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Revolutionised Rex!

We drive the MY06 Subaru WRX with MRT's magnificent XB power-up kit

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At a glance...

- MRT exhaust, air intake and management mods
- Impressive throttle response and torque spread
- Very quick in real-world driving
- A highly recommended buy!



Since the Subaru Impreza WRX appeared in Australia more than a decade ago we've seen countless workshops getting stuck into modification. But few – if any – are as impressive as the Middleton Rally Team (MRT) XB power-up kit for the newly released MY06 WRX.

Forget entering debates on other upgrades that might offer more top-end power – this baby will blow most other Rexes to the side of the road before they've hit boost! The typically laggy and soft bottom-end performance of the previous models is now just a distant memory – the MRT enhanced MY06 WRX is a torque monster!

The Latest WRX and MRT's Mods

The MY06 Subaru Impreza WRX is quite a different beast compared to earlier versions. While the previous 2-litre engine struggled when off boost, the latest model features a 2.5 litre donk with a relatively high 9:1 static compression ratio combined with a relatively small TD04L turbocharger. The result is much improved flexibility and torque spread, although the engine isn't as willing to rev as the superseded 2-litre – peak power now arrives 400 rpm earlier than previously. Vital stats are 169kW at 5600 rpm and 320Nm of torque at 3600 rpm (up 1kW and 20Nm on the MY05). Subaru officially recommends a minimum of 95 RON fuel.

So what does MRT do to enhance the already improved all-round performance of the new Rex?

Well, the entry-level XA kit comprises a replacement rear muffler (which bolts to the rearmost flange of the factory exhaust), aftermarket panel filter and an engine management tune using EcuTeK software. These changes increase power from 120 – 125kW (standard) to around 135 – 145kW at the hubs (as measured on MRT's 4WD Dynapack dyno). This upgrade costs AUD\$2290.

But the next step up is the MRT XB kit (as tested). The XB kit includes a full-length 3 inch exhaust with a twin-pipe dump, air intake mods and dedicated ECU tune.

Interestingly, the factory MY06 WRX exhaust flows better than previous models thanks to an increase in pipe diameter from 48.6 to 54mm. Still, stepping up to a 3 inch (76mm) pipe represents a near doubling in cross-sectional area so you're pretty well assured a reduction in backpressure... The new system is made from high-grade stainless steel for maximum durability.

Air intake restriction is eased thanks to an aftermarket panel filter teamed with some stealth modifications to the pre-airbox ducting. In the standard car, air enters a pick-up above the radiator, flows into a resonant chamber inside the left front guard and into the airbox. MRT modifies the in-guard resonator so that it becomes a secondary air pick-up – this reduces restriction and lowers the pre-turbo intake air temperature.

The final part of the upgrade is an engine management tune. MRT uses EcuTeK software to re-flash the factory ECU via the OBDII port which means there's no need to cut or splice any wires. The EcuTeK system gives adjustment over a huge range of parameters – everything from inlet cam timing to the new electronic throttle control system. MRT won't divulge specific air-fuel ratio or ignition timing numbers but they will reveal that peak boost pressure (achieved in a mid-range rpm) is increased from about 13 to 15.5 psi and tapers to about 14 psi near the redline. Ninety-eight RON fuel should be used for maximum performance but MRT's relatively conservative tune lets you get away with 95 RON so long as you drive intelligently.

Driving the XB Kitted MY06 WRX

The XB'd MY06 WRX drives completely differently to other 2-litre WRXs we've sampled.

The tweaked 2.5 offers genuinely useable torque off idle and by around 3000 rpm you're surging ahead with a meaningful amount of boost. The low rpm response and torque feels very similar to, say, a turbocharged Audi A4, Saab 9-3 or Volvo S60 - high praise indeed! Part-throttle performance is strong and, interestingly, you can feel boost pressure snowball and road speed will increase while maintaining a constant throttle. Throttle response is quite sharp (for a turbo engine) and there's the flexibility to shift from 1st to 3rd gear – something that would have any other WRX haemorrhaging...

Mid-range torque is very impressive but the top-end does feel a bit flat as the standard turbocharger nears the limit of efficiency range. MRT's dyno figures show gains of 35 – 40kW over the standard output of 120 – 125kW at the hubs - a gain of around 30 percent. Sure, it's easy to find modified WRXs with more power but in the real world of driving, the accessibility of the XB enhanced MY06's performance more than makes up it.

And what about price?

Well, after you've spent AUD\$41,000-odd on a MY06 WRX the MRT XB kit will set you back almost another 10 percent – AUD\$3990 fitted and tuned. It's not cheap but, if you can afford it, we reckon it's money well spent. We can't remember the last time we came away so impressed by a WRX (and that's saying something given how many we've driven!).

If you've 'been there and done that' with 2-litre WRXs, we strongly suggest you take a XB kitted MY06 for a test drive. It's guaranteed to impress.

The In-Development XC Kit

At the time of writing, MRT is working on a 'stage three' XC upgrade for the MY06 WRX. It is expected that the standard turbocharger will be replaced and a modified fuel system will be necessary.

If MRT's XC kitted Forester XT upgrade is anything to go by (see [Forest Fire](#)), we reckon you'll be looking at a power gain of more than 50 percent – while still retaining much of that tremendous low-to-mid range grunt. We can't wait to test that one!

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