YAMAHA

FJ1200S
FJ1200SC

Supplementary Service Manual

LIT-11616-05-00

FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and new data for the FJ1200S/SC. For complete information on service procedures, it is necessary to use this Supplementary Service Manual together with following manual:

FJ1100L/LC Service Manual: LIT-11616-04-08

TECHNICAL PUBLICATIONS
SERVICE DIVISION
MOTORCYCLE OPERATIONS
YAMAHA MOTOR CO., LTD.

FJ1200S/SC
SUPPLEMENTARY
SERVICE MANUAL
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LIT-11616-05-00

NOTICE

This manual was written by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to put an entire mechanic's education into one manual, so it is assumed that persons using this book to perform maintenance and repairs on Yamaha motorcycles have a basic understanding of the mechanical concepts and procedures inherent in motorcycle repair technology. Without such knowledge, attempted repairs or service to this model may render it unfit to use and/or unsafe.

This model has been disgned and manufactured to perform within certain specifications in regard to performance and emissions. Proper service with the correct tools is necessary to ensure that the motorcycle will operate as designed. If there is any question about a service procedure, it is imperative that you contact a Yamaha dealer for any service information changes that apply to this model. This policy is intended to provide the customer with the most satisfaction from his motorcycle and to conform with federal environmental quality objectives.

Yamaha Motor Company, Ltd. is continually striving to improve all models manufactured by Yamaha. Modifications and significant changes in specifications or procedures will be forwarded to all Authorized Yamaha dealers and will, where applicable, appear in future editions of this manual.

NOTE:

This Service Manual contains information regarding periodic maintenance to the emission control system for the FJ1200S/SC. Please read this material carefully.

HOW TO USE THIS MANUAL

PARTICULARLY IMPORTANT INFORMATION

This material is distinguished by the following notation.

NOTE: **A NOTE** provides key information to make procedures easier or clearer.

CAUTION: **A CAUTION** indicates special procedures that must be followed to avoid damage to the motorcycle.

WARNING: **A WARNING** indicates special procedures that must be followed to avoid injury to a motorcycle operator or person inspecting or repairing the motorcycle.

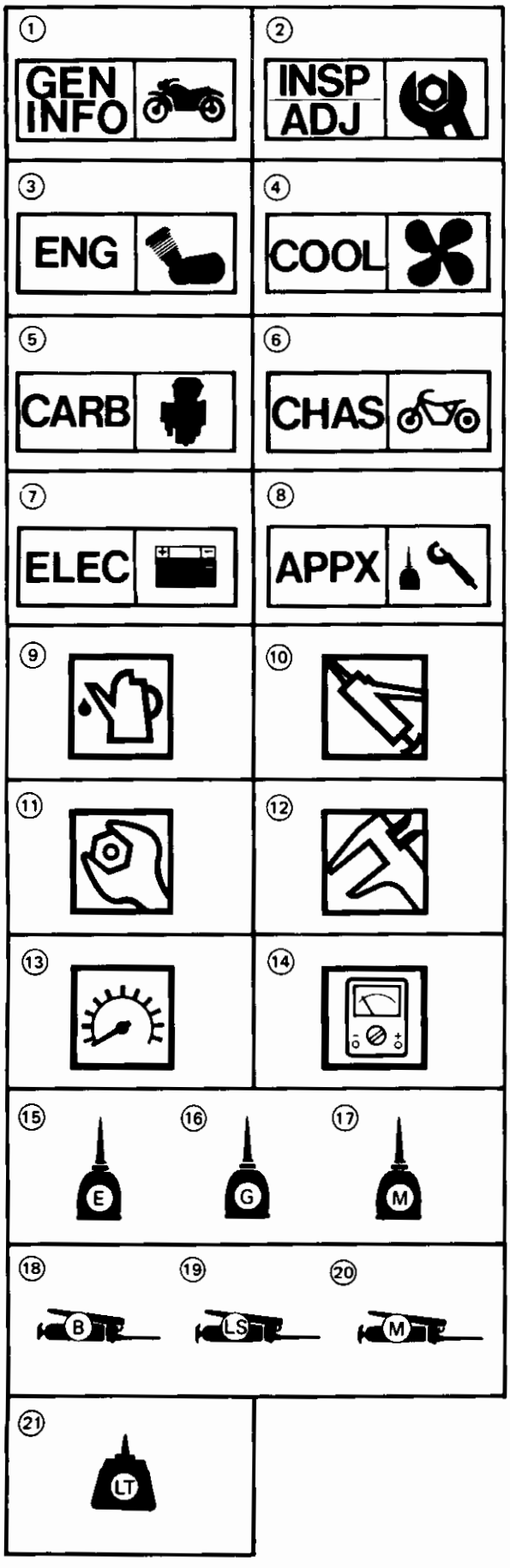
MANUAL FORMAT

All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspection operations.
In this revised format, the condition of a faulty component will precede an arrow symbol and the course of action required will follow the symbol, e.g.,

- Bearings
  Pitting/Damage → Replace.

EXPLODED DIAGRAM

Each chapter provides exploded diagrams before each disassembly section for ease in identifying correct disassembly and assembly procedures.



ILLUSTRATED SYMBOLS (Refer to the illustration)

Illustrated symbols ① to ⑧ are designed as thumb tabs to indicate the chapter's number and content.

① General information
② Periodic inspection and adjustment
③ Engine
④ Cooling system
⑤ Carburetion
⑥ Chassis
⑦ Electrical
⑧ Appendices

Illustrated symbols ⑨ to ⑭ are used to identify the specifications appearing in the text.

⑨ Filling fluid
⑩ Lubricant
⑪ Tightening
⑫ Wear limit, clearance
⑬ Engine speed
⑭ Ω, V, A

Illustrated symbols ⑮ to ㉑ in the exploded diagram indicate grade of lubricant and location of lubrication point.

⑮ Apply engine oil
⑯ Apply gear oil
⑰ Apply molybdenum disulfide oil
⑱ Apply wheel bearing grease
⑲ Apply lightweight lithium-soap base grease
⑳ Apply molybdenum disulfide grease
㉑ Apply locking agent (LOCTITE®)

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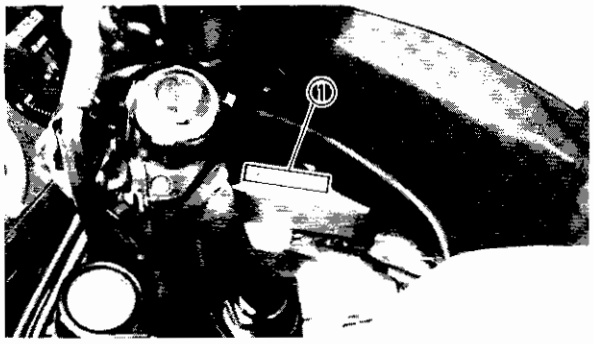
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GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

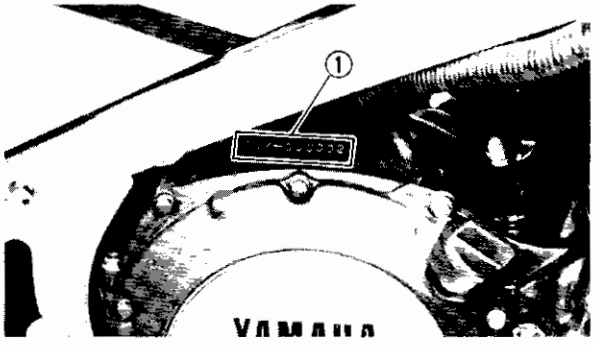
VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the right side of the frame.

NOTE:

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.

Starting Serial Number:
FJ1200S:
JYA1UX00 * GA000101
FJ1200SC (For California):
JYA1WJ00 * GA000101



ENGINE SERIAL NUMBER

The engine serial number ① is stamped into the right side of the engine.

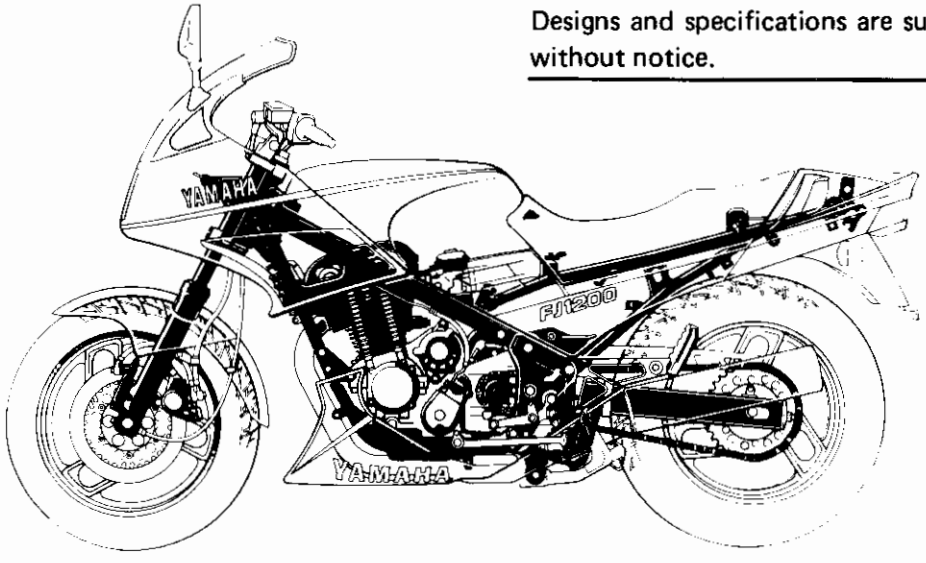
NOTE:

The first three digits of these numbers are for model identifications; the remaining digits are the unit production number.

Starting Serial Number:
FJ1200S:
1UX-000101
FJ1200SC (For California):
1WJ-000101

NOTE:

Designs and specifications are subject to change without notice.





PERIODIC INSPECTIONS AND ADJUSTMENTS

INTRODUCTION

This chapter includes all information necessary to perform recommended inspections and adjustments. These preventive maintenance procedures, if followed, will ensure more reliable vehicle operation and a longer service life. The need for costly overhaul work will be greatly reduced. This information applies to vehicles already in service as well as new vehicles that are being prepared for sale. All service technicians should be familiar with this entire chapter.

MAINTENANCE INTERVALS CHARTS

Proper periodic maintenance is important. Especially important are the maintenance services related to emissions control. These controls not only function to ensure cleaner air but are also vital to proper engine operation and maximum performance. In the following maintenance tables, the services related to emissions control are grouped separately.

PERIODIC MAINTENANCE EMISSION CONTROL SYSTEM

No.	Item	Remarks	Inital	Odometer readings				
			1,000 km (600 mi) or 1 month	**1 7,000 km (4,400 mi) or 7 months	**2 13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	**3 25,000 km (15,800 mi) or 25 months	31,000 km (19,600 mi) or 31 months
1*	Valve clearance	Check and adjust valve clearance when engine is cold.					○	
2	Spark plug	Check condition. Adjust gap and clean. Replace at 13,000 km (8,200 mi) (or 13 months) and thereafter every 12,000 km (7,600 mi) (or 12 months).		○	Replace	○	Replace	○
3*	Crankcase ventilation system	Check ventilation hose for cracks or damage. Replace if necessary.		○	○	○	○	○
4*	Fuel line	Check fuel hose and vacuum pipe for cracks or damage. Replace if necessary.		○	○	○	○	○
5*	Exhaust system	Check for leakage. Retighten if necessary. Replace gasket(s) if necessary.		○	○	○	○	○
6*	Carburetor synchronization	Adjust synchronization of carburetors.	○	○	○	○	○	○
7*	Idle speed	Check and adjust engine idle speed. Adjust cable free play.		○	○	○	○	○

* It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

NOTE:

For farther odometer reading, repeat the above maintenance at the period established; **1: Every 6,000 km (3,800 mi), **2: Every 12,000 km (7,600 mi) and **3: Every 30,000 km (19,000 mi) intervals.

GENERAL MAINTENANCE/LUBRICATION

No.	Item	Remarks	Type	Initial	Odometer readings				
				1,000 km (600 mi) or 1 month	**1 7,000 km (4,400 mi) or 7 months	**2 13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	**3 25,000 km (15,800 mi) or 25 months	31,000 km (19,600 mi) or 31 months
1	Engine oil	Warm-up engine before draining.	See NOTE.	○	○	○	○	○	○
2	Oil filter	Replace.	–	○		○		○	
3*	Air filter	Colean with compressed air. Replace if necessary.	–		○	○	○	○	○
4*	Brake system	Adjust free play. Replace pads if necessary.	–	○	○	○	○	○	○

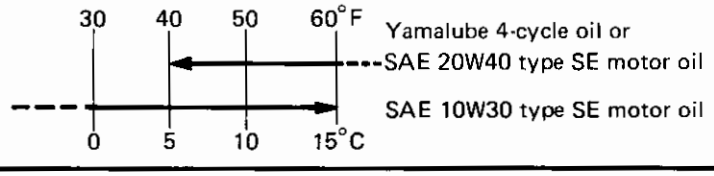
MAINTENANCE INTERVALS CHARTS

No.	Item	Remarks	Type	Initial	Odometer readings				
				1,000 km (600 mi) or 1 month	**1 7,000 km (4,400 mi) or 7 months	**2 13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	**3 25,000 km (15,800 mi) or 25 months	31,000 km (19,600 mi) or 31 months
5	Drive chain	Check chain condition. Adjust and lubricate chain thoroughly.	SAE 30W-50W motor oil.	Every 500 km (300 mi)					
6*	Control and meter cable	Apply chain lube thoroughtly.	Yamaha chain cable lube or SAE 10W30 motor oil.	○	○	○	○	○	○
7*	Rear suspension adjusting chain	Check chain condition. Adjust and lubricate if necessary.	Yamaha chain and cable lube or SAE 10W30 motor oil.		○	○	○	○	○
8*	Rear arm pivot shaft and suspension link pivots	Apply grease lightly.	Lithium soap base grease.					○	
9	Brake/Clutch lever pivot shaft	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W30 motor oil.		○	○	○	○	○
10	Brake pedal and change pedal shaft	Lubricate. Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W30 motor oil.		○	○	○	○	○
11*	Center/Side stand pivots	Check operation and lubricate. Apply chain.	Yamaha chain and cable lube or SAE 10W30 motor oil.		○	○	○	○	○
12*	Front fork oil	Check operation and leakage.	–		○	○	○	○	○
13*	Steering bearings	Check bearing assembly for looseness. Moderately repack every 24,000 km (15,200 mi)	Medium weight wheel bearing grease.		○	○	○	Repack	○
14*	Wheel bearings	Check bearings for smooth rotation.	–		○	○	○	○	○
15	Battery	Check specific gravity and breather pipe for proper operation.	–		○	○	○	○	○
16*	A.C. Generator	Replace generator brushes every 100,000 km (62,000 mi)	–						
17*	Sidestand switch	Check and clean or replace if necessary.	–	○	○	○	○	○	○

* It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

NOTE:

- For farther odometer reading, repeat the above maintenance at the period established, **1: Every 6,000 km (3,800 mi), **2: Every 12,000 km (7,600 mi) and **3: Every 24,000 km (15,200 mi) intervals.
- Brake/clutch fluid replacement:
  1. When disassembling the master cylinder or caliper cylinder, replace the fluid. Normally check the brake/clutch fluid level and add the fluid as required.
  2. On the inner parts of the master cylinder and caliper cylinder, replace the oil seals every two years.
  3. Replace the brake/clutch hoses every four years, or if cracked or damaged.
- Recommended engine oil:



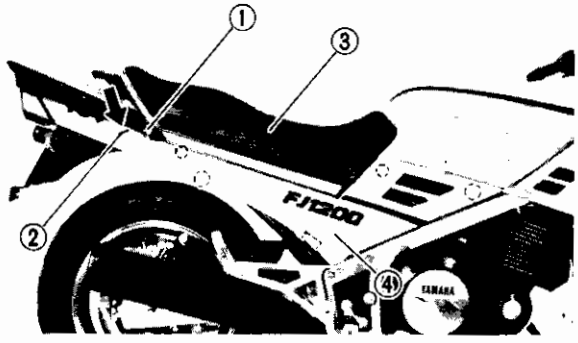
COWLING

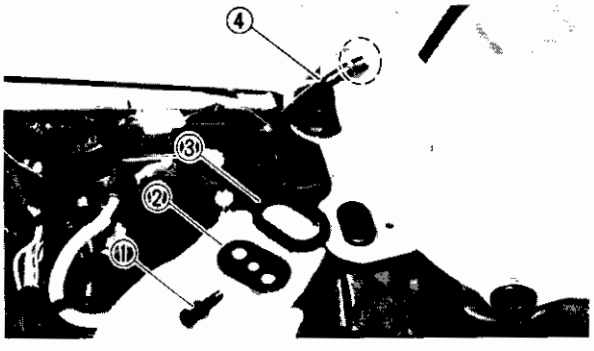
CAUTION:

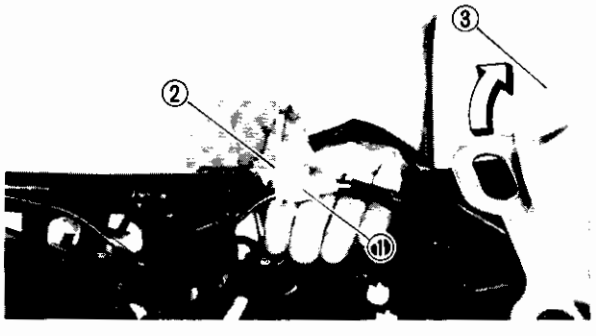
- Avoid impact or damage in the removal and installation of the cowling.
- Avoid using any alkaline or strong acid cleaner, gasoline, brake fluid, or any other solvent.

WARNING:

- Do not use a haircracked windscreen because it blurs visuality.
- Do not put a thing between the cowling and frame because it adversely affects steering.







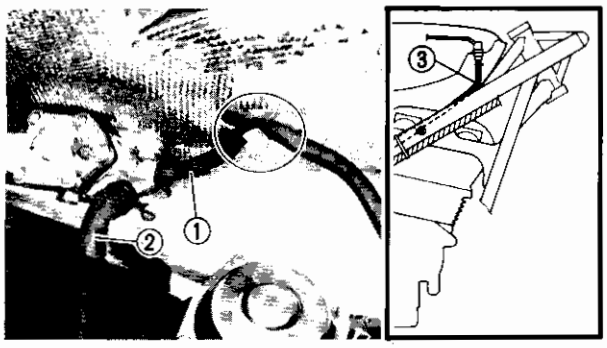
UPPER COWLING

Removal

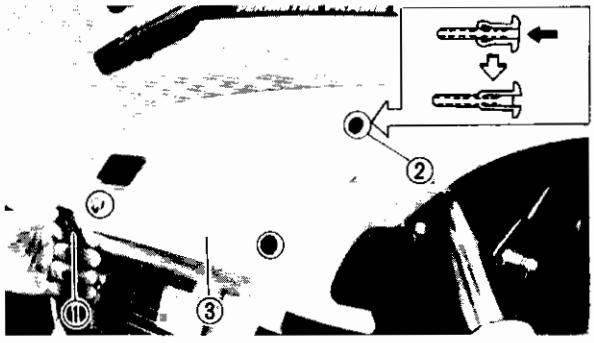
1. Remove:
   - Seat ③
     Open the seal lock ① and push down the levers ② on both sides.
   - Side covers (Left and right) ④
     Pull out the knobs in the upper part of the side cover, and remove the side cover.

2. Remove:
   - Bolts (Fuel tank) ①
   - Washers ②
   - Rubber washers ③
3. Disconnect:
   - Breather hose (Fuel tank-Rear) ④

4. Disconnect:
   - Solenoid valve (Fuel cock) leads ①
   - Fuel level sender leads ②
     Slowly lift up the fuel tank ③.

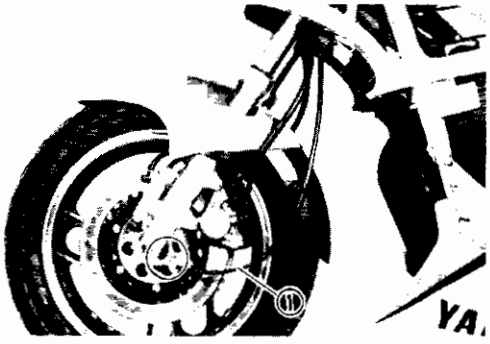


5. Disconnect:
   - Vacuum hose ①
   - Fuel hose ②
   - Breather hose (Fuel tank-Front) ③ (For FJ1200SC)
6. Remove:
   - Fuel tank

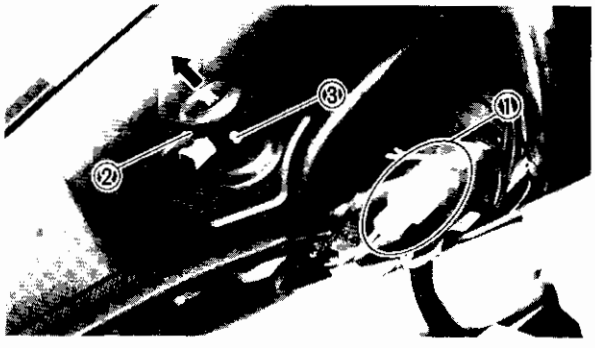


7. Remove:
   - Air ducts (Left and right) ③

Air duct removal steps:
- Remove the cover ① and screws.
- Push in the retainer pin ② about 3 mm (0.12 in) from retainer flange top, using screwdriver so that the retainers are unlocked together with upper cowling.
- Pull air duct ③ out toward front to unhook it together with upper cowling.
- Remove air duct.



8. Disconnect:
   - Speedometer cable ①

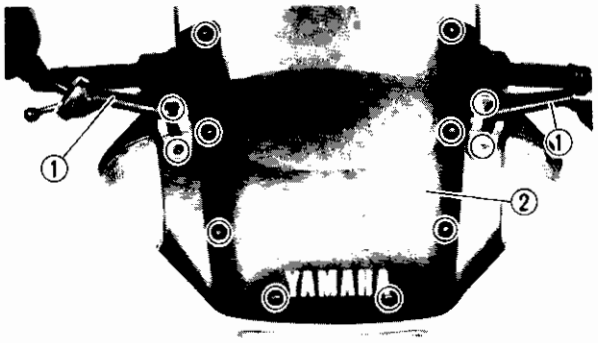


9. Disconnect:
   - "FUEL" (Reserve) switch lead ①
10. Remove:
    - Choke knob ②

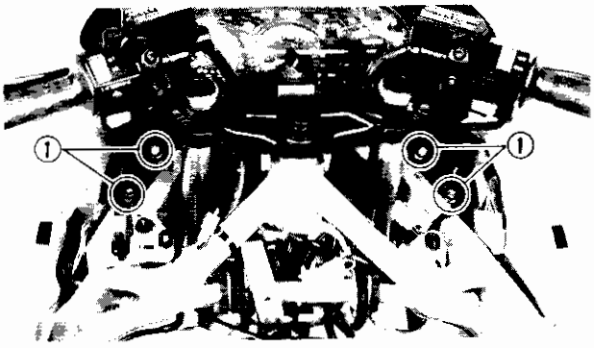
NOTE:
- Before pulling the knob, remove the knob holding screw ③.
- Do not lose the holding screw ③.



11. Remove:
    - Side grills (Left and right) ①

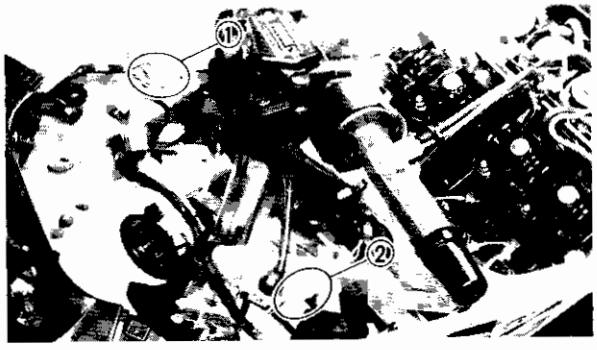


12. Remove:
    - Rear view mirrors (Left and right) ①
    - Windscreen ②

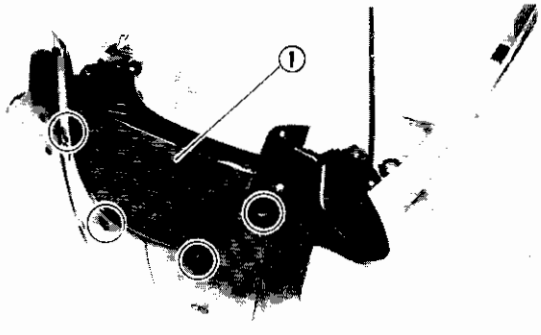


13. Remove:
    - Bolts (Cowling stay) ①

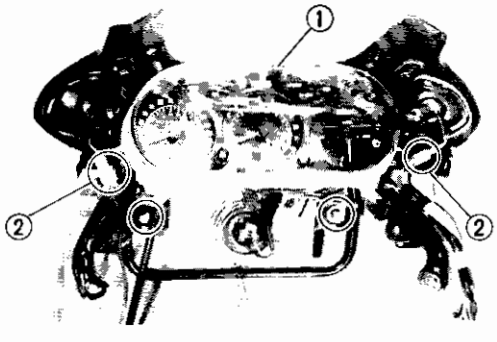
    Slowly pull out the cowling toward front together with the meter assembly.



14. Disconnect:
    - Meter assembly coupler ①
    - "LIGHTS" (Dimmer) switch lead ②
15. Remove:
    - Upper cowling with meter assembly



16. Remove:
    - Meter cover ①



17. Remove:
    - Meter assembly ①
    - Flasher lights (Left and right)
18. Disconnect:
    - Flasher light leads (Left and right) ②

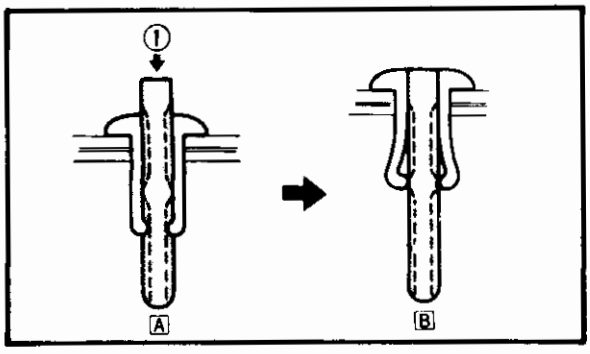
Installation

When installing the seat, reverse the removal procedure. Note the following points.

NOTE:

Make sure that the leads are routed properly.

1. Install:
   - Air ducts (Left and right)

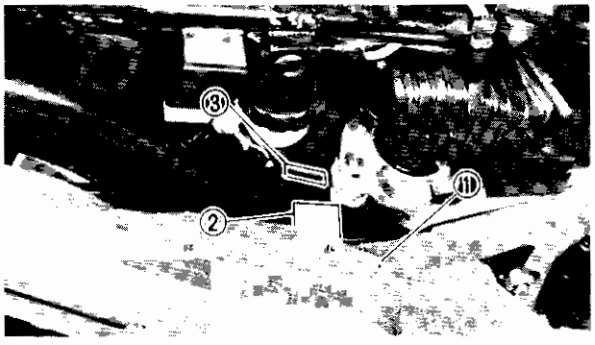


Air duct installation steps:
- Install air ducts; hook the tab of air duct onto cowling.
- Install the retainers into the air duct as shown A.
- Push in the retainer pins ① so that it is flush with retainer flange top B.

2. Connect:
   - Breather hose (Fuel tank – Rear)
   - Breather hose (Fuel tank – Front) (For FJ1200SC)

NOTE:

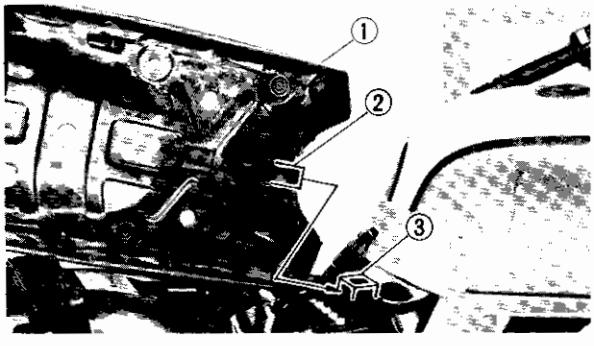
When installing the fuel tank, be sure the breather hose(s) is routed correctly. Refer to "FUEL TANK BREATHER HOSE INSPECTION" section.



3. Install:
   - Side covers (Left and right) ①

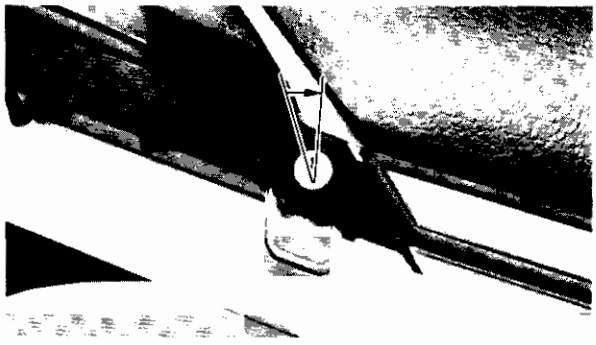
NOTE:

Insert the side cover pawl ② into the hole ③ in the frame and push the knobs in.

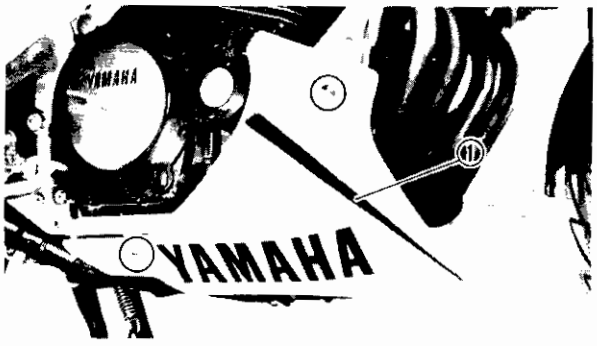


4. Install:
   - Seat ①

NOTE:
- Insert the lobe ② on the seat front into the receptacle ③ on the frame, then push down the seat at the rear.



• After making sure the seat is securely fitted, turn the key clockwise to the centerposition.



LOWER COWLING

Removal

1. Remove:
   • Lower cowling ①

Installation

1. Install:
   • Lower cowling
   Tighten screws evenly.

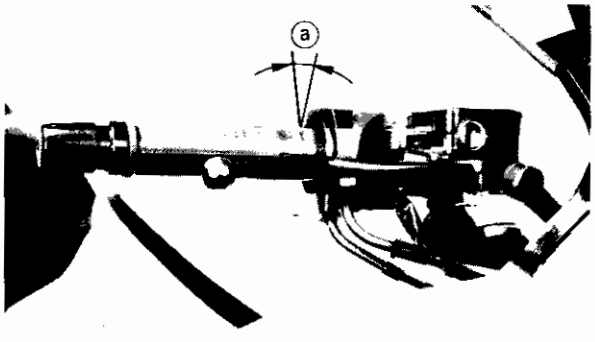
CHASSIS

THROTTLE CABLE ADJUSTMENT

NOTE:

Before adjusting the throttle cable free play, the engine idling speed should be adjusted.

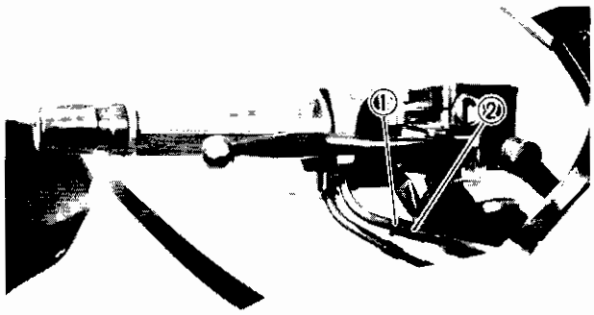
1. Check:
   • Throttle cable free play ⓐ
   Out of specification → Adjust.



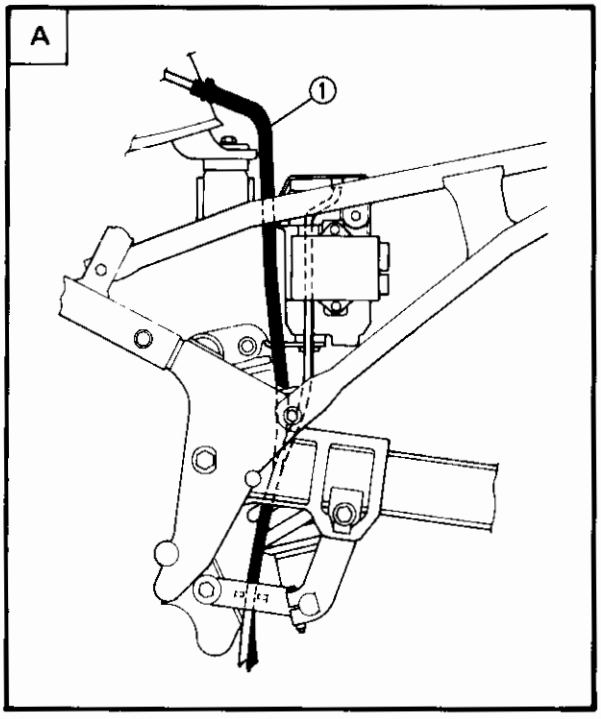
Throttle Cable Free Play ⓐ:
3 ~ 7 mm (0.12 ~ 0.28 in)

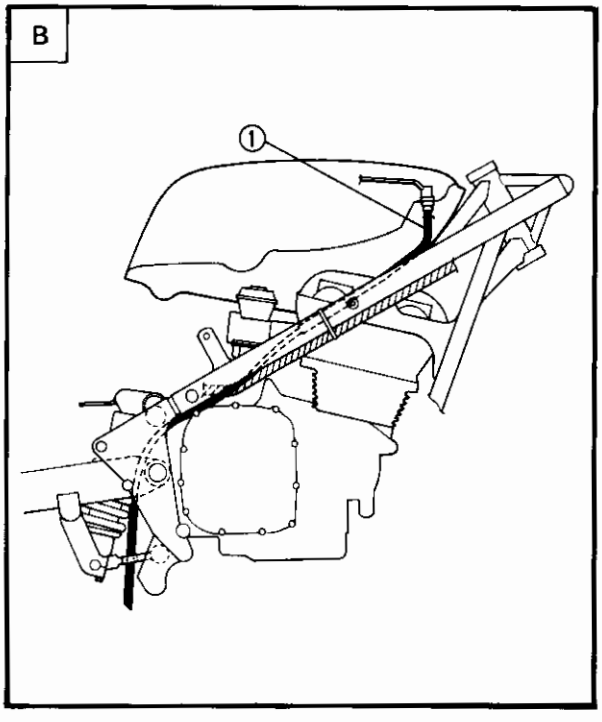
2. Adjust:
   • Throttle cable free play

FUEL TANK BREATHER HOSE INSPECTION



Throttle cable free play adjustment steps:
- Loosen the locknut ①.
- Turn the adjuster ② clockwise or counter-clockwise until proper free play is attained.
- Tighten the locknut.





FUEL TANK BREATHER HOSE INSPECTION

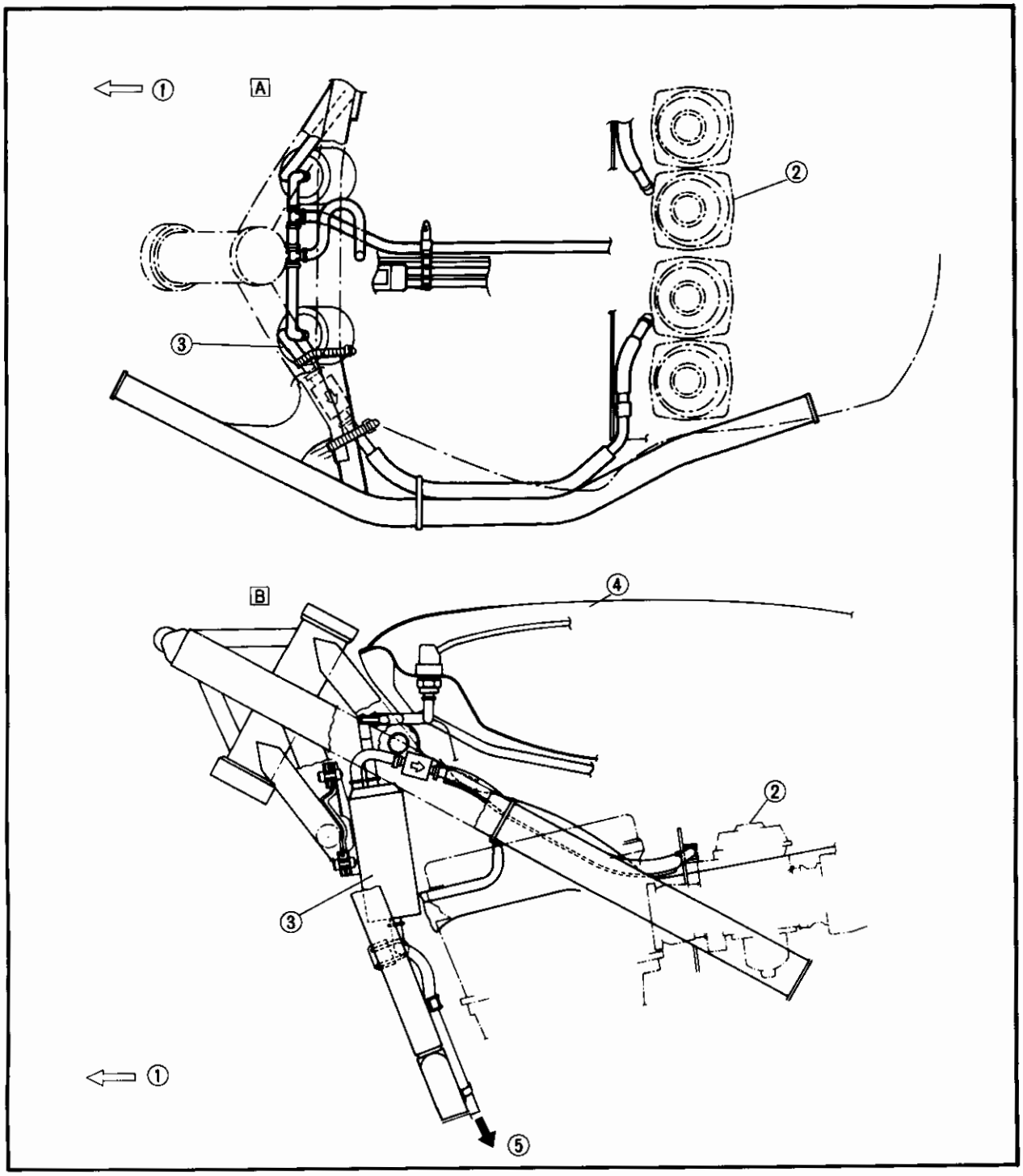
1. Inspect:
   - Hose connection
     Poor condition → Correct.
   - Breather hose(s) ①
     Cracks/Damage → Replace.
     Clogs → Clean.

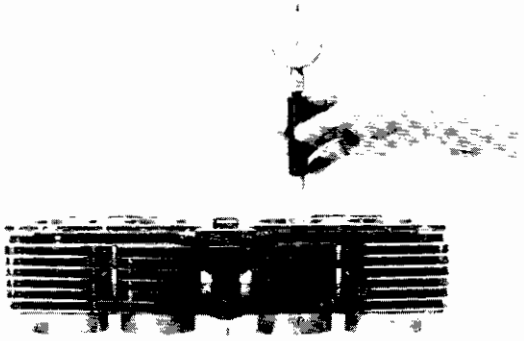
[A] REAR BREATHER HOSE
[B] FRONT BREATHER HOSE
(FOR FJ1200SC ONLY)

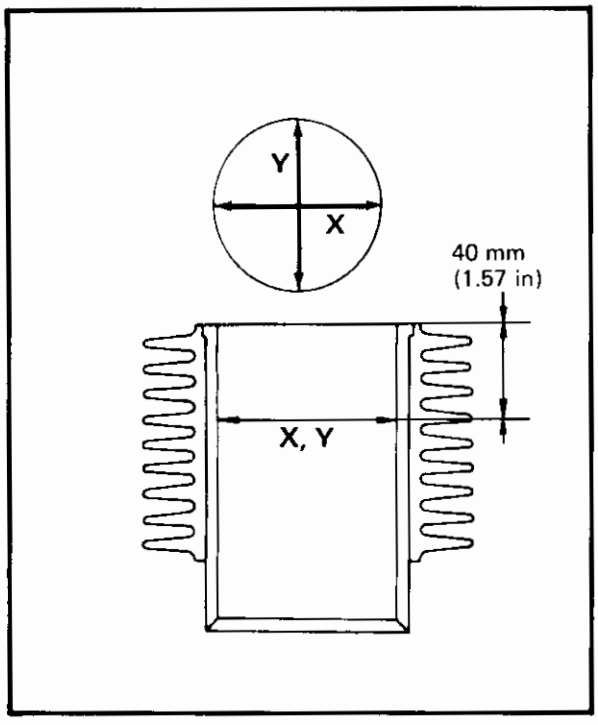
① Forward
② Carburetor
③ Canister
④ Fuel tank
⑤ To atmosphere
[A] TOP VIEW
[B] SIDE VIEW

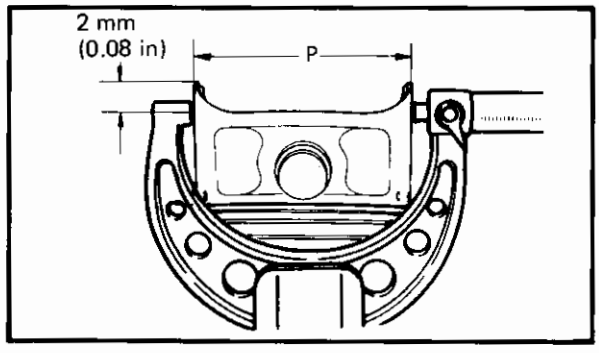
CANISTER INSPECTION (FOR FJ1200SC ONLY)

1. Inspect:
   - Hose connection
     Poor condition → Correct.
   - Hoses
   - Canister
     Cracks/Damage → Replace.
     Clogs → Clean.









ENGINE OVERHAUL

INSPECTION AND REPAIR

CYLINDER

1. Inspect:
   - Cylinder wall
     Wear/Scratches → Rebore or replace.
2. Measure:
   - Cylinder bore "C"
     Use Cylinder Bore Gauge.
     Measure the cylinder bore "C" horizontally and laterally at 40 mm (1.57 in) from cylinder top. Then find the coverage of the measurements.
     Out of specification → Rebore.

	Standard	Wear limit
Cylinder Bore C:	76.96 ~ 77.02 mm (3.030 ~ 3.032 in)	77.1 mm (3.035 in)

$$C = \frac{X + Y}{2}$$

PISTON

Piston

1. Inspect:
   - Piston wall
     Wear/Scratches/Damage → Replace.
2. Measure:
   - Piston outside diameter "P"
     Use a micrometer.
     Out of specification → Replace.

NOTE:

Measurement should be made at a point 2.0 mm (0.08 in) above the bottom edge of the piston.

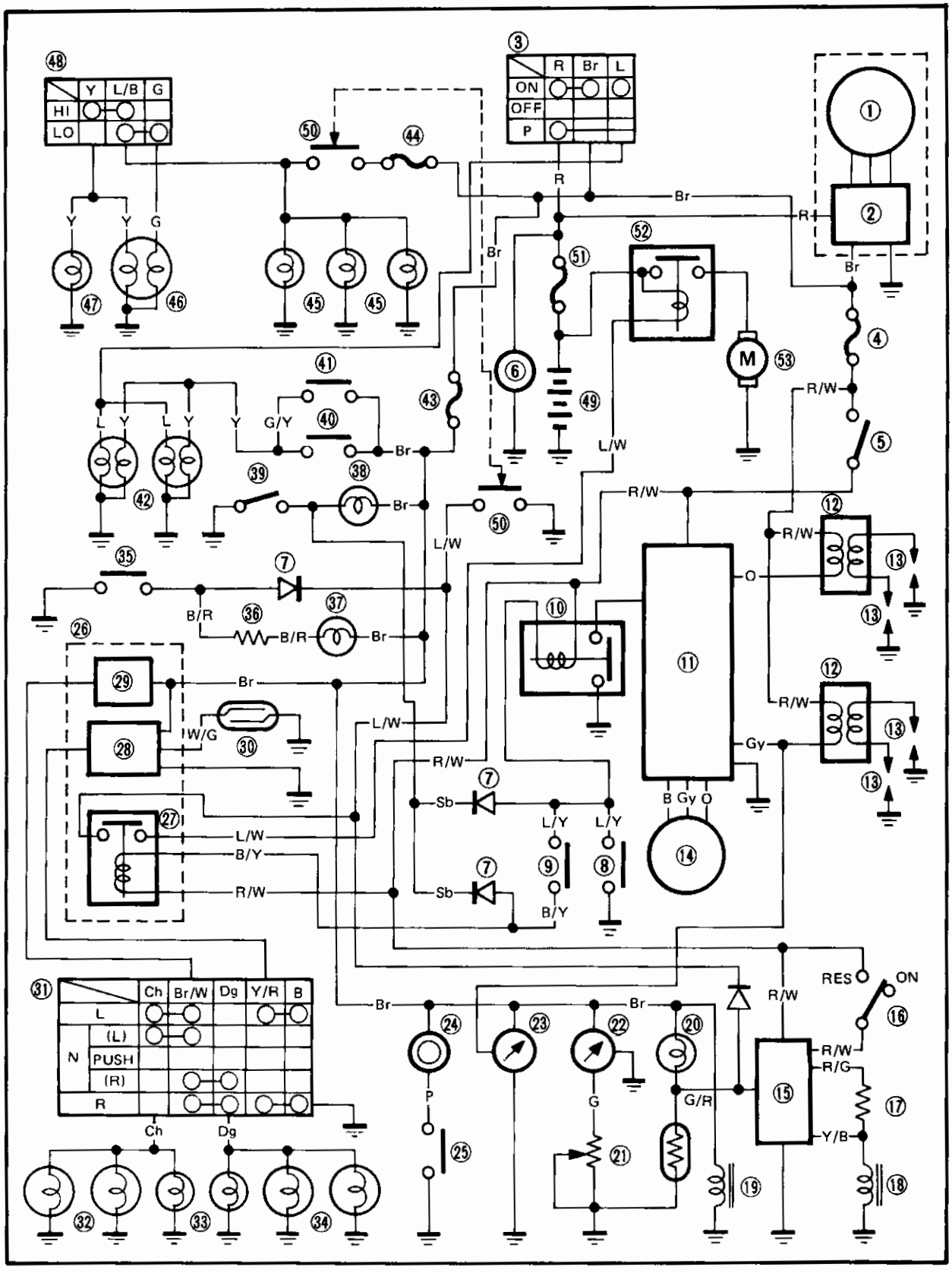
	Size P
Standard	76.92 ~ 76.98 mm (3.028 ~ 3.031 in)
Oversize 2	77.50 mm (3.051 in)



— MEMO —

ELECTRICAL

FJ1200S/SC CIRCUIT DIAGRAM



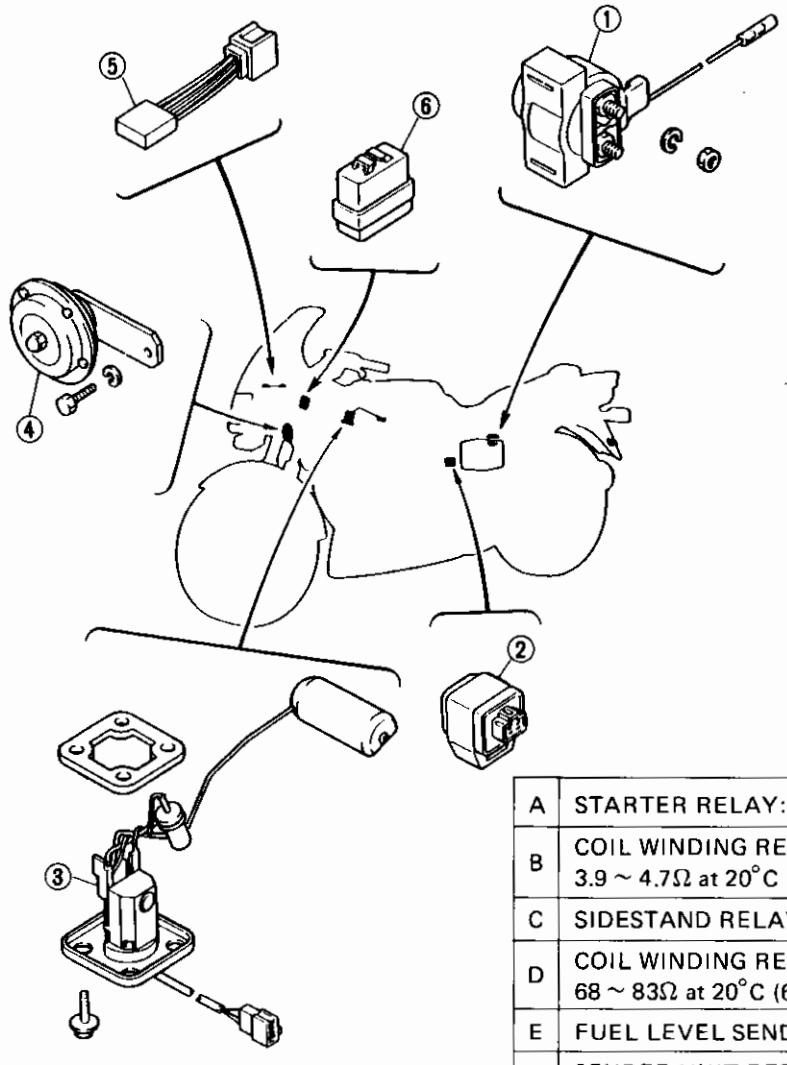
① A.C. generator
② Rectifier/Regulator
③ Main switch
④ Fuse (IGNITION)
⑤ "ENGINE STOP" switch
⑥ Digital clock
⑦ Diode
⑧ Clutch switch
⑨ Sidestand switch
⑩ Sidestand relay
⑪ Ignitor unit
⑫ Ignition coil
⑬ Spark plug
⑭ Pickup coil
⑮ Fuel reserve control unit
⑯ "FUEL" (Reserve) switch
⑰ Resistor
⑱ Solenoid valve (Fuel cock)
⑲ Air vent control valve
(For FJ1200SC only)
⑳ "FUEL" warning indicator light
㉑ Fuel level sender unit
㉒ Fuel meter
㉓ Tachometer
㉔ Horn
㉕ "HORN" switch
㉖ Relay assembly
㉗ Starting circuit cut-off relay
㉘ Cancelling unit
㉙ Flasher relay
㉚ Reed switch
㉛ "TURN" switch
㉜ Flasher lights (Left)
㉝ "TURN" indicator lights
㉞ Flasher lights (Right)
㉟ Oil level switch
㊱ Resistor
㊲ "OIL LEVEL" indicator light
㊳ "NEUTRAL" indicator light
㊴ Neutral switch
㊵ Rear brake switch
㊶ Front brake switch
㊷ Tail/Brake light
㊸ Fuse (SIGNAL)
㊹ Fuse (HEAD)
㊺ Meter lights
㊻ Headlight
㊼ "HIGH BEAM" indicator light
㊽ "LIGHTS" (Dimmer) switch
㊾ Battery
㊿ "START" switch
(51) Fuse (MAIN)
(52) Starter relay
(53) Starter motor

COLOR CODE

Br	Brown
R	Red
W	White
B	Black
L	Blue
G	Green
Dg	Dark Green
Ch	Chocolate
G/R	Green/Red
Br/W	Brown/White
Y/B	Yellow/Black
W/G	White/Green
Y/R	Yellow/Red
R/W	Red/White
Sb	Sky Blue
Y	Yellow
P	Pink
O	Orange
B/Y	Black/Yellow
L/W	Blue/White
L/B	Blue/Black
R/Y	Red/Yellow
G/Y	Green/Yellow
B/R	Black/Red
Gy	Gray
L/R	Blue/Red

ELECTRICAL COMPONENTS (1)

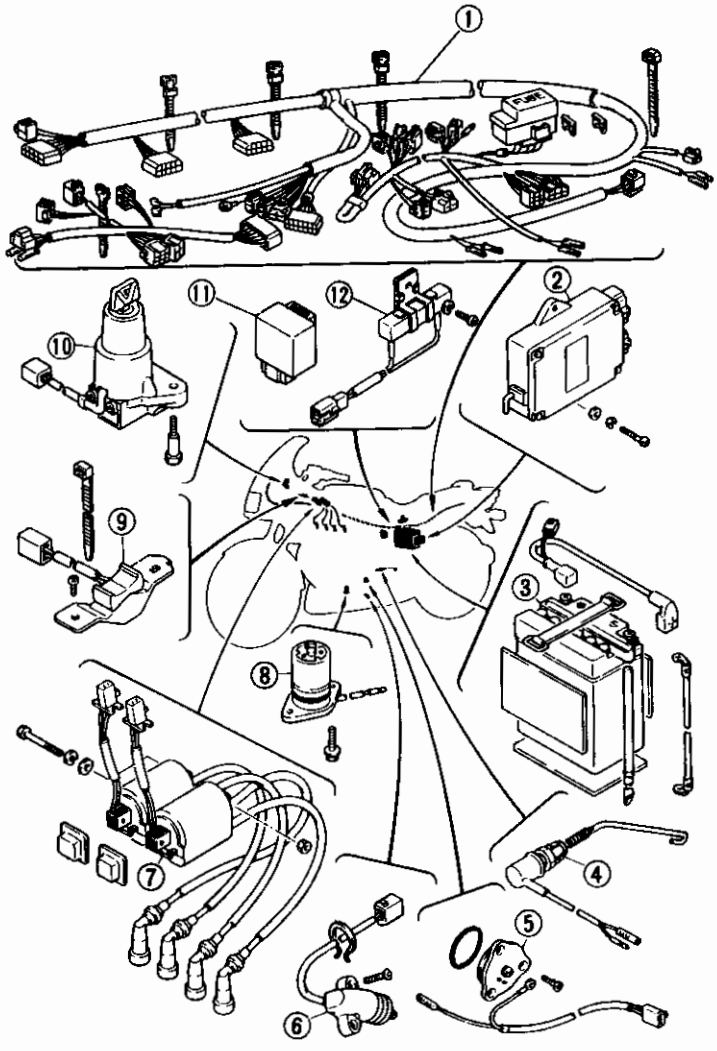
① Starter relay
② Sidestand relay
③ Fuel level sender unit
④ Horn
⑤ Diode
⑥ Relay assembly



A	STARTER RELAY:
B	COIL WINDING RESISTANCE: 3.9 ~ 4.7Ω at 20°C (68°F)
C	SIDESTAND RELAY:
D	COIL WINDING RESISTANCE: 68 ~ 83Ω at 20°C (68°F)
E	FUEL LEVEL SENDER UNIT:
F	SENDER UNIT RESISTANCE: FULL: 4 ~ 7Ω at 20°C (68°F) EMPTY: 90 ~ 100Ω at 20°C (68°F)
G	STARTING CIRCUIT CUT-OFF RELAY:
H	COIL WINDING RESISTANCE: 203 ~ 248Ω at 20°C (68°F)

ELECTRICAL COMPONENTS (2)

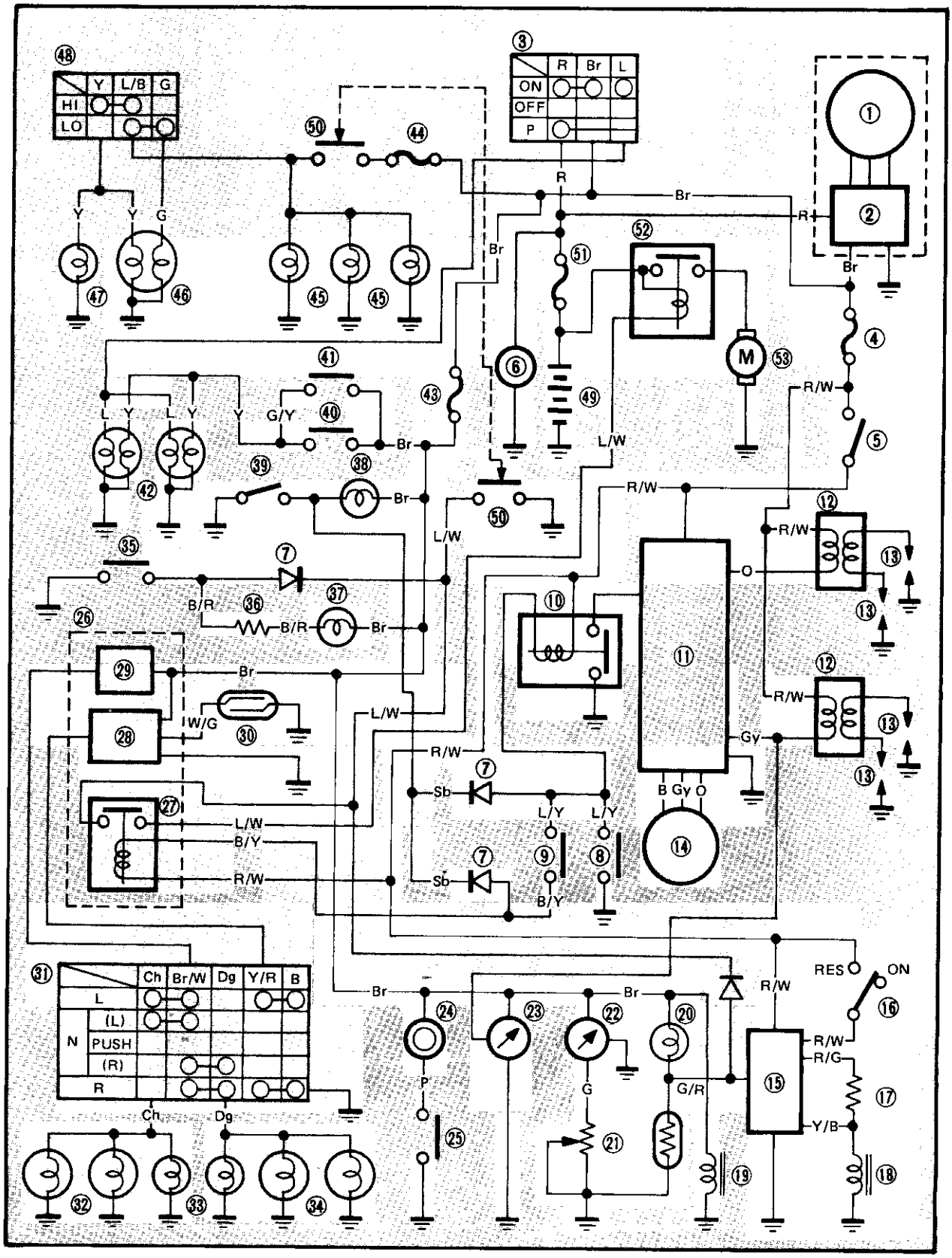
① Wire harness
② Ignitor unit
③ Battery
④ Rear brake switch
⑤ Neutral switch
⑥ Sidestand switch
⑦ Ignition coil
⑧ Oil level switch
⑨ "FUEL" (Reserve) switch
⑩ Main switch
⑪ Fuel reserve control unit
⑫ Resistor assembly



A	IGNITION COIL:
B	PRIMARY WINDING RESISTANCE: 2.4 ~ 3.0Ω at 20°C (68°F) SECONDARY WINDING RESISTANCE: 9.6 ~ 14.4 kΩ at 20°C (68°F)
C	BATTERY:
D	CAPACITY: 12V 14AH
E	SPECIFIC GRAVITY: 1.280

FUEL RESERVE SYSTEM

CIRCUIT DIAGRAM

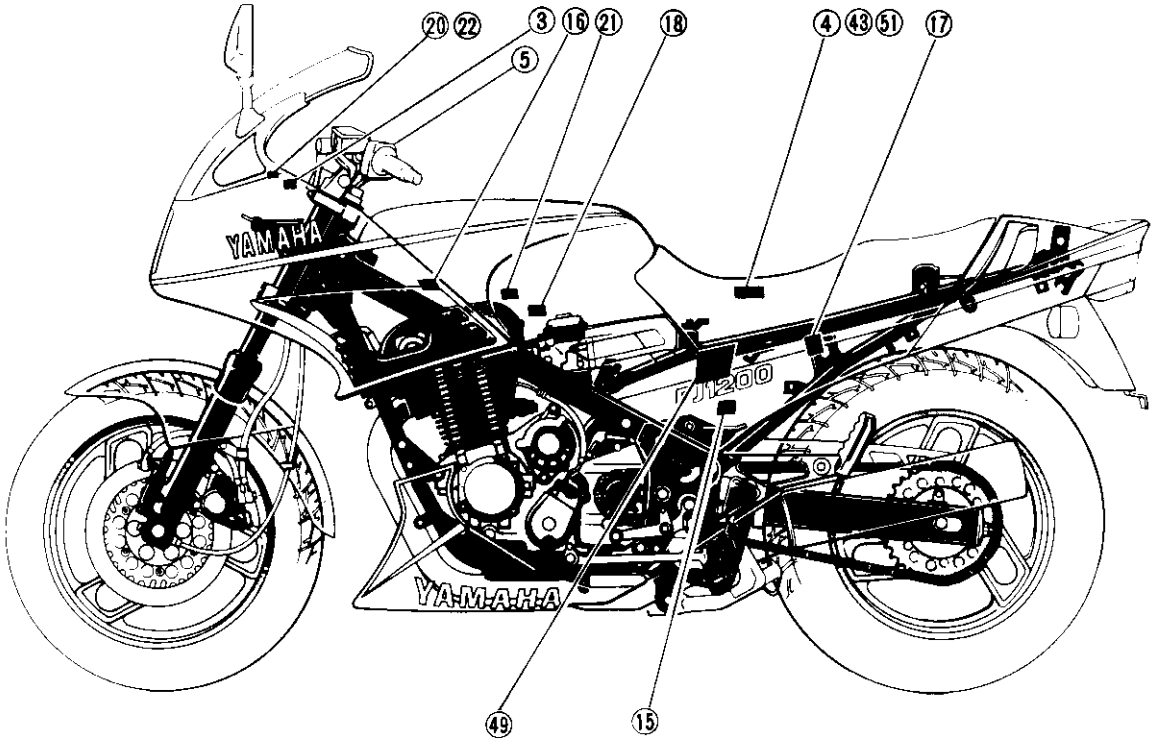


Aforementioned circuit diagram shows fuel reserve circuit in wiring diagram.

NOTE:

For the encircled numbers and color codes, see page 14.

③ Main switch
④ Fuse (IGNITION)
⑤ "ENGINE STOP" switch
⑮ Fuel reserve control unit
⑯ "FUEL" (Reserve) switch
⑰ Resistor
⑱ Solenoid valve (Fuel cock)
⑳ "FUEL" warning indicator light
㉑ Fuel level sender unit
㉒ Fuel meter
㊸ Fuse (SIGNAL)
㊾ Battery
㊶ Fuse (MAIN)



FUEL RESERVE SYSTEM

FUEL RESERVE CIRCUIT OPERATION

The fuel reserve circuit on this model consists of fuel reserve control unit, solenoid valve (Fuel cock), "FUEL" (Reserve) switch, and fuel level sender unit.

If the "ENGINE STOP" switch, main switch and "FUEL" (Reserve) switch are all on, the solenoid valve (Fuel cock) can operate if:

- The fuel level is below the reserve level (The needle indicates "E" on the fuel meter).
- The "FUEL" (Reserve) switch is at the "RES" position.

NOTE:

The "FUEL" (Reserve) switch must be set to the "ON" position except when the fuel level is at the reserve level.

- Main switch is "ON".
- "ENGINE STOP" switch is "RUN".
- "FUEL" (Reserve) switch is "ON".

⇩

The fuel level is below the reserve level.

⇩

The solenoid valve is "ON".

⇩

The engine will stopped.

⇩

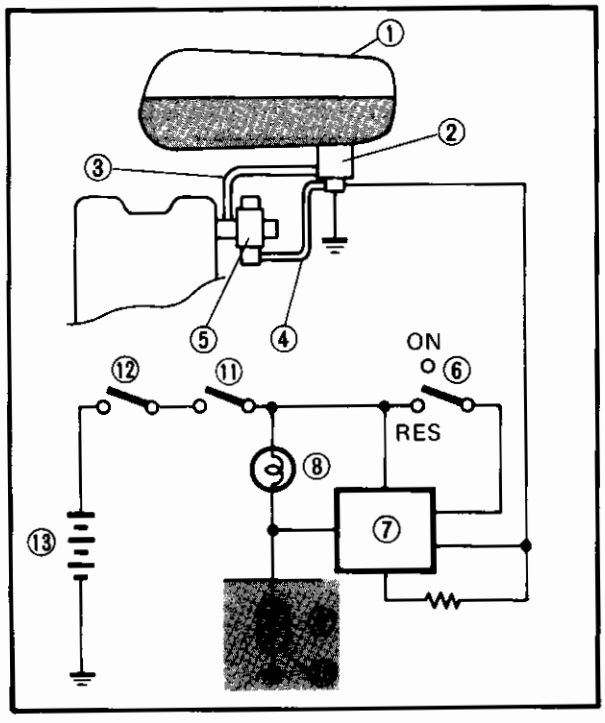
The "FUEL" (Reserve) switch is "RES".

⇩

The solenoid valve is "OFF".

⇩

The engine will be started.



① Fuel tank
② Solenoid valve (Fuel tank)
③ Vacuum hose
④ Fuel hose
⑤ Carburetor
⑥ "FUEL" (Reserve) switch
⑦ Fuel reserve control unit
⑧ "FUEL" warning indicator light
⑨ Fuel
⑩ Fuel level sender
⑪ "ENGINE STOP" switch
⑫ Main switch
⑬ Battery

TROUBLESHOOTING

SOLENOID VALVE DOES NOT OPERATE.

⇩

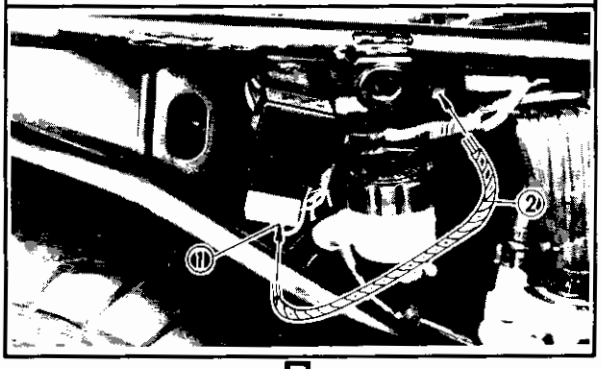
Remove the seat and side cover (Right).

⇩

Turn on the main switch and "FUEL" (Reserve) switch.

⇩

Ground the Green/Red lead ① on the fuel reserve control unit to the frame using the jumper lead ②.



⇩

Check the "FUEL" warning indicator light.

DOES NOT COME ON ⇒

- Check bulb.
- Check for an open or poor connection between the main switch and fuel level sender.

⇩ COMES ON

While pushing the "FUEL" (Reserve) switch from "ON" to "RES" and back, check to see if the solenoid valve clicks.

YES ⇒ Fuel reserve control unit is OK.

⇩ NO

Disconnect the solenoid valve leads.

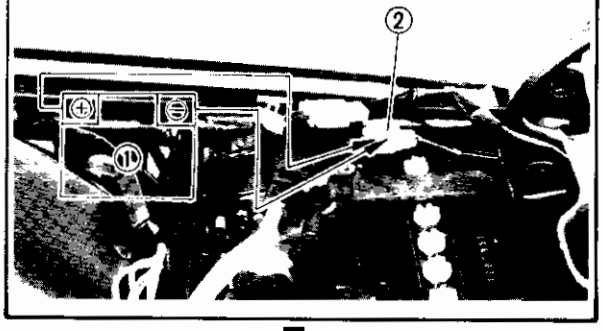
⇩

*

*

Connect the battery (12V) ① and solenoid valve leads ② as shown, check to see if the solenoid valve clicks.

YES → Solenoid valve is OK. Replace fuel reserve control unit.



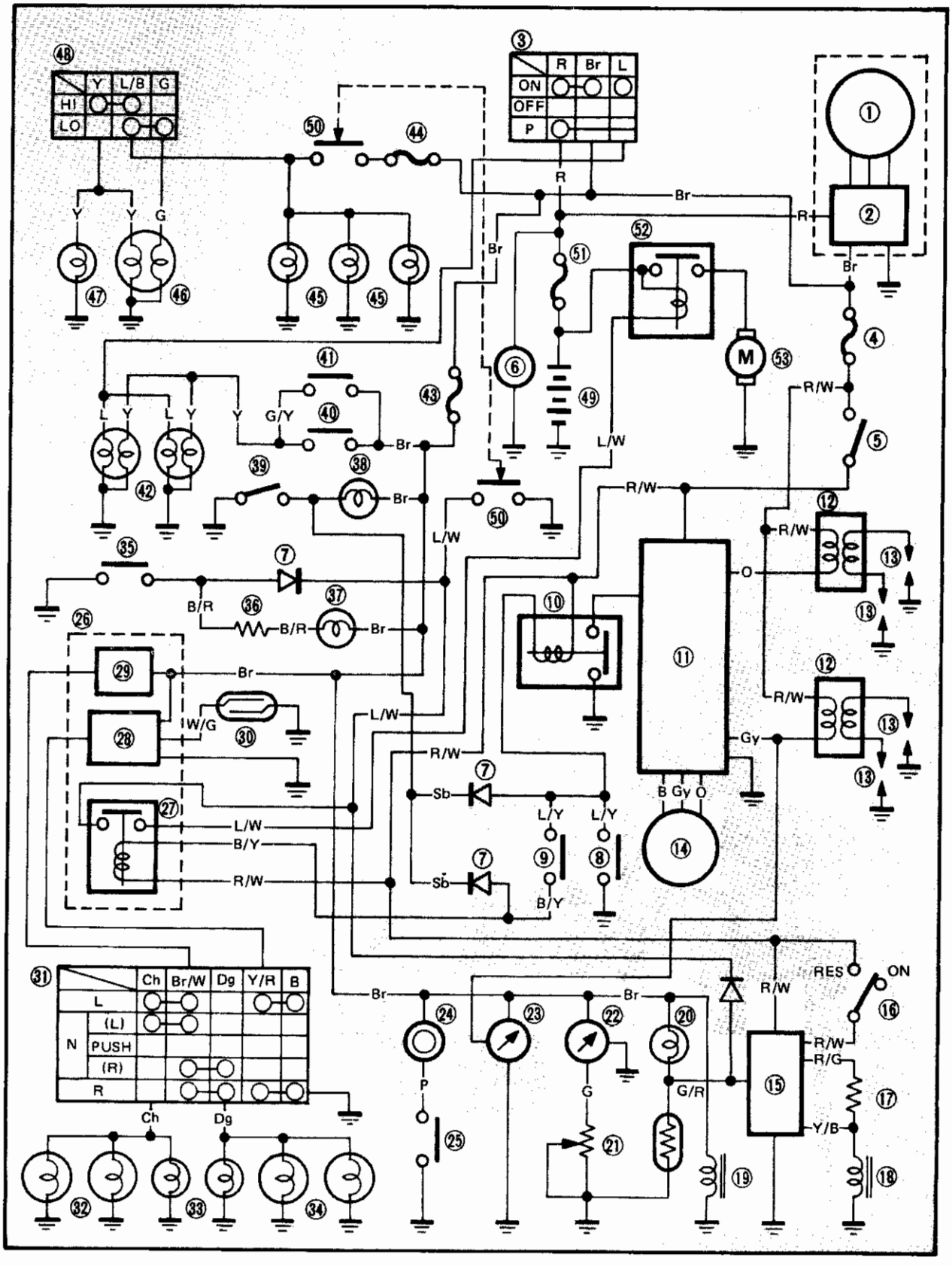
NO

Replace the solenoid valve.

— MEMO —

DIGITAL CLOCK SYSTEM

CIRCUIT DIAGRAM

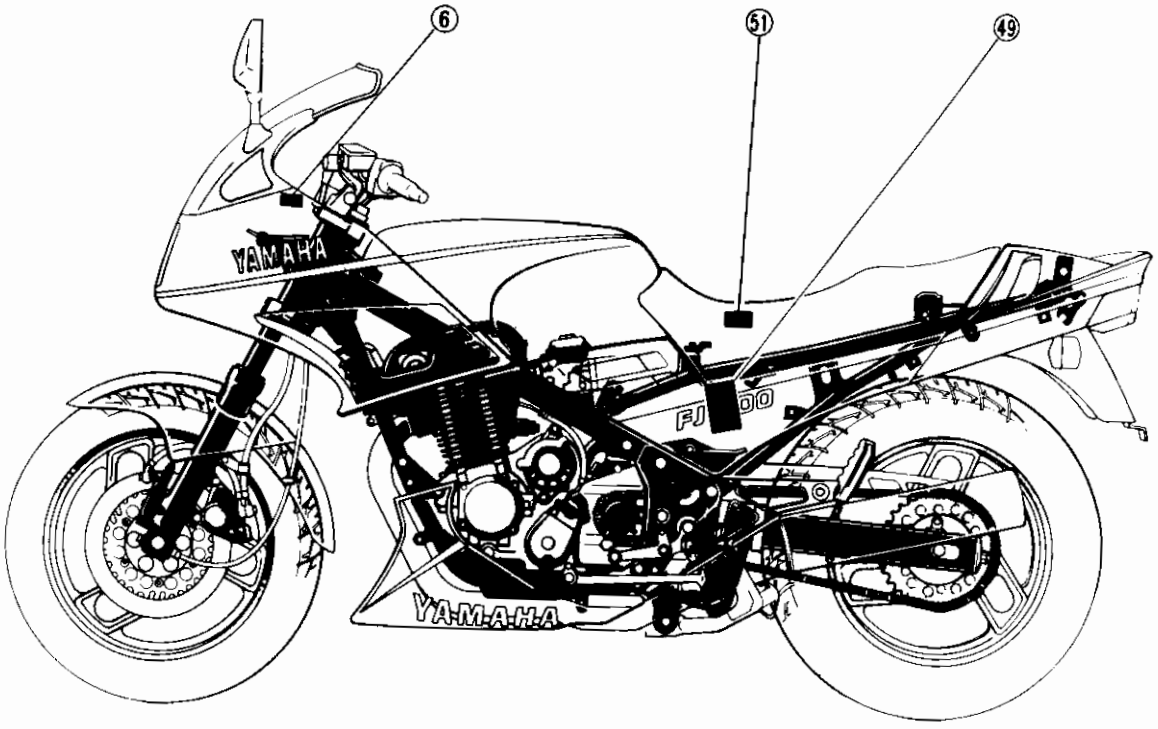


Aforementioned circuit diagram shows digital clock circuit in wiring diagram.

NOTE:

For the encircled numbers and color codes, see page 14.

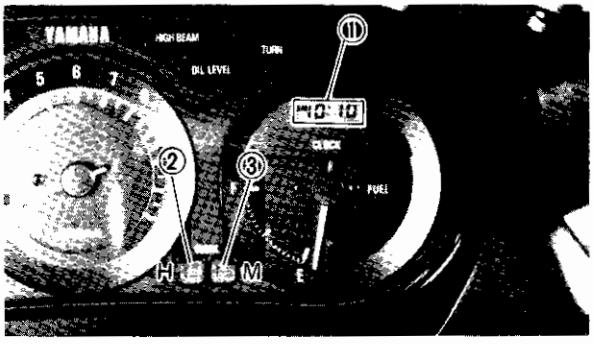
⑥ Digital clock
㊾ Battery
㊶ Fuse (MAIN)



DIGITAL CLOCK ADJUSTMENT

NOTE:
This digital clock always shows the time regardless of the main switch position.

1. Adjust:
   - Digital clock



Digital clock adjustment steps:
- Turn the main switch to "ON".
- The time (Hour) setting can be done by pushing or holding the "H" switch ②.
- The time (Minute) setting can be done by pushing or holding the "M" switch ③.

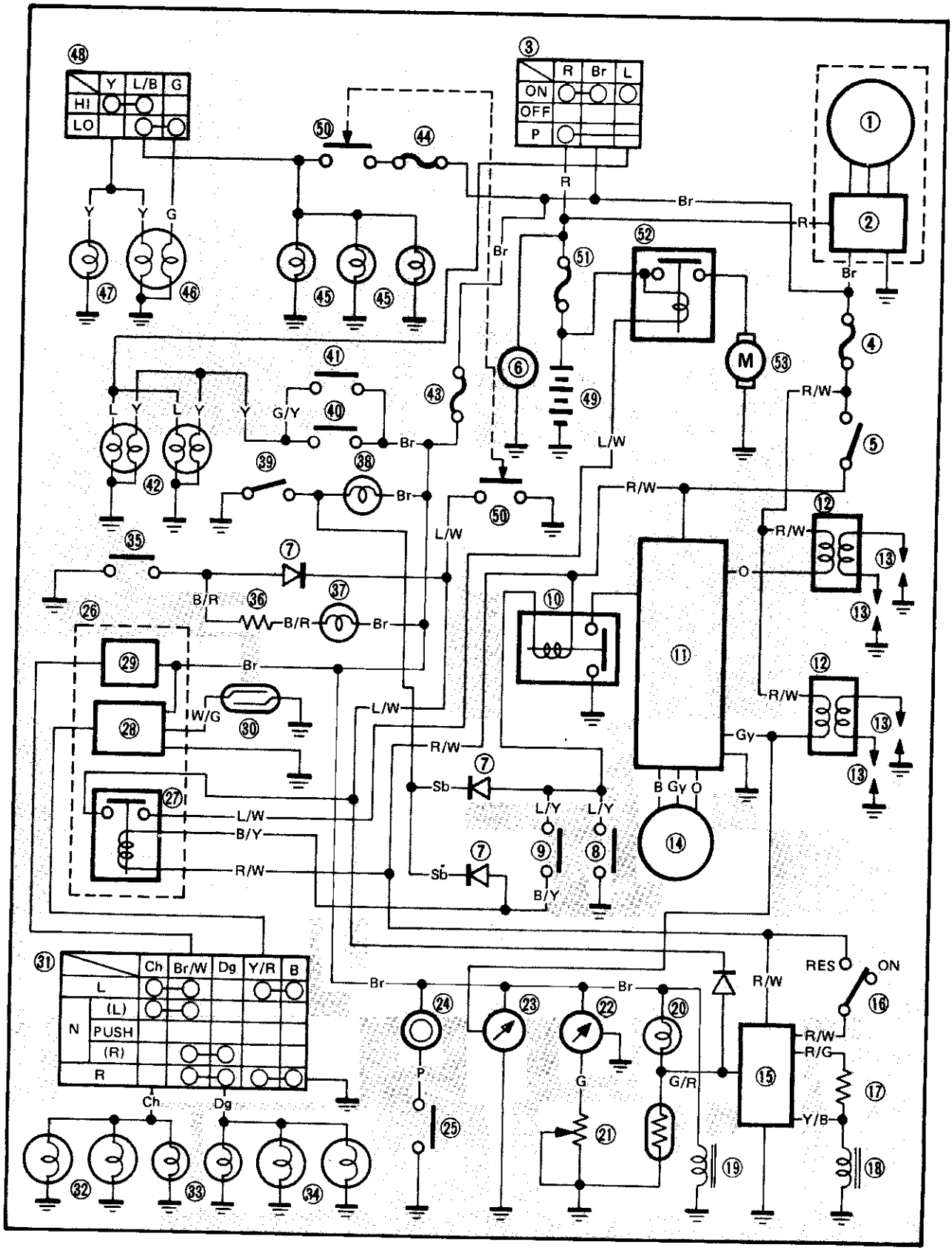
① Digital clock

NOTE:
When setting the clock after its power source is cut by a removed battery, etc., first set the time for 1 : 00 AM, then, go on to set it for the correct time.

— MEMO —

CARBURETOR AIR VENT SYSTEM (FOR FJ1200SC)

CIRCUIT DIAGRAM

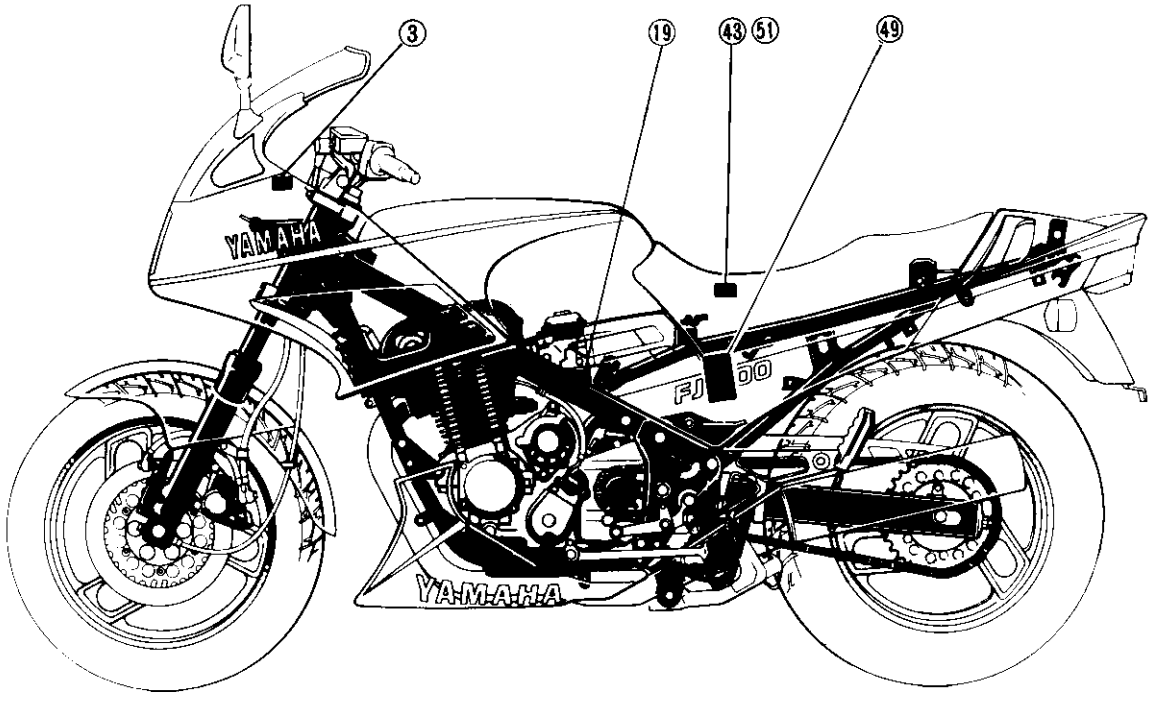


CARBURETOR AIR VENT SYSTEM (FOR FJ1200SC)

Aforementioned circuit diagram shows carburetor air vent circuit in wiring diagram.

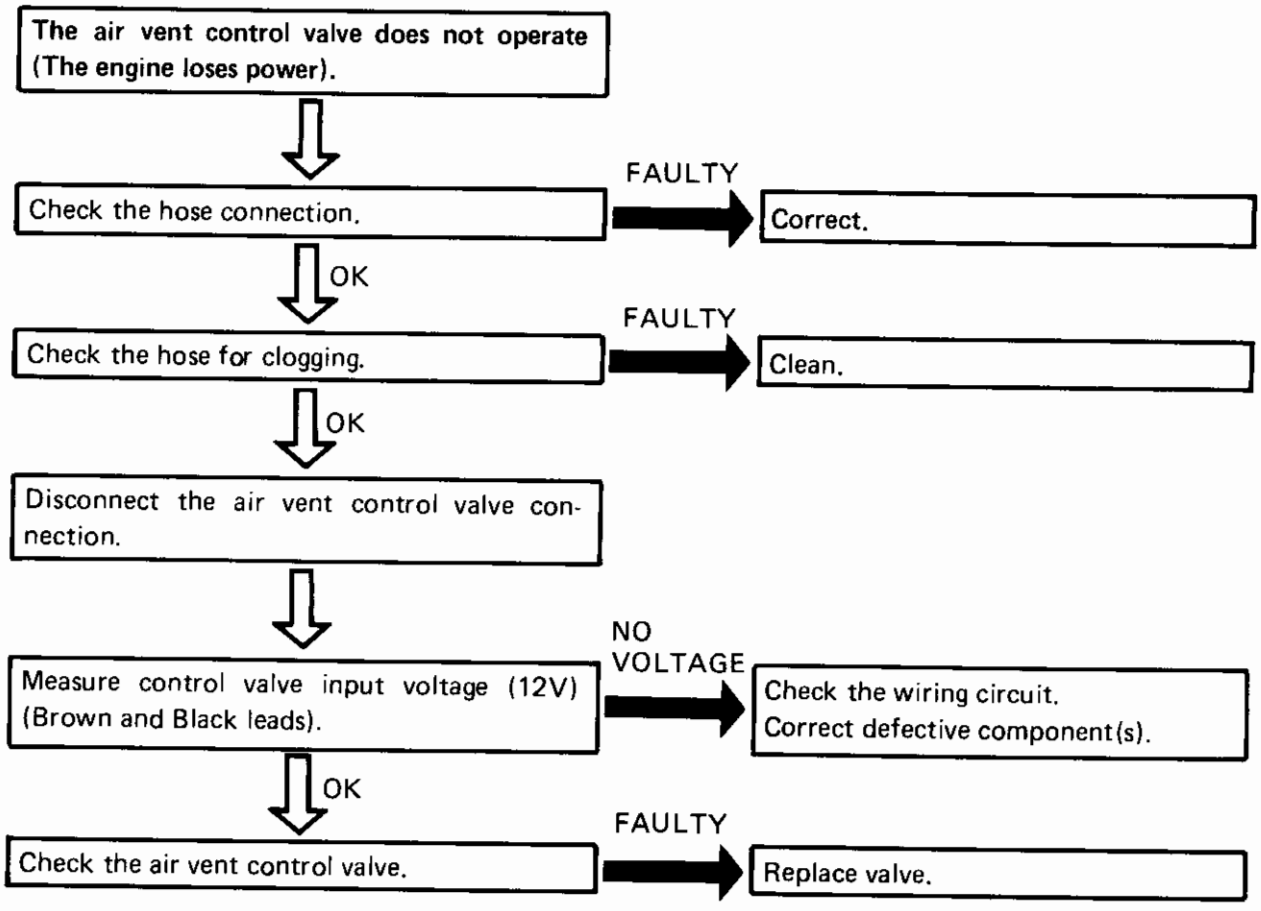
NOTE:
For the encircled numbers and color codes, see page 14.

③ Main switch
⑲ Air vent control valve (For FJ1200SC)
㊸ Fuse (SIGNAL)
㊾ Battery
㊶ Fuse (MAIN



CARBURETOR AIR VENT SYSTEM

TROUBLESHOOTING



CARBURETOR AIR VENT SYSTEM

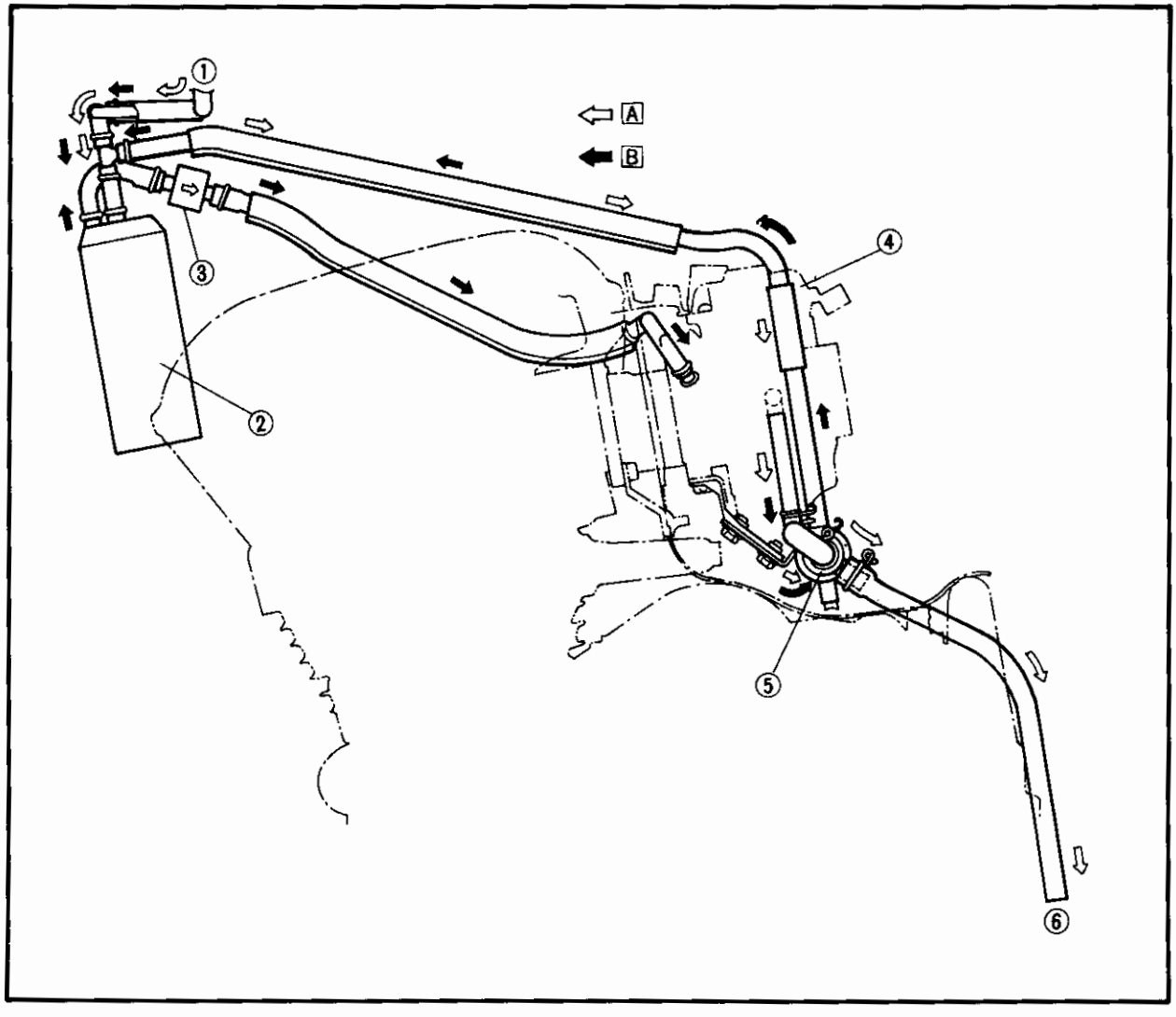
Description

This model is equipped with two canisters to prevent the discharging of fuel vapor and carburetor air vent into the atmosphere.

Operation

The carburetor air vent is controlled by the air vent control valve when the main switch is ON.

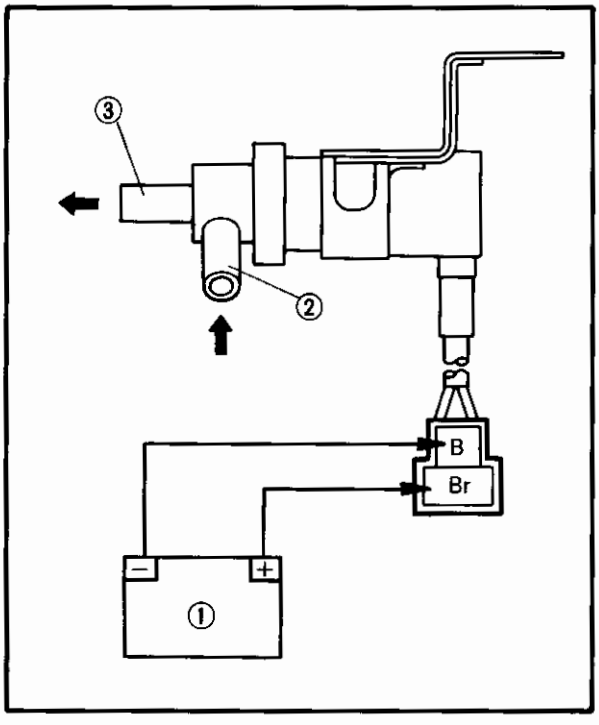
① From fuel tank
② Canister
③ Pressure control valve
④ Carburetor
⑤ Air vent control valve
⑥ To atmosphere
[A] Main switch is OFF
[B] Main switch is ON



CARBURETOR AIR VENT SYSTEM (FOR FJ1200SC)

AIR VENT CONTROL VALVE TEST

1. Remove:
   - Seat
   - Side covers
   - Air vent control valve
2. Inspect:
   - Air vent control valve operation



Air vent control valve inspection steps:

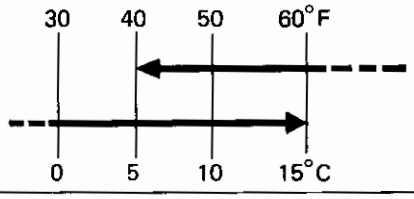
- Connect the battery (12V) ① as shwon.
- Blow air inside at nozzle ② which is open to the air.
- Check for air escape at nozzle ③ on the canister side.
  No air escape → Replace valve.
- Disconnect the battery and blow air inside at nozzle ② which is open to the air.
- Check for air escape at nozzle ③ on the canister side.
  Air escape → Replace valve.
  No air escape → Valve is OK.

APPENDICES

SPECIFICATIONS

GENERAL SPECIFICATIONS

Except for California: FJ1200S
For California: FJ1200SC

Model	FJ1200S/SC
Model Code Number: Engine Starting Number: Vehicle Identification Number:	FJ1200S: 1UX FJ1200SC: 1WJ FJ1200S: 1UX-000101 FJ1200SC: 1WJ-000101 FJ1200S: JYA1UX00 * GA000101 FJ1200SC: JYA1WJ00 * GA000101
Dimensions: Overall Length Overall Width Overall Height Seat Height Wheelbase Minimum Ground Clearance	 2,230 mm (87.8 in) 775 mm (30.5 in) 1,200 mm (47.2 in) 780 mm (30.7 in) 1,490 mm (58.7 in) 140 mm (5.5 in)
Basic Weight: Weight Oil and Full Fuel Tank	 FJ1200S: 258 kg (569 lb) FJ1200SC: 259 kg (571 lb)
Minimum Turning Radius:	3,000 mm (118 in)
Engine: Engine Type Cylinder Arrangement Displacement Bore x Stroke Compression Ratio Compression Pressure Starting System	 Air cooled 4-stroke gasoline, DOHC Parallel, 4-cylinder, Forward inclined 1,188 cm^3 77.0 x 63.8 mm (3.032 x 2.512 in) 9.7 : 1 1,030 kPa (10.5 kg/cm^2, 149 psi) Electric starter
Lubrication System.	Wet sump
Oil Type or Grade: Engine Oil 	 Yamalube 4-cycle oil or SAE 20W40 type SE motor oil (If temperature does not go below 5°C (40°F)) SAE 10W30 type SE motor oil (If temperature does not go above 15°C (60°F)
Oil Capacity: Engine Oil: Periodic Oil Change With Oil Filter Replacement Total Amount	 3.00 L (2.6 Imp qt, 3.2 US qt) 3.35 L (2.9 Imp qt, 3.5 US qt) 4.20 L (3.7 Imp qt, 4.4 US qt)
Air Filter:	Dry type element
Fuel: Type Tank Capacity: Total Reserve	 Regular gasoline 22 L (4.8 Imp gal, 5.8 US gal) 5 L (1.1 Imp gal, 1.3 US gal)
Carburetor: Type/Manufacturer	 BS36 x 4/MIKUNI
Spark Plug: Type/Manufacturer Gap	 DP8EA-9/NGK, X24EP-U9/NIPPONDENSO 0.8 ~ 0.9 mm (0.031 ~ 0.035 in)

GENERAL SPECIFICATIONS

Model	FJ1200S/SC
Clutch Type:	Wet, multiple-disc
Transmission:	
Primary Reduction System	Chain
Primary Reduction Ratio	98/56 (1.750)
Secondary Reduction System	Chain Drive
Secondary Reduction Ratio	41/17 (2.411)
Transmission Type	Constant mesh, 5-speed
Operation	Left foot operation
Gear Ratio: 1st	40/14 (2.857)
2nd	36/18 (2.000)
3rd	33/21 (1.571)
4th	31/24 (1.291)
5th	29/26 (1.115)
Chassis:	
Frame Type	Double cradle
Caster Angle	27.5°
Trail	112 mm (4.41 in)
Tire:	
Type	Tubeless
Manufacturer/Size/Type:	
Front:	DUNLOP/ 120/80 V16-V250/K330A BRIDGESTONE/ 120/80 V16-V250/G533
Rear:	DUNLOP/ 150/80 V16-V250/K330 BRIDGESTONE/ 150/80 V16-V250/G534
Minimum Tire Tread Depth	1.0 mm (0.04 in)
Tire Pressure (Cold tire):	
Basic Weight:	
With Oil and Full Fuel Tank	FJ1200S: 258 kg (569 lb) FJ1200SC: 259 kg (571 lb)
Maximum Load *	FJ1200S: 192 kg (423 lb) FJ1200SC: 191 kg (421 lb)

Cold Tire Pressure:	Front	Rear
Up to 90 kg (198 lb) Load *	226 kPa (2.3 kg/cm², 32 psi)	245 kPa (2.5 kg/cm², 36 psi)
90 kg (198 lb) ~ Maximum load *	245 kPa (2.5 kg/cm², 36 psi)	284 kPa (2.9 kg/cm², 42 psi)
High Speed Riding	245 kPa (2.5 kg/cm², 36 psi)	284 kPa (2.9 kg/cm², 42 psi)

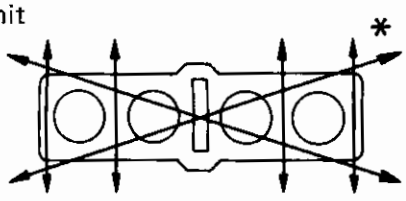
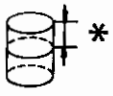
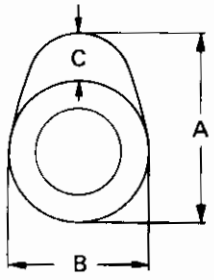
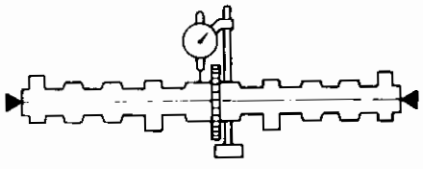
* Load is the total weight of cargo, rider, passenger and accessories.

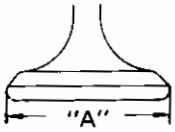
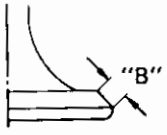
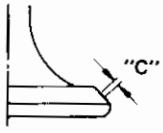
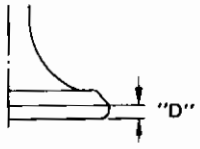
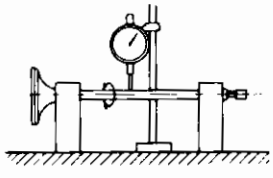
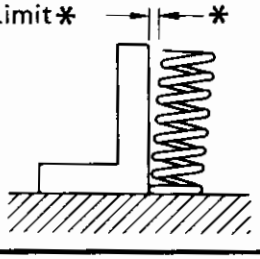
Brake:	
Front Brake Type	Dual disc brake
Operation	Right hand operation
Rear Brake Type	Single disc brake
Operation	Right foot operation
Suspension:	
Front Suspension	Telescopic fork
Rear Suspension	Swingarm (New monocross suspension)
Shock Absorber:	
Front Shock Absorber	Coil spring, Oil damper
Rear Suspension	Coil spring, Oil/Gas damper

Model	FJ1200S/SC
Wheel Travel:	
Front Wheel Travel	150 mm (5.9 in)
Rear Wheel Travel	120 mm (4.7 in)
Electrical:	
Ignition System	TCI
Generator System	AC generator
Battery Type or Model	YB14L
Battery Capacity	12V 14AH
Headlight Type:	Bulb type (Quartz bulb)
Bulb Wattage x Quantity:	
Headlight	12V, 60W/55W x 1
Tail/Brake Light	12V, 8W/27W x 2
Flasher Light	12V, 27W x 4
Meter Light	12V, 3.4W x 3
Indicator Light Wattage x Quantity:	
"NEUTRAL"	12V, 3.4W x 1
"HIGH BEAM"	12V, 3.4W x 1
"TURN"	12V, 3.4W x 2
"FUEL"	12V, 3.4W x 1
"OIL LEVEL"	12V, 3.4W x 1

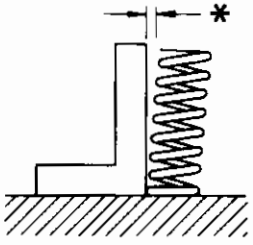
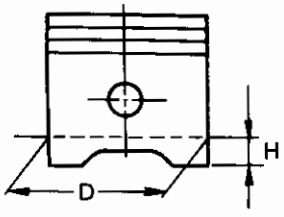
MAINTENANCE SPECIFICATIONS

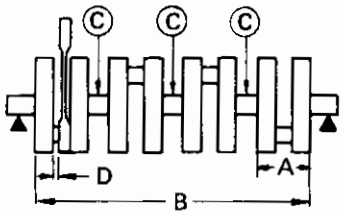
Engine

Model	FJ1200S/SC
Cylinder Head: Warp Limit 	0.03 mm (0.0012 in) *Lines indicate straightedge measurement
Cylinder: Bore Size/Measuring Point *  < Limit > Out of Round Limit	76.96 ~ 77.02 mm (3.030 ~ 3.032 in)/ 40 mm (1.57 in) 77.1 mm (3.035 in) 0.05 mm (0.002 in)
Camshaft: Drive Method Cam Cap Inside Dia. Camshaft Outisde Dia. Shaft-to-Cap Clearance Cam Dimensions Intake "A" < Limit > Intake "B" < Limit > Exhaust "A" < Limit > Exhaust "B" < Limit >  Camshaft Runout Limit 	Chain drive (Center) 25.000 ~ 25.021 mm (0.9843 ~ 0.9851 in) 24.967 ~ 24.980 mm (0.9830 ~ 0.9835 in) 0.020 ~ 0.054 mm (0.0008 ~ 0.0021 in) 35.95 ~ 36.05 mm (1.415 ~ 1.419 in) 35.85 mm (1.411 in) 28.25 ~ 28.35 mm (1.112 ~ 1.116 in) 28.15 mm (1.108 in) 35.95 ~ 36.05 mm (1.415 ~ 1.419 in) 35.85 mm (1.411 in) 28.25 ~ 28.35 mm (1.112 ~ 1.116 in) 28.15 mm (1.108 in) 0.03 mm (0.0012 in)
Cam Chain: Cam Chain Type/No. of Links Cam Chain Adjustment Method	79RH2015 (SILENT CHAIN)/156 Links Automatic
Valve, Valve Seat, Valve Guide: Valve Clearance (Cold): IN. EX.	0.11 ~ 0.15 mm (0.004 ~ 0.006 in) 0.16 ~ 0.20 mm (0.006 ~ 0.008 in)

Model		FJ1200S/SC
Valve Dimensions		
 Head Dia.	 Face Width	 Seat Width	 Margin Thickness
"A" Head Dia.	IN.	28.9 ~ 29.1 mm (1.138 ~ 1.146 in)
	EX.	24.9 ~ 25.1 mm (0.980 ~ 0.988 in)
"B" Face Width	IN.	1.98 ~ 2.55 mm (0.078 ~ 0.100 in)
	EX.	1.98 ~ 2.55 mm (0.078 ~ 0.100 in)
"C" Seat Width	IN.	0.9 ~ 1.1 mm (0.035 ~ 0.043 in)
	EX.	0.9 ~ 1.1 mm (0.035 ~ 0.043 in)
< Limit >	IN.	1.4 mm (0.055 in)
	EX.	1.4 mm (0.055 in)
"D" Margin Thickness	IN.	0.8 ~ 1.2 mm (0.032 ~ 0.047 in)
	EX.	0.8 ~ 1.2 mm (0.032 ~ 0.047 in)
< Limit >	IN.	0.5 mm (0.020 in)
	EX.	0.5 mm (0.020 in)
Stem Outside Dia.	IN.	5.475 ~ 5.490 mm (0.2156 ~ 0.2161 in)
	EX.	5.460 ~ 5.475 mm (0.2150 ~ 0.2155 in)
< Limit >	IN.	5.445 mm (0.2144 in)
	EX.	5.430 mm (0.2138 in)
Guide Inside Dia.	IN.	5.500 ~ 5.512 mm (0.2165 ~ 0.2170 in)
	EX.	5.500 ~ 5.512 mm (0.2165 ~ 0.2170 in)
< Limit >	IN.	5.55 mm (0.219 in)
	EX.	5.55 mm (0.219 in)
Stem-to-Guide Clearance	IN.	0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)
	EX.	0.025 ~ 0.052 mm (0.0010 ~ 0.0020 in)
< Limit >	IN.	0.08 mm (0.0031 in)
	EX.	0.10 mm (0.0039 in)
Stem Runout Limit		0.01 mm (0.0004 in)
		
Valve Spring:		
Inner Spring:		
Free Length	IN.	39.65 mm (1.561 in)
	EX.	39.65 mm (1.561 in)
< Limit >	IN.	37.65 mm (1.482 in)
	EX.	37.65 mm (1.482 in)
Set Length (Valve Closed)	IN.	32.8 mm (1.29 in)
	EX.	32.8 mm (1.29 in)
Tilt Limit *	IN.	2.5°/1.6 mm (0.063 in)
	EX.	2.5°/1.6 mm (0.063 in)
		

MAINTENANCE SPECIFICATIONS

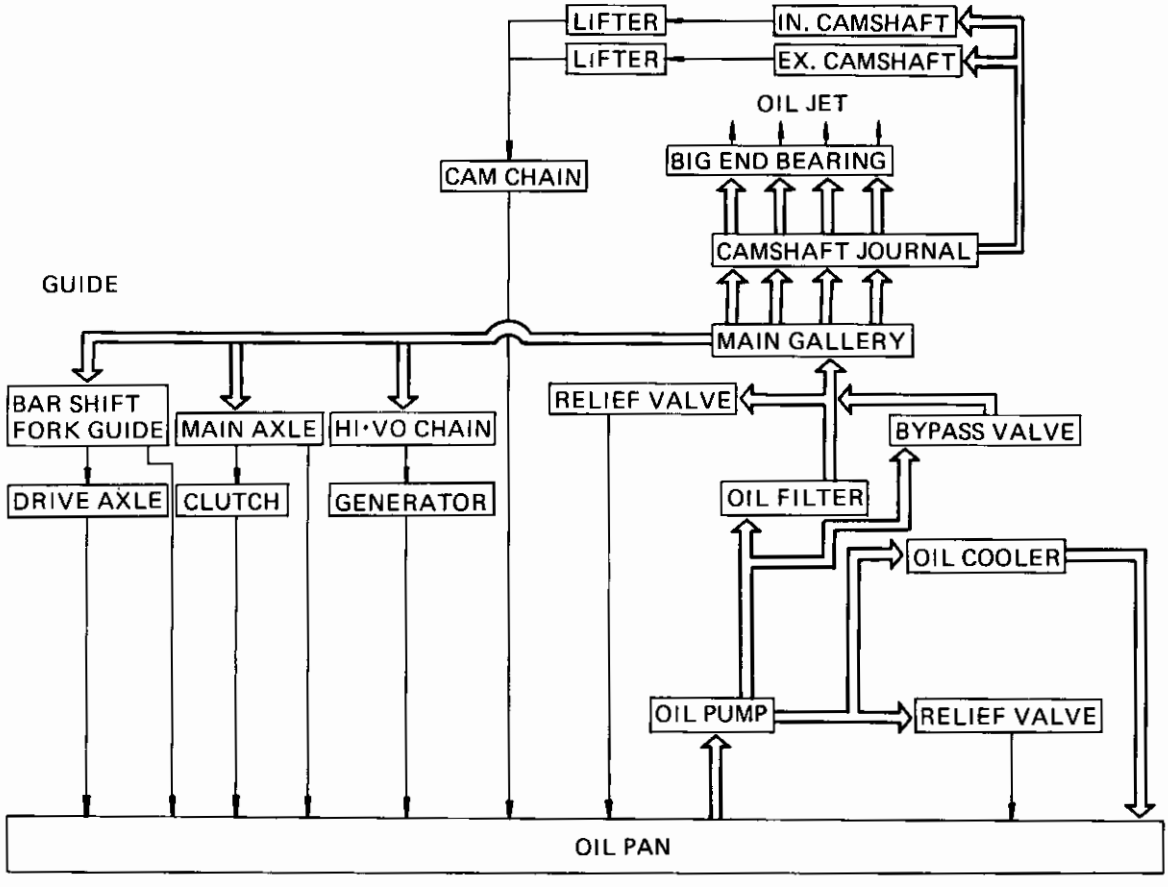
Model		FJ1200S/SC
Direction of Winding	IN.	Left
	EX.	Left
Outer Spring:		
Free Length	IN.	41.1 mm (1.62 in)
	EX.	41.1 mm (1.62 in)
< Limit >	IN.	39.0 mm (1.53 in)
	EX.	39.0 mm (1.53 in)
Set Length (Valve Closed)	IN.	34.8 mm (1.37 in)
	EX.	34.8 mm (1.37 in)
Tilt Limit *	IN.	2.5°/1.7 mm (0.067 in)
	EX.	2.5°/1.7 mm (0.067 in)
Direction of Winding	IN.	Right
	EX.	Right
Piston:		
Piston Clearance		0.03 ~ 0.05 mm (0.0012 ~ 0.0020 in)
< Limit >		0.10 mm (0.0039 in)
Piston Size "D"		76.92 ~ 76.98 mm (3.028 ~ 3.031 in)
Measuring Point "H"		2.0 mm (0.08 in)
		
Oversize	2nd	77.50 mm (3.051 in)
Piston Ring:		
Top Ring:		
Type		Plain (Barrel face)
Dimensions (B x T)		1.0 x 3.0 mm (0.039 x 0.118 in)
End Gap (Installed)		0.20 ~ 0.35 mm (0.008 ~ 0.014 in)
< Limit >		0.6 mm (0.024 in)
Side Clearance (Installed)		0.04 ~ 0.08 mm (0.0016 ~ 0.0031 in)
< Limit >		0.10 mm (0.0039 in)
2nd Ring:		
Type		Plain (Taper face)
Dimensions (B x T)		1.2 x 3.0 mm (0.047 x 0.118 in)
End Gap (Installed)		0.20 ~ 0.35 mm (0.008 ~ 0.014 in)
< Limit >		0.6 mm (0.024 in)
Side Clearance		0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in)
< Limit > (Installed)		0.11 mm (0.0043 in)
Oil Ring:		
Dimensions (B x T)		2.5 x 2.8 mm (0.098 x 0.110 in)
End Gap (Installed)		0.20 ~ 0.80 mm (0.008 ~ 0.032 in)
Connecting Rod:		
Oil Clearance		0.017 ~ 0.040 mm (0.0007 ~ 0.0016 in)
Bearing Color Code		0. Pink 1. Blue 2. Black 3. Brown

Model		FJ1200S/SC
Crankshaft: 		
Crank Width	"A"	62.25 ~ 63.85 mm (2.451 ~ 2.514 in)
Assembly Width	"B"	382.0 ~ 383.2 mm (15.04 ~ 15.09 in)
< Runout Limit >	"C"	0.03 mm (0.0012 in)
Big End Side Clearance	"D"	0.160 ~ 0.262 mm (0.0063 ~ 0.0103 in)
Journal Oil Clearance		0.020 ~ 0.044 mm (0.0008 ~ 0.0017 in)
Bearing Color Code		1. Blue 2. Black 3. Brown 4. Green 5. Yellow
Clutch:		
Friction Plate:	Thickness	2.9 ~ 3.1 mm (0.114 ~ 0.122 in)
	Quantity	8 pcs.
	< Wear Limit >	2.8 mm (0.11 in)
Clutch Plate:	Thickness	1.9 ~ 2.1 mm (0.075 ~ 0.083 in)
	Quantity	7 pcs.
	< Warp Limit >	0.1 mm (0.004 in)
Clutch Spring:	Free Height	6.5 mm (0.256 in)
	Quantity	1 pc.
	Minimum Height	6.0 mm (0.236 in)
	< Warp Limit >	0.1 mm (0.004 in)
Push Rod Bending Limit		0.3 mm (0.012 in)
Clutch Release Method		Hydraulic inner push
Transmission:		
Main Axle Deflection Limit		0.08 mm (0.0031 in)
Drive Axle Deflection Limit		0.08 mm (0.0031 in)
Shifter:		
Shifter Type		Guide Bar
Guide Bar Bending Limit		0.1 mm (0.004 in)
Carburetor:		
ID Mark		1UX-00 FJ1200SC: 1WJ-00
Main Jet	(M.J.)	#112.5
Main Air Jet	(M.A.J.)	#45
Jet Needle	(J.N.)	5FZ72
Needle Jet	(N.J.)	Y-2
Pilot Air Jet	(P.A.J.)	#155
Pilot Jet	(P.J.)	#37.5
Pilot Screw	(P.S.)	Preset
Valve Seat Size	(V.S.)	2.3
Starter Jet	(G.S.)	#30
Fuel Level	(F.L.)	2.5 ~ 3.5 mm (0.098 ~ 0.138 in)
Float Height	(F.H.)	21.3 ~ 23.3 mm (0.839 ~ 0.917 in)
Engine Idling Speed		950 ~ 1,050 r/min
Vacuum Pressure at Idling Speed		Above 29.3 kPa (220 mmHg, 8.7 inHg)
Vacuum Synchronous Difference		Below 1.33 kPa (10 mmHg, 0.394 inHg)

MAINTENANCE SPECIFICATIONS

Model		FJ1200S/SC
Lubrication System:		
Oil Filter Type:		Paper type
Oil Pump Type:		Trochoid type
Tip clearance		0.12 mm (0.0047 in)
< Limit >		0.17 mm (0.0067 in)
Side Clearance		0.03 ~ 0.08 mm (0.0012 ~ 0.0031 in)
< Limit >		0.10 mm (0.0039 in)
Bypass Valve Setting Pressure		177 ~ 216 kPa (1.8 ~ 2.2 kg/cm², 26 ~ 31 psi)
Relief Valve Operating Pressure	(Oil Cooler)	343 ~ 441 kPa (3.5 ~ 4.5 kg/cm², 49 ~ 63 psi)
	(Main gallery)	481 ~ 559 kPa (4.9 ~ 5.7 kg/cm², 70 ~ 81 psi)

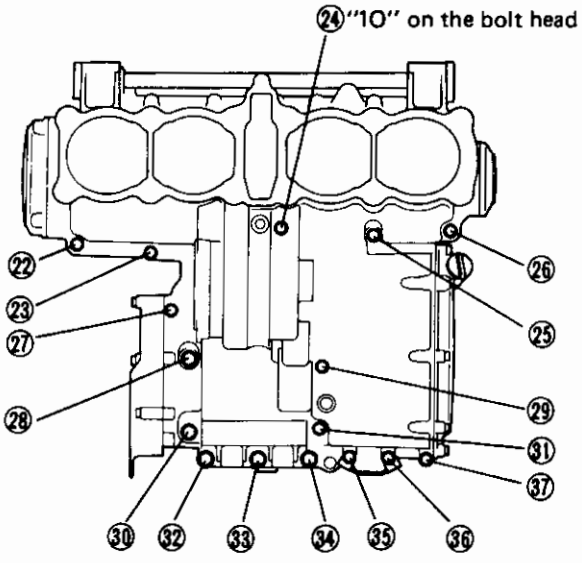
Lubrication Chart:



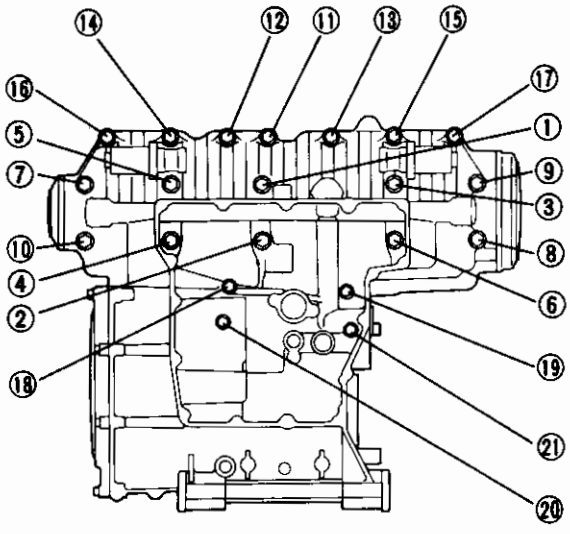
Model	FJ1200S/SC

Crankcase Tightening Sequence:

Upper Case

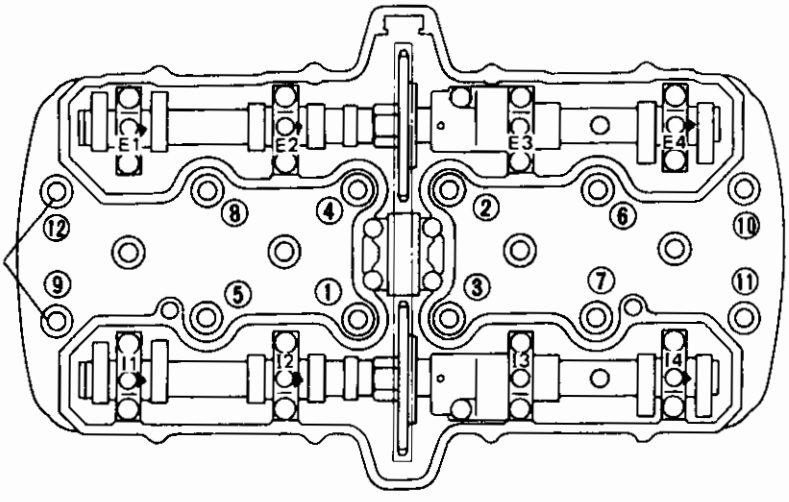


Lower Case



Cylinder Head Tightening Sequence:

EXHAUST



Use Copper Washers

INTAKE

Tightening Torque

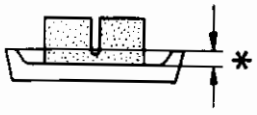
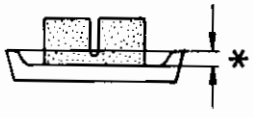
Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Camshaft cap	Bolt	M6 x 1.0	18	12	1.2	8.7	
Cylinder head (Front)	Stud bolt	M6 x 1.0	2	5	0.5	3.6	E
Cylinder head (Rear)	Stud bolt	M6 x 1.0	2	5	0.5	3.6	E
Cylinder head (Exhaust pipe)	Stud bolt	M8 x 1.25	8	15	1.5	11	E
Cylinder head (Oil passage)	Bolt	M6 x 1.0	1	7	0.7	5.1	
Spark plug	–	M12 x 1.25	4	17.5	1.75	12.5	
Cylinder head	Nut	M10 x 1.25	12	35	3.5	25	E
Cylinder head cover	Bolt	M6 x 1.0	8	10	1.0	7.2	
Cylinder (Front)	Stud bolt	M8 x 1.25	1	8	0.8	5.8	
Cylinder (Front)	Nut	M8 x 1.25	1	20	2.0	14	
Cylinder head (Rear)	Nut	M6 x 1.0	2	10	1.0	7.2	
Cylinder head (Front)	Nut	M6 x 1.0	2	10	1.0	7.2	
Cylinder (Blind plug)	–	M12 x 1.25	2	22	2.2	16	
Connecting rod cap	Nut	M8 x 0.75	8	36	3.6	25	M
Cam chain sprocket	Bolt	M7 x 1.0	4	20	2.0	14	
Cam chain tensioner	Bolt	M6 x 1.0	2	10	1.0	7.2	
Cam chain tensioner end	Bolt	M12 x 1.25	1	6	0.6	4.3	
Chain guide (Rear)	Plug	M10 x 1.25	1	10	1.0	7.2	
Chain guide (Upper)	Bolt	M6 x 1.0	4	10	1.0	7.2	
Oil pump housing	Bolt	M6 x 1.0	2	10	1.0	7.2	
Oil pump mount	Bolt	M6 x 1.0	3	10	1.0	7.2	
Oil strainer housing	Bolt	M6 x 1.0	2	10	1.0	7.2	
Oil filter case	–	M20 x 1.5	1	15	1.5	11	
Oil pan	Bolt	M6 x 1.0	16	10	1.0	7.2	
Drain plug	–	M14 x 1.5	1	43	4.3	31	
Oil passage (Oil pan)	–	M16 x 1.5	1	8	0.8	5.8	
Oil filter drain	Screw	M5 x 0.8	1	7	0.7	5.1	
Oil cooler hose (Oil pan)	Bolt	M6 x 1.0	4	10	1.0	7.2	
Oil cooler hose (Cooler)	Bolt	M6 x 1.0	4	10	1.0	7.2	
Oil cooler mount	Bolt	M6 x 1.0	2	10	1.0	7.2	
Oil hose clamp	Bolt	M6 x 1.0	1	10	1.0	7.2	
Oil level switch	Bolt	M6 x 1.0	2	10	1.0	7.2	
Carburetor joint	Bolt	M6 x 1.0	8	10	1.0	7.2	
Air cleaner case cover	Screw	M5 x 0.8	3	5	0.5	3.6	
Air cleaner case	Bolt	M6 x 1.0	3	7	0.7	5.1	
Exhaust pipe flange	Nut	M8 x 1.25	8	20	2.0	14	
Muffler mount (Bracket)	Bolt	M10 x 1.25	2	25	2.5	18	
Muffler chamber mount	Bolt	M10 x 1.25	1	25	2.5	18	
Exhaust pipe and muffler clamp	Bolt	M8 x 1.25	6	20	2.0	14	
Exhaust pipe blind plug (co test)	Bolt	M6 x 1.0	4	7	0.7	5.1	
Crankcase (Cylinder head)	Stud bolt	M10 x 1.25	12	20	2.0	14	E
Main axle bearing retainer	Torx	M6 x 1.0	3	12	1.2	8.7	
Crankshaft end cover (Left)	Screw	M6 x 1.0	4	7	0.7	5.1	
Crankshaft end cover (Right)	Screw	M5 x 0.8	2	4	0.4	2.9	
Drive chain sprocket cover	Bolt	M6 x 1.0	4	10	1.0	7.2	
Crankcase cover (Clutch)	Bolt	M6 x 1.0	15	10	1.0	7.2	
Crankcase	Bolt	M6 x 1.0	15	10	1.0	7.2	
Crankcase	Bolt	M8 x 1.25	22	24	2.4	17	E

Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Blind plug (Oil passage)	–	M20 x 1.5	3	12	1.2	8.7	
Oil guide plate	Bolt	M5 x 0.8	3	4	0.4	2.9	
Starter idle gear shaft stopper	Bolt	M6 x 1.0	1	10	1.0	7.2	
Starter clutch	Bolt	M8 x 1.25	3	25	2.5	18	Stake
Drive shaft bearing housing	Bolt	M6 x 1.0	3	10	1.0	7.2	
Drive chain guide (Starter)	Bolt	M6 x 1.0	2	10	1.0	7.2	
Noise reduction plate (Chain cover)	Bolt	M6 x 1.0	2	4	0.4	2.9	
Clutch boss	Nut	M20 x 1.0	1	70	7.0	50	Use lock washer
Clutch spring	Bolt	M6 x 1.0	6	8	0.8	5.8	
Clutch release bleed	Screw	M8 x 1.25	1	6	0.6	4.3	
Drive chain sprocket (Drive)	Nut	M22 x 1.5	1	85	8.5	61	Use lock washer
Chain lever stopper	Screw	M8 x 1.25	1	22	2.2	16	
Shift cam retainer	Screw	M6 x 1.0	2	7	0.7	5.1	
Shift cam stopper lever	Bolt	M6 x 1.0	1	10	1.0	7.2	
Shift cam (Neutral)	Screw	M5 x 0.8	1	4	0.4	2.9	
Shift arm	Bolt	M6 x 1.0	1	10	1.0	7.2	
Shift arm rod (Locknut)	Nut	M6 x 1.0	2	8	0.8	5.8	
Lead clamp	Bolt	M6 x 1.0	1	10	1.0	7.2	
A.C. generator	Bolt	M8 x 1.25	2	25	2.5	18	
Pickup base	Screw	M6 x 1.0	2	7	0.7	5.1	
Pickup rotor	Bolt	M10 x 1.25	1	45	4.5	32	

MAINTENANCE SPECIFICATIONS

Chassis

Model		FJ1200S/SC
Steering System:		
Steering Bearing Type		Taper roller bearing
Front Suspension:		
Front Fork Travel		150 mm (5.91 in)
Fork Spring Free Length		383 mm (15.1 in)
< Limit >		378 mm (14.9 in)
Collar Length		100 mm (3.94 in)
Spring Rate:	K1	4.12 N/mm (0.42 kg/mm, 23.5 lb/in)
	K2	5.88 N/mm (0.60 kg/mm, 33.6 lb/in)
Stroke:	K1	0 ~ 100 mm (0 ~ 3.74 in)
	K2	100 ~ 150 mm (3.74 ~ 5.91 in)
Optional Spring		No
Oil Capacity/Oil Level		424 cm^3 (14.9 Imp oz, 14.3 US oz)/ 141 mm (5.55 in)
Oil Grade		Yamaha fork oil 10wt equivalent
Rear Suspension:		
Shock Absorber Travel		40 mm (1.57 in)
Spring Free Length		174.5 mm (6.87 in)
< Limit >		170 mm (6.69 in)
Fitting Length		156.5 mm (6.16 in)
Spring Rate		167 N/mm (17 kg/mm, 952 lb/in)
Stroke		0 ~ 40 mm (0 ~ 1.57 in)
Optional Spring		No.
Enclosed Gas Pressure		1,177 kPa (12 kg/cm^2, 171 psi)
Rear Arm:		
Swingarm Free Play Limit:	End	1 mm (0.04 in)
	Side	1 mm (0.04 in)
Front Wheel:		
Type		Cast wheel
Rim Size		MT2.75 x 16
Rim Material		Aluminum
Rim Runout Limit:	Radial	2 mm (0.08 in)
	Lateral	2 mm (0.08 in)
Rear Wheel:		
Type		Cast wheel
Rim Size		MT3.50 x 16
Rim Material		Aluminum
Rim Runout Limit:	Radial	2 mm (0.08 in)
	Lateral	2 mm (0.08 in)
Drive Chain:		
Type/Manufacturer		50ZL/DID
No. of Links		110 Links
Chain Slack		15 ~ 20 mm (0.6 ~ 0.8 in)

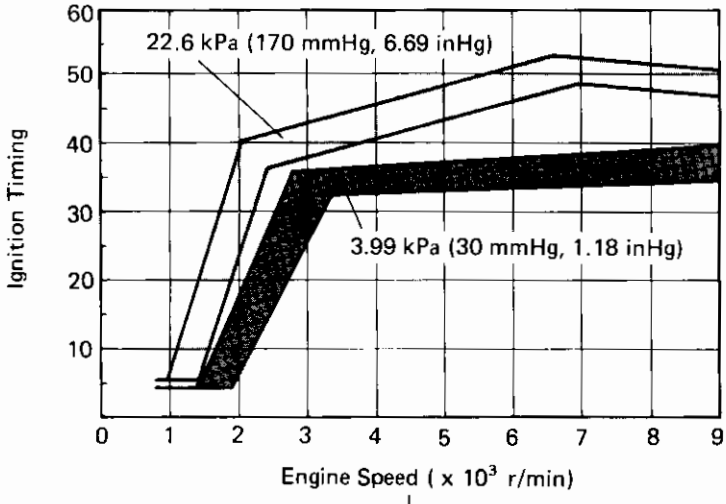
Model	FJ1200S/SC
Front Disc Brake:	
Type	Dual
Disc Outside Dia. x Thickness	282 x 7.5 mm (11.1 x 0.3 in)
Pad Thickness Inner	5.5 mm (0.22 in)
< Limit > *	0.5 mm (0.02 in)
Pad Thickness Outer	5.5 mm (0.22 in)
< Limit > *	0.5 mm (0.02 in)
	
Master Cylinder Inside Dia.	15.87 mm (0.63 in)
Caliper Cylinder Inside Dia.	42.8 mm (1.69 in)
Brake Fluid Type	DOT #3
Rear Disc Brake:	
Type	Single
Disc Outside Dia. x Thickness	282 x 7.5 mm (11.1 x 0.3 in)
Pad Thickness Inner	5.5 mm (0.22 in)
< Limit > *	0.5 mm (0.02 in)
Pad Thickness Outer	5.5 mm (0.22 in)
< Limit > *	0.5 mm (0.02 in)
	
Master Cylinder Inside Dia.	14.0 mm (0.55 in)
Caliper Cylinder Inside Dia.	42.8 mm (1.69 in)
Brake Fluid Type	DOT #3
Brake Lever and Brake Pedal:	
Brake Lever Free Play	5 ~ 8 mm (0.2 ~ 0.3 in)
Brake Pedal Position	30 mm (1.2 in) (Below the top of the footrest)
Clutch Lever:	
Clutch Lever Free Play	2 ~ 3 mm (0.08 ~ 0.12 in)
Clutch Fluid Type	DOT #3

Tightening Torque

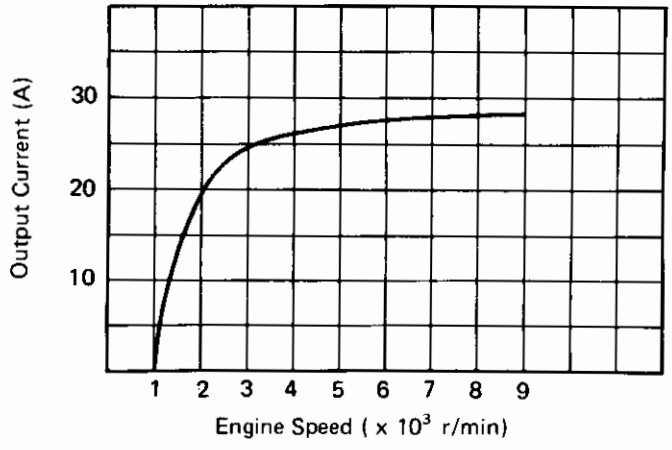
Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Front axle	Bolt/Nut	M14 x 1.5	1	78	7.8	56	
Front axle pinch	Bolt/Nut	M8 x 1.25	2	20	2.0	14	
Rear axle	Bolt/Nut	M18 x 1.5	1	150	15	110	
Steering crown-Fork	Bolt	M8 x 1.25	2	20	2.0	14	
Steering stem	Nut	M25 x 1.0	1	110	11	80	
Underbracket-Fork	Bolt/Nut	M8 x 1.25	4	23	2.3	17	
Caliper (Front & Rear)	Bolt	M10 x 1.25	6	35	3.5	25	
Air bleed (Caliper)	Screw	M8 x 1.25	6	6	0.6	4.3	
Brake hose (All)	Union bolt	M10 x 1.25	8	26	2.6	19	
Master cylinder bracket	Bolt	M6 x 1.0	4	9	0.9	6.5	
Master cylinder cap	Screw	M5 x 0.8	8	2	0.2	1.4	
Air bleed (Anti-dive)	Screw	M8 x 1.25	2	6	0.6	4.3	
Drive chain sprocket (Driven)	Nut	M10 x 1.25	6	55	5.5	40	Use new lock washer
Brake disc	Bolt	M8 x 1.25	6	20	2.0	14	
Front fender-Fork	Bolt	M6 x 1.0	6	9	0.9	6.5	
Handlebar-Fork	Bolt	M8 x 1.25	2	20	2.0	14	
Handlebar-Steering crown	Bolt	M6 x 1.0	2	9	0.9	6.5	
Handlebar end grip	Special	M16 x 1.5	2	26	2.6	19	
Engine mount (Front upper)	Bolt/Nut	M10 x 1.25	1	55	5.5	40	
Engine mount (Fornt lower)	Bolt/Nut	M10 x 1.25	2	55	5.5	40	
Engine mount (Rear upper)	Special	M10 x 1.25	1	55	5.5	40	
Engine mount (Rear lower)	Bolt/Nut	M12 x 1.25	1	90	9.0	65	
Downtube frame	Bolt/Nut	M8 x 1.25	8	28	2.8	20	
Muffler bracket-Frame	Bolt	M8 x 1.25	4	28	2.8	20	
Pivot shaft	Bolt/Nut	M14 x 1.5	1	90	9.0	65	
Front frame-Rear frame	Bolt	M10 x 1.25	4	55	5.5	40	
Relay arm (1)-Frame	Bolt/Nut	M12 x 1.25	1	90	9.0	65	
Relay arm (2)-Swingarm	Bolt/Nut	M12 x 1.25	2	90	9.0	65	
Shock absorber (Lower)	Bolt/Nut	M6 x 1.0	2	9	0.9	6.5	
Shock absorber (Upper)	Bolt/Nut	M10 x 1.25	1	42	4.2	30	
Footrest-Muffler bracket	Bolt	M8 x 1.25	4	28	2.8	20	
Rear footrest-Muffler bracket	Bolt	M10 x 1.25	2	42	4.2	30	
Change pedal pivot	Bolt	M8 x 1.25	1	28	2.8	20	
Rear brake master cylinder	Bolt	M8 x 1.25	2	20	2.0	14	
Brake pedal	Bolt	M6 x 1.0	1	9	0.9	6.5	
Muffler-Muffler bracket	Bolt/Nut	M10 x 1.25	2	25	2.5	18	
Fuel sender-Fuel tank	Bolt	M5 x 0.8	4	4	0.4	2.9	
Tension bar	Bolt/Nut	M8 x 1.25	2	30	3.0	22	
Grab bar-Frame	Bolt	M8 x 1.25	4	23	2.3	17	

Electrical

Model	FJ1200S/SC
Voltage:	12V
Ignition System:	
Ignition Timing (B.T.D.C.)	5° at 1,000 r/min
Advancer Type	Electrical/Vacuum



TCI:	
Pickup Coil Resistance (Color)	149 ~ 182Ω at 20°C (68°F) (Orange – Black), (Gray – Black)
TCI Unit-Model/Manufacturer	TID14-51/HITACHI
Ignition Coil:	
Model/Manufacturer	CM12-24/HITACHI
Primary Winding Resistance	2.4 ~ 3.0Ω at 20°C (68°F)
Secondary Winding Resistance	9.6 ~ 14.4 kΩ at 20°C (68°F)
Spark Plug Cap:	
Type	Resin
Resistance	10 kΩ
Charging System/Type:	AC generator
AC Generator:	
Model/Manufacturer	B3G/NIPPONDENSO
Nominal Output	14V, 26A at 5,000 r/min

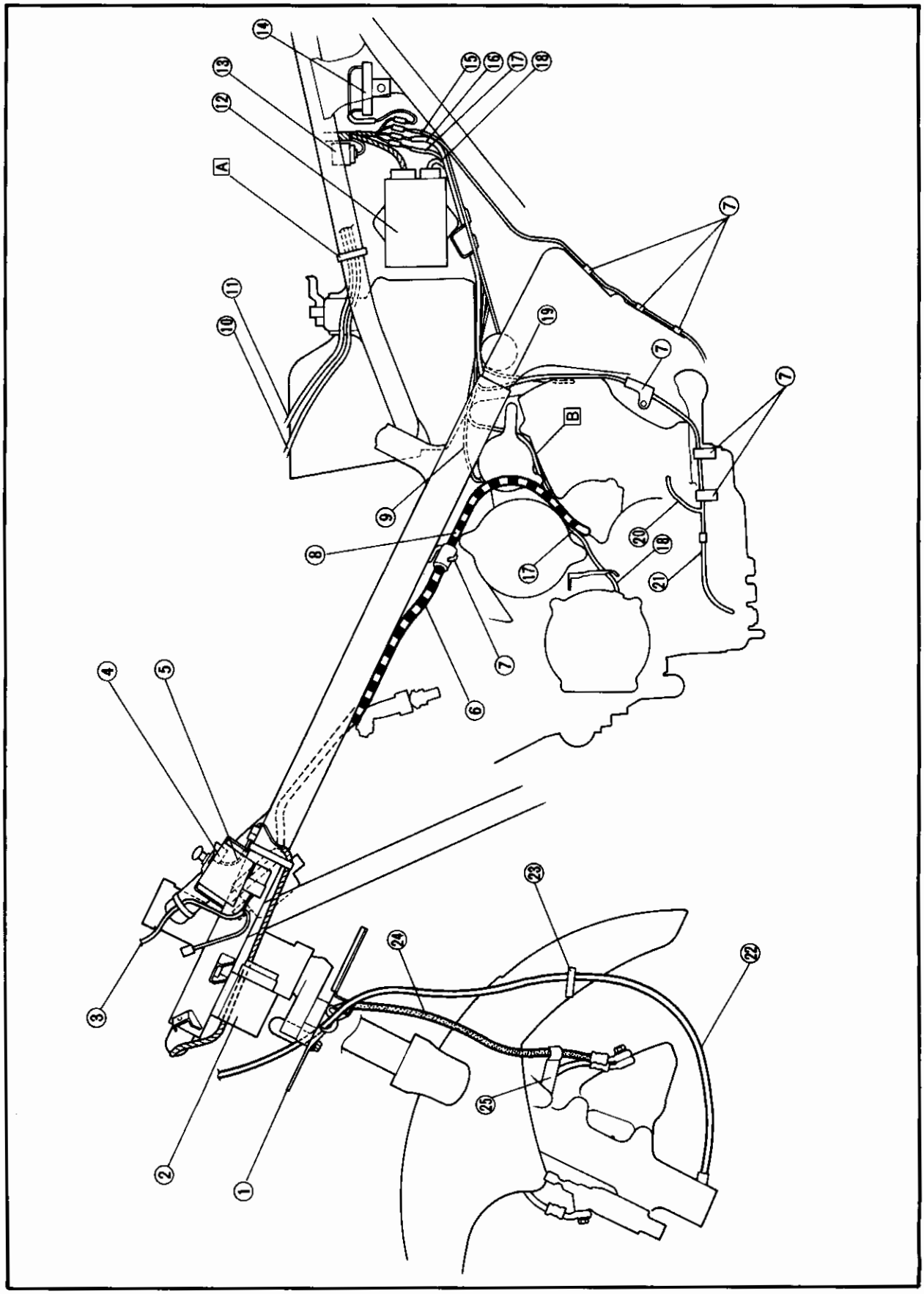


MAINTENANCE SPECIFICATIONS

Model	FJ1200S/SC
Generator Assembly:	
Stator Coil Resistance (Color)	0.19 ~ 0.21Ω at 20°C (68°F) (White – White)
Field (Rotor) Coil Resistance (Color)	3.8 ~ 4.2Ω at 20°C (68°F) (Brown – Ground)
Brush Overall Length	10.5 mm (0.41 in)
< Limit >	4.5 mm (0.18 in)
Spring Pressure	230 ~ 330 g (8.12 ~ 11.65 oz)
Voltage Regulator:	
Type	Field Control Type
Model/Manufacturer	B3G/NIPPONDENSO
No Load Regulated Voltage	14.2 ~ 14.8V
Rectifier:	
Model/Manufacturer	B3G/NIPPON DENSO
Capacity	30A
Withstand Voltage	200V
Battery:	
Capacity	12V, 14AH
Specific Gravity	1.280
Electrical Starter System:	
Type	Constant mesh type
Starter Motor:	
Model/Manufacturer	SM-229D/MITSUBA
Output	0.6 kW
Brush:	
Overall Length	12.5 mm (0.49 in)
< Limit >	5.5 mm (0.22 in)
Spring Pressure	450 ~ 680 g (15.87 ~ 23.98 oz)
Commutator:	
Diameter	28 mm (1.1 in)
< Wear Limit >	27 mm (1.06 in)
Mica Undercut	0.5 mm (0.02 in)
Starter Relay:	
Model/Manufacturer	A104-128/HITACHI
Amperage Rating	100A
Coil Winding Resistance	3.9 ~ 4.7Ω at 20°C (68°F)
Horn:	
Type x Quantity	Plain type x 1
Model/Manufacturer	CFH-12/NIKKO
Maximum Amperage	2.5A
Flasher Relay:	
Type	Semi-transistor type
Model/Manufacturer	FX257N/NIPPONDENSO
Self Cancelling Device	Yes.
Flasher Frequency	75 ~ 95 cycle/min
Wattage	27W x 4 + 3.4W
Self Cancelling Unit:	
Model/Manufacturer	FX257N/NIPPONDENSO
Oil Level Switch:	
Model/Manufacturer	4H7-00/NIPPONDENSO

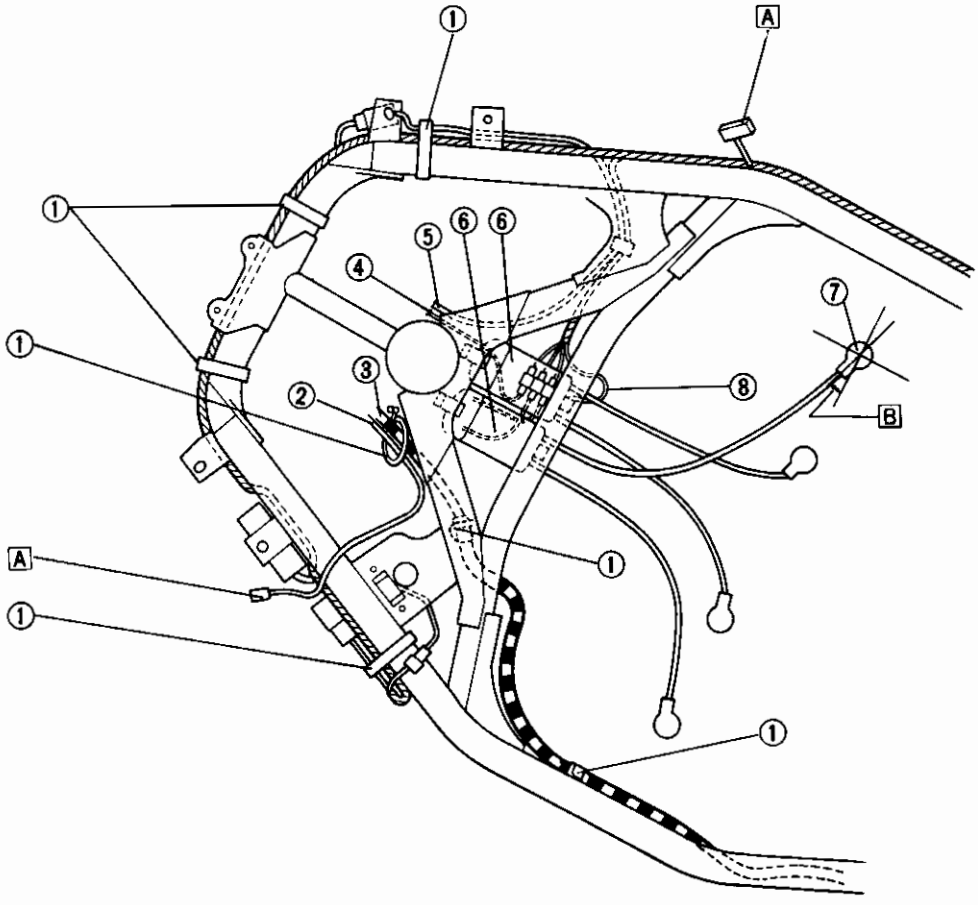
Model	FJ1200S/SC
Sidestand Relay:	
Model/Manufacturer	G4MW-1121T-010-Y17/TATEISHI
Coil Winding Resistance	68 ~ 83Ω at 20°C (68°F)
Diode	No
Starting Circuit Cut-off Relay:	
Model/Manufacturer	FX257N/NIPPONDENSO
Coil Winding Resistance	203 ~ 248Ω at 20°C (68°F)
Diode	No
Fuel Gauge:	
Model/Manufacturer	36Y-03/NIPPONSEIKI
Sender Unit Resistance (Color):	(Green – Black)
Full	4 ~ 7Ω at 20°C (68°F)
Empty	90 ~ 100Ω at 20°C (68°F)
Circuit Breaker:	
Type	Fuse
Amperage for Individual Circuit x Quantity	
MAIN	30A x 1
HEAD	15A x 1
SIGNAL	15A x 1
IGNITION	15A x 1

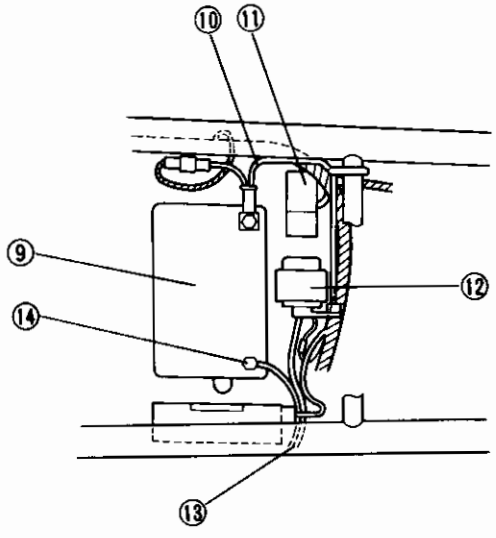
CABLE ROUTING



① Inner panel
② Relay assembly
③ Handlebar switch (Right) lead
④ "FUEL" (Reserve) switch
⑤ "FUEL" (Reserve) switch lead
⑥ Clutch pipe
⑦ Clamp
⑧ Clutch hose
⑨ Starter motor lead
⑩ Solenoid valve lead
⑪ Fuel level sender unit lead
⑫ Ignitor unit
⑬ Sidestand relay
⑭ Resistor
⑮ Sidestand switch lead
⑯ Engine sub lead
⑰ A.C. generator lead
⑱ Pickup coil lead
⑲ Ground lead
⑳ Neutral switch lead
㉑ Oil level gauge lead
㉒ Speedometer cable
㉓ Cable holder
㉔ Brake hose
㉕ Brake hose holder

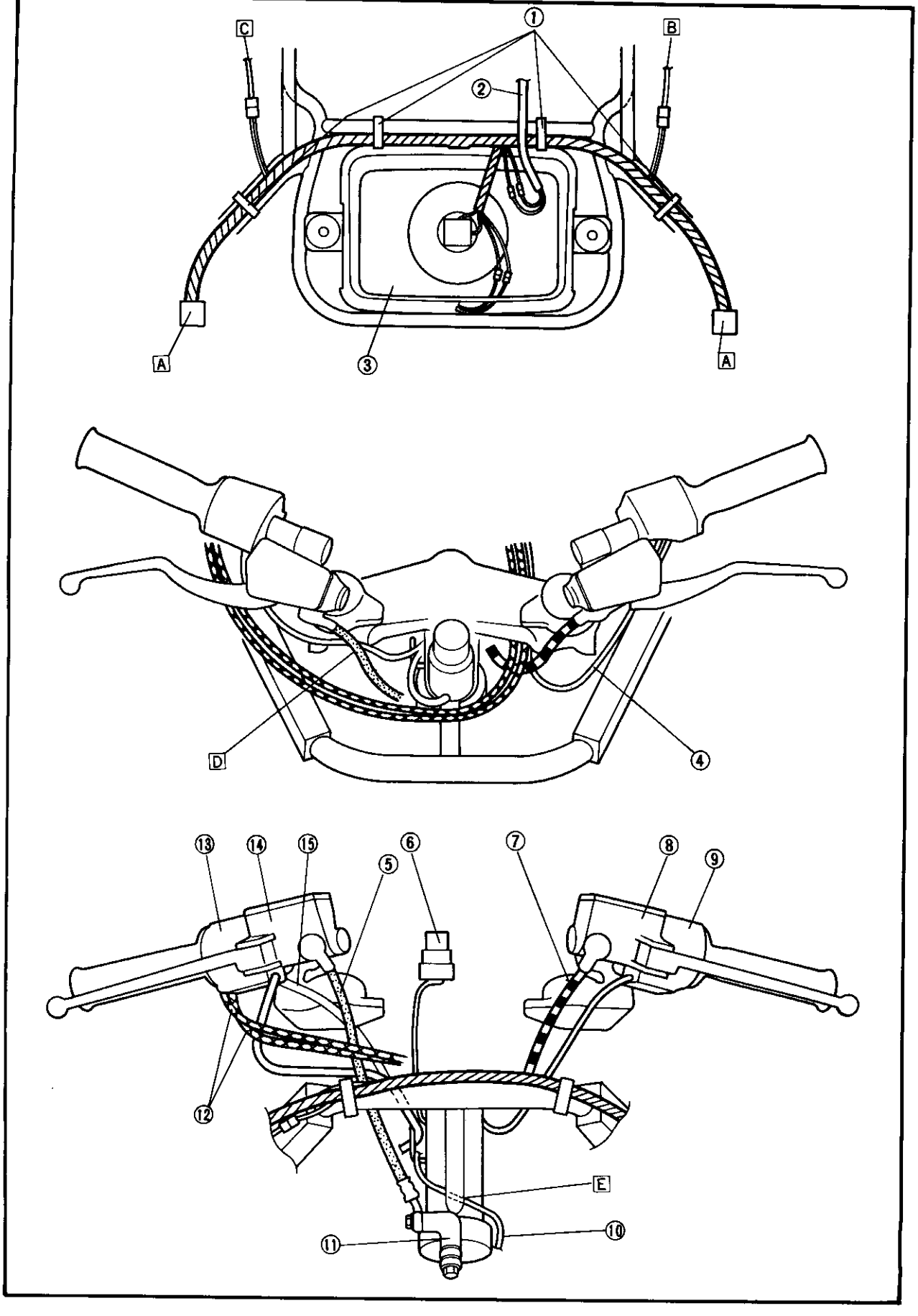
[A] Clamp the solenoid valve lead and fuel level sender unit lead.
Do not pinch the these leads.
[B] Pass the pickup coil lead under the starter motor.


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A
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8
B
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1
1
1


10
11
9
12
14
13

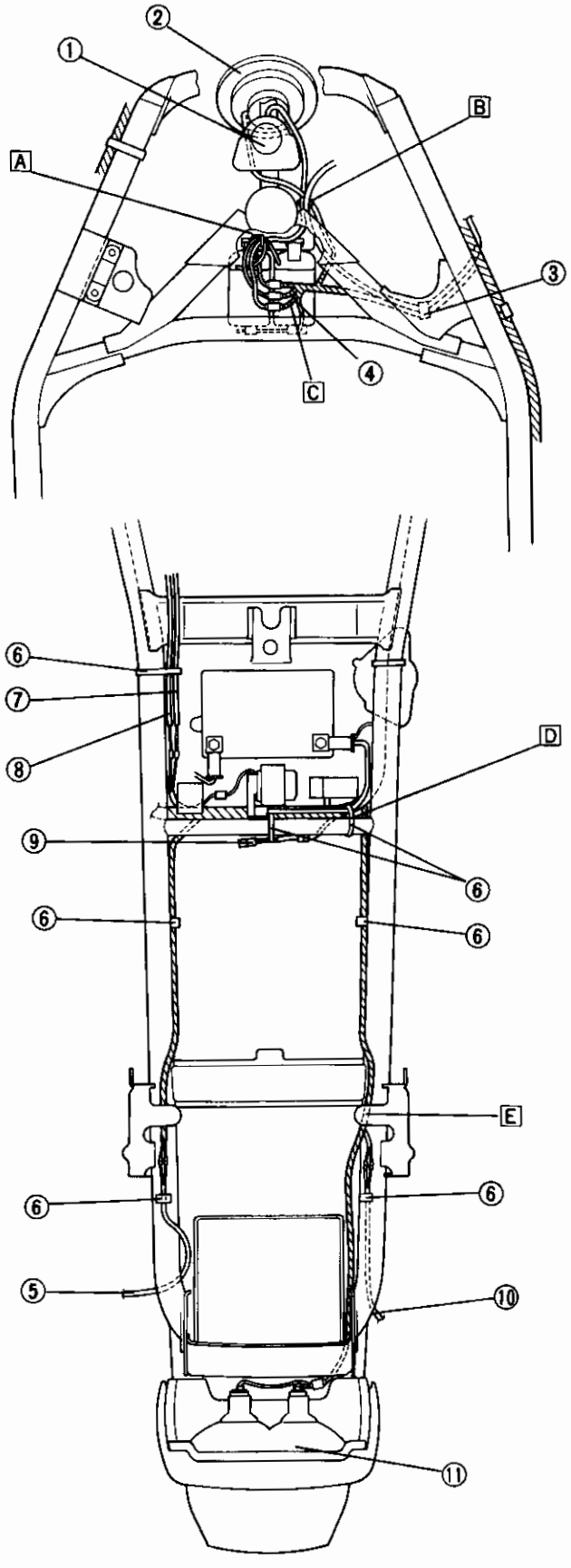
① Clamp
② Handleabar switch (Left) lead
③ Clutch hose
④ Main switch lead
⑤ Handlebar switch (Right) lead
⑥ Ignition coil
⑦ Spark plug cap
⑧ Earth
⑨ Battery
⑩ Battery positive lead
⑪ Fuse holder
⑫ Starter relay
⑬ Starter motor lead
⑭ Battery negative lead

[A] Connect the wire harness of the cowling.
[B] Install the spark plug cap at approx. 15°.


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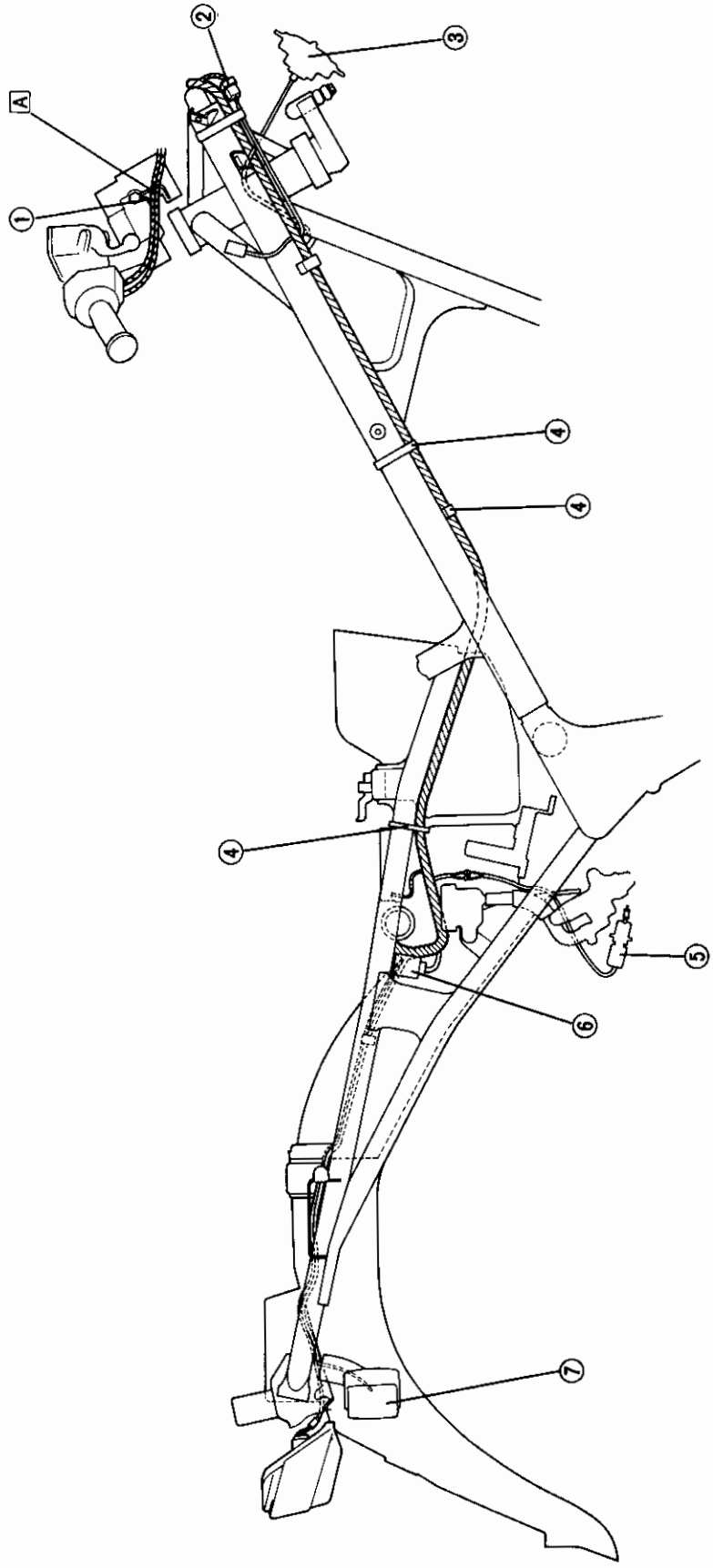
① Clamp
② Meter light lead
③ Headlight
④ Handlebar switch (Left) lead
⑤ Brake hose
⑥ Main switch
⑦ Clutch hose
⑧ Master cylinder (Clutch)
⑨ Handlebar switch (Left)
⑩ Horn lead
⑪ Joint
⑫ Throttle cable
⑬ Handlebar switch (Right)
⑭ Master cylinder (Brake)
⑮ Handlebar switch (Right) lead

[A] Connect the wire harness of the frame.
[B] To front flasher light (Right).
[C] To front flasher light (Left).
[D] Pass the brake hose in front of the handlebar switch (Right) lead.
[E] Pass the horn lead upper side of the pipe.


①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
A
B
C
D
E

① Main switch
② Horn
③ Clamp
④ Ground
⑤ Rear flasher light (Left) lead
⑥ Clamp
⑦ Fuel level sender unit lead
⑧ Solenoid valve lead
⑨ Diode
⑩ Rear flasher light (Right) lead
⑪ Taillight

[A] Pass the ignition coil and main switch lead into the guide.
[B] Pass the main switch, handlebar switch (Right) and horn leads into the cable guide of the headpipe.
[C] Do not pinch all leads.
[D] Clamp the battery positive lead and wire harness.
[E] Pass the rear flasher light (Right) lead under the bracket.


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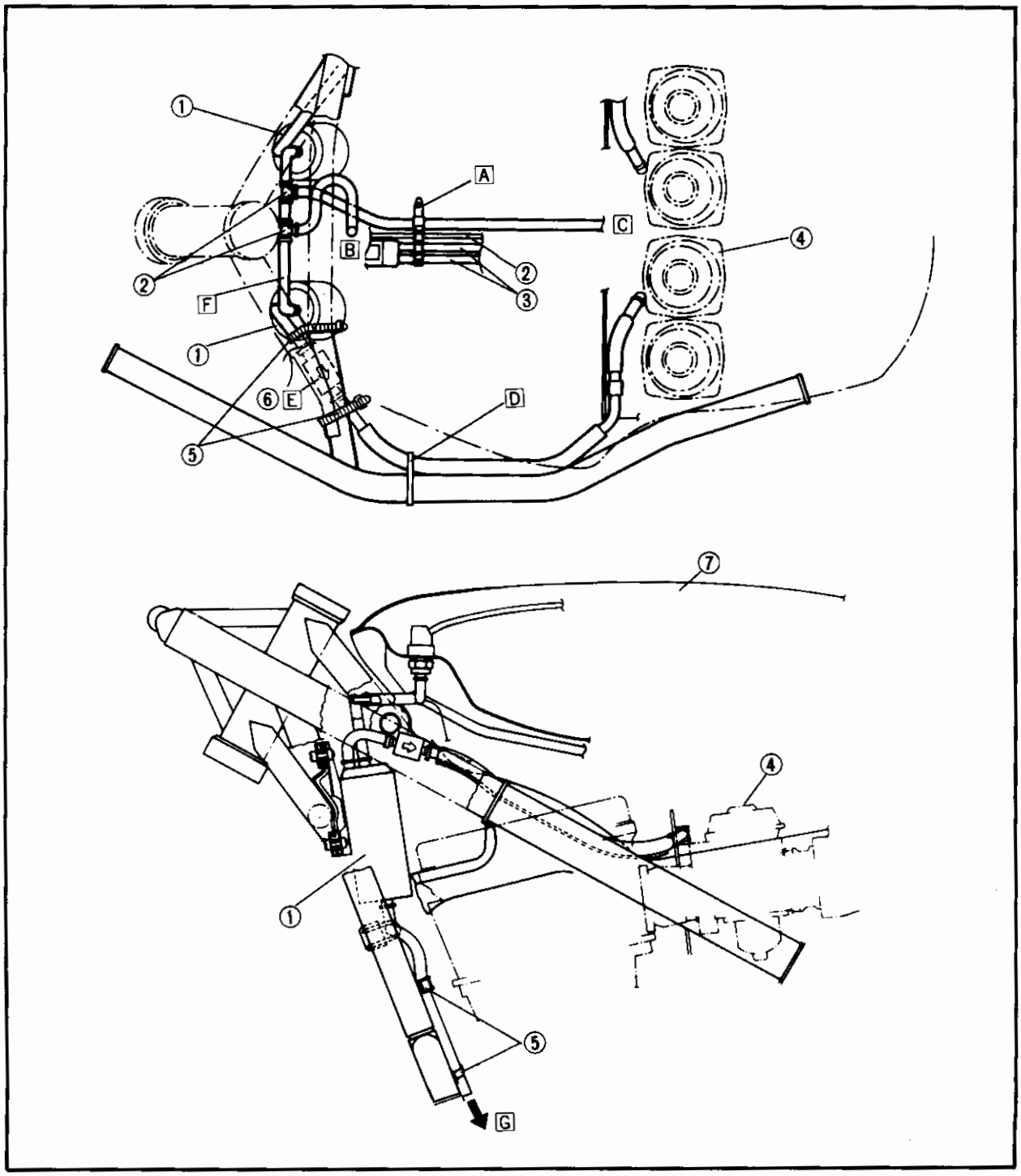
① Cable holder
② Handlebar switch (Right) lead
③ Horn
④ Clamp
⑤ Rear brake switch
⑥ Fuel reserve control unit
⑦ Rear flasher light (Right)

[A] Pass the throttle cable into the cable holder.

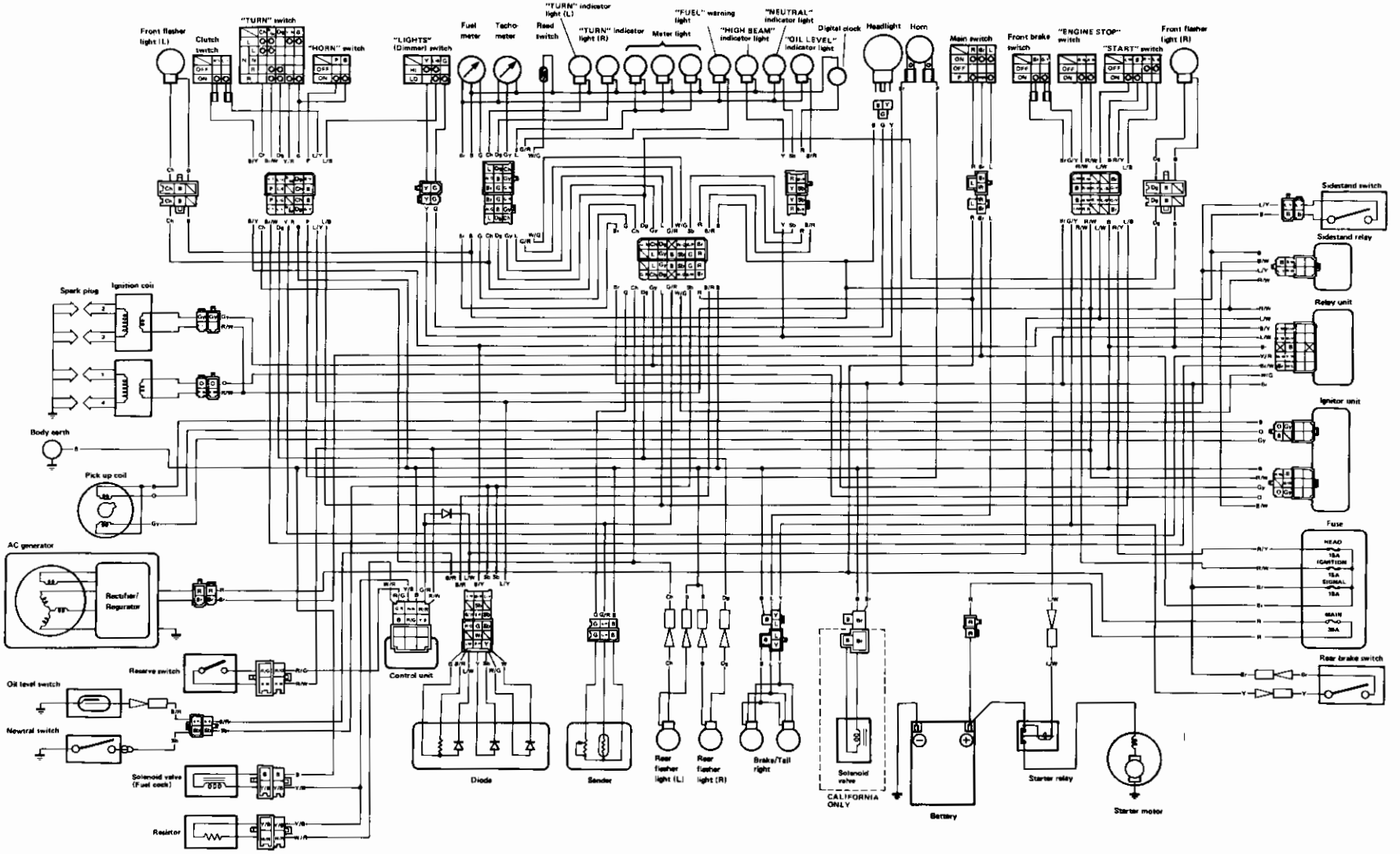
CANISTER HOSE ROUTING (FOR FJ1200SC)

① Canister
② Choke cable
③ Throttle cable
④ Carburetor
⑤ Clamp
⑥ Pressure control valve
⑦ Fuel tank

[A] Clamp the hose, throttle cables and choke cable.
[B] From fuel tank.
[C] To air vent control valve.
[D] Pass the hose into the guide.
[E] Arrow mark on the pressure control valve should face toward the carburetor side.
[F] Pass the hose upper side of the ignition coil.
[G] To atmosphere.



FJ1200S/FJ1200SC WIRING DIAGRAM



COLOR CODE

B . . . . . .Black
Ch . . . . . .Chocolate
P . . . . . .Pink
Y . . . . . .Yellow
G . . . . . .Green
Dg . . . . . .Dark green
Br. . . . . .Brown
Gy . . . . . .Gray
L . . . . . .Blue
Sb . . . . . .Sky blue
R . . . . . .Red
O . . . . . .Orange
W . . . . . .White
B/Y . . . . . .Black/Yellow
L/Y . . . . . .Blue/Yellow
R/W . . . . . .Red/White
Br/W. . . . . .Brown/White
Y/R . . . . . .Yellow/Red
R/Y . . . . . .Red/Yellow
L/B. . . . . .Blue/Black
W/G . . . . . .White/Green
G/R . . . . . .Green/Red
L/R . . . . . .Blue/Red
B/R . . . . . .Black/Red
G/Y . . . . . .Green/Yellow
L/W . . . . . .Blue/White
W/R . . . . . .White/Red
R/G . . . . . .Red/Green
Y/B . . . . . .Yellow/Black



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