

FL-VIED-10

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 14.4:1 to 13.9:1 in closed loop mode, providing:

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

Fits 2010 and later Harley-Davidson® Twin Cam models with OEM 4-wire Delphi 12mm O2 sensors. Includes 2010 and later Touring, and 2012 and later Dyna and Softail.

	2010	2011	2012	2013	2014/15
Touring	✓	✓	✓	✓	✓
Softail	VIED®	VIED®	✓	✓	✓
Dyna	VIED®	VIED®	✓	✓	✓
Sportster	VIED®	VIED®	VIED®	VIED®	XL-VIED-14
V-Rod	VIED®	VIED®	FL-AFXIED-10	FL-AFXIED-10	FL-AFXIED-10

Recommended for HD bikes with OEM emissions downloads. These include:

- TC96, TC96 Stage 1
- TC103, TC103 Stage 1, TC103 Stage 2
- TC110, SE CVO 110

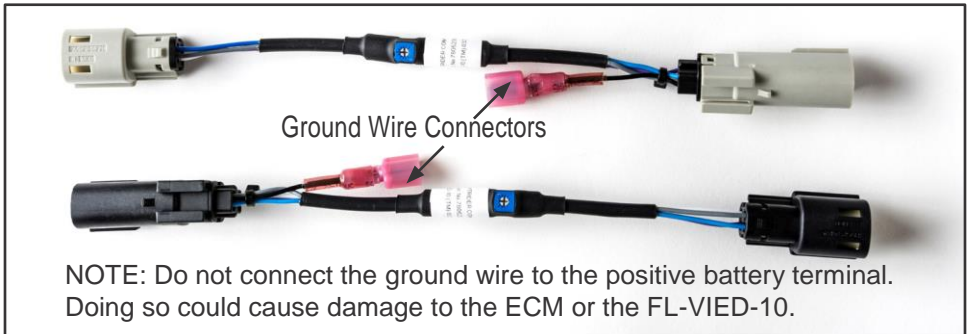
Upgraded exhaust systems including slip-on mufflers and full exhaust changes, and air cleaner upgrades are compatible with the FL-VIED-10 upgrade.

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Installation Instructions - Touring:

1. Remove the right side cover.
2. Locate the color-coded front and rear O2 sensor connectors.
3. Unplug the O2 sensor connector from the wiring harness.
4. Plug the color-coded FL-VIED-10 between O2 sensor connector and the wiring harness. The front connector is gray; the rear connector is black. It is important to make sure the connectors lock together.
5. Connect the FL-VIED-10 ground connectors to either a frame bolt or the battery negative terminal.
6. Tie-wrap the FL-VIED-10 in place to prevent movement. The FL-VIED-10 can be folded in a "Z" shape for a cleaner installation.



Installation Instructions - Dyna, Softail

1. Locate the front and rear O2 sensors on the exhaust header.
2. Follow the wiring 8-10" back to the black/white connector.
The front O2 sensor connector is located on the lower front frame below the voltage regulator. The rear O2 sensor connector is located below the oil tank on Softail and under the seat on Dyna.
3. Unplug the O2 sensor connector from the wiring harness.
4. Plug the FL-VIED-10 between O2 sensor connector and the wiring harness. It is important to make sure the connectors lock together.
5. Connect the FL-VIED-10 ground connectors to either a frame bolt or the battery negative terminal.
6. Tie-wrap the FL-VIED-10 in place to prevent movement. The FL-VIED-10 can be folded in a "Z" shape for a cleaner installation.

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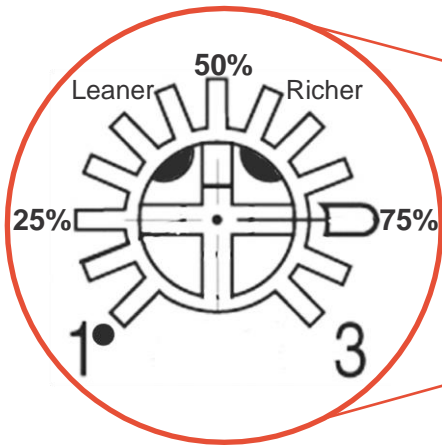
Adjustment Notes:

- Use a Jeweler's screwdriver to make adjustments to the FL-VIED-10.
- Do not force the FL-VIED-10 adjustment dial.
- Set the initial value based on the Recommended Settings.
- If a check engine light occurs, set the AFR 12% - 25% leaner.

Recommended AFR Settings for FL-VIED-10:

- Touring with OEM header - 14.0-13.9 (50-75%)
- Touring without converter, with quiet exhaust - 14.0-13.9 (50-75%)
- Touring without converter, with loud exhaust - 14.2-14.0 (25-50%)
- Softail/Dyna with OEM muffler - 14.0-13.9 (75%)
- Softail/Dyna with aftermarket exhaust - 14.2-14.0 (50-75%)

Air Cleaner changes do not impact settings. A free-flowing exhaust with no converter may cause AFR readings to show .2 richer than actual.



Approximate AFR Settings for FL-VIED-10:

	14.3	14.2	14.1	14.0	13.9
Slip-Ons		50%		75%	85%
Without Converter		25%		50%	

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Do not expose the FL-VIED-10 to any high pressure water stream. Check FL-VIED-10 grounds if high or erratic idle exists.

Please Note: Transient codes P0131 and/or P0151 may be present in the electronic control module (ECM) after the FL-VIED-10 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 can 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 FL-VIED-10 may vary between individual bikes.

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