

## Dyna FS Ignition

1999- Honda TRX400EX

Congratulations on your purchase of a Dyna 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 quad will take longer.

The Dyna FS ignition was designed to work best with stock coils, coil wires, plug caps, and spark plugs. The increase in spark energy from using the Dyna FS 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 resistor style spark plug cap. The ignition also requires the stock charging system for the battery. Upgraded electrical parts should work fine, but you cannot run a batteryless system, the ignition requires the 12V from the stock charging system to operate properly.

This kit includes: Dyna FS ignition, Curve Selector Switch, and instruction sheet. This is a complete kit, and includes everything needed to install the ignition.

### Installation

- 1) Locate the stock ignition box, it is under the front plastic on the throttle side directly above the shock mount. It is accessible from beneath without having to remove the stock bodywork. Aftermarket bodywork might have to be removed. Slide the ignition up to remove it from the bracket.
- 2) Unplug the stock ignition, taking care not to damage the harness connectors. There is a small tab on the two connectors that must be lifted to unplug them. Remove the rubber boot from the stock ignition. Keep the stock ignition in a safe place - it may be required for troubleshooting.
- 3) Feed the wires from the Dyna ignition through the rubber boot, and bring them out of the hole in the end of the boot. Once these are through, slide the Dyna ignition into the boot.
- 4) Locate the 3 wire connector on the front of the shock mounting crossmember. It has 3 wires, black, red, and black with a white stripe. Lift the locking tab and unplug the connector. Plug the matching connector from the Dyna into these connector halves.
- 5) Slide the Dyna ignition over the mounting bracket. Plug the curve switch into the connector on the Dyna ignition.
- 6) Mount curve switch in desired location. The wire length is long enough so that you can feed it up to the handlebars. You may want to mount it so that it is easily accessible for initial tuning. **Do not** cut or lengthen the wires!
- 7) Take the supplied tie wraps and secure the unused wires to the ignition housing, and to securely fasten down the new wiring added to the connector on the front of the shock mount crossmember .

## Calibration

The TRX400EX Dyna FS ignition is preprogrammed with 4 timing curves. The curves are selected by the curve selector switch. Removing the switch will cause the ignition to default to the curve in position 4 (labeled stock on the curve switch) which is the stock timing curve.

Curve 4 is identical to the curve that came with the stock ignition module. Due to improved microprocessor control and significantly higher spark energy, the performance of this curve will be enhanced. A quicker throttle response and increased power over stock is still achieved with the stock ignition curve. This curve also has the rev limit set at 9200RPM, the same as the stock ignition box.

Curves 1-3 all have the rev limit set at 9600. Curves 1 and 2 have more advance than Curve 4 at low RPM, but have the same final advance at higher RPM. These will give crisper acceleration than stock. Curve 3 is the same as Curve 4, but with one less degree of timing. With less advance, it is safer to run than the stock curve, if you are having problems due to bad fuel, or engine knock.

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. Using the ignition without properly jetting the carburetor may result in a lean misfire condition at high RPMs. Do not operate the engine in a lean condition for extended periods or damage may result.

This ignition allows the engine to rev to a higher RPM than what it has before. At these high RPMs, the performance limits of other engine parts (exhausts for example) may be found. It may be necessary to replace these parts for best engine performance. Consult with an engine builder for what works best for your engine.

## Programmable ignitions

Programmable versions require a separately purchased programming kit to reprogram them. 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.

The TRX400EX Dyna ignition comes with 2 extra wires: a brown wire, and a blue wire. These are unused with the stock ignition. They can be set up to function as switches that turn on and off at certain RPMs to control additional electronics, such as powerjets or nitrous systems. The use of these is covered in the instructions for the programming kit.

## 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 check the battery. If the battery is good, then the Dyna ignition should be returned to Dynatek for testing. If switching to the stock module does not fix the problem, then the problem is somewhere else on the bike. Follow the troubleshooting procedures outlined in your owners 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 plug wires, plug cap, 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. Follow the test procedures outlined in your bike owners manual to pinpoint the problem.