

Rubber on the rack

Premium, ultra high-performance tyres tested to the limit, and beyond, as we sort the best from the rest

Like Chopper Reed, we're just normal blokes. Normal blokes, who like a bit of torture. Tyre torture, that is.

This year we're applying the thumb screws to 11 different makes and models, across five test disciplines that make The Rack and Iron Maiden look like child's play.

Our long-term Toyota 86 is the 2013 weapon of choice and, in consultation with technical partner JAX Tyres, we're going to run a 225/40 R18 size tyre, as a popular plus-one upgrade from the GTS's standard 215/45 R17s.

The focus is on premium performance street tyres, without going the next step to 'R' type, semi-slick rubber. All brands invited to participate submitted an asymmetric model, and we only had two knock-backs; Falken and Yokohama.

Nominated wheel-man is once again V8 Supercar and endurance sportscar ace, Warren Luff, whose proven control and feel behind the wheel is critical in making the numbers stack up consistently.

We're also using a control tyre, to ensure conditions and times are consistent throughout testing, and Michelin Australia has provided a fresh set of its original equipment Primacy HPs for the 86. Just as well, because for some reason, the rears on the now 17,000km old Toyota are worn a lot more than the fronts.

Methodology is unchanged from last year, with multiple runs timed, then averaged. And the dual venues are also as per 2012 - Sydney Dragway (Slalom - dry, Emergency braking - dry) and Sydney Motorsport Park (Figure Eight - dry, Motorkhana - wet, Emergency braking - wet).

Let the punishment begin...

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BRIDGESTONE
POTENZA S001

ORIGIN: JAPAN
RATING: 92Y RRP: \$389

CONTINENTAL
SPORTCONTACT 707 R

ORIGIN: CZECH REPUBLIC
RATING: 92Y RRP: \$375

DUNLOP
SPORT MAXX RT

ORIGIN: GERMANY
RATING: 92Y RRP: \$350

FEDERAL
SR9 RPM

ORIGIN: TAIWAN
RATING: 92Y RRP: \$284

GOODYEAR
EXCEL EASYDRIVE 1

ORIGIN: GERMANY
RATING: 92Y RRP: \$363



HANKOOK
VENTUS S1 0902

ORIGIN: SOUTH KOREA
RATING: 92Y RRP: \$300

KUMHO
ECSTA LE SPORT

ORIGIN: SOUTH KOREA
RATING: 92Y RRP: \$330

MAXXIS
MCTRA SPORT RACING

ORIGIN: CHINA
RATING: 92Y RRP: \$289

MICHELIN
PILOT SUPER SPORT

ORIGIN: USA
RATING: 92Y RRP: \$425

PIRELLI
P ZERO

ORIGIN: ITALY
RATING: 92Y RRP: \$370

TOYO
PROXESST 1 SPORT

ORIGIN: JAPAN
RATING: 92Y RRP: \$350



*This discipline
is about high-
frequency changes
of direction*

Slalom - Dry

Ripping and gripping through the 10 gate test

W e left Sydney Dragway's staging area and start line in the rear view mirrors, and headed to the braking area at the top of the strip to set up a 10-gate (dry) slalom course. Why? The traction compound on the main part of the track is great for straight line grip, but the bare bitumen in the half kays section beyond it offers real-world surface conditions in a contained and safe environment.

As much as we're aiming for smooth inputs to flow the car through the cones in a rapid and controlled manner, this discipline is about high-frequency changes of direction and the relatively severe transitions of mass that generate short, elatively sharp tests of grip.

Rolling in to the first gate at 40km/h, Luffy rattles off five runs through the course, with an average number representing each tyre's performance.

With 0.02sec between the win and second place, Bridgestone's Potenza S001 takes first blood by the barest of margins from the Dunlop Sport Maxx RT, and Michelin's Pilot Super Sport in third. The podium place-getters are the only contenders inside

the 10.0sec bracket, although just eight tenths of a second covers the entire field.

Consistency flips things around a bit, with 0.2sec between the Michelin's fastest and slowest runs, 0.4 for the Bridgestone, and 0.5 for the Dunlop. The single run, outright best time was a 10.6 on the Dunlops, with the Bridgestone's 10.7 a hair's breadth ahead of the Michelin's 10.9. Which is another way of saying, in reality, there's bugger all between them on this exercise.

The mid-field pack is also tightly grouped, with 0.07sec covering fourth to eighth position, the Goodyear Eagle F1 and Pirelli P Zero actually dead-heating on 11.18sec. And the final group is more clearly defined, with 0.36sec across the trailing trio.

To check for consistency of conditions, brakes and driver, the 86 runs through on its standard Michelin Primacy rubber at the beginning and end of the session. There's only a tenth of a second variation between the averages of both runs, the OE rubber doing well enough to slot into ninth, if it was in the game. It's also worth noting, the average variation across Luffy's five runs per tyre is less than 0.4sec.



JAX Tyres

No one knows those round black things that sit under each corner of your car better than MOTOR's technical partner for Tyre Test 2013, JAX Tyres. Good team work is always a thing of beauty, and the JAX pit crew's ability to efficiently rattle through the fit and swap for each tyre set ensures the program remains on track and drama free. Our sincere thanks go to these rims and rubber experts.

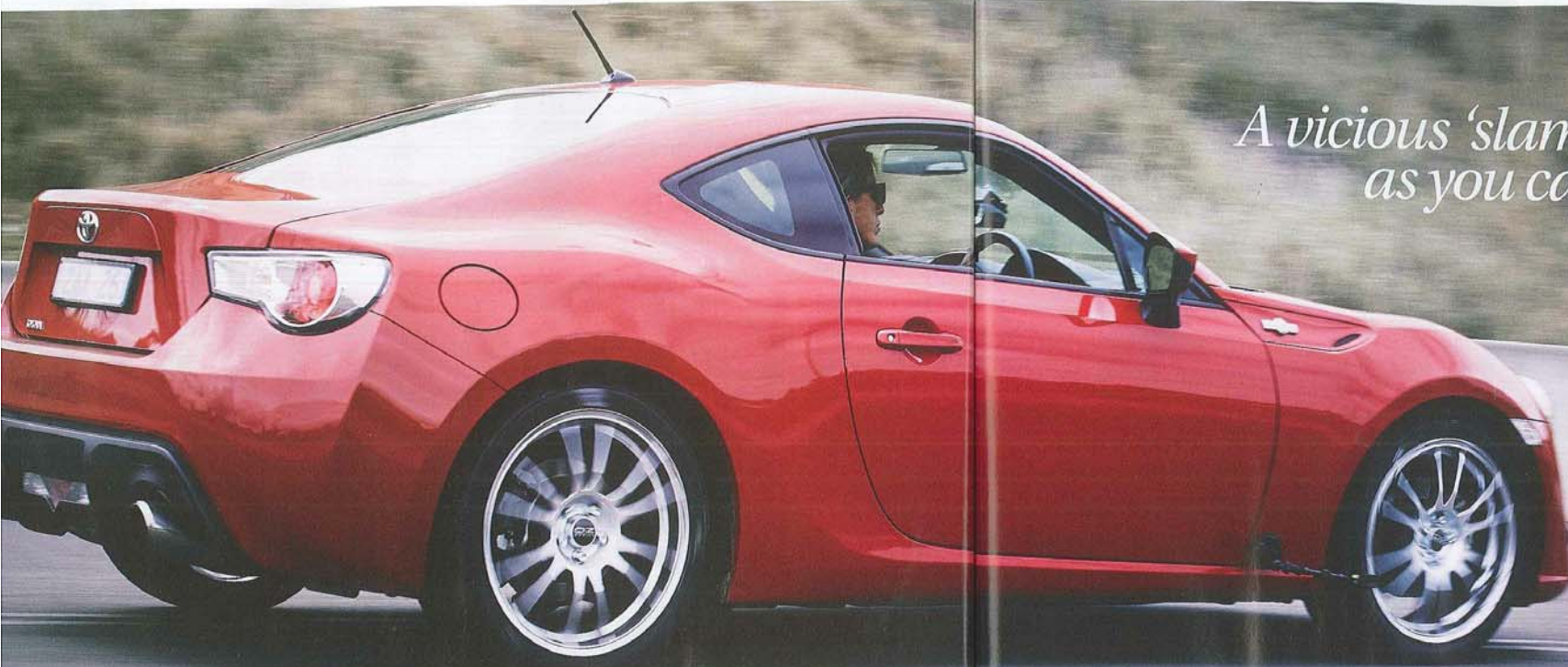
www.jax.com.au

SLALOM

	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9 seconds
1. BRIDGESTONE POTENZA S001				10.90sec									
2. DUNLOP SPORT MAXX RT				10.92sec									
3. MICHELIN PILOT SUPER SPORT				10.98sec									
4. TOYO PROXES T1 SPORT					11.10sec								
5. CONTINENTAL CONTISPORTCONTACT 5					11.12sec								
6. MAXXIS VICTRA SPORT ZERO ONE					11.14sec								
7. GOODYEAR EAGLE F1 ASYMMETRIC 2					11.18sec								
8. PIRELLI P ZERO					11.18sec								
9. HANKOOK VENTUS S1 EVO2						11.34sec							
10. FEDERAL 595 RRM							11.56sec						
11. KUMHO EUSTA LE SPORT								11.70sec					

Consistency is critical, and the Toyota 86's natural balance between power and grip helps





A vicious 'slam the pedal hard as you can' exercise



Braking 100-0km/h - Dry



Disc Brakes Aust.

Given the centre pedal is used almost as much as the right hand one in tyre testing, we've tapped Disc Brakes Australia (DBA) for an upgrade. The result is a set of its 4000-Series slotted rotors, as well as Ferodo DS race-spec performance pads all around. Hats off to DBA for ensuring the brakes remain a reliable constant throughout testing, and thanks to the JAX Tyres team for fitting up the new hardware. www.dba.com.au

In an emergency, we throw out the anchors

Toyota's 86 GTS may be a relative featherweight at 1275kg, but there's nothing like standing a few metres away (on the other side of a concrete barrier) and watching as it decelerates from 100km/h to standstill, in the shortest possible distance, to remind you of the physics involved in emergency braking from freeway speeds.

The 86's nose dips aggressively, with ABS cycling furiously, as 35-odd metres passes under tormented tyres, chirping intermittently in a desperate scramble for grip. Four seconds doesn't sound like much when you say it quickly, but that's about how long it takes to bring this hurtling piece of machinery to a halt from 100 clicks, and in the wrong circumstances it can be an eternity.

To be clear, this isn't about progressive braking in a competition context; firm but smooth input to wash off speed, help balance the car, and manage the transition of mass in cornering. Save that for the Figure Eight. This is a vicious 'slam the pedal hard as you can' exercise, to explore each tyre's ultimate ability to grip and stop the car in extreme conditions.

With control tyres bolted on, the average stopping distance from three runs is 40.19 metres; the best performing Pirelli P Zero pulling up close to five metres shorter than that, and over six metres inside the 11th placed Federal 595's mark.

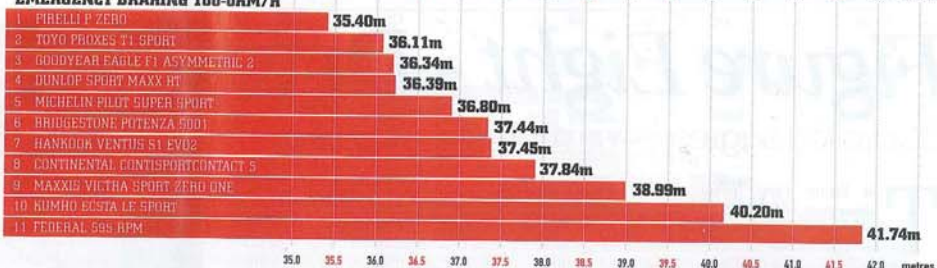
That's a massive difference, and according to Pirelli, it's the P Zero's three, solid longitudinal ribs that increase pattern stiffness to help braking performance. The Italian is the only contender to dip into the 35m bracket, holding a 0.7m advantage over the second placed Toyo Proxes T1 Sport.

Another three following sit inside the 36-metre zone, with the next trio all stopping under 38-metres; a single centimetre separating the Bridgestone and Hankook. The Maxxis was barely under the 40-metre mark, while the Kumho and Federal pulled up just the other side of it.

The brakes remained spot-on through a total of 40 emergency stops, the closing control run on the OE tyre, averaging out 10cm shorter than the first.

Clearly, the Pirelli isn't a one-hit-wonder, and its structural integrity doesn't just benefit braking performance, with the P Zero starting to assert its dominance from this point on.

EMERGENCY BRAKING 100-0KM/H



Control runs at the start and finish of the session confirm the brakes aren't losing any efficiency





The Verdict

Final tally adds up to a crushing victory

To score an overall winner MOTOR follows the KISS principle, using the sum of each tyre's scores from individual disciplines to generate a final figure. So, lowest number takes the prize, and in the end, Pirelli's P Zero headed the field by a big margin.

Wins in Dry Braking and the Figure Eight, second on the Skidpan Motorkhana, and third for Wet Braking is an outstanding performance. The only 'outlier' result is equal seventh place (with the Goodyear) on the Dry Slalom, although the times are tight

on that exercise with less than three-tenths between the Pirelli and the winner.

Goodyear's Eagle F1 Asymmetric 2 backs up its 2012 victory with a solid second place this year, taking out the Motorkhana, picking up second on the Figure Eight and third for Wet Braking.

Tied for third, the Dunlop Sport Maxx RT and Toyo Proxes T1 Sport are similarly consistent, although each drop to a worst of eighth in different disciplines.

Special mentions go to the Bridgestone Potenza S001, for victory in the Dry Slalom,

and Continental's ContiSportContact 5 for unbeatable Wet Braking performance.

The scoreboard provides a menu, complete with costs, so you can make an informed tyre choice according to your needs, priorities and budget. Relative strengths and weaknesses across this year's 11 tyre line-up are clear.

But, at the top of the pyramid, Pirelli's P Zero is an outstanding tyre, clearly the current yardstick for this part of the ultra-high performance category, and a worthy winner of the 2013 MOTOR Tyre Test. **LA**



WINNER

PIRELLI P ZERO
RATING: 92Y
RRP: \$379

All times are recorded using



Results

ROAD TYRES

		DRY SLALOM	DRY BRAKING	FIGURE EIGHT	MOTORKHANA	WET BRAKING	TOTAL	PRICE
1	PIRELLI P ZERO	7	1	1	2	3	14	\$379
2	GOODYEAR EAGLE F1 ASYMMETRIC 2	7	3	2	1	8	21	\$383
3	DUNLOP SPORT MAXX RT	2	4	8	4	5	23	\$350
3	TOYO PROXES T1 SPORT	4	2	5	8	4	23	\$350
5	MICHELIN PILOT SUPER SPORT	3	5	4	5	7	24	\$425
6	CONTINENTAL CONTISPORTCONTACT 5	5	8	6	6	1	26	\$375
7	BRIDGESTONE POTENZA S001	1	6	3	9	9	28	\$389
8	HANKOOK VENTUS S1 EVO2	9	7	7	3	6	32	\$300
9	KUMHO ECSTA LE SPORT	11	10	10	7	2	40	\$330
10	MAXXIS VICTRA SPORT ZERO ONE	6	9	9	10	10	44	\$289
11	FEDERAL 595 RPM	10	11	11	11	11	54	\$284