

CAUTION

Never touch the rear brake pedal after removing the wheel. If you do, the caliper pistons may be pushed out of their seats, and brake fluid will be spilled. Should you accidentally do this, take your vehicle to your Local **aprilia** Dealer who will know how to repair this damage.

REASSEMBLY

- ◆ Apply a thin film of grease to the outer seals of the rear wheel hub.

CAUTION

While reassembling the wheel, be careful not to damage the brake line, the disc and the pads.

- ◆ Position the wheel centrally in the swinging arm, on the support (1).

WARNING

Keep your fingers well away from the chain and sprocket. You could easily lose a finger if it becomes pinched between these two parts. Use heavy work gloves while installing the rear wheel. Never attempt to line the rear wheel up using your fingers. Failure to heed this warning can result in serious personal injury.

- ◆ Move the wheel as far forward as possible, to install the drive chain (6) on the rear sprocket (7).
- ◆ Pull the rear wheel backwards until the bearing holes are lined up with the holes in the swinging arm.

- ◆ Lightly grease the outside of the axle (2).
- ◆ Install the washer (5) on the axle (2).

NOTE To facilitate the insertion of the axle (2), slightly raise the wheel.

- ◆ Install the axle (2) completely through the wheel from the left side.

NOTE Ensure that the axle (2) is pushed all the way home with the head in the appropriate seat on the left chain tightener.

- ◆ Install the washer (4) and tighten the nut (3) finger tight.
- ◆ Remove the support (1) from under the rear tire.
- ◆ Check the chain tension, see p. 78 (DRIVE CHAIN).
- ◆ Tighten the nut (3).

Wheel nut (3) tightening torque:
72.33 ftlb (100 Nm).

WARNING

After servicing the brakes, always check them for function. If the stroke of the lever or pedal is excessive, or if you detect that the effectiveness of the brakes is reduced in any way, have your vehicle serviced by your Local **aprilia** Dealer. It may be necessary to have your dealer bleed the system, or there may be some other problem with the brake system.

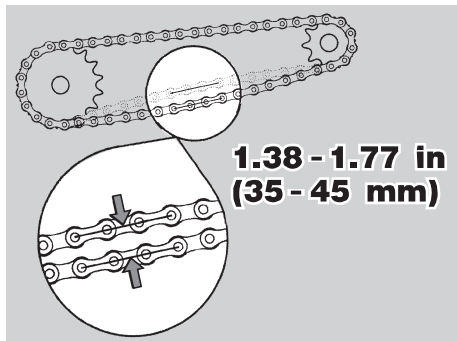


Never ride your vehicle in traffic immediately after servicing the brakes.

Always apply the brake pedal or lever several times before riding your vehicle. Then, try your vehicle in a parking lot or other safe area with little traffic to ensure that the brakes are working properly. Failure to observe this warning can lead to a serious accident with subsequent serious injury or death.

Check the wheel centering.

Have the tightening torques, centering and balancing of the wheel checked by your Local **aprilia Dealer. These are critical safety operations, and failure to observe this warning could lead to an upset with subsequent serious injury or death.**



DRIVE CHAIN

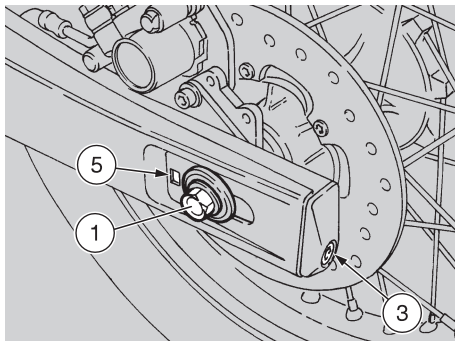
Carefully read p. 61 (MAINTENANCE).

Every 312 mi (500 km) check the conditions, the wear, the play (tension) and the lubrication of the drive chain. The vehicle is equipped with an endless chain. There is no master link used.

⚠ WARNING

An excessively loose chain can come off the sprocket which can result in a serious accident and serious damage to the vehicle from the upset and subsequent serious injury or even death. Do not ride your vehicle with an improperly adjusted chain, see p. 79 (ADJUSTMENT).

To inspect the condition of the chain, grasp the chain where it goes around the sprocket and try to pull it away from the sprocket. If you can move it more than one-eighth of an inch away from the sprocket, the chain is worn out and the chain and both front and rear



sprockets must be replaced. See your Local **aprilia** Dealer.

⚠ CAUTION

Lack of maintenance can cause premature wear of the chain and damage to the sprockets.

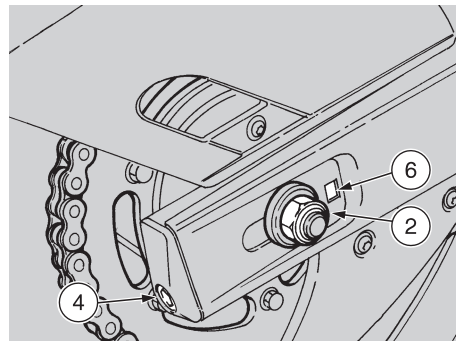
Maintain your chain more often if your vehicle is used on dusty or muddy roads.

⚠ WARNING

Before carrying out the following operations, let the engine and the exhaust silencer cool down until they reach room temperature, in order to avoid burns.

⚠ WARNING

Keep your fingers well clear of the chain and sprocket, especially if you are turning the rear wheel while working on the vehicle. You can easily be seriously injured if a finger is caught between the chain and sprocket. Use work-gloves to



carrying out these operation.

CHECKING THE PLAY

To check the play:

- ◆ Stop the engine.
- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Shift to neutral.
- ◆ Check the chain play. It should be **1.38 – 1.77 in (35 – 45 mm)** at mid-bottom span as shown above.
- ◆ Move the vehicle forward or backward, or support the rear wheel in the air and turn the wheel to several positions, to check the chain slack at several locations. If the slack is markedly different with the wheel in different positions, the chain and sprockets must be replaced.

⚠ WARNING

Do not ever operate your vehicle with a damaged chain. This could cause wheel seizure which could lead to an

upset with subsequent serious injury or death. Lubricate your chain frequently to minimize the possibility of this kind of damage, see p. 79 (CLEANING AND LUBRICATION).

If the play is the same at several locations, but is more or less than 1.38 – 1.77 in (35 – 45 mm), adjust it, see p. 79 (ADJUSTMENT).

ADJUSTMENT

To adjust the chain tension:

- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Hold the axle (1) from rotating with an appropriate Allen wrench.

Wheel nut (2) tightening torque:
72.33 ftlb (100 Nm).

- ◆ Loosen the nut (2) to several turns.

NOTE In order to facilitate wheel centering, numbered reference marks are provided on the swinging arm, which correspond with marks on the adjusters (3) and (4). These marks may be seen through the slots (5) and (6).

- ◆ Adjust the left (3) and right (4) tension adjusters to obtain the appropriate chain play, ensuring that the slot (5) and (6) coincide with the same reference marks on each side of your vehicle.
- ◆ Hold the axle (1) from rotating with an appropriate Allen wrench.
- ◆ Tighten the nut (2).

Wheel nut (2) tightening torque:
72.33 ftlb (100 Nm).

- ◆ Check the chain play again, see p. 78 (CHECKING THE PLAY).

CHECKING THE WEAR OF THE CHAIN AND SPROCKETS

In addition to the check, see p. 78 (CHECKING THE PLAY), inspect the chain and sprockets to make sure that there are no:

- damaged rollers; – loose pins; – dry, rusty, crushed or seized links; – excessive wear; – missing “O” rings; – sprocket or teeth excessively worn or damaged.

You may check the wear of the chain and sprocket by grasping the chain where it contacts the rear sprocket, and pulling it away from the sprocket as far as you can. If you are able to pull the chain far enough away from the sprocket so that you can see light between the side plates of the chain and the sprocket teeth, the chain and sprocket are worn out and should be replaced.

NOTE Always replace both sprockets and the chain when any of these components are replaced.

⚠ CAUTION

If chain rollers are damaged, the pins and/or the O rings are loose or missing, both sprockets as well as the chain must be replaced.

⚠ CAUTION

Lubricate the chain frequently, especially if it displays any rust or if it is dry to the touch. If, after lubricating the chain, it still has links which cannot be turned easily, the chain must be replaced.

- ◆ Finally, check the wear of the rear fork protection shoe.

CLEANING AND LUBRICATION

⚠ CAUTION

The drive chain is provided with O rings among the links, in order to keep the grease inside them.

Carry out chain adjustment, lubrication, cleaning and replacement with great care. Remember to keep your fingers clear of the chain and sprocket.

Never wash the chain with water jets, steam jets, high-pressure water jets and highly inflammable solvents.

- ◆ Wash the chain with a non-flammable solvent. If your chain rusts quickly, lubricate it more often.

Lubricate the chain every 312 mi (500 km) or whenever it appears dry.

After washing the chain and letting it dry, lubricate it exclusively with spray grease for chains provided with sealing rings, see p. 104 (LUBRICANT CHART).

⚠ CAUTION

Make sure that the chain lubricant you use is appropriate for “O” ring chains. There are some lubricants available which contain substances which will destroy the “O” rings in your chain. If you have any question, contact your Local aprilia Dealer.

NOTE Do not use the vehicle immediately after lubricating the chain, give the lubricant a chance to dry, otherwise the chain will spray the lubricant all over you and your vehicle.



REMOVING THE FUEL TANK

Carefully read p. 35 (FUEL) and p. 61 (MAINTENANCE).

⚠ WARNING

Risk of fire.

Wait until the engine and the exhaust silencer have completely cooled down.

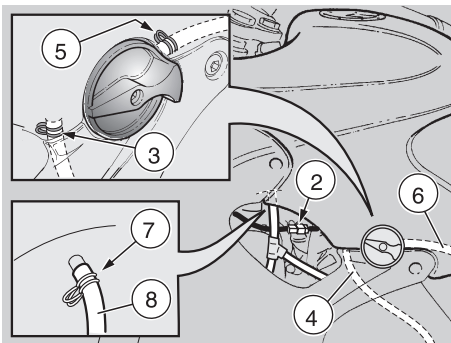
Fuel vapors are noxious for your health. Make sure that the room in which you are working is properly ventilated.

Do not inhale fuel vapours.

Do not smoke and do not use naked flames.

DISPOSE OF UNWANTED FUEL PROPERLY.

- ◆ Remove the saddle, see p. 81 (REMOVING THE SADDLE).
- ◆ Drain the fuel tank completely, see p. 97 (DRAINING THE FUEL TANK).
- ◆ Move the fuel valve lever (1) to the "OFF" position.



⚠ CAUTION

Handle the plastic and painted components with care and avoid scraping or damaging them.

Be careful do not damage the electric cables.

NOTE To release the clamps, use a pair of pliers.

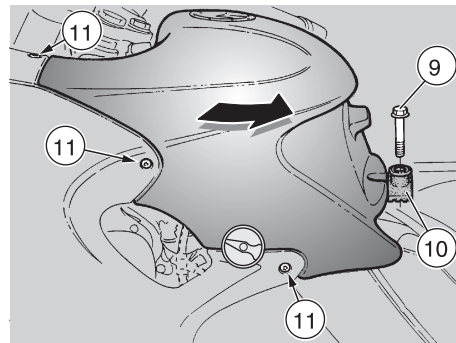
Working from the left side of the vehicle:

- ◆ Disconnect the electric connector (2) of the low fuel sensor.
- ◆ Release the clamp (3) and disconnect the water drain line (4) from the fuel tank.
- ◆ Release the clamp (5) and remove the fuel line (6) from the fuel valve.

⚠ WARNING

Danger! Some fuel may spill.

- ◆ Plug the free end of the fuel line (6) and attach it to the vehicle with a wire or tape in the vertical position.



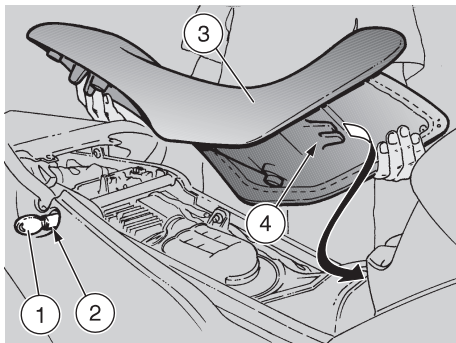
- ◆ Release the clamp (7) and remove the breather line (8) from the fuel tank.

⚠ CAUTION

Upon reassembly, be sure that the lines (4) and (8), the clamp (3) and (7) and, most important the fuel line (6) and clamp (5), are properly installed.

- ◆ Unscrew and remove the central screw (9).
- ◆ Take the rubber element (10) complete of the washer and the bush.
- ◆ ★ Unscrew and remove the three screws (11).
- ◆ Slightly raise the rear part of the fuel tank and at the same time withdraw it from its two seats (in the front part), by pulling it backwards.

NOTE Upon reassembly, make sure that the fuel tank fits correctly into the relative seats in the front part.



REMOVING THE SADDLE

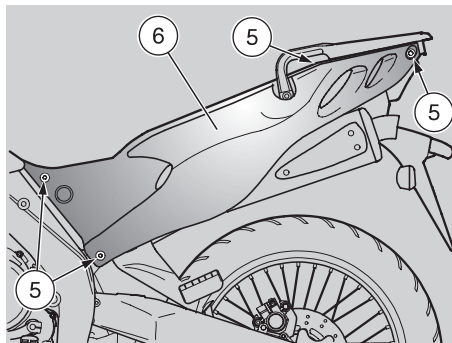
Carefully read p. 61 (MAINTENANCE).

- ◆ Place the vehicle on the center or side stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Insert the key (1) in the lock (2).
- ◆ Turn the key (1) clockwise.
- ◆ Raise and remove the saddle (3).

Upon reassembly:

NOTE Before lowering and locking the saddle, make sure that you have not left the key in the glove/tool kit compartment.

- ◆ Insert the tang (4) of the saddle in the appropriate seats (see figure).
- ◆ Lower the saddle and press the its rear part.



⚠ CAUTION

Do not leave your vehicle unattended without ensuring that the saddle (3) is properly positioned and locked. Should you forget and ride away with the saddle loose, you could be injured.

REMOVING THE RIGHT AND LEFT SIDE PANELS

Carefully read p. 61 (MAINTENANCE).

⚠ WARNING

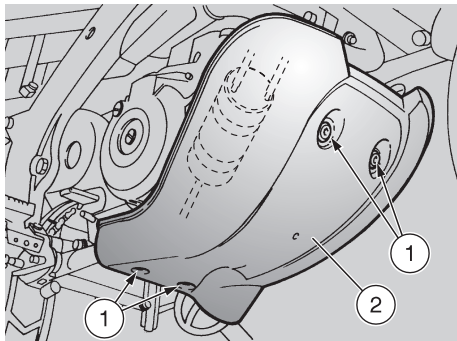
Before carrying out the following operations, let the engine and the exhaust silencer cool down until they reach room temperature, in order to avoid burns.

- ◆ Remove the saddle, see beside (REMOVING THE SADDLE).
- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the four screws (5).

⚠ CAUTION

Handle the plastic and painted components with care and avoid scraping or damaging them.

- ◆ Remove the side panel (6).



REMOVING THE OIL PAN GUARD

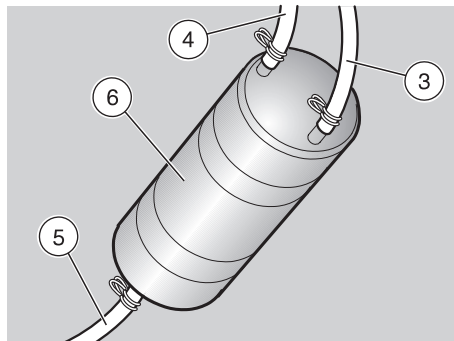
Carefully read p. 61 (MAINTENANCE).

- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the four screws (1).

⚠ CAUTION

While removing the oil pan guard (2), pay extra care not to pull, force or damage the three lines (3), (4), (5) of the carbon canister (6).

- ◆ Remove the oil pan guard (2) only as much as necessary to disconnect the three lines (3), (4), (5) of the carbon canister.



⚠ CAUTION

WHILE REASSEMBLING, PAY EXTRA CARE NOT TO INVERT THE LINES OF THE CARBON CANISTER.

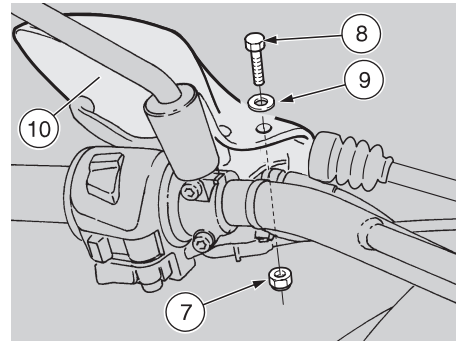
- ◆ Mark the lines and the relevant couplings, in order to be able to reassemble them correctly.

NOTE To release the clamps, use a pair of pliers.

- ◆ Release the clamps and remove the lines (3), (4), (5).
- ◆ Remove completely the oil pan guard (2).

⚠ CAUTION

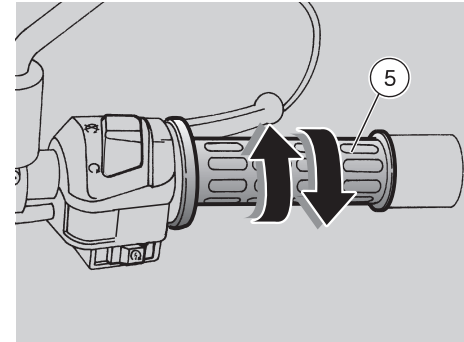
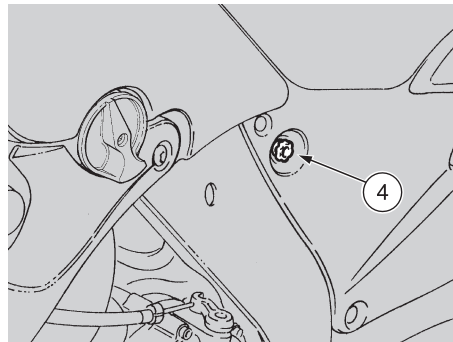
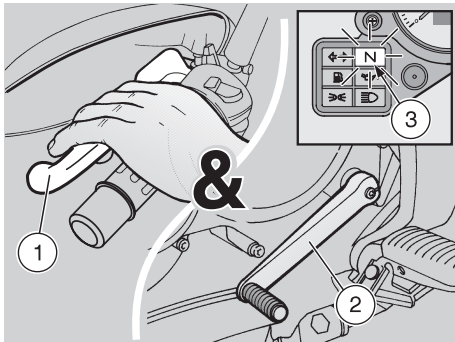
While reassembling the oil pan guard (2), pay extra care and ensure not to crash the lines (3), (4), (5).



REMOVING THE HAND-GUARDS

Carefully read p. 61 (MAINTENANCE).

- ◆ Hold the nut (7) from rotating with an appropriate Allen wrench.
- ◆ Remove the screw (8) the washer (9).
- ◆ Remove the hand-guard (10).



IDLING ADJUSTMENT

Carefully read p. 61 (MAINTENANCE).

If the idle becomes irregular, too fast, or too slow, it must be adjusted.

To adjust the idle:

⚠ WARNING

Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled.

Do not start the engine in closed or badly-ventilated rooms.

Failure to observe this warning may cause loss of consciousness or even lead to death by asphyxia.

♦ Ride for a few miles until the engine reaches normal running temperature, see p. 15 (Coolant temperature indicator "E").

♦ Pull in the clutch lever (1) completely and put the shift lever (2) in neutral so that the green "N" light (3) is on.

♦ Keep the vehicle in vertical position, with both wheels resting on the ground.

♦ Observe the tachometer.

The engine must idle $1,400 \pm 100$ rpm, CO $1\% [+ 1\% - 0.5\%]$ (total range from 0.5% to 2%).

If it does not:

⚠ WARNING

Do not adjust the air adjusting screw. Doing so will upset the idling performance of your engine, as well as increasing exhaust emissions.

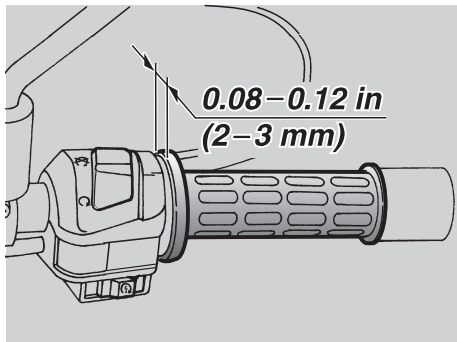
♦ Adjust the knob (4) positioned on the left side of the vehicle.

Rotate the knob clockwise to increase engine rpm.

Rotate the knob counterclockwise to decrease the engine rpm.

♦ Accelerate and decelerate the engine a few times to make sure, when the throttle returns to idle, that the engine idle speed is still correct.

NOTE If necessary, contact your Local **aprilia** Dealer.



ADJUSTING THE THROTTLE CONTROL

Carefully read p. 61 (MAINTENANCE).

This vehicle is equipped with two throttle cables.

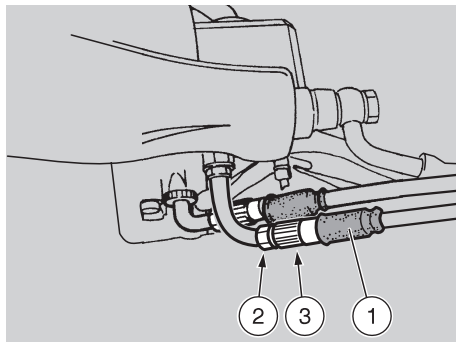
The following information may refer to just one throttle cable but should be observed with regard to both throttle cables.

⚠ WARNING

If the throttle sticks open, it may cause a collision with another vehicle, or an upset.

If the throttle sticks, kill the engine with the engine stop switch located on the right handlebar.

Do not attempt to restart the engine until the throttle has been repaired and works perfectly. Failure to obey this warning can lead to a runaway with seriously injuries or even death.



If any fastener in the throttle system becomes loose, likewise you will lose control of your vehicle.

Either situation can lead to an upset or collision with subsequent serious injury or death.

Your vehicle is equipped with a double cable throttle. One cable opens the throttle when you rotate the throttle grip toward you; the other closes the throttle when you rotate the grip away from you. It is essential, when you release the throttle grip, that it automatically return to the idle position.

This double cable arrangement enhances safety by providing for positive closing of the throttle.

⚠ WARNING

In the event of a throttle sticking emergency, always kill the engine using the engine stop switch located near the throttle grip on the right handlebar.

Never use your vehicle if the throttle does not automatically fully return to the idle position when the throttle grip is released. Contact your Local **aprilia** Dealer for repairs. Failure to heed this warning can lead to a serious accident and subsequent injury or even death.

The play of the throttle cable must be between **0.08 – 0.12 in (2 – 3 mm)**, measured at the edge of the grip, see the illustration above.

To adjust the cable:

- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Pull back the rubber boot (1).
- ◆ Loosen the lock nut (2).
- ◆ Rotate the adjuster (3) in such a way as to restore the prescribed value.
- ◆ After the adjustment, tighten the lock nut (2) and check the play again.
- ◆ Replace the rubber boot (1).
- ◆ Repeat the adjustment for the second cable.

⚠ WARNING

Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled.

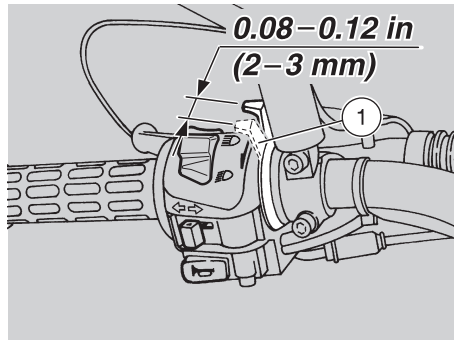
Do not start the engine in closed or badly-ventilated rooms.

Failure to observe this warning may cause loss of consciousness or even lead to death by asphyxia.



⚠ WARNING

After you have adjusted the throttle, rotate the handlebars full left and full right with the engine idling. Check to ensure that the idle sound is not affected by this. Also check that the throttle smoothly and fully closes when released.



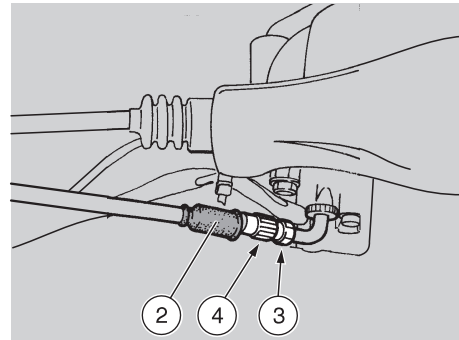
ADJUSTING THE COLD START (CHOKE) CONTROL (|\\|)

Carefully read p. 61 (MAINTENANCE).

The play of the cold start cable must be between **0.08 – 0.12 in (2 – 3 mm)**, measured on the lever (1).

To adjust the cable:

- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Pull back the rubber boot (2).
- ◆ Loosen the lock nut (3).
- ◆ Rotate the adjuster (4) in such a way as to restore the prescribed value.
- ◆ After the adjustment, tighten the lock nut (3) and check the play again.
- ◆ Replace the rubber boot (2).



⚠ WARNING

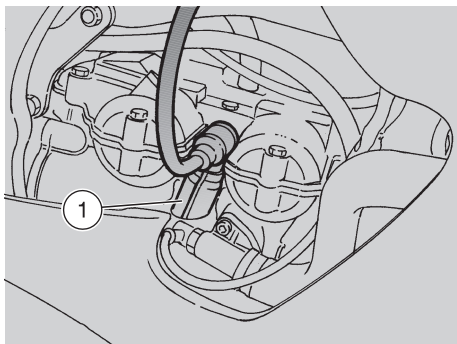
Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled.

Do not start the engine in closed or badly-ventilated rooms.

Failure to observe this warning may cause loss of consciousness or even lead to death by asphyxia.

⚠ WARNING

After you have adjusted the cold start, rotate the handlebars full left and full right with the engine idling. Check to ensure that the idle sound is not affected by this.



SPARK PLUG

Carefully read p. 61 (MAINTENANCE).

Clean the spark plug every 3,750 mi (6,000 km); change it every 7,500 mi (12,000 km).

Periodically remove the spark plug and clean it carefully, removing carbon deposits; change it if necessary.

To reach the spark plug:

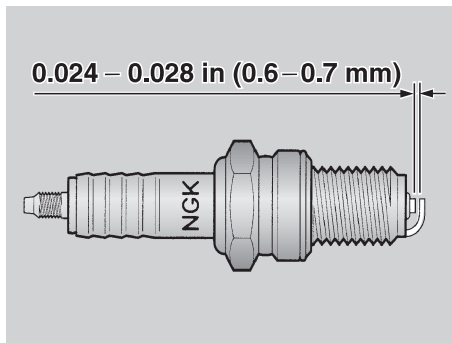
- ◆ Remove the fuel tank, see p. 80 (REMOVING THE FUEL TANK).

To remove and clean the spark plug:

⚠ WARNING

Before carrying out the following operations, let the engine and the exhaust silencer cool down until they reach room temperature, in order to avoid burns.

- ◆ Remove the spark plug cap (1).



⚠ WARNING

During this operation, always wear goggles which provide your eyes with 360° protection. Be very careful using compressed air jets, they can cause serious personal injury if directed towards your body.

- ◆ Using compressed air, blow all the dirt away from the base of the spark plug. Using the special spark plug wrench from the tool kit, unscrew the spark plug. Make sure that no dirt falls into the cylinder through the spark plug hole.
- ◆ Inspect the spark plug, and insure that there are no carbon deposits nor corrosion marks on either electrode or the ceramic nose that surrounds the center electrode. If necessary, clean the spark plug with a proprietary spark plug cleaner, and a stainless steel brush.

- ◆ Using compressed air, carefully blow out the spark plug after you have cleaned it. Inspect for cracks on the insulating material, electrode corrosion or erosion, or deposits that you cannot remove. If the spark plug shows any of these defects, it must be replaced.
- ◆ Check the spark plug gap with a thickness gauge.
- ◆ The gap must be **0.024 – 0.028 in (0.6 – 0.7 mm)**; if necessary adjust it, carefully bending the ground (outside) electrode.
- ◆ Make sure the gasket is in good condition. With the gasket on, screw the spark plug into the head by hand.
- ◆ Tighten the spark plug with the spark plug wrench, approximately one-half turn after it first snugly contacts the cylinder head.

**Spark plug tightening torque:
14.47 ftlb (20 Nm).**

⚠ CAUTION

The spark plug must be well tightened, otherwise the engine may overheat and be seriously damaged. Use the recommended type of spark plug only, see p. 100 (TECHNICAL DATA), in order not to compromise the life and performance of the engine.

- ◆ Position the spark plug cap (1) properly, so that it does not come off due to the vibrations of the engine.
- ◆ Replace the fuel tank, see p. 80 (REMOVING THE FUEL TANK).

BATTERY

Carefully read p. 61 (MAINTENANCE).

Check the electrolyte level and the tightness of the terminals after the first 625 mi (1,000 km) and successively every 3,750 mi (6,000 km) or 8 months.

WARNING

Batteries, when charged, give off hydrogen gas, which is highly explosive. Therefore, do not smoke while working on or around the battery, and keep naked flames or sparks away from the battery. Keep gasoline and other flammable substances well away from the battery, since a battery spark could easily ignite them and cause a devastating fire.

Battery electrolyte is toxic and caustic and can severely burn your eyes or skin. Always wear tight fitting goggles and protective clothing when handling battery electrolyte. It is particularly important for you to protect your eyes since even a minuscule amount of battery acid could destroy your vision.

Should you accidentally get even the smallest amount of battery electrolyte on your skin or eyes, immediately flush with large quantities of clear cool water and immediately seek professional medical attention.

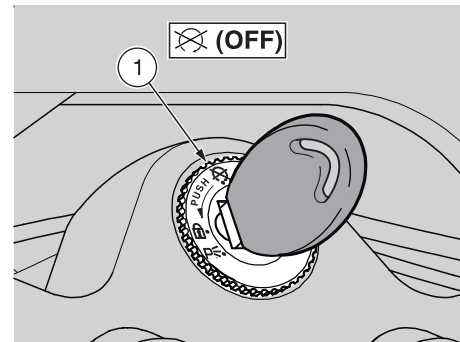
If someone should accidentally swallow battery electrolyte, drink a large quantity of milk or cool clear water and continue with milk of magnesia or vegetable oil. Seek professional medical assistance immediately.

Since the battery gives off explosive hydrogen gas, especially when it is being charged, when you are charging a battery, make sure that the room is properly ventilated. Do not inhale the gases released during charging. Do not permit any open flames, sparks or cigarettes or any other source of heat anywhere near the battery while it is charging.

Do not tip the vehicle too much, or tip the battery too much, to avoid electrolyte leaking out. Should you accidentally spill battery electrolyte on any part of your vehicle, immediately wash it off with lots of cool clear water. Spills may be neutralized with a mixture of baking soda and water, as well. This is particularly important, as the battery electrolyte will severely corrode metallic parts and destroy the finish of plastic and painted parts.

CAUTION

Never invert the battery cables. Observe the proper polarity of the battery. Incorrectly attaching the battery to your vehicle will irreparably destroy the electrical system of your vehicle.



Connect and disconnect the battery only with the ignition switch (1) in the “” (OFF) position.

First connect the positive cable red (+), then the negative (-).

Disconnect the negative cable (-) first, then the positive red (+).

If your battery needs to be charged, use a constant voltage, or “taper” charger, with a current rating no greater than 1/10th the capacity of the battery (i.e., for a 50 amp hour battery, the maximum charging current should be 5 amps). Use of a more powerful charger can not only damage the battery irreparably, but could cause it to overheat and explode.

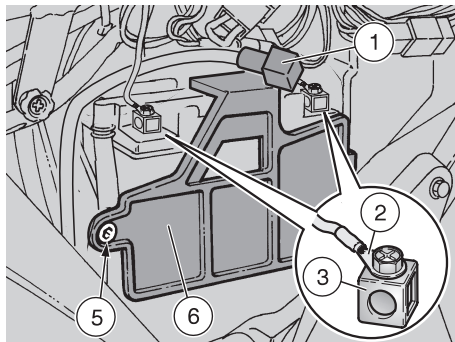
If your battery is equipped with an overflow tube, always ensure that it is properly installed, and properly routed. Failure to adhere to this instruction can cause corrosive fumes from the battery to cause serious damage to your vehicle.

BATTERY STORAGE

Carefully read p. 87 (BATTERY).

If your vehicle remains unused for more than a couple of weeks, it will be necessary to “trickle charge” the battery, to prevent battery damage, see p. 89 (RECHARGING THE BATTERY).

- ◆ Remove the battery, see beside (REMOVING THE BATTERY), and put it in a cool, dry place.
- ◆ The best way to prevent battery deterioration is to constantly leave a “trickle” charger with a capacity of about 1/10th amp attached. These chargers are very economically available from your Local **aprilia** Dealer, and will ensure that your battery always remains in tip top condition.
- ◆ If this cannot be done, charge the battery for about 30 minutes using a battery charger with a current capacity of no greater than 1/10th the capacity of the battery, see p. 89 (RECHARGING THE BATTERY).
- ◆ While we recommend removing the battery from the vehicle, if you must leave it in your vehicle, disconnect both battery cables.



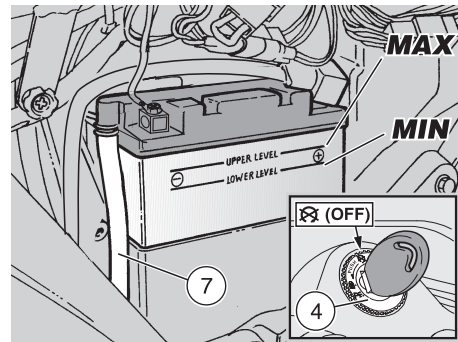
CHECKING AND CLEANING THE TERMINALS

Carefully read p. 87 (BATTERY).

- ◆ Remove the left side panel, see p. 81 (REMOVING THE RIGHT AND LEFT SIDE PANELS).
- ◆ Remove the red protection rubber (1).
- ◆ Make sure that the cable terminals (2) and the battery terminals (3) are:
 - in good conditions (and not corroded or covered with deposits);
 - covered with neutral grease or Vaseline.


If it is necessary to clean the battery terminals:

- ◆ Remove the battery, see beside (REMOVING THE BATTERY).
- ◆ Brush with a wire brush to eliminate any sign of corrosion.
- ◆ Check the electrolyte level, see p. 89 (CHECKING THE ELECTROLYTE LEVEL).
- ◆ Install the battery, see p. 89 (INSTALLING THE BATTERY).



REMOVING THE BATTERY

Carefully read p. 87 (BATTERY).

- ◆ Make sure that the ignition switch (4) is in “ (OFF) position.
- ◆ Remove the left side panel, see p. 81 (REMOVING THE RIGHT AND LEFT SIDE PANELS).
- ◆ Unscrew and remove the screw (5).
- ◆ Remove the battery cover (6).
- ◆ Remove the red protection rubber (1).
- ◆ Disconnect first the negative (–) and then the positive cable red (+).
- ◆ Remove the battery breather tube (7).
- ◆ Remove the battery from its compartment and put it on a flat surface, in a cool and dry place.

⚠ WARNING

Once it has been removed, the battery must be stored in a safe place and kept away from children: risk of serious injuries or even death.

- ◆ Replace the battery cover (6).
- ◆ Screw the screw (5).
- ◆ Replace the left side panel, see p. 81 (REMOVING THE RIGHT AND LEFT SIDE PANELS).

CHECKING THE ELECTROLYTE LEVEL

Carefully read p. 87 (BATTERY).

To check the electrolyte level, proceed as follows:

NOTE Carry out these checks only on a firm, flat surface such as a concrete garage floor.

- ◆ Remove the left side panel, see p. 81 (REMOVING THE RIGHT AND LEFT SIDE PANELS).
- ◆ Unscrew and remove the screw (5).
- ◆ Remove the battery cover (6).
- ◆ Make sure that the fluid level falls between the “MIN” and “MAX” notches stamped on the side of the battery. If it does not:
- ◆ Remove the battery, see p. 88 (REMOVING THE BATTERY).
- ◆ Remove the battery plugs.

⚠ CAUTION

Top up with distilled water only. Do not exceed the “MAX” mark, since the electrolyte level increases during the re-charge.

- ◆ Top up by adding distilled water.

RECHARGING THE BATTERY

Carefully read p. 87 (BATTERY).

- ◆ Remove the battery, see p. 88 (REMOVING THE BATTERY).
- ◆ Remove the battery plugs.

⚠ WARNING

The battery gives off noxious and explosive gases; keep it away from flames, sparks, cigarettes and any other source of heat.

During recharging or use, make sure that the room is properly ventilated and avoid inhaling the gases released during the recharging.

- ◆ Check the electrolyte level, see beside (CHECKING THE ELECTROLYTE LEVEL).
- ◆ Connect the battery charger to the battery.
- ◆ Charge the battery using a battery charger with a current capacity of no greater than 1/10th the capacity of the battery, see p. 100 (TECHNICAL DATA).
- ◆ After the recharging operation, check the electrolyte level again and if necessary top up with distilled water.

⚠ CAUTION

Do not replace the battery plugs until 10 minutes after disconnecting the charger, since the battery continues to produce gas after the charger is removed.

- ◆ Replace the battery plugs.

INSTALLING THE BATTERY

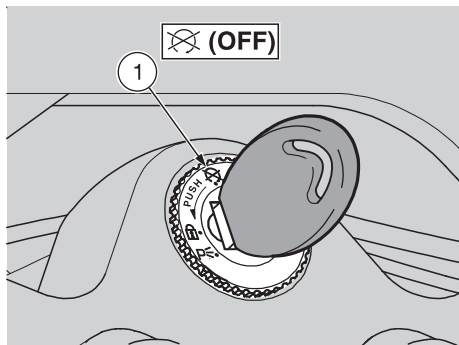
Carefully read p. 87 (BATTERY).

- ◆ Check the charge of the battery, see beside (RECHARGING THE BATTERY).
- ◆ Make sure that the ignition switch (4) is in the “OFF” (OFF) position.
- ◆ Remove the left side panel, see p. 81 (REMOVING THE RIGHT AND LEFT SIDE PANELS).
- ◆ Unscrew and remove the screw (5).
- ◆ Remove the battery cover (6).
- ◆ Put the battery in its container.
- ◆ Connect the battery breather tube (7).

⚠ CAUTION

Reconnect the battery breather tube (7), see p. 87 (BATTERY).

- ◆ Connect, in order, the positive red (+) and negative (–) cable.
- ◆ Cover the terminals of the cables and of the battery with neutral grease or Vaseline.
- ◆ Replace the red protection rubber (1).
- ◆ Replace the battery cover (6).
- ◆ Screw and tighten the screw (5).
- ◆ Replace the left side panel, see p. 81 (REMOVING THE RIGHT AND LEFT SIDE PANELS).



CHANGING FUSES

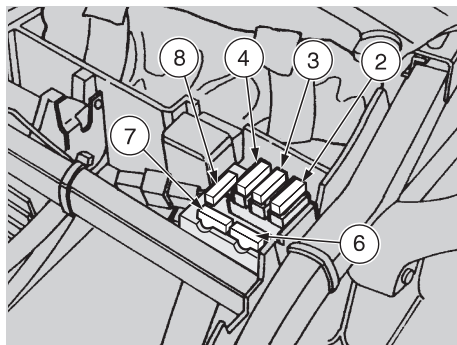
Carefully read p. 61 (MAINTENANCE).

⚠ CAUTION


Do not repair faulty fuses.
Use only recommended fuses.
Using fuses of an improper capacity can cause damage to the electrical system or an electrical fire, which could result in total destruction of your vehicle as well as injury to you.

NOTE If a fuse blows frequently, there probably is a short circuit or an overload in the electrical system. If this occurs, take the vehicle to your Local **aprilia** Dealer.

If an electric component does not work or works irregularly, or if the vehicle fails to start, it is necessary to check the fuses.



To check the fuses:

- ◆ Turn the ignition switch (1) in the “ (OFF) position.
- ◆ Remove the saddle, see p. 81 (REMOVING THE SADDLE).

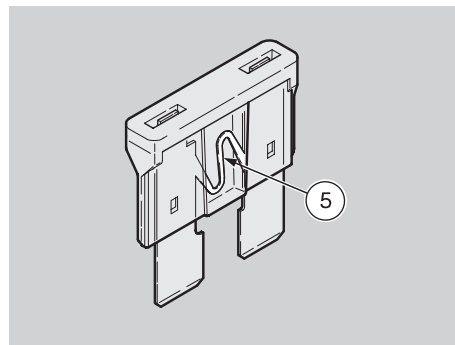
⚠ CAUTION

Extract the fuses one by one, in such a way as to avoid positioning them incorrectly during reassembly.

NOTE Check the fuses in the order:

- first the 7.5A fuse (2);
- second the 15A fuse (3);
- third the 20A fuse (4).

- ◆ Remove, one by one, the fuse and inspect the filament (5). If it is open, the fuse must be replaced.
- ◆ Replace the blown fuse with the relevant spare fuse (6) (7), (8) or with a new fuse having the same amperage rating.



⚠ WARNING

If you replace the fuse and it blows again immediately, there is a serious problem with the electrical system of your vehicle. Do not attempt to continue using your vehicle. Take it to your Local **aprilia** Dealer for repair and service.

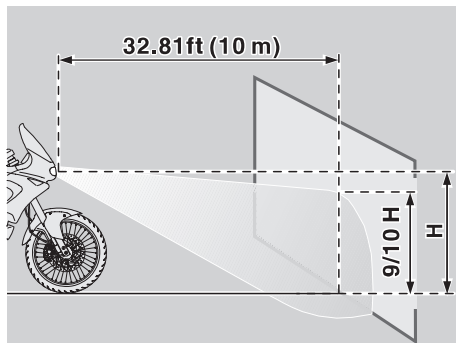
NOTE If you use the spare fuse (6) (7), (8), replace it as soon as convenient.

FUSE CIRCUIT

7.5 A fuse (2) - From the key switch to: ignition.

15 A fuse (3) - From the key switch to: all light loads.

20 A fuse (4) - From the battery to: key switch, regulator, fan.

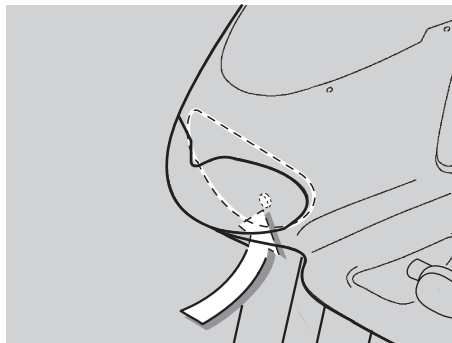


ADJUSTING THE HEADLIGHT BEAM VERTICALLY

⚠ WARNING

Do not use the vehicle if the lights are not functioning properly.

Do not use the vehicle if the headlight is adjusted incorrectly. This could temporarily blind oncoming cars, and also reduce the rider's ability to see any obstacle along the road while riding at night. It is always advisable to reduce speed when riding during the night, in such a way as to have the time necessary to avoid any obstacle and to adapt to the poorer visibility that inevitably results from darkness. Failure to observe this warning can cause you to collide with another object, with consequent risk of serious injury or even death.

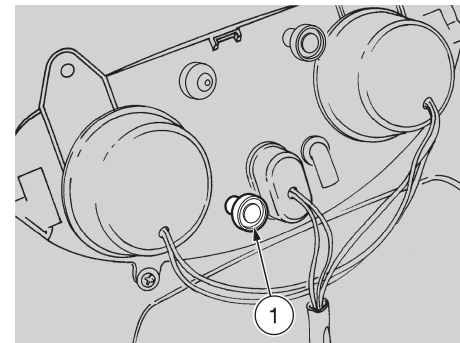


NOTE The procedure described here is in compliance with the Italian standard that establishes the maximum height of the headlight beam.

For vehicles used in other countries, you must conform with the local regulations.

To quickly check the correct adjustment of the beam, place the vehicle on flat ground, **32.81 ft (10 m)** away from a wall.

Turn on the low beam, sit on the vehicle and make sure that the beam projected on the wall is slightly under the horizontal line of the headlight (about 9/10th of the total height).



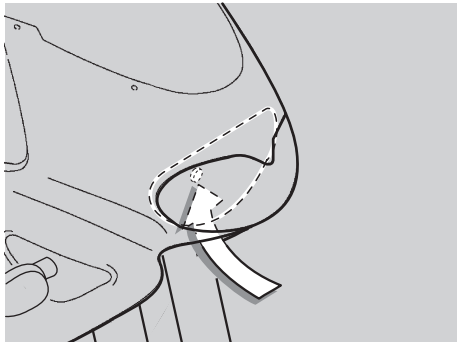
To adjust the headlight beam:

- ◆ Working from the left underside of the front part of the fairing, adjust manually the knob (1).

By **SCREWING IT** clockwise, you adjust the beam higher.

By **UNSCREWING IT** counterclockwise, you adjust the beam lower.

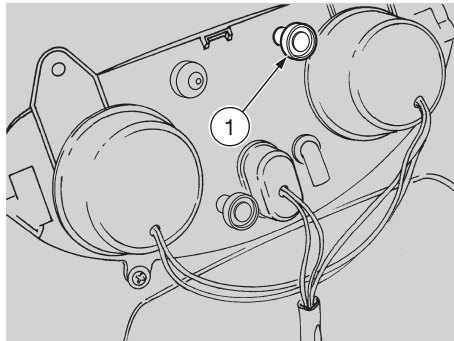
- ◆ Make sure that the vertical adjustment of the headlight beam is correct.



ADJUSTING THE HEADLIGHT BEAM HORIZONTALLY

NOTE The terms “right” and “left” are referred to the rider seated on the vehicle in the normal riding position.

It is possible to adjust the horizontal position both to the right and to the left.

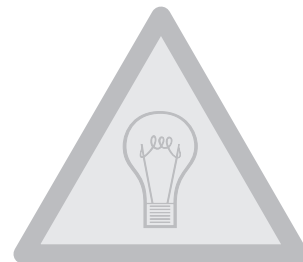


To adjust the headlight beam:

- ◆ Working from the right underside of the front part of the fairing, adjust manually the knob (1).

By **SCREWING IT** clockwise, you adjust the beam to the left.

By **UNSCREWING IT** counterclockwise, you adjust the beam to the right.



- ◆ Make sure that the horizontal adjustment of the headlight beam is correct.



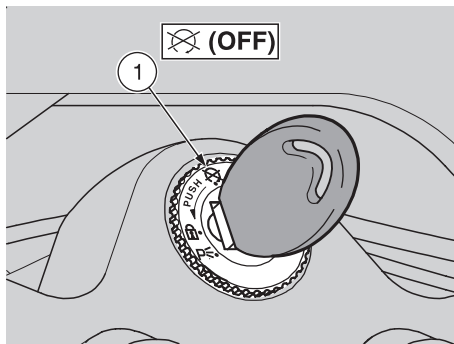
BULBS

Carefully read p. 61 (MAINTENANCE).

⚠ WARNING

Risk of fire.

Keep fuel and other flammable substances away from the electrical components.



⚠ CAUTION

Before changing a bulb, turn the ignition switch (1) to the "⊗" (OFF) position and wait a few minutes so that the bulb cools down.

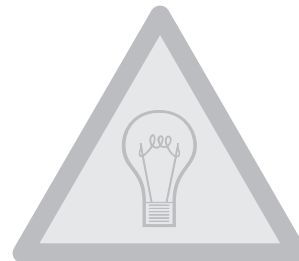
Change the bulb wearing clean gloves or using a clean and dry cloth.

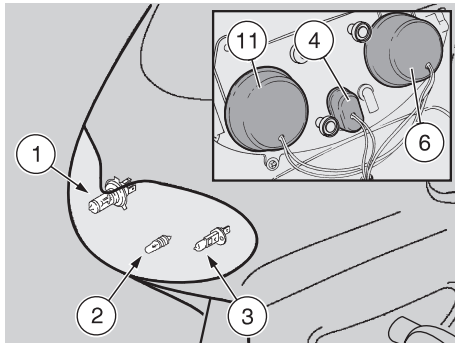
Do not leave fingerprints on the bulb, since these may cause its overheating and consequent breakage.

If you touch the bulb with your bare fingers, remove any fingerprints with alcohol in order to avoid any damage.

TAKE CARE TO AVOID DAMAGING THE ELECTRIC CABLES.

NOTE Before changing a bulb, check the fuses, see p. 90 (CHANGING FUSES).





CHANGING THE HEADLIGHT BULBS

Carefully read p. 93 (BULBS).

- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).

NOTE Before changing a bulb, check the fuses, see p. 90 (CHANGING FUSES).

The headlight contains:

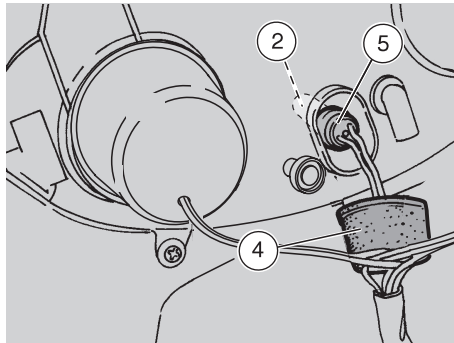
- one low / high beam bulb (1) (right side);
- one parking light bulb (2) (lower position);
- one high beam bulb (3) (left side).

To change the bulbs:

PARKING LIGHT BULB (LOWER POSITION)

⚠ CAUTION

While removing a bulb socket, do not pull on the wires.



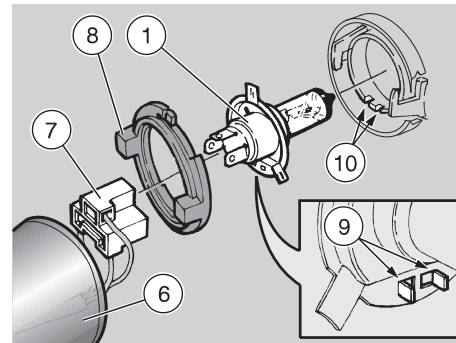
- ◆ Working from the central underside of the front part of the fairing, pull back the rubber boot (4) with your fingers.
- ◆ Grasp the bulb socket (5), pull it and remove it from its seat.
- ◆ Remove the parking light bulb (2) and replace it with an identical bulb.

LOW / HIGH BEAM BULB (RIGHT SIDE)

NOTE Remove the bulb sockets one by one in such a way as to avoid replacing them incorrectly during reassembly.

If the bulb sockets must all be removed at the same time, take great care to reassemble them in the proper position.

- ◆ Working from the right underside of the front part of the fairing, pull back the rubber boot (6) with your fingers.



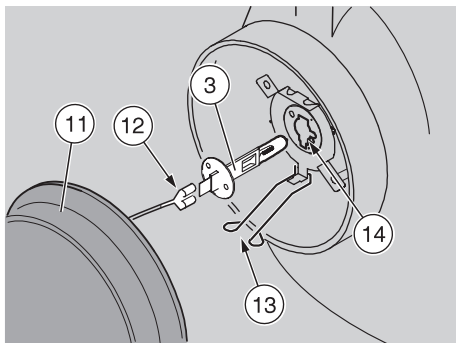
⚠ CAUTION

To extract the bulb electric connector, do not pull its electric wires.

- ◆ Grasp the bulb electric connector (7), pull it and disconnect it from the bulb (1).
- ◆ Rotate the bulb socket (8) counterclockwise and extract it from the reflector.
- ◆ Remove the bulb (1) from the seat.

NOTE Be sure to maintain the same orientation as the old bulb when you install the new bulb. Do not force the bulb, it will go easily if it is properly oriented.

- ◆ Insert the new bulb (1) into the reflector, by aligning the two tabs (9) on the bulb with the respective guides (10) in the reflector.
- ◆ Position the bulb socket (8) in the reflector and rotate it clockwise.
- ◆ Connect the bulb electric connector (7).
- ◆ Replace the rubber boot (6).



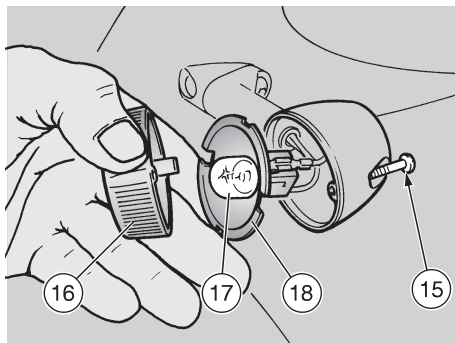
LOW BEAM BULB (LEFT SIDE)

NOTE Remove the bulb sockets one by one in such a way as to avoid replacing them incorrectly during reassembly.

If the bulb sockets must all be removed at the same time, take great care to reassemble them in the proper position.

- ◆ Working from the left underside of the front part of the fairing, pull back the rubber boot (11) with your fingers.
- ◆ Grasp the electric terminal (12) pull it and disconnect it from the bulb (3).
- ◆ Release the clip (13) positioned at the rear of the bulb socket (14).
- ◆ Remove the bulb (3) from the seat.

NOTE Be sure to maintain the same orientation as the old bulb when you install the new bulb. Do not try to force the bulb, it will go easily if it is properly oriented.



- ◆ Insert the new bulb into its socket (14), ensuring that the tabs are correctly positioned.
- ◆ Replace the clip (13).
- ◆ Connect the bulb electric terminal (12).
- ◆ Replace the rubber boot (11).

CHANGING THE FRONT AND REAR DIRECTION INDICATOR BULBS

Carefully read p. 93 (BULBS).

NOTE Before changing a bulb, check the fuses, see p. 90 (CHANGING FUSES).

- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Unscrew and remove the screw (15).

NOTE While removing the lens, use extra care to be sure that you do not break the key.

- ◆ Remove the lens (16).

NOTE Upon reassembly, position the lens correctly in its seat.

⚠ CAUTION

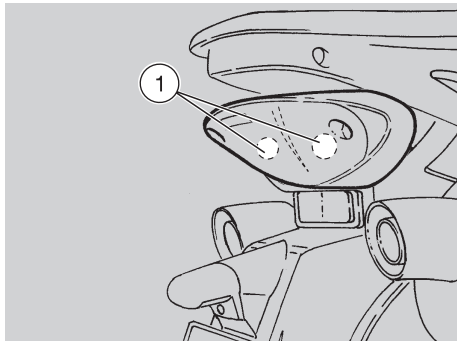
Tighten the screw (15) moderately and with care to avoid damaging the lens.

- ◆ Push the bulb (17) in slightly and rotate it counterclockwise.
- ◆ Extract the bulb from its seat.

NOTE Insert the bulb in the bulb socket, carefully aligning the two bulb pins with their guides in the socket.

- ◆ Correctly install a new bulb of the same type.

NOTE If the bulb socket (18) has fallen out of its seat, replace it correctly, ensuring that the slot in the reflector aligns with the screw hole in the body of the turn signal lamp.



CHANGING THE REAR LIGHT BULB

Carefully read p. 93 (BULBS).

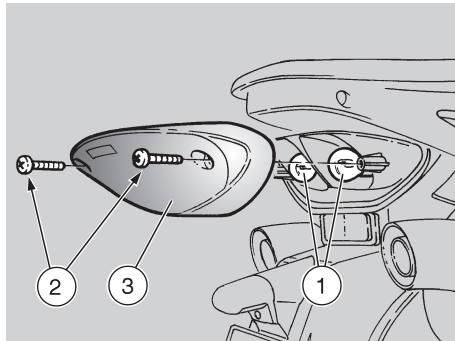
⚠ WARNING

Do not ride your vehicle if the tail light and the stoplight are not working properly. The stoplight is particularly important to prevent other vehicles from rearending you. Obviously, failure to comply with these instructions could lead to a serious accident with subsequent injuries or even death.

NOTE Before changing a bulb, check the fuses, see p. 90 (CHANGING FUSES), also check the operation of the stoplight switches, see p. 71 (CHECKING THE SWITCHES).

The rear light contains:

- two parking light / stoplight bulbs (1).



To change the bulb:

- ◆ Place the vehicle on the center stand.
- ◆ Unscrew and remove the two screws (2).
- ◆ Remove the lens (3).

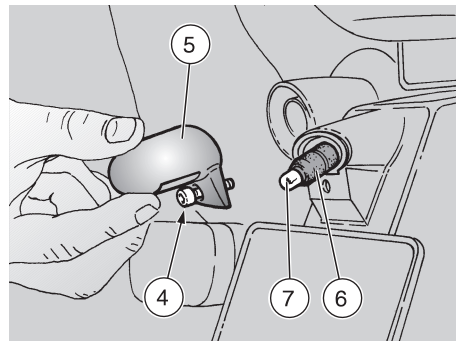
NOTE Upon reassembly, make sure that the lens seats properly.

⚠ CAUTION

Upon reassembly, do not overtighten the two screws (2). Overtightening will crack the lens.

- ◆ To remove the bulb (1), push the bulb slightly forward and rotate it counter-clockwise.
- ◆ Pull it from its seat.
- ◆ Correctly install a new bulb of the same type.

NOTE Ensure that the orientation of your replacement bulb is identical to that of the original bulb. Do not try to force the bulb, it will fit easily if it is properly oriented.



CHANGING THE LICENSE PLATE BULB

Carefully read p. 93 (BULBS).

NOTE Before changing a bulb, check the fuses, see p. 90 (CHANGING FUSES)

To change the bulb:

- ◆ Unscrew and remove the screw (4).

⚠ CAUTION

Upon reassembly, do not overtighten the screw (4). Overtightening will crack the light unit.

- ◆ Remove the light unit (5) from its seat.

⚠ CAUTION

While removing a bulb socket, do not pull on the wires.

- ◆ Grasp the bulb socket (6), pull it and remove it from its seat.
- ◆ Remove the bulb (7) and replace it with an identical bulb.

⚠ WARNING

Before transporting your vehicle, you must empty the fuel tank and drain the carburetors completely, ensuring that both are completely dry.

While your vehicle is being transported, it must be kept in a vertical position, firmly tied down, and with the wheels blocked.

Transport your vehicle in neutral gear only.

Failure to heed this warning could cause serious damage to the transmission due to vibration of the transport truck.

⚠ WARNING

Never attempt to tow your vehicle with another vehicle.

DRAINING THE FUEL TANK

Carefully read p. 35 (FUEL) and p. 61 (MAINTENANCE).

⚠ WARNING

Risk of fire.

Wait until the engine and the exhaust silencer have completely cooled down. Fuel vapours are noxious for your health.

Before proceeding, make sure that the room in which you are working is properly ventilated.

Do not smoke or allow open flames near the vehicle while you are draining the fuel.

DISPOSE OF UNWANTED FUEL PROPERLY.

- ◆ Place the vehicle on the center stand.
- ◆ Stop the engine and wait until it has cooled down.
- ◆ Prepare a container with capacity exceeding the fuel quantity present in the tank and put it on the ground on the left side of the vehicle.
- ◆ Open the fuel filler cap, see p. 35 (FUEL).
- ◆ Empty the fuel tank by means of a manual pump or a similar system.

⚠ WARNING

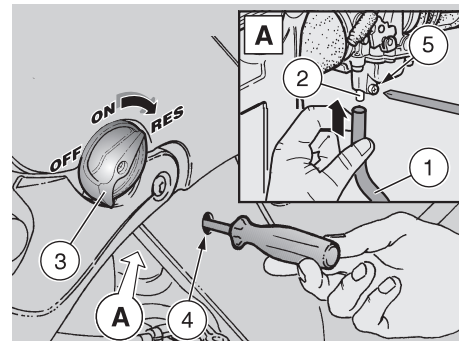
After draining the fuel tank, correctly close the fuel filler cap.

To drain the carburetors completely, proceed as follows:

NOTE This vehicle is equipped with two carburetors. Both carburetor float chambers must be completely drained.

NOTE To drain the carburetor float chamber, get a flexible pipe (1) with inner diameter Ø 0.16 in (Ø 4 mm) and length 11.81 in (300 mm).

- ◆ Introduce a flexible pipe (1) into the draining union of the chamber (2).



- ◆ Put the free end of the flexible pipe (1) into the container.
- ◆ Move the fuel valve (3) to reserve position "RES".
- ◆ Working through the hole (4) positioned on left side of the frame, open the carburetor outlet by loosening the drain screw (5) positioned under the float chamber.

When all the fuel has flowed out of the carburetor:

- ◆ Tighten the drain screw (5) completely.

⚠ WARNING

Tighten the drain screw (5) with care, to avoid fuel leakages from the carburetor during the refueling. Do not overtighten the drain screws.

Do not hesitate to contact your Local **aprilia** Dealer for help.

CLEANING

Clean your vehicle regularly. Your vehicle will look better and work better if you keep it clean. You will find you will need to clean it more frequently if it is used in the following conditions:

- Polluted areas (cities and industrial areas).
- Areas characterized by a high percentage of salinity and humidity (sea areas, hot and humid climates).
- Particular conditions (use of salt and anti-ice chemical products on the roads during the winter).
- ◆ Do not allow contaminants such as industrial dust, tar spots, dead insects, bird droppings, etc. to remain on the painted portions of your vehicle. They will very quickly etch into and damage the paint.
- ◆ Do not park your vehicle under trees, since some trees ooze resins that contain chemicals which can damage the paint.

⚠ WARNING

After your vehicle has been washed, the brake functioning will be temporarily impaired because of the wetness of the discs and pads. Do not ride in traffic until after you have dried the brakes by repeated braking from slow speed.

Always after washing your vehicle, carry out the preliminary checking operation, see p. 49 (PRELIMINARY CHECKING OPERATIONS).

To remove dirt and mud from the painted surfaces, use a low pressure water hose. Carefully wet the dirty parts and remove mud and dirt with a soft car sponge. You may use proprietary car shampoos (2-4% parts of shampoo in clear water), to make this easier.

Carefully flush so that no dirt or grit remains on the paintwork, and dry with a clean chamois or clean terry towel.

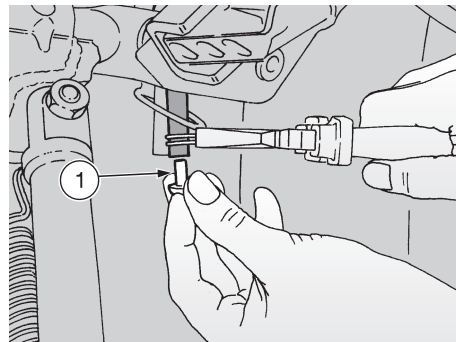
To clean the engine and other non-painted parts, use a mild solvent and a bristle brush, along with plenty of rags.

⚠ CAUTION

Polish with silicone wax only after having carefully washed your vehicle. Do not wash the vehicle in direct sunlight, especially during the summer, when the paintwork is still warm, since if the shampoo dries before being rinsed away, it can damage the paint.

Do not use solvents or water hotter than 40°C to clean the plastic components of the vehicle.

Never use a high pressure washer, a steam cleaner, or an air augmented water jet to clean your vehicle, especially the wheel hubs, handlebar controls, brake reservoirs and cylinders, instruments, electrical components or exhaust silencer.



Such cleaning machinery will force water into critical portions of your vehicle, which could damage your vehicle through corrosion or short circuiting.

Do not use alcohol or other solvents to clean the rubber or plastic parts, or the seat, use only clear water with a mild soap.

⚠ WARNING

Do not apply any protective coating to the seat, such coatings tend to make the seat too slippery.

After washing the vehicle, always:

- ◆ Place the vehicle on the center stand, see p. 59 (POSITIONING THE VEHICLE ON THE STAND).
- ◆ Remove the plug (1) to ensure that any water or other impurity that may have accumulated inside the air cleaner case is drained.

LONG PERIODS OF INACTIVITY

If the vehicle is to be stored for a relatively long period of time, such as over the winter, some simple precautions will make putting the vehicle back into service much easier.

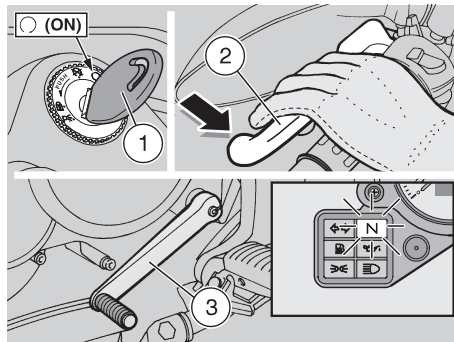
It is much less difficult to prepare the vehicle for storage properly than it is to restore the vehicle to proper working condition after a storage period if you have forgotten or neglected to do this preparation.

To prepare the vehicle for storage:

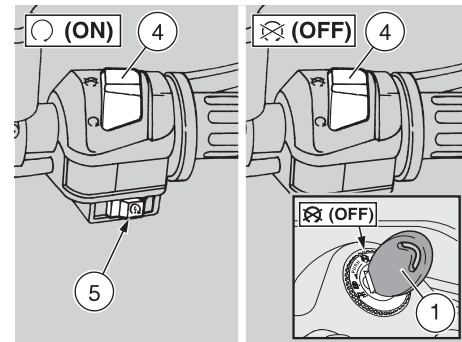
- ◆ Empty the fuel tank and carburetors, see p. 97 (DRAINING THE FUEL TANK).
- ◆ Remove the spark plug, see p. 86 (SPARK PLUG).
- ◆ Pour a teaspoon [0.17 – 0.34 US fl oz (5–10 cm³)] of engine oil into the cylinder.

NOTE Cover the spark plug hole with a clean cloth in order to protect the rest of the bike from sprayed oil.

- ◆ Rotate the ignition key (1) to the “○” (ON) position.
- ◆ Pull in the clutch lever (2) completely and put the shift lever (3) in neutral so that the green “N” light is on.
- ◆ Move the engine stop switch (4) to the “○” (ON) position.
- ◆ Press the starter button “Ⓢ” (5) for a few seconds to distribute the oil evenly on the surfaces of the cylinder.
- ◆ Move the engine stop switch (4) to the “⊗” (OFF) position.
- ◆ Rotate the key (1) to the “⊗” (OFF) position.



- ◆ Remove the cloth.
- ◆ Replace the spark plug, see p. 86 (SPARK PLUG).
- ◆ Remove the battery, see p. 88 (REMOVING THE BATTERY) and p. 88 (BATTERY STORAGE).
- ◆ Wash and dry the vehicle, see p. 98 (CLEANING).
- ◆ Polish the painted surfaces with wax.
- ◆ Inflate the tires, see p. 46 (TIRES).
- ◆ By means of a suitable support, position the vehicle so that both tires are raised from the ground.
- ◆ Place the vehicle in an a cool, dry room, away from direct sunlight, with minimum temperature variations.
- ◆ Place a plastic bag over the outlet pipe of the muffler, and tape or tie it tight.
- ◆ Cover the vehicle with an old sheet or a light canvas, do not use a sheet of plastic or other waterproof material. This will cause condensation which will result in corrosion.



PUTTING THE VEHICLE BACK INTO SERVICE

- ◆ Uncover and clean the vehicle, see p. 98 (CLEANING).
- ◆ Check the charge of the battery, see p. 89 (RECHARGING THE BATTERY) and install it, see p. 89 (INSTALLING THE BATTERY).
- ◆ Refill the fuel tank, see p. 35 (FUEL).
- ◆ Carry out the preliminary checking operations, see p. 49 (PRELIMINARY CHECKING OPERATIONS).

⚠ WARNING

Test ride the vehicle at moderate speed in a low traffic area before you ride in heavy traffic.

TECHNICAL DATA

DIMENSIONS	Max. length	85.83 in (2,180 mm)
	Max. width.....	34.65 in (880 mm)
	Max. height (front part of the fairing included)	49.80 in (1,265 mm)
	Seat height.....	33.07 in (840 mm)
	Wheelbase.....	58.27 in (1,480 mm)
	Min. ground clearance	7.87 in (200 mm)
	Curb weight	440.53 lb (199.82 kg)
ENGINE	Type	one-cylinder, 4-stroke with 5 valves, 2 camshafts at the head, dry crankcase lubrication.
	Number of cylinders	1
	Total displacement	39.78 cu in (651.88 cm ³)
	Bore / stroke.....	3.94 in / 3.27 in (100 mm / 83 mm)
	Compression ratio.....	9.0 ± 0.5 : 1
	Starting.....	electric
	Engine idling rpm	1,400 ± 100 rpm CO 1% [+ 1% – 0.5% (total range from 0.5% to 2%)]
	Valve clearance (with engine cold)	0.004 in (0.1 mm) [intake] - 0.006 in (0.15 mm) [exhaust]
	Clutch.....	multidisc in oil bath, with manual control on the left side of the handlebar.
	Cooling.....	liquid-cooled

CAPACITY	Fuel (reserve included).....	5.81 US gal (22 ℓ)
	Fuel reserve	1.32 US gal (5 ℓ) [mechanical reserve] – 1.59 US gal (6 ℓ) [electrical reserve]
	Engine oil.....	oil change 2.27 US qt (2150 cm ³) – oil and oil filter change 2.32 US qt (2200 cm ³)
	Coolant.....	0.37 US gal (1.4 ℓ) (50% water + 50% antifreeze with ethylene glycol)
	Seats	2
	Vehicle max. load (driver+passenger+luggage)	396.47 lb (180 kg)
	Gross weight limit (GVWR) (*).....	837.00 lb (379.66 kg)
	Permissible wheel loads (GAWR) (*)	
	– front	279.73 lb (126.88 kg)
	– rear	557.27 lb (252.77 kg)

(*) These two weights: Gross Vehicle Weight Rating (GVWR) and Gross Axle Weight Rating (GAWR); are stamped on the certification plate positioned on the front part of the frame, see p. 7 (VEHICLE IDENTIFICATION NUMBER (V.I.N.) (FRAME NUMBER)).

TRANSMISSION	Type.....	mechanical, 5 gears with foot control on the left side of the engine
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GEAR RATIOS	Ratio	Primary	Secondary	Final ratio	Total ratio
	1st	37/72 = 1 : 1.946	12/33 = 1 : 2.750	16 / 47 = 1 : 2,937	1 : 15.720
	2nd		16/28 = 1 : 1.750		1 : 10.003
	3rd		16/21 = 1 : 1.312		1 : 7.502
	4th		22/23 = 1 : 1.045		1 : 5.976
	5th		24/21 = 1 : 0.875		1 : 5.001



CARBURETOR	Number.....	2
	Model.....	Mikuni BST 33 B424
	Choke tube	Ø 1.24 in (Ø 31.5 mm)

FUEL SUPPLY	Fuel	unleaded petrol minimum octane rating (R+M) / 2 method 90
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FRAME	Type	composite structure made of steel and alloy, with removable cradle and saddle pillar
	Rake	28°
	Trail	4.29 in (109 mm)
SUSPENSIONS	Front	hydraulically operated telescopic fork
	Wheel stroke	7.09 in (180 mm)
	Rear	hydraulic adjustable mono-shock absorber
	Wheel stroke	1.93 in (49 mm)
BRAKES	Front	disc brake - Ø 11.81 in (Ø 300 mm) - with hydraulic actuation
	Rear	disc brake - Ø 8.66 in (Ø 220 mm) - with hydraulic actuation
WHEEL RIMS	Type	aluminium with spokes
	Front	2.15 x 19"
	Rear	3.00 x 17"
TIRES	FRONT	
	Type	Pirelli; Metzeler; Bridgestone
	Size	100 / 90 - 19" 57 H
	- alternative	100 / 90 - R19" 57 H; 100 / 90 - 19" 57 S; 100 / 90 - 19" 57 T
	Inflation pressure for solo rider	
	- off-road	26.10 ± 1.45 psi [(180 ± 10 kPa) (1.8 ± 0.1 bar)]
	- asphalted road	26.10 ± 1.45 psi [(180 ± 10 kPa) (1.8 ± 0.1 bar)]
	Inflation pressure for rider and passenger	
	- off-road	26.10 ± 1.45 psi [(180 ± 10 kPa) (1.8 ± 0.1 bar)]
	- asphalted road	26.10 ± 1.45 psi [(180 ± 10 kPa) (1.8 ± 0.1 bar)]
	REAR	
	Type	Pirelli; Metzeler; Bridgestone
	Size	130 / 80 - R17" 65 H
	- alternative	140 / 70 - 17" 66 H; 130 / 80 - 17" 65 S; 130 / 80 - 17" 65 T; 130 / 80 - 17" 65 H

	Inflation pressure for solo rider	
	- off-road	27.55 psi [(190 kPa) (1.9 bar)]
	- asphalted road	27.55 psi [(190 kPa) (1.9 bar)]
	Inflation pressure for rider and passenger	
	- off-road	27.55 psi [(190 kPa) (1.9 bar)]
	- asphalted road	31.9 ± 1.45 psi [(220 ± 10 kPa) (2.2 ± 0.1 bar)]
IGNITION	Type.....	CDI - Nippon Denso
	Ignition timing	10° ± 2° at 3,000 rpm
SPARK PLUG	Standard.....	(M12 x 1.25) NGK DR8 EA - NGK DR8 ES
	Spark plug gap	0.024 – 0.028 in (0.6 – 0.7 mm)
ELECTRIC SYSTEM	Battery	12 V - 12 Ah
	Fuses.....	7.5 A; 15A; 20A
	Generator	12 V - 280 W
BULBS	Low / high beam	12 V - 55/60 W H4
	High beam	12 V - 55 W H1
	Parking light.....	12 V - 5 W
	Direction indicators	12 V - 10 W
	Rear parking light / stoplight	12 V - 5 / 21 W
	License plate light.....	12 V - 3 W
	Speedometer.....	12 V - 3 W
	Revolution counter	12 V - 2 W
	Coolant temperature indicator	12 V - 1.2 W
WARNING LIGHTS	Neutral.....	12 V - 3 W
	Direction indicators	12 V - 3 W
	Low fuel	12 V - 3 W
	Engine oil pressure.....	12 V - 3 W
	Low beam and parking light	12 V - 3 W
	High beam	12 V - 3 W





LUBRICANT CHART





Engine oil (recommended):  SUPERBIKE 4, SAE 5W-40 or  Agip 4T FORMULA RACING, SAE 5W-40.





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.

Fork oil (recommended):  F.A. 5W or  F.A. 20 W fork oil;

an alternative  Agip FORK 5W or  Agip FORK 20W fork oil.

If you need an oil with intermediate characteristics in comparison with the  F.A. 5W and  F.A. 20 W or  Agip FORK 5W and  Agip 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
 Agip FORK 5W 67% of the volume +  Agip FORK 20W 33% of the volume.

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

Bearings and other lubrication points (recommended):  AUTOGREASE MP or  Agip 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  Agip CHAIN LUBE.

WARNING

Use new brake fluid only.

Brake fluid (recommended):  F.F., DOT 5 (DOT 4 compatible) or  Agip 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  Agip COOL.

NOTE

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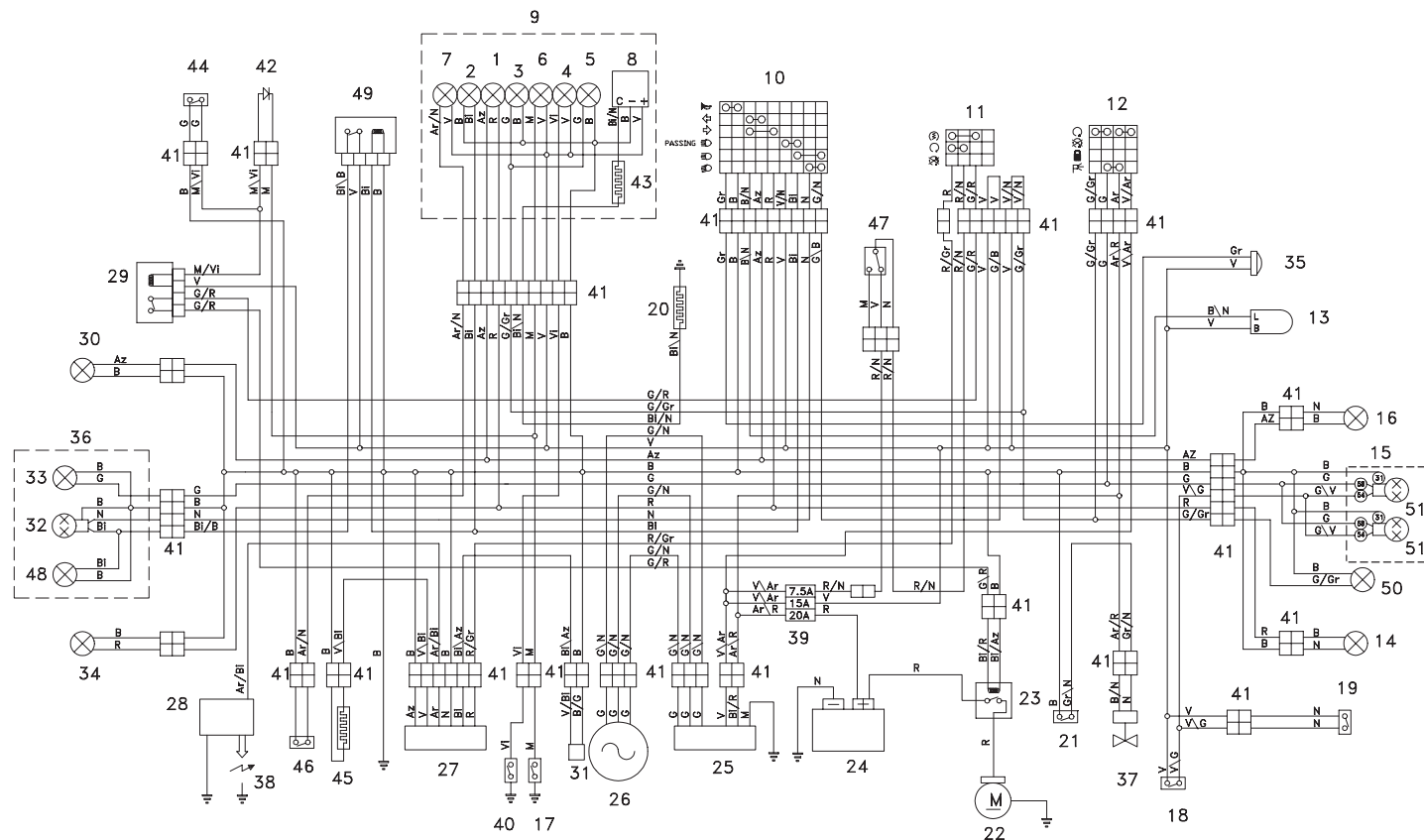
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WIRING DIAGRAM - Pegaso 650 USA



WIRING DIAGRAM KEY - Pegaso 650

- 1) Direction indicator warning light
- 2) High beam warning light
- 3) Parking light warning light
- 4) Engine oil pressure warning light
- 5) Dashboard bulbs
- 6) Neutral indicator warning light
- 7) Low fuel warning light
- 8) Coolant temperature indicator
- 9) Dashboard
- 10) Left dimmer switch
- 11) Right dimmer switch
- 12) Ignition switch
- 13) Flasher
- 14) Rear right direction indicator
- 15) Rear light
- 16) Rear left direction indicator
- 17) Neutral switch
- 18) Rear stoplight switch
- 19) Front stoplight switch
- 20) Coolant temperature thermistor
- 21) Cooling electrofan thermal switch
- 22) Starter
- 23) Start relay
- 24) Battery
- 25) Voltage regulator
- 26) Generator
- 27) CDI
- 28) Ignition coil
- 29) Safety start relay
- 30) Front left direction indicator
- 31) Pick up
- 32) Low/high beam bulb
- 33) Front parking light
- 34) Front right direction indicator

- 35) Horn
- 36) Headlight
- 37) Cooling electrofan
- 38) Spark plug
- 39) Fuses
- 40) Engine oil pressure sensor
- 41) Multiple connectors
- 42) Diode
- 43) Dashboard resistance
- 44) Switch on the clutch lever
- 45) Spark advance resistance
- 46) Low fuel sensor
- 47) Side stand switch
- 48) High beam bulb
- 49) Light relay
- 50) Number license light
- 51) Stoplight/parking light bulb

CABLE COLOURS

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

NOTE

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- 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.