



Variable Inline Enrichment Device®

A “plug-n-play” upgrade that allows engines equipped with OEM oxygen sensors to run at a richer air fuel ratio range of 14.3:1 to 13.8:1 in closed loop mode, providing:

- lower engine temperature
- improved throttle response
- decreased exhaust heat
- less engine “ping”

Fits many 2007 - 2013 Harley-Davidson® products.

	2007	2008	2009	2010/11	2012/13
Touring	✓	✓	✓	FL-VIED-10	FL-VIED-10
Softail	✓	✓	✓	✓	FL-VIED-10
Dyna	✓	✓	✓	✓	FL-VIED-10
Sportster	✓	✓	✓	✓	✓
V-Rod	✓	✓	✓	✓	FL-AFXIED-10

NOTE: VIED® is also available for 2006 Dyna.

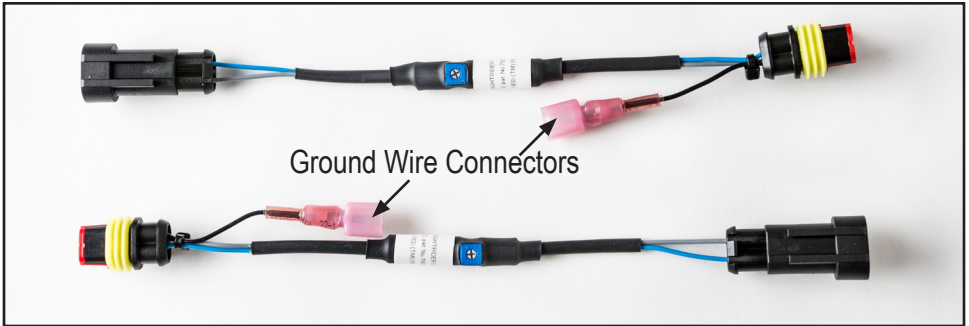
Installation Instructions:

1. Locate the front and rear O2 sensors on the exhaust header.
2. Follow the wiring 6-8” back to the black connector.
The front O2 sensor connector is located on the lower front frame below the voltage regulator on Touring, Softail, and Dyna; and on the left front frame down tube on Sportster. The connector may be located behind a plastic panel. The rear O2 sensor connector is located near the oil filler cap on Touring, below the oil tank on Softail, under the seat on Dyna, and on the left rear frame down tube on Sportster.
3. Remove any tie wraps holding the connectors in place.
4. Unplug the O2 sensor connector from the wiring harness.
5. Plug the VIED® between O2 sensor connector and the wiring harness. It is important to make sure the connectors lock into each other.
6. Tie-wrap the VIED® in place to prevent movement. The VIED® can be folded in a “Z” shape for a cleaner installation.



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IMPORTANT: Installation of a ground wire is required on 2009 Touring and 2010/11 Softail CVO - other bikes do not require ground wire installation. Connect the rear ground wire to ground stud or negative battery terminal. Connect the front ground wire to the voltage regulator body.



Do not connect the ground wire to the positive battery terminal. Doing so could cause damage to the ECM or the VIED.

Do not expose the VIED® to any high pressure water stream. Check VIED® grounds on 2009 Touring and 2010/11 Softail CVO if high or erratic idle exists.

Adjustment Notes:

- Use a Jeweler's screwdriver to make adjustments to the VIED®.
- Do not force the VIED® adjustment dial.
- Set the initial value based on the table of Maximum Recommended Settings.
- If a check engine light occurs, set the AFR 12% - 25% leaner.
- The OEM factory setting is 14.6:1
- The 0% setting represents an approximate setting of 14.4.
The 100% setting represents approximately 13.7 - this setting is not recommended.



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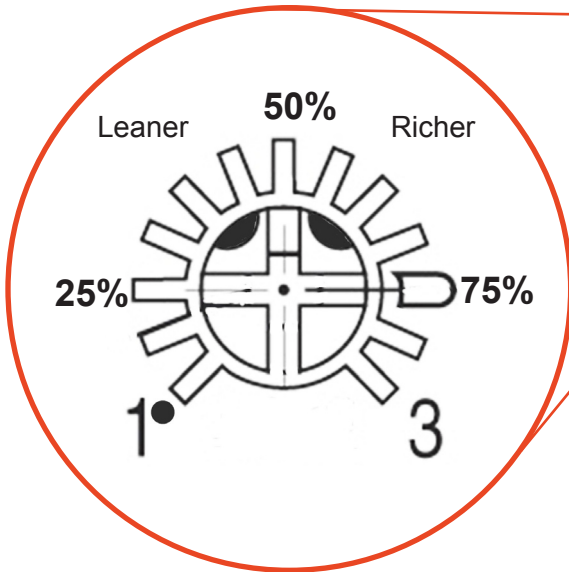
Maximum Recommended Settings:

	2007	2008	2009	2010/11	2012/13
Touring	75%	75%	75%	FL-VIED-10	FL-VIED-10
Softtail	75%	75%	75%	75%	FL-VIED-10
Dyna	75%	75%	75%	75%	FL-VIED-10
Sportster	50%	50%	50%	75%	75%
V-Rod	75%	75%	75%	75%	FL-AFXIED-10

NOTE: Maximum recommended setting for 2006 Dyna is 12%.

Approximate AFR values
for VIED®:

- 12% - 14.3
- 25% - 14.2
- 50% - 14.0
- 75% - 13.8





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Please Note: Transient codes P0131 and/or P0151 may be present in the electronic control module (ECM) after the VIED® is installed. The presence of these specific codes in ECM history is not unusual on bikes with IEDs installed, nor does their presence cause any problems. The HD Service Manual indicates that these codes and be “cleared and ignored.”

Disclaimer:

This product is intended for race vehicles used on closed courses, and not for use on roads or vehicles otherwise subject to emission control requirements. In California, this product must not be used on any vehicle that is registered or licensed for use on public roads.

Actual results from the installation of the VIED® may vary between individual bikes.

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