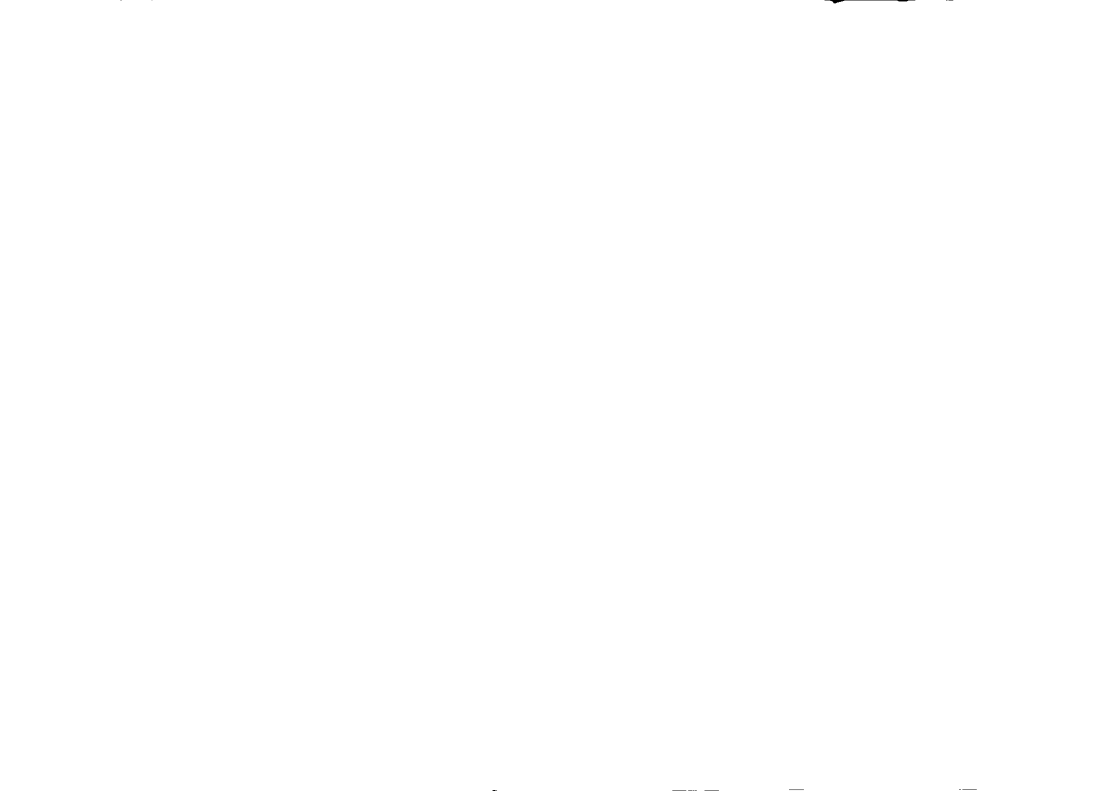


DOA





**HONDA**  
**CBR1000F**

**OWNER'S MANUAL**

**INSTRUKTIEBOEK**

**MANUAL DEL PROPIETARIO**

# IMPORTANT NOTICE

- **OPERATOR AND PASSENGER**

This motorcycle is designed to carry the operator and one passenger. Never exceed the maximum weight capacity as shown on the loading and accessories label.

- **ON-ROAD USE**

This motorcycle is designed to be used only on the road.

- **READ THIS OWNER'S MANUAL CAREFULLY**

Pay special attention to statements preceded by the following words:

## **▲ WARNING**

**Indicates a strong possibility of severe personal injury or death if instructions are not followed.**

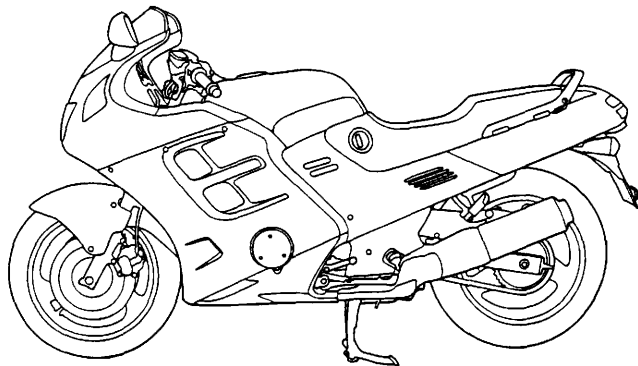
## **CAUTION:**

**Indicates a possibility of personal injury or equipment damage if instructions are not followed.**

**NOTE:** Gives helpful information.

This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when resold.

# **HONDA CBR1000F OWNER'S MANUAL**



**All information in this publication is based on the latest production information available at the time of approval for printing. HONDA MOTOR CO.,LTD. reserves the right to make changes at any time without notice and without incurring any obligation.**

**No part of this publication may be reproduced without written permission.**

## WELCOME

The motorcycle presents you a challenge to master the machine, a challenge to adventure. You ride through the wind, linked to the road by a vehicle that responds to your commands as no other does. Unlike an automobile, there is no metal cage around you. Like an airplane, a pre-ride inspection and regular maintenance are essential to your safety. Your reward is freedom.

To meet the challenges safely, and to enjoy the adventure fully, you should become thoroughly familiar with this owner's manual **BEFORE YOU RIDE THE MOTORCYCLE**.

When service is required, remember that your Honda dealer knows your motorcycle best. If you have the required mechanical "know-how" and tools, your dealer can supply you with an official Honda Service Manual to help you perform many maintenance and repair tasks.

Pleasant riding, and thank you for choosing a Honda !

- Following codes in this manual indicate each country.

|    |         |    |                 |    |              |
|----|---------|----|-----------------|----|--------------|
| G  | Germany | FI | Finland         | SD | Sweden       |
| AR | Austria | N  | Norway          | DE | Denmark      |
| E  | UK      | SP | Spain           | ED | Europe       |
| F  | France  | ND | Northern Europe | SA | South Africa |
| IT | Italy   | SW | Switzerland     |    |              |

- The specifications may vary with each locale.

# OPERATION

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# MOTORCYCLE SAFETY

## ▲ WARNING

**\* Motorcycle riding requires special efforts on your part to ensure your safety. Know these requirements before you ride:**

### SAFE RIDING RULES

1. Always make a pre-ride inspection (page 40) before you start the engine. You may prevent an accident or equipment damage.
2. Many accidents involve inexperienced riders. Most countries require a special motorcycle riding test or license. Make sure you are qualified before you ride. NEVER lend your motorcycle to an inexperienced rider.

3. Many automobile/motorcycle accidents happen because the automobile driver does not “see” the motorcyclist. Make yourself conspicuous to help avoid the accident that wasn’t your fault:

- Wear bright or reflective clothing.
- Don’t ride in another motorist’s “blind spot.”

4. Obey all national and local laws and regulations.

- Excessive speed is a factor in many accidents. Obey the speed limits, and NEVER travel faster than conditions warrant.
- Signal before you make a turn or lane change. Your size and maneuverability can surprise other motorists.

5. Don't let other motorists surprise you. Use extra caution at intersections, parking lot entrances and exits, and driveways.
6. Keep both hands on the handlebars and both feet on the footpegs while riding. A passenger should hold on to the motorcycle or the operator with both hands and keep both feet on the passenger footpegs.

## **PROTECTIVE APPAREL**

1. Most motorcycle accident fatalities are due to head injuries: **ALWAYS** wear a helmet. You should also wear a face shield or goggles as well as boots, gloves and protective clothing. A passenger needs the same protection.
2. The exhaust system becomes hot during operation, and it remains hot for a while after stopping the engine. Be careful not to touch the exhaust system while it is hot. Wear clothing that fully covers your legs.
3. Do not wear loose clothing which could catch on the control levers, footpegs, drive chain or wheels.

## MODIFICATIONS

### **⚠ WARNING**

- \* **Modification of the motorcycle, or removal of original equipment, may render the vehicle unsafe or illegal. Obey all national and local equipment regulations.**

## LOADING AND ACCESSORIES

### **▲WARNING**

**\* To prevent an accident, use extreme care when adding and riding with accessories and cargo. Addition of accessories and cargo can reduce a motorcycle's stability, performance and safe operating speed. Never ride an accessory-equipped motorcycle at speeds above 130 km/h (80 mph). And remember that this 130 km/h (80 mph) limit may be reduced by installation of non-Honda accessories, improper loading, worn tyres and overall motorcycle condition, poor road or weather conditions. These general guidelines may help you decide whether or how to equip your motorcycle and how to load it safely.**

### **Loading**

The combined weight of the rider, passenger, cargo and additional accessories must not exceed the maximum weight capacity:

192 kg (423 lbs)

191 kg (421 lbs) . . . SW

Cargo weight alone should not exceed:

30 kg (66 lbs)

1. Keep cargo and accessory weight low and close to the center of the motorcycle. Load weight equally on both sides to minimize imbalance. As weight is located further from the motorcycle's center of gravity, handling is proportionally affected.
2. Adjust tyre pressure (page 30 ) and rear suspension (page 15 ) to suit load weight and riding conditions.

3. Vehicle handling and stability can be adversely affected by loose cargo. Recheck cargo security and accessory mounts frequently.
4. The Honda fairing is designed for this motorcycle only. Do not install it on any other motorcycle.
5. Do not attach large or heavy items (such as a sleeping bag or tent) to the handlebars, fork, or fender. Unstable handling or slow steering response may result.

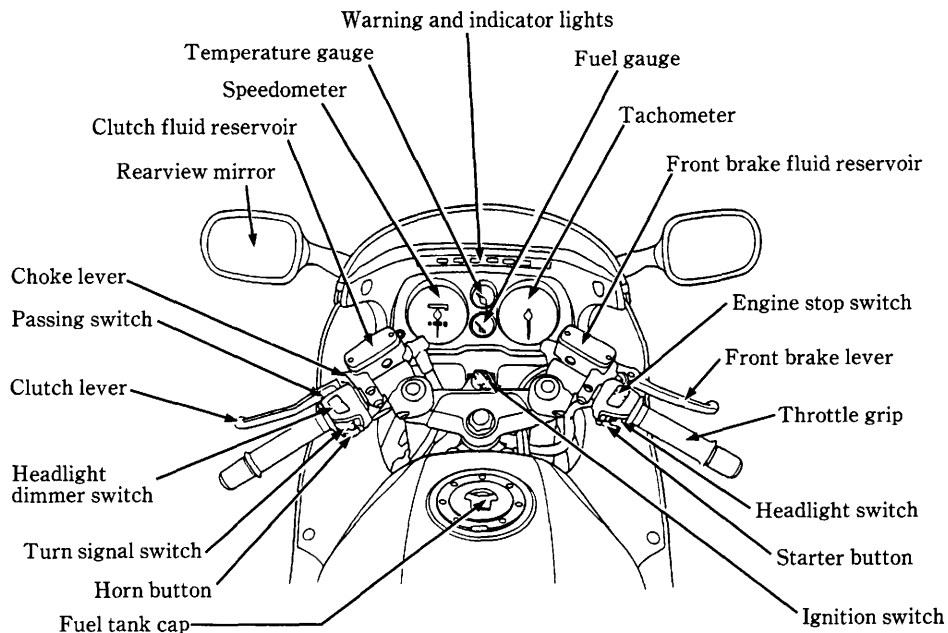
### **Accessories**

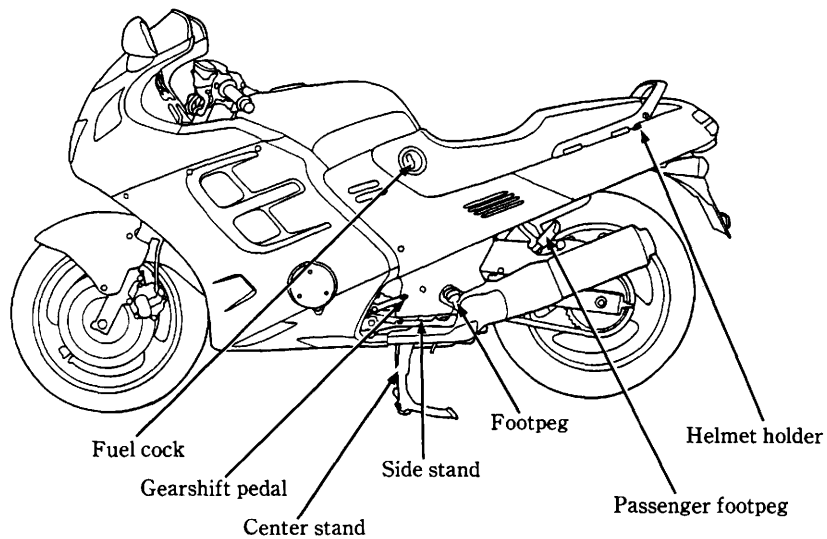
Genuine Honda accessories have been specifically designed for and tested on this motorcycle. Because the factory cannot test all other accessories, you are personally responsible for proper selection, installation, and use of non-Honda accessories. Always follow the guidelines under Loading, and these:

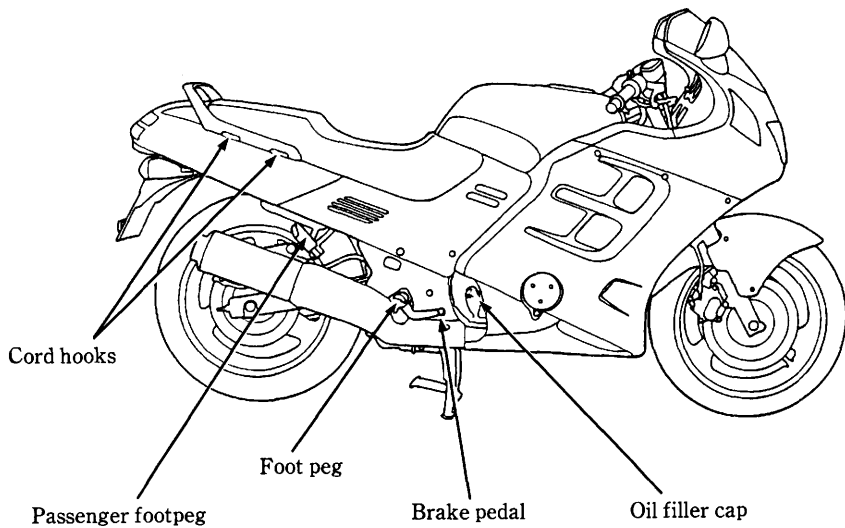
1. Carefully inspect the accessory to make sure it does not obscure any lights, reduce ground clearance and banking angle, or limit suspension travel, steering travel or control operation.
2. Large fork-mounted fairings or windshields, or poorly designed or improperly mounted fairings can produce aerodynamic forces that cause unstable handling. Do not install fairings that decrease cooling air flow to the engine.

3. Accessories which alter your riding position by moving hands or feet away from controls may increase reaction time in an emergency.
4. Do not add electrical equipment that will exceed the motorcycle's electrical system capacity. A blown fuse could cause a dangerous loss of lights or engine power.
5. This motorcycle was not designed to pull a sidecar or trailer. Handling may be seriously impaired if so equipped.
6. Any modification of the cooling system may cause overheating and serious engine damage. Do not modify the radiator shrouds or install accessories which block or deflect air away from the radiator.

# PARTS LOCATION

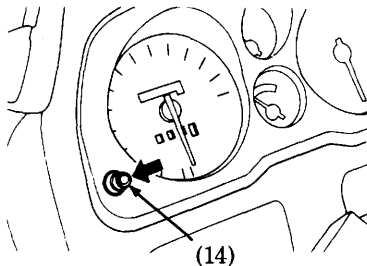
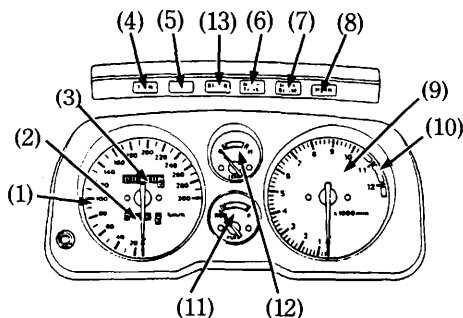






The indicators and warning lights are contained in the instrument panel. Their functions are described in the tables on the following pages.

- (1) Speedometer
- (2) Tripmeter
- (3) Odometer
- (4) Left turn signal indicator
- (5) Oil pressure warning light
- (6) Neutral indicator
- (7) High beam indicator
- (8) Right turn signal indicator
- (9) Tachometer
- (10) Tachometer red zone
- (11) Fuel gauge
- (12) Coolant temperature gauge
- (13) Side stand indicator
- (14) Tripmeter reset knob



| (Ref. No.) Description               | Function                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) Speedometer                      | Shows riding speed.                                                                                                                                                                                                                                                                                                                                                                      |
| (2) Tripmeter                        | Shows mileage per trip.                                                                                                                                                                                                                                                                                                                                                                  |
| (3) Odometer                         | Shows accumulated mileage.                                                                                                                                                                                                                                                                                                                                                               |
| (4) Left turn signal indicator       | Flashes when the left turn signal operates.                                                                                                                                                                                                                                                                                                                                              |
| (5) Oil pressure warning light (red) | <p>Lights when engine oil pressure is below normal operating range. Should light when ignition switch is ON and engine is not running. Should go out when the engine starts, except for occasional flickering at or near idling speed when engine is warm.</p> <p><b>CAUTION:</b></p> <p><b>* Running the engine with insufficient oil pressure may cause serious engine damage.</b></p> |
| (6) Neutral indicator (green)        | Lights when the transmission is in neutral.                                                                                                                                                                                                                                                                                                                                              |
| (7) High beam indicator (blue)       | Light when the headlight is on high beam.                                                                                                                                                                                                                                                                                                                                                |

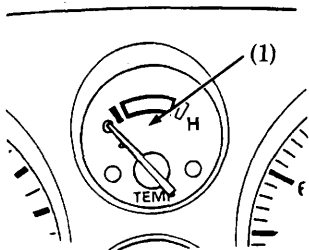
| ( Ref. No. ) Description          | Function                                                                                                                                                                                                                                                 |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (8) Right turn signal indicator   | Flashes when the right turn signal operates.                                                                                                                                                                                                             |
| (9) Tachometer                    | Shows engine rpm.                                                                                                                                                                                                                                        |
| (10) Tachometer red zone          | <p>Never allow the tachometer needle to enter the red zone, even after the engine has been broken in.</p> <p><b>CAUTION:</b></p> <p><b>* Running the engine beyond recommended maximum engine speed (tachometer red zone) can damage the engine.</b></p> |
| (11) Fuel gauge                   | Shows approximate fuel supply available (see page 14 ).                                                                                                                                                                                                  |
| (12) Coolant temperature gauge    | Shows coolant temperature (see page 13 ).                                                                                                                                                                                                                |
| (13) Side stand indicator (amber) | Lights when the side stand is put down. Before parking, check that the side stand is fully down; the light only indicates the side stand ignition cut-off system (page 72 ) is activated.                                                                |
| (14) Tripmeter reset knob         | Resets tripmeter to zero (0) by pushing the knob.                                                                                                                                                                                                        |

### Coolant Temperature Gauge

When the needle begins to move above the C (Cold) mark, the engine is warm enough for the motorcycle to be ridden. The normal operating temperature range is within the section between the H and C marks. If the needle reaches the H (Hot) mark, stop the engine and check the reserve tank coolant level. Read pages 23 – 24 and do not ride the motorcycle until the problem has been corrected.

### CAUTION:

**\* Exceeding maximum running temperature may cause serious engine damage.**



(1) Coolant temperature gauge

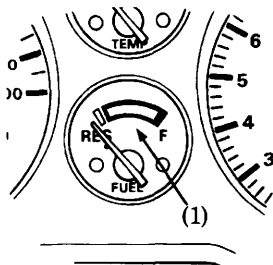
### Fuel Gauge

The fuel gauge (1) shows the approximate fuel supply available. At F (Full), the fuel tank capacity including reserve is:

21.0 ℓ (5.55 US gal , 4.62 Imp gal)

When the gauge needle first points to RES, refill the tank as soon as possible. At RES there is :

6 ℓ (1.6 US gal , 1.3 Imp gal)



(1) Fuel gauge

# MAJOR COMPONENTS (Information you need to operate this motorcycle)

## **▲ WARNING**

**\* If the Pre-ride Inspection (page 40) is not performed, severe personal injury or vehicle damage may result.**

## SUSPENSION

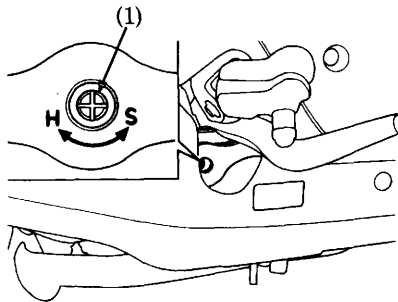
### Rear Suspension

The rear suspension can provide the desired ride under various rider/passenger weight and riding conditions through adjustments of the rebound damping and spring preload adjuster.

#### Damping force adjustment :

The damping force adjuster (1) is located behind the right muffler protector.

To reduce damping force:  
turn the adjuster counterclockwise.  
To increase damping force:  
turn the adjuster clockwise.



(1) Damping force adjuster

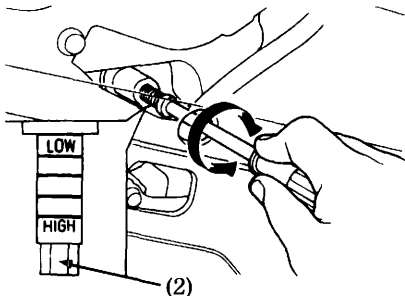
### Spring preload adjustment :

The spring preload adjuster (2) has 22 positions to turn it with a 10 mm box wrench and handle grip provided in the tool box.

The adjuster is located behind the right side cover.

To reduce preload—turn the adjuster counterclockwise.

To increase preload—turn the adjuster clockwise.



(2) Spring preload adjuster

#### **▲WARNING**

- \* The rear shock absorber assembly includes a damper unit that contains high pressure nitrogen gas. The instructions found in this owner's manual are limited to adjustment of the shock assembly only. Do not attempt to disassemble, disconnect or service the damper unit; an explosion causing serious injury may result.
- \* Puncture or exposure to flame may also result in an explosion, causing serious injury.
- \* Service or disposal should only be done by your authorized Honda dealer or a qualified mechanic, equipped with the proper tools, safety equipment and the official Honda Shop Manual.

## **BRAKES**

### **Front Brake**

Both the front and rear brakes are the hydraulic disc types.

As the brake pads wear, the brake fluid level drops.

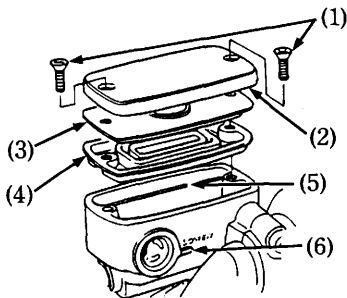
There are no adjustments to perform, but fluid level and pad wear must be inspected periodically. The system must be inspected frequently to ensure there are no fluid leaks. If the control lever or pedal free travel becomes excessive and the brake pads are not worn beyond the recommended limit (page 80), there is probably air in the brake system and it must be bled. See your authorized Honda dealer for this service.

#### Front Brake Fluid Level :

##### **▲ WARNING**

- \* **Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.**
- \* **KEEP OUT OF REACH OF CHILDREN.**

Brake fluid must be added to the reservoir whenever the fluid level begins to reach the **LOWER** level mark (6). Remove the screws (1), reservoir cover (2), and diaphragm (4). Fill the reservoir with **DOT 4 BRAKE FLUID** from a sealed container up to the upper level mark (5). Reinstall the diaphragm and cover. Tighten the screws securely.



(FRONT)

- |                     |                      |
|---------------------|----------------------|
| (1) Screws          | (4) Diaphragm        |
| (2) Reservoir cover | (5) UPPER level mark |
| (3) Diaphragm plate | (6) LOWER level mark |

**CAUTION:**

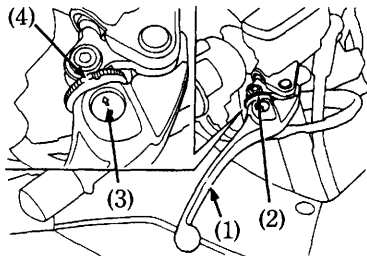
- \* Handle brake fluid with care because it can damage plastic and painted surfaces.
- \* When adding brake fluid, be sure the reservoir is horizontal before the cap is removed or brake fluid may spill out.
- \* Use only DOT 4 brake fluid from a sealed container.
- \* Never allow contaminants such as dirt or water to enter the brake fluid reservoir.

Front Brake Level :

The distance between the tip of the brake lever (1) and the grip can be adjusted by turning the adjuster (2).

**CAUTION:**

- \* Align the arrow (3) on the brake lever with index mark (4) on the adjuster.



- (1) Front brake lever
- (2) Adjuster
- (3) Arrow
- (4) Index mark

## Rear Brake

### Rear Brake Fluid Level:

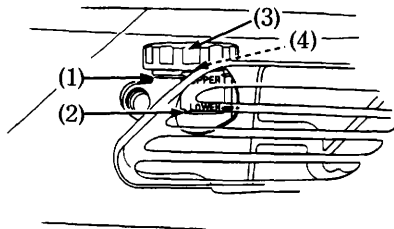
#### ▲ WARNING

- \* **Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.**
- \* **KEEP OUT OF REACH OF CHILDREN.**

Check that the fluid level is above the LOWER level mark (2) with the motorcycle in an upright position.

Brake fluid must be added to the reservoir whenever the fluid level begins to reach the LOWER level mark (2). Remove the right side cover (page 55). Remove the reservoir cap (3) and diaphragm (4). Fill the reservoir with DOT 4 BRAKE FLUID from a sealed container up to the UPPER level mark (1). Reinstall the diaphragm and cap securely.

(REAR)



- (1) UPPER level mark
- (2) LOWER level mark
- (3) Reservoir cap
- (4) Diaphragm

**CAUTION:**

- \* **Handle brake fluid with care because it can damage plastic and painted surfaces.**
- \* **When adding brake fluid, be sure the reservoir is horizontal before the cap is removed or brake fluid may spill out.**
- \* **Use only DOT 4 brake fluid from a sealed container.**
- \* **Never allow contaminants such as dirt or water to enter the brake fluid reservoir.**

**Other Checks:**

Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.

## CLUTCH

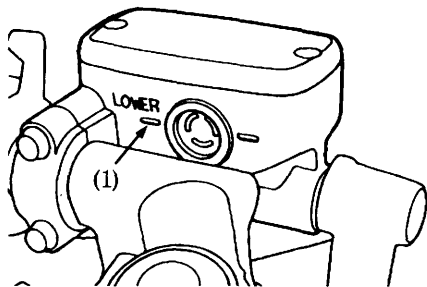
This motorcycle has a hydraulically actuated clutch. There are no adjustments to perform but the clutch system must be inspected periodically for fluid level and leakage. If the control lever freeplay becomes excessive and the motorcycle creeps or stalls when shifted into gear, or if the clutch slips, causing acceleration to lag behind engine speed, there is probably air in the clutch system and it must be bled out. See your authorized Honda dealer for this service.

### Fluid level:

Check that the fluid level is above the LOWER level mark (1) with the motorcycle in an upright position. If the fluid level is near the lower level line, it indicates fluid leakage. See your authorized Honda dealer.

### Other Checks:

Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.



(1) LOWER level mark

## **COOLANT**

### **Coolant Recommendation**

The owner must properly maintain the coolant to prevent freezing, overheating, and corrosion. Use only high quality ethylene glycol antifreeze containing corrosion protection inhibitors specifically recommended for use in aluminum engines. (SEE ANTIFREEZE CONTAINER LABEL).

### **CAUTION:**

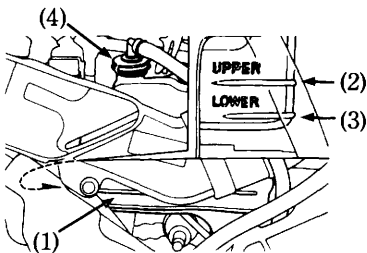
**\* Use only low-mineral drinking water or distilled water as a part of the antifreeze solution. Water that is high in mineral content or salt may be harmful to the aluminum engine.**

The factory provides a 50/50 solution of antifreeze and distilled water in this motorcycle. This coolant solution is recommended for most operating temperatures and provides good corrosion protection. A higher concentration of antifreeze decreases the cooling system performance and is recommended only when additional protection against freezing is needed. A concentration of less than 40/60 (40% antifreeze) will not provide proper corrosion protection. During freezing temperatures, check the cooling system frequently and add higher concentrations of antifreeze (up to a maximum of 60% antifreeze) if required.

## Inspection

Remove the seat and right side cover.

Check the coolant level in the reserve tank (1) while the engine is at the normal operating temperature with the motorcycle in an upright position. If the coolant level is below the LOWER level mark (3), remove the reserve tank cap (4) and add coolant mixture until it reaches the UPPER level mark (2). Do not remove the radiator cap.



- (1) Reserve tank                      (3) LOWER level mark  
(2) UPPER level mark      (4) Reserve tank cap

## ⚠ WARNING

- \* **Do not remove the radiator cap when the engine is hot. The coolant is under pressure and could scald you.**
- \* **Keep hands and clothing away from the cooling fan, as it starts automatically.**

If the reserve tank is empty, or if coolant loss is excessive, check for leaks and see your authorized Honda dealer for repair.

## FUEL

### Manual Fuel Cock

The manual fuel cock (1) is under the left side of the fuel tank. Set it to ON for normal operation or RES when you start to run out of the main fuel supply. The OFF setting is only for long term storage or servicing of fuel system components.

### Automatic Fuel ON-OFF

With the fuel cock set to ON (or RES) fuel flows to the carburetors only when the engine is being started or is running. A diaphragm shuts off fuel flow when the engine is turned off.

### Reserve Fuel

When the main fuel supply is gone, turn the fuel cock to RES. Refill the tank as soon as possible after switching to RES, then switch the cock back to ON.

The reserve fuel supply is:

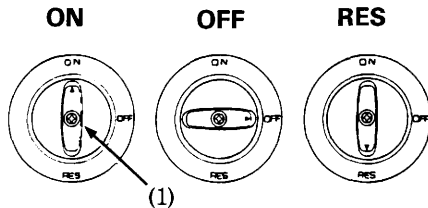
3.5 ℓ (0.92 US gal , 0.77 Imp gal)

### ▲ WARNING

- \* **To avoid running out of fuel that may result in a sudden stop, learn how to operate the fuel cock when riding the motorcycle.**

### NOTE:

- \* Remember to check that the fuel cock is in the ON position each time you refuel. If the cock is left in the RES position, you may run out of fuel with no reserve.



(1) Fuel cock

## Fuel Tank

The fuel tank capacity including the reserve supply is:

21.0 l (5.55 US gal, 4.62 Imp gal)

To open the fuel tank cap (1), open the tank cap cover (2), insert the ignition key (3) and turn it clockwise. The cap will pop up and can be lifted off.

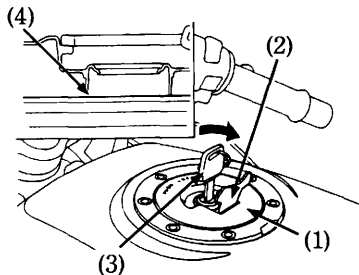
To close the fuel tank cap, align the latch in the cap with the slot in the filler neck.

Push cap into the filler neck until it snaps closed and locks. Remove the key and close the tank cap cover.

Use unleaded or low-lead petrol with a research octane number of 91 or higher. We recommend that you use unleaded petrol because it produces fewer engine and spark plug deposits and extends the life of exhaust system components.

## CAUTION:

\* If “spark knock” or “pinking” occurs at a steady engine speed under normal load, change brands of petrol. If spark knock or pinking persists, consult your authorized Honda dealer. Failure to do so is considered misuse, and damage caused by misuse is not covered by Honda's Limited Warranty.



(1) Fuel tank cap  
(2) Tank cap cover

(3) Ignition key  
(4) Filler neck

## **▲ WARNING**

- \* **Petrol is extremely flammable and is explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where petrol is stored or where the fuel tank is refueled.**
- \* **Do not overfill the tank (there should be no fuel in the filler neck (4)). After refueling, make sure the fuel cap is closed securely.**
- \* **Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.**
- \* **Avoid repeated or prolonged contact with skin or breathing of vapor. KEEP OUT OF REACH OF CHILDREN.**

## **Petrol Containing Alcohol**

If you decide to use a petrol containing alcohol (gasohol), be sure it's octane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol. Do not use petrol that contains more than 10% ethanol. Do not use petrol containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use petrol containing more than 5% methanol, even if it has cosolvents and corrosion inhibitors.

### **NOTE:**

- \* Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.

**NOTE:**

- \* Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol. If it does, confirm the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a petrol that contains alcohol, or one that you think contains alcohol, switch to a petrol that you know does not contain alcohol.

## ENGINE OIL

### Engine Oil Level Check

Check the engine oil level each day before riding the motorcycle.

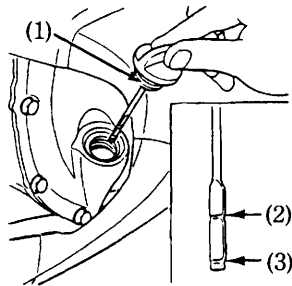
The level must be maintained between the upper (2) and lower (3) level marks on the dipstick (1).

1. Start the engine and let it idle for a few minutes. Make sure the red oil pressure warning light goes off. If the light remains on, stop the engine immediately.
2. Stop the engine and put the motorcycle on its center stand on level ground.
3. After a few minutes, remove the oil filler cap/dipstick, wipe it clean, and reinsert the dipstick without screwing it in. Remove the dipstick. The oil level should be between the upper and lower marks on the dipstick.
4. If required, add the specified oil (see page 58) up to the upper level mark. Do not overfill.

5. Reinstall the oil filler cap/dipstick. Check for oil leaks.

### CAUTION:

**\* Running the engine with insufficient oil can cause serious engine damage.**



- (1) Filler cap/dipstick      (3) Lower level mark  
(2) Upper level mark

## TUBELESS TYRES

This motorcycle is equipped with tubeless tyres, valves, and wheel rims. Use only tyres marked "TUBELESS" and tubeless valves on rims marked "TUBELESS TYRE APPLICABLE."

Proper air pressure will provide maximum stability, riding comfort and tyre life. Check tyre pressure frequently and adjust if necessary.

### NOTE:

- \* Tyre pressure should be checked before you ride while the tyres are "cold".
- \* Tubeless tyres have some degree of selfsealing ability if they are punctured, and leakage is often very slow. Inspect very closely for punctures, especially if the tyre is not fully inflated.

|                                                                        |                                | Front                | Rear                 |
|------------------------------------------------------------------------|--------------------------------|----------------------|----------------------|
| Tyre size                                                              |                                | 120/70 VR<br>17-V270 | 170/60 VR<br>17-V270 |
| Cold<br>tyre<br>pres-<br>sures<br>kPa<br>(kg/cm <sup>2</sup> ,<br>psi) | Driver<br>only                 | 250<br>(2.50 , 36)   | 290<br>(2.90 , 42)   |
|                                                                        | Driver<br>and one<br>passenger | 250<br>(2.50 , 36)   | 290<br>(2.90 , 42)   |
| Tyre brand<br>TUBLESS ONLY<br>BRIDGESTONE<br>DUNLOP                    |                                | CYROX19E<br>K510A    | CYROX16E<br>K510B    |

Check the tyres for cuts, embedded nails or other sharp objects. Check the rims for dents or deformation. If there is any damage, see your authorized Honda dealer for repair, replacement, and balancing.

**▲WARNING**

- \* **Improper tyre inflation will cause abnormal tread wear and create a safety hazard. Underinflation may result in the tyre slipping on, or coming off of the rim causing tyre deflation that may result in a loss of vehicle control.**
- \* **Operation with excessively worn tyres is hazardous and will adversely affect traction and handling.**

Replace tyres before tread depth at the center of the tyre reaches the following limit:

| Minimum tread depth |                  |
|---------------------|------------------|
| Front :             | 1.5 mm (0.06 in) |
| Rear :              | 2.0 mm (0.08 in) |

**Tyre Repair/Replacement:**  
See your authorized Honda Dealer.

**▲WARNING**

- \* **The use of tyres other than those listed on the tyre information label may adversely affect handling.**
- \* **Do not install tube-type tyres on tubeless rims. The beads may not seat and the tyres could slip on the rims, causing tyre deflation that may result in a loss of vehicle control.**
- \* **Do not install a tube inside a tubeless tyre. Excessive heat build-up may cause the tube to burst resulting in rapid tyre deflation that may result in a loss of vehicle control.**

### **▲WARNING**

- \* Proper wheel balance is necessary for safe, stable handling of the motorcycle. Do not remove or change any wheel balance weights. When wheel balancing is required, see your authorized Honda dealer. Wheel balancing is required after tyre repair or replacement.
- \* To avoid possible repair failure and tyre deflation that may result in a loss of vehicle control, do not exceed 80 km/h (50 mph) for the first 24 hours, or 130 km/h (80 mph) at any time, after tyre repair.
- \* Replace the tyre if the sidewall is punctured or damaged. Sidewall flexing may cause repair failure and tyre deflation that may result in a loss of vehicle control.

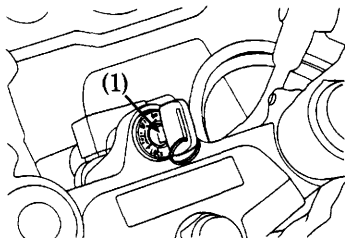
### **CAUTION:**

- \* Do not try to remove tubeless tyres without special tools and rim protectors. You may damage the rim sealing surface or disfigure the rim.

# ESSENTIAL INDIVIDUAL COMPONENTS

## IGNITION SWITCH

The ignition switch (1) is below the indicator panel.



(1) Ignition switch

| Key Position            | Function                                                                                                                                     | Key Removal           |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| LOCK<br>(steering lock) | Steering is locked. Engine and lights cannot be operated.                                                                                    | Key can be removed    |
| P (parking)             | For parking the motorcycle near traffic. The taillight and position light are on, but all other light are off. The engine cannot be started. | Key can be removed    |
| OFF                     | Engine and lights cannot be operated.                                                                                                        | Key can be removed    |
| ON                      | Engine and lights can be operated.                                                                                                           | Key cannot be removed |

## **RIGHT HANDLEBAR CONTROLS**

### **Engine Stop Switch**

The engine stop switch (1) is next to the throttle grip. When the switch is in the RUN position, the engine will operate. When the switch is in the OFF position, the engine will not operate. This switch is intended primarily as a safety or emergency switch and should normally remain in the RUN position.

### **Headlight Switch**

The headlight switch (3) has three positions; "H", "P" and "OFF" marked by a dot to the right of "P".

H: Headlight, taillight, position light and meter lights on.

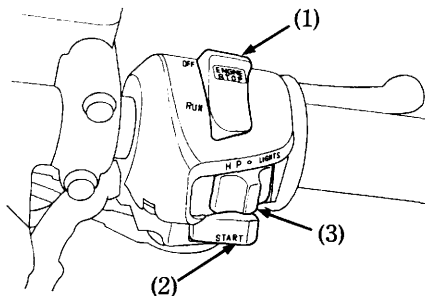
P: Position light, taillight and meter lights on.

OFF (dot): Headlight, taillight, position light and meter lights off.

### **Starter Button**

The starter button (2) is below the engine stop switch (1).

When the starter button is pressed, the starter motor cranks the engine. See pages 41 – 42 for the starting procedure.



- (1) Engine stop switch
- (2) Starter button
- (3) Headlight switch

## LEFT HANDLEBAR CONTROLS

### Headlight Dimmer Switch (1)

Push the dimmer switch to “HI” to select high beam or to “LO” to select low beam.

### Passing Light Control Switch (2)

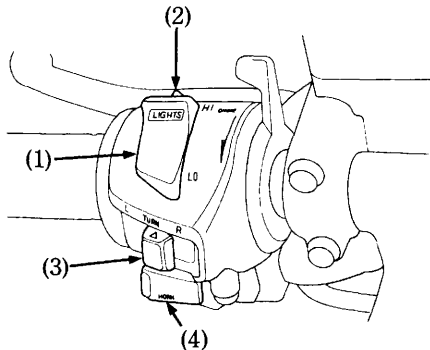
When this switch is pressed, the headlight flashes on to signal approaching cars or when passing.

### Turn Signal Switch (3)

Move to L to signal a left turn, R to signal a right turn. Remember to return the switch to the center (off) after completing your turn or lane change.

### Horn Button (4)

Press the button to sound the horn.



- (1) Headlight dimmer switch
- (2) Passing light control switch
- (3) Turn signal switch
- (4) Horn button

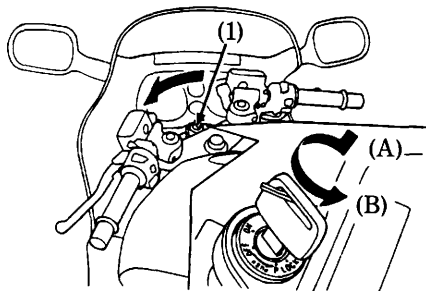
## FEATURES (Not required for operation)

### STEERING LOCK

To lock the steering, turn the handlebars all the way to the left or right, turn the key (1) to P or LOCK while pushing in. Remove the key.

#### **▲ WARNING**

**\* Do not turn the key to P or LOCK while riding the motorcycle; loss of vehicle control will result.**



(1) Ignition key

(A) Push in

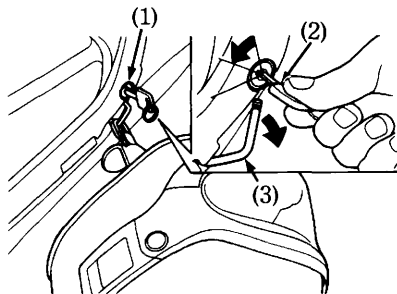
(B) Turn to P or  
LOCK

## HELMET HOLDER

The helmet holder (1) is on the left side below the seat. Insert the ignition key (2) and turn it counterclockwise to unlock. Hang your helmet on the holder pin (3) and push it in to lock. Remove the key.

### ▲WARNING

- \* The helmet holder is designed for helmet security while parked. Do not ride with a helmet attached to the holder; the helmet may interfere with safe operation and result in loss of control.
- \* As the helmet holder and seat lock are combined, confirm that locking is properly completed by lifting up the seat after using helmet holder.



(1) Helmet holder

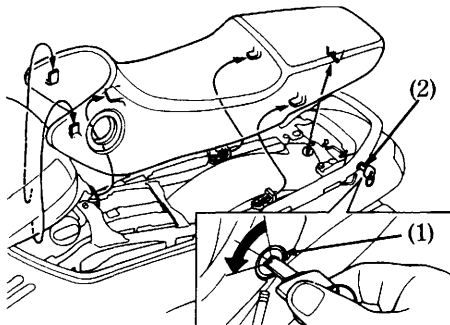
(2) Ignition key

(3) Holder pin

## SEAT

To remove the seat, insert the ignition key (1) into the lock (2) and turn it counter-clockwise.

Remove the seat by pulling up and rearward.



(1) Ignition key

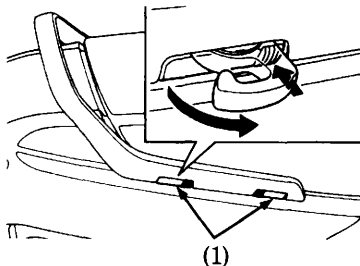
(2) Seat lock

## CORD HOOK

This motorcycle is equipped with the retractable luggage cord hooks (1).

### CAUTION:

**\* Never use this cord hook to tow or lift the motorcycle.**



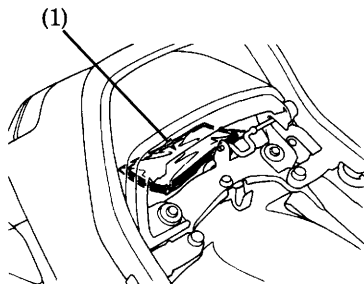
(1) Cord hooks

## DOCUMENT COMPARTMENT

The document compartment is underneath the rear cowl.

This owner's manual and other documents should be stored in the compartment.

When washing your motorcycle, be careful not to flood this area with water.



(1) Owner's manual

# OPERATION

## PRE-RIDE INSPECTION

### ▲WARNING

**\* If the Pre-ride Inspection is not performed, severe personal injury or vehicle damage may result.**

Inspect your motorcycle every day before you ride it. The items listed here will only take a few minutes to inspect, and in the long run they can save time, expense, and possibly your life.

1. Engine oil level—add engine oil if required (page 29). Check for leaks.
2. Fuel level—fill fuel tank when necessary (page 26). Check for leaks.
3. Coolant level—add coolant if required. Check for leaks (pages 23 – 24).
4. Front and rear brakes—check operation; make sure there is no brake fluid leakage (pages 18 – 21).

5. Tyres—check condition and pressure (page 30–32 ).
6. Drive chain—check condition and slack (page 66 ). Adjust and lubricate if necessary.
7. Throttle—check for smooth opening and full closing in all steering positions
8. Lights and horn—check that headlight, tail/brake light, turn signals, indicators and horn function properly.
9. Engine stop switch—check for proper function (page 34 ).
10. Side stand ignition cut-off system—check for proper function (page 72 ).
11. Battery electrolyte—check the level and add if necessary (page 81 ).

Correct any discrepancy before you ride. Contact your authorized Honda dealer for assistance if you cannot correct the problem.

## STARTING THE ENGINE

### **▲ WARNING**

- \* **Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and lead to death.**

### **NOTE:**

- \* This motorcycle is equipped with a side stand ignition cut-off system. The engine cannot be started if the side stand is down, unless the transmission is in neutral. If the side stand is up, the engine can be started in neutral or in gear with the clutch lever pulled in. After starting with the side stand down, the engine will shut off if the transmission is put in gear before raising the side stand.
- \* Do not use the electric starter for more than 5 seconds at a time. Release the starter button for approximately 10 seconds before pressing it again.

### **NOTE:**

- \* The electric starter will work when the transmission is in gear with the clutch disengaged.

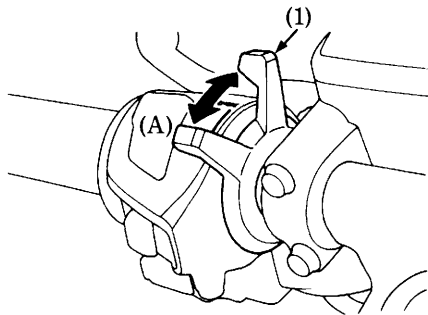
### **Preparation**

Before starting, insert the key, turn the ignition switch ON and confirm the following:

- The transmission is in NEUTRAL (neutral indicator light ON).
- The engine stop switch is at RUN.
- The red engine oil pressure warning light is ON.

## Starting Procedure

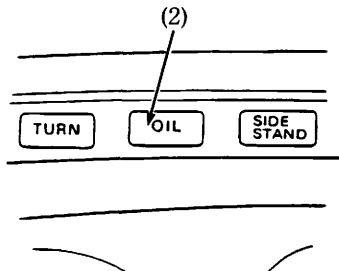
1. Pull the choke lever (1) back all the way to Fully ON (A), if the engine is cold.
2. Press the starter button, leaving the throttle closed.
3. Warm up the engine by opening and closing the throttle until it runs smoothly, with the choke lever Fully OFF.



(1) Chock lever

## CAUTION:

**\* The red oil pressure warning light should go off a few seconds after the engine starts. If the light stays on, stop the engine immediately and check engine oil level. Operating the engine with insufficient oil pressure can cause serious engine damage.**



(2) Oil pressure warning light

## **Flooded Engine**

If the engine fails to start after repeated attempts, it may be flooded with excess fuel. To clear a flooded engine, turn the engine stop switch to OFF and push the choke lever forward to Fully OFF (B). Open the throttle fully and crank the engine for 5 seconds. Wait 10 seconds, then turn the engine stop switch to RUN and follow the Starting Procedure (page 42 ).

## **RUNNING-IN**

During initial running-in newly machined surfaces will be in contact with each other and these surfaces will wear in quickly. Running-in maintenance at 1,000km (600 miles) is designed to compensate for this initial minor wear. Timely performance of the running-in maintenance will ensure optimum service life and performance from the engine.

The general rules as follows:

1. Never labour the engine with full throttle at low engine speeds. This rule is applicable not only during running-in but at all times.
2. Maximum continuous engine speed during the first 1,000 km ( 600 miles) must not exceed  $5,000 \text{ min}^{-1}(\text{rpm})$ .
3. Increase the maximum continuous engine speed by  $2,000 \text{ min}^{-1}(\text{rpm})$  between odometer readings of 1,000 km ( 600 miles) and 1,600 km (1,000 miles). Drive briskly, vary speeds frequently and use full throttle for short bursts only. Do not exceed  $7,000 \text{ min}^{-1}(\text{rpm})$ .

4. Upon reaching an odometer reading of 1,600 km ( 1,000 miles), you can subject the motorcycle to full throttle operation. However, do not exceed 10,500 rpm at any time (tachometer red zone limit).

## **CAUTION:**

- \* **Running the engine beyond recommended maximum engine speed (tachometer red zone) can damage the engine.**

## RIDING

### ▲ WARNING

- \* **Review Motorcycle Safety (pages 1 – 6 ) before you ride.**

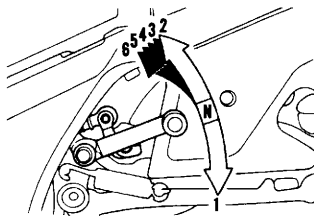
#### NOTE:

- \* Make sure you understand the function of the side stand mechanism. (See MAINTENANCE SCHEDULE on page 50 and explanation for SIDE STAND on page 72 )
1. After the engine has been warmed up, the motorcycle is ready for riding.
  2. While the engine is idling, pull in the clutch lever and depress the gearshift pedal to shift into 1st (low) gear.
  3. Slowly release the clutch lever and at the same time gradually increase engine speed by opening the throttle. Coordination of the throttle and clutch lever will assure a smooth positive start.

4. When the motorcycle attains a moderate speed, close the throttle, pull in the clutch lever and shift to 2nd gear by raising the gearshift pedal.

This sequence is repeated to progressively shift to 3rd, 4th, 5th and 6th(top) gear.

5. Coordinate the throttle and brakes for smooth deceleration.
6. Both front and rear brakes should be used at the same time and should not be applied strongly enough to lock the wheel, or braking effectiveness will be reduced and control of the motorcycle be difficult.



## **BRAKING**

1. For normal braking, gradually apply both the front and rear brakes while downshifting to suit your road speed.
2. For maximum deceleration, close the throttle and apply the front and rear brakes firmly. Pull in the clutch lever before coming to a complete stop to prevent stalling the engine.

### **▲ WARNING**

- \* **Independent use of only the front or rear brake reduces stopping performance. Extreme braking may cause either wheel to lock, reducing control of the motorcycle.**
- \* **When possible, reduce speed or brake before entering a turn; closing the throttle or braking in mid-turn may cause wheel slip. Wheel slip will reduce control of the motorcycle.**

### **▲ WARNING**

- \* **When riding in wet or rainy conditions, or on loose surfaces, the ability to maneuver and stop will be reduced. All of your actions should be smooth under these conditions. Rapid acceleration, braking or turning may cause loss of control. For your safety, exercise extreme caution when braking, accelerating or turning.**
- \* **When descending a long, steep grade, use engine compression braking by downshifting, with intermittent use of both brakes. Continuous brake application can overheat the brakes and reduce their effectiveness.**
- \* **Riding with your foot resting on the brake pedal or your hands on the brake lever may actuate the brakelight, giving a false indication to other drivers. It may also overheat the brake, reducing effectiveness.**

## PARKING

1. After stopping the motorcycle, shift the transmission into neutral, turn the fuel cock OFF, turn the handlebar fully to the left, turn the ignition switch OFF and remove the key.
2. Use the side or center stand to support the motorcycle while parked.

### CAUTION:

- \* **Park the motorcycle on firm, level ground to prevent it from falling over.**
  - \* **If you must park on a slight incline, aim the front of the motorcycle uphill to reduce the possibility of rolling off the side stand or overturning.**
3. Lock the steering to help prevent theft (page 36 ).

### NOTE:

- \* When stopping for a short time near traffic at night, the ignition switch may be turned to P and the key removed. This will turn on the taillight to make the motorcycle more visible to traffic. The battery will discharge if the ignition switch is left at P for too long a time.

## ANTI-THEFT TIPS

1. Always lock the steering and never leave the key in the ignition switch. This sounds simple but people do forget.
2. Be sure the registration information for your motorcycle is accurate and current.
3. Park your motorcycle in a locked garage whenever possible.
4. Use an additional anti-theft device of good quality.
5. Put your name, address, and phone number in this Owner's Manual and keep it on your motorcycles at all times. Many times stolen motorcycles are identified by information in the Owner's Manuals that are still with them.

NAME : \_\_\_\_\_

ADDRESS : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PHONE NO : \_\_\_\_\_

## MAINTENANCE

- When service is required, remember that your authorized Honda dealer knows your motorcycle best and is fully equipped to maintain and repair it. The scheduled maintenance may also be performed by a qualified service facility that normally does this kind of work; or you may perform most of the work yourself if you are mechanically qualified and have the proper tools and service data.
- These instructions are based on the assumption that the motorcycle will be used exclusively for its designed purpose. Sustained high speed operation, or operation in unusually wet or dusty conditions, will require more frequent service than specified in the MAINTENANCE SCHEDULE. Consult your authorized Honda dealer for recommendations applicable to your individual needs and use.

## MAINTENANCE SCHEDULE

The following items require some mechanical knowledge. Certain items (particularly those marked \* and \* \*) may require more technical information and tools. Consult your authorized Honda Dealer.

Perform the Pre-ride Inspection (page 40 ) at each scheduled maintenance period.

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE

| ITEM |                                | FREQUENCY | WHICHEVER →<br>COMES FIRST ↓ | ODOMETER READING [NOTE(1)] |     |   |    |    |    |    |    | REFER TO PAGE |
|------|--------------------------------|-----------|------------------------------|----------------------------|-----|---|----|----|----|----|----|---------------|
|      |                                |           |                              | x1,000km                   | 1   | 6 | 12 | 18 | 24 | 30 | 36 |               |
|      |                                |           |                              | x1,000mi                   | 0.6 | 4 | 8  | 12 | 16 | 20 | 24 |               |
|      |                                | NOTE      | MONTH                        |                            |     | 6 | 12 | 18 | 24 | 30 | 36 |               |
| *    | FUEL LINE                      |           |                              |                            |     |   | I  |    | I  |    | I  | —             |
| *    | THROTTLE OPERATION             |           |                              |                            |     |   | I  |    | I  |    | I  | 64            |
| *    | CARBURETOR CHOKE               |           |                              |                            |     |   | I  |    | I  |    | I  | —             |
|      | AIR CLEANER                    | (NOTE 2)  |                              |                            |     |   |    | R  |    |    | R  | 56            |
|      | CRANKCASE BREATHER             | (NOTE 3)  |                              |                            |     | C | C  | C  | C  | C  | C  | 57            |
|      | SPARK PLUG                     |           |                              |                            |     | I | R  | I  | R  | I  | R  | 61-63         |
| *    | VALVE CLEARANCE                |           |                              |                            | I   |   | I  |    | I  |    | I  | —             |
|      | ENGINE OIL                     |           |                              |                            | R   |   | R  |    | R  |    | R  | 58-61         |
|      | ENGINE OIL FILTER              |           |                              |                            | R   |   | R  |    | R  |    | R  | 59-61         |
| *    | CARBURETOR<br>SYNCHRONIZATION  |           |                              |                            |     |   | I  |    | I  |    | I  | —             |
| *    | CARBURETOR IDLE SPEED          |           |                              |                            | I   | I | I  | I  | I  | I  | I  | 65            |
|      | RADIATOR COOLANT               | (NOTE 4)  |                              |                            |     |   | I  |    | I  |    | R  | 23-24         |
| *    | COOLING SYSTEM                 |           |                              |                            |     |   | I  |    | I  |    | I  | —             |
| *    | SECONDARY AIR<br>SUPPLY SYSTEM | (NOTE 5)  |                              |                            |     |   | I  |    | I  |    | I  | —             |

| ITEM \ FREQUENCY |                        | WHICHEVER →   |          | ODOMETER READING [NOTE(1)]    |   |    |    |    |    |    |               |         |
|------------------|------------------------|---------------|----------|-------------------------------|---|----|----|----|----|----|---------------|---------|
|                  |                        | COMES FIRST ↓ | x1,000km | 1                             | 6 | 12 | 18 | 24 | 30 | 36 | REFER TO PAGE |         |
|                  |                        |               | x1,000mi | 0.6                           | 4 | 8  | 12 | 16 | 20 | 24 |               |         |
|                  |                        |               | NOTE     | MONTH                         |   | 6  | 12 | 18 | 24 | 30 |               | 36      |
|                  | DRIVE CHAIN            |               |          | I, L, EVERY 1,000 km (600 mi) |   |    |    |    |    |    |               | 66 – 70 |
|                  | BATTERY                |               |          |                               | I | I  | I  | I  | I  | I  | 81 – 83       |         |
|                  | BRAKE FLUID            | (NOTE 4)      |          |                               | I | I  | R  | I  | I  | R  | 18 – 21       |         |
|                  | BRAKE PAD WEAR         |               |          |                               | I | I  | I  | I  | I  | I  | 80            |         |
|                  | BRAKE SYSTEM           |               |          | I                             |   | I  |    | I  |    | I  | 18 – 21       |         |
| *                | BRAKE LIGHT SWITCH     |               |          |                               |   | I  |    | I  |    | I  | 86            |         |
| *                | HEADLIGHT AIM          |               |          |                               |   | I  |    | I  |    | I  | —             |         |
|                  | CLUTCH SYSTEM          |               |          |                               |   | I  |    | I  |    | I  | 22            |         |
|                  | CLUTCH FLUID           | (NOTE 4)      |          |                               | I | I  | R  | I  | I  | R  | 22            |         |
|                  | SIDE STAND             |               |          |                               |   | I  |    | I  |    | I  | 72            |         |
| *                | SUSPENSION             |               |          |                               |   | I  |    | I  |    | I  | 71            |         |
| *                | NUTS, BOLTS, FASTENERS |               |          | I                             |   | I  |    | I  |    | I  | —             |         |
| **               | WHEELS/TYRES           |               |          |                               |   | I  |    | I  |    | I  | —             |         |
| **               | STEERING HEAD BEARINGS |               |          | I                             |   | I  |    | I  |    | I  | —             |         |

\* SHOULD BE SERVICED BY AN AUTHORIZED HONDA DEALER, UNLESS THE OWNER HAS PROPER TOOLS AND SERVICE DATA AND IS MECHANICALLY QUALIFIED. REFER TO THE OFFICIAL HONDA SHOP MANUAL.

\*\* IN THE INTEREST OF SAFETY, WE RECOMMEND THESE ITEMS BE SERVICED ONLY BY AN AUTHORIZED HONDA DEALER.

NOTES: 1. At higher odometer readings, repeat at the frequency interval established here.

2. Service more frequently when riding in unusually wet or dusty areas.

3. Service more frequently when riding in rain or at full throttle.

4. Replace every 2 years, or at indicated odometer interval, whichever comes first. Replacement requires mechanical skill.

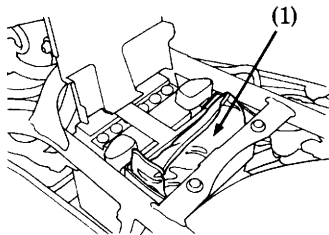
5. Switzerland and Austria type only.

## TOOL KIT

The tool kit (1) is under the seat.

Some roadside repairs, minor adjustments and parts replacement can be performed with the tools contained in the kit.

- Spark plug wrench
- 8 mm box wrench
- 10x12 mm box wrench
- 22 mm box end wrench
- 27 mm box end wrench
- 8 mm open end wrench
- 10 x 12 mm open wrench
- 14 x 17 mm open end wrench
- Pliers
- 5 mm hex wrench
- 6 mm hex wrench
- No.2 screwdriver
- No.2 Phillips screwdriver
- No.3 Phillips screwdriver
- Screwdriver grip
- Handle for the box end wrench
- Tool bag
- Feeler gauge 0.7 mm



(1) Tool kit

## SERIAL NUMBERS

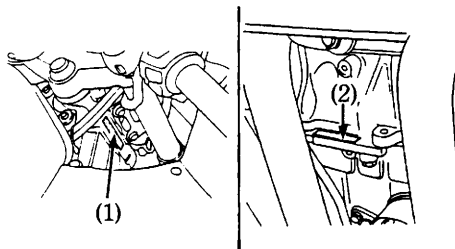
The frame and engine serial numbers are required when registering your motorcycle. They may also be required by your dealer when ordering replacement parts. Record the numbers here for your reference.

The frame number (1) is stamped on the right side of the steering head.

The engine number (2) is stamped on front of the crankcase.

FRAME NO. \_\_\_\_\_

ENGINE NO. \_\_\_\_\_



(1) Frame number

(2) Engine number

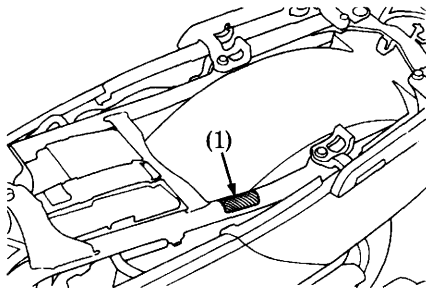
## COLOUR LABEL

The color label (1) is attached to the frame below the seat (See page 38).

It is helpful when ordering replacement parts. Record the colour and code here for your reference.

COLOUR \_\_\_\_\_

CODE \_\_\_\_\_



(1) Color label

## **MAINTENANCE PRECAUTIONS**

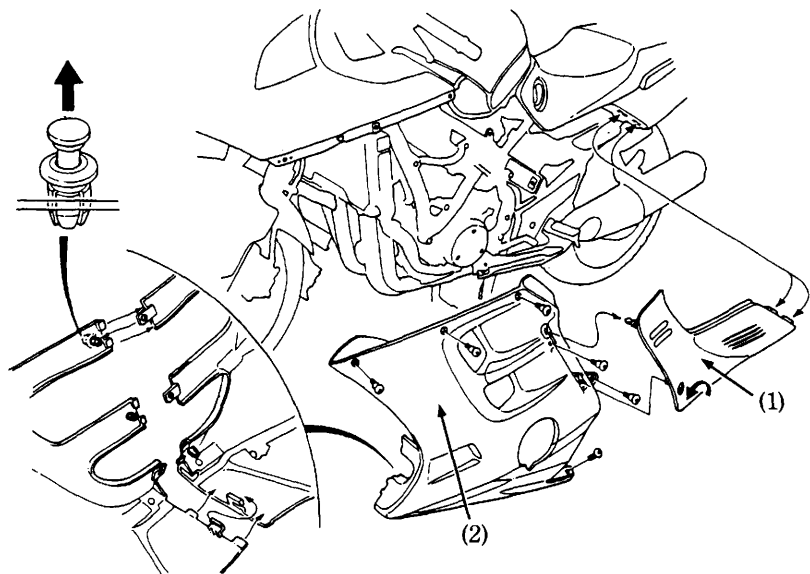
### **▲ WARNING**

- \* If your motorcycle is overturned or involved in a collision, inspect control levers, cables, brake hoses, calipers, accessories, and other vital parts for damage. Do not ride the motorcycle if damage impairs safe operation. Have your authorized Honda dealer inspect the major components, including frame, suspension and steering parts, for misalignment and damage that you may not be able to detect.**
- \* Stop the engine and support the motorcycle securely on a firm, level surface before performing any maintenance.**
- \* Use new, genuine Honda parts or their equivalent for maintenance and repair. Parts which are not of equivalent quality may impair the safety of your motorcycle.**

### **CAUTION:**

- \* When the covers are removed and installed, take care enough. Improper installation will cause to damage the motorcycle. Installation points are shown the next pages :**

## FAIRING



(1) Side cover

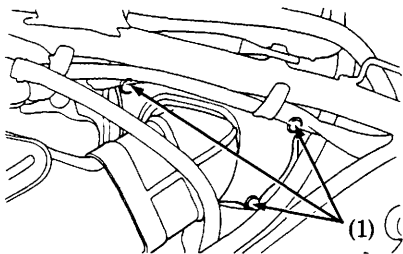
(2) Side fairing

## AIR CLEANER

(Refer to the maintenance precautions on page 54).

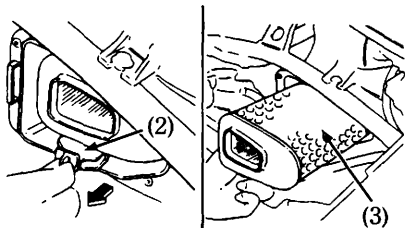
The air cleaner should be serviced at regular intervals (page 49). Service more frequently when riding in unusually wet or dusty areas.

1. Remove the right side cover.
2. Remove the air duct by removing screws (1).



(1) Screws

3. Pull out the retainer (2) and air cleaner element (3).
4. Discard the air cleaner element and install a new element.  
Use the Honda air filter or an equivalent filter specified for your model. Other filters not specified for your model may not filter impurities properly.
5. Install the removed parts in the reverse order of disassembly.



(2) Retainer

(3) Air cleaner element

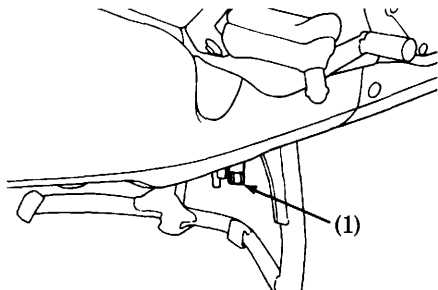
## CRANKCASE BREATHER

(Refer to the maintenance precautions on page 54).

1. Remove the drain plug (1) from the tube and drain deposits.
2. Reinstall the drain plug.

### NOTE:

- \* Service more frequently when riding in rain, at full throttle, or after the motorcycle is washed or overturned. Service if the deposit level can be seen in the transparent section of the drain tube.



(1) Drain plug

## ENGINE OIL

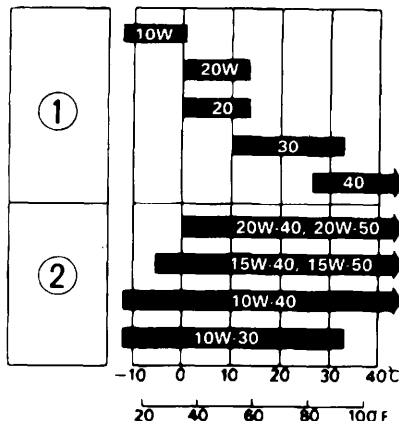
(Refer to the maintenance precautions on page 54).

### Engine Oil

Good engine oil has many desirable qualities. Use only high detergent, quality motor oil certified on the container to meet or exceed requirements for service SE, SF or SG.

### Viscosity:

Viscosity grade of engine oil should be based on average atmospheric temperature in your riding area. The following provides a guide to the selection of the proper grade or viscosity of oil to be used at various atmospheric temperatures.



(1) Single grade

(2) Multigrade

## Engine Oil and Filter

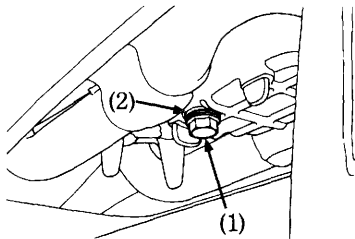
Engine oil quality is the chief factor affecting engine service life. Change the engine oil as specified in the maintenance schedule (page 49).

### NOTE:

- \* Change the engine oil with the engine at normal operating temperature and the motorcycle on its side stand to assure complete and rapid draining.

### CAUTION:

- \* **To prevent oil leaks and filter damage, never support the engine on the oil filter.**



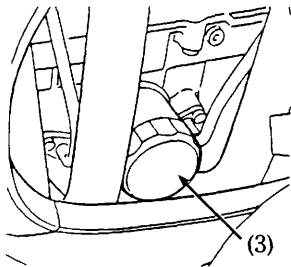
(1) Oil drain plug

(2) Sealing washer

1. To drain the oil, remove the oil filler cap/dipstick and crankcase drain plug (1) and sealing washer (2).

### ▲ WARNING

- \* **A warmed-up engine and the oil in it are hot; be careful not to burn yourself.**
2. Remove the oil filter (3) with a filter wrench and let the remaining oil drain out. Discard the oil filter

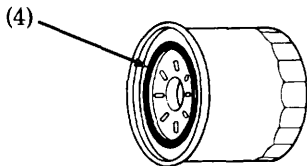


(3) Oil filter

3. Apply a thin coat of engine oil to the new oil filter rubber seal (4).
4. Install the new oil filter and tighten it to:

10 N·m (1.0 kg-m , 7 lb-ft)

Use the Honda oil filter or an equivalent filter specified for your model. Other filters not specified for your model may not filter impurities properly.



(4) Oil filter rubber seal

5. Check that the sealing washer on the drain plug is in good condition and install the plug. Replace the sealing washer every other time the oil is changed, or each time if necessary.

Oil Drain Plug Torque:

35 N·m (3.5 kg-m , 25 lb-ft)

6. Fill the crankcase with the recommended grade oil; approximately:  
3.8 l (4.0 US qt , 3.3 Imp qt)
7. Install the oil filler cap.
8. Start the engine and let it idle for 2—3 minutes.
9. Stop the engine and check that the oil level is at the upper level mark on the dipstick with the motorcycle upright on firm, level ground. Make sure there are no oil leaks.

#### NOTE:

- \* When running in very dusty conditions, oil changes should be performed more frequently than specified in the maintenance schedule.

**NOTE:**

- \* Please dispose of used engine oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local recycling center or service station for reclamation. Do not throw it in the rubbish or pour it on the ground.

**CAUTION:**

- \* Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

**SPARK PLUGS**

(Refer to the maintenance precautions on page 54 ).

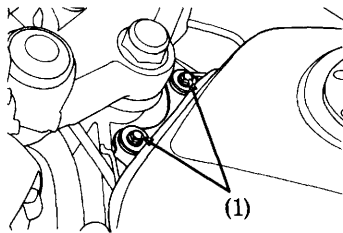
Recommended plugs:

Standard:

DPR9EA-9 (NGK) or

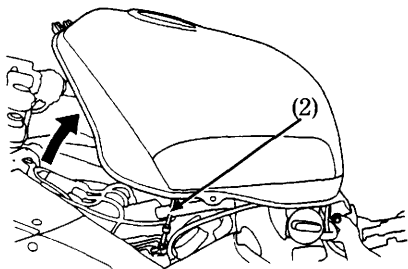
X27EPR-U9 (NIPPONDENSO)

1. Remove the seat (see page 38).
2. Remove the fuel tank front mount bolts (1) and bracket.

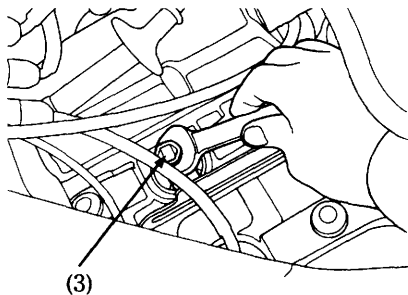


(1) Mount bolts

3. Carefully pull out the upper side of left side cover until the fuel cock is clear and raise the fuel tank until the prop stay (2) is locked.
4. Remove the spark plug with a plug wrench (3).



(2) Prop stay



(3) Plug wrench

5. Inspect the electrodes and center porcelain for deposits, erosion or carbon fouling. If the erosion or deposit is heavy, replace the plug. Clean a carbon or wet-fouled plug with a plug cleaner, otherwise use a wire brush.
6. Check the new spark plug gap (4) using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (5) carefully.

The gap should be:

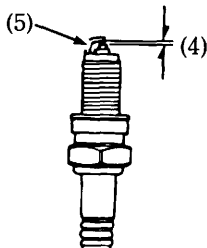
0.80—0.90 mm (0.031—0.035 in)

Make sure the plug washer is in good condition.

7. With the plug washer attached, thread the new spark plug in by hand to prevent cross-threading.
8. Tighten a new spark plug 1/2 turn with a spark plug wrench to compress the washer. If you are reusing a plug, it should only take 1/8—1/4 turn after the plug seats.
9. Reinstall the spark plug caps.

#### CAUTION:

- \* The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the engine.
- \* Never use a spark plug with an improper heat range. Severe engine damage could result.



(4) Spark plug gap

(5) Side electrode

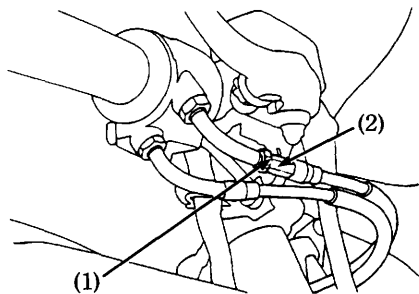
## THROTTLE OPERATION

(Refer to the maintenance precautions on page 54).

1. Check for smooth rotation of the throttle grip from the fully open to the fully closed position at both full steering positions.
2. Measure the throttle grip free play at the throttle grip flange.  
The standard free play should be approx:

2—6 mm (0.08—0.24 in)

To adjust the play, loosen the lock nut (1) and turn the adjuster (2).



(1) Lock nut

(2) Adjuster

## IDLE SPEED

(Refer to the maintenance precautions on page 54 ).

The idle speed adjustment procedure given here should only be used when changes in altitude affect normal idle speed as set by your dealer. See your authorized Honda dealer for regularly scheduled carburetor adjustments, including individual carburetor adjustment and synchronization.

### NOTE:

\* The engine must be at normal operating temperature for accurate idle speed adjustment. Ten minutes of stop-and-go riding is sufficient.

1. Warm up the engine, and shift to neutral.
2. The throttle stop screw (1) is behind the seal rubber in the left side cover. Push in the rubber.
3. Adjust idle speed with the throttle stop screw (1).

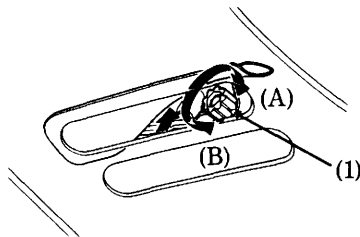
Idle Speed :

$1,000 \pm 100$  rpm

(In neutral)

$1,000 \pm 50$  rpm

.... SW , AR



(1) Throttle stop screw

(A) Increase

(B) Decrease

## DRIVE CHAIN

(Refer to the maintenance precautions on page 54 ).

The service life of the drive chain is dependent upon proper lubrication and adjustment. Poor maintenance can cause premature wear or damage to the drive chain and sprockets.

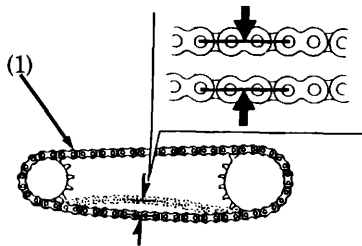
The drive chain should be checked and lubricated as part of the Pre-ride Inspection (page 40). Under severe usage, or when the motorcycle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

### Inspection :

1. Turn the engine off, place the motorcycle on its center stand, and shift the transmission into neutral.
2. Check slack in the lower drive chain run midway between the sprockets. Drive chain slack should be adjusted to allow the following vertical movement by hand:

15—25 mm ( 5/8 — 1 in )

Rotate the rear wheel and check the drive chain slack as the wheel turns. Drive chain slack should remain constant as the wheel rotates. If the chain is slack only in certain sections, some links are kinked and binding. Binding can frequently be eliminated by lubrication.



(1) Drive chain

3. Rotate the rear wheel slowly and inspect the drive chain and sprockets for any of the following conditions:

#### DRIVE CHAIN

- \*Damaged Rollers
- \*Loose Pins
- \*Dry or Rusted Links
- \*Kinked or Binding Links
- \*Excessive Wear
- \*Improper Adjustment
- \*Missing O-rings

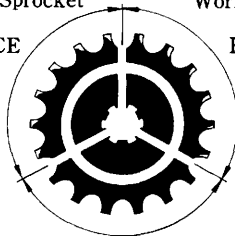
#### SPROCKETS

- \*Excessively Worn Teeth
- \*Broken or Damaged Teeth

A drive chain with damaged rollers, loose pins, or missing O-rings must be replaced. A chain which appears dry, or shows signs of rust, requires supplementary lubrication. Kinked or binding links should be thoroughly lubricated and worked free. If links cannot be freed, the chain must be replaced.

Damaged Sprocket  
Teeth  
REPLACE

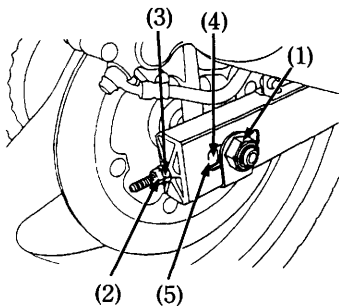
Worn Sprocket  
Teeth  
REPLACE



Normal Sprocket Teeth  
GOOD

### Adjustment:

Drive chain slack should be checked and adjusted, if necessary, every 1,000 km (600 miles). When operated at sustained high speeds or under conditions of frequent rapid acceleration, the chain may require more frequent adjustment.



- |                 |                  |
|-----------------|------------------|
| (1) Axle nut    | (4) Index mark   |
| (2) Lock nut    | (5) Rear edge of |
| (3) Drive chain | adjusting slot   |
| adjusting nut   |                  |

If the drive chain requires adjustment, the procedure is as follows:

1. Place the motorcycle on its center stand with the transmission in neutral and the ignition switch off.
2. Loosen the axle nut (1).
3. Loosen the lock nuts (2) on both adjusting nuts (3).
4. Turn both adjusting nuts (3) an equal number of turns until the correct drive chain slack is obtained. Turn the adjusting nuts clockwise to tighten the chain, or counterclockwise to provide more slack. Adjust the chain slack at a point midway between the drive sprocket and the rear wheel sprocket. Rotate the rear wheel and recheck slack at other sections of the chain.

Chain slack should be:

15—25 mm ( 5/8—1 in )

5. Check rear axle alignment by making sure the chain adjuster index marks (4) align with the rear edge (5) of the adjusting slots.

Both left and right marks should correspond. If the axle is misaligned, turn the left or right adjusting nut until the marks correspond on the rear edge of the adjusting slots and recheck chain slack.

6. Tighten the axle nut to :

**95 N·m (9.5 kg-m , 69 lb-ft)**

7. Tighten the adjusting nuts lightly, then tighten the lock nuts by holding the adjusting nuts with a spanner.

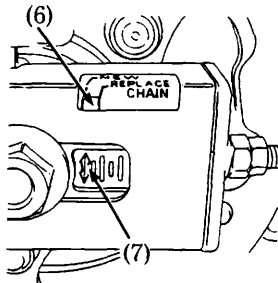
#### Wear inspection:

Check the chain wear label when adjusting the chain. If the red zone (6) on the label aligns with the arrow mark (7) on the chain adjuster plates after the chain has been adjusted to the proper slack, the chain is excessively worn and must be replaced. The proper slack is:

**15—25 mm ( 5/8—1 in )**

#### **CAUTION:**

**\* Damage to the bottom part of the frame may be caused by excessive drive chain slack of more than:  
40 mm (1.6 in)**



(6) Red zone

(7) Arrow mark

### Lubrication and cleaning:

Lubricate every 1,000 km (600 miles) or sooner if chain appears dry.

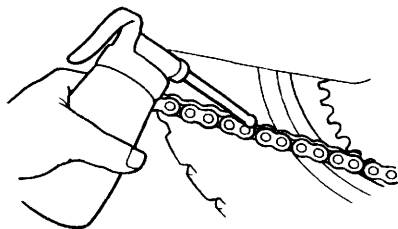
The O-rings in this chain can be damaged by steam cleaning, high pressure washers, and certain solvents. Clean the chain with high flash-point solvent, such as paraffin. Wipe dry and lubricate only with SAE 80 or 90 gear oil. Commercial chain lubricants may contain solvents which could damage the rubber O-rings.

Replacement chain:

RK50LFO or D.I.D.50ZV

### **CAUTION:**

- \* **The drive chain on this motorcycle is equipped with small O-rings between the link plates. These O-rings retain grease inside the chain to improve its service life. However, special precautions must be taken when adjusting, lubricating, washing, and replacing the chain.**



## **FRONT AND REAR SUSPENSION INSPECTION**

(Refer to the maintenance precautions on page 54 ).

1. Check the fork assembly by locking the front brake and pumping the fork up and down vigorously. Suspension action should be smooth and there must be no oil leakage.
2. Swingarm bearings should be checked by pushing hard against the side of the rear wheel while the motorcycle is on the center stand. Free play indicates worn bearings.
3. Carefully inspect all front and rear suspension fasteners for tightness.

## SIDE STAND

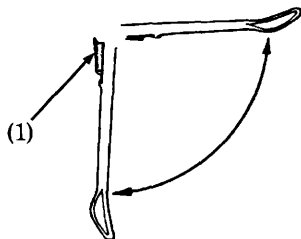
(Refer to the maintenance precautions on page 54).

Perform the following maintenance in accordance with the maintenance schedule.

### Functional Check :

- Check the spring (1) for damage or loss of tension and the side stand assembly for freedom of movement.
- Check the side stand ignition cut-off system:
  1. Sit astride the motorcycle; put the side stand up and the transmission in neutral.
  2. Start the engine and with the clutch lever pulled in, shift the transmission into gear.
  3. Lower the side stand. The engine should stop as you put the side stand down.

If the side stand system does not operate as described, see your authorized Honda dealer for service.



(1) Spring

## WHEEL REMOVAL

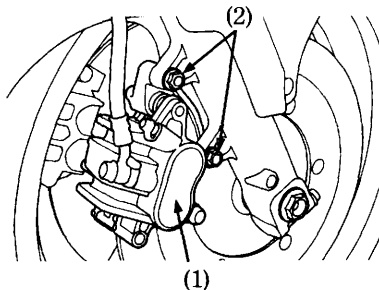
(Refer to the maintenance precautions on page 54 ).

### Front Wheel Removal

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Remove the right caliper assembly (1) from the fork leg by removing the fixing bolts (2).

### CAUTION:

**\*To avoid damage to the brake hose, support the caliper assembly so that it doesn't hang from the hose. Do not twist the brake hose.**

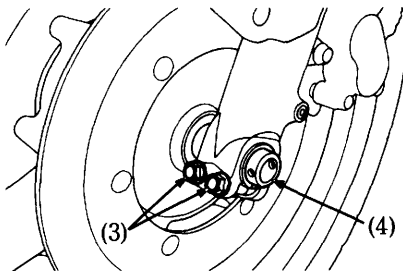


- (1) Brake caliper assembly  
(2) Fixing bolts

**NOTE:**

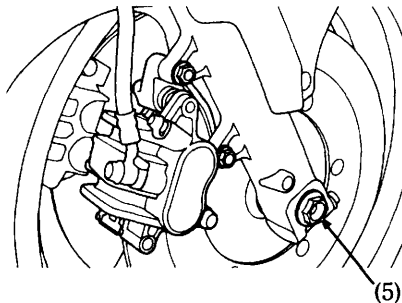
\* Do not depress the brake lever when the wheel is off the motorcycle. The caliper pistons will be forced out of the cylinders with subsequent loss of brake fluid. If this occurs, servicing of the brake system will be necessary. See your authorized Honda dealer for this service.

3. Loosen the right and left axle pinch bolts (3), and remove the axle bolt (5).
4. Withdraw the front axle (4) and remove the front wheel.



(3) Axle pinch bolt

(4) Front axle



(5) Axle bolt

Installation Notes :

Position the front wheel between the fork legs and insert the axle from the left side, through the left fork leg and wheel hub.

**CAUTION:**

- \* **When installing the wheel, fit the left brake disc carefully between the brake pads to avoid damaging the pads.**

Tighten the axle bolt to the specified torque.

Front axle torque :

60 N·m (6.0 kg-m , 43 lb-ft)

Fit the right caliper over the disc, taking care not to damage the brake pads. Install the caliper mounting bolts and tighten to a torque of:

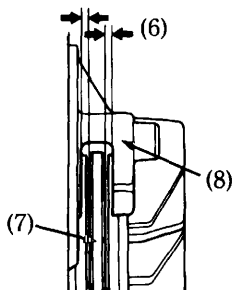
27 N·m (2.7 kg-m , 20 lb-ft)

Measure the clearance (6) between each surface of the left brake disc (7) and the left caliper holder (8) with a 0,7 mm (0,028 in) feeler gauge (9) (see illustration).

If the gauge inserts easily, tighten the right and left axle pinch bolts (3) to the specified torque.

Axle pinch bolt torque :

22 N·m (2.2 kg-m , 16 lb-ft)

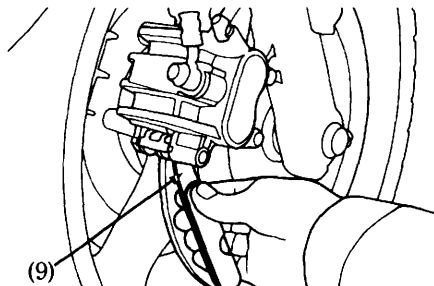


(6) Clearance  
(7) Brake disc

(8) Caliper holder

#### **▲ WARNING**

**\* If a torque wrench was not used for installation, see your authorized Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.**



(9) Feeler gauge

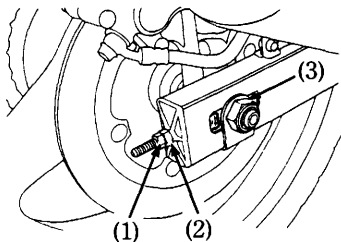
If the feeler gauge cannot be inserted easily, pull the left fork outward or push inward until the gauge can be inserted and tighten the axle pinch bolts with the gauge inserted. After tightening, remove the gauge. After installing the wheel, apply the brakes several times, then recheck both discs for caliper holder to disc clearance. Do not operate the motorcycle without adequate clearance.

**▲ WARNING**

- \* Failure to provide adequate disc to caliper holder clearance may damage the brake discs and impair braking efficiency.**

## Rear Wheel Removal

1. Place the motorcycle on its center stand.
2. Loosen the drive chain adjusting nut lock nuts (1) and adjusting nuts (2).
3. Remove the rear axle nut (3).
4. Remove the drive chain (4) from the driven sprocket by pushing the rear wheel forward.
5. Remove the axle shaft (5), side collar and rear wheel from the swingarm.

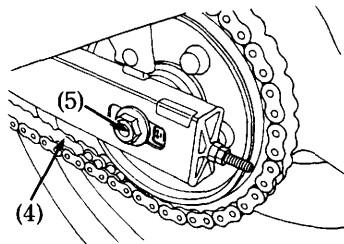


- (1) Lock nuts  
(2) Adjusting nuts

- (3) Axle nut

## NOTE:

- \* Do not depress the brake pedal while the wheel is off the motorcycle. The caliper pistons will be forced out of the cylinders with subsequent loss of brake fluid. If this occurs, servicing of the brake system will be necessary. See your authorized Honda dealer for this service.



- (4) Drive chain

- (5) Axle shaft

### Installation Notes:

To install the rear wheel, reverse the removal procedure. Torque the axle nut to the specified torque.

Axle nut torque:

95 N·m (9.5 kg-m , 69 lb-ft)

### **CAUTION:**

- \* When installing the wheel carefully, fit the brake disc between the brake pads to avoid damaging the pads.**

After installing the wheel, apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.

### **▲WARNING**

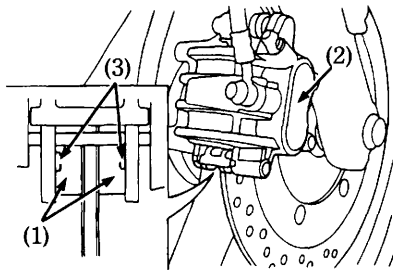
- \* If a torque wrench was not used for installation, see your authorized Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.**

## BRAKE PAD WEAR

(Refer to the maintenance precautions on page 54 ).

Brake pad wear will depend upon the severity of usage, type of riding and condition of the roads. The pads (1) will wear faster on dirty and wet roads. Inspect the pads visually from under the caliper (2) during all regular service intervals to determine the pad wear.

If either pad wears to the wear line (3), both pads must be replaced as a set.

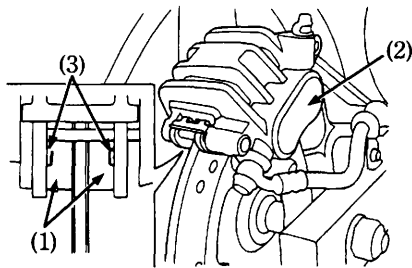


(FRONT) (1) Pads  
(2) Caliper

(3) Wear lines

## NOTE:

\* Use only genuine Honda replacement friction pads offered by authorized Honda dealers. When brake service is necessary consult your Honda dealer.



(REAR)

(1) Pads  
(2) Caliper

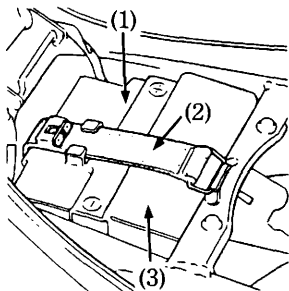
(3) Wear lines

## BATTERY

(Refer to the maintenance precautions on page 54).

If the motorcycle is operated with insufficient battery electrolyte, sulfation and battery plate damage will occur.

If rapid loss of electrolyte is experienced, or if your battery seems to be weak, causing slow starting or other electrical problems, see your authorized Honda dealer.



(1) Battery  
(2) Strap

(3) Cover

## Battery electrolyte :

The battery (1) is under the seat. Unhook the strap (2) and remove the battery cover (3).

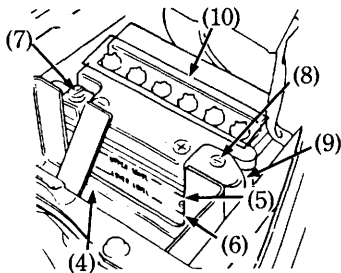
Remove the tool kit and pull back the separator (4).

Check the electrolyte level with the motorcycle on its center stand on level ground. The electrolyte level must be maintained between the UPPER (5) and LOWER (6) level marks on the side of the battery.

If the electrolyte level is low, disconnect the negative (–) terminal lead (7) from the battery first, then disconnect the positive (+) terminal lead (8).

Disconnect the battery breather tube (9). Pull out the battery. Remove the battery filler caps (10).

Carefully add distilled water to the UPPER level mark, using a small syringe or plastic funnel.



- (4) Separator
- (5) UPPER LEVEL
- (6) LOWER LEVEL
- (7) Negative terminal

- (8) Positive terminal
- (9) Breather tube
- (10) Filler caps

#### **CAUTION:**

- \* When checking the battery electrolyte level or adding distilled water, make sure the breather tube is connected to the battery breather outlet.
- \* Use only distilled water in the battery. Tap water will shorten the service life of the battery.
- \* Filling the battery above the UPPER LEVEL line may cause the electrolyte to overflow, resulting in corrosion to engine or frame parts. Immediately wash off any spilled electrolyte.
- \* The battery breather tube must be routed as shown on the label. Do not bend or twist the breather tube. A bent or kinked breather tube may pressurize the battery and damage its case.

## **▲WARNING**

- \* The battery gives off explosive gases; keep sparks, flames, and cigarettes away. Provide adequate ventilation when charging or using the battery in an enclosed space.
- \* The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.
  - If electrolyte gets on your skin, flush with water.
  - If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician immediately.
- \* Electrolyte is poisonous.
  - If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician.
- \* **KEEP OUT OF REACH OF CHILDREN.**

## FUSE REPLACEMENT

(Refer to the maintenance precautions on page 54 ).

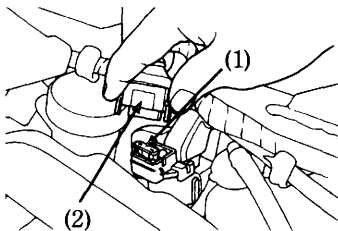
The main fuse (1), located near the rear brake reservoir behind the right side cover is :

30A (Main fuse)

The spare main fuse (3) is located on battery strap.

The fuse box (4) is located under the left inner cover. The specified fuses are :

10A and 20A



(1) Main fuse

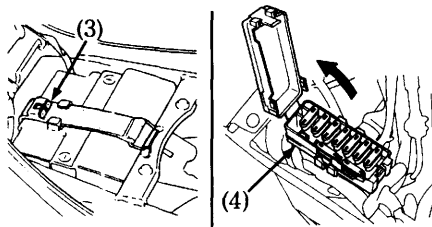
(2) Wire connector

When frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. See your authorized Honda dealer for repair.

### CAUTION:

**\* Turn the ignition switch OFF before checking or replacing fuses to prevent accidental short-circuiting.**

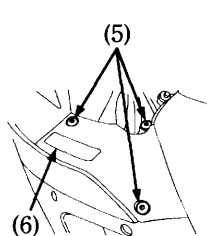
To replace the main fuse (1), remove the right side cover, disconnect the wire connector (2) of the stator magnetic switch and pull out the old fuse. Install a new fuse and reconnect the connector.



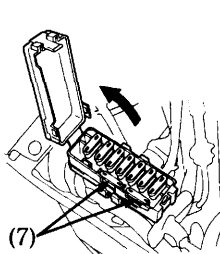
(3) Spare main fuse

(4) Fuse box

To replace any fuses in the fuse box (4), remove the hex bolts (5) and left inner cover (6). Spare fuses (7) are located in the fuse box. Pull the old fuse out of the clips with the fuse remover. Push a new fuse into the clips and install the fuse box cover.



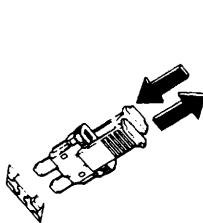
(5) Hex bolts  
(6) Left inner cover



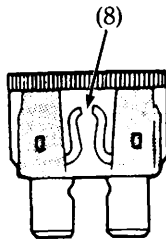
(7) Spare fuses

**▲ WARNING**

**\* Never use a fuse with a different rating from that specified. Serious damage to the electrical system or a fire may result, causing a dangerous loss of lights or engine power.**



Fuse remover



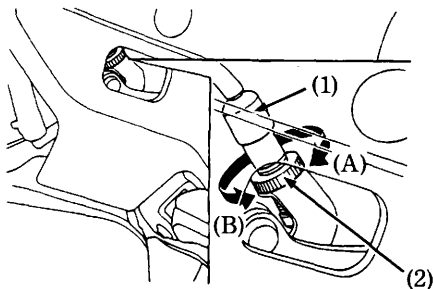
(8) Blown fuse

## STOPLIGHT SWITCH ADJUSTMENT

(Refer to the maintenance precautions on page 54 ).

Check the operation of the stoplight switch (1) behind the right lower cover from time to time.

Adjustment is done by turning the adjusting nut (2). Turn the nut in the direction (A) if the switch operates too late and in direction (B) if the switch operates too soon.



(1) Stoplight switch

(2) Adjusting nut

## CLEANING

Clean your motorcycle regularly to protect the surface finishes and inspect for damage, wear, and oil, coolant or brake fluid leakage.

### CAUTION:

**\* High pressure water (or air) can damage certain parts of the motorcycle.**

Avoid spraying high pressure water (typical in coin-operated car washes) at the following areas:

- Under Fuel Tank
- Muffler Outlets
- Carburetors
- Handlebar Switches
- Ignition Switch
- Clutch Master Cylinder
- Brake Master Cylinders
- Drive Chain
- Under Seat
- Wheel Hubs
- Instruments

1. After cleaning, rinse the motorcycle thoroughly with plenty of clean water. Strong detergent residue can corrode alloy parts.

### NOTE:

**\* Clean the fairing and other plastic parts using a cloth or sponge dampened with a solution of mild detergent and water. Rub the soiled area gently rinsing it frequently with fresh water.**

2. Dry the motorcycle, start the engine, and let it run for several minutes.

### ▲ WARNING

**\* Braking efficiency may be temporarily impaired immediately after washing the motorcycle. Anticipate longer stopping distance to avoid a possible accident.**

3. Test the brakes before riding the motorcycle. Several applications may be necessary to restore normal braking performance.

4. Lubricate the drive chain immediately after washing and drying the motorcycle.

### **Aluminum Wheel Maintenance**

Aluminum corrodes when it comes in contact with dust, mud, road salt, etc. After riding, clean the wheels with a wet sponge and mild detergent, then rinse well with water and wipe dry with a clean cloth.

#### **CAUTION:**

- \* **Do not use steel wool or a cleaner containing abrasives or compounds to clean the wheels, as they can cause damage.**
- \* **Do not ride over a curb or rub the wheel against an obstacle, as wheel damage may result.**

# STORAGE GUIDE

## STORAGE

Extended storage, such as for winter, requires that you take certain steps to reduce the effects of deterioration from non-use of the motorcycle. In addition, necessary repairs should be made **BEFORE** storing the motorcycle; otherwise, these repairs may be forgotten by the time the motorcycle is removed from storage.

1. Change the engine oil and filter.
2. Lubricate the drive chain (page 70).
3. Make sure the cooling system is filled with a 50/50% antifreeze solution.
4. Drain the fuel tank and carburetors into an approved petrol container. Spray the inside of the tank with an aerosol rust-inhibiting oil.

Reinstall the fuel cap on the tank.

## NOTE:

- \* If storage will last more than one month, carburetor draining is very important, to assure proper performance after storage.

## ▲ WARNING

- \* **Petrol is extremely flammable and is explosive under certain conditions. Perform this operation in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where petrol is drained or stored and where the fuel tank is refueled.**
5. Remove the spark plugs and pour a tablespoon (15–20 cc) of clean engine oil into each cylinder. Crank the engine several times to distribute the oil, then reinstall the spark plugs.

## NOTE:

- \* When turning the engine over, the engine Stop Switch should be OFF and each spark plug placed in its cable cap and grounded to prevent damage to the ignition system.

6. Remove the battery. Store in an area protected from freezing temperatures and direct sunlight. Check the electrolyte level and slow charge the battery once a month.
7. Wash and dry the motorcycle. Wax all painted surfaces. Coat chrome with rustinhibiting oil.
8. Inflate the tyres to their recommended pressures. Place the motorcycle on blocks to raise both tyres off the ground.
9. Cover the motorcycle (don't use plastic or other coated materials) and store in an unheated area, free of dampness with a minimum of daily temperature variation. Do not store the motorcycle in direct sunlight.

## **REMOVAL FROM STORAGE**

1. Uncover and clean the motorcycle.  
Change the engine oil if more than 4 months have passed since the start of storage.
2. Check the battery electrolyte level and charge the battery as required. Install the battery.
3. Drain any excess aerosol rust-inhibiting oil from the fuel tank. Fill the fuel tank with fresh petrol.
4. Perform all Pre-ride Inspection checks (page 40 ).  
Test ride the motorcycle at low speeds in a safe riding area away from traffic.

## SPECIFICATIONS

### DIMENSIONS

|                |                                         |
|----------------|-----------------------------------------|
| Overall length | 2,235 mm (88.0 in)                      |
|                | 2,260 mm (89.0 in) ··· N, FI, G, SD, DE |
|                | 2,275 mm (89.6 in) ··· SW               |
| Overall width  | 740 mm (29.1 in)                        |
| Overall height | 1,225 mm (48.2 in)                      |
| Wheel base     | 1,500 mm (59.1 in)                      |

### WEIGHT

|            |                         |
|------------|-------------------------|
| Dry weight | 230 kg (507 lbs)        |
|            | 231 kg (509 lbs) ··· SW |

### CAPACITIES

|                                                                             |                                     |
|-----------------------------------------------------------------------------|-------------------------------------|
| Engine oil (After draining and<br>oil filter change)<br>(After disassembly) | 3.8 ℓ (4.0 US qt , 3.3 Imp qt)      |
| Fuel tank                                                                   | 4.5 ℓ (4.8 US qt , 4.0 Imp qt)      |
| Fuel reserve                                                                | 21.0 ℓ (5.55 US gal , 4.62 Imp gal) |
| Cooling system capacity                                                     | 3.5 ℓ (0.92 US gal , 0.77 Imp gal)  |
| Passenger capacity load                                                     | 2.8 ℓ (0.74 US gal , 0.62 Imp gal)  |
| Maximum weight capacity                                                     | Operator and one passenger          |
|                                                                             | 192 kg (423 lbs)                    |
|                                                                             | 191 kg (421 lbs) ··· SW             |

## ENGINE

Bore and stroke

77.0 x 53.6 mm (3.03 x 2.11 in)

Compression ratio

10.5 : 1

Displacement

998 cm<sup>3</sup> (60.9 cu-in)

Spark plug

Standard

DPR9EA-9 (NGK)

X27EPR-U9 (NIPPONDENSO)

Spark plug gap

0.80-0.90 mm (0.031-0.035 in)

Idle speed

1,000 $\pm$ 50 rpm ... SW, AR

1,000 $\pm$ 100 rpm

## CHASSIS AND SUSPENSION

|                  |                  |
|------------------|------------------|
| Caster           | 27°              |
| Trail            | 110 mm (4.3 in)  |
| Tyre size, front | 120/70 VR17—V270 |
| Tyre size, rear  | 170/60 VR17—V270 |

## POWER TRANSMISSION

|                   |       |
|-------------------|-------|
| Primary reduction | 1.786 |
| Gear ratio, 1st   | 2.750 |
| 2nd               | 2.067 |
| 3rd               | 1.647 |
| 4th               | 1.368 |
| 5th               | 1.174 |
| 6th               | 1.045 |
| Final reduction   | 2.471 |

## ELECTRICAL

Battery  
Generator

12V — 14AH  
AC Generator

## LIGHTS

Headlight (HIGH/LOW)

12V — 60/55W x 2

Position light

12V — 60/55W x 1 . . . IT

Tail/brake light

12V — 5W

Turn signal light      Front  
                                    Rear

12V — 5/21W x 2

12V — 21W x 2

12V — 21W x 2

Instrument lights

12V — 1.7W x 4

Neutral indicator light

12V — 3.4W

Turn signal indicator light

12V — 3.4W x 2

High beam indicator light

12V — 3.4W

Oil pressure warning light

12V — 3.4W

Side stand indicator light

12V — 3.4W

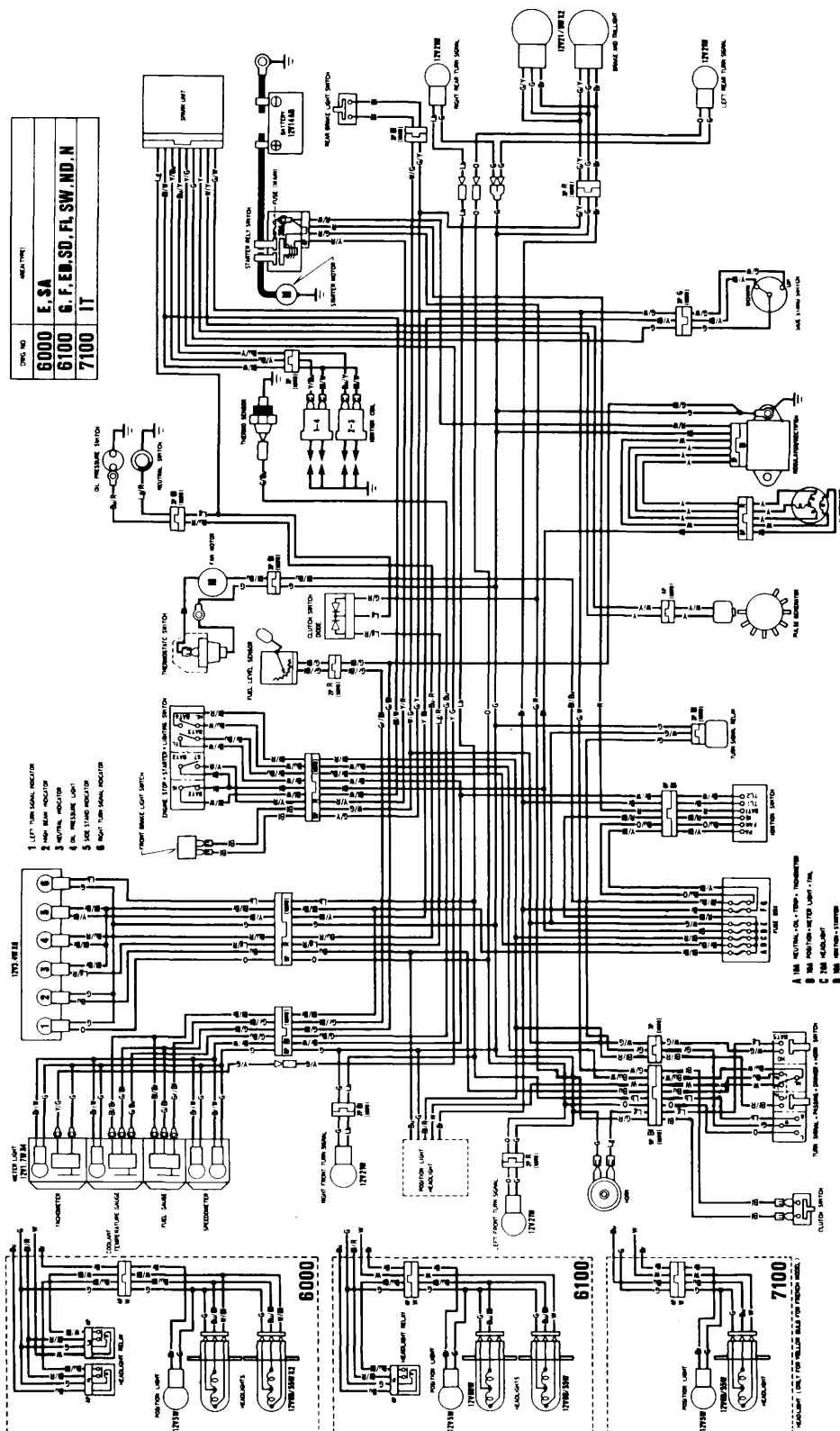
## FUSE

10A x 5, 20A x 2  
30A (Main fuse)

|         |                      |
|---------|----------------------|
| ONE NO. | ASAT/INO             |
| 6000    | 12BIO MATEL          |
| 6100    | E.SA                 |
| 7100    | G.F.EB.SD.FL.SW.ND.N |
|         | IT                   |



| TYPE NO. | WIRING TYPE                 |
|----------|-----------------------------|
| 6000     | E, SA                       |
| 6100     | G, F, ED, SD, FL, SW, ND, N |
| 7100     | IT                          |



| WIRING | WIRING |
|--------|--------|
| BLACK  | B      |
| RED    | R      |
| GREEN  | G      |
| WHITE  | W      |
| BLUE   | BL     |
| YELLOW | Y      |
| PINK   | P      |
| GRAY   | GR     |

WIRING CONTINUED

| WIRING | WIRING |
|--------|--------|
| BLACK  | B      |
| RED    | R      |
| GREEN  | G      |
| WHITE  | W      |
| BLUE   | BL     |
| YELLOW | Y      |
| PINK   | P      |
| GRAY   | GR     |

| WIRING | WIRING |
|--------|--------|
| BLACK  | B      |
| RED    | R      |
| GREEN  | G      |
| WHITE  | W      |
| BLUE   | BL     |
| YELLOW | Y      |
| PINK   | P      |
| GRAY   | GR     |

| WIRING | WIRING |
|--------|--------|
| BLACK  | B      |
| RED    | R      |
| GREEN  | G      |
| WHITE  | W      |
| BLUE   | BL     |
| YELLOW | Y      |
| PINK   | P      |
| GRAY   | GR     |

| WIRING | WIRING |
|--------|--------|
| BLACK  | B      |
| RED    | R      |
| GREEN  | G      |
| WHITE  | W      |
| BLUE   | BL     |
| YELLOW | Y      |
| PINK   | P      |
| GRAY   | GR     |

| WIRING | WIRING |
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| GREEN  | G      |
| WHITE  | W      |
| BLUE   | BL     |
| YELLOW | Y      |
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| GRAY   | GR     |

| WIRING | WIRING |
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| PINK   | P      |
| GRAY   | GR     |

| WIRING | WIRING |
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| BLUE   | BL     |
| YELLOW | Y      |
| PINK   | P      |
| GRAY   | GR     |

| WIRING | WIRING |
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| GREEN  | G      |
| WHITE  | W      |
| BLUE   | BL     |
| YELLOW | Y      |
| PINK   | P      |
| GRAY   | GR     |