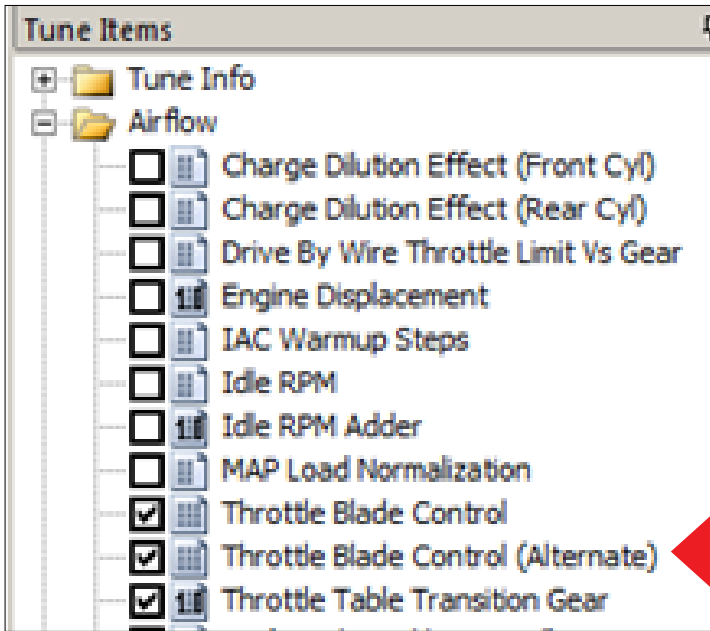


THROTTLE BLADE CONTROL

On motorcycles that have the throttle body butterfly controlled by the computer (drive by wire), there are settings in the tune that control how this happens. In the tune are three fields, found under Airflow in WinPV.



Throttle Blade Control or TBC
Throttle Blade Control (alternate) or TBC-A
Throttle Table Transition Gear

TBC and TBC-A control how the throttle blade is opened at different RPM and grip positions.

Throttle (Grip) Position

| Throttle Blade Control (Used In Gears 4-6) | | | | | | | | | |
|--|-----------------------------|-----|-----|------|------|------|------|------|-------|
| 2012 Road King.pvt | | | | | | | | | |
| RPM | Throttle Position (Percent) | | | | | | | | |
| | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 700 | 0.0 | 0.1 | 0.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 |
| 750 | 0.0 | 0.1 | 0.8 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| 1000 | 0.0 | 1.0 | 2.5 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 1250 | 0.0 | 1.1 | 2.8 | 16.3 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| 1500 | 0.0 | 1.2 | 3.0 | 16.6 | 21.3 | 30.0 | 30.0 | 30.0 | 30.0 |
| 1750 | 0.0 | 1.4 | 3.0 | 16.8 | 21.5 | 30.2 | 42.0 | 42.0 | 42.0 |
| 2000 | 0.0 | 1.4 | 3.0 | 16.8 | 21.5 | 30.2 | 42.0 | 59.0 | 59.0 |
| 2500 | 0.0 | 1.4 | 3.0 | 16.8 | 21.5 | 30.2 | 42.0 | 59.0 | 99.0 |

Looking at this table, in gears 4-6, if the RPM is 1500, and the grip is 2.5%, the throttle body butterfly will open to 1.4%. At 1500 RPM and 100% grip, the butterfly will open progressively as RPM climbs. This will make the butterfly open progressively as RPM climbs. This can mask a bog or hesitation if the grip is opened quickly at low RPM.

Throttle Blade Control (Used In Gears 4-6)
2012 Road King.pvt

| RPM | Throttle Position (Percent) | | | | | | | | |
|------|-----------------------------|-----|-----|------|------|------|------|------|-------|
| | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 700 | 0.0 | 0.1 | 0.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 |
| 750 | 0.0 | 0.1 | 0.8 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| 1000 | 0.0 | 1.0 | 2.5 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| 1250 | 0.0 | 1.1 | 2.8 | 16.3 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| 1500 | 0.0 | 1.2 | 3.0 | 16.6 | 21.3 | 30.0 | 30.0 | 30.0 | 30.0 |
| 1750 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 45.0 | 45.0 |
| 2000 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 62.0 |
| 2500 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |

If you want to make the throttle more aggressive, you can change the table's cells larger, up to the grip position across the top. The bottom three rows have been changed. This change would produce a more aggressive feeling throttle.

Throttle Blade Control (Used In Gears 4-6)
2012 Road King.pvt

| RPM | Throttle Position (Percent) | | | | | | | | |
|------|-----------------------------|-----|-----|------|------|------|------|------|-------|
| | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 700 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 750 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 1000 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 1250 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 1500 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 1750 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 2000 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |
| 2500 | 0.0 | 2.5 | 5.0 | 19.8 | 24.5 | 33.2 | 45.0 | 62.0 | 100.0 |

Some users want their throttle response to be very aggressive, or one-to-one. This may produce a twitchy throttle; the slightest movement makes the bike jump.

The third table, Throttle Table Transition Gear defines which table is used for which gear. Common settings are,

- 3** – Use TBC-A for gears 1-3, and TBC for gears 4-6. This is the OEM setting.
- 0** – Use TBC for all gears 1-6.
- 6** – Use TBC-A for all gears 1-6.

Tune Items

- Tune Info
- Airflow
 - Charge Dilution Effect (Front Cyl)
 - Charge Dilution Effect (Rear Cyl)
 - Drive By Wire Throttle Limit Vs Gear
 - Engine Displacement
 - IAC Warmup Steps
 - Idle RPM
 - Idle RPM Adder
 - MAP Load Normalization
 - Throttle Blade Control
 - Throttle Blade Control (Alternate)
 - Throttle Table Transition Gear

Throttle Table Transition Gear
2012 Road King.pvt

| Units | Value |
|---------------|-------|
| Not specified | 3 |

