions before you begin. If you feel this is beyond your capabilities, we recommend you have them installed by your local service center. The installation takes about 2 hours. Please take your time and call us if you have any questions.

This installation can be done alone but may be easier with a friend. You will first pre-assemble and mount the mounting blocks and foot peg "U" brackets to the cases. Then you will proceed to mount the hardware to your bike.

Tools Needed

Torx 25, 30, 45
Torque wrench
2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm Allen wrenches
8 mm, 13mm, 17mm hex wrench
Flat head screw driver
7/32" drill bit
Loctite medium strength #242 (blue)
Anti Seize compound
Small hammer

Parts for Case Pre-Assembly

6 – case mounting blocks
6 – black securing knobs
6 - locking tabs
6 - backing plates
24 - M5 x 16 button head screws
24 - M5 split washers
2 - foot peg "U" brackets
4 - M5 nylock nuts
4 - rubber backed sealing washers



Case Pre-assembly Instructions

1. Mounting blocks

Note: On the low mount (for rear cross bar), attach the mounting block with the opening (slot) pointing rearward. See photo below.

On the two upper mounts, attach the mounting block horizontally with the opening (slot) pointing towards the front. See photo below.



Using the M5 x 16 button head screws, with M-5 split washers, attach the backing plate to the mounting block. With the backing plate inside the case and the case mounting blocks outside the case, assemble loosely, using a 3 mm Allen key. These screws will all need to be tightened after final fit up. See photo below.



After each block is mounted, insert the black securing knob through the locking tab and into the center hole of the case mounting blocks, from inside the case. Use anti seize on the thread of the thumbscrews to prevent corrosion. See photo below.



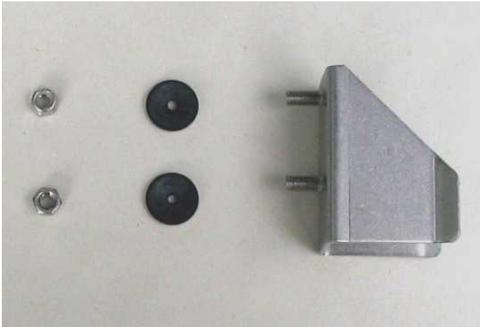
Note: During riding, these screws will secure the cases to your bike. The locking tabs must be backed off (counter-clockwise), allowing the screws to firmly engage the bullet notches on the bike; then the locking tabs will be rotated clockwise to lock the screws in place and prevent them from loosening.



2. Foot peg stainless Steel “U” Brackets

Mount the foot peg bracket to the front of each case with the angle side up, flat side down, using the M-5 Nylock nuts and rubber backed washers, from the inside. Put the rubber side of the washer next to the case. See photo below and the photo on page 2 for

the correct orientation. These nuts will be tightened, using an 8 mm wrench, after final fit up.



Parts for Bike Mounting Hardware Pre-Assembly

Left and Right Side Frames:

- 2 – side frames (left and right)
- 2 – “U” clamps
- 4 - M6 x 30 Allen head cap screws
- 2 – stainless steel bullet mounting plates
- 4 – M6 x 16 button head cap screws
- 2 – aluminum bullets
- 4 M4 x 16 button head cap screws



- 2 M6 x 45 Allen heads cap screws
- 2 – 15 mm spacers
- 2 – M8 x 25 Allen head cap screws
- 2 – M8 split washers
- 2 – M8 flat washers

“W” Bracket:

- 1 - upper rear support bracket (“W” bracket)
- 2 - aluminum bullets
- 4 - M4 x 16 button head cap screws
- 2 - “Z” shaped brackets
- 2 - M6 x 35 Allen head cap screws
- 2 – M6 split washers
- 2 – M6 flat washers
- 2 – 7 mm spacers

Rear Cross Bar

- 1 – Lower rear support cross bar
- 2 – aluminum bullets
- 4 M4x16 button head cap screws

Foot Peg Extension to Passenger Pegs:

- 1 – left foot peg extension (marked)
- 1 – right foot peg extension

Bike Mounting Hardware Pre-Assembly

3. Left and right side frames

Using 2 M6x16 button head cap screws, mount the stainless steel bullet mounting plate to the side frame, with notch facing outward. Using (2) M4x16 button head cap screws, mount the aluminum bullet facing rearward to the bullet mounting plate. Leave all screws loose to allow for adjustment at final fit up. Repeat for opposite side frame. See photo below.



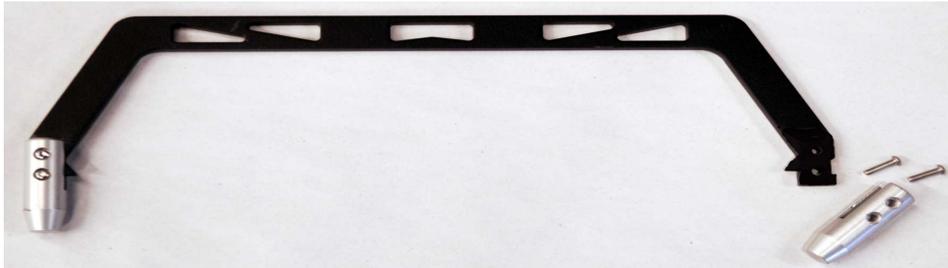


4. Upper rear support bracket (“W” bracket)

Using the M4 x 16 fasteners, mount the bullets as shown below, button head on top.
Note: “Z” brackets, 7 mm bushings and associated screws and washers are shown for illustration purposes only. Do not pre-assemble.



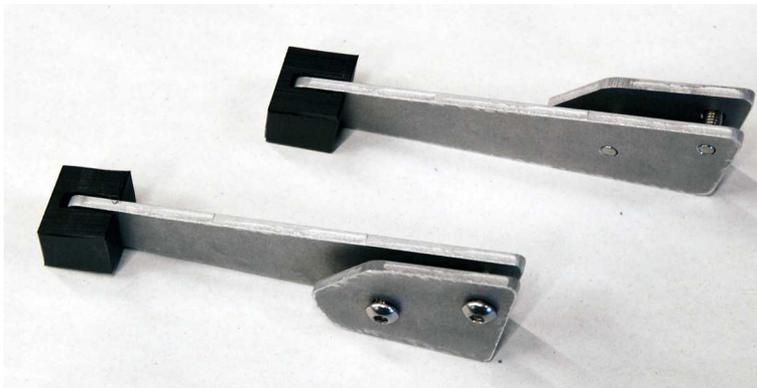
5. Rear crossbar



Using the M4 x 16 button head cap screws, mount the bullets to the rear cross bar as shown in photo below.

6. Footpeg Extensions

Photos below are for illustration only. Clamps will be removed and reinstalled during final installation. Note: left side extension is marked.





You're now ready to install the hardware on your bike. Your pre-assembled hardware should look like the photo below:



Parts for Exhaust Lowering Kit

- 1 – Exhaust Coupler
- 1 – Exhaust Clamp
- 1 – Exhaust Hanger
- 1 – M8 x 20 Allen Head Cap Screw
- 1 – M8 Split Washer
- 1 – M8 Flat Washer
- 1 – M8 x 55 Allen Head Camp Screw
- 1 – M8 Nylock Nut

Installation Instructions

Put the bike on the center stand in a level area. Be sure the motorcycle has cooled off since you will be working with the exhaust system. Also, be sure the key is off while performing any maintenance.

Important notice: We recommend applying **Loc-Tite #242** (blue non-permanent) to all threaded bolts during installation. **Do not Loctite the black securing knobs.** We recommend using anti seize on the securing knob threads to prevent corrosion.



Installation note: It is necessary to keep all fasteners loosely attached together, until the bags are test fitted to the mounts. Once everything fits easily, you should then proceed to tighten the fasteners, and remember to use Loc-Tite Blue on all threaded fasteners. When referring to left and right, left is the muffler side and the right is the drive shaft side.

Remove the following items from your motorcycle:

- Stock bag mounts, if so equipped (you will not remount these)
- Passenger seat
- Rear rack (you will remount this at the end of this installation)
- Platforms below passenger seat (removal instructions below)

7. Remove passenger seat

8. Remove rear rack:



Using a Torx 25 wrench or socket, remove all three fasteners. Note, there are two aluminum spacers below the two vertical support arms of the rack on both sides of the bike. Remove the three Torx bolts and two aluminum spacers. You will re-attach these at the end of the installation.

9. Removing the passenger deck:





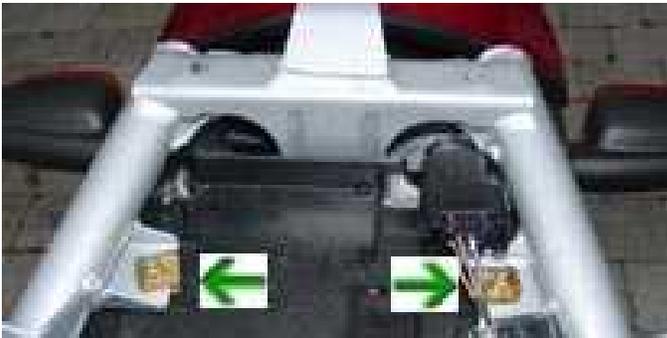
9a) There are five bolts that need to be removed here. Using a Torx 30 wrench or socket, remove four screws and related washers. For the last fastener, you need a Torx 25 to remove the seat lock holder. Carefully store all bolts and remove the stock bag mount platform.

9b) Pre-2006 models use a two-piece passenger deck. Using a Torx 25 wrench, remove all six Torx fasteners. Gently pry the passenger deck from its snapped-in mounts. Safeguard all six fasteners; you will remount this deck later. Then remove the five bolts (four for the deck and one for the seat lock), as above.

10. Removing securing tabs:



Finally, there are two bolts and their securing tabs that need to be removed. To access these bolts, you need to bend down and look up into the rear wheel well, near the back of the bike, just above the license plate bracket. Using a Torx 25 wrench or socket, remove the two Torx fasteners.



Now, go back to the area above the wheel well, and under the stock bag mount platform that you have just removed. Using a flat head screwdriver, push and slide the two corresponding securing tabs towards the opposite side, and remove them. It may be necessary to “unbend” the left side tab to clear a plastic tab and remove. Re-attach the two bolts you have just removed to their securing tabs and store them with the stock bag mounts. You will not be using them again.



You are now ready to install the first bracket of the Micatech V-Pilot Side Cases.

Installation of Micatech V-Pilot Side Case Mounts

11. Top rear support: The “W” Bracket



Locate the “W” bracket with its two pre-attached bullets and the two Z brackets with 7 mm bushings and M6 x 35 socket head cap screws and split and flat washers. From inside the wheel well, attempt to pass the two M6 x 35 socket head cap screws through the recently vacated holes (Step 4 A above). Important: it may be helpful to hand ream the holes in the plastic fender and the metal brackets to provide clearance for the M6 screws. You may use a reamer or a 7/32th drill bit; but normally a little pressure on the screws using an Allen key will thread them up to the “Z” brackets.



Place the two small “Z” shaped brackets over top of the holes, on the frame side of the bike. The two horizontal tabs in the “Z” bracket must be just over the top of the round frame tubes.



Attach the “W” bracket to the frame of the bike. The tapered end of the bullet connectors on the “W” bracket must be facing towards the back of the bike.

Place the “W” bracket to align the two holes in the center of the bracket, top side up, with the two holes in the wheel well area. Place the 7 mm spacers between the plastic wheel well holes and the W bracket. Once you have the “W” bracket and the spacers lined up with the 2 holes in the wheel well, using the M6 x 35 Allen cap screw with split washer on bottom and flat washer against “W” bracket, hand thread them into the “Z” bracket. It is recommended that you do so with your hand at first, in order to ensure that the bolts are not crossthreaded. Once the bolts are threaded correctly, you may now use a 5 mm Allen wrench or socket, but do not fully tighten them.

12. Re-installing the passenger deck platform:



Re-attach this platform using its four Torx 30 bolts, and Torx 25 to secure the seat lock mechanism. Pre-2006 models: re-attach two-piece deck by reversing removal process.

13. The Right Side Frame





Rest the rear end of the right side frame on the protruding end of the “W” bracket, next to the bullet connector. Do not insert the M 8 x 25 fastener into the bottom of the right side frame just yet. Insert the M6 x 45 screw into the appropriate hole near the back of the frame. Be sure to place the 15 mm spacer in the space between the hole in the frame and the threaded hole in the motorcycle frame. Partially thread this bolt into the corresponding hole in the bike frame.

You are now ready to attach the U clamp around the frame of your bike. You may wish to use the supplied protective tape to prevent the side frame/clamp from marring the bike’s paint. Attach the U clamp around the frame, using the two supplied M6 x 30 socket head cap screws. Do not tighten yet. When you do tighten these screws, tighten evenly to provide for even spacing, top and bottom.

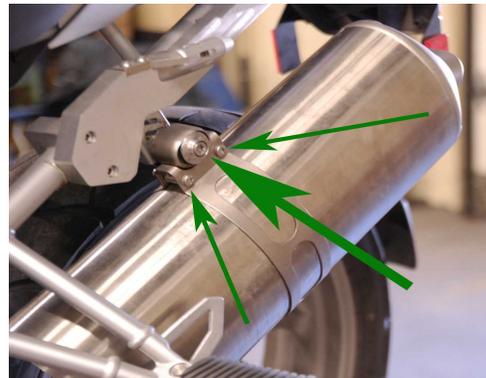
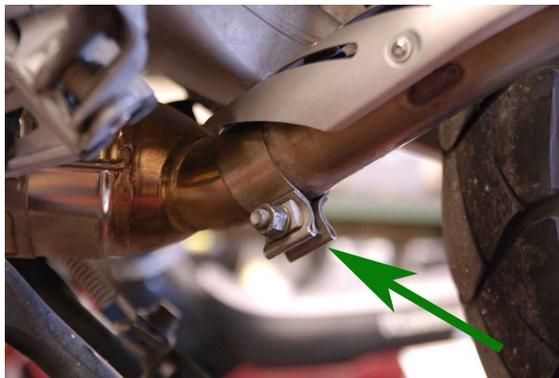
14. The Left Side Mounting Bracket



Repeat the steps listed for the left side mounts, and do not tighten the bolts yet. Note: the left side frame has clearance for the exhaust hanger clamp and is marked as “left”.

Once both side frames are mounted, insert the two M8 x 25 fasteners (with split and flat washers) through the “W” and up into the threaded holes at bottom rear of right and left side frames. Do not tighten yet.

15. Remove Exhaust



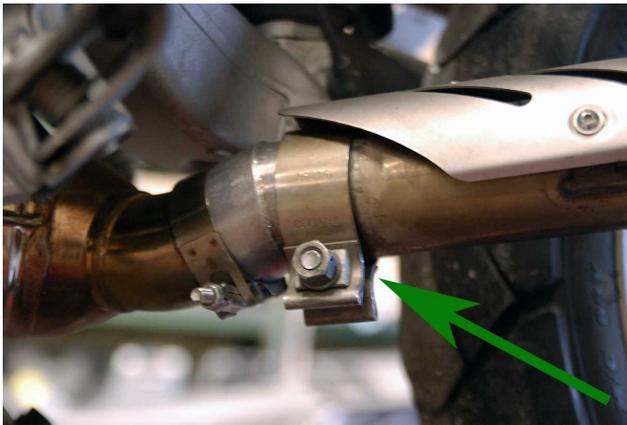


First, loosen the BMW clamp that connects the muffler to the exhaust pipe. Then loosen the two Torx 30 bolts on the BMW muffler bracket. Next, support the weight of the muffler while you remove the upper Torx 45 exhaust bolt. Gently place the muffler and BMW exhaust clamp on the ground on a piece of cardboard.

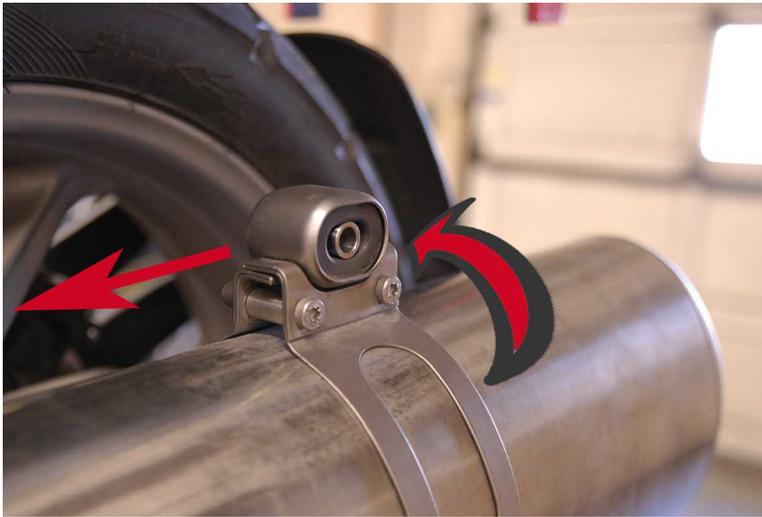
16. Install Exhaust Lowering Kit



First, attach the short end of the Exhaust Hanger to the bike. The Exhaust Hanger should bend in towards the bike. Attach it in place with the M8 x 20 allen head cap screw and the M8 split washer. Keep all connections loose at this point. All connections will be tightened at the end of the process.



Now, slide the Micatech Exhaust Clamp onto the exhaust pipe. Then slide the Exhaust Coupler onto the exhaust pipe. The “top” is marked with a black line (use this as a starting point - you may need to adjust it for a proper fit). Next, make sure the BMW exhaust clamp is slid loosely on the muffler. Now slide the muffler onto the Exhaust Coupler (this may require a little twisting and wiggling).



Next, use the small hammer to rotate the head of the BMW muffler bracket inwards towards the tire and slide the bracket along the muffler (about 1 inch to the front) until it can be connected to the Exhaust Hanger . Loosely attach the BMW exhaust bracket to the Exhaust hanger using the M8 x 55 allen head cap screw, M8 flat washer and M8 nylock nut. Note, the original Torx 45 screw is no longer used.

17. Right Foot Peg Extension Mounting Plates



Using a 4 mm Allen wrench, remove the bolts holding the two pieces of the right foot peg extension. Position the larger piece on the inside part of the foot peg bracket. Note: the flat head screw securing the black spacer will face inwards towards the wheel. Position the smaller plate on the outside of the foot peg bracket, which is the side facing you. Insert and thread both bolts using only hand pressure, to ensure you do not cross thread them.

As you will see later, once the cases are attached to the mounting bullets, these mounting plates are designed to be adjustable, in order to fit precisely within the slot in the U clamp pre-mounted to the lower front portion of the V-Pilot Case.



18. Left Foot Peg Extension Mounting Plates



Follow the same installation as the right side mounting plates. Note: the flat head screw securing the black spacer will face inwards towards the wheel.

19. Installing Micatech V-Pilot Cases on Mounts

You are now ready to slide the Micatech V-Pilot Cases onto their two mounting points. Align the left side case with the two bullet connectors and slide the case on. You do not need to use excessive force to accomplish this step. Once the case has been slid to the farthest forward point on the bullet mounts, adjust the corresponding foot peg extensions. The protruding tip of the foot peg extension must fit into the foot peg “U” bracket already attached to the case.

Should you encounter some resistance in the case sliding on the two bullet mounts, you may need to adjust the case mounting blocks, footpeg “U” brackets, foot peg extensions, bullets, bullet mounting plates, or exhaust lowering kit. By previously leaving the hardware loose, you will be able to adjust any impeding hardware.

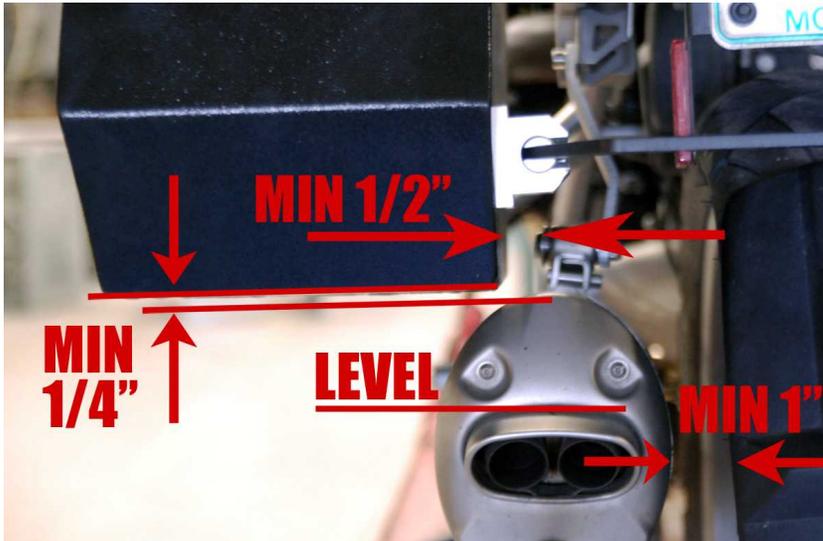
Repeat the same process for the right side case.

20. Installing Rear Cross Bar





Once you are satisfied with the fit of the cases on the mounting bullets and the foot peg extensions, install the lower rear support bracket. You need to insert both bullet connectors on this support bracket simultaneously into the lower mounting blocks. This is easily done by gently pushing the cases outwards, as you slide the bullet connectors into the mounting blocks.



Twist and wiggle the exhaust until it is placed level. There should be a 1" - 1½" gap between the tire and the muffler. There must be a minimum ¼" gap between the bottom of the pannier and the top of the muffler. Additionally, make sure there is a minimum ½" gap between the head of the BMW muffler bracket and the inside of the pannier. *This step can be a little tricky. Keep wiggling and twisting until you get it right. You may need to slide the cases on and off several times to accomplish the proper fit.*

Once you're satisfied with the final fit, remove the rear cross bar and slide the cases on and off to ensure a good fit.

21. Tighten All Bolts!

Tighten all bolts and fasteners to the torque specs provided below.

Torque Specs

Size	Newton/Meters	Pounds/Feet
M4	3 nm	2-2.5 lbs./ft.
M5	4-6 nm	3-4.5 lbs./ft.
M6	7-9 nm	5-6.5 lbs./ft.
M8	15-20 nm	11-15 lbs./ft.

Check to make sure your muffler has the correct clearances between the tire and the pannier.



Once all bolts and fasteners have been tightened, remove the rear cross bar and remove the cases, then slide them off and on several times. Cases should slide on the bullet connectors with ease. If you are having any difficulty re-mounting the cases after tightening the bolts, you may need to determine what is causing the interference, and loosen and adjust as necessary.

22. Locking cases to the mounting blocks

22a) You must lock the cases to the mounts by opening the case doors, and tightening all three black securing knobs by turning them clockwise until they contact the bullet connectors and no longer turn. Note: Be sure that the locking tabs are backed off (counter clockwise) to ensure that they do not prevent securing knob screws from fully engaging bullet notches.

22b) Once the three black knobs are tightened fully, you must now turn the locking tab around the black knob clockwise until it is tight against the inside of the case. We suggest you use anti seize on the knob threads to prevent corrosion.

WARNING: Never ride your bike without the rear cross bar in place and fully securing your cases by locking them onto the mounting points with the internal knobs and locking tabs. The locking tabs were added to help prevent the black knobs from loosening while riding. They essentially act as a jam nut. When tightening the black knobs, they must engage into the notches on the stainless steel plate onto which the bullets are mounted. Then, by rotating the locking tabs clockwise with force against the case mounting blocks, they will lock the black securing knobs in place. In other words, be sure to back the locking tab all the way counter-clockwise before engaging the thumbscrew.

23. Reinstalling Cargo Rack

Reinstall rear cargo rack: Insert the two aluminum spacers prior to reattaching the cargo rack, and fasten with three Torx bolts.

24. Test Ride

Listen and feel for any abnormal sounds or feelings. If you do feel or hear anything abnormal, stop your ride immediately and recheck your installation. Please recheck all installed Allen bolts in order to ensure that they have not loosened over time. If they have, you may not have applied Loc-Tite Blue to each one. Remove only one bolt at a time, and apply a drop of Loc-Tite thread fastener. After this initial period, all side case fasteners should be checked periodically to ensure everything is tight.



Please ride safe and enjoy your Micatech V-Pilot Luggage!

