

- d Shift the transmission into fifth gear. Standing on the left side of the motorcycle, slowly rotate the rear wheel in a counterclockwise direction until the front intake valve opens and closes, as viewed through spark plug hole.
- e Rotate the rear wheel until the vertical TDC mark is centered in the timing window.
- f Loosen the module-plate screws.
- g Turn the ignition to the ON position.
- h Slowly rotate the module plate until the red LED is not illuminated, then tighten the module plate screws to 15-30 In-lbs (1.7-3.4 Nm).
- 3 Lower the rear wheel of the motorcycle and install the spark plugs.
- 4 Verify timing with a timing light. Refer to the procedures in the appropriate service manual.
- 5 Install the timing cover(s). Install a new timing cover on Buell Blast models.

## Switch Descriptions

See Figure 3. This section describes ignition-module switches and switch functions.

### MODE SELECT (MODE SEL)

Select 0 for XL models.

Select 2 for Buell Blast models.

### ADVANCE SLOPE (ADV SLOPE)

See Figure 7. The slope of the advance curve is adjustable over a wide range. Setting the advance-slope switch to zero (0) results in minimum advance; switch setting 9 results in maximum advance. Switch settings 1 through 8 are advance curves between the minimum and maximum curves shown in Figure 4. Higher switch settings result in more aggressive slopes above idle and more advance at high RPM. Start with switch setting 5 and adjust from there.

Stock and modified engines (mild cam, low-restriction air cleaner, aftermarket exhaust) may benefit from a more aggressive advance slope on vehicles using 93 or higher octane gasoline. High-compression race engines may require a less aggressive slope to eliminate spark knock.

Rotate the entire ignition module, relative to the gear housing, to adjust initial timing. If knock occurs only at low RPM, the initial timing can be reduced but maintain a relatively aggressive advance slope for maximum power at mid and high RPM.

Used together, initial-timing and advance-slope adjustments provide broad flexibility for fine-tuning a particular engine. In general, use the highest settings possible without audible spark knock.

### RPM LIMITER (REV LIMIT)

Two rotary switches digitally set the RPM limit within a range of 1500 to 8000 RPM in 100-RPM increments. The two switch settings together are a multiple of 100 RPM. For example, 5 on the x1000 switch and 9 on the x100 switch is 59 x 100, or 5900 RPM. Always select a rev limit less than the RPM redline for your engine.

RPM settings above 8000 RPM revert back to a maximum 8000 RPM.

The maximum RPM for stock valve-train components is 8000 RPM for XL models and 6500 RPM for Buell Blast models.

### CAUTION

To avoid engine damage, ensure that all engine components are designed to handle the stresses of higher RPM applications.

## Diagnostic LED

When power to the ignition is turned on, a diagnostic LED on the front of the module illuminates, indicating that the microprocessor in the ignition module is functioning. If the pickup rotates past TDC, the illuminated LED turns off.

When ignition power is ON and the engine is cranked over, the LED blinks ON and OFF. This indicates that the pickup is generating timing pulses and the module is receiving the pulses.