

## TECHNICAL DATA

DIMENSIONS	Max. length .....	2070 mm
	Max. length (with number plate-holder extension) <b>OPT</b> .....	2140 mm
	Max. width.....	725 mm
	Max. height (front part of the fairing included) .....	1170 mm
	Seat height.....	820 mm
	Distance between centres.....	1415 mm
	Min. ground clearance .....	130 mm
	Weight ready for starting.....	<b>RSV</b> 221 kg – <b>RSV R</b> 211 kg
ENGINE	Model .....	V990
	Type .....	60° longitudinal V-type, two-cylinder, 4-stroke, with 4 valves per cylinder, DOHC.
	Number of cylinders .....	2
	Total displacement.....	998 cm <sup>3</sup>
	Bore/stroke.....	97 mm/67.5 mm
	Compression ratio.....	11.4 ± 0.5: 1
	Starting.....	electric
	Engine idling rpm .....	1250 ± 100 rpm
	Clutch.....	multidisc in oil bath, with hydraulic control on the left side of the handlebar and PPC device
	Lubrication system .....	dry pan with separate oil tank and cooling radiator
Air cleaner .....	with dry filter cartridge	
Cooling.....	liquid-cooled	
TRANSMISSION	Type .....	mechanical, 6 gears with foot control on the left side of the engine
CAPACITY	Fuel (reserve included) .....	18 ℓ
	Fuel reserve .....	4.5 ± 1 ℓ
	Engine oil .....	oil change 3700 cm <sup>3</sup> – oil and oil filter change 3900 cm <sup>3</sup>
	Fork oil <b>RSV</b> .....	520 ± 2.5 cm <sup>3</sup> (per rod)
	“R” <b>RSV R</b> ( <b>RSV OPT</b> ) fork oil.....	500 ± 2.5 cm <sup>3</sup> (per rod)
	Coolant.....	2.5 ℓ (50% water + 50% antifreeze with ethylene glycol)
	Seats.....	<b>RSV</b> 2 – <b>RSV R</b> 1
Vehicle max. load .....	<b>RSV</b> 182 kg (driver + passenger + luggage) – <b>RSV R</b> 107 kg	

GEAR RATIOS	Ratio	Primary	Secondary	Final ratio	Total ratio
	1 <sup>a</sup>	31/60 = 1: 1.935	14/35 = 1: 2.50	17/42 = 1: 2.470	11.948
	2 <sup>a</sup>		16/28 = 1: 1.750		8.368
	3 <sup>a</sup>		19/26 = 1: 1.368		6.543
	4 <sup>a</sup>		22/24 = 1: 1.090		5.216
	5 <sup>a</sup>		23/22 = 1: 0.956		4.573
	6 <sup>a</sup>		27/23 = 1: 0.851		4.073
DRIVE CHAIN	Type .....	endless (with no connection link) with sealed links			
	Model .....	525			
FUEL SUPPLY SYSTEM	Type .....	electronic injection (Multipoint)			
	Choke .....	Ø 51 mm			
FUEL SUPPLY	Fuel .....	premium grade unleaded petrol, min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.).			
FRAME	Type .....	two-beam frame with light alloy cast elements and extruded elements			
	Steering inclination angle .....	25°			
	Fore stroke .....	99 mm (with front tyre 120/70)			
SUSPENSIONS	Front .....	upside-down telescopic adjustable fork with hydraulic operation, rod Ø 43 mm			
	Stroke .....	<b>RSV</b> 127 mm – <b>RSV R</b> ( <b>RSV</b> <b>OPT</b> ) 120 mm			
	Rear .....	oscillating rear fork in light alloy with differentiated profile arms and hydropneumatic adjustable mono-shock absorber			
	Wheel stroke .....	135 mm			
BRAKES	Front .....	with double floating disc – Ø 320 mm, calipers with four pins – Ø 34 mm			
	Rear .....	disc brake – Ø 220 mm, caliper with double pin – Ø 32 mm			
WHEEL RIMS	Type .....	in light alloy with withdrawable pin			
	Front .....	3.50 x 17"			
	Rear .....	6.00 x 17"			

## TYRES

\* = series **RSV R**; \*\* = series **RSV**

▲ = Normal use; ❖ = Use on recetracks

Wheel	Make	Model	Type	Size	Recommended		Alternative	Pressure kPa (bar)		
								▲		❖
								Solo rider	Rider and passenger (only <b>RSV</b> )	Solo rider
Front	PIRELLI	DRAGON EVO	MTR 21 CORSA	120/65–ZR 17"	▲	–	▲	220 (2.2)	240 (2.4)	220–230 (2.2–2.3)
Rear	PIRELLI	DRAGON EVO	MTR 22 CORSA	180/55–ZR 17"	▲	–	▲	250 (2.5)	270 (2.7)	–
Rear	PIRELLI	DRAGON EVO	MTR 22 CORSA	190/50–ZR 17"	▲	–	▲	250 (2.5)	270 (2.7)	–
Front	PIRELLI	DRAGON CORSA	MTR 21	120/70–ZR 17"	▲	❖	▲	–	–	210 (2.1)
Rear	PIRELLI	DRAGON CORSA	MTR 22 "B"	180/55–ZR 17"	▲	❖	▲	–	–	190 (1.9)
* Front	PIRELLI	DRAGON S. C. CORSA	–	120/70–ZR 17"	▲	❖	▲	–	–	210 (2.1)
* Rear	PIRELLI	DRAGON S. C. CORSA	–	180/55–ZR 17"	▲	❖	▲	–	–	190 (1.9)
Front	METZELER	STELL RADIAL	MEZ3–RACING	120/70 – 17"	▲	–	▲	–	–	–
Rear	METZELER	STELL RADIAL	MEZ3–RACING	190/50 – 17"	▲	–	▲	–	–	–
Front	METZELER	STELL RADIAL	MEZ3–RACING	120/65 – 17"	▲	❖	▲	–	–	220 (2.2)
Rear	METZELER	STELL RADIAL	MEZ3–RACING	180/55 – 17"	▲	❖	▲	–	–	200 (2.0)
Front	MICHELIN	PILOT SPORT	–	120/65–ZR17" TL	▲	–	▲	220 (2.2)	240 (2.4)	–
** Front	MICHELIN	PILOT SPORT	–	120/70–ZR17" TL	▲	–	▲	–	–	–
** Rear	MICHELIN	PILOT SPORT	–	190/50–ZR17" TL	▲	–	▲	250 (2.5)	270 (2.7)	–
Front	MICHELIN	PILOT RACE	–	120/70 – 17"	–	❖	▲	220 (2.2)	240 (2.4)	200 (2.0)
Rear	MICHELIN	PILOT RACE	–	180/55 – 17"	–	❖	▲	250 (2.5)	270 (2.7)	190 (1.9)
Front	DUNLOP	SPORTMAX	D 207F RR	120/65–ZR 17"	▲	–	▲	–	–	–
Rear	DUNLOP	SPORTMAX	D 207 RR	180/55–ZR 17"	▲	❖	▲	–	–	190 (1.9)
** Front	DUNLOP	SPORTMAX	D 207F RR	120/70–ZR 17"	▲	❖	▲	220 (2.2)	240 (2.4)	210 (2.1)
** Rear	DUNLOP	SPORTMAX	D 207 RR	190/50–ZR 17"	▲	–	▲	250 (2.5)	270 (2.7)	–

SPARK PLUGS	Standard .....	NGK R DCPR9E
	- Alternative .....	NGK R DCPR8E
	Spark plug gap .....	0.6 – 0.7 mm
	Resistance .....	5 kΩ
ELECTRIC SYSTEM	Battery <b>RSV</b> .....	12 V – 12 Ah
	Battery <b>RSV R</b> .....	12 V – 10 Ah
	Main fuses.....	30 A
	Secondary fuses .....	15 A
	Generator (with permanent magnet) .....	12 V – 400 W
BULBS	Low beam (halogen) .....	12 V – 55 W H7U
	High beam (halogen) .....	12 V – 55 W H7U
	Front parking light .....	12 V – 5 W
	Direction indicators .....	12 V – 10 W
	Rear parking lights/Number plate light/ Stoplight ..	12 V – 5/21 W
	Revolution counter .....	12 V – 2 W
	Left multifunction display.....	12 V – 2 W
Right multifunction display .....	12 V – 2 W	
WARNING LIGHTS	Neutral .....	12 V – 3 W
	Direction indicators .....	12 V – 3 W
	Fuel reserve .....	12 V – 3 W
	High beam.....	12 V – 3 W
	Stand down .....	12 V – 3 W
	Engine oil pressure .....	LED
	Red line.....	LED

## LUBRICANT CHART

**Engine oil (recommended):**  EXTRA RAID 4, SAE 15W - 50 or  TEC 4T, SAE 15 W - 50.

As an alternative to the recommended oil, it is possible to use high-quality oils with characteristics in compliance with or superior to the CCMC G-4, A.P.I. SG. specifications.

**RSV Fork oil (recommended):**  F.A. 5W or  F.A. 20W; as an alternative  FORK 5W or  FORK 20W.

If you need an oil with intermediate characteristics in comparison with the  F.A. 5W and  F.A. 20W or  FORK 5W and  FORK 20W, these can be mixed as indicated below:

SAE 10W =  F.A. 5W 67% of the volume, +  F.A. 20W 33% of the volume or  
 FORK 5W 67% of the volume +  FORK 20W 33% of the volume.

SAE 15W =  F.A. 5W 33% of the volume, +  F.A. 20W 67% of the volume or  
 FORK 5W 33% of the volume +  FORK 20W 67% of the volume.

“R”  (  ) fork oil: OHLINS 10W.

**Bearings and other lubrication points (recommended):**  AUTOGREASE MP or  GREASE 30.

As an alternative to the recommended product, use high-quality grease for rolling bearings, working temperature range -30°C... +140°C, dripping point 150°C... 230°C, high protection against corrosion, good resistance to water and oxidation.

**Protection of the battery poles:** neutral grease or vaseline.

**Spray grease for chains (recommended):**  CHAIN SPRAY or  CHAIN LUBE.

### WARNING

Use new brake fluid only.

**Brake fluid (recommended):**  F.F., DOT 5 (DOT 4 compatible) or  BRAKE 5.1, DOT 5 (DOT 4 compatible).

### WARNING

Use new clutch fluid only.

**Clutch fluid (recommended):**  F.F., DOT 5 (DOT 4 compatible) or  BRAKE 5.1, DOT 5 (DOT 4 compatible).

### WARNING

Use only antifreeze and anticorrosive without nitrite, ensuring protection at -35°C at least.

**Engine coolant (recommended):**  ECOBLU -40°C or  COOL.

## NOTE

---

**aprilia**

**ASK FOR GENUINE SPARE PARTS ONLY**

**NOTE**

---

**aprilia**

**ASK FOR GENUINE SPARE PARTS ONLY**

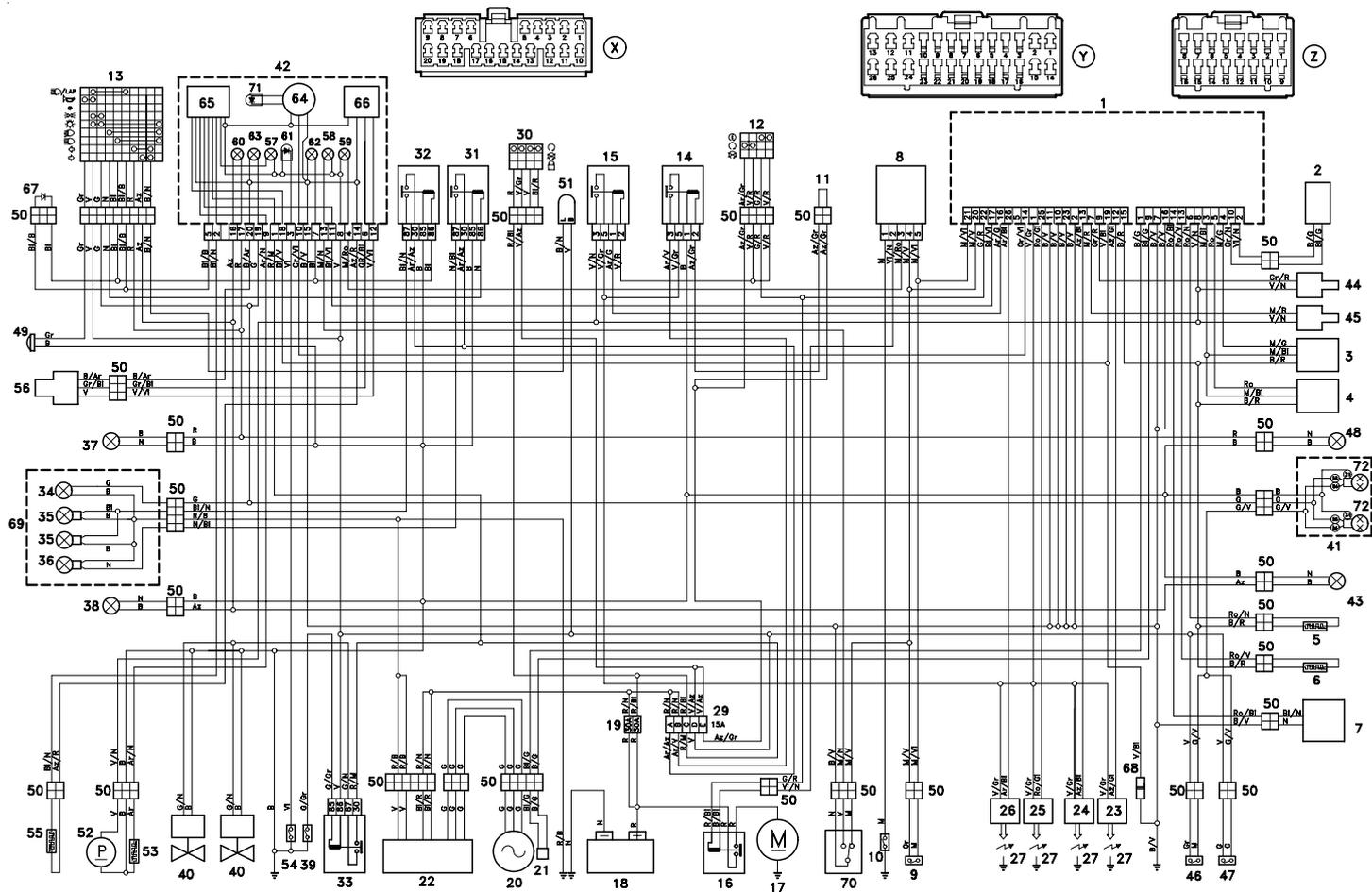


<b>I</b> APRILIA s.p.a.	via G. Galilei, 1 - 30033 Noale (VE) Italy Tel. +39(0)41 5829111 - Fax +39(0)41 441054 - Servizio Clienti <b>aprilia</b> +39(0)41 5786269
<b>F</b> APRILIA WORLD SERVICE B.V.	Z.A. Central Parc - 255 BLD Robert Ballanger B.P. 77- 93421 Villepinte (F) - Tel. (0) 149634747 - Fax (0) 149638750
<b>D</b> MOTORRAD GmbH	Am Seestern 3 D-40547 Düsseldorf (D) Tel. (211) 59018-00 - Fax (211) 5901819
<b>E</b> APRILIA WORLD SERVICE B.V. ESPAÑA	Calle Alcorcon 19 - 28850 Torrejon de Ardoz - Madrid (E) Tel. (91) 6778083 - Fax (91) 6778577
<b>NL</b> APRILIA NEDERLAND	Nikkelstraat 1 - 4823 AE Breda (NL) Tel. (076) 5431640 - Fax (076) 5431649
<b>UK</b> APRILIA MOTO U.K. LTD.	Dunragit - Stranraer - Wigtownshire DG9 8PN - Scotland (UK) Tel. (01776) 888670 - Fax (01581) 400661
<b>USA</b> APRILIA USA Inc.	110 Londonderry Court, Suite 130 - Woodstock, GA 30188 (USA) Tel. 770 592 2261 - Fax 770 592 4878
<b>A</b> GINZINGER IMPORT GmbH & CO	Frankenburgerstrasse 19 - 4910 Ried im Innkreis (A) Tel. (7752) 88077 - Fax (7752) 70684
<b>P</b> MILFA IMPORTAÇÃO EXPORTAÇÃO LDA.	Avenida da República 692 - 4450-238 Matosinhos (P) Tel. 229382450 - Fax 229371305
<b>SF</b> TUONTI NAKKILA OY	P.o.B. 18 - 29250 Nakkila (SF) Puh. (02) 5352500 - Fax (02) 5372793
<b>B</b> RAD n.v. / s.a.	Industriegebied - Landegemstraat 4 - B - 9031 Drogen-Baarle Tel. (09) 2829410 - Fax (09) 2829433
<b>GR</b> MOBILITY S.A.	av. Messogion 191 - 11525 Athens (GR) Tel. (1) 6728705 - Fax (1) 6728727
<b>GR</b> MOBILITY A.E.	Λ. Μεσογείων 191 - 115-25 Αθήνα - Ελλάδα Τηλ. (1) 6728705 - Φαξ: (1) 6728727
<b>CH</b> MOHAG AG	Bernerstrasse Nord 202 - 8064 Zurich (CH) Tel. (1) 4348686 - Fax (1) 4348606
<b>DK</b> <b>S</b> T.M.P.	Islandsvej 3 - 7900 Nykøbing Mors (DK) Tel 97722233 - Fax 97722133 - E-mail: t_m_p@post4.tele.dk
<b>J</b> BOSCO MOTO CO. LTD.	22-25 Hakunoshima 2 Chome Minoo-Shi 562 Osaka 562-0012 OSAKA (J) - Tel. (0727) 253311 - Fax (0727) 253322
<b>J</b> 株式会社 ボスコ・モト	〒 562-0012 大阪府箕面市白島 2 丁目 22-25 電話 : (0727)25-3311 - FAX : (0727)25-3322
<b>SGP</b> IDEAL MOTOR SPORT PTE. LTD.	20 Mactaggart Road, #01-01 Khong Guan Industrial Building 368079 Singapore (SGP) Tel. 2820082 - Fax 2821012



<b>PL</b> MOTO SP. ZOO	Ul. Trakt Lubelski 298 B - 04-667 Warszawa (PL) Tel. (22) 121183 - Fax (22) 121183
<b>IL</b> AVIRAM & GOLDMAN IMPORT & MARKETING CO. LTD.	21, Tushia Street - P.O. BOX 57266 - 61572 - Israel - Tel-Aviv (IL) Tel. (3) 5623951 - Fax (3) 5623950
<b>ROK</b> BIKE KOREA CO., LTD.	YeungSoo BLDG 302 #206-25, Ohjang-dong, Chung-ku, Seoul (ROK) Tel. (02) 2275-6130/1 - Fax. (02) 2275-6132
<b>MAL</b> GENTALI MALAYSIA SDN BHD	Unit B-1-8 Megan Phileo Promenade 189 Jalan Tun Razak - 50400 - Kuala Lumpur (MAL) Tel.(603) 21649800 Fax. (603) 21649700
<b>RCH</b> HARLEY DAVIDSON SANTIAGO	Isidora Goyenechea 2926 - Santiago (RCH) Tel. (2) 2321667 - Fax (2) 2321894
<b>BM</b> EVE'S CYCLES LTD.	114, Middle Road - PG BX Paget (BM) Tel. (441) 2366247 - Fax (441) 2366996
<b>BR</b> APRILIA-BRASIL	Av. Europa, 352 - Jardim Europa - 01449-001 Sao Paulo-SP (BR) Tel. (11) 30691220 Fax. (11) 30691221
<b>AUS</b> JOHN SAMPLE GROUP PTY LTD.	8, Sheridan Close - NSW 2214 - Milperra - Sydney (AUS) Tel. (2) 97722666 - Fax (2) 97742321
<b>RSA</b> MOTOVELO S.A.	Old Pretoria Road - Wynberg - Johannesburg (RSA) Tel. (11) 7868486 - Fax (11) 7868482
<b>NZ</b> MOTORCYCLING DOWNUNDER LTD.	35, Manchester Street - P.o.B. 22416 - Christchurch (NZ) Tel. (3) 3660129 - Fax (3) 3667580
<b>HR</b> ING-KART, d.o.o.	Miroslava Magdalenica, 1 - 10000 Zagreb (HR) Tel. (1) 3491107 / 3491091 - Fax (1) 3491555
<b>SLO</b> AVTO TRIGLAV, d.o.o.	Baragova 5 - 1113 Ljubljana (SLO) Tel. (61) 1883420 - Fax (61) 1883465
<b>IM</b> BIKES & COMPANY LTD.	178, Marina Street, Pieta. MSD 08. (M) - Tel. (+356) 236 665 - Fax (+356) 239 368
<b>TR</b> METRO MOTORLU ARACLAR TICARET A.S.	Mihrabat Caddesi Akbeyesokak Yetimoglu Is Merkezi - 81640 - Kavacik-Istanbul (TR) - Tel. (0216) 4251565 - Fax (0216) 3312606
<b>CZ</b> A. SPIRIT A.S.	Cernokostelecka 116 - 10000 Praha 10 (CZ) Tel. (02) 703049 - Fax. (02) 703158
<b>IRL</b> K.D.I. KAWASAKI DISTRIBUTOR IRL. LTD.	17 Wood Street - Dublin 8 (IRL) Tel. (1) 4756046 Fax. (1) 4756461
<b>N</b> MC TEMA A.S.	Kjorbekkdalen 6,3735 Skien, Norway (N) Tel. 35506780 Fax. 35506781

# WIRING DIAGRAM - RSV mille - RSV mille R



## WIRING DIAGRAM KEY - RSV mille - RSV mille R

- |   |   |   |
|---|---|---|
| 1) Electronic unit  | D - Parking lights, stoplights, horn, dashboard lights, direction indicators. | 58) Side stand down warning light         |
| 2) Cam position sensor  |   | 59) Neutral warning light                 |
| 3) Throttle valve position sensor                             |   | 60) Direction indicator warning light     |
| 4) Intake pressure sensor                                     | E - Electronic unit, fuel pump relay, engine stop relay.                      | 61) Engine oil pressure warning light LED |
| 5) Coolant thermistor   |   | 62) High beam warning light               |
| 6) Air thermistor   | 30) Ignition switch   | 63) Dashboard bulbs                       |
| 7) Fall sensor  | 31) Low beam relay  | 64) Revolution counter                    |
| 8) Diode module   | 32) High beam relay   | 65) Multifunction display (right side)    |
| 9) Clutch control lever switch                                | 33) Cooling fan relay   | 66) Multifunction display (left side)     |
| 10) Neutral gear switch                                       | 34) Front parking light bulb  | 67) Lights diode/LAP                      |
| 11) Arrangement for the installation of the anti-theft device | 35) High beam bulbs   | 68) TEST connectors                       |
| 12) Right dimmer switch                                       | 36) Low beam bulb   | 69) Headlight                             |
| 13) Left dimmer switch  | 37) Front right direction indicator   | 70) Side stand switch                     |
| 14) Engine stop relay   | 38) Front left direction indicator  | 71) Red line warning light LED            |
| 15) Fuel pump relay   | 39) Thermal switch  | 72) Rear parking light/stoplight bulbs    |
| 16) Start relay   | 40) Cooling fans  |   |
| 17) Starter   | 41) Rear light  | X) Dashboard connector (20-way)           |
| 18) Battery   | 42) Dashboard   | Y) Electronic unit connector (26-way)     |
| 19) Main fuses (30A) (ignition)                               | 43) Rear left direction indicator   | Z) Electronic unit connector (16-way)     |
| 20) Generator   | 44) Front cylinder injector   |   |
| 21) Pick up   | 45) Rear cylinder injector  |   |
| 22) Voltage regulator   | 46) Front stoplight switch  |   |
| 23) Rear cylinder coil  | 47) Rear stoplight switch   |   |
| 24) Rear cylinder coil  | 48) Rear right direction indicator  |   |
| 25) Front cylinder coil                                       | 49) Horn  |   |
| 26) Front cylinder coil                                       | 50) Multiple connectors   |   |
| 27) Spark plugs   | 51) Blinking  |   |
| 28) -   | 52) Fuel pump   |   |
| 29) Secondary fuses (15A)                                     | 53) Low fuel sensor   |   |
| A - High beam, low beam                                       | 54) Engine oil pressure switch  |   |
| B - ISC, coils, fuel pump                                     | 55) Coolant temperature thermistor  |   |
| C - Electric fans, clock                                      | 56) Speed sensor  |   |
|   | 57) Low fuel warning light  |   |

## CABLE COLOURS

<b>Ar</b>	Orange	<b>M</b>	Brown
<b>Az</b>	Light blue	<b>N</b>	Black
<b>B</b>	Blue	<b>R</b>	Red
<b>Bi</b>	White	<b>V</b>	Green
<b>G</b>	Yellow	<b>Vi</b>	Violet
<b>Gr</b>	Grey	<b>Ro</b>	Pink



## WIRING DIAGRAM KEY - RSV mille **ASD** - RSV mille R **ASD**

- |   |   |   |
|---|---|---|
| 1) Electronic unit  | D - Parking lights, stoplights, horn, dashboard lights, direction indicators. | 58) Side stand down warning light         |
| 2) Cam position sensor  |   | 59) Neutral warning light                 |
| 3) Throttle valve position sensor                             |   | 60) Direction indicator warning light     |
| 4) Intake pressure sensor                                     | E - Electronic unit, fuel pump relay, engine stop relay.                      | 61) Engine oil pressure warning light LED |
| 5) Coolant thermistor   |   | 62) High beam warning light               |
| 6) Air thermistor   | 30) Ignition switch   | 63) Dashboard bulbs                       |
| 7) Fall sensor  | 31) Low beam relay  | 64) Revolution counter                    |
| 8) Diode module   | 32) High beam relay   | 65) Multifunction display (right side)    |
| 9) Clutch control lever switch                                | 33) Cooling fan relay   | 66) Multifunction display (left side)     |
| 10) Neutral gear switch                                       | 34) Front parking light bulb  | 67) Lights diode/LAP                      |
| 11) Arrangement for the installation of the anti-theft device | 35) High beam bulbs   | 68) TEST connectors                       |
| 12) Right dimmer switch                                       | 36) Low beam bulb   | 69) Headlight                             |
| 13) Left dimmer switch  | 37) Front right direction indicator   | 70) Side stand switch                     |
| 14) Engine stop relay   | 38) Front left direction indicator  | 71) Red line warning light LED            |
| 15) Fuel pump relay   | 39) Thermal switch  | 72) Rear parking light/stoplight bulbs    |
| 16) Start relay   | 40) Cooling fans  | X) Dashboard connector (20-way)           |
| 17) Starter   | 41) Rear light  | Y) Electronic unit connector (26-way)     |
| 18) Battery   | 42) Dashboard   | Z) Electronic unit connector (16-way)     |
| 19) Main fuses (30A) (ignition)                               | 43) Rear left direction indicator   |   |
| 20) Generator   | 44) Front cylinder injector   |   |
| 21) Pick up   | 45) Rear cylinder injector  |   |
| 22) Voltage regulator   | 46) Front stoplight switch  |   |
| 23) Rear cylinder coil  | 47) Rear stoplight switch   |   |
| 24) Rear cylinder coil  | 48) Rear right direction indicator  |   |
| 25) Front cylinder coil                                       | 49) Horn  |   |
| 26) Front cylinder coil                                       | 50) Multiple connectors   |   |
| 27) Spark plugs   | 51) Blinking  |   |
| 28) -   | 52) Fuel pump   |   |
| 29) Secondary fuses (15A)                                     | 53) Low fuel sensor   |   |
| A - High beam, low beam                                       | 54) Engine oil pressure switch  |   |
| B - ISC, coils, fuel pump                                     | 55) Coolant temperature thermistor  |   |
| C - Electric fans, clock                                      | 56) Speed sensor  |   |
|   | 57) Low fuel warning light  |   |

## CABLE COLOURS

<b>Ar</b>	Orange	<b>M</b>	Brown
<b>Az</b>	Light blue	<b>N</b>	Black
<b>B</b>	Blue	<b>R</b>	Red
<b>Bi</b>	White	<b>V</b>	Green
<b>G</b>	Yellow	<b>Vi</b>	Violet
<b>Gr</b>	Grey	<b>Ro</b>	Pink

**aprilia s.p.a.** wishes to thank its customers for the purchase of this vehicle:

- Do not dispose of oil, fuel, polluting substances and components in the environment.
- Do not keep the engine running if it isn't necessary.
- Avoid disturbing noises.
- Respect nature.