



Dyna FS Ignition

DFS 2-13P 2003 Kawasaki Prairie 650

DFS 2-13P 2004-2006 Kawasaki Prairie 700

DFS 2-15P 2005-2007 Kawasaki Brute Force 650/750

CAUTION! 9,200 RPM LIMIT (8,500 stock)

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. Use resistor type spark plugs ONLY. Use the stock resistor style spark plug cap.

Installation

- 1) Turn ignition key off, and for safety, remove the battery negative (-) cable. Locate the stock ignition box, it is mounted under the seat, near the rear of the bike.
- 2) Unplug the stock ignition, taking care not to damage the harness connectors. There is a small tab on each harness connector that must be pushed in to unplug it. Remove the stock ignition from the bike. Keep the stock ignition in a safe place - it may be required for troubleshooting.
- 3) Place the Dyna ignition in the stock rubber sleeve and replace it in the stock ignition mounting location. Plug the Dyna ignition in. Plug the Curve Selector Switch in. Reconnect the battery negative cable. Install the seat, make sure none of the wires will get pinched. Installation is complete!

Calibration

NOTE – This ignition does not require a ‘power pac’ or similar module to alter the vehicle speed input. The low speed timing retard is completely eliminated on all curves.

NOTE - Use of this ignition may or may not require rejetting of the carburetor(s) to supply more fuel to maximize performance gains. Idle speed may also need to be readjusted. If you are unsure of this tuning process, the services of a competent mechanic should be employed. Do not operate the engine in a lean condition for extended periods or damage may result.

NOTE - The reverse limiter is completely defeated (constant override). The belt reset indicator not applicable. The drive belt should be inspected per owners manual.

NOTE - The stock ignition has a 8,500 RPM rev limit. The DFS rev limit is pre-programmed to 9,200 RPM. Because the rev limit is so high, the performance limits of other engine parts (valvetrain or connecting rod 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.

This ignition will allow the engine to rev to a higher RPM (12,000 max). Because the rev limit can 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.

The DynaFS is programmed with 4 advance curves. A quicker throttle response and increased power over the stock curve is achieved. If the CSS is removed, Curve 4 is selected. For other advance curve information, see the attached Advance Chart.

Programmable ignitions / Curvemaker

Lap-top/PC Programmable versions (suffixed with a P in the part number) require a separate programming kit to reprogram them. It is not supplied with the ignition. If the programmable ignition was not purchased directly from Dynatek, the dealer may have programmed a custom set of ignition curves. The dealer should be consulted with any questions regarding the curves that are programmed into the ignition.

Programmable ignitions are 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.

GREEN – Tachometer output, 12V, 1 pulse per rev, square wave.

PURPLE – Programmable launch limiter. Ground this wire to activate.

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

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

The Launch RPM is programmable (preset to 4500 rpm) and can be wired to a separate switch (not included) for a “two step/low side” launch limiter. See attached wiring diagram for installation.

The White & Blue 2-amp switches 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 White or 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 ($\text{Amps} = \text{Volts} / \text{Resistance}$). See attached wiring diagram for wiring the relay.

Troubleshooting

Troubleshooting the Dyna ignition is simple. If the vehicle 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 vehicle. Follow the troubleshooting procedures outlined in your shop manual.

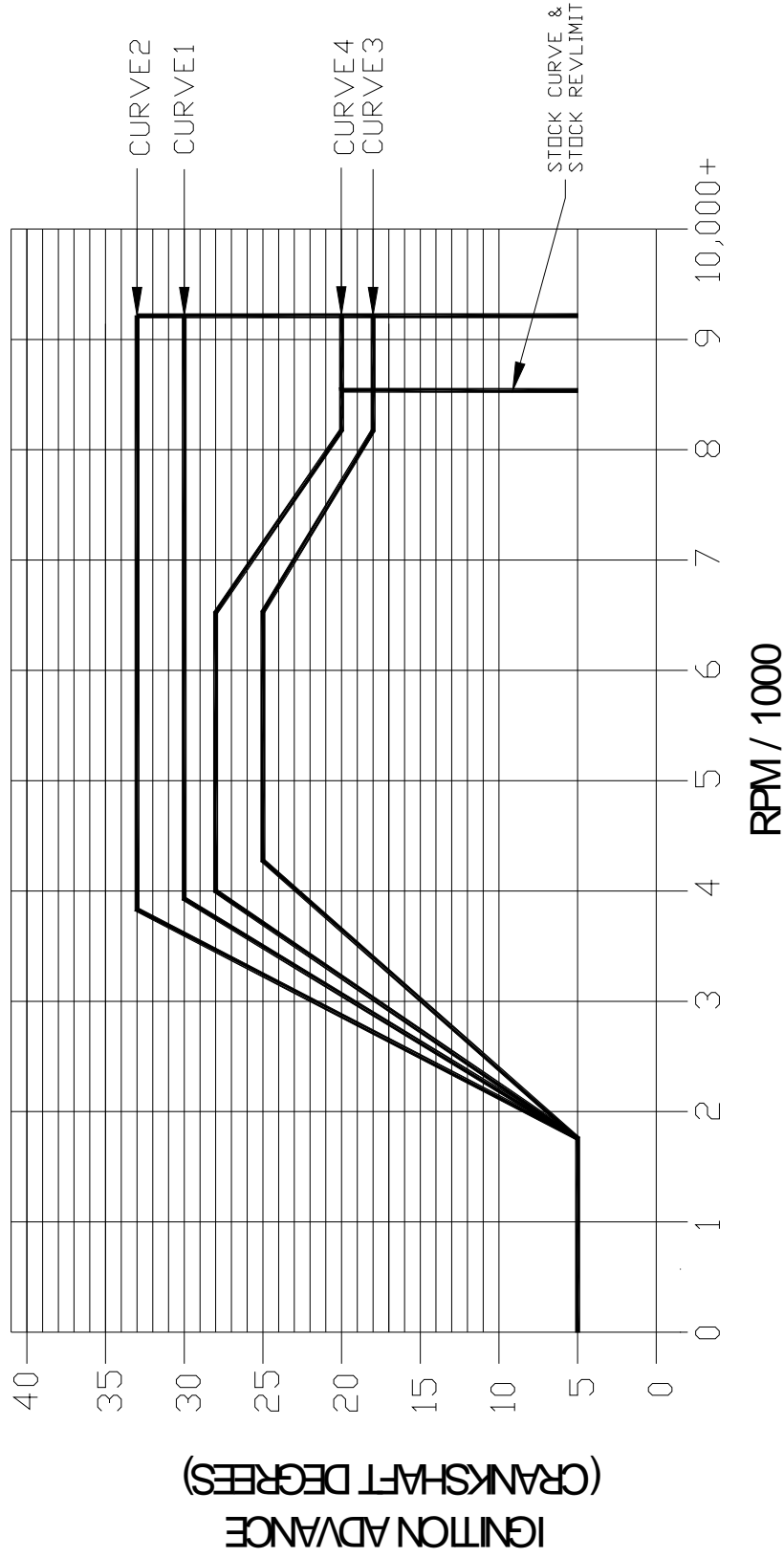
If the engine runs, but poorly, put the stock ignition back on the vehicle. If this fixes the problem, reinstall the Dyna ignition. If you are using non stock plug wires, plug cap, ignition coil, spark plug, or stator, replace them with OEM units. If this doesn't fix the problem, the ignition should be returned for testing. If the problem persists when using the stock ignition then the problem is external to the Dyna ignition.

WARNING:

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

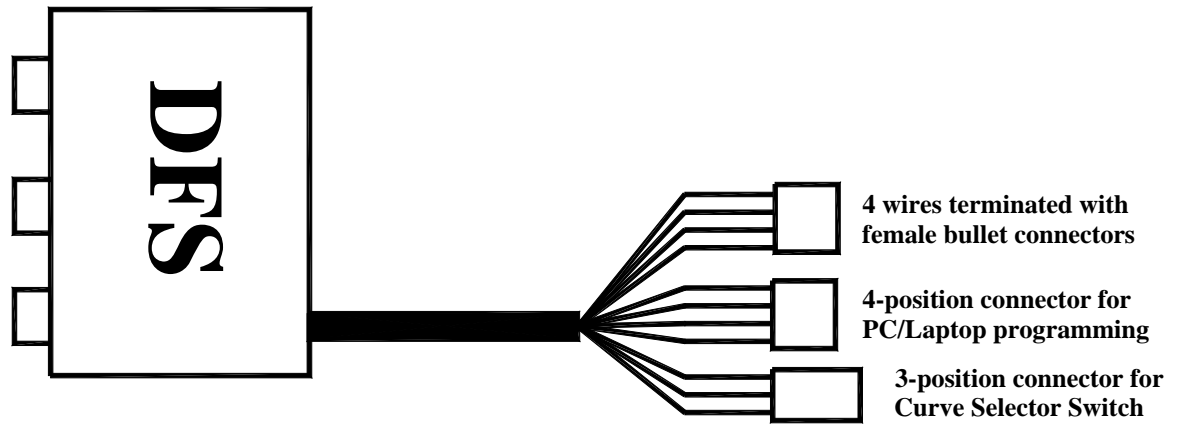
12V DC-CDI (Prairie 650 /etc.): Use a normally closed tether kill switch connected in series with the +12V input to the ignition. When the tether is removed, it should disconnect the +12V power to the ignition. If a normally closed tether kill switch cannot be located, then a grounded tether can be used to ground the pickup signal (Black/White wire at the ignition module)

DYNA FS / KAWASAKI PRAIRIE-BRUTE FORCE 650-750 IGNITION CURVES



CURVE4 = STOCK ADVANCE
 (Assumes 5° base timing at crank)

DYNATEK	
164 S. VALENCIA ST., GLENDORA, CA 91741 (656)963-1669	
TITLE	KAW PRAIRIE ADV. CURVES
DATE	6-15-07
MODEL	2003+ PRAIRIE PRD
REV	1.0



PURPLE = Two-step/low-side Launch Rev Limiter, requires a separate switch (not included). Ground this wire to activate the limiter. Use programming software to adjust the launch rpm.

GREEN = Tach output, 1 pulse per rev, 12V

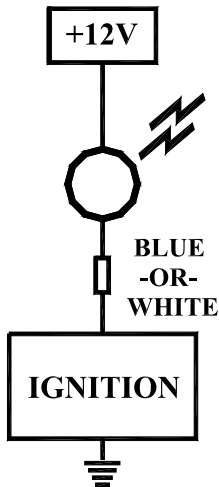
BLUE = Programmable Speed Switch, 2 AMP MAX
(referenced as "RPM Switch 1" in PC software)

WHITE = Programmable Speed Switch, 2 AMP MAX
(referenced as "RPM Switch 2" in PC software)

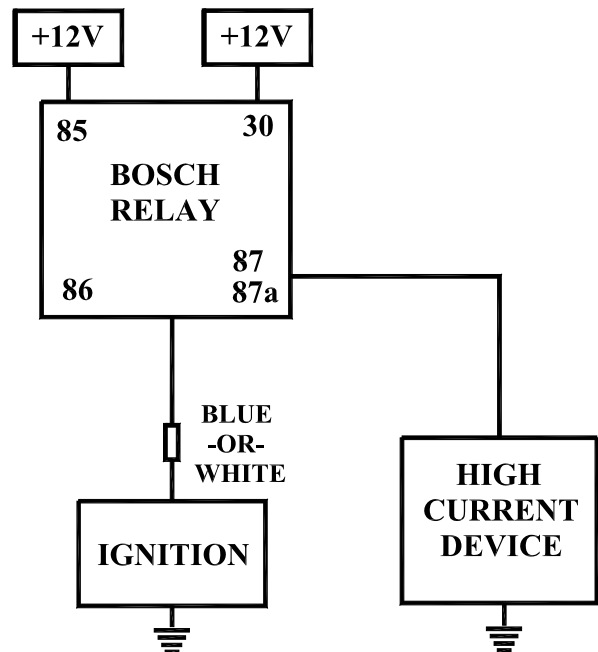
NOTE1: White and Blue power switches can be programmed individually or together. Can be used to turn on a shift light, or activate a small solenoid, or switch a Bosch style relay for even heavier loads.

NOTE2: The ignition will ground the White or Blue white inside the CDI when the pre-programmed RPM is achieved.

**SHIFT LIGHT or
SMALL SOLENOID**



**USING A BOSCH STYLE RELAY
TO SWITCH HEAVY LOADS**



DYNATEK		
<small>164 S. VALENCIA ST., GLENDORA, CA 91741 (626)963-1669</small>		
TITLE DFS AUX WIRING		
DATE 6-15-07	MODEL DFS- ATV	REV 1.0