



DYNATEK IGNITION with EFI REV-EXTEND

(P/N DFS7-29 FOR 2007-2008 YAMAHA GRIZZLY 700 EFI)

(P/N DFS7-30 FOR 2009+ YAMAHA GRIZZLY 700 EFI)

8,500 RPM LIMIT (7,300 stock Grizzly 700)

CAUTION: This ignition will increase the engine rev-limiter!

Congratulations on your purchase of a Dynatek ignition. Please take a moment to read these instructions completely before installing the ignition. The installation will only take about thirty minutes, but proper setup for your specific vehicle may take longer. The DynaFS ignition was designed to work best with the Dynatek coil kit DCK7-5(2007 models) or DCK7-8(2008+ models) or stock coil with the stock coil wire, plug cap, and spark plug. Always use the stock resistor style spark plug cap and a resistor spark plug.

Description

The DYNATEK Ignition Module for the Yamaha Grizzly 700efi is a piggyback add-on device that will increase the performance of the stock ignition and fuel injection system. This Module is designed to work in conjunction with the stock ECU, and will take complete control of the Ignition Timing while safely extending the fuel injection rev-limit. With the optional Dynatek CurveMaker software or the Dynatek DRSP-1 remote serial programmer, the ignition curves, fuel maps, rev-limits, and vehicle speed limits can be custom tailored for any application.

Installation

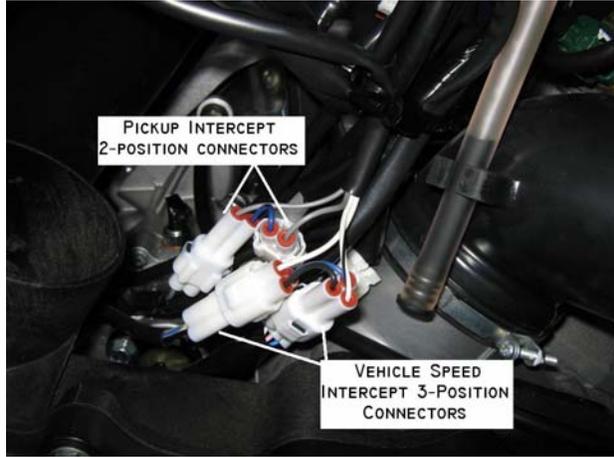
This kit includes: DynaFS ignition, electrical wiring, velcro, cable tie-wraps and instruction sheet. This is a complete kit, and includes everything needed to install the ignition. Route all wires carefully. Secure wires using the supplied cable-ties to ensure electrical wires do not chafe or touch anything sharp or hot.

1. Turn ignition key off. Remove the right side plastics and snorkel. Use the supplied velcro to install the ignition in the preferred location, right side of fuel tank (picture 1).
2. Connect the Pickup Intercept and Vehicle Speed Intercept (both located on the right side of engine, near the starter motor) by unplugging the stock connectors and connecting the matching DFS harness connectors in-line (picture 2).
3. Connect the Throttle Position Intercept (right side of throttle body) and Fuel Injector Intercept (top of engine) by unplugging the stock connectors and connecting the matching DFS harness connectors inline. It is very difficult to reach the TPS connector, and may require removal of the airbox assembly to reach these connectors. Route the harness carefully using the supplied tie-wraps (picture 3).
4. Route the Coil Connections Harness towards the coil. Connect the Ignition Coil Intercept (at the ignition coil terminals) by removing the stock ORANGE wire (coil negative) and connecting it to the DFS ORANGE wire (picture 4).
5. For **2007 models** with black connector at coil +12V: **USE PICTURE 5**
Connect the Ignition +12V stock BROWN/RED wire (black plastic connector) to the DFS piggyback spade connector, and then re-connect the joined terminals to the left side of the coil, ensure this connection is tight. Now, using the supplied Orange adaptor wire, Connect the DFS Ignition Coil Output ORANGE/BLACK wire to this adaptor, and the other end to the right side ignition coil negative input.
5. For **2008+ models** with 90° rubber connector at coil +12V: **USE PICTURE 6**
Connect the DFS Ignition Coil Output ORANGE/BLACK wire to the ignition coil negative input. Connect the Ignition +12V Piggyback by removing the stock RED/BLACK 90° terminal and installing the DFS piggyback spade connector the coil positive, and then re-connecting the stock +12V lead to the DFS piggyback terminal.
6. Connect the DFS BLACK GROUND wire under the 8mm bolt at the back of the starter motor, directly under the throttle body. This can be easily seen from the right side of the vehicle (picture 4).
7. Finally, tie-wrap the DFS Accessory Wires away from the engine and away from sharp objects.
8. Now is a good time to start the vehicle and check that the vehicle idles properly.
9. Installation is complete! Reinstall snorkel and body plastics. Double-check your wiring and secure all loose wires using tie-wraps.

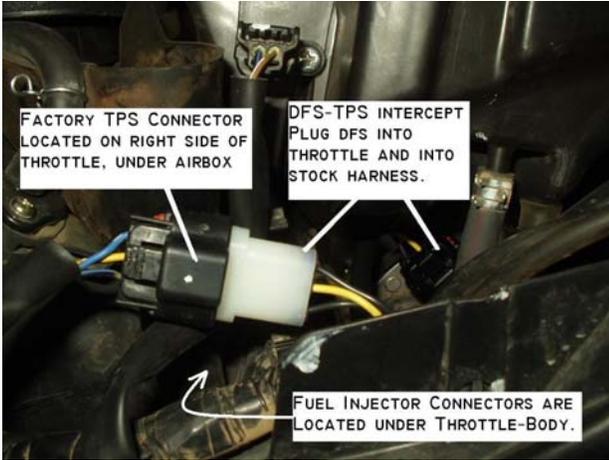
Picture 1:



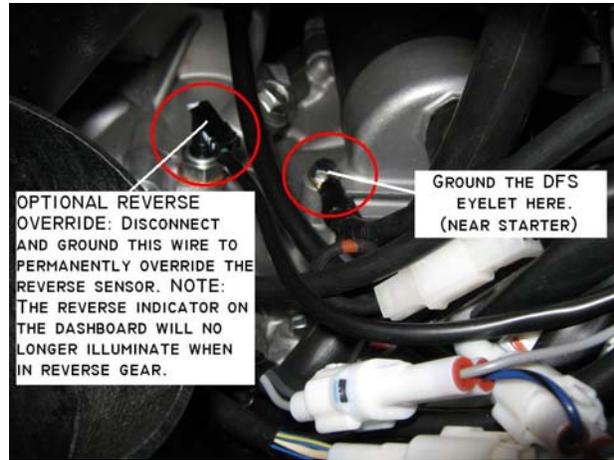
Picture 2:



Picture 3:



Picture 4:



Picture 5:



Picture 6:



Calibration

DYNATEK 164 S. Valencia St., Glendora, CA 91741 800-928-3962 www.dynaonline.com

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The DynaFS is pre-programmed with a single performance advance curve, +4° over stock, and an 8,500 RPM rev-limit. A quicker throttle response and increased power over the stock curve is achieved. To select another advance curve, use the DRSP-1 Programmer. For other advance curve information, see the attached Advance Chart. This ignition will allow the engine to rev to a higher RPM, and is adjustable to 10,000 RPM max by using the CurveMaker software. Because the rev limit is increased, the performance limits of other engine parts (valve train or piston for example) may be found. It may be necessary to replace these parts for best engine performance. The DynaFS is shipped from Dynatek with 0% adjustments to all of the fuel injection settings. For more information on fuel settings, see the section on Using the DRSP-1 Remote Programmer, and the Fuel Curves Chart.

Using the DRSP-1 Remote Serial Programmer

The DRSP-1 Remote Serial Programmer (sold separately) for the Grizzly 700 is a plug-in programmer for adjusting the fuel injection and ignition advance curves. Simply plug the DRSP-1 into the DFS HARNESS and mount the Remote to the vehicle's dashboard for easy access. The Remote allows adjustment to the stock fuel injections signal in multiple stages.

NOTE: It is **HIGHLY RECOMMENDED** to use a wide band oxygen sensor and quality gauge (such as Dynojet's Wide Band Commander) when tuning the fuel injection. Without a gauge, the air/fuel ratio cannot be determined and possible engine damage can occur.

FUEL BASE – this setting will adjust the entire fuel map: 1 = 0% 2 = +10% 3 = +20% 4 = +40%

FUEL LOW – this setting will adjust fuel from 0 rpm to 3,000 rpm, in the ranges of: -17.5% to 0% to +20%

FUEL MID – this setting will adjust fuel from 3,001 rpm to 6,000 rpm, in the ranges of: -17.5% to 0% to +20%

FUEL HIGH – this setting will adjust fuel from 6,001 rpm to 10,000 rpm, in the ranges of: -17.5% to 0% to +20%

IGN CURVE – this setting will adjust the Ignition Curve, up to 4 selectable and all can be custom programmed using the CurveMaker Software. (see attached Curve Chart)

NOTE: The DRSP-1 can be removed after adjusting the settings, and the DynaFS will keep the settings even with the battery disconnected. If the LED on the Remote does not turn on, or the LED flashes continuously after 10 seconds, then the ignition and Remote should be returned to Dynatek for testing.

Additional Features

The DFS for the Grizzly 700 has many additional features. These are pre-programmed and they all can be accessed using Dynatek CurveMaker Software (not supplied with the ignition). If the ignition was not purchased directly from Dynatek, the dealer may have programmed a custom set of ignition curves and fuel injection settings. The dealer should be consulted with any questions regarding the curves and settings that are programmed into the ignition.

The DFS ignition for the Yamaha Grizzly 700 has a Vehicle Speed Limit set to 100 MPH. This vehicle speed limiter is independent from the 8,500 RPM engine speed (RPM) limiter, and is adjustable in the CurveMaker software from 5 to 199 MPH. This limiter will be activated every time the vehicle speed matches this number while in Forward Lo, in Forward Hi or in Reverse gear.

The DFS ignition for the Yamaha Grizzly 700 is shipped with additional leads coming out of the ignition. These leads allow the ignition to control other features. To program these features, follow the instructions in the programming kit.

PURPLE/WHITE – Programmable Safety Vehicle Speed Limit. Ground this wire to activate, preset at 15 MPH (5-199 MPH adjustable using CurveMaker software)

BLACK/YELLOW – Programmable Launch Limiter. Ground this wire to activate, preset at 3,200 RPM (0-10,000 RPM adjustable using CurveMaker software)

BLUE – Optional 2-amp RPM window activated switch to ground, referenced as “RPM Switch 1” in PC Software.

WHITE/BLUE – Optional 2-amp RPM window activated switch to ground, referenced as “RPM Switch 2” in PC Software.

The Blue and White/Blue wires are 2-amp switches that can be used to activate a solenoid or relay. Connect the relay with hot +12v wired to one side of the relay coil, and the other side connected to Blue or White/Blue. When the rpm activates the switch, it will be grounded inside the ignition box, causing current to flow through the relay coil. **DO NOT** connect any device which requires more than 2 Amps (Amps=Volts/Resistance). See attached wiring diagram for wiring the relay.

Optional REVERSE OVERRIDE: Disconnect the reverse sensor and ground the wire to disable the reverse rev-limiter.

NOTE: The “R” reverse light indicator on the dashboard will no longer illuminate. See Picture 4.

Data Recording

PART-
THROTTLE

- CURVE2

- CURVE1

- CURVE4
STOCK

- CURVE3
RETARD

CURVE2
ADVANCED

DE OPEN
THROTTLE
(curves 1-4)

100+
RPM MAX>

-30
FIT

(800)953-3962

CURVES

REV

- Y 700 1.0

