



Dyna FS Ignition DFS 7-21 2006+ Yamaha Raptor 700R

9,100 RPM LIMIT (9,000 stock YFM700R)

CAUTION: This ignition can increase the engine rev-limiter! The stock fuel injection limits at 9,000RPM

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 one half hour, but proper setup for your specific bike may take longer. The DynaFS ignition was designed to work best with the stock coil, coil wire, plug cap, and spark plug or Dynatek coil kit DCK7-1.

This kit includes: DynaFS ignition, electrical wiring, cable ties and instruction sheet. This is a complete kit, and includes everything needed to install the ignition.

Note:

Route all wires carefully. Secure wires in factory loops or use the supplied cable-ties to ensure electrical wires do not chafe or touch anything sharp or hot.

Installation

- 1) Turn ignition key off. It is not necessary, but recommended to remove the front plastics and fuel tank to make routing of the electrical harness easier.
- 2) The DynaFS ignition for the Raptor 700R was designed to fit in the document/tool tray area behind the airbox, under the seat. Find a suitable location if this area has been changed.
- 3) The DFS electrical harness has two parts. The first part: ground, pickup and TPS(yellow) harness was designed to route along the left side of the airbox, to the battery and left side of the engine.
 - a) Connect the black ground wire (with eyelet) to battery ground.
 - b) Crank position sensor wires are on the left side, above the starter motor and behind the throttle body. Wire colors are Blue/Yellow and Black/Blue. Unplug the two position WHITE connector with these colors. Plug the white connectors to the Dyna ignition, forming a "Y" intercept. (see pictures 1, 2)
 - c) Connect yellow Dyna wire to yellow wire at the Throttle Position Sensor (right side of throttle body) using the supplied T-Tap connector. Unplug the TPS connector. Unwind electrical tape at TPS connector. Cut a one inch slice in the protective sleeve, to expose the yellow wire. Place T-Tap connector over yellow wire. Close T-Tap on wire using pliers. Plug on yellow Dyna wire. Reposition sleeve, and re-tape. Plug the TPS connector back onto the TPS sensor. (see pictures 3, 4, 5)
- 4) The second part of the electrical harness: coil intercept and power wires get routed along the left side of the airbox, then across the frame behind the fuel tank, then along the right side of the frame up to the ignition coil.
 - a) Disconnect the Orange wire from the ignition coil negative and connect to the DFS orange wire. Plug the DFS Orange/Black wire onto the ignition coil negative.
 - b) Disconnect the Red/Black wire (Switched +12V) from the ignition coil positive, and install the DFS Red/Black piggyback spade connector onto the ignition coil positive, connect the Raptor Red/Black wire onto the DFS piggyback terminal.
 - c) The DFS – BLACK/WHITE wire is an extra KILL INPUT for simple wiring of an aftermarket Tether Switch for racing. Ground this input to activate.
 - d) The DFS - PURPLE wire is for activating the 4500 RPM two-step launch limiter (RPM cannot be adjusted). Ground to activate low-side limiter.
- 5) Zip-tie loose harness or accessory wires to the frame. Use the supplied velcro to mount the ignition.

Calibration

The DynaFS is programmed with a performance advance curve. A quicker throttle response and increased power over the stock curve is achieved. For other advance curve information, see the attached Advance Chart.

This ignition can potentially allow the engine to rev to a higher RPM, however, the STOCK EFI will limit the engine to 9,000 RPM by shutting off the fuel injector. Because the rev limit can potentially be increased, the performance limits of other engine parts (valvetrain or piston for example) may be found. It may be necessary to replace these parts for best engine performance.

Troubleshooting

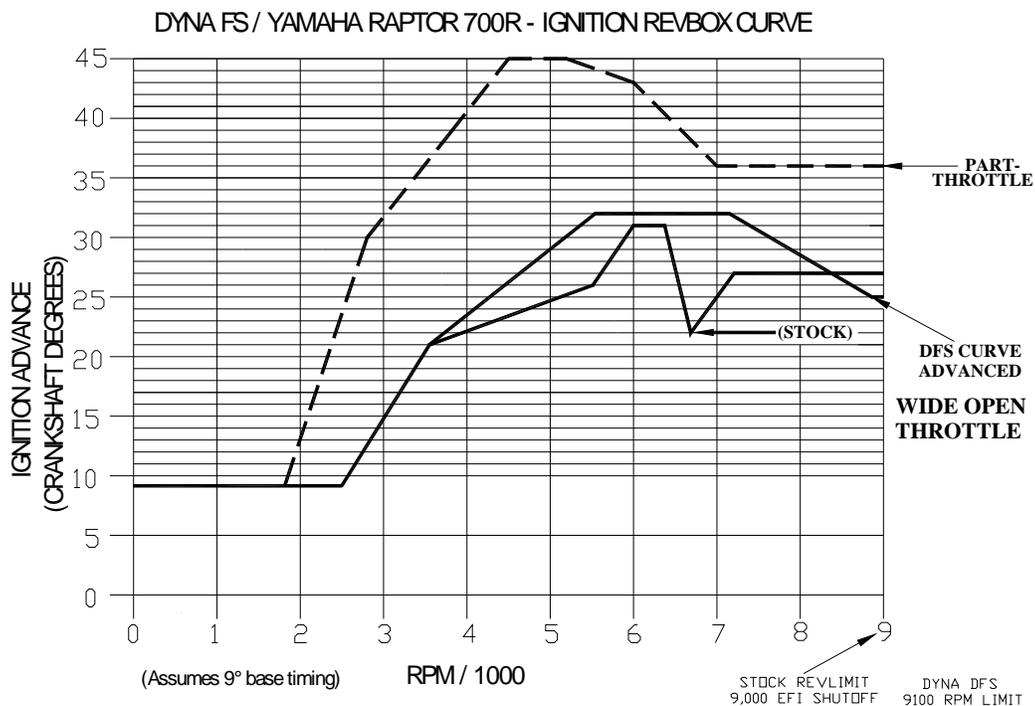
Troubleshooting the Dyna ignition is simple. If the bike will not start or run at all, disconnect the pickup intercept connector and connect the Raptor Orange wire back to the ignition coil negative. If this fixes the problem, then the Dyna ignition should be returned to Dynatek for testing. If this does not fix the problem, then the problem is somewhere else on the bike. Follow the troubleshooting procedures outlined in your bike shop manual.

If you are using non stock spark plug, or stator, replace them with OEM units. Then follow the procedures in the calibration section to set the Dyna ignition up to work with your bike. If calibration doesn't fix the problem, the ignition should be returned for testing. If the problem persists when using the stock ignition then the problem is external to the Dyna ignition.

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WARNING:

Installation of a grounded tether kill switch to the ignition coil signal will damage the CDI and void the warranty. 12V Inductive Ignition (Raptor 700R/etc.): For normally open tether switches: The simplest installation of this type of tether switch is to connect one kill wire to the External DFS BLACK/WHITE wire, and the other kill wire to chassis ground. To use a normally closed tether kill switch connected in series with the +12V input (RED/BLACK) to the ignition. When the tether is removed, it should disconnect the +12V power to the ignition.

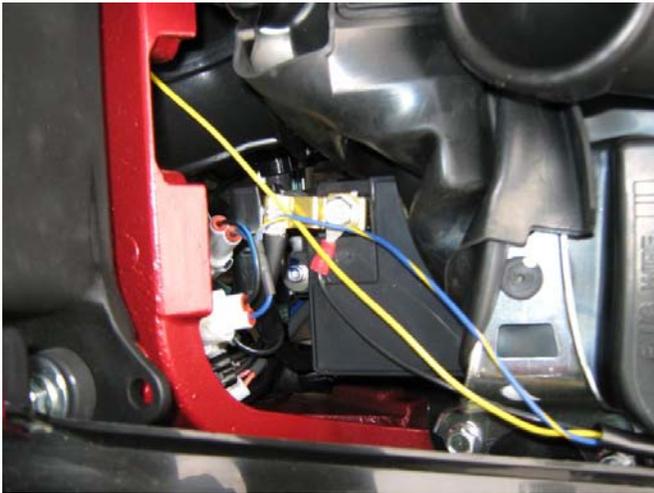


Picture1: Battery Ground.

Picture2: Crank Pickup intercept connectors.

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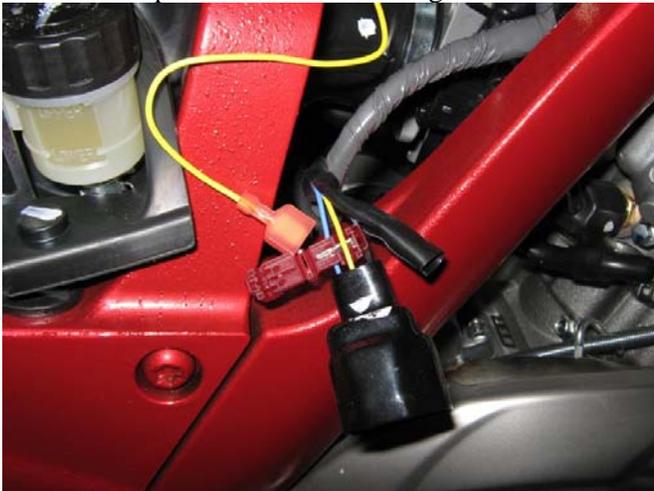
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Picture3: Expose the Yellow TPS signal wire.



Picture4: Crimp the T-tap connector until it clicks.



Picture5: Re-Tape the TPS connection.



Picture6: Coil connections to stock ignition coil.

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Picture7: Coil connections to Dynatek Coil(1)

Picture8: Coil connections to Dynatek Coil(2)

