



## INSTALLATION INSTRUCTIONS

Part # 1390  
Horizontal Buell Oil Cooler Kit  
for 1996-2002 Buell Motorcycles

### IMPORTANT INFORMATION

This Jagg oil cooler must be installed following these instructions. Read the easy-to-follow instructions fully prior to starting the installation of the oil cooler kit. Correct installation is the only way to ensure proper operation of the oil cooler kit.

QTY.	KIT CONTENTS
1	Jagg 6-row LowMount oil cooler with attached mounting bracket
1	Jagg 4501 oil filter adapter with VRF
1.5 ft	Jagg 30R7spec black oil hose
4	7/8" black worm-drive hose clamps
1	Bolts: 3/8"-16 x 2"10-24 x 1-3/8", black
2	Spacers: 3/8" spacers/washers



TOOLS NEEDED
Strap wrench or oil filter removal tool
Phillips head screwdriver
Hose cutter or sharp knife
1" deep-well socket
9/16" deep well socket or open end wrench

### BASIC SYSTEM INSTALLATION GUIDELINES

- Route oil hose to avoid any hot surfaces or moving parts. Ensure all bends are smooth, with no sharp turns that may restrict oil supply to the engine.
- Oil cooler is designed to mount as detailed in these instructions. Any modifications may lead to decreased performance or item failure.
- When cutting oil hoses, always use a sharp knife, single-edge razor blade, or hose cutter. Make a straight, clean cut at 90° to the oil hose. This will ensure a proper fit where the oil hose attaches to its connection.
- Over tightening hose clamps may cause oil leaks.

**CAUTION: ALLOW MOTORCYCLE TO COOL BEFORE ATTEMPTING INSTALLATION OR RISK SERIOUS INJURY.**

### Part 1: Oil cooler mounting

1. Remove stock 3/8" x 1-1/2" bolt and nut from frame Heim joint. Do not discard nut (figure 1).

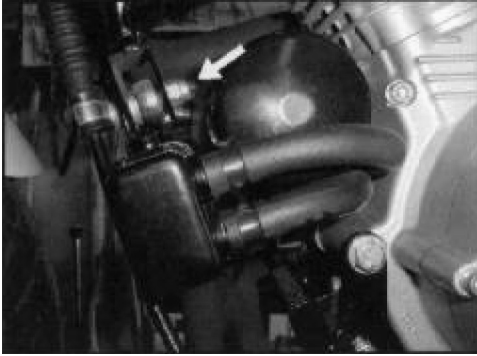


Figure 1

2. Insert 3/8" x 2" bolt (included) through clutch cable mounting bracket hole.
3. Insert (1) 3/8" spacer/washer (included) onto the 3/8" x 2" bolt.
4. Insert bolt through hole in oil cooler bracket and then through frame joint. Another spacer is included and may be used at the installer's discretion to allow increased spacing of clutch cable (figure 2).

**NOTE:** If there is concern for oil filter clearance during high-performance stopping and/or acceleration, the 3/8" x 2" bolt may be installed with the head in the rear of the joint at the discretion of the installer.



Figure 2

5. Reinstall nut from step 1.

### Part 2: Oil filter adapter mounting

6. Remove spin-on oil filter. Refer to motorcycle owner's manual for proper procedure changing oil and oil filter if needed. Clean area thoroughly.
7. Refer to Jagg oil filter adapter instructions (included) to install oil filter adapter, and then proceed to Part 3 of these instructions.

**SERVICE NOTE:** Inspect adapter and screws for tightness at each oil filter change.

### Part 3: Hose installation

8. Cut the provided oil hose into two equal lengths. Install 7/8" black hose clamps loosely onto the ends of the hose before pushing hoses onto the oil cooler's barbed fittings. A touch of oil on the oil cooler's barbed fittings allows the hoses to push on easily.
9. Push hose onto the oil cooler's barbed fittings until the hose bottoms out.
10. Secure hose over the fittings with the 7/8" black hose clamps included in the kit so the hose cannot pull over the barb on the fitting. The flow orientation of the oil cooler is non-directional, so either hose fitting will allow proper flow as an inlet or an outlet.
11. Measure, cut, route, and attach the oil hoses to the oil filter adapter. Secure hose over the fittings using the 7/8" black hose clamps onto the oil filter adapter inlet and outlet as detailed in the previous steps. Take care to make gentle bends in oil hose routing from oil cooler to adapter. Sharp bends may collapse under heat load and cause restriction to oil flow.

**NOTE:** It may be necessary to rotate hose clamps to ensure hose clamps do not interfere with oil filter installation.

12. Install oil filter onto the threaded stem of the oil filter adapter. Tighten per factory/service manual recommendations.
13. Refill the engine with the correct amount and type of oil per factory/service manual recommendations. The Jagg 6-row oil cooler included will add approximately 6 fl oz to the oiling system volume.
14. Start the engine and let it idle. Check all oil hose connections for any leakage and tighten hose clamps if oil seepage is discovered.

**NOTE:** Over-tightened hose clamps may cut into oil lines and cause oil leaks.

### Part 4: Final inspection

15. After installation completion and engine warm-up, shut the engine down and recheck the oil level. Correct the oil level if necessary, but do not over-fill.

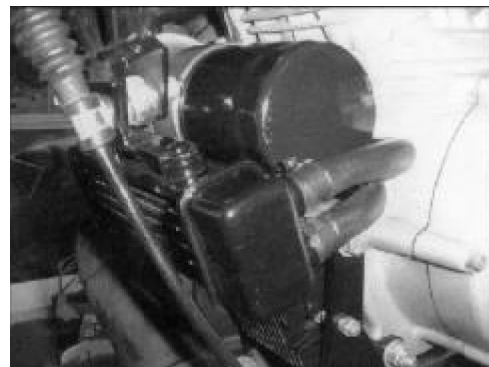


Figure 3: Installation complete



**INSTALLATION INSTRUCTIONS**  
Part # 4501  
Oil Filter Adapter with Viscosity Regulated By-pass

Please read these instructions completely before beginning installation.

**KIT CONTENTS**

QTY.	DESCRIPTION
1	Jagg 4501 Oil Filter Adapter Body
1	Jagg 4501 steel male-male two-stage oil filter bolt with 3/8" ratchet cutout
1	Large O-ring, square profile
2	1/8" NPT pipe plug
2	Adapter fittings - 1/8" NPT to 3/8" push-on hose barb
2	7/8" black wormdrive hose clamps

**TOOLS REQUIRED**

DESCRIPTION
Strap wrench or oil filter removal tool
3/8" ratchet & ratchet extension
Deep well socket: 7/8"
Hex key tool: 1/8"
Nut driver: 1/4" for hose clamps
Teflon pipe sealant (e.g., Loctite 592)

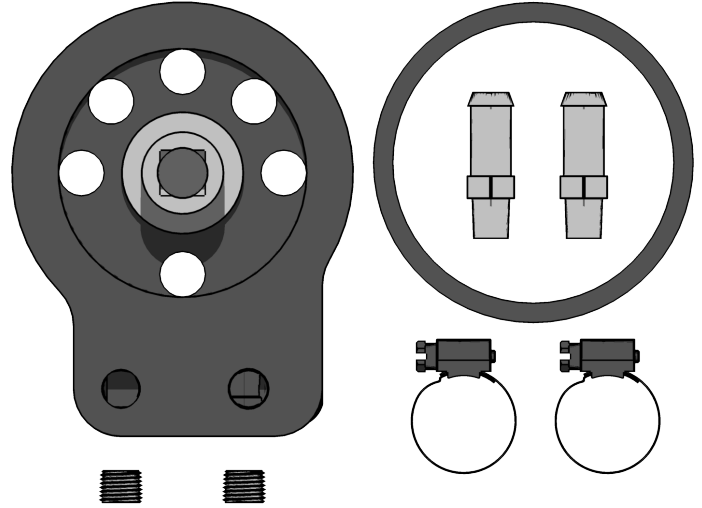
**Operation Summary**

The Jagg #4501 offset oil filter adapter is used to access the oil supply for the installation of a Jagg oil cooler. The #4501 directs oil through the filter first for optimal flow characteristics. After filtration, the oil may either travel to the oil cooler or by-pass the oil cooler, according to the built-in Viscosity Regulated Flow (VRF) plug function. Cold, viscous oil will by-pass the oil cooler, speeding warmup to standard operating temperature.

As the engine reaches operating temperature and oil reaches optimal viscosity range, the VRF plug will keep the #4501's by-pass hole closed, sending hot, filtered oil to the oil cooler, and delivering cool, clean oil to the engine.

Oil flow direction from adapter: oil feeds the oil cooler from the fitting on the left side and returns to the fitting on the right side, as viewed from front with oil filter adapter fittings at bottom.

If there is a Harley-Davidson factory oil cooler already installed, it accesses the oil supply at the pump and cools the top end of the



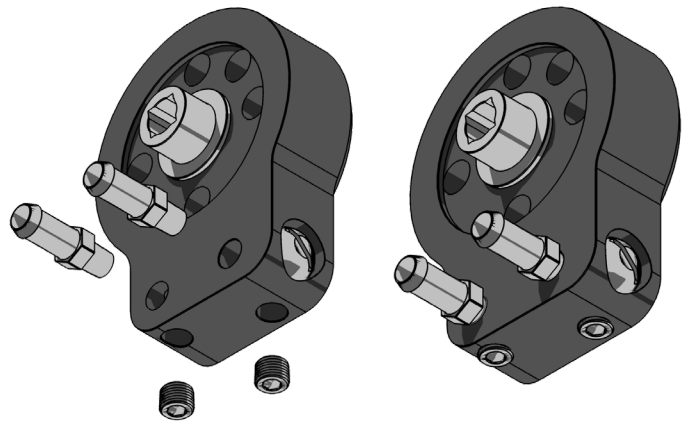
motor. The Jagg 4501 installs at the oil filter to create a separate, new cooling circuit, which cools the bottom end of the motor.

**Pre-installation steps**

1. Remove spin-on oil filter, and clean the filter mounting surface thoroughly.
2. Using a 7/8" deep well socket, remove the stock oil filter stem.

**Installing NPT pipe plug & hose barb adapter fittings**

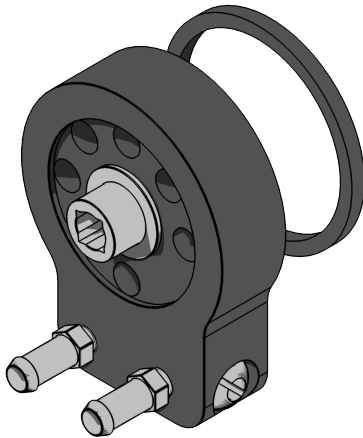
3. Apply Teflon pipe sealant (e.g., Loctite 592) to male pipe threads on the included NPT pipe plugs and hose barb adapter fittings.
4. Screw the NPT pipe plugs and hose barb adapter fittings into their ports to finger tight.



- Wrench tighten each NPT plug and fitting to 2-3 turns-from-finger-tight (T.F.F.T.).

#### Installing 4501 to engine oil filter mount

- Lubricate the large O-ring with a slight smear of oil and insert into O-ring groove on the rear of the 4501 body.
- With the O-ring sealing side facing toward the engine, place the 4501 body over the oil filter mount on the engine. Ensure the orientation of the 4501 allows the most convenient hose routing and clearance for fittings and hose around any obstacles on your motorcycle.
- Using a 3/8" ratchet extension inserted into the included male-male two-stage oil filter bolt, securely tighten the male-male two-stage oil filter bolt so the 4501 will not rotate and the sealing O-ring is tight against the stock filter mount.



This completes the installation of the #4501 offset oil filter adapter. The following instructions are for installing oil lines between a Jagg oil filter adapter and a Jagg oil cooler (sold separately).

#### Routing oil lines to oil cooler (sold separately)

- Cut oil hose into two lengths.
- Install 7/8" black hose clamps loosely onto hoses before installing hoses onto oil cooler nipples. A touch of oil on oil cooler nipples allows the hoses to push on easily.
- Secure hose over the fittings with 7/8" black hose clamps so the hose cannot pull over the barb on the fitting. The flow orientation of the oil cooler is non-directional, so either hose fitting will allow proper flow as an inlet or an outlet.
- Measure, cut, route, and attach the oil hoses to the oil filter adapter. Secure the hose over the fittings using the 7/8" black hose clamps onto the oil filter adapter inlet and outlet as detailed in the previous step.

**NOTE:** It may be necessary to rotate hose clamps to ensure hose clamps do not interfere with oil filter installation.

**CAUTION:** Take care to make gentle bends in oil hose routing from oil cooler to adapter. Sharp bends may collapse under heat load and cause restriction to oil flow.

- Install oil filter onto the threaded stem of the oil filter adapter. Tighten per factory/service manual recommendations.

#### Final inspection

- Inspect the oil hoses to ensure there are no tight bends that may restrict oil flow and that they are not contacting any moving parts. If necessary secure the new hoses to the frame with plastic zip-ties.

- Refill the engine with the correct amount and type of oil. Check the oil level per factory/service manual recommendations.
- Start the engine and let it idle. Check all oil hose connections for any leakage. Tighten any hose clamps that may be leaking.

**NOTE:** Over-tightened hose clamps may cut into oil lines and cause oil leaks.

- After installation completion and engine warm-up, shut the engine down and recheck the oil level. Correct the oil level if necessary, but do not over-fill.

#### SERVICE & UPGRADE ITEMS AVAILABLE

PART NO.	DESCRIPTION
11-RU77-34	<b>Jagg HyperFlow Lifetime Oil Filters</b> Originally designed for race vehicles, these cleanable/reusable filters employ a stainless steel woven element to offer greater flow and greater filtration than OEM filters.
SK4501	<b>Gasket service kit for Jagg # 4501 offset oil filter adapter</b> Includes: replacement O-rings for 4501
211-JSSN06 (silver) 211-JLWN06 (black)	<b>Performance Braided Hose Kits</b> High performance 3/8"(-06) Nitrile rubber oil hose with braided jacket, available in bright silver stainless-steel or black lightweight-fiber braided jacket. Includes 2x billet aluminum hose separators and 4x billet aluminum hose finishers with integrated wormdrive clamps.
08-0069	<b>Oil Filter Strap Wrench</b> Simply one of the easiest oil filter wrenches to use. Takes virtually no space in the toolbox or the saddlebag.
11-0064	<b>Oil Filter Magnet</b> Catch harmful metals in your oil.

See these items and more at:  
[www.jagg.com](http://www.jagg.com)