HONDA MOTOR CO., LTD.

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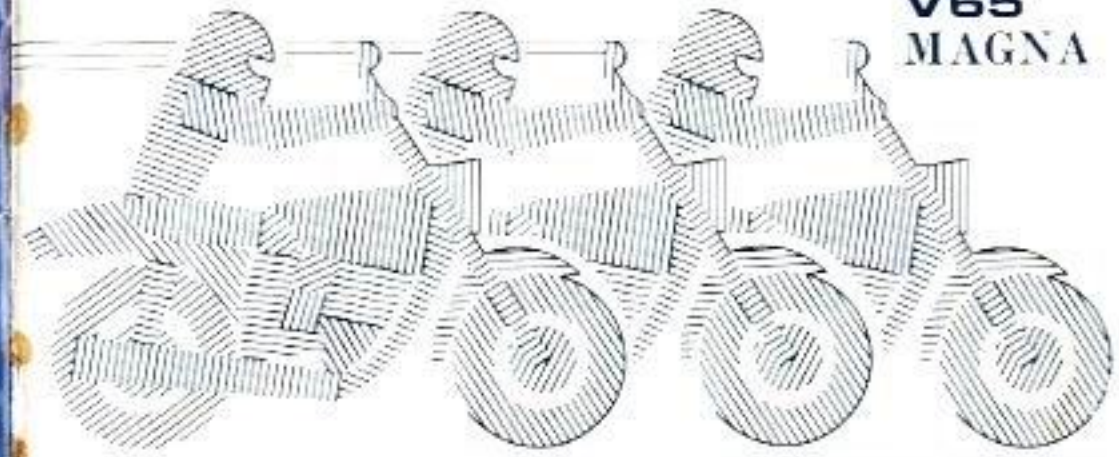
# 1984 HONDA

## V65 MAGNA



# VF1100C OWNER'S MANUAL

## IMPORTANT NOTICE

- **OPERATOR AND PASSENGER**

  This motorcycle is designed to carry the operator and one passenger. Never exceed the vehicle capacity load as shown on the tire information label.

- **ON-ROAD USE**

  This motorcycle is not equipped with a spark arrester and is designed to be used only on the road. Operation in forest, brush, or grass covered areas may be illegal. Obey local laws and regulations.

- **READ OWNER'S MANUAL CAREFULLY**

  Pay special attention to statements preceded by the following words.

**⚠ WARNING**

*Indicates a strong possibility of severe personal injury or loss of life 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 VF1100C
V65 MAGNA
OWNER'S MANUAL

1984

## WELCOME

Your new motorcycle presents you with an invitation to adventure and a challenge to master the motorcycle. Your safety depends not only on your own alertness and familiarity with the motorcycle, but also the motorcycle's mechanical condition. A pre-ride inspection before every outing and regular maintenance are essential.

To help meet the challenges safely and enjoy the adventure fully, become thoroughly familiar with this Owner's Manual BEFORE YOU RIDE THE MOTORCYCLE. Also, for your own and your Honda's sake, please read all the written material which came with your new Honda. These items include:

* Honda Owner's Identification Card
* Set-up and Predelivery Checklist
* Honda Motorcycle Emission Control System, Distributor's Warranty
* Honda Motorcycle, Distributor's Limited Warranty
* Honda Motorcycle Noise Control Systems, Distributor's Warranty

When service is required, remember that your Honda dealer knows what it takes to keep your Honda going strong. If you have the required mechanical "know-how" and tools, your dealer can supply you with an official Honda Shop Manual to help you perform many maintenance and repair tasks.

Pleasant riding, and thank you for choosing a Honda!

## CONTENTS



## 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 36) before you start the engine. You may prevent an accident or equipment damage.
2. Many accidents involve inexperienced riders. Most states 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 federal, state, 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, boots, gloves, and protective clothing. A passenger needs the same protection.
2. The exhaust system becomes very hot during operation, and it remains hot after operation. Never touch any part of the hot exhaust system. Wear clothing that fully covers your legs.
3. Do not wear loose clothing which could catch on the control levers, footpegs or wheels.



## MODIFICATIONS

**WARNING**

* *Modification of the motorcycle, or removal of original equipment may render the vehicle unsafe or illegal. Obey all federal, state 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 80 mph. And remember that this 80 mph limit may be reduced by installation of non-Honda accessories, improper loading, worn tires and overall motorcycle condition, poor road or weather conditions, etc. 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 370 lbs (168 kg), the vehicle capacity load. Cargo weight alone should not exceed 60 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 farther from the motorcycle's center of gravity, handling is proportionally affected.
2. Adjust tire pressure (page 5), front suspension (pages 7, 11) and rear suspension (pages 8-10) to suit load weight and riding conditions.
3. Luggage racks are for lightweight items. Do not carry more than 30 lbs. of cargo on a luggage rack behind the seat. Bulky items too far behind the rider may cause wind turbulence that impairs handling.
4. All cargo and accessories must be secure for stable handling. Recheck cargo security and accessory mounts frequently.
5. Do not attach large, heavy items to the handlebars, front forks, 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 at night or in traffic.
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.



## TUBELESS TIRES

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

Proper air pressure will provide maximum stability, riding comfort and tire life.

Check tire pressure frequently and adjust if necessary.

NOTE:

* Tire pressure should be checked when the tires are "cold," before you ride.
* Tubeless tires have some degree of self-sealing ability if they are punctured, and leakage is often very slow. Inspect very closely for punctures, especially if the tire is not fully inflated.

| | | |
|---|---|---|
| Dry weight | kg (lbs) | 245 (540) |
| Curb weight (wet) | kg (lbs) | 265 (584) |
| Gross vehicle weight rating | kg (lbs) | 435 (960) |
| Vehicle capacity load | kg (lbs) | 168 (370) |

| | | Front | Rear |
|---|---|---|---|
| Tire size | | M110/90-18 | M140/90-16 |
| Cold tire pressures psi (kPa, kg/cm²) | Up to 90 kg (200 lbs) load | 32 (225, 2.25) | 32 (225, 2.25) |
| | 90 kg (200 lbs) load to vehicle capacity load | 32 (225, 2.25) | 40 (280, 2.8) |
| Tire brand TUBELESS ONLY BRIDGESTONE DUNLOP | | L303 F11 | G508* K627 |

Check the tires for cuts, imbedded 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 tire inflation will cause abnormal tread wear and create a safety hazard. Underinflation may result in the tire slipping on, or coming off of the rim.*
* *Operation with excessively worn tires is hazardous and will adversely affect traction and handling.*

Replace tires before tread depth at the center of the tire reaches the following limit:

| Minimum tread depth | |
|---|---|
| Front: | 1.5 mm (1/16 in) |
| Rear: | 2.0 mm (3/32 in) |

**Tire Repair/Replacement:**

See your authorized Honda Dealer

**WARNING**

* *The use of tires other than those listed here may adversely affect handling.*
* *Do not install tube-type tires on tubeless rims. The beads may not seat and the tires could slip on the rims, causing tire deflation.*
* *Do not install a tube inside a tubeless tire. Excessive heat build-up may cause the tube to burst, resulting in rapid tire deflation.*
* *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 tire repair or replacement.*
* *Do not exceed 50 mph for the first 24 hours after tire repair, or repair failure and tire deflation may result. Never use a repaired tire at speeds over 80 mph.*
* *Replace the tire if the sidewall is punctured or damaged. Sidewall flexing may cause repair failure and tire deflation.*

**CAUTION:**

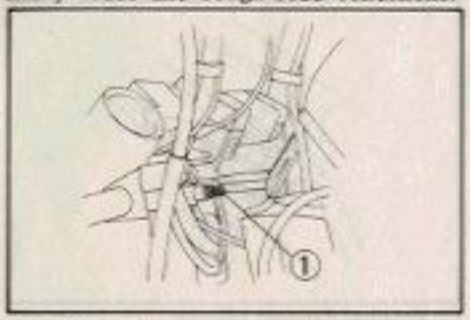
* *Do not try to remove tubeless tires without special tools and rim protectors. You may damage the rim sealing surface or disfigure the rim.*



## SUSPENSION

### Front Suspension

The front suspension of this motorcycle can provide the desired ride under various rider/cargo weights and riding conditions through adjustment of the air pressure within the fork tubes. The recommended pressure under normal riding conditions is 0–6 psi (0–40 kPa, 0–0.4 kg/cm²). Low air pressure settings provide a softer ride and are for light loads and smooth road conditions. High air pressure settings provide a firmer ride and are for heavy loads and rough road conditions.




(1) Valve cap

Check and adjust air pressure when the front fork tubes are cold before riding.

1. Place the motorcycle on its center stand. Do not use the side stand or you will get false pressure readings.
2. Remove the front fork air valve cap (1).
3. Check the air pressure using the pressure gauge.

NOTE:

* Some pressure will be lost when removing the gauge from the valve. Determine the amount of loss and compensate accordingly.

4. Add air to the recommended pressure.

NOTE:

* Do not exceed the recommended air pressure or the ride will be harsh and uncomfortable.

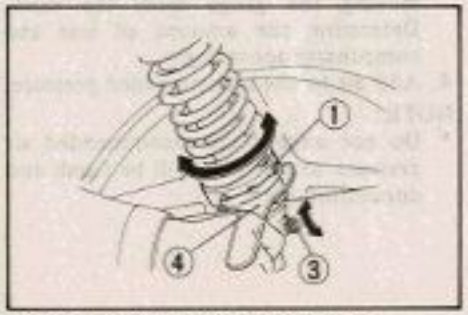


### Rear Shock Absorbers

This motorcycle has ADJUSTABLE VHD shock absorbers with three adjustable functions to provide the desired ride with various rider/cargo weights.

The spring adjuster (1) adjusts spring preload for changes in rider/cargo weight.

The rebound damping adjuster (2) and compression damping adjuster (3) adjust damping to provide the desired ride (soft to firm) under various rider/cargo weights and riding conditions.




(1) Spring adjuster (4) Hook spanner
(3) Compression damping adjuster

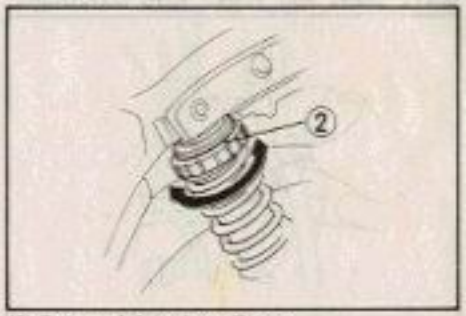


**WARNING**

* *Be careful not to touch hot mufflers while adjusting the shock absorbers.*

Adjust spring preload first, using the tool kit hook spanner (4) to rotate the spring adjuster (1). Position I is for light loads and positions II to V progressively increase preload for heavier loads.

After adjusting preload, rotate the rebound damping adjuster (2) by hand to select one of the four positions. Move the compression damping adjuster (3) to position 1 or 2.




(2) Rebound damping adjuster

For both adjusters, damping force increases as you select a higher number. Match your riding conditions with those listed in the table on page 10 and select the recommended damping adjuster positions.

Be sure to adjust both shock absorbers to the same positions.

**Recommended damping adjuster positions**

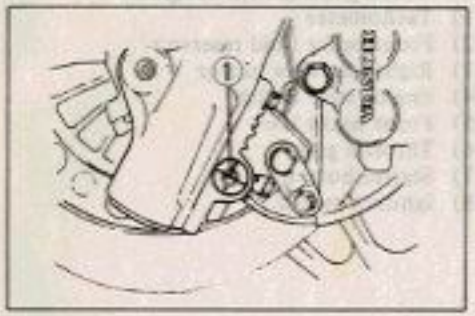
| REBOUND DAMPING ADJUSTER (2) | COMPRESSION DAMPING ADJUSTER (3) | CONDITIONS | |
|---|---|---|---|
| | | RIDERS/LOAD | RIDING CONDITIONS |
| 1 | 1 | One | Ordinary or city road riding |
| 2 | 1 | One | Highway or winding road riding |
| 3 | 1 | One | Rough road riding |
| 2 | 2 | One/Two | Ordinary or city road riding |
| 3 | 2 | One/Two or carrying load | Highway or winding road riding |
| 4 | 2 | One/Two or carrying load | Rough road riding. |



**T.R.A.C. Anti-dive Adjuster**

This adjuster (1) controls the amount of damping force which reduces nose-dive during braking and may be adjusted to the rider's choice independent of load or the rider's weight. Located on the left side of the front fork, this adjuster can be set to any one of four positions.

| Position | Anti-dive damping force |
|---|---|
| 1 | LIGHT ANTI-DIVE |
| 2 | MEDIUM |
| 3 | HARD |
| 4 | MAXIMUM ANTI-DIVE |




(1) T.R.A.C. Anti-dive adjuster

**WARNING**

* *Do not position the adjuster between the numbered detent adjustment points.*

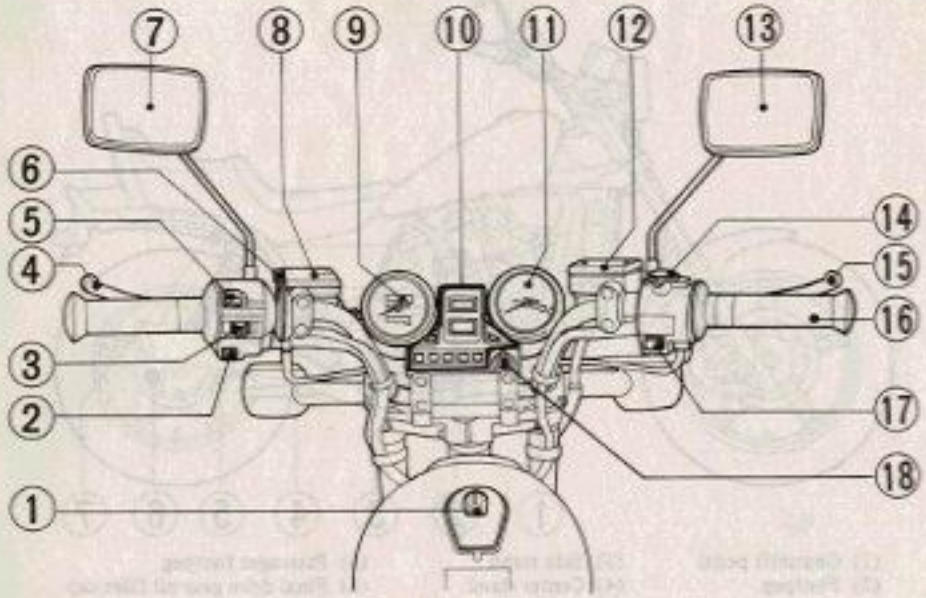


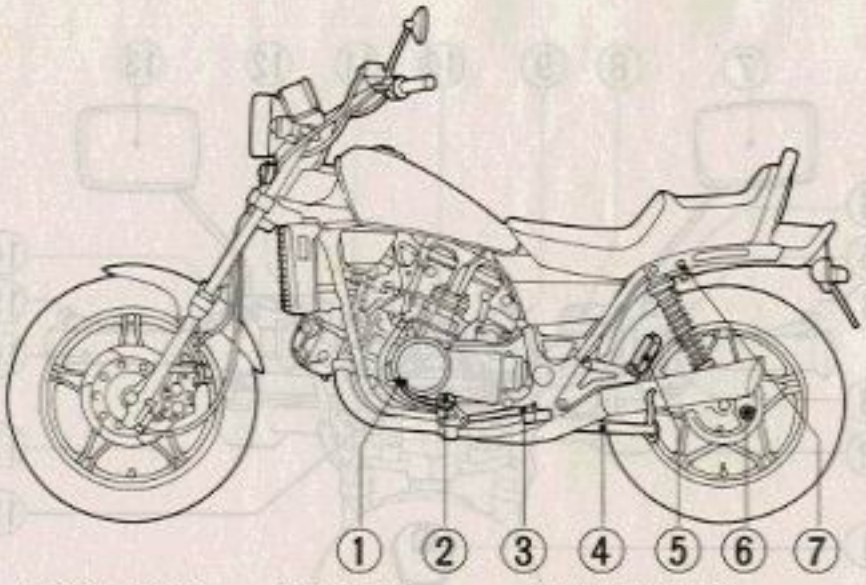
## DESCRIPTION

**PARTS LOCATION**

(1) Fuel tank cap
(2) Horn button
(3) Turn signal switch
(4) Clutch lever
(5) Headlight dimmer switch
(6) Choke lever
(7) Left rear view mirror
(8) Clutch fluid reservoir
(9) Speedometer
(10) Warning and indicator lights
(11) Tachometer
(12) Front brake fluid reservoir
(13) Right rear view mirror
(14) Engine stop switch
(15) Front brake lever
(16) Throttle grip
(17) Starter button
(18) Ignition switch

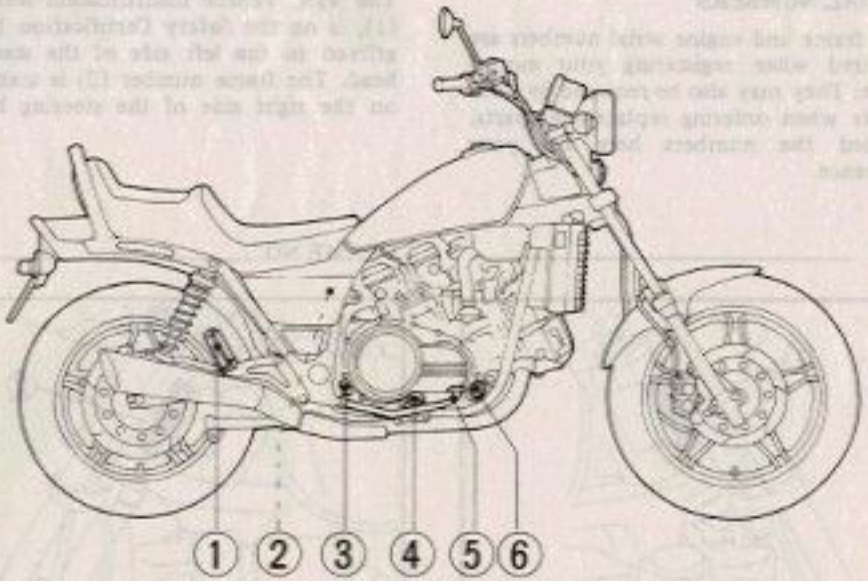







(1) Gearshift pedal
(2) Footpeg
(3) Side stand
(4) Center stand
(5) Passenger footpeg
(6) Final drive gear oil filler cap
(7) Helmet holder






(1) Passenger footpeg
(2) Coolant reserve tank
(3) Engine oil dipstick
(4) Footpeg
(5) Rear brake pedal
(6) Engine oil filler cap



## 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.

VIN _____

The VIN, Vehicle Identification Number (1), is on the Safety Certification Label affixed to the left side of the steering head. The frame number (2) is stamped on the right side of the steering head.

FRAME NO. _____

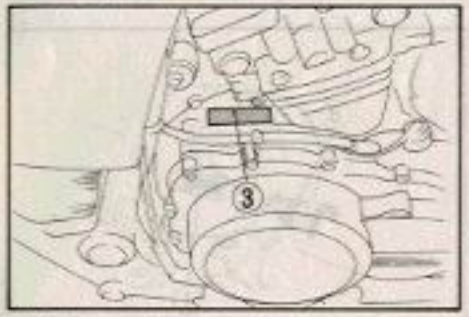

(1) VIN


(2) Frame number



The engine number (3) is stamped on top of the crankcase.

ENGINE NO. _____



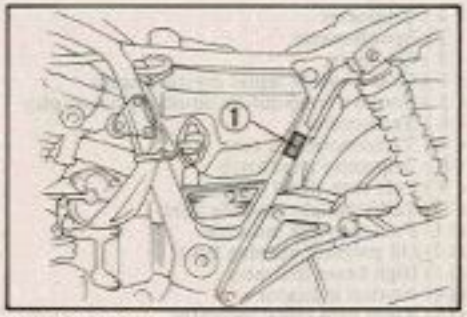

(3) Engine number

## COLOR LABEL

The color label is attached to the frame behind the left side cover and is helpful when ordering replacement parts. Record the model and color here for your reference.

MODEL _____

COLOR _____




(1) Color label

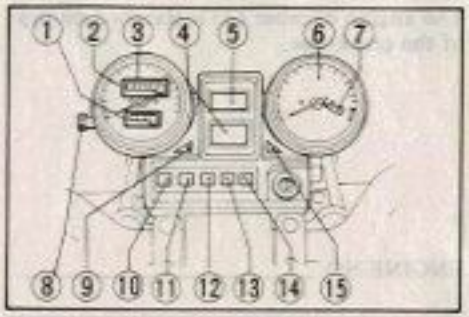
## PARTS FUNCTION

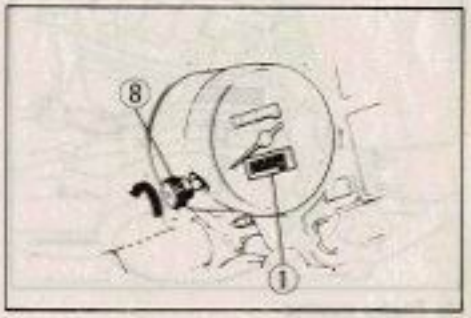
### Instruments and Indicators

The indicators and warning lights are grouped between the instruments. Their functions are described in the tables on the following pages.

USA model:
Odometer and tripmeter read in miles.
Canadian model:
Odometer and tripmeter read in kilometers.

(1) Tripmeter
(2) Speedometer
(3) Odometer
(4) Gear position liquid crystal display
(5) Coolant temperature liquid crystal display
(6) Tachometer
(7) Tachometer red zone
(8) Tripmeter reset knob
(9) Left turn signal indicator
(10) Tail/stoplight warning light
(11) Fuel reservoir indicator
(12) Oil pressure warning light
(13) High beam indicator
(14) Neutral indicator
(15) Right turn signal indicator






| Ref. No. | Description | Function |
|---|---|---|
| 1 | Tripmeter | Shows mileage per trip. |
| 2 | Speedometer | Shows riding speed. |
| 3 | Odometer | Shows accumulated mileage. |
| 4 | Gear position liquid crystal display | Indicates the motorcycle's gear position. |
| 5 | Coolant temperature liquid crystal display | Shows coolant temperature (see page 21). |
| 6 | Tachometer | Shows engine rpm. |
| 7 | Tachometer red zone | Never allow the tachometer needle to enter the red zone, even after the engine has been broken in.<br>**CAUTION:**<br>* *The red zone indicates the maximum limits of engine speed and running the engine in the red zone will adversely affect its service life.* |
| 8 | Tripmeter reset knob | Turning the knob in the direction shown resets the tripmeter to zero (0). |
| 9 | Left turn signal indicator (amber) | Flashes when the left turn signal operates. |



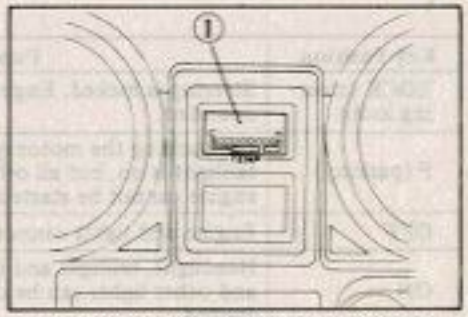
| Ref. No. | Description | Function |
|---|---|---|
| 10 | Tail/stoplight warning light | Lights when the tail/stoplight bulb is burned out. Should light for a few seconds and go out when the ignition switch is turned ON. |
| 11 | Fuel reservoir indicator | When this lamp comes on while riding, there is about 3 liters (0.8 US gal) left in the tank. Should light for a few seconds and go out when the ignition switch is turned ON. |
| 12 | Oil pressure warning light (red) | Lights when the engine oil pressure is below the 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.<br>**CAUTION:**<br>**Running the engine with insufficient oil pressure will cause serious engine damage.* |
| 13 | High beam indicator (blue) | Lights when headlight is on high beam. |
| 14 | Neutral indicator (green) | Lights when transmission is in neutral. |
| 15 | Right turn signal indicator (amber) | Flashes when the right turn signal operates. |



### Coolant Temperature Liquid Crystal Display

When the coolant temperature liquid crystal display (1) exceeds the blue mark, the engine is warm enough to ride. Normal operating temperature is within the dark gray band. If the liquid crystal display enters the red zone, stop the engine and check the reserve tank coolant level. Read pages 34–35 and do not ride the motorcycle until the problem has been corrected.

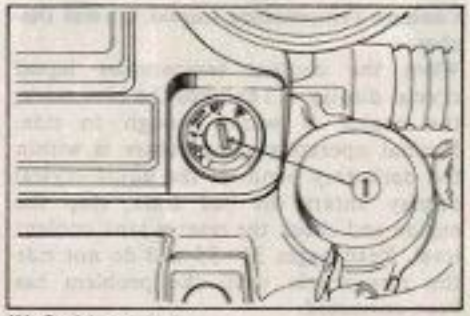
**CAUTION:**
* *Exceeding maximum operating temperature may cause serious engine damage.*




(1) Coolant temperature liquid crystal display

### Ignition Switch

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



(1) Ignition switch

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



### Engine Stop Switch

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

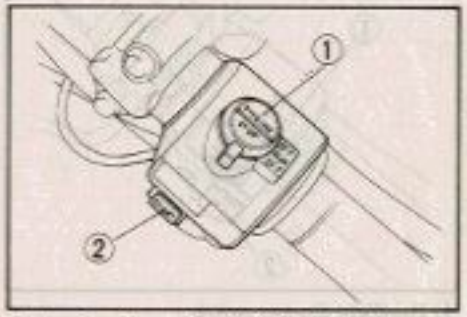
NOTE:

* If your motorcycle is stopped with the ignition switch ON and the engine stop switch OFF, the headlight and taillight will still be on, resulting in battery discharge.

### Starter Button

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

When the starter button is pressed, the starter motor will crank the engine and the headlight will automatically go out during starting, but the taillight will stay on. See page 37 for the starting procedure.



(1) Engine stop switch (2) Starter button



The three controls next to left handlebar grip are:

### Headlight Dimmer Switch (1)

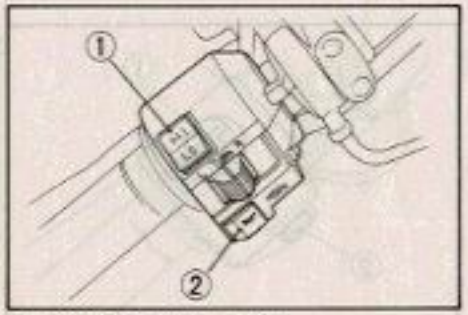
Select Hi for high beam, Lo for low beam.

### Horn Button (2)

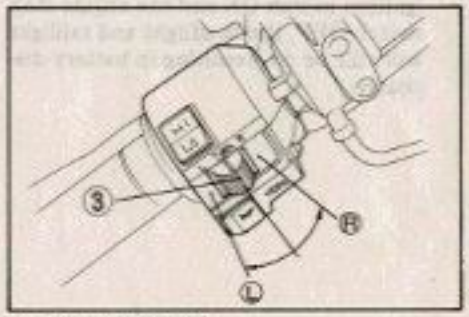
Press the button to sound the horn.

### Turn Signal Switch (3)

Move the switch to L to signal a left turn, to R to signal a right turn; the appropriate turn signal and indicator will blink. The switch self-cancels and returns automatically to OFF when the handlebars are returned to the straight ahead position.



(1) Headlight dimmer switch
(2) Horn button



(3) Turn signal switch

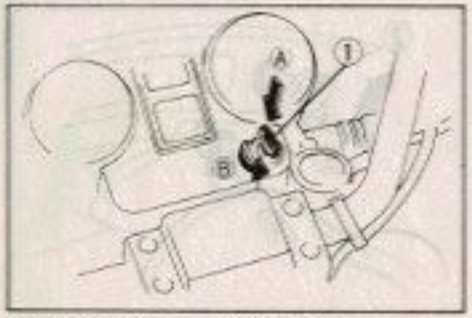


### Steering Lock

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

**WARNING**

* *Do not turn the key to LOCK while riding the motorcycle.*



(1) Ignition key (A) Push in (B) Turn to LOCK

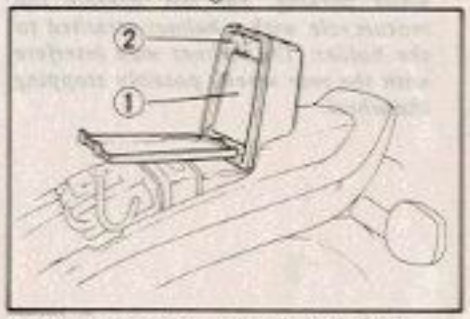
### Document Bag

The document bag (1) is in the storage compartment at the rear of the seat. To remove the seat, unlock the helmet holder (see page 26).

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

**CAUTION:**

* *Make sure to lock the seat securely when reinstalling it.*



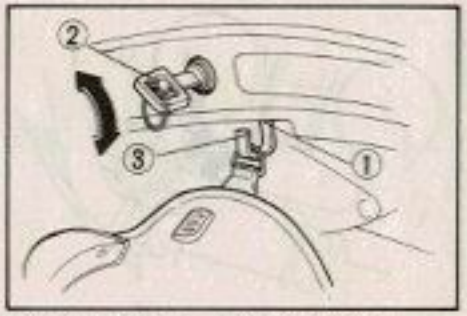
(1) Document bag (2) F.O.I.L. cable

### Helmet Holder

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

**WARNING**

* ***The helmet holder is designed for use while parking. Do not operate the motorcycle with a helmet attached to the holder. The helmet may interfere with the rear wheel, possibly stopping the wheel.***




(1) Helmet holder
(2) Ignition key
(3) Holder pin



### F.O.I.L. anti-theft system

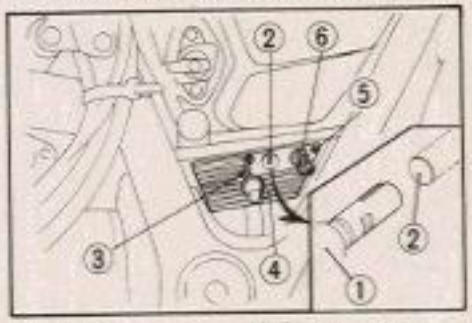
The F.O.I.L. anti-theft system is located below the left side cover. The cable (1) is stored in the storage compartment (page 25). If the cable (1) is cut while the F.O.I.L. system is on, an alarm will sound.

To use the F.O.I.L. anti-theft system when parked:

1. Wrap the cable (1) around a post or other suitable object.
2. Insert the end of the cable securely into the receptacle (2).
   The cable should lock, then the lamp (3) should flash on and off once.

NOTE:

* If the lamp does not flash, replace the battery (9V). To remove the battery case, insert the ignition key in the lock, press the case release button (5), and turn the key 90° counterclockwise.
* The end of the cable cannot be inserted in the receptacle when the key is not in the lock. The key cannot be removed from the lock unless the cable is locked.




(1) Cable
(2) Receptacle
(3) Lamp
(4) Battery case
(5) Case release button
(6) Ignition key



3. To unlock the cable, insert the ignition key (6) into the F.O.I.L. system lock and turn it counterclockwise. Remove the cable and return it to the storage compartment.



## FUEL

### Manual Fuel Valve

The manual fuel valve (1) is behind the left side cover. Set it to ON for normal operation. The OFF setting is only for long term storage or servicing of fuel system components.

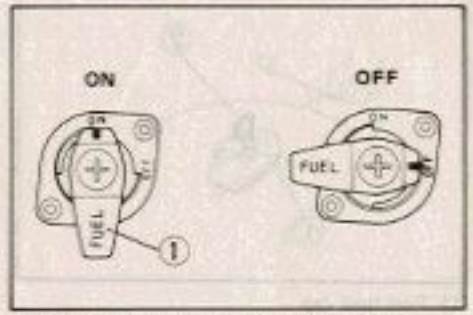
### Automatic Fuel ON-OFF

With the fuel valve set to ON, fuel flows to the carburetors only when the engine is being started or is running. A diaphragm in the fuel pump shuts off fuel flow when the engine is turned off.

### Reserve Fuel

There is no reserve fuel position on the fuel valve.

When the main fuel supply is gone, the fuel reservoir indicator lamp comes on. The reserve fuel supply is 3 ℓ (0.8 US gal), so refill the tank as soon as possible.



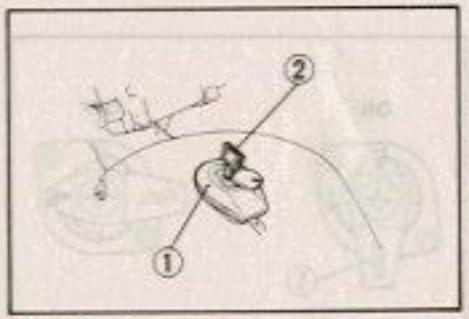

(1) Fuel valve in normal operating position

**Fuel Tank**

Fuel tank capacity is 17 ℓ (4.5 US gal) including 3 ℓ (0.8 US gal) in the reserve supply.

To open the fuel tank cap (1), insert the ignition key (2) and turn it clockwise. The cap is hinged and will lift up. Any automotive gasoline with a pump octane number ($\frac{R+M}{2}$) of 86 or higher or a research octane number of 91 or higher may be used. If "knocking" or "pinging" occurs, try a different brand of gasoline or a higher octane grade.

To close the fuel tank cap, press the cap into the filler neck until it snaps closed; the fuel tank cap locks automatically. Remove the key.




(1) Fuel tank cap
(2) Ignition key

**WARNING**

* *Gasoline 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 the motorcycle is refueled or where gasoline is stored.*
* *Do not overfill the tank (there should be no fuel in the filler neck). After refueling, make sure the fuel cap is closed securely.*



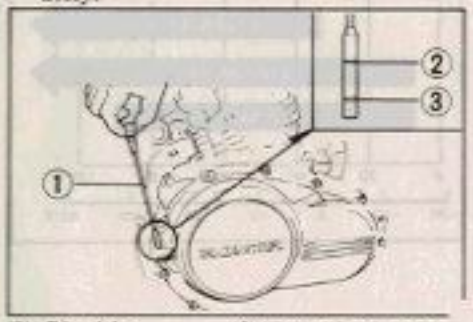
## ENGINE OIL

**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 2–3 minutes. Make sure the red oil pressure warning light goes off. If the light remains on, stop the engine immediately.

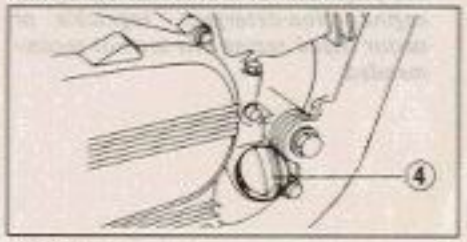



(1) Dipstick (3) Lower level mark
(2) Upper level mark

2. Stop the engine and put the motorcycle on its center stand on level ground.
3. Remove the dipstick (1), wipe it clean, and insert the dipstick without screwing it in. Remove the dipstick and check the oil level. The oil level should be between the upper (2) and lower (3) marks on the dipstick.
4. If required, remove the filler cap (4), add the specified oil up to the upper level mark, then reinstall the filler cap.

**CAUTION:**

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




(4) Filler cap



**Engine Oil Recommendation**

**USE HONDA 4-STROKE OIL OR AN EQUIVALENT**

Use only high detergent, premium quality motor oil certified to meet US automobile manufacturers' requirements for Service Classification SE or SF.

Motor oils intended for Service SE or SF will show this designation on the container. The use of special oil additives is unnecessary and will only increase operating expenses.

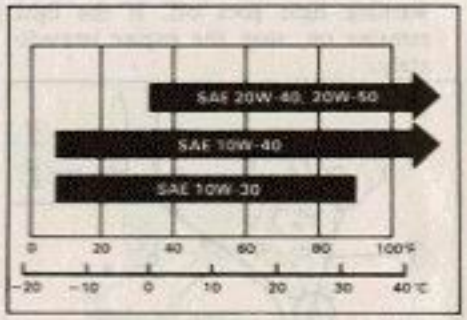
**CAUTION:**

* *Engine oil is a major factor affecting the performance and service life of the engine. Non-detergent, vegetable or castor based racing oils are not recommended.*

**Recommended Oil Viscosity**

**SAE 10W-40**

Other viscosities show in the chart below may be used when the average temperature in your riding area is within the indicated range.






## FINAL DRIVE OIL

**Oil Level Check**

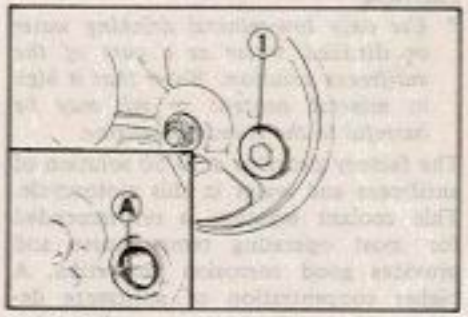
Check the final drive oil level when specified by the maintenance schedule.

1. Place the motorcycle on its center stand on level ground.
2. Remove the oil filler cap (1).
3. Check that the oil level reaches the lower edge of oil cap hole.

NOTE:

* If the level is low, check for leaks. Pour fresh oil through the oil filler opening until it reaches the lower edge of the opening.

**Recommended oil: HYPOID GEAR OIL SAE 80**




(1) Oil filler cap (A) Oil level

## COOLANT

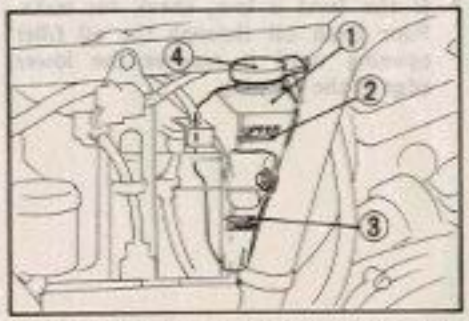
### Coolant Recommendation

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 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.




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



### Inspection

The reserve tank is behind the right side cover.

Check the coolant level in the reserve tank (1) while the engine is at the normal operating temperature. If the coolant level is low, remove the reserve tank cap (4) and add coolant mixture until it reaches the UPPER level mark. Do not remove the radiator cap.

**WARNING**

- ***Do not remove the radiator cap when the engine is hot. The coolant is under pressure and severe scalding could result.***
- ***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.



# OPERATION

## PRE-RIDE INSPECTION

**WARNING**

- ***If the Pre-ride Inspection is not performed, serious damage or an accident may result.***

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

1. Engine oil level–add engine oil if required (pages 31–32). Check for leaks.
2. Fuel level–fill fuel tank when necessary (page 30). Check for leaks.
3. Coolant level–add coolant if required. Check for leaks (pages 34–35).
4. Front and rear brakes–check operation; make sure there is no brake fluid leakage (pages 71–73).
5. Tires–Check condition and pressure (pages 5–6).
6. Throttle–check for smooth opening and closing in all steering positions.
7. Lights and horn–check that headlight, tail/stoplight, turn signals, indicators and horn function properly.
8. Engine stop switch–check for proper function (page 23).

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 a closed area. The exhaust contains poisonous carbon monoxide gas.***

NOTE:

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

### PREPARATION

Make sure the transmission is in neutral, the engine stop switch is at RUN and the fuel valve is ON. Insert the key and turn the ignition switch ON.

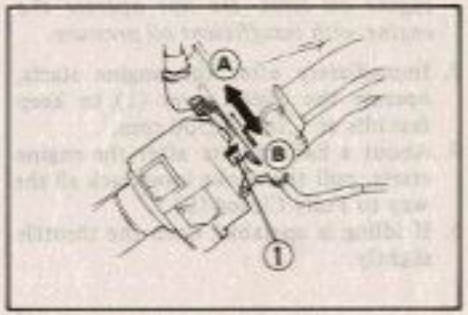
Check that the red oil pressure warning light comes ON.

### STARTING PROCEDURE

To restart a warm engine, follow the procedure for "High Air Temperature."

Normal Air Temperature
10°–35°C (50°–95°F)

1. Push the choke lever (1) forward all the way to Fully Open (A).
2. Start the engine, leaving the throttle closed.




(1) Choke lever (A) Fully Open
(B) Fully Closed

NOTE:

* Do not open the throttle when starting the engine with the choke open. This will lean the mixture, resulting in hard starting.

**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. Do not operate the engine with insufficient oil pressure.*

3. Immediately after the engine starts, operate the choke lever (1) to keep fast idle at 1,500–2,500 rpm.
4. About a half minute after the engine starts, pull the choke lever back all the way to Fully Closed (B).
5. If idling is unstable, open the throttle slightly.



High Air Temperature

35°C (95°F) or above

1. Do not use the choke.
2. Open the throttle slightly.
3. Start the engine.

Low Air Temperature

10°C (50°F) or below

1. Follow steps 1 – 2 under Normal Air Temperature.
2. Warm up the engine by opening and closing the throttle slightly.
3. Continue warming up until the engine runs smoothly and responds to the throttle when the choke lever is at Fully Closed (B).

**CAUTION:**

* *Snapping or fast idling for more than about 5 minutes at normal air temperature may cause exhaust pipe discoloration.*
* *Extended use of the choke may impair piston and cylinder wall lubrication.*

**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 OFF and pull the choke lever back to Fully Closed (B). Open the throttle fully and crank the engine for 5 seconds. Wait 10 seconds, then turn the engine stop switch ON and follow the "High Air Temperature" Starting Procedure.



## BREAK-IN

During initial break-in, newly machined surfaces will be in contact with each other and these surfaces will wear in quickly. Break-in maintenance at 600 miles is designed to compensate for this initial minor wear. Timely performance of break-in maintenance will ensure optimum service life and performance from the engine. The general rules are as follows:

1. Bear in mind never to lug the engine with full throttle at low engine speeds. This rule is applicable not only during break-in but at all times.
2. Maximum continuous engine speed during the first 1,000 km (600 miles) must not exceed 5,000 rpm.
3. Increase the maximum continuous engine speed by 2,000 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 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 10,000 rpm at any time (tachometer RED ZONE limit).

**CAUTION:**

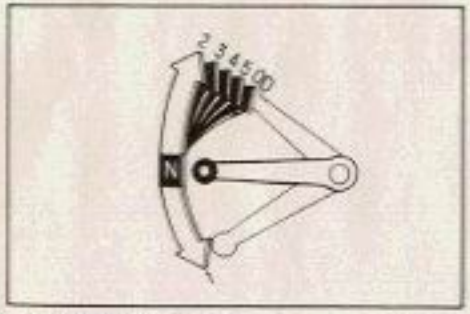
* *The red zone indicates the maximum limits of engine speed and running the engine in the red zone will adversely affect its service life.*



## RIDING

**WARNING**

* *Review Motorcycle Safety (pages 1–11) before you ride.*
* ***Make sure the side stand is fully retracted before riding the motorcycle. If the stand is extended, it may interfere with control during a left turn.***




Shifting pattern

Proper shifting will provide better fuel economy. When changing gears under normal conditions, use these recommended shift points:

Shifting Up:

| | |
|---|---|
| From 1st to 2nd: | 12 mph (20 km/h) |
| From 2nd to 3rd: | 19 mph (30 km/h) |
| From 3rd to 4th: | 25 mph (40 km/h) |
| From 4th to 5th: | 31 mph (50 km/h) |
| From 5th to OD: | 37 mph (60 km/h) |

Shifting Down:

| | |
|---|---|
| From OD to 5th: | 28 mph (45 km/h) |
| From 5th to 4th: | 22 mph (35 km/h) |
| From 4th to 3rd: | 16 mph (25 km/h) |

Disengage the clutch when speed drops below 9 mph (15 km/h), when engine roughness is evident, or when engine stalling is imminent; and shift down to 1st gear for acceleration.

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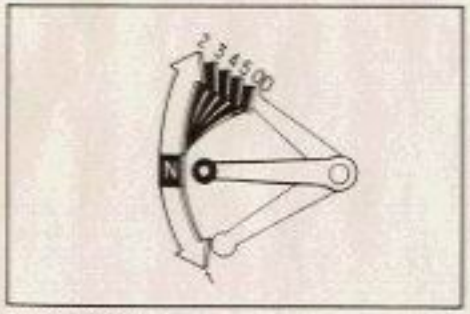


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Disengage the clutch when speed drops below 9 mph (15 km/h), when engine roughness is evident, or when engine stalling is imminent; and shift down to 1st gear for acceleration.



**WARNING**

* *Do not downshift when traveling at a speed that would force the engine to overrev in the next lower gear, or cause the rear wheel to lose traction.*

**CAUTION:**

* *Do not shift gears without disengaging the clutch and closing the throttle. The engine and drive train could be damaged by overspeed and shock.*
* *Do not tow the motorcycle or coast for long distances while the engine is off. The transmission will not be properly lubricated and damage may result.*
* *Do not exceed 8,000 rpm when running the engine without a load. Serious engine damage may result.*

NOTE:

* The battery will not charge while the engine speed is below 1,100 rpm. Avoid idling for prolonged periods, or continuous operation below 1,100 rpm.



* Be careful when revving the engine or accelerating in 1st or 2nd gear as the engine will easily enter the red zone.



### High Altitude Riding

When operating this motorcycle at high altitude, the air-fuel mixture becomes overly rich. Above 6,500 feet (2,000 m) driveability and performance may be reduced and fuel consumption increased. See your authorized Honda dealer for high altitude adjustments.

## BRAKING

1. For normal braking, gradually apply both 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. Disengage the clutch before the motorcycle stops.

**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.*
- *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. Sudden 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.*



## PARKING

1. After stopping the motorcycle, shift the transmission into neutral, 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 overturning.*

3. Lock the steering and F.O.I.L. anti-theft cable to help prevent theft (pages 25 and 27).

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. Lock the steering (page 25) and use the F.O.I.L. anti-theft system (page 27).
5. Put your name, address, and phone number in this Owner's Manual and keep it on your motorcycle at all times. Many times stolen motorcycles are identified by information in the Owner's Manuals which are still with them.

NAME: _____
ADDRESS: _____
_____
_____
PHONE NO.: _____



## SPECIAL PROCEDURES

These special procedures are intended to help you out in case of trouble on the road: a flat tire, or a blown fuse. In case of a flat tire, you can remove the entire wheel and take it to a qualified repair facility. Refer to "TIRES" on pages 5-6. Because of the critical nature of wheel attachment, you should proceed to an authorized Honda dealer as soon as possible after repair to verify proper assembly.

**WARNING**

* ***Stop the engine and support the motorcycle securely on a level surface before performing these procedures.***

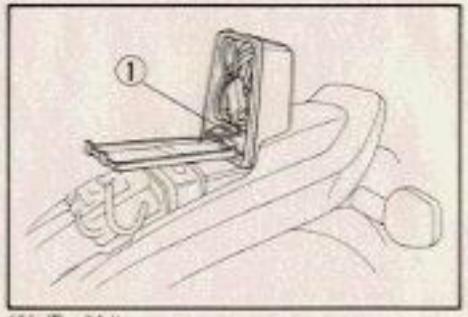




## TOOL KIT

The tool kit (1) is in the storage compartment at the rear of the seat. Some roadside repairs, minor adjustments and parts replacement can be performed with the tools contained in the kit.

- 10 x 12 mm box end wrench
- 10 x 12 mm open end wrench
- 14 x 17 mm open end wrench
- Pliers
- 5 mm hex wrench
- 6 mm hex wrench
- 8 mm hex wrench
- No. 2 screwdriver
- No. 2 phillips screwdriver
- Screwdriver grip
- 8 mm open end wrench
- 27 mm box end wrench
- 12 mm box end wrench
- Spark plug wrench
- Hook spanner
- Feeler gauge 0.7 mm
- Tool bag




(1) Tool kit

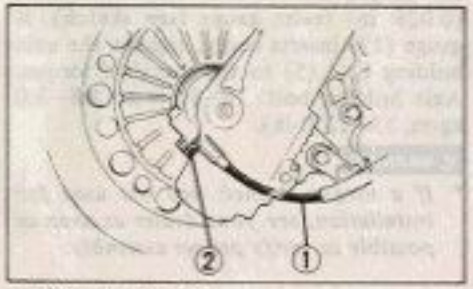


## FRONT WHEEL REMOVAL

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Disconnect the speedometer cable (1) by removing the speedometer cable set screw (2).
3. Remove the right caliper assembly (3) from the fork leg by removing the fixing bolts (4).

**CAUTION:**

* *Support the caliper assembly so that it doesn't hang on the hose. Do not twist the brake hose.*

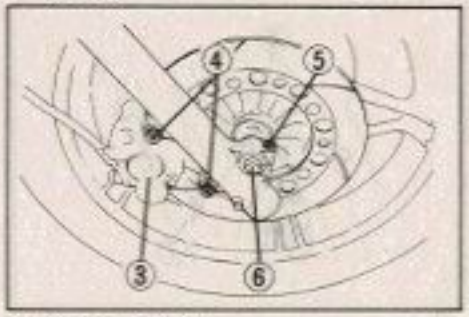



(1) Speedometer cable
(2) Speedometer cable set screw

4. Remove the front axle holding bolt (5). Unscrew and pull out the front axle (6). Remove the front wheel.

NOTE:

* Do not depress the brake lever when the wheel is off the motorcycle. The caliper piston will be forced out of the cylinder 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) Caliper assembly
(4) Caliper fixing bolts (right side)
(5) Front axle holding bolt (6) Front axle

Installation Notes:

**CAUTION:**

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

To install the front wheel assembly, insert the axle through the right fork leg and wheel hub, and screw it into the left fork leg. Make sure that the tang (7) on the fork leg is located in the slot (8) in the speedometer gear box (9). Tighten the axle to the specified torque.

Axle torque: 55–65 N·m (5.5–6.5 kg-m, 40–47 ft-lb).

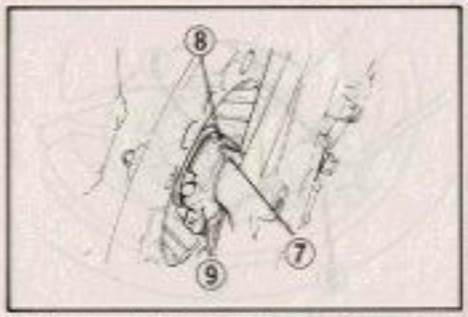
Fit the right caliper over the disc taking care not to damage the brake pads. Install the caliper mounting bolts and tighten to the recommended torque 30–45 N·m (3.0–4.5 kg-m, 22–33 ft-lb).

Measure the clearance (10) between the each surface of the brake disc (11) and the caliper holder (12) with a 0.7 mm (0.028 in) feeler gauge (see sketch). If gauge (13) inserts easily, tighten the axle holding bolt (5) to the specified torque.

Axle holding bolt: 18–30 N·m (1.8–3.0 kg-m, 13–22 ft-lb).

**WARNING**

* *If a torque wrench was not used for installation, see your dealer as soon as possible to verify proper assembly.*

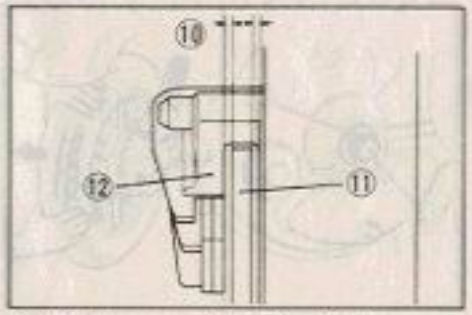



(7) Tang (9) Speedometer gear box
(8) Slot



If the feeler gauge cannot be inserted easily, pull the forks outward or push inward until the gauge can be inserted and tighten the axle holding bolt 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.




(10) Clearance (12) Caliper holder
(11) Disc

**WARNING**

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


(13) Feeler gauge



## REAR WHEEL REMOVAL

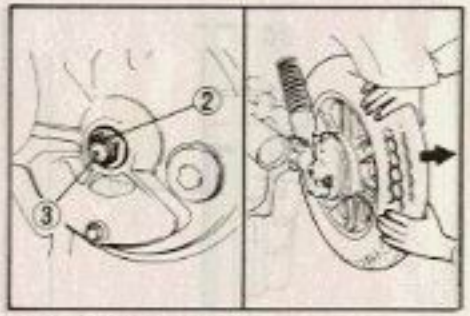
1. Place the motorcycle on its center stand.
2. Remove the axle holding bolt (1).
3. Remove the axle nut (2).
4. Pull out the axle (3).

**CAUTION:**

* *Support the caliper assembly and swingarm before removing the rear axle so that it does not hang from the brake hose. Do not twist the brake hose.*

5. Move the wheel to the right to separate it from the final drive gear case.
6. Remove the rear wheel.


(1) Axle holding bolt

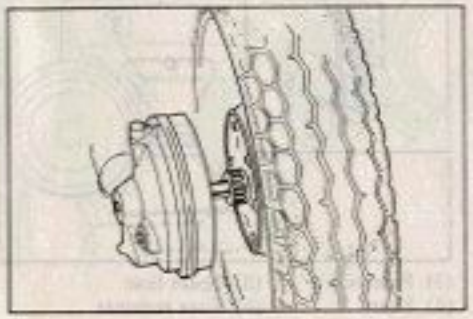



(2) Axle nut (3) Axle



Installation Notes:

- Before installing the rear wheel, check that the wheel hub and final drive gear splines are coated with grease.
- Reverse the removal procedure.
- Be sure the splines on the wheel hub fit into the final gear case.
- Before tightening the axle holding bolt, tighten the axle nut to prevent misalignment.
- Torque the following bolts:



Axle nut torque:
85–105 N·m (8.5–10.5 kg-m, 61–76 ft-lb)

Axle holding bolt torque:
20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)

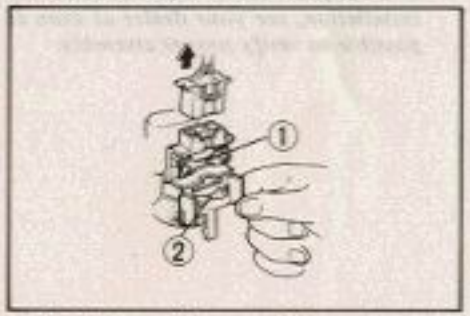
- Apply the brake several times and check for free wheel rotation when released.

**WARNING**

* *If a torque wrench was not used for installation, see your dealer as soon as possible to verify proper assembly.*

## FUSE REPLACEMENT

The main fuse (1), located near the battery on the positive lead, is 30A.
The fuse box (3) is under the head light. Open the top compartment cover and remove the tool tray for access to fuses. The specified fuses (4) are 15A.
When frequent fuse failure occurs, it usually indicates a short circuit or an over-load in the electrical system. See your authorized Honda dealer for repair.

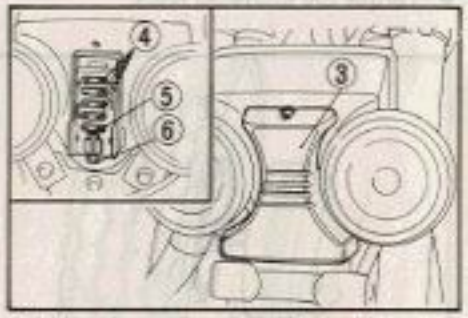



(1) Main fuse (2) Spare main fuse

**CAUTION:**

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

To replace the main fuse (1), loosen the screws and remove the old fuse. Install the new fuse and tighten the screws securely.



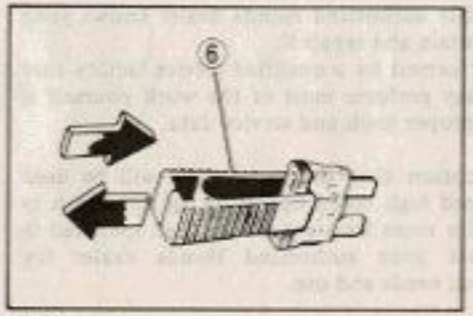

(3) Fuse box (5) Spare fuse
(4) Fuses (6) Fuse remover



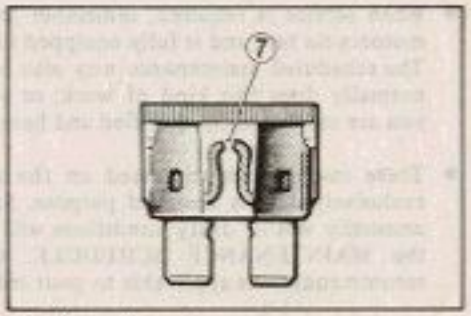
To replace fuses in the fuse box (3), remove the fuse box cover. Pull the old fuse out of the clips with the fuse remover (6). Push a new fuse into the clips and install the fuse box cover.

**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 at night or in traffic.*




(6) Fuse remover




(7) Blown fuse



## MAINTENANCE

- The U.S. Environmental Protection Agency and California Air Resources Board (CARB) require that your motorcycle complies with applicable exhaust emission standards during its useful life, when operated and maintained according to the instructions provided, and that motorcycles built after January 1, 1983 comply with applicable noise emission standards for one year or 6,000 km (3,730 miles) after the time of sale to the ultimate purchaser, when operated and maintained according to the instructions provided. Compliance with the terms of the Distributor's Warranties for Honda Motorcycle Emission Control Systems is necessary in order to keep the emissions system warranty in effect (USA ONLY).

- 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.

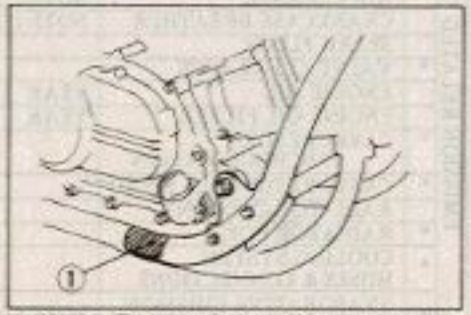
- These instructions are based on the assumption that the motorcycle will be used exclusively for its designed purpose. Sustained high speed operation, or operation in unusually wet or dusty conditions will require more frequent service than specified in the MAINTENANCE SCHEDULE. Consult your authorized Honda dealer for recommendations applicable to your individual needs and use.



**WARNING**

* *If your motorcycle is overturned or involved in a collision, inspect control levers, cable, clutch and brake hoses and reservoirs, calipers, accessories, and other vital parts for damage. Do not ride the motorcycle if damage impairs safe operation. Have your 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 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 and the effective operation of the emission control system.*

The Vehicle Emission Control Information label is attached to the frame below the engine. (USA ONLY)
The Vacuum Hose Routing label is attached to the frame behind the left side cover. (California ONLY)




(1) Vehicle Emission Control Information label

## MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (page 36) 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 COMES FIRST / EVERY | ODOMETER READING [NOTE (4)] 600 mi (1,000 km) | 4,000 mi (6,000 km) | 8,000 mi (12,000 km) | 12,000 mi (18,000 km) | 16,000 mi (24,000 km) | 20,000 mi (30,000 km) | 24,000 mi (36,000 km) | Refer to |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EMISSION RELATED ITEMS | * | FUEL LINES | | | I | | I | | I | | |
| | * | FUEL FILTER | | | | | | | R | | |
| | * | THROTTLE OPERATION | | I | | I | | I | | I | |
| | * | CARBURETOR-CHOKE | | | | I | | I | | I | |
| | | AIR CLEANER | NOTE (1) | | | R | | R | | R | Pages 64-65 |
| | | CRANKCASE BREATHER | NOTE (2) | | C | C | C | C | C | C | Page 67 |
| | | SPARK PLUGS | | | R | R | R | R | R | R | Page 63 |
| | * | VALVE CLEARANCE | | I | | I | | I | | I | |
| | | ENGINE OIL | YEAR | R | | R | | R | | R | Pages 61-62 |
| | | ENGINE OIL FILTER | YEAR | R | | R | | R | | R | Pages 61-62 |
| | * | CARBURETOR-SYNCHRONIZATION | | I | | I | | I | | I | |
| | * | CARBURETOR-IDLE SPEED | | I | I | I | I | I | I | I | Page 66 |
| | | RADIATOR COOLANT | | | | I | | I | | *R | Pages 34-35 |
| | * | RADIATOR CORE | | | | I | | I | | I | |
| | * | COOLING SYSTEM HOSES & CONNECTIONS | | I | | I | | I | | I | |
| | * | EVAPORATIVE EMISSION CONTROL SYSTEM | NOTE (3) | | | I | | I | | I | |



| | | ITEM | FREQUENCY / WHICHEVER COMES FIRST / EVERY | ODOMETER READING [NOTE (4)] 600 mi (1,000 km) | 4,000 mi (6,000 km) | 8,000 mi (12,000 km) | 12,000 mi (18,000 km) | 16,000 mi (24,000 km) | 20,000 mi (30,000 km) | 24,000 mi (36,000 km) | Refer to |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NON-EMISSION RELATED ITEMS | | FINAL DRIVE OIL | | | | I | | I | | R | Page 68 |
| | | BATTERY | MONTH | I | I | I | I | I | I | I | Pages 75-76 |
| | | BRAKE FLUID | MONTH / 2 YEARS *R | I | I | I | *R | I | I | *R | Pages 71-72 |
| | | BRAKE PAD WEAR | | | I | I | I | I | I | I | Page 73 |
| | | BRAKE SYSTEM | | I | | I | | I | | I | Pages 71-73 |
| | * | BRAKE LIGHT SWITCH | | I | | I | | I | | I | |
| | * | HEADLIGHT AIM | | I | | I | | I | | I | |
| | | CLUTCH FLUID | MONTH / 2 YEARS *R | I | I | I | *R | I | I | *R | Pages 69-70 |
| | | CLUTCH SYSTEM | | I | | I | | I | | I | |
| | | SIDE STAND | | | | I | | I | | I | Page 74 |
| | * | SUSPENSION | | I | | I | | I | | I | |
| | * | NUTS, BOLTS, FASTENERS | | I | | I | | I | | I | |
| | ** | WHEELS | | I | | I | | I | | I | |
| | ** | STEERING HEAD BEARING | | I | | I | | I | | I | |

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

NOTES: (1) Service more frequently when riding in dusty areas.
(2) Service more frequently when riding in rain, or at full throttle.
(3) California type only
(4) For higher odometer reading, repeat at the frequency interval established here.



## MAINTENANCE RECORD

| Miles | Performed By | Odometer | Date |
|---|---|---|---|
| 600 | | | |
| 4,000 | | | |
| 8,000 | | | |
| 12,000 | | | |
| 16,000 | | | |
| 20,000 | | | |
| 24,000 | | | |

- Make sure whoever performs the maintenance completes this record. All scheduled maintenance, including the 600 mile (1,000 km) break-in maintenance, is considered a normal owner operating cost and will be charged for by your dealer.
- Detailed receipts verifying the performance of required maintenance should be retained. These receipts should be transferred with the motorcycle to the new owner if the motorcycle is sold.

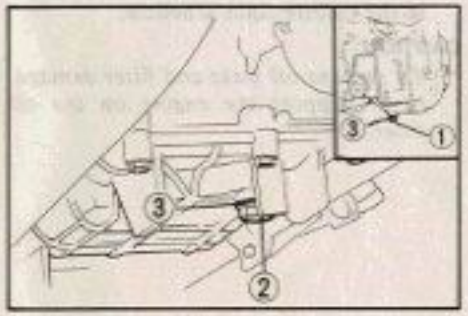


## ENGINE OIL AND FILTER

Engine oil quality is the chief factor affecting engine service life. Change the engine oil and filter when specified by the maintenance schedule.

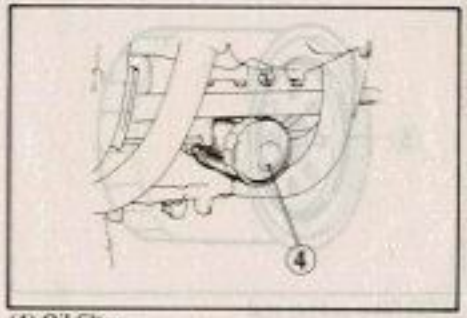
NOTE:

* Change the engine oil and filter with the engine warm and the motorcycle on its center stand to assure complete and rapid draining.



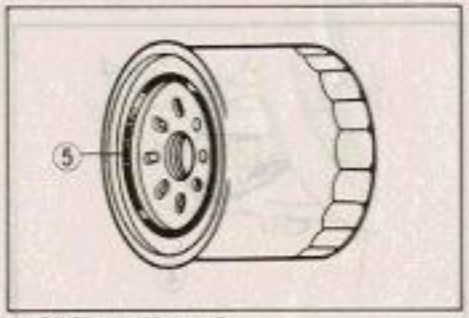

(1) Cylinder head oil drain plug
(2) Engine bottom oil drain plug
(3) Sealing washers

1. To drain the oil, remove the oil filler cap, cylinder head oil drain plug (1) and engine bottom oil drain plug (2).
2. Remove the oil filter (4) with a filter wrench and let the remaining oil drain out. Discard the oil filter (4).
3. Apply a thin coat of engine oil to the new oil filter rubber seal (5).
4. Install the new oil filter and tighten it to the specified torque.
   Torque specification: 15–20 N·m (1.5–2.0 kg-m, 11–14 ft-lb).




(4) Oil filter

5. Check that the sealing washers (3) on the drain plugs are in good condition and install the plugs.
   Cylinder Head Oil Drain Plug Torque:
   10–14 N·m (1.0–1.4 kg-m, 7–10 ft-lb)
   Engine Bottom Oil Drain Plug torque:
   35–40 N·m (3.5–4.0 kg-m, 25–29 ft-lb)
6. Fill the crankcase with approximately 3.0 liters (3.2 US qt) of the recommended oil.




(5) Oil filter rubber seal

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. 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.

**CAUTION:**

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



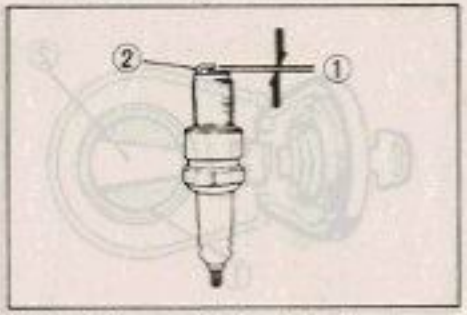
## SPARK PLUGS

Recommended plugs:
Standard:
DPR8EA-9 (NGK) or
X24EPR-U9 (ND)
For cold climate: (Below 5°C/41°F)
DPR7EA-9 (NGK) or
X22EPR-U9 (ND)
For extended high speed riding:
DPR9EA-9 (NGK) or
X27EPR-U9 (ND)

1. Disconnect the spark plug caps.
2. Clean any dirt from around the spark plug bases.
3. Remove and discard the spark plugs.
4. Make sure the new spark plug gap (1) is 0.8–0.9 mm (0.031–0.035 in) using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (2) carefully.
5. With the plug washer attached, thread the new spark plugs in by hand to prevent cross-threading.
6. Tighten the spark plugs 1/2 turn with a spark plug wrench to compress the washer.
7. 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.*



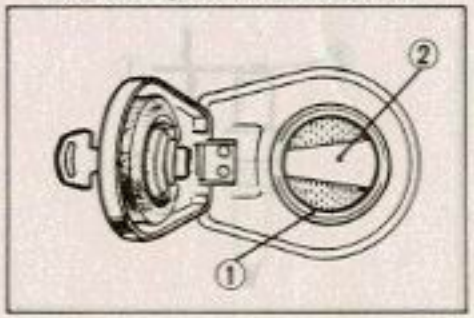

(1) Spark plug gap (2) Side electrode



## AIR CLEANER

The air cleaner should be serviced at regular intervals (page 58). When riding in dusty areas, more frequent service may be necessary.

1. The fuel tank should be raised ONLY with a partially filled tank. The proper fuel level can be determined by looking directly down through the filler neck into the tank; fuel should not cover the top of the tank backbone.

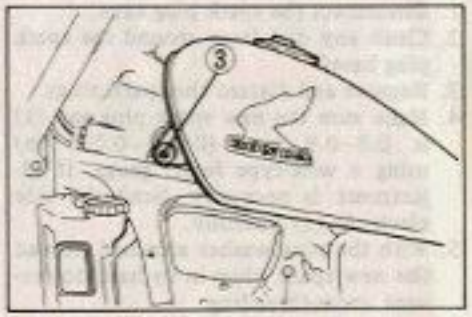



(1) Filler neck (2) Tank backbone

**WARNING**

* ***Gasoline may leak past the fuel cap if the tank is raised when full. Do not raise the fuel tank if full.***

2. Remove the seat.
3. Remove the fixing bolts (3) from each side of the fuel tank.
4. Lift the fuel tank and prop it up with the tank arm (4).



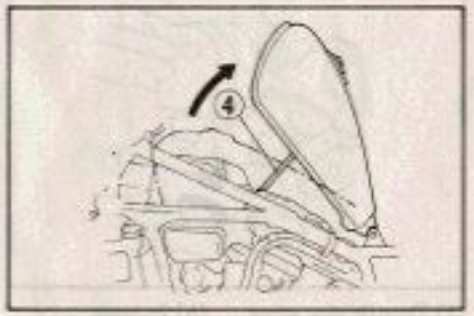

(3) Fixing bolts



**CAUTION:**

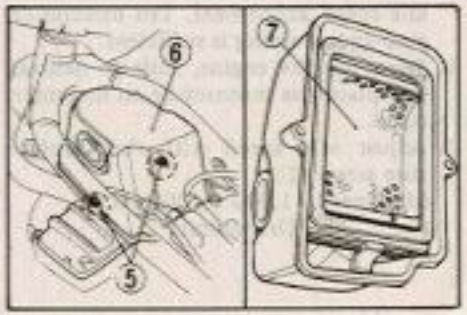
* *To prevent tank damage when raising the fuel tank, turn the handlebars to the straight ahead position.*

5. Remove the two screws (5) and the air cleaner cover (6).
6. Take out and discard the air cleaner element (7).
7. Install the new element, air cleaner cover and screws.




(4) Tank arm

8. Lift the fuel tank up and lower the arm.
9. Lower the fuel tank back into position.
10. Tighten the fixing bolts (3) securely.




(5) Fixing screws (7) Air cleaner element
(6) Air cleaner cover

## IDLE SPEED

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 warm for accurate idle speed adjustment. Ten minutes of stop-and-go riding is sufficient.

1. Warm up the engine, shift to neutral and place the motorcycle on its center stand.
2. Adjust idle speed with the throttle stop screw (1).
   Idle Speed: 1,000 ± 100 rpm
   (In neutral)


(1) Throttle stop screw (A) Increase (B) Decrease

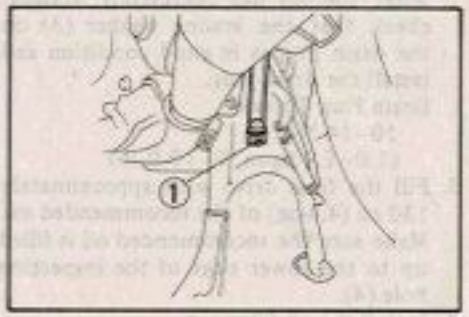


## CRANKCASE BREATHER

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

NOTE:

* Service more frequently when ridden 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



## FINAL DRIVE OIL

Change the oil when specified by the maintenance schedule.

NOTE:

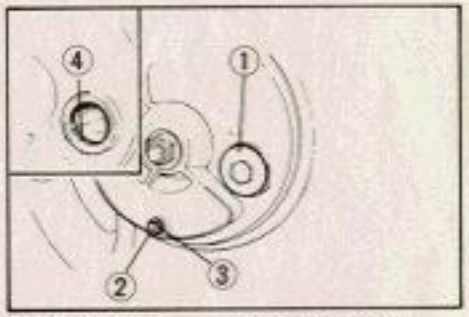
* Change the oil with the final drive warm and the motorcycle on its center stand to assure complete and rapid draining.

1. To drain the oil, remove the oil filler cap (1) and drain plug (2).
2. After the oil has completely drained, check that the sealing washer (3) on the drain plug is in good condition and install the drain plug.
   Drain Plug Torque:
   10–14 N·m
   (1.0–1.4 kg-m, 7–10 ft-lb)
3. Fill the final drive with approximately 130 cc (4.4 oz) of the recommended oil. Make sure the recommended oil is filled up to the lower edge of the inspection hole (4).
4. Install the oil filler cap.

**Recommended oil: HYPOID GEAR OIL SAE80**

**WARNING**

* ***Do not allow gear oil to spill on the tire. Unexpected tire slip may cause loss of control.***




(1) Oil filler cap (3) Sealing washer
(2) Oil drain plug (4) Inspection hole

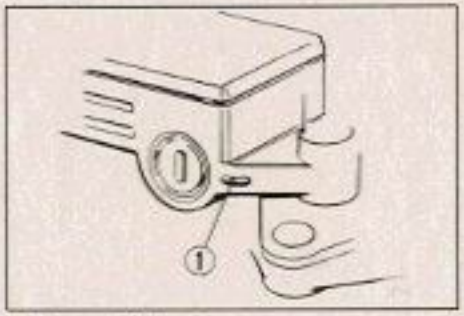


## CLUTCH

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 LINE (1). If the fluid level is near the LOWER LEVEL LINE, it indicates fluid leakage. See your authorized Honda dealer.




(1) Lower level line

Other Checks:

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



## BRAKES

Both front and rear brakes are hydraulic disc types.

As the brake pads wear, brake fluid level drops, automatically compensating for wear.

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.

NOTE:

* If the brake lever or pedal travel become excessive and the brake pads are not worn beyond the recommended limit (page 73), there is probably air in the brake system and it must be bled out. See your authorized Honda dealer for this service.

**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.***

Front Brake Fluid Level:

Remove the reservoir cap and diaphragm. Whenever the level is near the lower level mark (2) on the front reservoir, fill the reservoir with DOT 4 BRAKE FLUID from a sealed container up to the upper level mark (1). Reinstall the diaphragm, and the reservoir cap. Tighten the screws securely.

**CAUTION:**

* ***When adding brake fluid, be sure the reservoir is horizontal before the cap is removed or brake fluid may spill out.***


(FRONT) (1) Upper level mark
(2) Lower level mark



* ***Use only DOT 4 brake fluid from a sealed container.***
* ***Handle brake fluid with care because it can damage paint and plastics as used for instrument lenses and fairings.***
* ***Never allow contaminants (dirt, water, etc.) to enter the brake fluid reservoir.***

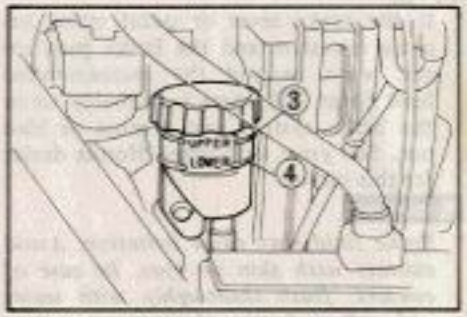
Rear Brake Fluid Level:

Remove the reservoir cap, washer and diaphragm. Whenever the level is near the lower level mark (4) on the rear reservoir, fill the reservoir with DOT 4 BRAKE FLUID from a sealed container up to the upper level mark (3). Reinstall the diaphragm and washer, and tighten the reservoir cap securely.



**CAUTION:**

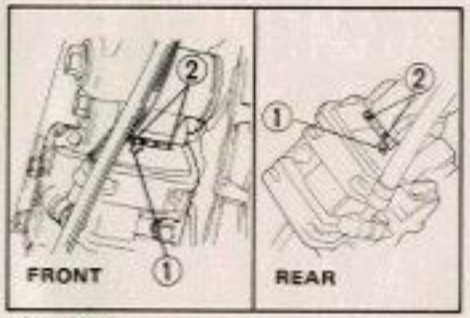
* ***Use only DOT 4 brake fluid from a sealed container.***
* ***Handle brake fluid with care because it can damage paint and electric wires.***
* ***Never allow contaminants (dirt, water, etc.) to enter the brake fluid reservoir.***




(REAR) (3) Upper level mark
(4) Lower level mark

### Brake Pad Wear

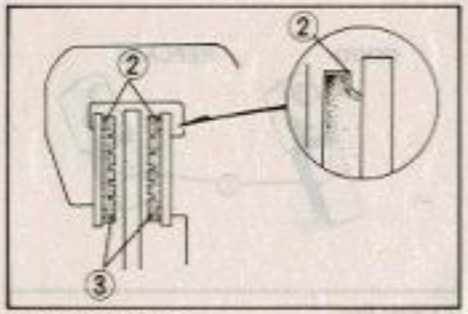
Brake pad wear will depend upon the severity of usage, type of riding, and condition of the roads. The pads will wear faster on dirty and wet roads. Inspect the pads visually from the direction indicated by the arrow (1) during all regular service intervals to determine the pad wear. If either pad wears to the wear indicator (2), both pads (3) must be replaced.




(1) Arrow

Other Checks:

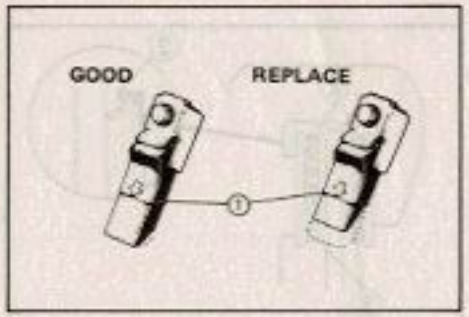
Make sure that there are no fluid leaks. Check for deterioration and cracks in the hoses and fittings.




(2) Wear indicator
(3) Brake pads

## SIDE STAND

Check the rubber pad for deterioration and wear. Replace if wear extends to the wear line (1) as shown. Check the side stand spring for damage and loss of tension, and the side stand assembly for freedom of movement. See your authorized Honda dealer for replacement.




(1) Wear line



## BATTERY

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 for inspection.

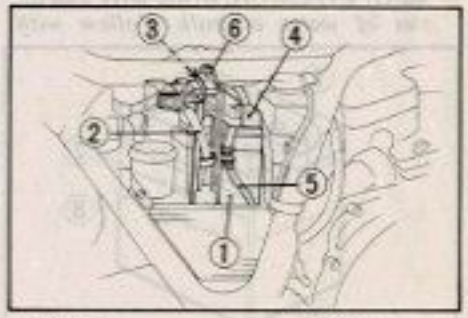
Battery electrolyte:

The battery (1) is behind the right side cover. Remove the side cover and seat. Disconnect the two couplers of the rectifier harness (2) from the alternator and main wire harnesses.

Disconnect the negative (–) terminal lead (3) from the battery first, then disconnect the positive (+) terminal lead (4). Disconnect the battery breather tube (5) from the battery and unscrew the bolt (6). Pull out the battery and check the electrolyte level.

The electrolyte level must be maintained between the upper (7) and lower (8) level marks on the side of the battery. If the electrolyte level is low, remove the battery filler caps (9).

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




(1) Battery
(2) Rectifier harness
(3) Negative (–) terminal lead
(4) Positive (+) terminal lead
(5) Battery breather tube
(6) Bolt



NOTE:

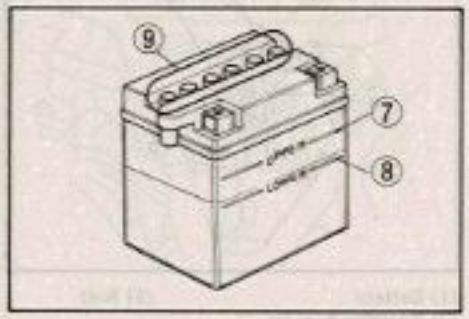
* Use only distilled water in the battery. Tap water may shorten the service life of the battery.

**WARNING**

* *The battery contains sulfuric acid. Avoid contact with skin, eyes or clothing. Antidote: EXTERNAL-Flush with water. INTERNAL-Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately. Eyes: Flush with water and get prompt medical attention.*
* *Batteries produce explosive gases. Keep sparks, flames and cigarettes away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries.*
* *KEEP OUT OF REACH OF CHILDREN.*

**CAUTION:**

* *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.*
* *To prevent wire harness damage, don't charge the battery on the frame. Remove the battery when charging.*




(7) Upper level mark
(8) Lower level mark
(9) Filler caps



## CLEANING

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

**CAUTION:**

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

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

1. After cleaning, rinse the motorcycle thoroughly with plenty of clean water. Strong detergent residue can corrode alloy parts.
2. Dry the motorcycle, start the engine, and let it run for several minutes.
3. Test the brakes before riding the motorcycle. Several applications may be necessary to restore normal braking performance.

**WARNING**

* *Braking performance may be impaired immediately after washing 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. Make sure the cooling system is filled with a 50/50% antifreeze solution.
3. Drain the fuel tank and carburetors. Spray the inside of the tank with an aerosol rust-inhibiting oil.
   Reinstall the fuel cap on the tank.

WARNING

* *Gasoline is flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks near the equipment while draining fuel.*

4. 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.



5. 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.
6. Wash and dry the motorcycle. Wax all painted surfaces. Coat chrome with rust-inhibiting oil.
7. Inflate the tires to their recommended pressures. Place the motorcycle on blocks to raise both tires off the ground.
8. 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 gasoline.
4. Check the final drive oil, adding the recommended gear oil if necessary. Change the final drive oil as specified by the Maintenance Schedule. Perform all Pre-ride Inspection checks (page 36). Test ride the motorcycle at low speeds in a safe riding area away from traffic.



## EMISSION CONTROL SYSTEM (U S A ONLY)

- **Source of Emissions**

The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.
Honda Motor Co., Ltd. utilizes lean carburetor settings and other systems to reduce carbon monoxide and hydrocarbons.

- **Exhaust Emission Control System**

The exhaust emission control system is composed of lean carburetor settings, and no adjustments should be made except idle speed adjustment with the throttle stop screw. The exhaust emission control system is separate from the crankcase emission control system.

- **Noise Emission Control System**

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.
AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

1. Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
2. Removal of, or puncturing of any part of the intake system.
3. Lack of proper maintenance.
4. Replacing any moving parts of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.



- Evaporative Emission Control System (California only)

This motorcycle complies with the California Air Resources Board (CARB) requirements for evaporative emission regulations. Fuel vapor from the fuel tank is directed into the charcoal canister where it is absorbed and stored while the engine is stopped. When the engine is running and the purge control diaphragm valve is open, fuel vapor in the charcoal canister is drawn into the engine through the carburetor.

- Crankcase Emission Control System

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere.
Blow-by gas is returned to the combustion chamber through the air cleaner and the carburetor.

| ITEM | |
|---|---|
| **CHASSIS AND SUSPENSION** | |
| Caster | 59° 40′ |
| Trail | 105 mm (4.1 in) |
| Tire size, front | M110/90–18 TUBELESS |
| Tire size, rear | M140/90–16 TUBELESS |
| **POWER TRANSMISSION** | |
| Primary reduction | 1.707 |
| Secondary reduction | 1.058 |
| Gear ratio, 1st | 2.294 |
| 2nd | 1.619 |
| 3rd | 1.292 |
| 4th | 1.074 |
| 5th | 0.897 |
| OD | 0.750 |
| Final reduction | 3.182 |



| ITEM | | |
|---|---|---|
| **ELECTRICAL** | | |
| Battery | 12V – 18 AH | |
| Alternator | A.C. generator 0.3 kW/5,000 rpm | |
| **LIGHTS** | | |
| Headlight (HIGH/LOW) | 12V–60/55W | |
| Tail/stoplight | 12V–3/32 cp | SAE NO. 1157 |
| Turn signal light, front | 12V–32/3 cp | SAE NO. 1034 |
| Turn signal light, rear | 12V–32 cp | SAE NO. 1073 |
| Speedometer light | 12V–3.4W | |
| Tachometer light | 12V–3.4W | |
| Neutral indicator light | 12V–3.0W | |
| Turn signal indicator light | 12V–3.0W | |
| High beam indicator light | 12V–3.0W | |
| Oil pressure warning light | 12V–3.0W | |
| **FUSE** | 15A | |
| | 30A (Main fuse) | |
| | 10A (Fan motor fuse) | |



## WARRANTY SERVICE

### Owner Satisfaction

Your satisfaction and goodwill are important to your dealer and to us. All Honda warranty details are explained in the Distributor's Limited Warranty. Normally, any problems with the product will be handled by your dealer's service department. Sometimes, however, in spite of the best intentions of all concerned, misunderstandings can occur. If your problem has not been handled to your satisfaction, we suggest you take the following action:

- Discuss your problem with a member of dealership management. Often complaints can be quickly resolved at that level. If the problem has already been reviewed with the Service Manager, contact the owner of the dealership or the General Manager.
- If your problem still has not been resolved to your satisfaction, contact the Motorcycle and Power Products Customer Relations Department at the regional office of American Honda Motor Co., Inc. in your area. Regional office locations are shown on the following page. We will need the following information in order to assist you:
  - Your name, address, and telephone number
  - Product model and serial number
  - Date of purchase
  - Dealer name and address
  - Nature of the problem

After reviewing all the facts involved, you will be advised of what action can be taken. Please bear in mind that your problem will likely be resolved at the dealership, using the dealer's facilities, equipment, and personnel, so it is very important that your initial contact be with the dealer.

Your purchase of a Honda product is greatly appreciated by both the dealer and American Honda Motor Co., Inc. We want to assist you in every way possible to assure your complete satisfaction with your purchase.



### Regional Office Location

HONDA

## OWNER'S IDENTIFICATION CARD

OWNER _____

ADDRESS _____

CITY _____ STATE _____

DELIVERY DATE _____

| VIN FRAME NO. | |
|---|---|
| MODEL | ENGINE NO. |

OWNER'S SIGNATURE

_____