

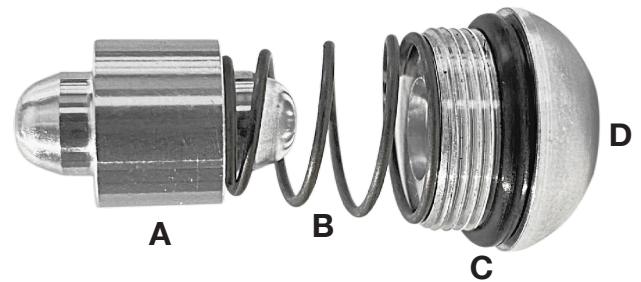
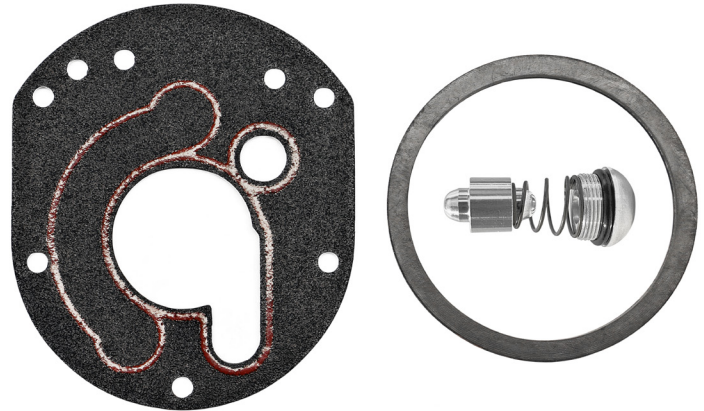


**INSTALLATION INSTRUCTIONS**  
 Part # AK4700-VRF  
 Viscosity Regulated Flow Plug  
 for #4700 Offset Oil Filter Adapter

Please read these instructions completely before beginning installation.

**KIT CONTENTS**

QTY.	DESCRIPTION
1	(A) Viscosity Regulated Flow (VRF) plug
1	(B) Retention spring
1	(C) O-ring for button-head cap
1	(D) Button head cap plug with slot
1	AFM gasket for Jagg oil filter adapter
1	Large O-ring for Jagg oil filter adapter



**Operation Summary**

The #AK4700-VRF installation converts a Jagg #4700 offset oil filter adapter into a Jagg #4701 offset oil filter adapter with Viscosity Regulated Flow.

The Jagg #4701 offset oil filter adapter is used to access the oil supply for the installation of a Jagg oil cooler. The #4701 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 #4701'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.

For convenience & efficiency is recommended to service Jagg part #4700 offset oil filter adapter during a regularly-scheduled oil change. Follow vehicle factory service manual to drain engine oil.

**CAUTION:** To prevent injury, allow vehicle to cool before attempting installation and/or disassembly.

**Part 1: Remove Jagg offset oil filter adapter**

1. Remove spin-on oil filter adapter from Jagg part #4700 offset oil filter adapter.
2. Disassemble Jagg #4700 offset oil filter adapter by removing the five socket head screws from the front face of the #4700, using a 5/32" hex key tool.
3. Remove and discard the old aluminum foamette material

- (AFM) gasket found between the two halves of the adapter.
4. Using a 1" deep-well socket, remove the 1" lock nut from the rear half of the adapter, and remove the rear half of the adapter from the motorcycle.
  5. Remove and discard old large O-ring from the back half of the adapter.

**Part 2: Install VRF Plug**

6. Remove existing button head cap plug from #4700 and discard along with any components it was retaining (actuator or plug, retention spring, O-ring).

**TIP:** Two short lengths of stiff wire locked in hand-held vice grip pliers are effective for removing the actuator.

7. Insert the new VRF plug components into the by-pass hole, taking care to assemble them in the order shown in top-right photo, **A-B-C-D**.
8. Starting by hand, tighten button head cap plug to ensure the fine aluminum threads are engaging properly. Using flat-blade screwdriver, tighten button head cap plug until it stops.

**Part 3: Reinstall Jagg offset oil filter adapter**

9. Install new large O-ring onto the rear half the adapter.

**Warning:** Installation should only be attempted by those with mechanical skills and experience working on vehicles. Standard safety precautions consistent with the tools and dangers of automotive work should be followed to protect from injury. Specifically, wear protective equipment, take care to stabilize the vehicle on a level surface or supportive lift, and allow vehicle to cool before attemptation installation; failure to comply can result in injury and/or damage to equipment.

10. Clean the oil filter landing on the engine thoroughly and ensure the flat sealing surface of the large O-ring is free of debris. Do not apply oil to this O-ring.
11. Place the back half of the adapter over the threaded oil filter stem.
12. If an anti-rotation device is being used, tighten the 1" lock nut to finger-tight and proceed now to step 13. If an anti-rotation device is not being used, skip to step 14.
13. Place the front half of the adapter over the rear half and rotate this assembly counter-clockwise until the anti-rotation device makes contact with the engine case.
14. Remove the front half of the adapter and hold the back half of the adapter in its current orientation. Use 1" deep well socket to securely tighten the 1" lock nut so the back half of the adapter will not rotate and the sealing O-ring is tight against the stock filter mount. This may require a prying force applied against the adapter to allow tightening while retaining the chosen orientation.
15. Install new AFM gasket onto the back half of the adapter.

**CAUTION:** AFM gasket should be applied dry. No additional gasket sealing compound is required. Ensure the adapter halves are free of oil residue.

16. Place the front half of the adapter against the gasket and loosely install socket head screws. If using a thread locking compound, please choose a medium strength and use it on the screws at this step.
17. Evenly draw the two halves of the adapter together by gradually tightening the socket head screws in an alternating criss-cross pattern (e.g., as when tightening the wheel lug nuts on a car).
18. When the adapter halves have been evenly drawn together, firmly tighten the socket head screws using the same criss-cross pattern as before.

**SERVICE NOTE:** Inspect adapter and screws for tightness at each oil filter change. To ensure proper seal, replace gaskets any time adapter is removed or disassembled.

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

**Part 4: Final Inspection**

20. Inspect 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 hoses to the frame using plastic zip-ties.
21. Refill engine with the correct amount and type of oil per operator's manual.
22. Start the engine and let it idle while checking all hose connections for any leakage. Tighten any loose hose clamps if a leak is found but take care not to overtighten. Overtightened hose clamps may cut into oil lines and cause oil leaks.
23. After installation completion and engine warmup, shut the engine down and recheck the oil level. Correct the oil level if necessary but do not overfill.

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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.
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	Oil filter strap wrench. Simply one of the easiest oil filter wrenches to use. Takes virtually no space in the toolbox or the saddlebag.
11-0064	Oil filter magnet. Catch harmful metals in your oil.

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