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RSV4 **a** PRC
ABS



2014 PRODUCT GUIDE

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THE MACHINE: Since its debut RSV4 has won 5 SBK World Titles (2 rider & 3 manufacturer), 30 victories and 76 podium finishes.

A legend between high performance 1000cc bikes, that since its debut in 2009 has dominated the tracks of the World Superbike Championship to those of the specialized press comparative tests.



PRODUCTION



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RACING GENES

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New on MY14

Re-designed exhaust
+4hp vs. MY13



200-55/17 now also on R version



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Why **ABS** on RSV4?

- To **increase active safety on the road**, without compromising **track performances** of all kind of riders
- To **challenge and overcome the most qualified competitors** in a field where RSV4 has the absolute starring role

RSV4 FACTORY APRC ABS is
THE FASTEST,
MOST POWERFUL
AND SAFEST RSV4 ever made.



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What is *ABS* ?

It's a modern **anti-lock system with electronic management**, based on a new and advanced **BOSCH 9MP ECU**, the **best technology currently available**, cleverly developed and calibrated according to the specifications of Aprilia technicians.

True to its racing DNA, Aprilia has designed and developed the anti-lock brake system to ensure not only **maximum safety on the road**, but also the **best performance on track**.

It is the **completion** and the **maximum evolution** of an electronic control package (aPRC) that is universally recognized as the top of its class



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RSV4 **aPRC** : Success factors

ABS

- Multimap ABS
- Aprilia Traction Control evo
- Aprilia Wheelie Control evo
- riding-settable ATC (joystick)

CONTROL

- Optimal weight distribution
- Evolved V4 65° engine MY14 +4 hp
- Compactness
- New braking system with ABS

BALANCE

INNOVATION

- Advanced aPRC
- All systems are patented and operate independently
- Advanced exhaust butterfly valve management
- Ride By Wire system
- Three engine mappings make for three bikes in one
- Progressive RLM

TRACK READY

- Aprilia Quick Shift
- Aprilia Launch Control
- RACE dashboard mode
- ATC calibration for different tire size
- Cutting edge equipment
- Endless adjustment options
- Track oriented design

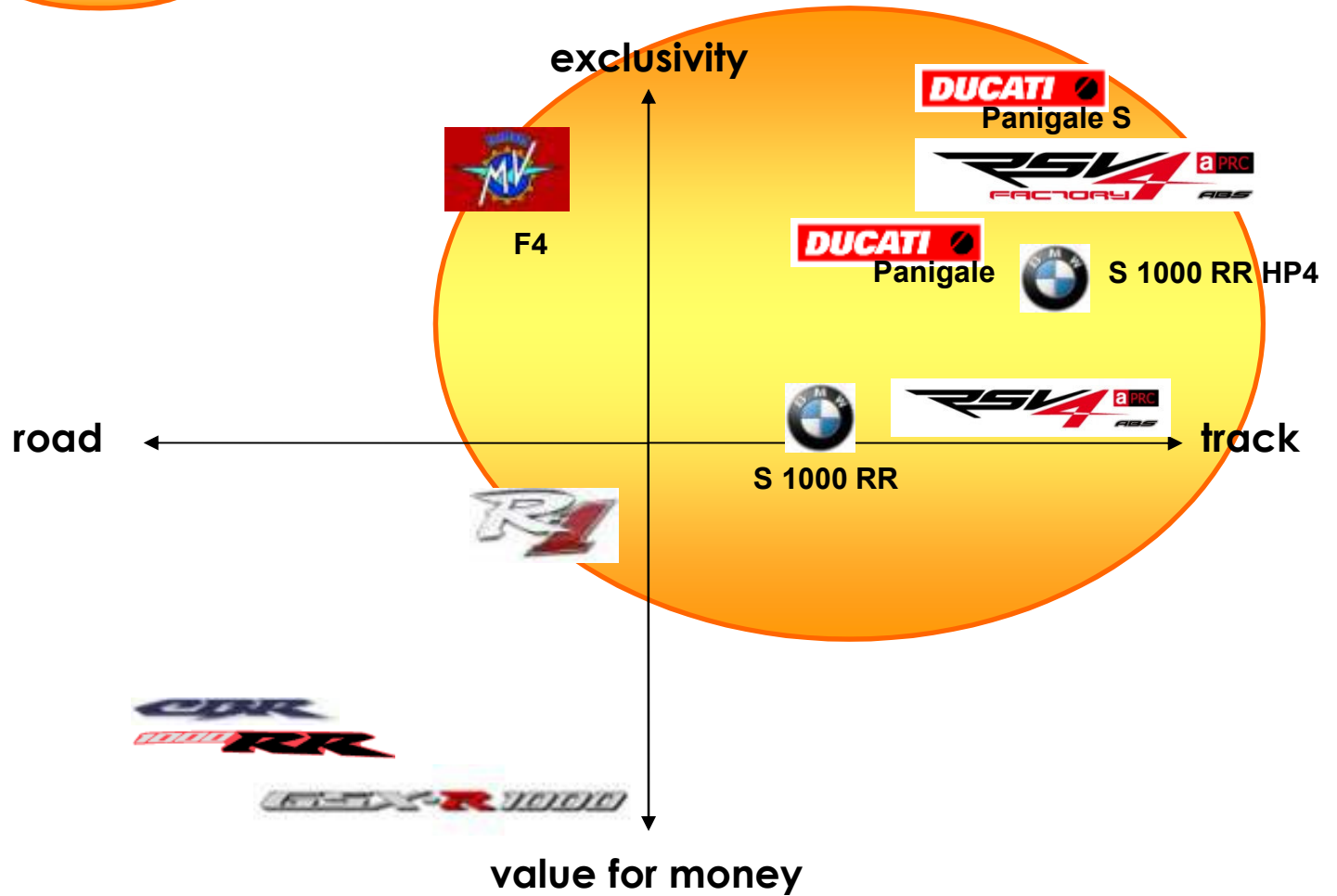
POWER – CONTROL – PERFORMANCE – SAFETY
EFFECTIVENESS



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POSITIONING

Competitive Arena



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TARGET CUSTOMER



- **Age:** 30-40 years
- **Social/marital status:** single, or single lifestyle
- **Appearance:** technical
- **Motorcycles owned:** > 3, expert
- **Motorcycle sport:** follows or actively takes part in minor competitions
- **Hobbies:** endurance sports, speed

Reason for buying:
Stay ahead of others

Sports lover: Aesthetics meet functionality

Looking for performance: Engine power, handling, ultimate control

Rider: No passenger , **uses bike on track**

Professional rider (RSV4 F): Top components and Racing accessories

Likes to stand out: Visible technical details



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New for MY14



INCREASED PERFORMANCE

- 184 hp @ 12,500 rpm (on both versions)

Optimized exhaust: +4 hp

- Re-designed internal passages for maximum performance and a more aggressive sound



VEHICLE OPTIMIZATION

- New 200/55-17 rear tire now also on RSV4 R aPRC ABS

The Aprilia logo, consisting of the word "aprilia" in white lowercase letters on a red rectangular background.

The *ABS* according to

The Aprilia logo, consisting of the word "aprilia" in white lowercase letters on a red rectangular background.

Main advantages of ABS on motorcycles:

- Greater stability
- Best deceleration without locking the wheels
- Lowest stopping distance in different critical situations

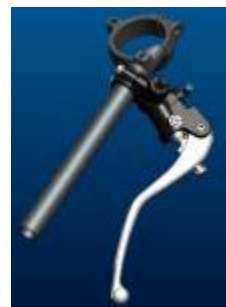
Aprilia wanted to go beyond, developing an ABS system which isn't simply acting to prevent the wheels from locking during braking, but according to **3 different map** settings. A system that is able to detect the kind of situation in which the braking occurs (relaxed riding, sport riding, track, bumpy road, "panic stop") and to **adapt its intervention accordingly**, always **maximizing brake performance**.



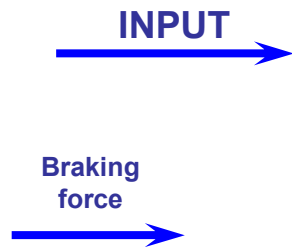
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ABS

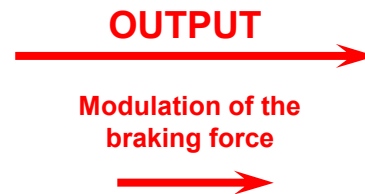
How it works



Brake master cylinder

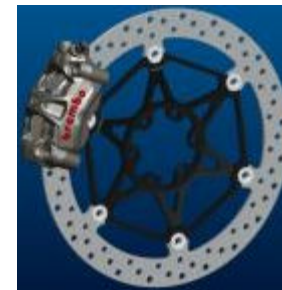


9MP ECU



3 x Brake calipers

The braking force is modulated to prevent wheels locking, as the limit of adherence is approached, according to the level at which the system is set



RLM

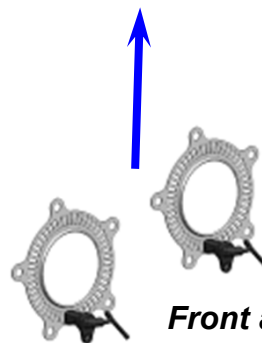
2 x Front Brake calipers

The pressure of the front circuit is monitored to limit the lifting of the rear wheel, according to the level at which the system is set (Lev.1 OFF)



Pressure sensor

Detects PEAK PRESSURE in the FRONT brake circuit



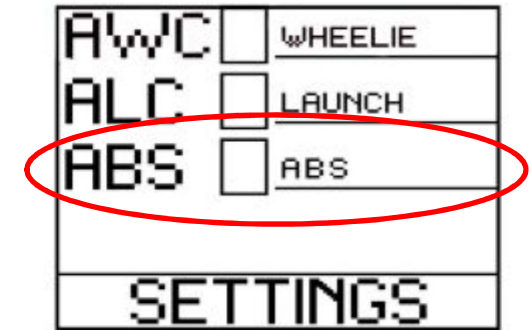
Front and Rear speed sensors

Measure the speed of the two wheels. These values are used to DETECT their LOCK



ABS Settings

The rider can select 3 different settings of the ABS system, as well as disable it.

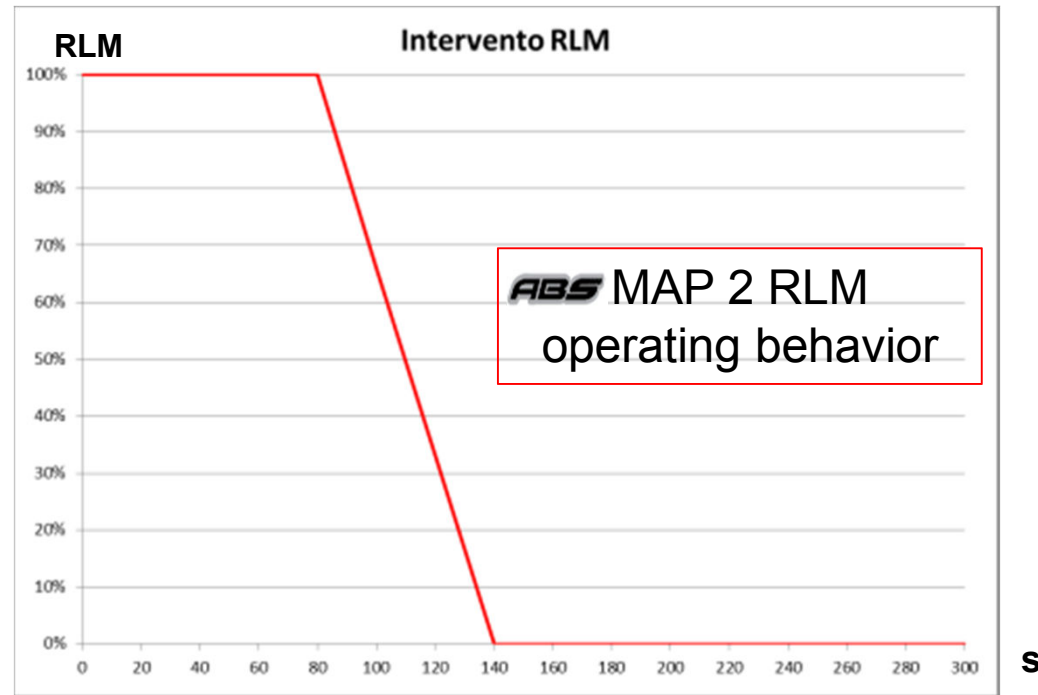


ABS MAP	DESCRIPTION	ACTIVE CHANNELS
--	OFF	not active
1	TRACK best hard-braking performances RLM disabled road homologated	front & rear
2	SPORT for sport-riding purpose speed > 140 km/h RLM disabled 80 km/h < speed < 140 km/h progressive RLM speed < 80km/h full RLM	front & rear
3	RAIN maximum safety in low grip conditions full RLM	front & rear



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ABS RLM strategy



RLM (**R**ear wheel **L**ift-up **M**itigation) is an operating strategy of the ABS system, which limits rear wheel lifting when intensively braking.

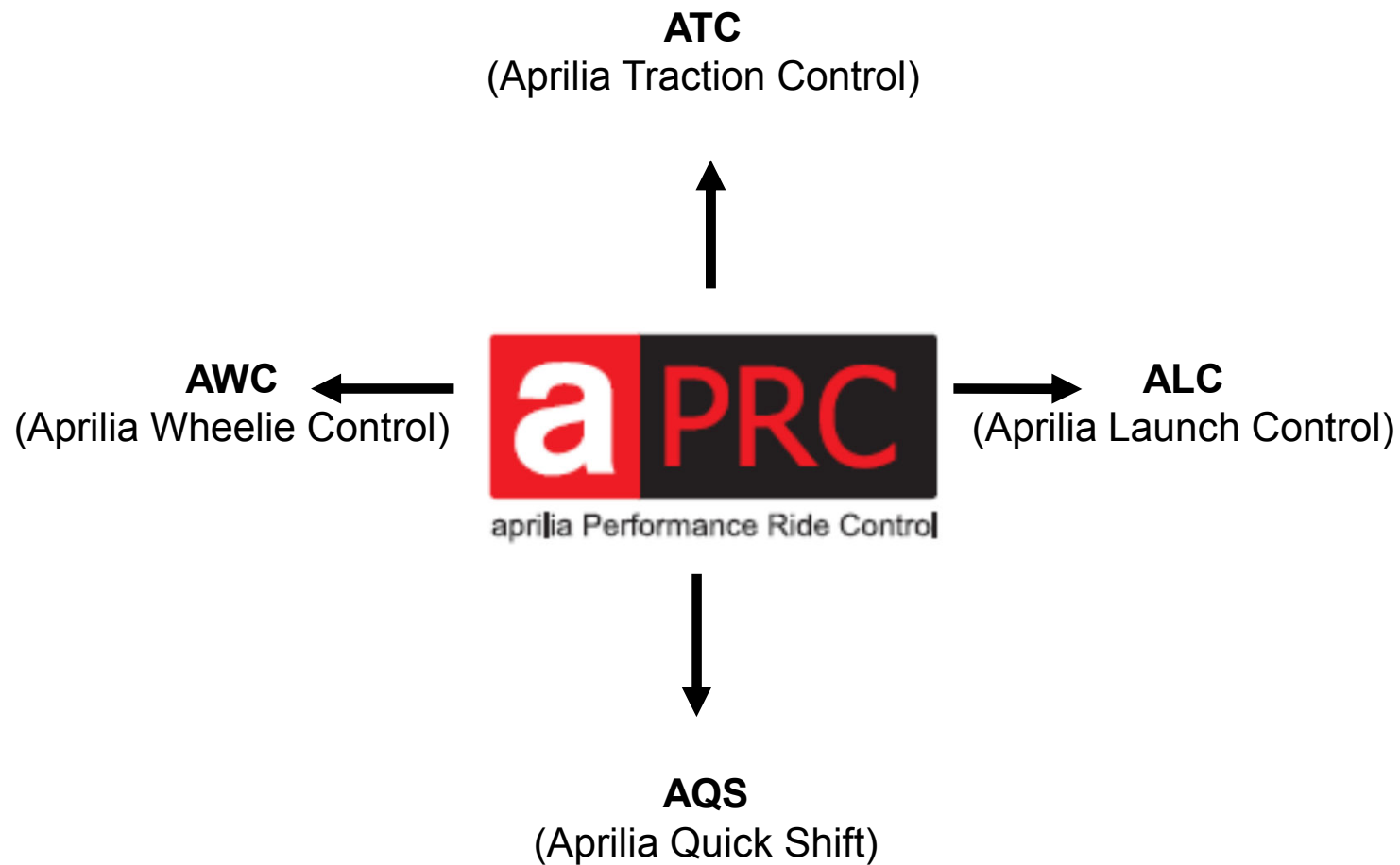
Aprilia, for the first time on a production motorcycle, has defined and developed a progressive intervention (MAP 2).

- Speed > 87mph or 140 km/h → RLM off;
- (80 km/h / 50 mph) < speed < (87 mph / 140 km/h) → RLM operates increasingly;
- Speed < 80 km/h / 50mph → RLM full-on.



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The APRC package



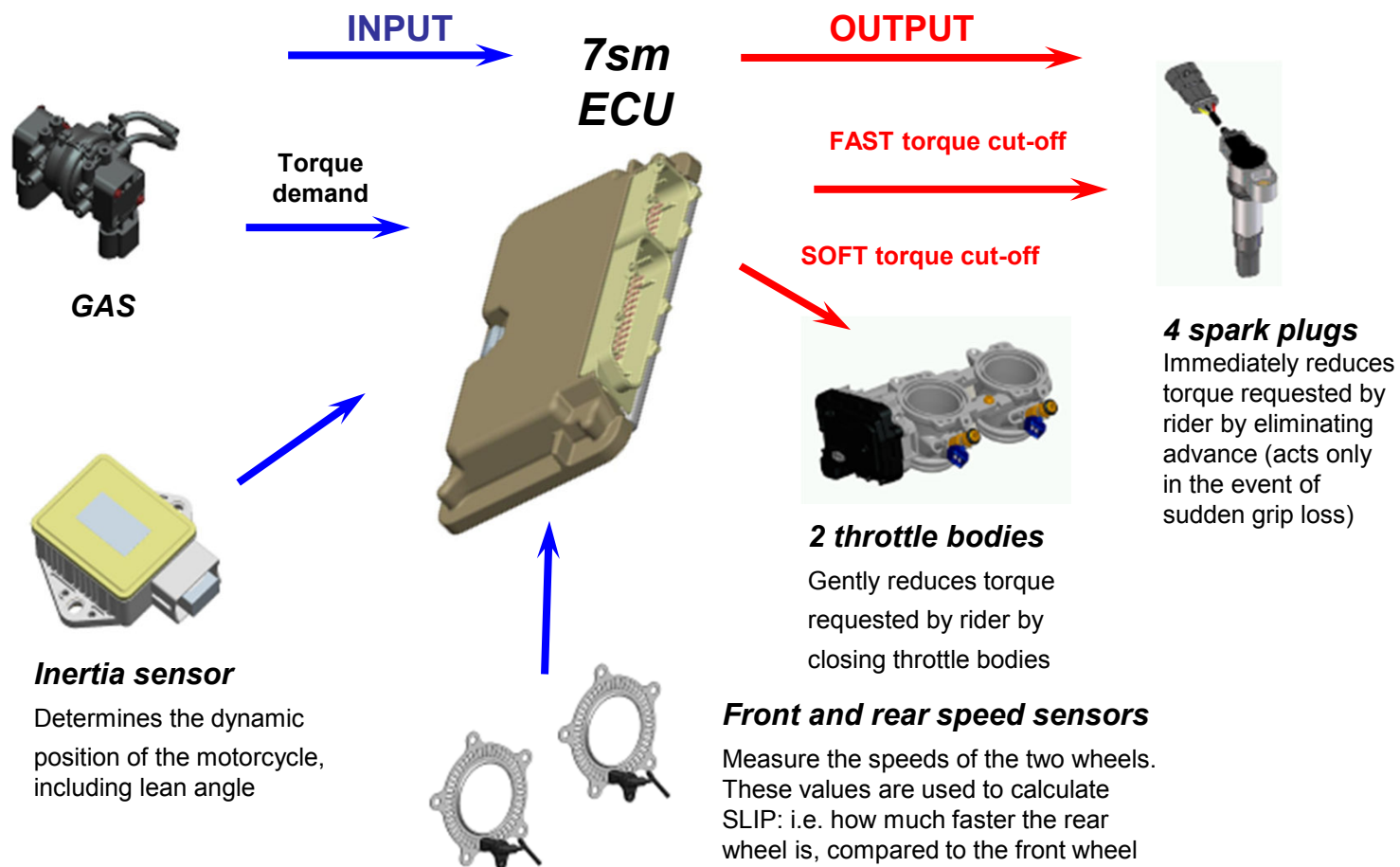
- + RACE screen
- + CALIBRATION system



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How it works



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aTC

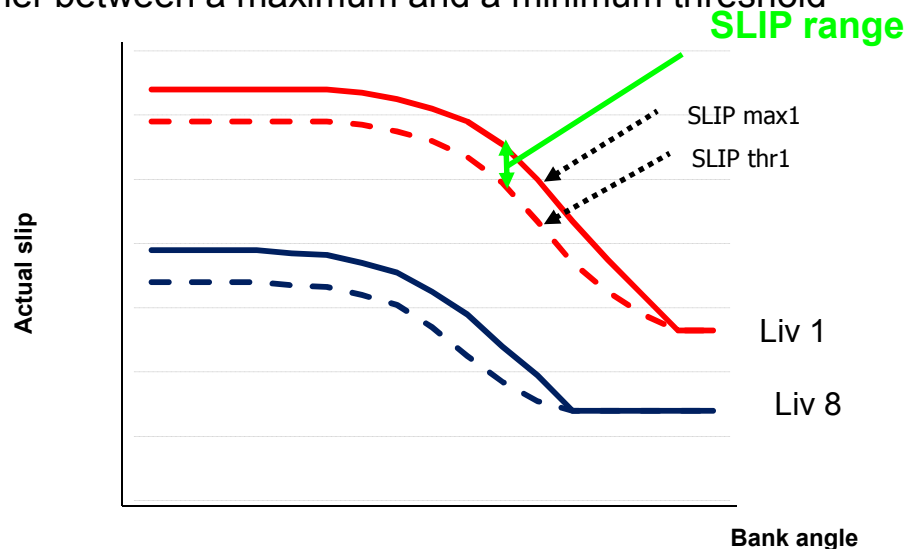
Aprilia Traction Control

Increases control in the event of sliding when exiting a curve

Controls wheel-spin (SLIP) under acceleration. Uses the bank angle and other parameters.

Uses **SLIP CONTROL®**, a patented Aprilia system. In all **8 available settings**, the system modulates slip when exiting a corner between a maximum and a minimum threshold

$$\text{SLIP} = \frac{\text{SPEED OF REAR WHEEL} - \text{SPEED OF FRONT WHEEL}}{\text{SPEED OF REAR WHEEL}}$$



Optimal SYSTEM BEHAVIOR

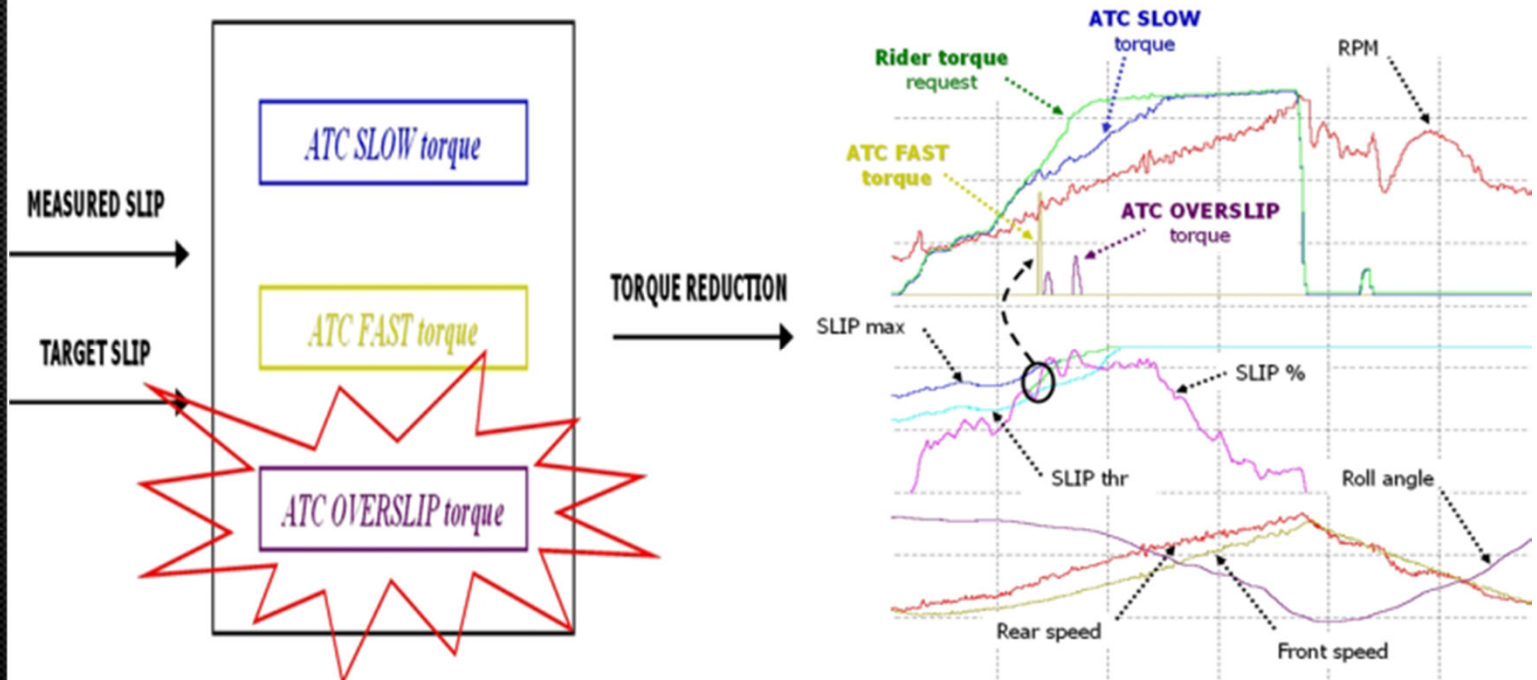
The optimal behavior of the system ensures high support in high speed corners, without compromising traction while exiting slow corners. The allowed slip percentage also differs according to the kind of corner.



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aTC Aprilia Traction Control

OVERSLIP CONTROL® is a further strategy of traction control, which operates when the acceleration skid (SLIP) exceeds the maximum limit (SLIP max). This strategy allows to improve the behavior of the vehicle with particularly worn or less performing tires.



2013
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SBK
WORLD CHAMPION
MANUFACTURER

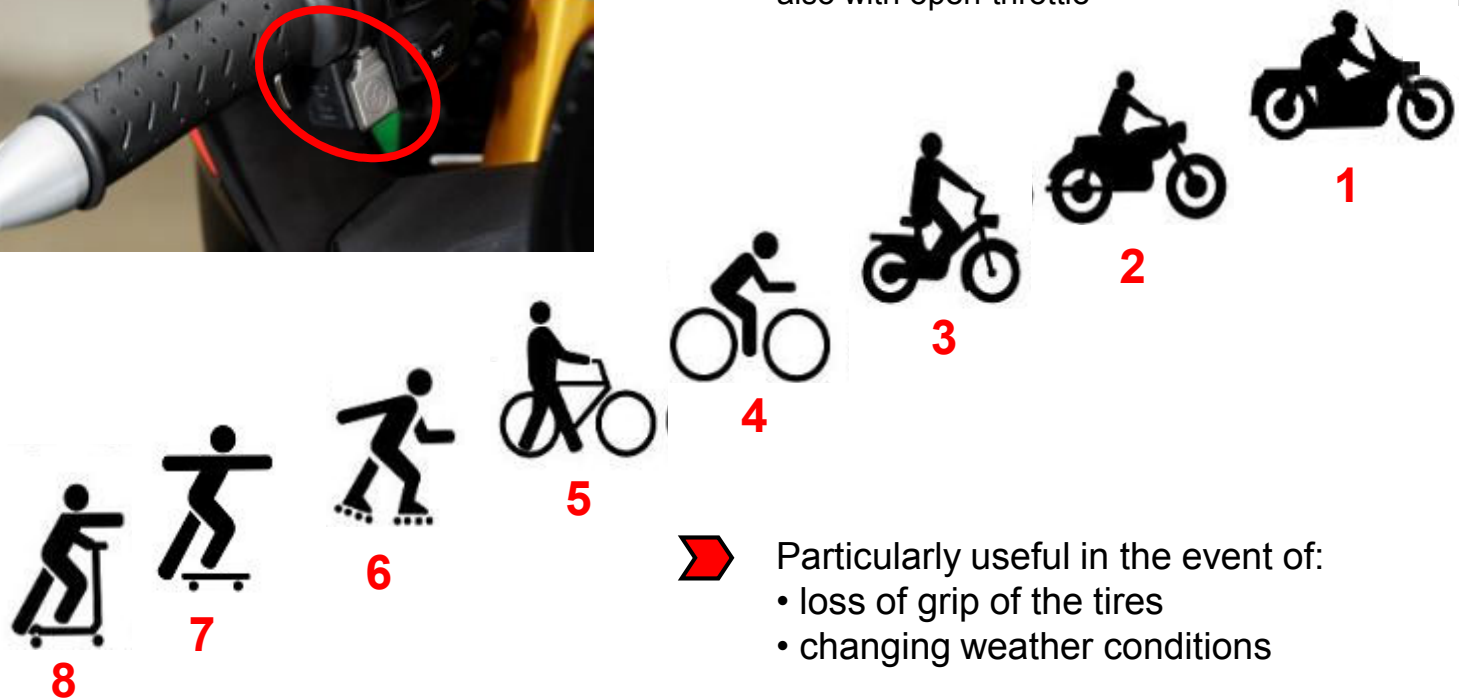
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52
WORLD TITLES

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aTC Aprilia Traction Control



➤ **8 AVAILABLE SETTINGS**
Dedicated joystick enables rider to change setting under any conditions, also with open-throttle



➤ Particularly useful in the event of:

- loss of grip of the tires
- changing weather conditions



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a **WC**

Aprilia Wheelie Control

Helps the rider to **control wheeling** by lowering the front wheel **gently** to the ground

WHEELIE DETECTION®
system (Aprilia patent)
identifies the **START** and
END of a wheelie



During a wheelie, AWC prevents the motorcycle from exceeding a predetermined **longitudinal acceleration** limit



The system gently lowers the front wheel to the ground

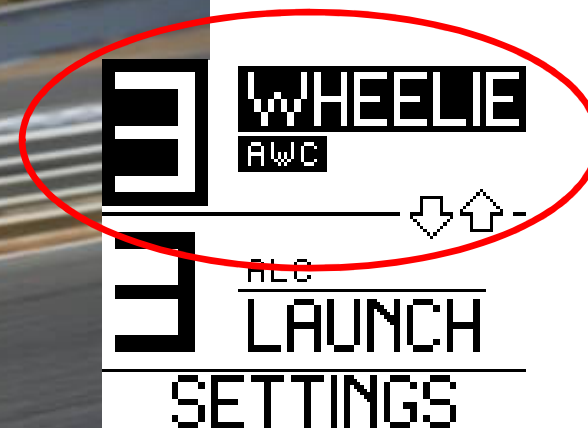


AWC map 1 more racing oriented: allows longer wheelies (always with active ATC)



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a **WC** Aprilia Wheelie Control



3 SETTINGS (i.e. **TARGET** longitudinal acceleration levels)
Selectable from the dashboard with motorcycle at rest

When AWC is disabled, wheelies are allowed even when ATC is active thanks to the patented **WHEELIE DETECTION®** system



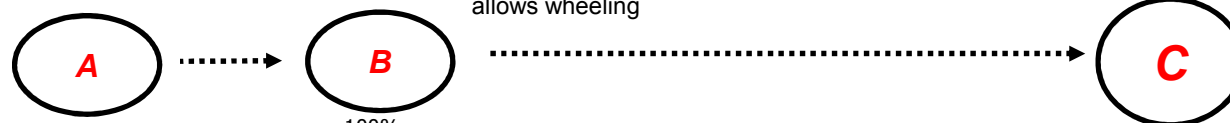
aLC Aprilia Launch Control

Optimizes acceleration from a standing start for track use.
Rider has to concentrate solely on releasing the clutch



FIRST PORTION = helps keep the front wheel on the ground

SECOND PORTION = maximizes longitudinal acceleration and RSV4 APRC allows wheeling



- ALC ON
- Clutch pulled
- Full throttle
- RPM limiter \approx 10,000 rpm decreases with speed
- Clutch released
- Full throttle

- ALC OFF at speeds > 160 Km/h / 100mph or in 3rd gear



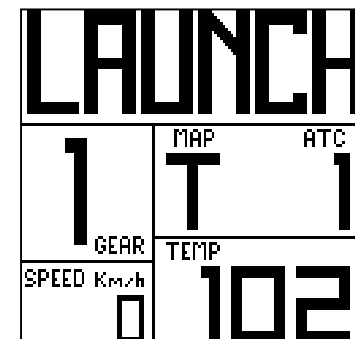
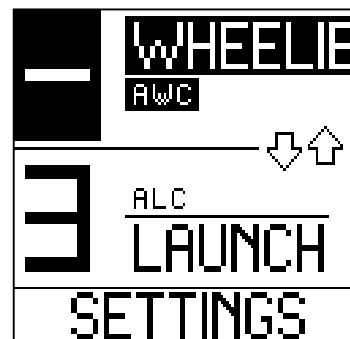
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aLC

Aprilia Launch Control



Aprilia patent



3 SETTINGS selectable from the dashboard with motorcycle at rest

System is armed by simultaneously pressing both buttons (+ and -) of the joystick on the left hand handlebar at the starting grid

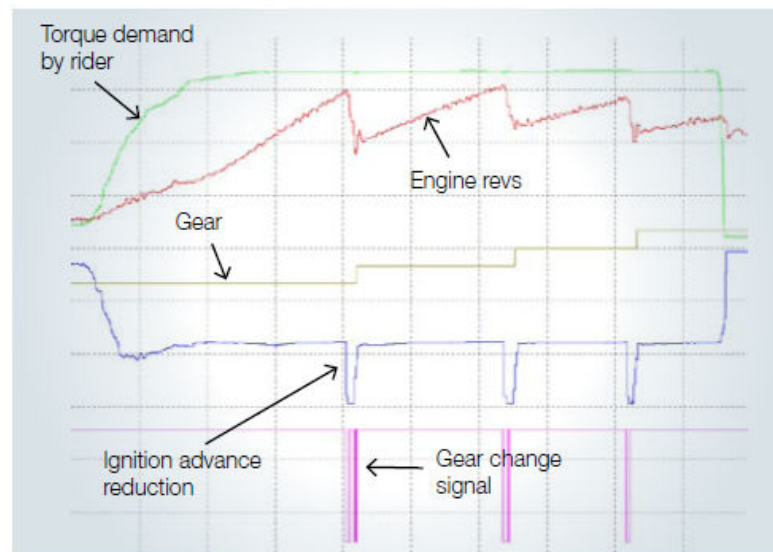


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a QS Aprilia Quick Shift

Enables **faster gearshifts** without using the clutch or closing the throttle

Shift times are **shorter** than with conventional gearboxes



Gear shift lever input path:
Sensor > engine control unit > ignition and fuel injection control > torque cut-off > gear shift > torque progressively restored

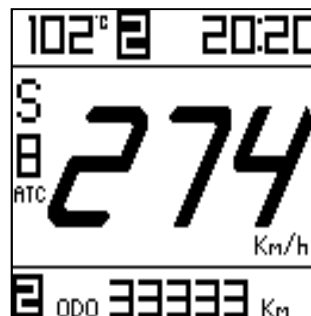
System kick-in time varies according to three different engine rpm thresholds, i.e. is slower at low rpm and faster at high rpm



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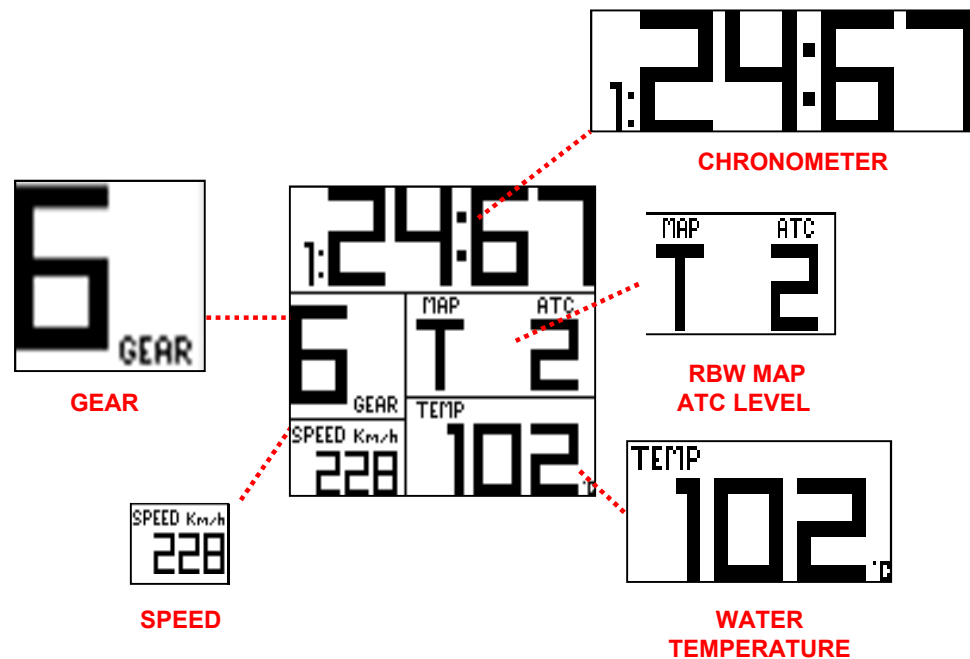
DUAL DISPLAY DASHBOARD

Road



- Average & max speed
- Engine map
- ATC level
- Gear position
- Clock
- Odometer
- Water temperature

Race



Compatible with finish line optical markers

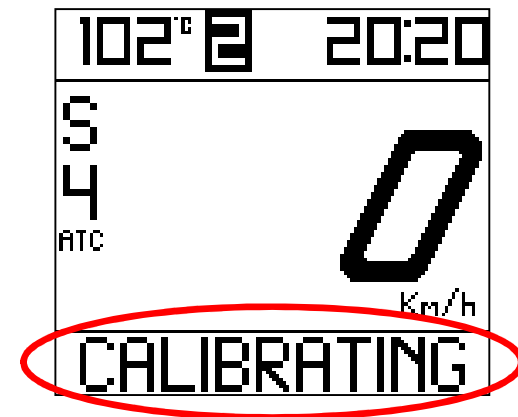


CALIBRATION PROCEDURE

Compatible with different types and sizes of tires

Exclusive rolling diameter
self-calibration procedure
selectable from dashboard

Extremely important when
changing tire type or **final
drive ratio**



All it takes is riding the motorcycle on a level road at 40 km/h for some seconds until CALIBRATING disappears from the display.
If the procedure is completed successfully, the message Calibrating is no longer shown on the display when the bike is started again.



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Performance: engine

Never ending **evolution**

Optimal
crankcase
ventilation



Minimal friction and
optimal smoothness
of moving parts



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Performance: exhaust

Never ending **evolution**
New for MY14: + 4hp vs. MY13



Re-designed internal passages for maximum performance and a more aggressive sound



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Performance: brakes



- Brembo M430 monoblock front calipers
- Sintered pads optimized for ABS



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Performance: Frame and ergonomics



- Engine positioned to achieve the optimal balance between braking stability & traction out of corners

Fuel tank design:

- Superior support under heavy braking
- Superior mobility and support when leaning
- Capacity 4.9 gal. (18,5 lt)



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Performance: Racing wheels

**MY14 offers standard:
200-55/17 now also on R version
Pirelli Diablo Supercorsa (double-compound)**

For an incomparable "race feeling"
on track and on the road



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RSV4 Factory



Technical Specifications

Type	Aprilia V4 longitudinal 65°, 4-strokes, liquid cooling system, double overhead camshaft (DOHC), four valves per cylinder
Capacity	999.6 cc
Max power (at crankshaft)	184 hp (135,3 kW) at 12.500 rpm
Max torque (at crankshaft)	86.2 lb-ft 117 Nm at 10.000 rpm
Fuel system	Airbox with front dynamic air intakes. Variable length intake ducts controlled via ECU. 4 Weber-Marelli Ø48-mm throttle bodies with 8 injectors and latest generation Ride-by-Wire engine management. Choice of three different engine maps selectable by the rider with bike in motion: T (Track), S (Sport), R (Road)
Exhaust system	4 into 2 into 1 layout, single oxygen sensor, lateral single silencer with engine control unit-controlled butterfly valve and integrated trivalent catalytic converter.
Gearbox	6-speed cassette type gearbox
Lubrication	Wet sump lubrication system with oil radiator and two oil pumps (lubrication and cooling)
Clutch	Multiplate wet clutch with mechanical slipper system. Gear lever with Aprilia Quick Shift electronic system (AQS)
Traction management	APRC System (Aprilia Performance Ride Control), which includes Traction Control (ATC), Wheelie Control (AWC), Launch Control (ALC), all of which can be configured and deactivated independently through the race display.
Frame	Aluminium dual beam chassis with pressed and cast sheet elements.
Front suspension	Öhlins adjustable steering damper. Ø43mm Öhlins upside down units fully adjustable (Tin). Wheel travel: 120 mm
Rear suspension	Aluminum alloy swingarm. ÖHLINS piggyback shock absorber with adjustable spring preload, compression, rebound damping and length. Wheel travel: 130 mm
Front brake	Double Ø320mm lightweight stainless steel floating discs. New M430 Brembo monobloc radial calipers with 4 opposed Ø30 mm pistons. Sintered pads. New radial master cylinder. Metal braided brake line.
Rear brake	Ø220 mm disc. New Brembo floating caliper with 2 insulated Ø 32 mm pistons. Sintered pads. Master cylinder with integral reservoir. Metal braided brake line
ABS	Multi-map Bosch 9MP ABS (3 maps selectable), deactivable and with RLM (Rear wheel Lift-up Mitigation).
Wheels	Aprilia forged aluminum alloy rims, completely machined, 5 split spokes. Front:3.5"X17" Rear: 6.00"X17"
Front tire	Radial tubeless - 120/70 ZR 17
Rear tire	Radial tubeless - 200/55 ZR 17 (homologated option 190/50 ZR 17; 190/55 ZR 17)
Max. Length	80.3 in. (2040 mm)
Max. Width	29 in. (735 mm) at the handlebar
Max. Height	44 in. (1120 mm)
Seat height	33 in. (840 mm)
Dry weight	398 lbs (181 kg)
Fuel tank capacity	4.9 gal. (18,5 lt)



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RSV4 R



Technical Specifications

Type	Aprilia V4 longitudinal 65°, 4-strokes, liquid cooling system, double overhead camshaft (DOHC), four valves per cylinder
Capacity	999.6 cc
Max power (at crankshaft)	184 hp (135,3 kW) at 12.500 rpm
Max torque (at crankshaft)	86.2 lb-ft 117 Nm at 10.000 rpm
Fuel system	Airbox with front dynamic air intakes. 4 Weber-Marelli 48-mm throttle bodies with 8 injectors and latest generation Ride-by-Wire engine management. Choice of three different engine maps selectable by the rider with bike in motion: T (Track), S (Sport), R (Road)
Exhaust system	4 into 2 into 1 layout, single oxygen sensor, lateral single silencer with engine control unit-controlled butterfly valve and integrated trivalent catalytic converter.
Gearbox	6-speed cassette type gearbox
Lubrication	Wet sump lubrication system with oil radiator and two oil pumps (lubrication and cooling)
Clutch	Multiplate wet clutch with mechanical slipper system. Gear lever with Aprilia Quick Shift electronic system (AQS)
Traction management	APRC System (Aprilia Performance Ride Control), which includes Traction Control (ATC), Wheelie Control (AWC), Launch Control (ALC), all of which can be configured and deactivated independently through the race display.
Frame	Aluminium dual beam chassis with pressed and cast sheet elements.
Front suspension	SACHS steering damper. Ø43mm SACHS upside down units fully adjustable. Wheel travel: 120 mm
Rear suspension	Aluminum alloy swingarm. SACHS piggyback shock absorber with adjustable spring preload, compression, rebound damping and length. Wheel travel: 130 mm
Front brake	Double Ø320mm lightweight stainless steel floating discs. New M430 Brembo monobloc radial calipers with 4 opposed Ø30 mm pistons. Sintered pads. New radial master cylinder. Metal braided brake line.
Rear brake	Ø220 mm disc. New Brembo floating caliper with 2 insulated Ø 32 mm pistons. Sintered pads. Master cylinder with integral reservoir. Metal braided brake line
ABS	Multi-map Bosch 9MP ABS (3 maps selectable), deactivable and with RLM (Rear wheel Lift-up Mitigation).
Wheels	Aluminum alloy rims, 3 split spokes. Front:3.5"X17" Rear: 6.00"X17"
Front tire	Radial tubeless - 120/70 ZR 17
Rear tire	Radial tubeless - 200/55 ZR 17 (homologated option 190/50 ZR 17; 190/55 ZR 17)
Max. Length	80.3 in. (2040 mm)
Max. Width	29 in. (735 mm) at the handlebar
Max. Height	44 in. (1120 mm)
Seat height	33 in. (840 mm)
Dry weight	409 lbs (186 kg)
Fuel tank capacity	4.9 gal. (18,5 lt)



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MY14 Colors



Absolute Black



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MY14 Colors



Formula Red



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MY14 Colors








Matte Black



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Factory Technical Comparison

					
	RSV4 Factory aPRC ABS	BMW HP4 MY13	Kawasaki ZX - 10R MY13	Honda CBR 1000 RR MY13	Ducati 1199 Panigale S
WEIGHT					
curb weight	202	199,2	201	211	190,5
DIMENSIONS AND GEOMETRY					
wheelbase	1420	1422,7	1425	1407	1437
max length	2040	2056	2075	2077	2075
trail	105,0	98,5	107	96,2	100
rake angle	24,5	24,01	25	23,2	24,5
ENGINE AND TRANSMISSION					
type	4V di 65°, 4x4 valves	4L 4x4 valves	4L 4x4 valves	4L 4x4 valves	2L 2x4 valves
displacement	998,9	999	998	999	1198
cycle	4T	4T	4T	4T	4T
bore x stroke	78x52,3	80x49,7	76x55	76x55,1	112x60,8
compression ratio	13,0:1	13,0:1	13,0:1	12,3:1	12,5:1
cooling system	liquid	liquid	liquid	liquid	liquid
claimed max power @ crankshaft	184 hp	193 CV	200 CV	178 CV	195 CV
max power rpm	12500	13000	13000	12000	10750
claimed max torque @ crankshaft	115 [Nm]	112 [Nm]	112 [Nm]	112 [Nm]	132 [Nm]
max torque rpm	10000	9750	11500	8500	9000
twistgrip	ride by wire	ride by wire	mechanic	mechanic	ride by wire
lubrication	wet sump	wet sump	wet sump	wet sump	wet sump
oil radiator	yes	mixer	mixer	mixer	mixer
slipper clutch	mechanic	mechanic	mechanic	mechanic	mechanic
FUEL DELIVERY					
fuel delivery	8i. Injection	8i. Injection	8i. Injection	8i. Injection	4i. Injection
throttle bodies	4 x Ø48	4	4 elliptical x Øeq 47 mm	4 x Ø46 mm	2 elliptical
fuel tank capacity	18,5 l	17,5 l	17 l	17,7 l	17 l








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	RSV4 Factory aPRC ABS	BMW HP4 MY13	Kawasaki ZX - 10R MY13	Honda CBR 1000 RR MY13	Ducati 1199 Panigale S
FRAME					
type	Al double beam	Al double beam	Al double beam	Al double beam	Al monoblock
FRONT SUSPENSION					
type	Ohlins USD Ø43, fully adjustable.	Sachs USD Ø43, with electronic rebound and compression adjustment.	Showa BPF Ø43, fully adjustable.	Showa BPF Ø43, fully adjustable.	Ohlins USD Ø43, with electronic rebound and compression adjustment.
excursion [mm]	120	120	120	120	120
REAR SUSPENSION					
swingarm	Al double-arm	Al double-arm	Al double-arm	Al double-arm	Al single-arm
shock absorber	Ohlins with piggy back; fully adjustable.	Sachs with piggy back, with electronic rebound and compression adjustment.	KYB with piggy back; fully adjustable	'Balance Free Rear Cushion', fully adjustable.	Ohlins with piggy back, with electronic rebound and compression adjustment.
excursion [mm]	130	130	140	120	130
FRONT WHEEL					
rim	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"
tyre	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"
REAR WHEEL					
rim	6"x17"	6"x17"	6"x17"	6"x17"	6"x17"
tyre	200/55-ZR17"	200/55-ZR17"	190/55-ZR17"	190/50-ZR17"	200/55-ZR17"
BRAKING SYSTEM					
front	Ø320 double disc; 4 pistons & 2 pads monobloc radial calipers	Ø320 double disc; 4 pistons & 2 pads monoblock radial calipers	Ø310 double disc; 4 pistons & 2 pads monobloc radial calipers	Ø320 double disc; 4 pistons & 2 pads monobloc radial calipers	Ø330 double disc; 4 pistons & 2 pads M430 monobloc radial calipers
rear	Ø220 single disc; double piston caliper	Ø220 single disc; single piston caliper	Ø220 single disc; Al single piston caliper	Ø220 single disc; single piston caliper	Ø245 single disc; double piston caliper
ABS					
maps	3	3+1 race use	1	1	3
disable	YES	YES	NO	NO	YES
rear disabled	NO	"slick" map, only for track	NO	NO	RACE map
combined braking	NO	YES (front lever only)	NO	YES	YES
front pressure sensor	YES	YES	YES	YES	YES
rear pressure sensor	NO	YES	NO	YES	NO
ECU datas	NO	NO	- throttle position - rpm - clutch engagement - gear	NO	NO
bank angle sensor	NO	NO	NO	NO	NO
ABS system weight	2 kg	2,5 kg	3 kg	11 kg	2,5 kg
























































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	RSV4 Factory aPRC ABS	BMW HP4 MY13	Kawasaki ZX - 10R MY13	Honda CBR 1000 RR MY13	Ducati 1199 Panigale S
PLUS					
Variable lenght intake funnels					
High and low injectors					
Ride by Wire					
Cassette-type gerabox					
Slipper clutch					
Adjustable frame					
Ohlins					
Brembo					
Forged wheel rims					






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	RSV4 Factory aPRC ABS	BMW HP4 MY13	Kawasaki ZX - 10R MY13	Honda CBR 1000 RR MY13	Ducati 1199 Panigale S
PLUS					
Carbon parts					
Traction Control					
Wheelie control	 3 LEV.				
Launch control					
Quick Shift					
200/55 rear tyre					
RACE display					
TC/tyres Calibration					
Multimap ABS					
progressive RLM					

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R Technical Comparison

					
	RSV4 R aPRC ABS	BMW S 1000 RR MY12	Kawasaki ZX - 10R MY13	Honda CBR 1000 RR MY13	Ducati 1199 Panigale
WEIGHT					
curb weight	207	204,5	201	211	195,5
DIMENSIONS AND GEOMETRY					
wheelbase	1420	1422,7	1425	1407	1437
max lenght	2040	2056	2075	2077	2075
trail	105,0	98,5	107	96,2	100
rake angle	24,5	24,01	25	23,2	24,5
ENGINE AND TRANSMISSION					
type	4V di 65°, 4x4 valves	4L 4x4 valves	4L 4x4 valves	4L 4x4 valves	2L 2x4 valves
displacement	998,9	999	998	999	1198
cycle	4T	4T	4T	4T	4T
bore x stroke	78x52,3	80x49,7	76x55	76x55,1	112x60,8
compression ratio	13,0:1	13,0:1	13,0:1	12,3:1	12,5:1
cooling system	liquid	liquid	liquid	liquid	liquid
claimed max power @ crankshaft	184 CV	193 CV	200 CV	178 CV	195 CV
max power rpm	12250	13000	13000	12000	10750
claimed max torque @ crankshaft	115 [Nm]	112 [Nm]	112 [Nm]	112 [Nm]	132 [Nm]
max torque rpm	10000	9750	11500	8500	9000
twistgrip	ride by wire	ride by wire	mechanic	mechanic	ride by wire
lubrification	wet sump	wet sump	wet sump	wet sump	wet sump
oil radiator	yes	mixer	mixer	mixer	mixer
slipper clutch	mechanic	mechanic	mechanic	mechanic	mechanic
FUEL DELIVERY					
fuel delivery	8i. Injection	8i. Injection	8i. Injection	8i. Injection	4i. Injection
throttle bodies	4 x Ø48	4	4 elliptical x Øeq 47 mm	4 x Ø46 mm	2 elliptical
fuel tank capacity	18,5 l	17,5 l	17 l	17,7 l	17 l



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FRAME					
type	Al double beam	Al double beam	Al double beam	Al double beam	Al monoblock
FRONT SUSPENSION					
type	Sachs USD Ø43, fully adjustable	Sachs USD Ø43, fully adjustable	Showa BPF Ø43, fully adjustable	Showa BPF Ø43, fully adjustable	Marzocchi USD Ø50, fully adjustable
excursion [mm]	120	120	120	120	120
REAR SUSPENSION					
swingarm	Al double-arm	Al double-arm	Al double-arm	Al double-arm	Al single-arm
shock absorber	Sachs with piggy back; fully adjustable	Sachs with piggy back; fully adjustable	KYB with piggy back; fully adjustable	'Balance Free Rear Cushion', fully adjustable	Sachs with piggy back; fully adjustable
excursion [mm]	130	130	140	120	130
FRONT WHEEL					
rim	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"
tyre	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"
REAR WHEEL					
rim	6"x17"	6"x17"	6"x17"	6"x17"	6"x17"
tyre	200/55-ZR17	190/55-ZR17"	190/55-ZR17"	190/50-ZR17"	200/55-ZR17"
BRAKING SYSTEM					
front	Ø320 double disc; 4 pistons & 2 pads monobloc radial calipers	Ø320 double disc; 4 pistons & 4 pads radial calipers	Ø310 double disc; 4 pistons & 2 pads monobloc radial calipers	Ø320 double disc; 4 pistons & 2 pads monobloc radial calipers	Ø330 double disc; 4 pistons & 2 pads M430 monobloc radial calipers
rear	Ø220 single disc; double piston caliper	Ø220 single disc; single piston caliper	Ø220 single disc; Al single piston caliper	Ø220 single disc; single piston caliper	Ø245 single disc; double piston caliper
ABS					
maps	3	3+1 race use	1	1	3
disable	YES	YES	NO	NO	YES
rear disabled	NO	"slick" map, <u>only for track</u>	NO	NO	RACE map
combined braking	NO	YES (front lever only)	NO	YES	YES
front pressure sensor	YES	YES	YES	YES	YES
rear pressure sensor	NO	YES	NO	YES	NO
ECU datas	NO	NO	- throttle position - rpm - clutch engagement - gear	NO	NO
bank angle sensor	NO	NO	NO	NO	NO
ABS system weight	2 kg	2,5 kg	3 kg	11 kg	2,5 kg

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RSV4 R aPRC ABS

BMW S 1000 RR
MY12

Kawasaki ZX - 10R
MY13

Honda CBR 1000
RR MY13

Ducati 1199
Panigale

PLUS

Variable lenght
intake funnels



High and low
injectors



Ride by Wire



Cassette-type
gerabox



Slipper clutch



Adjustable frame



Ohlins



Brembo



Forged wheel
rims



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PLUS

Carbon parts					
Traction Control					
Wheelie control	 3 LEV.				
Launch control					
Quick Shift		 OPT			
200/55 rear tyre					
RACE display					
TC/tyres Calibration					
Multimap ABS					
progressive RLM					



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Accessories

To increase the performance of the RSV4 **aPRC** **ABS** and to put on the track Aprilia's experience in the SBK World Championship



RSV4 **aPRC** **ABS** also gives the maximum for every day use. And with these accessories can be the perfect traveling companion to see the world



FOR DETAILS ON ACCESSORY OFFERING PLEASE REFER TO SPECIFIC SEPARATE CATALOGUE



FAQ

GENERAL SUBJECTS

- 1) What does multi-map ABS mean?
- 2) What does RLM mean?
- 3) Will the multi-map ABS also be featured by other aprilia models?
- 4) What does APRC mean? Is it a registered brand?
- 5) Will the APRC system also be featured by other aprilia models?
- 6) How do you switch to RACE display on the dashboard?

PERFORMANCE

- 1) What are the advantages of multi-map ABS?
- 2) Why APRC represents a generational leap in electronic management systems for the performance of a motorcycle?
- 3) Why does the APRC package also include AQS (Aprilia Quick Shift)?
- 4) How does the calibrating procedure work?
- 5) Why an inertial platform is needed?
- 6) Are there dedicated warning lights for the ABS system?
- 7) Can the ABS be switched off?
- 8) Are there dedicated warning lights for the aPRC system?
- 9) Can the aPRC be switched off?
- 10) What is the difference between AWC and a traditional anti wheelie?
- 11) What are the strengths of ALC?
- 12) What are the main features of the Aprilia Quick Shift compared to a traditional quick shift?
- 13) What does OVERSLIP control mean?

USE

- 1) Is it a single-seater?
- 2) Why track ready? (*RSV4 Factory*)
- 3) Can I install only the Pirelli 200/55 of the OEM equipment?



FAQ – General subjects

Question	Answer
<p>What does multi-map ABS mean?</p>	<p>It means that the rider can select 3 different «maps», or wheel anti-lock system settings.</p> <p>MAP 1: track riding MAP 2: open road sport-riding MAP 3: wet or slippery road riding.</p>
<p>What does RLM mean?</p>	<p>«Rear wheel Lift-up Mitigation».</p> <p>It is a strategy that avoids motorcycle lifting during braking, and is linked to the 3 ABS maps.</p> <p>MAP 1: RLM off MAP 2: RLM disabled over 140km/h and increasingly active in range of 140 km/h to 80km/hr MAP 3: RLM full-on below 80km/h</p>
<p>Will the multi-map ABS also be featured by other aprilia models?</p>	<p>Multi-map ABS has been developed to improve braking performance, raising safety to the maximum level.</p> <p>It will be featured by other Aprilia high-performance models.</p>



FAQ – General subjects

Question	Answer
<p>What does APRC mean? Is it a registered brand?</p>	<p>APRC means Aprilia Performance Ride Control, a control system of performance riding. The name is a registered trademark and the system is based on three exclusive Aprilia patents.</p>
<p>Will the APRC system also be featured by other Aprilia models?</p>	<p>APRC has been developed for experienced riders to help enhance performance riding, and will be installed on other Aprilia high-performance models.</p>
<p>How do you switch to RACE display on the dashboard?</p>	<p>RACE mode has been included as a third display option between trip 1 and trip 2. To access RACE mode, rider needs to press and hold the MODE button to one side. As in ROAD mode, the ATC and AWC levels are not displayed in RACE mode. To access the AWC and ALC settings directly from the RACE mode screen, rider simply needs to press the center of the MODE control briefly.</p>



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FAQ – Performance

Question	Answer
What are the advantages of multi-map ABS?	It allows the rider to set the ABS system response to best-match the current riding style and conditions. This allows the rider to always get the maximum result regarding braking performance and safety.
Why APRC represents a generational leap in electronic management systems for the performance of a motorcycle?	APRC is comprised of 4 basic modules: ATC, AWC, ALC and AQS. The first three operate on exclusive, racing derived electronic systems patented by Aprilia, which are available on a production bike for the first time ever. Just think of ATC's double slip threshold operation and Launch Control.
Why does the APRC package also include AQS (Aprilia Quick Shift)?	The APRC package is a set of tools that further enhance the RSV4 Factory /R performance on the road and on the track, designed for expert, demanding riders. The Quick Shift system designed by Aprilia shortens shift time for improved vehicle performance, especially on the track.
How does the calibrating procedure work?	This procedure is only required in the event of changing the rear tire with a different size or type of tire, or if the final drive ratio is changed. All it takes is riding the motorcycle on a level stretch of road at 40 Km/h for some seconds until CALIBRATING disappears from the display. If the procedure is completed successfully, the message CALIBRATING is no longer shown on the display when the bike is started again.



FAQ – Performance

Question	Answer
Why an inertial platform is needed?	Using an inertia sensor platform is indispensable for traction performance control in order to measure motorcycle lean angle. As a matter of fact, performance traction control systems require different maximum slip thresholds for different lean angles, to reflect motorcycle position - from upright to steep lean angles. The inertia sensor platform identifies maximum slip allowed for that specific lean angle and assists the rider throughout the entire acceleration phase when exiting a curve.
Are there dedicated warning lights for the ABS system?	There is a dedicated ABS light, which indicates the system status as follows: <ul style="list-style-type: none"> - Warning light off when system is enabled - Warning light steady on when system was deactivated voluntarily by rider or deactivated as a result of a fault - Warning light flashing slowly during initial sensor check at vehicle speeds up to 5 Km/h - Warning light flashing slowly at vehicle speeds over 5 Km/h when system was deactivated as a result of a fault
Can the ABS be switched off?	The entire ABS system may be deactivated by the rider. To deactivate the system, rider selects ABS level 1 then presses and holds the “-” button. Pressing “+” activates the system again. <u>WARNING:</u> ABS system disabling continues to be operative even after key OFF/ON.



FAQ – Performance

Question	Answer
<p>Are there dedicated warning lights for the aPRC system?</p>	<p>There is a dedicated APRC light, which indicates the system status as follows:</p> <ul style="list-style-type: none"> - Warning light off when system is enabled - Warning light steady on when system was deactivated voluntarily by rider or deactivated as a result of a fault - Warning light flashing slowly during initial sensor check at vehicle speeds up to 5 Km/h - Warning light flashing quickly when one of the APRC functions kicks in
<p>Can the aPRC be switched off?</p>	<p>The entire APRC system may be deactivated by the rider. To deactivate the system, rider selects ATC level 1 then presses and holds the “-” button. Pressing and holding “+” activates the system again.</p>
<p>What is the difference between AWC and a traditional anti wheelie?</p>	<p>Conventional systems control wheeling indirectly but are not actually “aware” of the wheelie state. During a wheelie, the front wheel slows down, causing the calculated slip value to increase very rapidly. This triggers the response of the Traction Control system, which violently drops the front wheel to the ground. The Aprilia AWC system, however, recognizes when a wheelie begins and when it ends. It temporarily disables traction control and modulates throttle valve aperture and ignition advance to lower the front wheel gently back to the ground.</p>



FAQ – Performance

Question	Answer
<p>What are the strengths of ALC?</p>	<p>On the track, the start is a very delicate and exciting part of the race. The exclusive and patented ALC Aprilia Launch Control system means that rider has to concentrate solely on letting out the clutch lever and helps keep the front wheel close to the ground. This way, all 180 Hp of Aprilia RSV4 are transferred effectively to the road.</p>
<p>What are the main features of the Aprilia Quick Shift compared to a traditional quick shift?</p>	<p>Unlike quick shift systems available in the market, Aprilia Quick Shift adapts the gear shift strategy in relation to engine speed and torque requested by the rider. The results are immediately available, lightening fast gearshifts for track use and much smoother, comfortable shifts for road use. Torque cut-off is effected by reducing ignition advance and injection times.</p>
<p>What does OVERSLIP control mean?</p>	<p>It is an ultimate traction control strategy, that operates when rear wheel skid (SLIP) is higher than a definid treshold (SLIP max). It allows a smoother and more accurate torque delivery when riding close to the adherence limit. This strategy improves the vehicle's performance with worn or low performing tyres.</p>



Question	Answer
Is it a single-seater?	RSV4 is type approved for single seat and two seat use. The passenger footpegs are ready fitted, while the passenger saddle is delivered unassembled together with the bike.
Why track ready? (<i>RSV4 Factory</i>)	RSV4 is the first production motorcycle to implement avant-garde technical and chassis solutions seen otherwise only on race prototypes. This is the first street bike, which by simply removing the mirrors and lights, turns it into a perfect track machine that can be tailored totally to suit each track and each individual rider.
Can I install only the Pirelli 200/55 of the OEM equipment?	RSV4 Factory APRC is homologated for three different tire sizes: 200/55 – 190/55 –190/50. APRC calibrating process enables quick, no-hassle adjustment to a different rolling diameter when switching to a different tire , and ensures optimal performance at all times.



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Dealer Info

APRILIA DEALER EXTRANET

Website: <http://www.apriliausadealers.com/Login/index.cfm>

Canada: <http://dealers.pgacanada.com>

PRODUCT INFORMATION MATERIAL

Website USA: www.apriliausa.com.com

Website Canada: www.aprilia-canada.ca

APRILIA CUSTOMER SERVICE

Email: CustomerCare@piaggiogroupamericas.com

Pictures contained in this document might differ from product you will receive.

