

# Tempest 3 (T3) User Guide

## Kawasaki U150, ZXi, STX, STX-R (1100/1200cc)

- **Selecting an Advance Curve**
- **Setting Rev Limit RPM**

See separate user guide for Remote Switch use

**Caution: Severe engine damage is possible if the Advance Curve is not properly set.**

Engine Advance Curve (Timing) Overview: Proper engine timing is every bit as important as mixing oil with your gas. Engine timing (advance) must be selected on the engine's hardware configuration and type of riding you plan to do. Failure to properly set the ignition timing can lead to engine damage and costly repair bills.

### Selecting an Advance Curve

**Curve Selection Overview:** The T3 Ignition has four built-in advance curves. The curve you select must be properly suited to the engine configuration and how you ride your boat. **Do not assume that the curve with more advanced timing is the best. Selecting a curve with too much timing can cause engine damage. Please be careful!**

The best advance curve is the one that gives you the best long term performance. If you are not sure which curve to select, please consult with your local dealer or other qualified person to determine the optimum curve to use.

Figure 1 shows the timing advance curve selection switch settings on switch block B, switches 1 & 2. Each of the four curves installed in your ignition is designed for differences in type of pipe, cranking compression, fuel and riding style. Using Figure 1 as a guide, set Switch B, positions 1 and 2, to the desired curve.

The Advent Web site, [www.adventignitions.com](http://www.adventignitions.com) has all the popular timing advance curves and curve sets. Click on the "Timing Library" button and select curves by the Curve Set number (ei: D43) or the Curve Name. You can freely copy any curves you wish for your records.

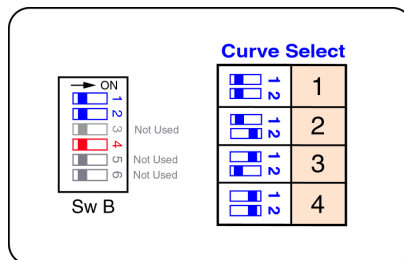


Figure 1

### Setting the Rev Limiter Switches

Proper setting of the Rev Limiter RPM is important to ensure that the engine is not damaged from over-revving. The following procedure is recommended for determining the proper limiter setting for your boat.

1. Turn all five rev limiter-setting switches to the ON position (Switch A, positions 1 through 5). This sets the limit to its maximum setting of 9000 RPM.
2. Run your Yamaha on smooth water at the highest speed you can attain. Note the RPM reading on your tachometer
3. Return to shore and set the limiter RPM to ;your maximum tachometer reading plus 200 or 300rpm.

Figure 2 shows the selection choices available for the Rev Limiter settings (Switch Block A, switch 1 through switch 5). The example figure shows the switch settings for 7800rpm rev limit.

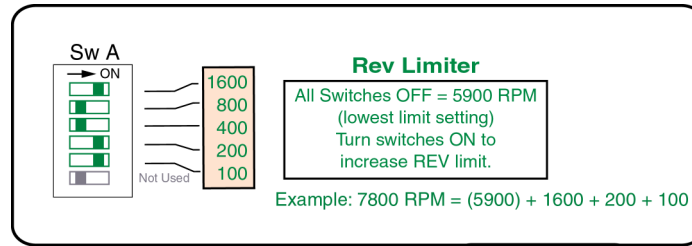


Figure 2

### Examples of setting the Rev Limit RPM

The rev limiter can be set from 5900rpm to 9000rpm in 100rpm steps. Programming example as shown on label:

#### Rev Limit RPM = 8200

8200Rpm (Desired rev limit)  
 -5900rpm (Minimum Rev Limit Value, Sw 1 through 5 OFF)  
 Program this RPM: **2300 = (1600 + 400 + 200 + 100)**

Another example as shown on label:

#### Rev Limit RPM = 7700

7700Rpm (Desired rev limit)  
 -5900rpm (Minimum Rev Limit Value, Sw 1 through 5 OFF)  
 Program this RPM: **1800 = (1600 + 200)**

### Spark Control

Switch Block B, position 4, as shown in see figures 1 and 3 is used to enable or disable the ignition spark. Turning the spark OFF allows a technician to preform compression tests without having to worry about the spark plug being grounded when the engine is cranking. A non-grounded plug can damage the ignition coil when cranking the engine.

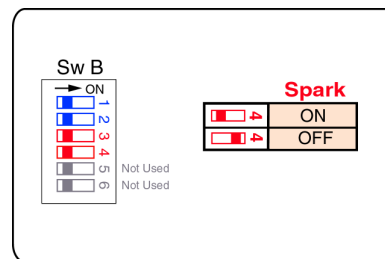


Figure 3

web site: [www.adventignitions.com](http://www.adventignitions.com)  
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