

# Dyna FS Ignition

Yamaha YFZ450 ATV

11,500 RPM LIMIT (10,750 stock)

DFS7-12 for 2004+ YFZ450

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 a few minutes, but proper setup for your specific bike will take longer.

The DynaFS ignition was designed to work best with the stock coil, coil wire, plug cap, and spark plug. The increase in spark energy from using the DynaFS ignition is enough so that adding any of these will not improve performance, and can cause problems. Use resistor type spark plugs **ONLY**. Use the stock coil-on-plug ignition coil.

This kit includes: DynaFS ignition, 14" tie wrap, and instruction sheet. This is a complete kit, and includes everything needed to install the ignition.

## Installation

- 1) Turn ignition key off. Locate the stock ignition box, it is mounted near the front of the bike, between the headlights. **OPTIONAL:** To make installation easier, remove the front headlights and the front plastic 'hood'.
- 2) Unplug the stock ignition, taking care not to damage the harness connectors. There is a small tab on the harness connectors that must be pushed in to unplug them. Remove the ignition from the bike, and remove the rubber sleeve. Keep the stock ignition in a safe place - it may be required for troubleshooting.
- 3) Slide the Dyna ignition into the factory rubber sleeve and then slide the sleeve to the stock ignition mounting location. Use the 14" tie wrap around the rubber sleeve and in-between the two connectors, to secure the Dyna ignition in the rubber sleeve. Plug the ignition connectors into the Dyna ignition, making sure the connector seals remain in place.

## Calibration

The Dyna FS ignition is preprogrammed with a performance timing curve, see ignition advance chart.

**NOTE:** Use of this ignition may require rejetting of the carburetor to supply more fuel to maximize performance gains. If you are unsure of this tuning process, the services of a competent mechanic should be employed.

**NOTE:** This ignition will allow the engine to rev to a higher RPM than what it has before. Stock rev limit is 10,750rpm. The revlimit is pre-programmed to 11,500. Because the rev limit is higher, the performance limits of other engine parts (valvetrain for example) may be found. It may be necessary to replace these parts for best engine performance. Consult with an engine builder for answers on what works best for your engine.

## Troubleshooting

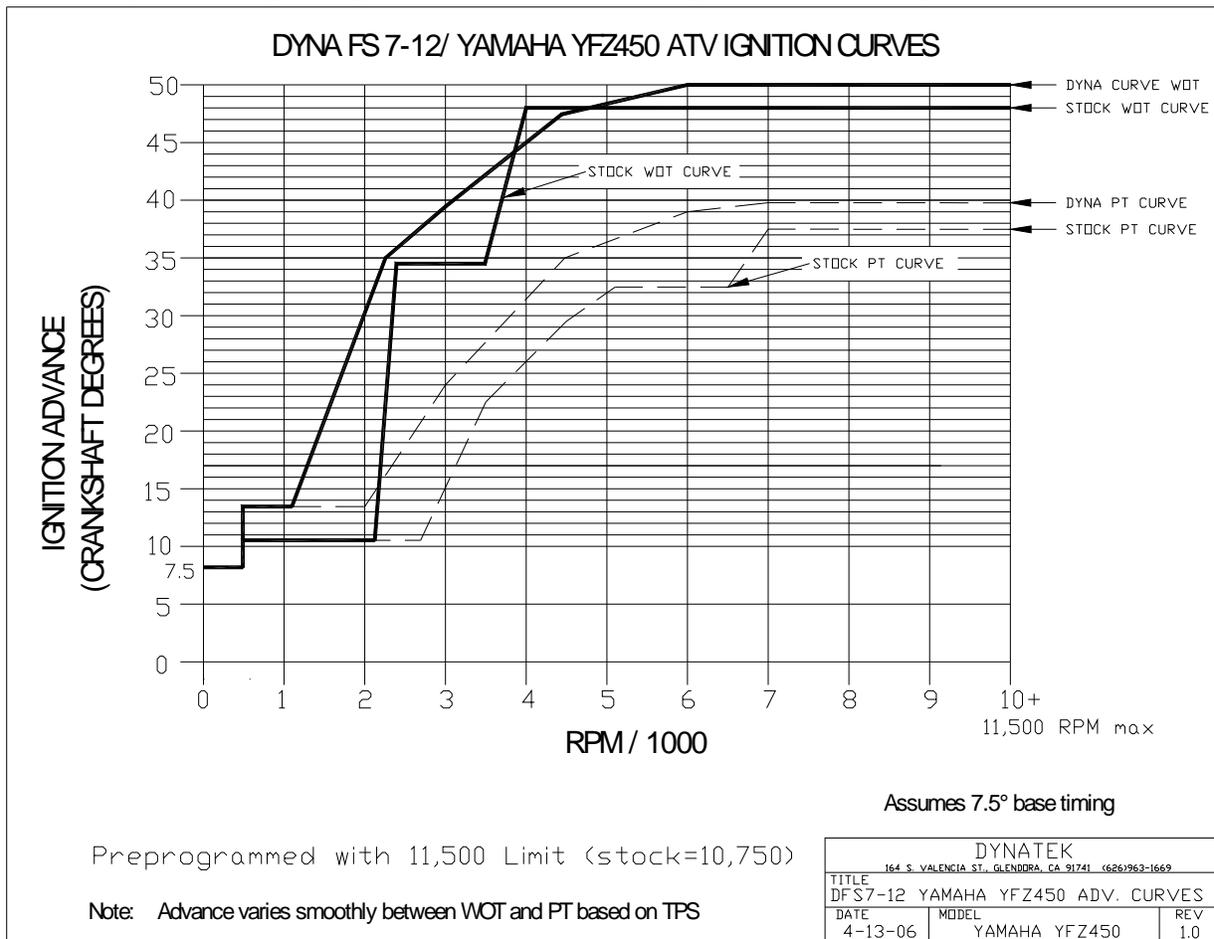
Troubleshooting the Dyna ignition is simple. If the bike will not start or run at all, reinstall the stock ignition. If this fixes the problem, then the Dyna ignition should be returned to Dynatek for testing. If this does not fix the problem, then the problem is somewhere else on the bike. Follow the troubleshooting procedures outlined in your bike shop manual.

If the bike runs, but poorly, put the stock ignition back on the bike. If this fixes the problem, reinstall the Dyna ignition. If you are using non stock ignition coil, 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.

**Note:** The Dyna FS ignition for the YFZ450 uses the stock T.O.R.S. (Throttle Over Ride System) to kill the ignition in the event of the throttle becoming stuck wide open. The ignition requires 8 engine revolutions of a non-grounded TORS input to determine ignition cut. If an aftermarket carburetor is used, the TORS input (Yellow/Black wire at the CDI module) can be permanently grounded to defeat this safety feature.

**Note:** For grounded tether switches: The simplest installation of this type of tether switch is to connect one kill wire to the White wire, and the other kill wire to the Red wire.

**Note:** For kick start applications, the battery should be left in place. The battery can be replaced with a smaller lead-acid battery, OR the flywheel can be replaced with a higher energy flywheel from Trailtech.net (1-360-687-4530) and a 4,700µF electrolytic capacitor can be installed in place of the battery.



**WARNING:** Installation of a grounded tether kill switch to the ignition coil signal will damage the CDI and void the warranty.

12V DC-CDI (YFZ450/Predator 500/Raptor 660/LTZ400/KFX400/etc.): Use a normally closed tether kill switch connected in series with the +12V input to the ignition. When the tether is removed, it should disconnect the +12V power to the ignition. If a normally closed tether kill switch cannot be located, then a grounded tether can be used to ground the pickup signal (Red wire at the ignition module)

**YFZ450 +12V POWER INPUT: RED/BLACK at the ignition module.**  
**The RUN/STOP SWITCH is another +12V input into the ignition module.**