

Motor Timing: **Launch**

Motor timing is an absolute. It's effective throughout the entire range of the cars speed. This is the adjustment that should be made for the first few feet of car travel.

Timing Boost: **Acceleration**

The ideal start/end rpm for boost will depend on the platform/chassis being used along with track size and motor wind. The size of the range will also affect how the car pulls. A narrow rpm range will effectively produce a faster rate of boost vs. a wide range will have a slower rate of boost:

1000rpm start / 6000 end with 50 timing boost will provide 10 degrees of boost per 1000 rpm **vs.**  
1000rpm start / 11000 end with 50 timing boost will provide 5 degrees of boost per 1000 rpm.

**Spec Motors:**

So far pan cars are using between 1,000 and 7,000 on most tracks. This is due to not having a gearbox and being direct drive.

TC's are showing a useable range of 2,000 to 13,000 on most tracks. This is due to having a reduction gear box.

Offroad spec is showing a range from 5,000 to 20,000 is ideal on most tracks.

Turbo Timing: **Top speed**

Turbo Delay: This is the time that must expire at wide open throttle to engage turbo. This is NOT dependant on RPM's in any way. Ideally this should be NO lower than .2 and in all likelihood will be set at .4 or more. Tracks that have straights less than 80ft will likely NOT need turbo.

Turbo Ramp Rate: This is the literal ramp rate of whatever your turbo timing is set. So:

A turbo setting of 20 will give you the following reaction:

- 1.0 Ramp rate = 20 degrees in 1 second applied
- 2.0 Ramp rate = 20 degrees in .5 seconds applied
- 3.0 Ramp rate = 20 degrees in .30 seconds applied

So if you run timing it will just change the total applied, not the speed at which it's applied.

