DYNA 2000
DIGITAL PERFORMANCE IGNITION
for
FOUR CYLINDER ENGINES

INSTALLATION GUIDE

DESCRIPTION

The Dyna 2000 Digital Performance Ignition for four cylinder engines represents a breakthrough in motorcycle ignition control. The Dyna 2000 system consists of a state of the art microprocessor controlled ignition module with an adjustable trigger. Several advance curves allow precise adjustment of ignition timing for maximizing engine performance. The Dyna 2000 also provides the following:

Static timable - timing can be accurately set without the engine running.

Independent 1/4, 2/3 cylinder timing - Dual sensor crank trigger uses one sensor for cylinders 1 & 4 and the other sensor for cylinders 2 & 3 allowing accurate timing adjustment for each cylinder pair.

Built-in timing indicator - Convenient LED indicator allows you to monitor the crank trigger signal status and easily set the ignition timing. Also indicates ignition faults.

Preprogrammed advance curves - Advance can be set to slowly to dial out pinging on high compression motors or bring advance in rapidly on quick revving motors.

Adjustable retard - The Dyna 2000 is an ideal solution for turbo or nitrous applications.

Test mode - System check out and trouble shooting is a breeze with this feature.

Safety interlock input - Can be used as a side stand safety switch, connected to a theft prevention switch, or used to activate a shift lever kill for road racing.

Broad range rev limiter - Adjustable from 8,500 to 16,000 rpm.

Digital tach output - Precise tach signal for accurate reading, even while rpm limiting.

High energy - An innovative dwell control scheme maximizes spark energy all the way to 16,000 rpm! The Dyna 2000 can be used with 2.2 ohm & 3 ohm coils, or stock.

Complete wiring harness - Provides a simple and clean installation.

INSTALLATION

IMPORTANT

- Refer to the wiring diagram included with these instructions while installing the Dyna 2000.

- The stock ignitor is no longer required, but should be kept if troubleshooting is required.

- Suppression wires are required. Spiral or carbon core spark plug wires are acceptable

- Some applications may require new ignition cover gasket..

1. Ignition module placement - Choose a mounting location for the Dyna 2000 module where the harness wires will reach their destination. Before mounting the module, go through the following procedure.

1A. Plug the eleven pin connector of the wiring harness into the Dyna 2000 ignition module.

1B. The main wiring harness has two groups of wires. The group with two connectors is the crank trigger group. The other group is the coil group. Set the Dyna 2000 module under the seat or near the tail section where can be mounted. Extend the crank trigger wire group toward the rear of the engine. The Dyna 2000 module should be located such that the crank trigger wire group can easily reach the area under the carburetors. This is where the plug on the crank trigger will end up after the crank trigger is installed.

1C. Extend the coil wire group to the coils. Removal of the gas tank may be required.

1D. The module should now be loosely mounted. You may need to remove it to see the LED during the timing procedure.

2. Ignition module ground - The 24 inch black wire with the 1/4" ring terminal should be directly connected to the negative post of the battery.

3. Coil wiring - The coil wire group of the harness contains five wires:

color	destination	function
white	coil 1/4	fires the coil for cylinders 1 and 4
blue	coil 2/3	fires the coil for cylinders 2 and 3
red	+12V	this wire needs switched 12 volts to power the ignition
green	tach	tach output, two pulses per revolution
yellow	tach/2	tach output, one pulse per revolution

NOTE - The Dyna 2000 ignition can be used with 2.2 or 3 ohm coils. Most factory coils fall into this range and are compatible with the Dyna 2000. For maximum spark energy use Dynatek part number DC4-1, 2.2 ohm dual output ignition coils.

3A. Remove the gas tank or air box as necessary to expose the ignition coils.

3B. Each ignition coil will have two primary wires or connectors on it. Make a sketch of the stock coil connections before you disconnect them. Each coil receives +12 volts from the engine harness. The wire that feeds +12 volts to each coil will be the same color on both coils. Make note of the wire color that feeds +12

volts to the coils. You will not be disconnecting the +12 volt feed to the coils. This second wire on each coil is the NEGATIVE coil primary wire.

3C. Locate the piggy back spade terminal included with the Dyna 2000 kit. This is a female spade terminal with a male spade on it to accept another terminal on top of it. Carefully crimp the piggy back spade terminal onto the red wire in the Dyna 2000 harness (trim the red wire to length if necessary). Remove the stock +12 volt feed wire from the spade terminal on one of the coils. Attach the piggy back terminal (red wire) to the coil and reattach the stock +12v wire to the piggy back terminal. This connection will provide +12 volts to the ignition module and coils when the ignition key and handle bar run/stop switch are on.

3D. Remove the two remaining primary wires from the coils. These are the ones that are a different color for each coil. Identify which coil feeds cylinders 1 & 4 by looking at the spark plug wire locations. Locate one of the female spade terminals included with this kit. Carefully crimp the spade terminal onto the end of the white Dyna 2000 wire (trim the white wire to length if necessary). Connect the Dyna 2000 white wire to the to the coil 1/4 primary terminal which you just disconnected (connect to the coil, not to the bike harness).

3E. Locate the remaining female spade terminal included with this kit. Carefully crimp the spade terminal onto the end of the blue Dyna 2000 wire (trim the blue wire to length if necessary). Connect the Dyna 2000 blue wire to the to the coil 2/3 primary terminal which you just disconnected.

3F. The two remaining wires on the Dyna 2000 coil harness are the tach output wires. The connection of these wires will be addressed later.

4. Crank trigger harness - The crank trigger portion of the Dyna 2000 harness should be routed to the area under the carburetors. The crank trigger harness contains a four pin plug with wires for the crank trigger. This harness also contains a single pin plug with an orange wire. The orange wire is the safety interlock wire discussed later in these instructions

5. CRANK TRIGGER INSTALLATION

5A. Locate the dual sensor crank trigger included with your kit. The crank trigger has a blue anodized base plate with two black sensor modules and a short pigtail.

5B. Locate the black rotor included with this kit. The Dyna 2000 rotor has one magnet in it. DO NOT use a Dyna 4000 rotor with this system. The Dyna 4000 rotor is anodized blue and has two magnets in it. The Dyna 4000 rotor will not work with the Dyna 2000 ignition system.

5C. Remove the ignition pickup cover from the side of the engine. Unplug the pickup cable from the bike and remove the pickup plate crankshaft advancer assembly.

5D. Apply some “blue” Loctite to the stock crankshaft bolt and secure the rotor to the crankshaft. TORQUE THE CRANKSHAFT BOLT TO FACTORY SPECIFICATIONS.

5E. Install the Dyna crank trigger plate onto the engine in the stock pickup location with the stock screws. Leave the screws loose so the plate can be rotated. Connect the crank trigger to the Dyna 2000 harness.

NOTE Some GPZ1100 models may require the use of a crankshaft end seal housing from a “J” model engine to properly install the Dyna Crank Trigger.

IGNITION MODULE POWER CHECK

The Dyna 2000 performs a self-test each time power is applied. Turn the ignition key to the ON position. Move the RUN/STOP switch from “off” to “on”. You should see the LED on the module blink ON then OFF.

If the crank trigger is not plugged in to the harness, the LED will simply stay on when you turn on ignition power.

6. STATIC TIMING INSTRUCTIONS

6A. Remove the spark plugs so the crankshaft will turn easily.

6B. Keep the following in mind when timing the Dyna 2000: The final timing (high rpm) firing point for either cylinder pair is established by the leading edge of the magnet as it approaches a Dyna crank trigger sensor when the crankshaft is turned in its normal forward direction. The LED lamp on the end of the Dyna 2000 module will light whenever either magnet is in front of a Dyna crank trigger sensor, when ignition power is on.

6C. Timing cylinders 2 and 3

Rotate the crankshaft in its normal forward direction until the magnet on the crankshaft rotor nears the sensor bump on the inside radius of the 2-3 Dyna crank trigger sensor. Simply turn the crankshaft until the appropriate timing mark on the Dyna magnet rotor aligns with the full ignition timing that you want (stock compression motors will run well with 35-40 degrees total timing), as indicated by the stock timing mark on the cover. The rotor is marked at top dead center, and at various degrees before top dead center. The crankshaft is now set to the proper firing angle.

Now, with ignition power on, watch the red LED on the Dyna 2000 module. Rotate the crank trigger baseplate until you find the point where the LED switches on while rotating the baseplate counterclockwise. Now lock down the crank trigger baseplate in this position. For a double check on the timing, now rotate the crankshaft 360 degrees in a clockwise direction until the same timing mark on the magnet rotor again approaches the timing mark. Now gently bump the crankshaft forward to the point where the LED on the Dyna 2000 first comes on and read your timing on the scale. Readjust the crank trigger baseplate if necessary.

6D. Timing cylinders 1 and 4
Rotate the crankshaft in the normal forward direction (clockwise) until the magnet approaches the 1-4 Dyna crank trigger sensor. Note the crank angle shown on the timing indicator at which the LED just turns on as the magnet comes near the sensor bump on the inside of the module. If this angle is different than the timing on cylinders 2 and 3 then loosen the 3mm screws that secure the 1-4 crank trigger sensor and adjust the sensor to achieve the desired timing. Tighten the sensor screws and baseplate screws when the timing is correct.

6E. Reinstall the engine side cover and spark plugs.

STARTING THE ENGINE

7. After the crank trigger has been installed and timed you should be able to start the engine. Use the following procedure:

A. Temporarily reinstall the gas tank if it has been removed so the carbs will have gas.
B. On the Dyna 2000 module turn the advance curve mode knob to curve 1.
C. On the Dyna 2000 module turn the rev limiter knob to the rev limit appropriate for your bike.
D. Turn on your ignition key switch.
E. Set your handle bar run/stop switch to the run position. - You should be able to see the red LED on the Dyna 2000 module blink on then off when the module receives power from the bike.
F. Start the bike as you normally would. The engine should start easily. If the engine will not start, refer to the trouble shooting section of these instructions.

TACH WIRE CONNECTION

8. The Dyna 2000 provides two tach signals. The yellow wire provides one pulse per revolution and the green tach wire two pulses per revolution. Bikes originally equipped with points will use the yellow wire. Some bikes originally equipped with electronic ignition may use the green wire. Locate the tach-input wire and connect the appropriate Dyna 2000 tach wire.

SAFETY INTERLOCK INPUT

9. The Dyna 2000 ignition has a safety interlock feature that allows you to use your side stand safety switch, or hook up a theft prevention switch, or implement a road race shift kill off the shift lever.

The safety interlock input is only active if you are using advance curve 1 through 5 on the Dyna 2000 module. If you are using one of the retard modes, the safety input acts as the ignition retard trigger input, not as a safety input.

When using one of the advance modes, the safety input will kill the ignition if it is shorted to ground. This is how most side stand switches work. When the side stand is down and the transmission is in gear, a wire is shorted to ground to kill the ignition. Refer to the wiring diagram in your repair manual to locate the wire which is grounded under these conditions. Connect the orange safety wire of the Dyna 2000 into this system to maintain this function.

Another alternative is to use the safety input as a theft prevention switch. Simply connect the orange safety wire to one side of a toggle switch and connect the other side of the toggle switch to chassis ground. When the toggle switch contacts are closed, the orange wire will be grounded and the ignition will not run.

Some road race bikes use a shift kill switch connected to the shift lever. Shift kill switches are available from a number of different companies. If you are using a shift kill system, connect the orange wire to the shift kill device to momentarily kill the engine during upshifts to allow full throttle shifts.

REV LIMITER

10. The Dyna 2000 includes an extremely accurate broad range rev limiter that is adjustable between sixteen different settings from 8,500 rpm to 16,000 rpm. The rev limiter is adjusted by turning the rev limit knob on the end of the Dyna 2000 module to the desired position.

ADVANCE MODES

11. The Dyna 2000 ignition module allows selection between five different advance modes and four different retard modes. The advance modes are as follows:

curve#	span	full timing at	application
1	20 deg	2,500 rpm	4 valve stock
2	20 deg	4,500 rpm	4 valve increased compression
3	20 deg	6,500 rpm	4 valve high compression
4	25 deg	3,500 rpm	2 valve stock
5	25 deg	6,500 rpm	2 valve high compression

Total ignition timing at high rpm is dictated by where crank trigger is set. Most modern 4 valve sport bikes run best with 35 to 40 degrees total ignition timing. Older 2 valve motors will run well with about 40 degrees total timing. The Dyna 2000 ignition will generate an advance curve based upon the total timing that you set with the crank trigger.

Curves 1,2, and 3 generate a curve that changes a total of 20 degrees from idle to high rpm. This means that if you set the crank trigger to 35 degrees, at idle you will have 20 degrees less than this, or 15 degrees advance at idle.

Curves 4 and 5 generate a curve that changes a total of 25 degrees from idle to high rpm. This means that if you set the crank trigger to 40 degrees, at idle you will have 25 degrees less than this or 15 degrees advance.

Refer to the advance curve graphs included with these instructions to see how this works.

NOTE: Advance and RPM limit switches are read only during power up. New settings will be recognized during the next power-up.

12. RETARD MODES

The Dyna 2000 has four ignition retard curves. These are labeled 4, 8, 12, and16. When a retard mode is selected the orange wire at the end of the crank trigger harness functions as a retard activation input. The orange wire no longer serves as a safety interlock when a retard mode is selected.

To activate ignition retard, the orange wire needs to be grounded. If retard mode 4 is selected, then you will get 4 degrees of retard when the orange wire is grounded. Retard mode 8 will provide 8 degrees of retard. Modes 12 and 16 work the same with 12 and 16 degrees ignition retard for each of those modes.

The orange wire can be grounded along with nitrous solenoids to provide retard when nitrous is activated. The orange wire could also be grounded with a boost switch to activate retard above a preset boost level on turbocharged vehicles.

Refer to the timing curve diagrams to see what the retard curves look like. When the retard line is not grounded, the ignition curve is the same as advance curve 1.

13. TEST MODE
The Dyna 2000 ignition system includes a Test Mode which allows easy inspection of ignition operation without running the engine. Test Mode is selected by turning the mode knob on the end of the Dyna 2000 ignition module to the Test Mode position.

WARNING Do not try to start the engine with the ignition set to Test Mode. The engine will not run properly.

In Test Mode, if you slowly turn the engine with a wrench, with ignition power turned on, the Dyna 2000 module creates a spark from each coil as the magnet on the crankshaft rotor reaches the firing point for each cylinder pair. This allows you to easily determine that each Crank Trigger sensor is working, that each coil is working, and which coil is being controlled by which Crank Trigger sensor.

When the magnet in the crankshaft rotor reaches the sensor for cylinders 1/4, the coil for cylinders 1/4 should make a spark. When the magnet in the crankshaft rotor reaches the sensor for cylinders 2/3, the coil for cylinders 2/3 should make a spark.

14. TROUBLE SHOOTING TIPS
You should experience trouble free operation of your Dyna 2000 ignition system. If you are having a problem the following questions should help you narrow down the source of your trouble.

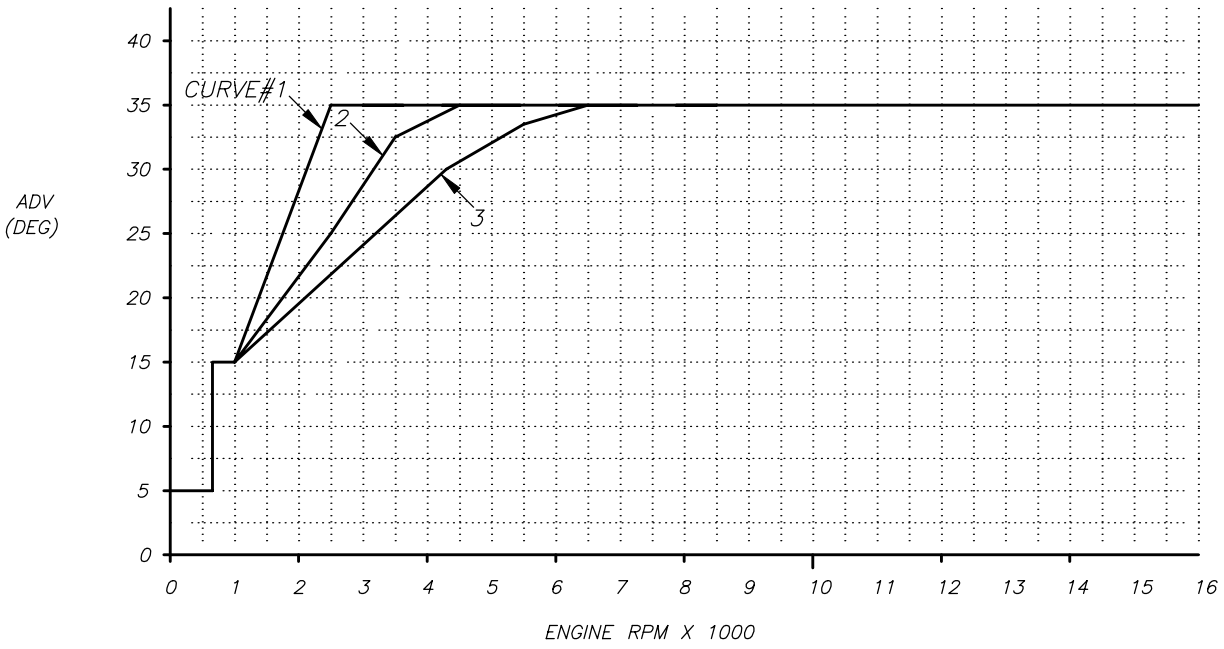
14A. When you first turn on ignition power with the ignition key and run/stop switch, does the LED on the 2000 module blink? If not check the +12V and ground wire connections to the Dyna 2000. Use a volt meter if necessary to verify that +12V is getting to the red wire of the 2000 harness. Check your battery voltage. The battery should measure about +12.5 volts when the engine is not running. Check that the main battery ground cable goes to an engine case bolt.

14B. When you have ignition power on, and you turn the engine over slowly with a wrench, does the LED on the 2000 module come on when the magnet on the crankshaft rotor passes each Crank Trigger sensor module? If not you may have a bad connection on one of the Crank Trigger wires. With ignition power on, measure the voltage on each Crank Trigger wire. The red wire should have approx. +12 volts on it, the black wire should have 0 volts on it. The white wire and the blue wire should switch from 0 to +12 volts as you turn the crankshaft. When the magnet on the crankshaft rotor is in front of a sensor, the output wire for that sensor (white or blue wire) should have +12 volts on it. When the magnet is away from that sensor, it's output wire should have 0 volts on it.

14C. If the Crank Trigger operation is correct and the ignition module LED responds properly, you may have a problem with an ignition coil. With primary wires disconnected from a coil, you can measure if the coil is internally shorted by using a digital ohm meter. Measuring from one primary terminal of the coil to the other primary terminal of the same coil, you should see 2.2 to 3 ohms resistance. If you measure the resistance from one spark plug tower to another you can check the secondary of the coil. The secondary resistance should be more than 10,000 ohms (10K ohms). If the coil has a shorted or open winding, it must be replaced.

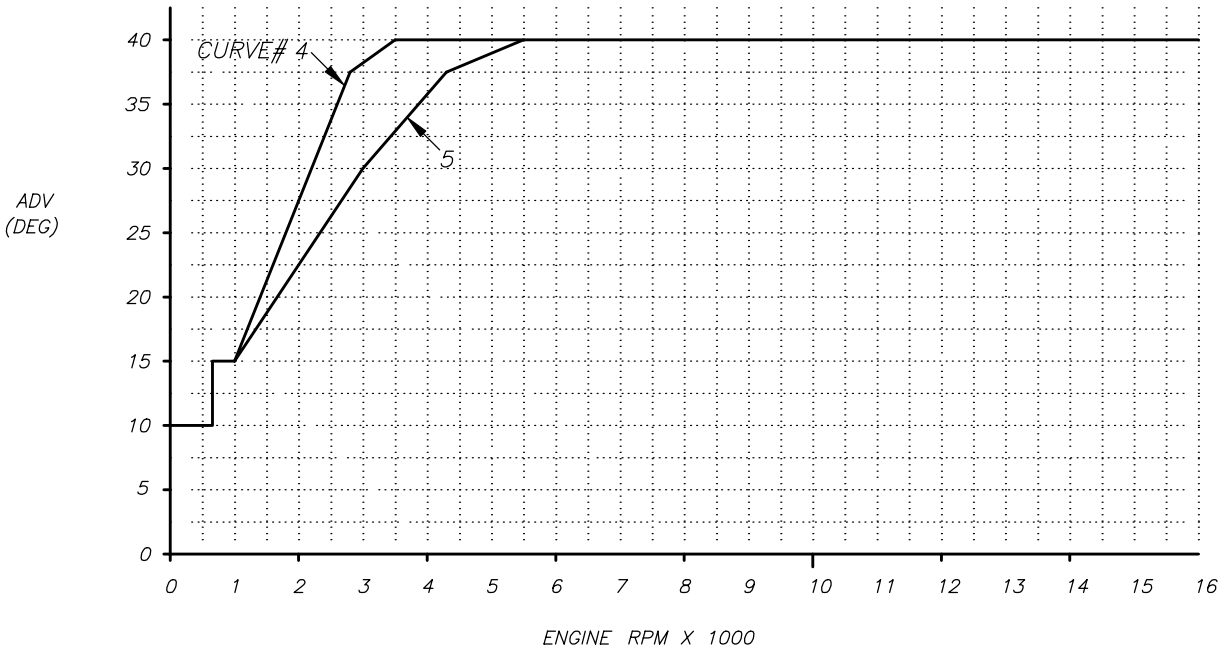
14D. If the ignition module and coils check out OK, take a close look at your spark plug wires. Inspect for damage or breakage of the internal conductor.

DD2000-4 ADVANCE CURVES



ADVANCE CURVES 1,2, AND 3

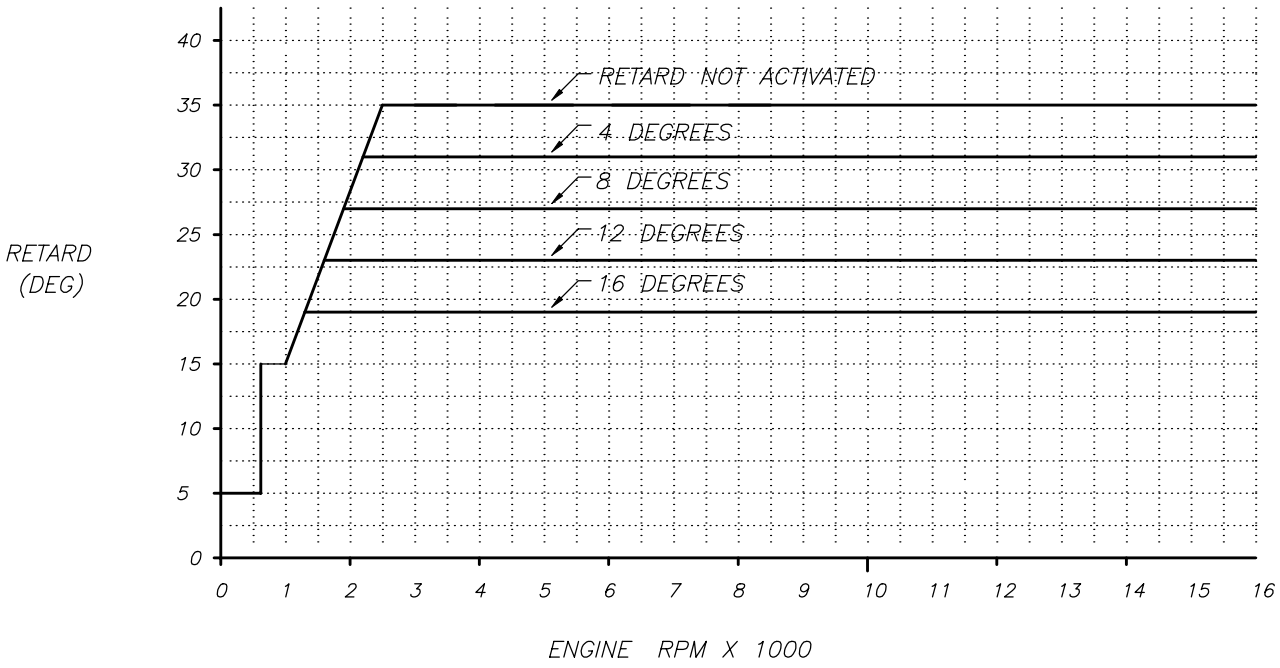
FOR 4 VALVE PER CYLINDER MOTORS
NOTE – THE ADVANCE VALUES SHOWN ARE FOR STATIC PICKUP TIMING SET AT 35° BTDC.



ADVANCE CURVES 4 AND 5

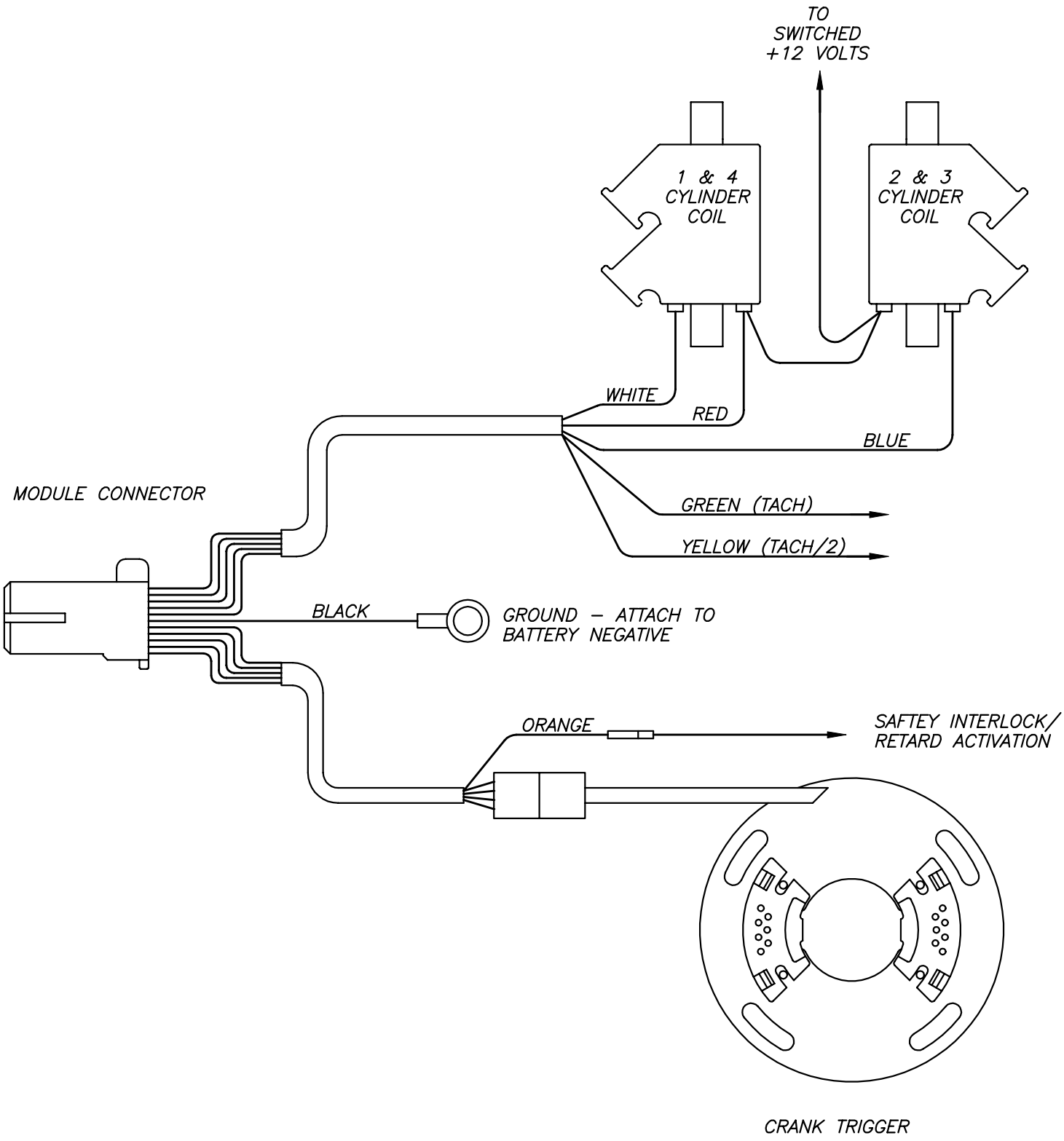
FOR 2 VALVE PER CYLINDER MOTORS
NOTE – THE ADVANCE VALUES SHOWN ARE FOR STATIC PICKUP TIMING SET AT 40° BTDC.

DD2000-4 RETARD MODE CURVES



RETARD CURVES SHOWN WITH STATIC TIMING SET AT 35° BTDC.

DD2000-4 WIRING DIAGRAM - TYPICAL



INSTRUCTION ADDENDUM FOR D2K4C-P
Dyna 2000 – 4 Cylinder Programmable

DESCRIPTION

The D2K4C-P Digital Ignition system is a PC/Laptop programmable ignition based on the popular existing D2K4C ignition system sold by Dynatek. The PC programmable model is designed to be a direct replacement for a motorcycle already equipped with the original D2K4C, or can be used in a new installation.

In addition to providing precise control over the ignition process, the D2K4C-P allows you to tailor the advance curve and rev limiter to the specific needs of your particular engine. The ignition timing curve is completely programmable. The rev limit is programmable up to 16,000 RPM, with 100 RPM resolution. The retard activation has been separated from the safety input, allowing the safety input to be used on all selected curves. Also included are two (2) independently programmable RPM activated switches that allow the ignition to turn on a shift light, or activate a relay at any RPM.

INSTALLATION NOTES

****IMPORTANT**** Follow all instructions in the original D2K4C Installation Guide that apply to your specific motorcycle.

****IMPORTANT ****** - The D2K4C-P is factory programmed with the original D2K4C curves and utilizes all of the original switch positions. It is when the end user programs custom curves into the ignition, that the first four (4) advance modes on the switch correspond to the four Ignition Timing maps in the PC software. The other advance mode switch positions become useless (except the Test Mode) and the ignition will flash very rapidly, and the ignition will not run. The Rev-limit switch becomes disabled when the ignition has custom curves in it as well. The PC programming software has a "USE SWITCHES" button that forces the ignition back to reading the switches and modes of the original D2K4C.

****IMPORTANT ****** - Wiring note – The D2K4C-P module uses the HARNESS ORANGE WIRE as a dedicated safety input. The orange wire previously doubled as a safety input for the first 5 curves, and then switched to the retard input for the 4 retard curves. This is no longer the case. The orange wire remains a safety input for all selected curves, and a new external PURPLE wire is used as a separate input to activate a retard curve.

****IMPORTANT ****** - Wiring note – The BLUE and WHITE short wires (4 inch external) are for rpm activated switches. Either one can be programmed to turn on at any rpm and then turn off at any rpm. These two wires should not be connected to an ignition coil. The maximum current the switch can turn on is 2 AMPs. This is enough power for a Dyna Shift Light, or a small Relay. This is not enough power to drive a large nitrous solenoid directly. Use a relay. See Programmable RPM Activated Switches for more information.

PROGRAMMING THE IGNITION

Turn the ignition key OFF. Disconnect the main D2K4C-P connector at the ignition (AMP11 pin). Connect the programming adapter to the serial cable and to the ignition. DO NOT start the bike. The red LED will flash quickly ON when 9V battery is connected. After programming is complete, DO NOT leave the 9V battery connected to the programming harness, the battery will go dead. Follow the separate instructions included with the CurveMaker programming software.

DEVELOPING AN ADVANCE CURVE

The most appropriate advance curve for your engine will depend on several factors. These may include: level of modification of the engine, weight of bike and rider, type of gasoline used, air temperature, altitude, etc.

For tuners who are familiar with previous Dyna 2000–4Cyl ignitions, the four curves used in the standard (non-programmable) D2K4C are included in the CurveMaker software. Generally, you should run the highest amount of advance (most aggressive) that you can without causing any pinging. If the engine pings only in a narrow RPM range, try reducing the advance only in that RPM range. This will eliminate pinging without reducing overall performance.

Any of the included curves may be used as a base for developing a completely custom curve. Note: Be sure to save any custom curves before exiting the program.

SETTING OTHER PARAMETERS

The CONFIG page of the CurveMaker software has entries for the rev limit and RPM activated switches. By increasing the

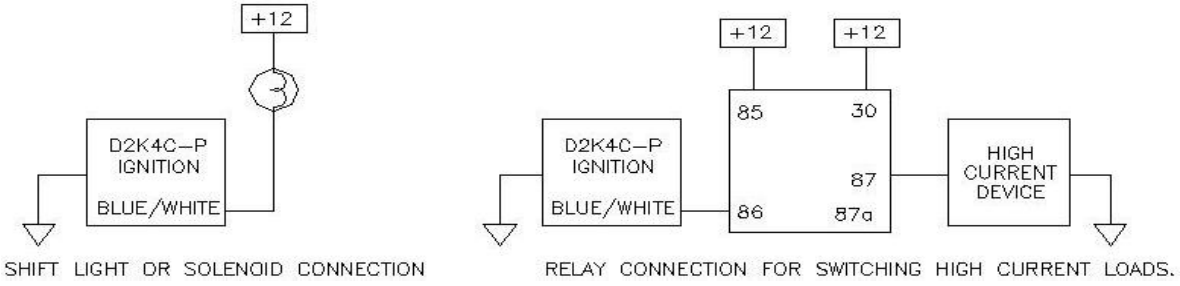
rev-limiter, other components of the engine may find their limits. Only increase the rev-limit if the engine builder has specified it is ok to do so, otherwise use the stock rev-limit as a starting point. The maximum programmable limit is 16,000 rpm.

PROGRAMMABLE RPM ACTIVATED SWITCHES

The BLUE wire or the WHITE wire can be used to turn on a Dyna Shift Light, or activate a small relay. The ignition will ground the wire when the rpm reaches its programmed values. See the Curve Maker instructions for programming the RPM activated switches.

DO NOT EXCEED 2 AMPS PER WIRE.
DO NOT ATTACH EITHER WIRE TO AN IGNITION COIL.

Examples of connections:



DIAGNOSTIC LED FUNCTION

A red diagnostic LED is located on the D2K4C-P ignition module. This LED is useful for verifying system functionality and static timing the motor.

The red LED can be used to determine if the ignition module is working. When power is turned on to the ignition, the LED should flash on for 1/4 second then turn off. If one of the pickups is near a firing point, the red LED will come on continuously. This "Flash period" indicates that the microprocessor is functioning in the ignition module.

When the ignition power is on and the engine is cranked over, the red LED will blink on and off. This indicates that the D2K4C-P pickups are generating timing.

NOTE: If the red LED flashes rapidly with the engine not running, there are two possibilities. First, if the D2K4C-P has been programmed with custom curves, then the first four switch setting on the advance knob are the only positions that allow the ignition to run. Select one of the first four curves and turn the ignition off for one second. Another situation is coil overcurrent fault has occurred. Check for proper coil resistance (2.2 to 5 ohms) and check for shorted wiring to the ignition coils. Turn the ignition off for one second, and back on to clear the fault.

RETARD MODE USING EXTERNAL PURPLE WIRE

This mode is only for use with vehicles that require ignition retard under certain conditions, such as bikes equipped with nitrous oxide or a turbocharger. The purple wire acts as a retard activation line. To use this function, the purple wire must be connected to a switch or relay that can ground this input when ignition retard is desired.

In retard mode, when the purple wire is grounded, the ignition timing will follow the curve labeled RETARD on the CurveMaker screen. The traditional retard mode curves are included with the CurveMaker software, or you can develop your own. Remember that grounding the purple wire will select the curve labeled RETARD, so you must program your retard curve into the Break Points of the “RETARD” tab of the CurveMaker screen.

TUNING TIPS - ADVANCED

Occasionally, best performance may fall somewhere between the advance curves programmed into the DYNA 2000-4C-P. By rotating the pickup plate, the entire curve will be shifted up or down. Be aware that if you advance the ignition, your final timing will be increased. Excessive advance may cause pinging and hard starting, so only turn the pickup plate one or two degrees at a time and note any changes to the motor.

DYNATEK

DYNA IGNITION COIL
INSTALLATION INSTRUCTIONS

DUAL OUTPUT DYNA COILS are available with primary resistances of 5 ohms [OCB-1 J. 3 ohms [DC1-1), 2.2 ohms [DC4-1], and 1.5 ohms [DC2-1). Single output coils are available in 3 ohm [DC3-1) and 5 ohm [DC10-1J. For optimum performance, the replacement coil resistance should be within 10% of the original coil resistance.

For breaker points, the 5 ohm coils should be used or the 3 ohm coils can be used and a 1 to 2 ohm ballast resistor placed in the 12 volt line going to the coils. Generally, a ballast resistor should not be used with DYNA COILS on electronic ignitions.

The secondary towers are designed to accept 7 or 8 mm automotive spark plug wire. Wire kits are available from DYNATEK.

1I Remove the gas tank. Locate the two ignition coils.

2) Unplug the primary wires coming from the coils and disconnect the high voltage wires from the spark plugs. Remove the coil mounting bolts, and remove the coils.

3) Cut or unsolder primary wires from coils. Crimp or solder ring terminals supplied with kit to primary wires.

41 Attach the pi'imary wires to the DYNA-CdILS using ·he 10-32 x 5/18 pan hsad screvvs provided. Eitharv.tire can be mounted on either terminal of the dual output coils as they have no polarity. On the single output coils, the primary terminal opposite the side with the output tower has a + marking. Plus 12 volts from the ignition switch is applied to that terminal, and the points or ignition system output is connected to the other terminal. On a Kawasaki, make sure there is clearance between the screw head, and the mounting screw spacer. Do not over-tighten screws as damage to the coil could result.

5) Using the stock hardware, mount the coils to the frame in the original location. NOTE: The DYNA COIL mounting hole spacing is designed to accommodate early model Honda, Kawasaki, and Suzuki motorcycles. There are a wide variety of physical sizes and mounting configurations on the late model motorcycles and it may be necessary to modify existing mounting brackets, or fabricate a bracket to adapt the DYNA COILS to your particular motorcycle.

NOTE: Honda and Suzuki mounting uses the two holes that are farthest apart; with the secondary towers pointing down and back on Honda's, and down and forward on Suzuki's. Kawasaki mounting uses the two holes nearest the coil body. The secondary towers will point up and forward on 900/1 OOO's and down and forward on KZ650's.

On the Honda GL1000, the towers should point down and It may be necessary to cut a small amount off the air filter intake. The ballast resistor must be bypassed when the coils are used with a Dyna ignition.

SJ Route the primary wires to the connectors that were unplugged in Step 2, and connect the wires according to color.

7) Connect the high voltage wires from coils to spark plugs. Make sure that all wiring connections are secure. Replace gas tank.