

401 South Grand Ave., Santa Ana, CA 92705 Tel: 714.550.6070 Fax: 714.550.9661 www.twobros.com

VARIABLE AXIS LOCKING EXHAUST

015-10208-A

2005-07 BMW **F650GS**

V.A.L.E.™ Slip-on Exhaust System with M-2 Canister Part # 005-2000406V / 005-2000407V / 005-2000408V

TBR Script Logo Yellow Decal 4"



Qty.	Description	Part Number
1	Muffler Canister (Left Side)	Varies
1	Slip tube	005-20004S
1	HARDWARE KIT	005-193-3
1	Muffler Canister Clamp	Varies
1	Muffler Mounting Bracket	005-200B
1	X-Lite V.A.L.E. Retaining ring	005-7-2-2
1	Barrel Clamp	005-27-61MSH
4	6x14mm Socket Head Cap Screw	005-SH814
4	6mm Split Lock Washer	005-WL6
1	8x20mm Socket Head Cap Screw	005-SH820
1	8mm Flange Nut	005-FN8
1	5mm Long Handle Ball End Hex Wrench	005-9-18610

IMPORTANT - PLEASE READ CAREFULLY

We recommend that this performance part be installed by a qualified motorcycle technician. If you have any doubts as to your ability to install this performance part, please consult with your local motorcycle dealer. Read all instructions first before starting installation. Make sure the motorcycle and exhaust system are completely cool before starting the installation. Also, make sure the bike is secure on a center stand or ideally a service lift during installation. Be sure to save all stock components for possible use later.

Installation Instructions

- Make sure the bike is completely cool before starting the installation. Make sure the bike is secure on a center stand or ideally a service lift.
- 2. Remove seat and cover panel directly behind seat.
- Remove right side and left side bolt cover discs in the rear plastics at either end of the grab bar.



The discs can be removed by gently pressing the plastic tab with a screwdriver from below the plastics.





 Remove the bolts securing the rear plastics that have been exposed by the removal of the discs. Remove the remaining front and rear bolts securing the rear plastics. Remove the left and right side rear plastics.







Loosen OEM barrel clamp which secures header to OEM slip tube and remove the clamp from the header.



6. Remove right side muffler mounting bolt.



7. Remove left and right side muffler assemblies.







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> Install the supplied muffler hanger bracket: Remove the rear most nut which secures the left side of the grab bar. Slip the supplied hanger onto the protruding screw and re-install the OEM nut to secure the bracket. Tighten securely.





 Slide the supplied X-Lite™ V.A.L.E.™ retaining ring onto the supplied slip tube. Use the 6x14mm Socket Head Cap Screws and 6mm split lock washer to loosely join the slip-tube to the muffler canister. Do not fully tighten yet.



Installation Instructions Continued

- 10. Place the supplied barrel clamp onto the header.
- 11. Slide rubber lined canister clamp over muffler canister.
- 12. Slide muffler assembly onto OEM header.



13. Attach rubber lined canister clamp to the supplied bracket which was installed under the grab bar using the supplied 8x20mm socket head cap screw and 8mm flange nut. Tighten securely.





14. Align muffler canister and securely tighten the supplied barrel clamp securing the slip tube to the header.



Installation Instructions Continued

 Fully tighten the 4 (four) 6x14mm socket head screws of the V.A.L.E. assembly. For the best fit, tighten the cap screws in an "X" pattern.



- Reinstall rear plastics, seat and rear hatch cover behind seat.
- 17. Before you run the bike, clean off all fingerprints and dirt, as any oily residue will etch the metal and become somewhat permanent when the system gets hot. Also, remove any plastic film from the name badge(s) and or canister clamp(s). Run the bike and enjoy. It is normal for some white smoke to appear the first time you start the bike. This is packing/manufacturing oil from inside the pipe burning off. Check for gaps or leaks. If you find a leak, a little high temperature silicon sealant should fix it. After 50 to 100 miles, recheck all fasteners for tightness and tighten if necessary.

Care & Cleaning

Care & Cleaning

Keep system free of dirt and moisture. Store in a cool, dry place. Make sure vehicle is completely cool before maintenance.

Stainless Header System: Polished stainless steel pipes will turn a light golden hue after a few heat cycles, this is a normal characteristic of high quality stainless steel. Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Titanium Header System: Polished titanium pipes will experience color shift ranging from deep blue/purple through amber after a few heat cycles. This is a normal characteristic of high quality titanium. Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Polished Aluminum Canisters: Use an aluminum or mag wheel polish to restore the bright finish to factory spec.

Brushed Aluminum Canisters: Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Carbon Fiber Canisters: Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth. Always make sure the fiberglass packing inside is in good condition and not burned out, as exhaust heat inside an empty canister will deteriorate the carbon fiber sleeve.

TBR sells repack kits (Road - #005-10038, Offroad - #005-10038MX) that include everything you need to easily do it yourself.

Titanium Mufflers: For cleaning use a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth. Always make sure the fiberglass packing inside is in good condition and not burned out, as exhaust heat inside an empty canister will deteriorate the carbon fiber sleeve.

TBR sells repack kits (Road - #005-10038, Offroad - #005-10038MX) that include everything you need to easily do it yourself.

Repack all road canisters at the first signs of packing material deterioration. Part #005-10038 Repack all offroad canisters after every 10 hours of use. Part #005-10038MX

NEVER dyno test your bike with carbon fiber or titanium canisters installed - the intense heat and lack of cooling air can quickly burn through the canister material. Two Brothers Racing does not provide a warranty for burned canisters.



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005-2000406V



Qty.	Description	Part Number
1	Aluminum Muffler Canister (Left Side)	005-206ML
1	Slip tube	005-20004S
1	HARDWARE KIT	005-193-3
1	Muffler Canister Clamp	005-2C
1	Muffler Mounting Bracket	005-200B
1	X-Lite V.A.L.E. Retaining ring	005-7-2-2
1	Barrel Clamp	005-27-61MSH
4	6x14mm Socket Head Cap Screw	005-SH814
4	6mm Split Lock Washer	005-WL6
1	8x20mm Socket Head Cap Screw	005-SH820
1	8mm Flange Nut	005-FN8
1	5mm Long Handle Ball End Hex Wrench	005-9-18610
2	TBR Script Logo Yellow Decal 4"	015-10208-A

005-2000407V



Qty.	Description	Part Number
1	Carbon Fiber Muffler Canister (Left Side)	005-207ML
1	Slip tube	005-20004S
1	HARDWARE KIT	005-193-3
1	Muffler Canister Clamp	005-2C1
1	Muffler Mounting Bracket	005-200B
1	X-Lite V.A.L.E. Retaining ring	005-7-2-2
1	Barrel Clamp	005-27-61MSH
4	6x14mm Socket Head Cap Screw	005-SH814
4	6mm Split Lock Washer	005-WL6
1	8x20mm Socket Head Cap Screw	005-SH820
1	8mm Flange Nut	005-FN8
1	5mm Long Handle Ball End Hex Wrench	005-9-18610
2	TBR Script Logo Yellow Decal 4"	015-10208-A

005-2000408V



Qty.	Description	Part Number
1	Titanium Muffler Canister (Left Side)	005-208ML
1	Slip tube	005-20004S
1	HARDWARE KIT	005-193-3
1	Muffler Canister Clamp	005-2C2
1	Muffler Mounting Bracket	005-200B
1	X-Lite V.A.L.E. Retaining ring	005-7-2-2
1	Barrel Clamp	005-27-61MSH
4	6x14mm Socket Head Cap Screw	005-SH814
4	6mm Split Lock Washer	005-WL6
1	8x20mm Socket Head Cap Screw	005-SH820
1	8mm Flange Nut	005-FN8
1	5mm Long Handle Ball End Hex Wrench	005-9-18610
2	TBR Script Logo Yellow Decal 4"	015-10208-A
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