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**RSV4** **a** PRC  
ABS



2013 PRODUCT GUIDE

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**APRILIA RSV4: In just four years, four SBK world titles, 20 victories and 43 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.**

RACING



PRODUCTION



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**RACING GENES**

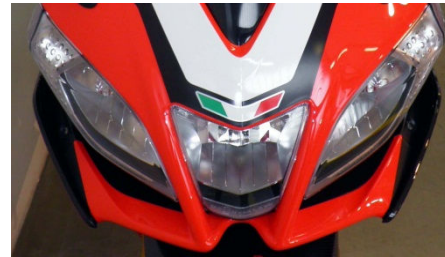
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# New on MY13

## New Ergonomics:

- New fuel tank (17 l to 18.5 l = +.40 US gallon )

- Lower seat height (-5mm)



New front headlight finishing



## New Weight Distribution:

- Lowered swingarm pin
- New engine position
- Under-saddle ABS CPU

## Engine Upgrades

### Updated APRC:

- Overslip control
- Slip % variable according to the speed
- AWC 1 more racing oriented

New racing ABS, lightweight (2 kg), with possibility to be disabled. Developed by Aprilia in cooperation with Bosch

New Brembo M430 radial mono-block brake calipers

ABS MAP	DESCRIPTION
--	OFF
1	<b>TRACK</b> best hard-braking performances RLM disabled <u>road homologated</u>
2	<b>SPORT</b> for sport-riding purpose <u>speed &gt; 140 km/h</u> RLM disabled <u>80 km/h &lt; speed &lt; 140 km/h</u> progressive RLM <u>speed &lt; 80 km/h</u> full RLM
3	<b>RAIN</b> maximum safety in low grip conditions full RLM



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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

2013: RSV4 aPRC ABS, improve the maximum



**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** **ABS** : Success factors

What's new in the 2013 APRC ABS versions?

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

**CONTROL**

- **New weight distribution**
- **Evolved V4 65° engine**
- **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**

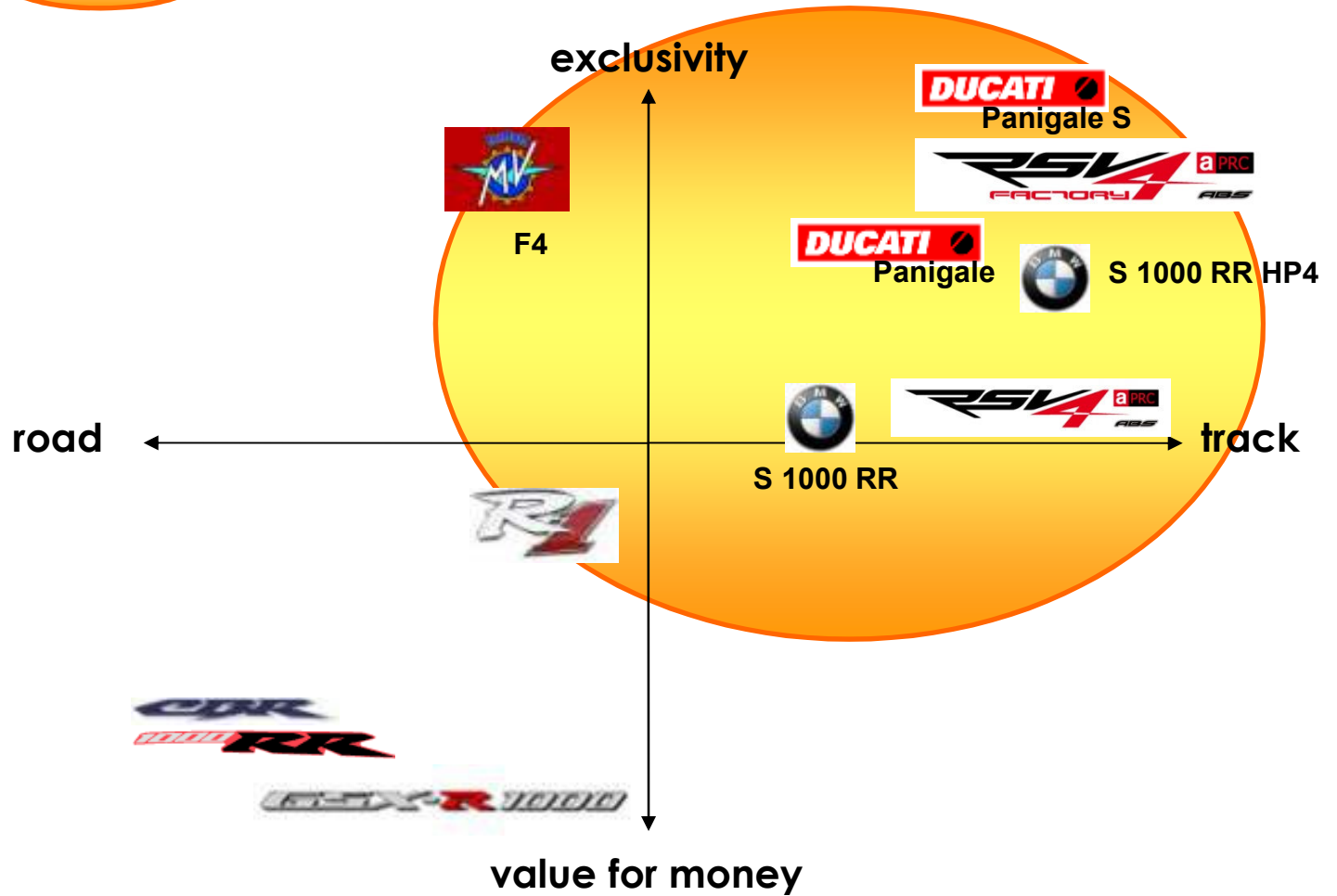
**POWER – CONTROL – PERFORMANCE – SAFETY**  
**EFFECTIVENESS**



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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 MY2013



### INCREASED PERFORMANCE

- Multimap sport ABS
- New Brembo M430 front calipers and front brake master cylinder
- Evolved aTC and map 1 aWC specific for racing use
- New engine positioning inside the chassis
- Optimized engine:
  - Friction reduction
  - Improved crankcase ventilation

### VEHICLE OPTIMIZATION

- New fuel tank:
  - Increased capacity ( 17l to 18.5 l = +.40 US gallon )
  - Improved ergonomics
- lower rider seat height (-5 mm or -.20in)
- New headlight finishing



The **ABS** according to

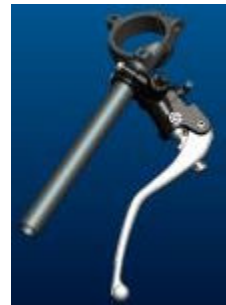
Main advantages of ABS on motorcycles:

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

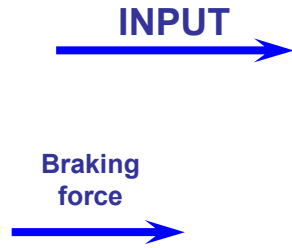
Aprilia wanted to go beyond, developing an ABS system which isn't simply acting to prevent the wheels from locking during braking, but according to **3 different map** settings. A system that is able to detect the kind of situation in which the braking occurs (relaxed riding, sport riding, track, bumpy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



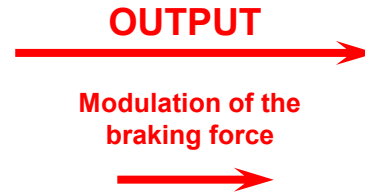
# How it works



**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



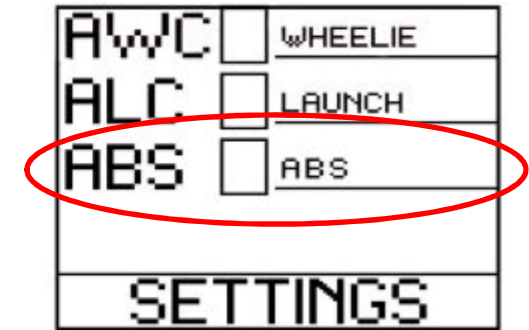
**Front and Rear speed sensors**

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.

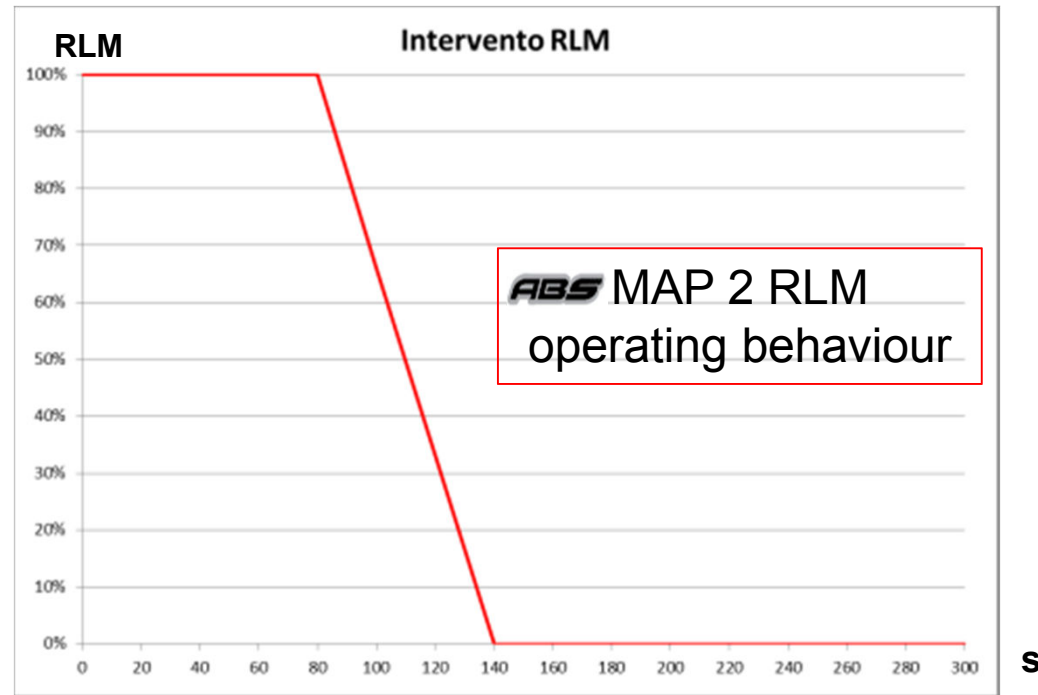


ABS MAP	DESCRIPTION	ACTIVE CHANNELS
--	<b>OFF</b>	not active
<b>1</b>	<b>TRACK</b> best hard-braking performances RLM disabled road homologated	front & rear
<b>2</b>	<b>SPORT</b> for sport-riding purpose speed > 140 km/h RLM disabled 80 km/h < speed < 140 km/h progressive RLM speed < 80km/h full RLM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



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# ABS RLM strategy



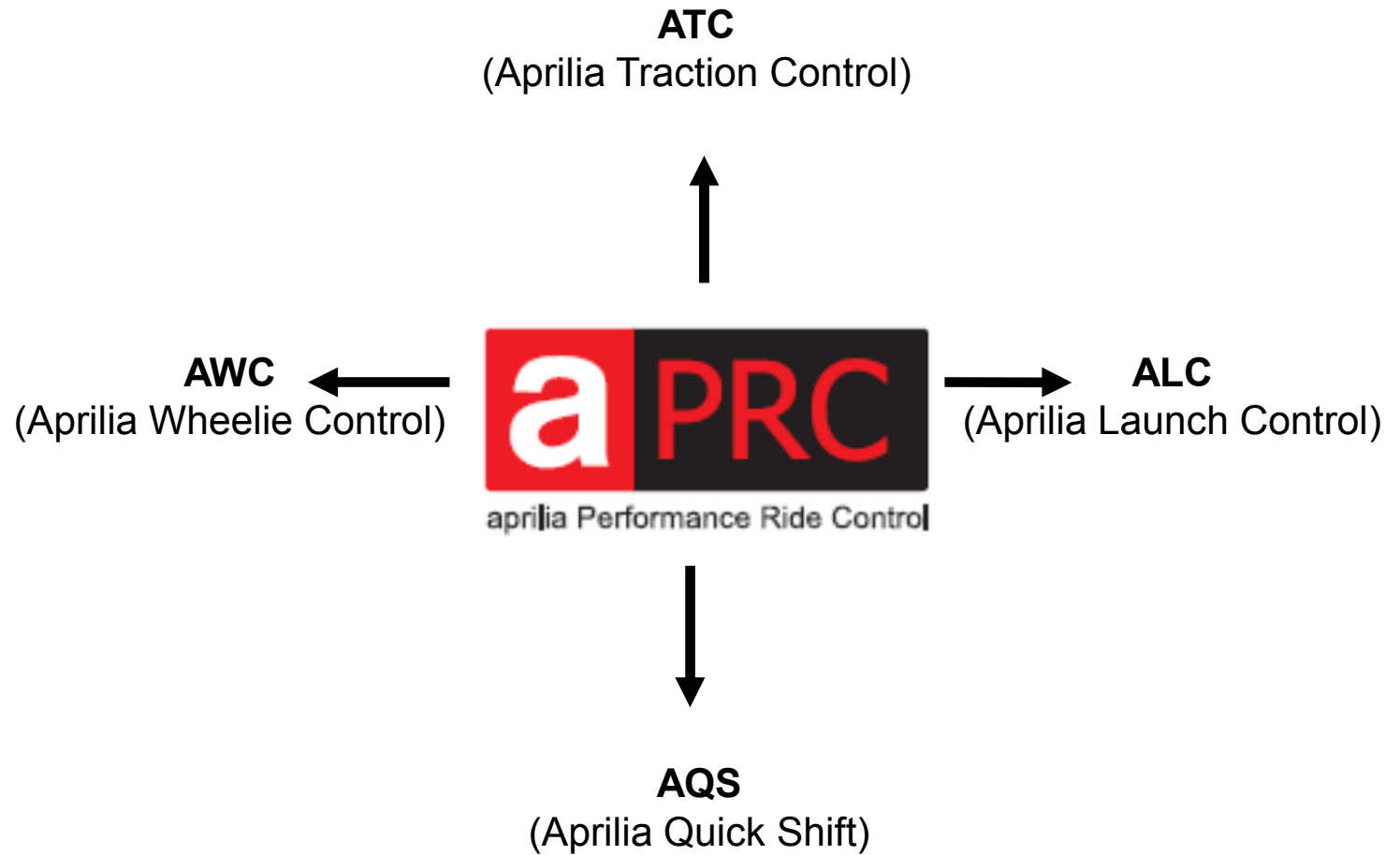
RLM (**R**ear wheel **L**ift-up **M**itigation) is an operating strategy of the ABS system, which limits rear wheel lifting when intensively braking. Aprilia, for the first time on a production motorcycle, has defined and developed a progressive intervention (MAP 2).

- 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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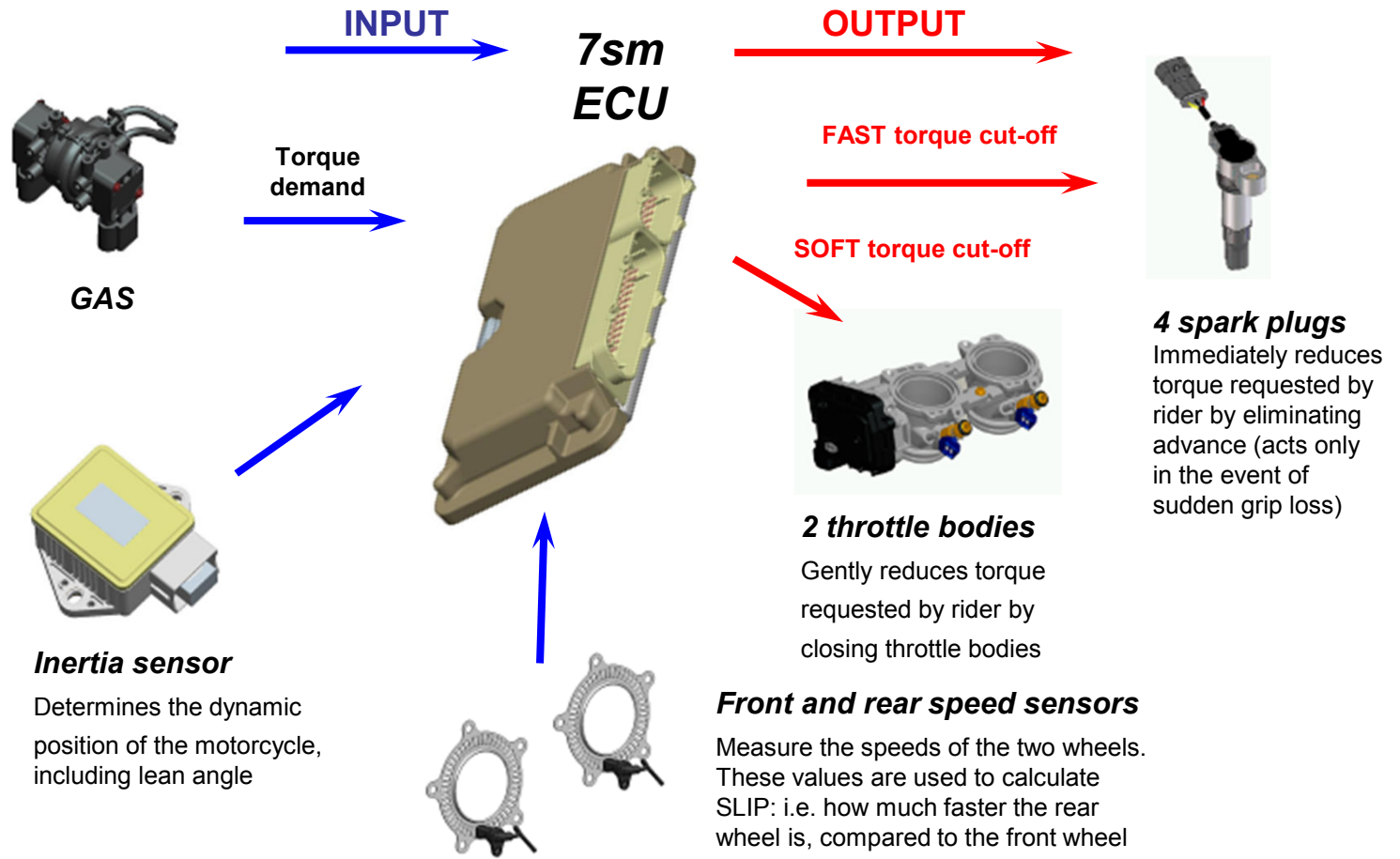
# The APRC package



- + RACE screen
- + CALIBRATION system



# How it works



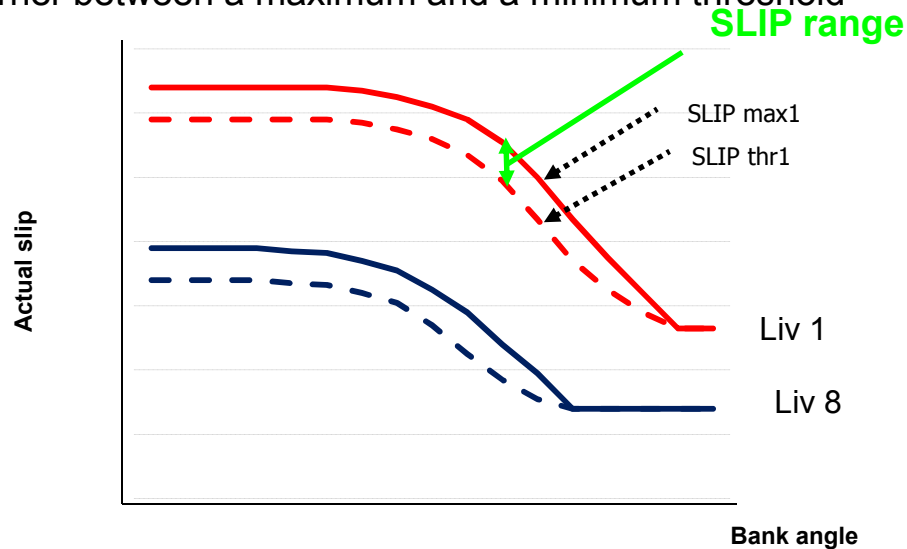
# aTC Aprilia Traction Control

Increases control in the event of sliding when exiting a curve

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

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

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



## New for 2013: IMPROVED SYSTEM BEHAVIOUR

The behavior of the system has been made more consistent by ensuring high support in high speed corners, without compromising traction while exiting slow corners. Now the allowed slip percentage also differs according to the kind of corner.





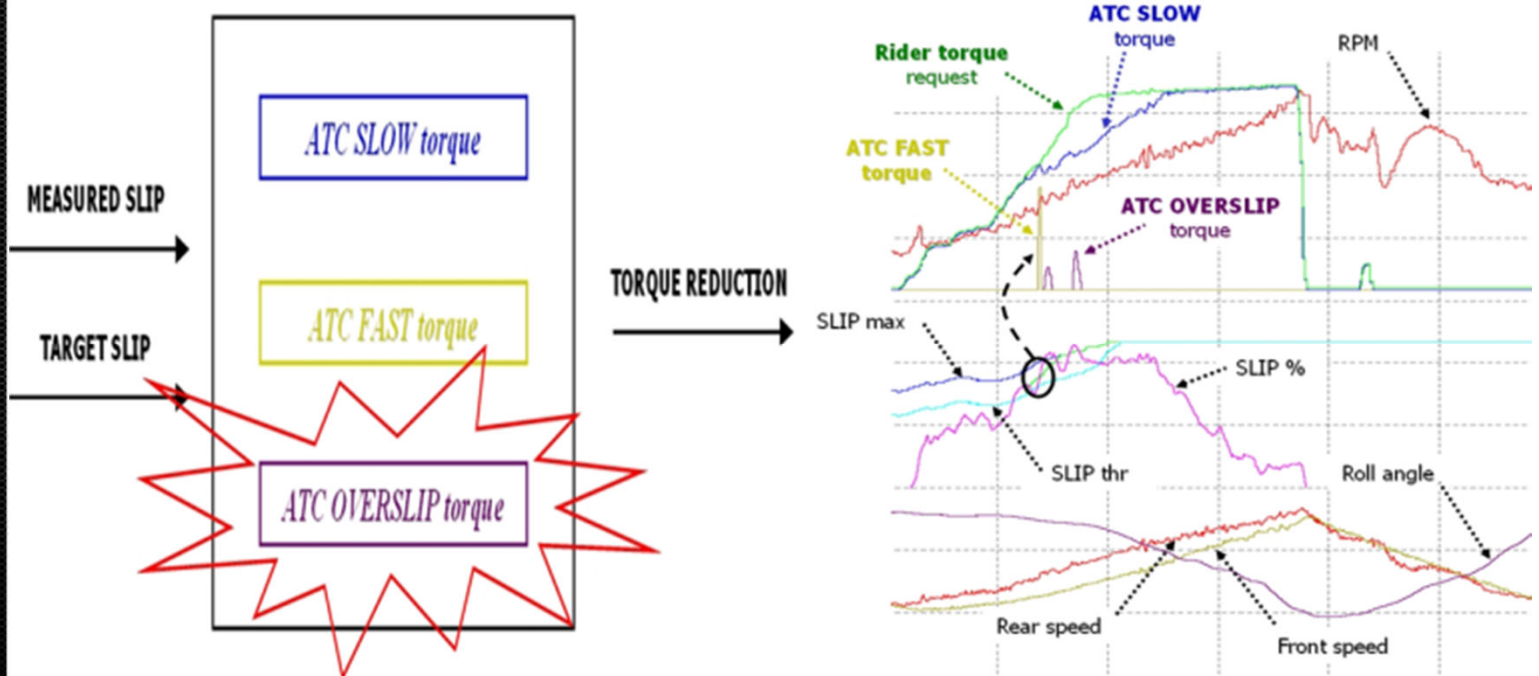
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aTC

# Aprilia Traction Control

2013

New for 2013: **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.



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a TC

# 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



**2013**

**New for 2013**

**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



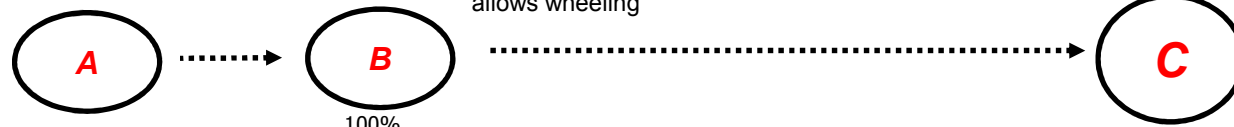
# aLC Aprilia Launch Control

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 ≈ 10,000 rpm decreases with speed
- Clutch released
- Full throttle

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



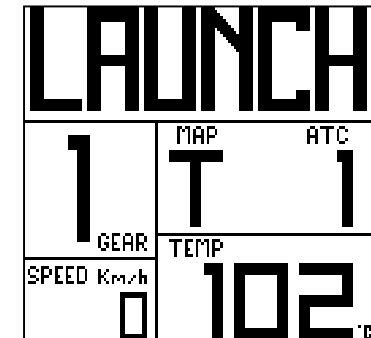
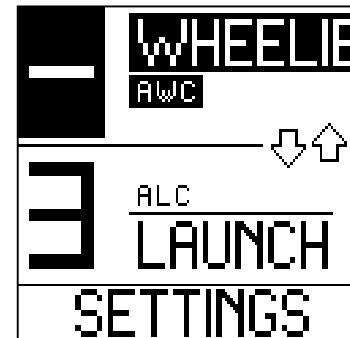
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**a LC**

## 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**

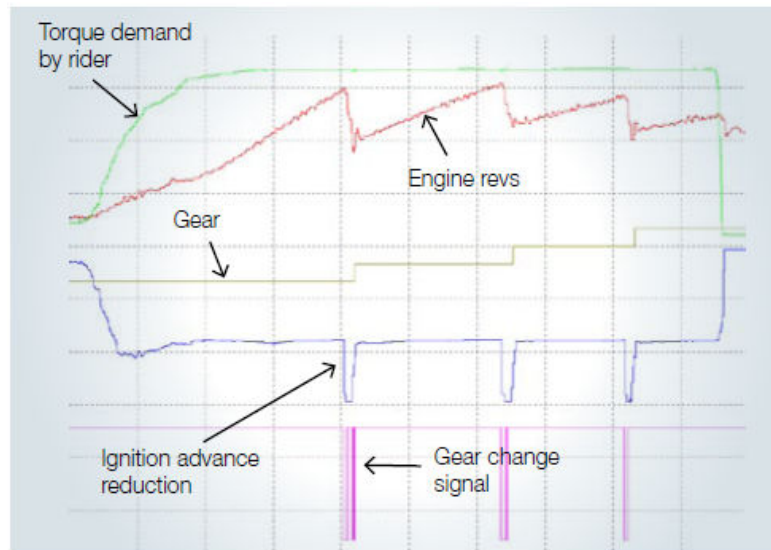


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# a QS Aprilia Quick Shift

Enables faster gearshifts without using the clutch or closing the throttle

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



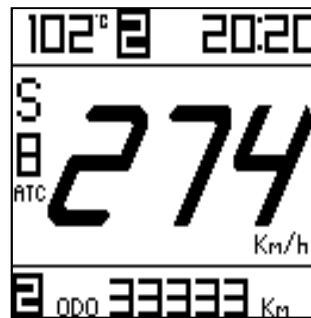
**Gear shift lever input path:**  
Sensor > engine control unit > ignition and fuel injection control > torque cut-off > gear shift > torque progressively restored

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



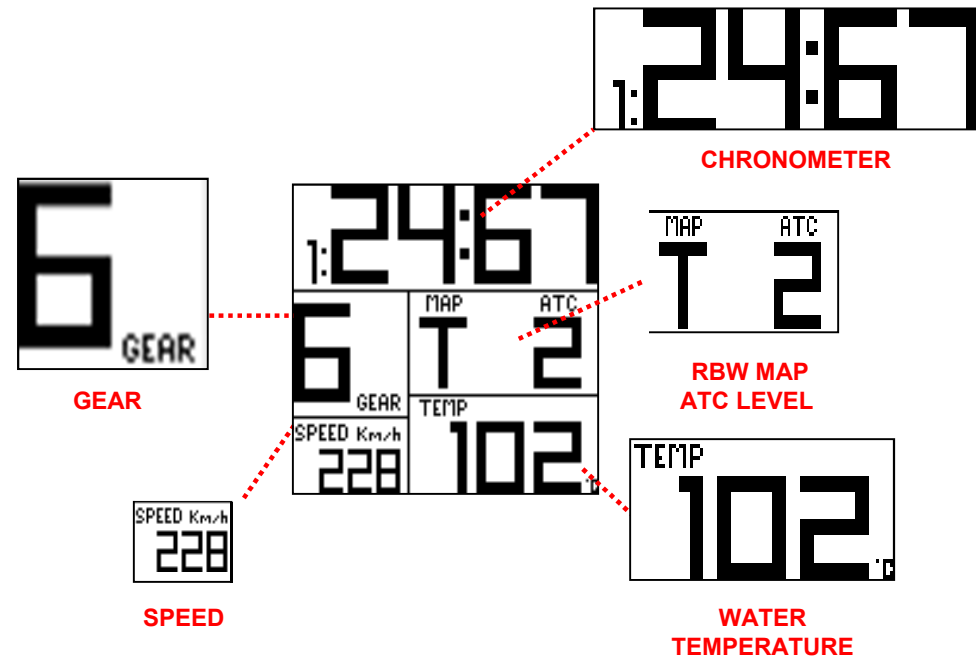
# DUAL DISPLAY DASHBOARD

## Road



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

## Race



Compatible with finish line optical markers



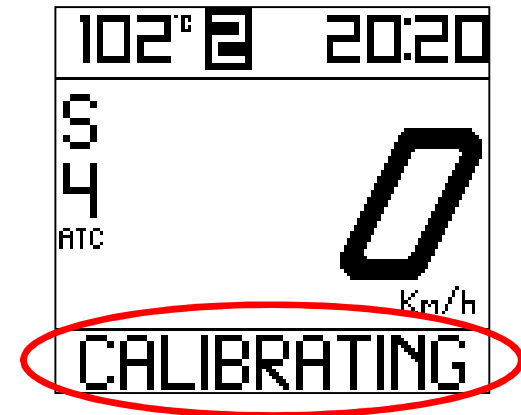


# CALIBRATION PROCEDURE

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**

**New for 2013:**

Increased  
crankcase  
ventilation



Reduced friction and  
smoothness of  
moving parts  
improved

**2013**



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# Performance: brakes

2013

**New for 2013:**

- New Brembo M430 front calipers
- New front brake master cylinder
- Evolved rear brake caliper
- New sintered pads optimized for ABS



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## Performance: Frame and ergonomics

**New for 2013**

**2013**



- **Engine repositioned to improve braking stability and traction out of corners**

### **New fuel tank:**

- **Superior under braking support**
- **Improved mobility and support when leaning**
- **Increased capacity to 18.5l (17l to 18.5 l = +.40 US gallon)**
- **5 mm lowered rider saddle**



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# Design: Headlight

2013



**New for 2013:**

**New aesthetical finishing for an even more aggressive look**



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# RSV4 Factory



## Data sheet

**Engine** Aprilia 65°cc longitudinal V four stroke. Double overhead camshaft; four valves per cylinder. Three maps Ride-by-Wire system.

**Displacement** 999.6 cc

**Maximum power** 180 HP (132,4 kW) a 12.500 rpm

**Maximum torque** 115 Nm a 10.000 rpm

**Cooling** Liquid cooling

**Front suspension** 43mm 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 320mm lightweight stainless steel floating discs. New M430 Brembo monobloc radial calipers with 4 opposed  $\varnothing$  30 mm pistons. Sintered pads. New radial master cylinder. Metal braided brake line.

**Rear brake** 220 mm disc. New Brembo floating caliper with 2 insulated  $\varnothing$  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).

**Front tyre** Radial tubeless - 120/70 ZR 17

**Rear tyre** Radial tubeless - 200/55 ZR 17 (homologated option 190/50 ZR 17; 190/55 ZR 17)

**Seat height** 840 mm

**Fuel tank** 18,5 lt

**Colors** SBK Special Edition



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RSV4 R



Data Sheet

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**Seat height** 840 mm

**Fuel tank** 18,5 lt

**Colours** Sunlit Yellow, Matte Black



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# Colors



**New for 2013: SBK Special Edition**  
Exclusive to: USA – Canada – Mexico





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# Colors

**RSV4** a PRC  
ABS

**New for 2013: SUNLIT YELLOW**



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# Colors








**New for 2013: MATTE BLACK**








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# Factory Technical Comparison

					
	<b>RSV4 Factory aPRC ABS</b>	<b>BMW HP4 MY13</b>	<b>Kawasaki ZX - 10R MY13</b>	<b>Honda CBR 1000 RR MY13</b>	<b>Ducati 1199 Panigale S</b>
<b>WEIGHT</b>					
curb weight	202	199,2	201	211	190,5
<b>DIMENSIONS AND GEOMETRY</b>					
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
<b>ENGINE AND TRANSMISSION</b>					
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	180 CV	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
<b>FUEL DELIVERY</b>					
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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	<b>RSV4 Factory aPRC ABS</b>	<b>BMW HP4 MY13</b>	<b>Kawasaki ZX - 10R MY13</b>	<b>Honda CBR 1000 RR MY13</b>	<b>Ducati 1199 Panigale S</b>
<b>FRAME</b>					
<b>type</b>	Al double beam	Al double beam	Al double beam	Al double beam	Al monoblock
<b>FRONT SUSPENSION</b>					
<b>type</b>	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.
<b>excursion [mm]</b>	120	120	120	120	120
<b>REAR SUSPENSION</b>					
<b>swingarm</b>	Al double-arm	Al double-arm	Al double-arm	Al double-arm	Al single-arm
<b>shock absorber</b>	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.
<b>excursion [mm]</b>	130	130	140	120	130
<b>FRONT WHEEL</b>					
<b>rim</b>	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"
<b>tyre</b>	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"
<b>REAR WHEEL</b>					
<b>rim</b>	6"x17"	6"x17"	6"x17"	6"x17"	6"x17"
<b>tyre</b>	200/55-ZR17"	200/55-ZR17"	190/55-ZR17"	190/50-ZR17"	200/55-ZR17"
<b>BRAKING SYSTEM</b>					
<b>front</b>	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
<b>rear</b>	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
<b>ABS</b>					
<b>maps</b>	3	3+1 race use	1	1	3
<b>disable</b>	YES	YES	NO	NO	YES
<b>rear disabled</b>	NO	"slick" map, only for track	NO	NO	RACE map
<b>combined braking</b>	NO	YES (front lever only)	NO	YES	YES
<b>front pressure sensor</b>	YES	YES	YES	YES	YES
<b>rear pressure sensor</b>	NO	YES	NO	YES	NO
<b>ECU datas</b>	NO	NO	- throttle position - rpm - clutch engagement - gear	NO	NO
<b>bank angle sensor</b>	NO	NO	NO	NO	NO
<b>ABS system weight</b>	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
<b>PLUS</b>					
<b>Variable lenght intake funnels</b>					
<b>High and low injectors</b>					
<b>Ride by Wire</b>					
<b>Cassette-type gerabox</b>					
<b>Slipper clutch</b>					
<b>Adjustable frame</b>					
<b>Ohlins</b>					
<b>Brembo</b>					
<b>Forged wheel rims</b>					








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	RSV4 Factory aPRC ABS	BMW HP4 MY13	Kawasaki ZX - 10R MY13	Honda CBR 1000 RR MY13	Ducati 1199 Panigale S
<b>PLUS</b>					
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

					
	<b>RSV4 R aPRC ABS</b>	<b>BMW S 1000 RR MY12</b>	<b>Kawasaki ZX - 10R MY13</b>	<b>Honda CBR 1000 RR MY13</b>	<b>Ducati 1199 Panigale</b>
<b>WEIGHT</b>					
<b>curb weight</b>	207	204,5	201	211	195,5
<b>DIMENSIONS AND GEOMETRY</b>					
<b>wheelbase</b>	1420	1422,7	1425	1407	1437
<b>max lenght</b>	2040	2056	2075	2077	2075
<b>trail</b>	105,0	98,5	107	96,2	100
<b>rake angle</b>	24,5	24,01	25	23,2	24,5
<b>ENGINE AND TRANSMISSION</b>					
<b>type</b>	4V di 65°, 4x4 valves	4L 4x4 valves	4L 4x4 valves	4L 4x4 valves	2L 2x4 valves
<b>displacement</b>	998,9	999	998	999	1198
<b>cycle</b>	4T	4T	4T	4T	4T
<b>bore x stroke</b>	78x52,3	80x49,7	76x55	76x55,1	112x60,8
<b>compression ratio</b>	13,0:1	13,0:1	13,0:1	12,3:1	12,5:1
<b>cooling system</b>	liquid	liquid	liquid	liquid	liquid
<b>claimed max power @ crankshaft</b>	180 CV	193 CV	200 CV	178 CV	195 CV
<b>max power rpm</b>	12250	13000	13000	12000	10750
<b>claimed max torque @ crankshaft</b>	115 [Nm]	112 [Nm]	112 [Nm]	112 [Nm]	132 [Nm]
<b>max torque rpm</b>	10000	9750	11500	8500	9000
<b>twistgrip</b>	ride by wire	ride by wire	mechanic	mechanic	ride by wire
<b>lubrication</b>	wet sump	wet sump	wet sump	wet sump	wet sump
<b>oil radiator</b>	yes	mixer	mixer	mixer	mixer
<b>slipper clutch</b>	mechanic	mechanic	mechanic	mechanic	mechanic
<b>FUEL DELIVERY</b>					
<b>fuel delivery</b>	8i. Injection	8i. Injection	8i. Injection	8i. Injection	4i. Injection
<b>throttle bodies</b>	4 x Ø48	4	4 elliptical x Øeq 47 mm	4 x Ø46 mm	2 elliptical
<b>fuel tank capacity</b>	18,5 l	17,5 l	17 l	17,7 l	17 l



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<b>FRAME</b>					
<b>type</b>	Al double beam	Al double beam	Al double beam	Al double beam	Al monoblock
<b>FRONT SUSPENSION</b>					
<b>type</b>	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
<b>excursion [mm]</b>	120	120	120	120	120
<b>REAR SUSPENSION</b>					
<b>swingarm</b>	Al double-arm	Al double-arm	Al double-arm	Al double-arm	Al single-arm
<b>shock absorber</b>	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
<b>excursion [mm]</b>	130	130	140	120	130
<b>FRONT WHEEL</b>					
<b>rim</b>	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"	3,5"x17"
<b>tyre</b>	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"	120/70-ZR17"
<b>REAR WHEEL</b>					
<b>rim</b>	6"x17"	6"x17"	6"x17"	6"x17"	6"x17"
<b>tyre</b>	190/55-ZR17	190/55-ZR17"	190/55-ZR17"	190/50-ZR17"	200/55-ZR17"
<b>BRAKING SYSTEM</b>					
<b>front</b>	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
<b>rear</b>	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
<b>ABS</b>					
<b>maps</b>	3	3+1 race use	1	1	3
<b>disable</b>	YES	YES	NO	NO	YES
<b>rear disabled</b>	NO	"slick" map, <u>only for track</u>	NO	NO	RACE map
<b>combined braking</b>	NO	YES (front lever only)	NO	YES	YES
<b>front pressure sensor</b>	YES	YES	YES	YES	YES
<b>rear pressure sensor</b>	NO	YES	NO	YES	NO
<b>ECU datas</b>	NO	NO	- throttle position - rpm - clutch engagement - gear	NO	NO
<b>bank angle sensor</b>	NO	NO	NO	NO	NO
<b>ABS system weight</b>	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
<b>PLUS</b>					
<b>Variable lenght intake funnels</b>					
<b>High and low injectors</b>					
<b>Ride by Wire</b>					
<b>Cassette-type gerabox</b>					
<b>Slipper clutch</b>					
<b>Adjustable frame</b>					
<b>Ohlins</b>					
<b>Brembo</b>					
<b>Forged wheel rims</b>					

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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 <b>levels</b> 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>



# FAQ – Performance

Question	Answer
<p>What are the advantages of multi-map ABS?</p>	<p>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.</p>
<p>Why APRC represents a generational leap in electronic management systems for the performance of a motorcycle?</p>	<p>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.</p>
<p>Why does the APRC package also include AQS (Aprilia Quick Shift)?</p>	<p>The APRC package is a set of tools that further enhance the RSV4 Factory APRC 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.</p>
<p>How does the calibrating procedure work?</p>	<p>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.</p>



# 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"> <li>- Warning light off when system is enabled</li> <li>- Warning light steady on when system was deactivated voluntarily by rider or deactivated as a result of a fault</li> <li>- Warning light flashing slowly during initial sensor check at vehicle speeds up to 5 Km/h</li> <li>- Warning light flashing slowly at vehicle speeds over 5 Km/h when system was deactivated as a result of a fault</li> </ul>
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"> <li>- Warning light off when system is enabled</li> <li>- Warning light steady on when system was deactivated voluntarily by rider or deactivated as a result of a fault</li> <li>- Warning light flashing slowly during initial sensor check at vehicle speeds up to 5 Km/h</li> <li>- Warning light flashing quickly when one of the APRC functions kicks in</li> </ul>
<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
What are the strengths of ALC?	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.
What are the main features of the Aprilia Quick Shift compared to a traditional quick shift?	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.
What does OVERSLIP control mean?	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.



# FAQ – Use

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](http://www.apriliausa.com.com)

Website Canada: [www.aprilia-canada.ca](http://www.aprilia-canada.ca)

### ***APRILIA CUSTOMER SERVICE***

Email: [CustomerCare@piaggiogroupamericas.com](mailto:CustomerCare@piaggiogroupamericas.com)

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

