



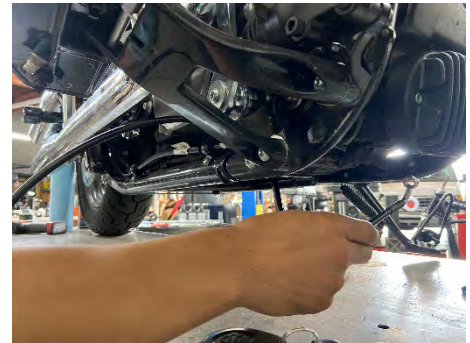
## AIM LF V3 Hydraulic Conversion Kit Instructions

**DISCLAIMER:** This product is meant to be used with factory components. Factory grips, lever, OEM and or Screamin eagle clutch plate kits are highly recommended for proper operation of the Light Force. Any other aftermarket components may have compatibility issues and or improper clutch operation. Please consult with us if you have any questions on regarding your setup.

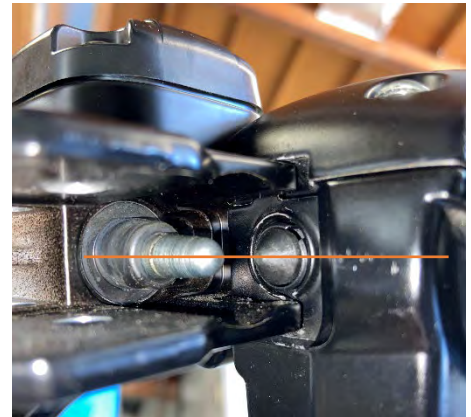
1. Have the bike rested on a stand and strapped down for a secure workspace.
2. Loosen the clutch cable to release tension.
3. Remove derby cover to gain access to the clutch cable adjuster.
4. Remove retaining C Clip that keeps the release plate within the stock pressure plate.
5. Once the C Clip has been removed, you may pull out the release plate with the stud and lock nut. You will set this aside as this will not be used anymore for the conversion.
6. Take the new provide assembled hydraulic release plate bearing and install onto the factory pressure plate.
  - a. Note: Dome shaped hole on the release should be facing towards the primary and the c clip should be pointing towards the derby cover.
7. Seat the release bearing flat against the pressure plate and reinstall using the existing c clip.
  - a. The C Clip will have a rounded edge and a sharp edge. Orient the C clip with the sharp side facing toward the derby cover on installation.
  - b. Make sure the C clip is fully seated as it may be a bit tricky to install onto the pressure plate.
8. Once finished, you may close the derby cover as primary side of the install is complete. Now move over towards the right side of the bike.
9. Depending on your exhaust setup, the exhaust is recommended to be removed to gain access to the clutch cable mechanism without damaging or scratching upon removal.
10. Drain the transmission fluid.
11. Remove the surrounding bolts to remove the cable clutch cover mechanism that is on the transmission.
  - a. Note: We will be reusing these cover bolts so keep these.



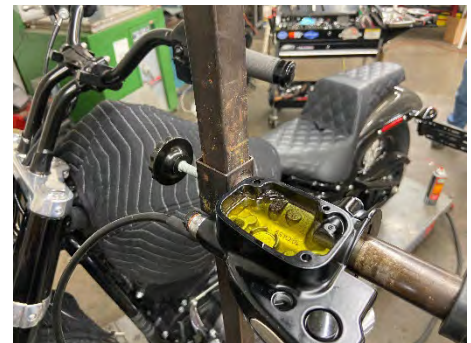
12. Once removed from the transmission, the clutch cable will need to be removed from the housing, as you will need to route the cable out for removal.
13. Now is a good time to remove the lever assembly along with the cable as well.
14. You may now remove the transmission cover away and you can set this aside as this will not be used anymore.
15. Remove the oil slinger assembly that is on the left side. This will not be used anymore and can be set aside.
16. Pull out the push rod that is located inside of the main shaft on the left side.
  - a. If you do not see the push rod. Use a magnet to pull the push rod out or take a screwdriver to push the push rod towards the other side (Derby cover and release plate on the pressure plate will need to be removed as well).
17. Once the push rod is removed. You may replace it with the shorter rod that came with the kit.
  - a. Install the new pushrod, the new push rod should be longer in length compared to the cable version.
18. You may now install the new hydraulic outer cover with the new supplied gasket that was included with the kit.
  - a. Do note the previous orientation of the screws as they will be reused for installation of the new hydraulic cover.
  - b. Top two screws are significantly shorter than the rest. These will need to go on the top only.
19. Once installed, the Light Force Slave Cylinder can now be screwed on using the included new 3 screws and washers.
20. Route your new hydraulic clutch line from the slave cylinder up.
  - a. This will ensure that the bottom section of the line is properly secured and tucked enough to provide ample amount of length to reach the master cylinder.
  - b. Use any existing clamps or zip ties needed to make for a clean install.
  - c. Adjust as much as you can now before fluid is in the line. This will make the job a lot harder after once you have already bled the system.
21. Once routed, install the clutch line onto the Light Force Slave Cylinder.
  - a. If you are using our double banjo type. Use the included banjo bolt and crush washer for the installation.



- b. If you are using a factory clutch line, no modification will be necessary.
  - c. If you are using your own custom length line, install procedures will be the same. Routing however will differ between bar types and lengths.
  - d. If you are using our double banjo style clutch line. Do note that the line will be very close in between the cover and the exhaust. Please provide an even gap between the two to ensure that there will be no contact.
22. Install the new master cylinder and install this onto your handlebar.
- a. Use the provided black half clamp that is specific to your model and re use your old screws off your master cylinder as they should screw on no problem.
  - b. Also note the orientation of the screw head that is on the newly modified clutch lever. Clutch switch and the screw head should be in line with each other.
    - i. ***This is extremely important for those that have a mushroom style switch as if any mis alignment were to occur, the lever may not actuate the switch properly or may cause binding issues.***
23. Install the clutch line onto the master cylinder using the included banjo bolt and crush washers.
24. During the bleeding procedure be sure to keep this master cylinder level always as it is critical for the bleeding procedure.
- a. If it is not possible. It is recommended that the master cylinder to be installed onto a stand where it can be mount as level as possible.
25. Start the bleeding procedure for the Hydraulic clutch system.
- a. ***Please ONLY USE OE Harley Davidson Premium DOT 4 recommended fluid. Using any other fluid such as DOT 5 will cause issues with the hydraulic system as the clutch system was not designed to work with that fluid.***
  - b. Keep the fluid reservoir as level as can be to ensure proper levels and proper bleeding.
  - c. ALWAYS keep the fluid level topped off during the bleeding procedure. Failure to do so will



Tip: Position the master cylinder pushrod in line with the switch for the best optimal lever to switch contact position.



- result in air locks and multiple bleeding procedures will be advised.
- d. AIM Corps recommended plate movement is (0.0700 in) measured with a dial indicator measured from the center of the push rod on the clutch side.
  - e. Once the bleeding procedure is complete and you have confirmed that there are no further air locks. Confirm the clutch lever pull, and make sure the clutch properly engages and disengages. The clutch should feel significantly lighter than previous and should be very apparent. The clutch engagement point in the lever may be closer to the grip after this upgrade.
26. Fill the transmission fluid with new oil. Fill to the appropriate level.
  27. Double check for leaks and make sure the clutch line is not in contact with any exhaust or engine related items.
  28. Double check to make sure the clutch switch is properly engaging the neutral safety protocol working as it should and that the bike does not start when in gear with no clutch.
    - a. If the bike were to start without the clutch while in gear, then the switch install may have gone wrong.
  29. Your bike should be ready to ride. Go slow, and make sure there are no funny noises or clutch engagement issues.

**If you have any further questions or concerns, please email or call.**

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