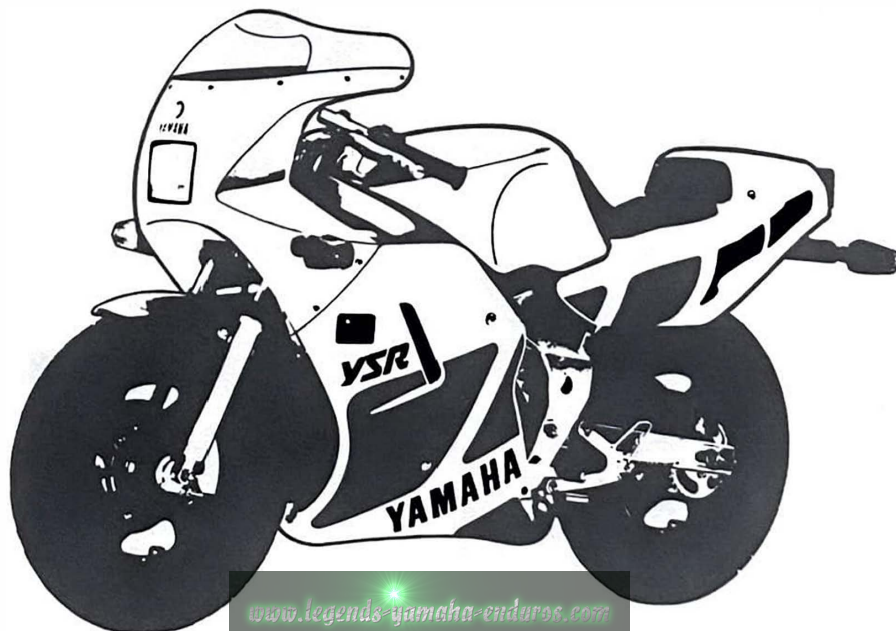











YSR50T

ASSEMBLY MANUAL



SYMBOLS USED IN ASSEMBLY MANUAL

In order to simplify descriptions in assembly manuals, the following symbols core use:

-  : Coat with lithium soap base grease.
-  : Tighten to 10 Nm.
(10 Nm = 1.0 m•kg = 7.2 ft•lb)
-  : Front ward of the motorcycle.
-  : Provide a clearance.
-  : Install so that the arrow mark faces upward.
-  : Apply a motor oil.
-  : Made of rubber or plastics.

A	B	C	D	E
---	---	---	---	---

- A: Ref No. (indicating the order or operations.)
- B: Part name
- C: Quantity of parts per motorcycle.
- D: Place where parts are held.
 - V: Stored in vinyl bag.
 - C: Stored in carton box.
 - S: Fixed inside the crate and/or contained in the styrofoam tray (upper or lower).
 - *: Temporarily installed or secured.
- E: Size or material of parts.
 - d/D: Diameter of part.
 - ℓ : Length of part.



ex, 5 (0.2) = 5 mm (0.2 in)

FOREWORD

This Assembly Manual contains the information required to reassembly of the Yamaha motorcycle correctly prior to delivery to the customer. Since some external parts of the motorcycle have been removed at the Yamaha factory for convenience of packing, assembly by the Yamaha dealer is required. It should be noted that the reassembled motorcycle should be thoroughly cleaned, inspected, and adjusted prior to delivery to the purchaser.

NOTICE

The service specifications given in this assembly manual are based on the model as manufactured. Modifications and significant changes in specifications and/or procedures will be forwarded to Authorized Yamaha Dealers. The procedures below are described in the order that the procedures are carried out correctly and completely. Failure to do so can result in poor performance and possible harm to the motorcycle and/or rider.

CONCEDRNING CARTE DAMAGE: _____
Follow the instructions in the Dealer warranty handbook, Procedure section.

Particularly important information is distinguished in this manual by the following notations.

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.

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

YSR50T

ASSEMBLY MANUAL

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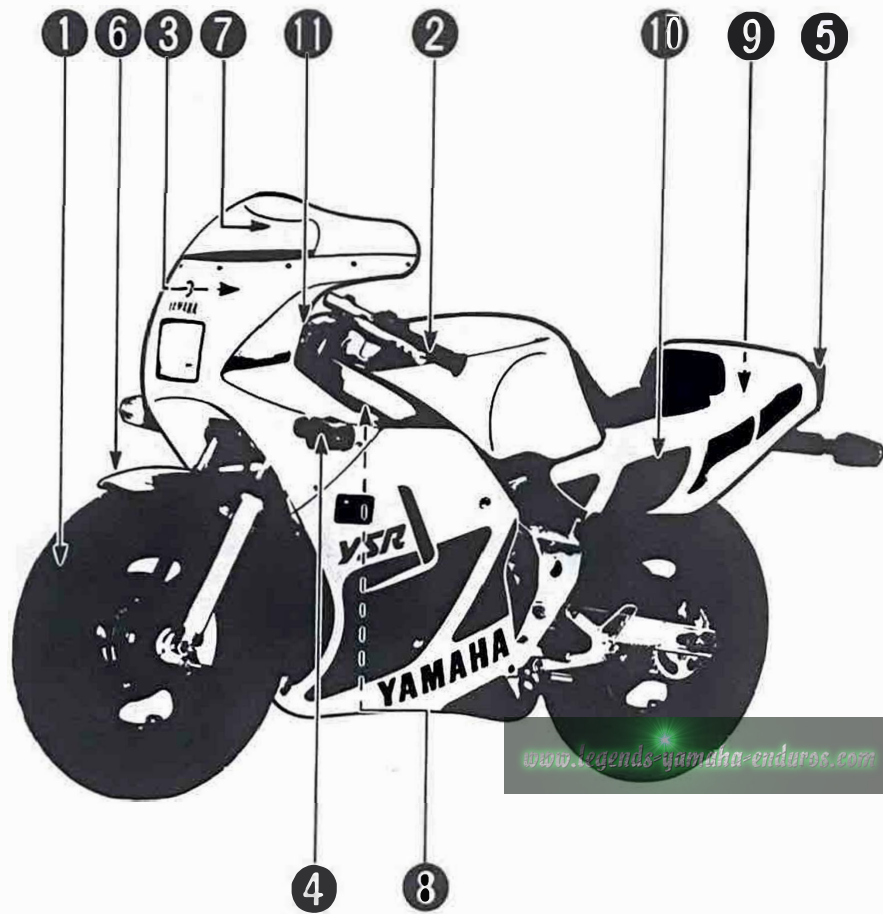
1st Edition, JANURY 1987

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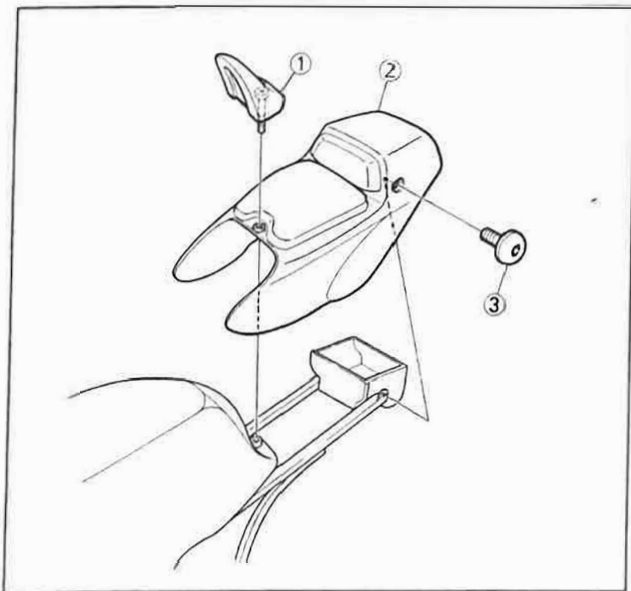
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SETUP POINTS

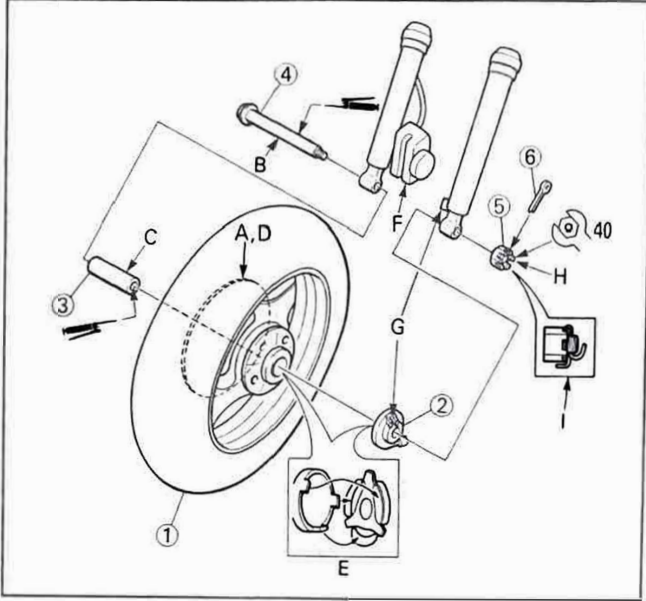


NOTE: _____

Before starting the setup, remove the following parts.



1. Front wheel



1	Front wheel	1	S	
2	Speedmeter gear unit	1	S	
3	Wheel collar	1	C	
4	Front wheel axle	1	*	
5	Castle nut	1	*	
6	Cotter pin	1	V	

A: Clean the brake discs.

B: Clean the front wheel axle.

C: Clean the collar.

D: **WARNING:**

Take care not to put grease on the brake discs or inner surface of the brake pads. If you do so, clean using a rag dampened with a solvent. Foreign material on braking surface can cause impaired braking action.

E: Make sure the three projections in the wheel hub are meshed with the three slots in the speedometer gear unit.

F: Make sure there is an enough gap between the brake pads.

NOTE:

Do not depress the brake lever when the wheel is off the motorcycle as the brake pads will be forced to shut.

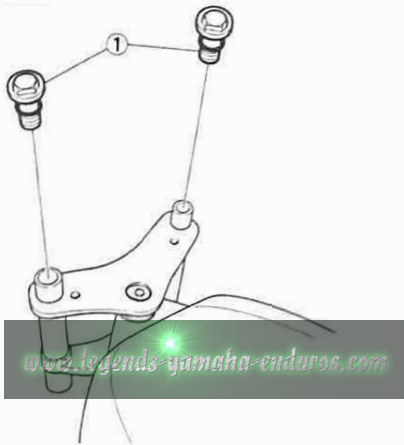
G: Before tightening the front wheel axle, make sure the projection (torque stopper) on the front fork end is placed in the slot in the speedometer gear unit as shown.

H: Make sure the axle is properly torqued.

I: Bend the end of cotter pin.

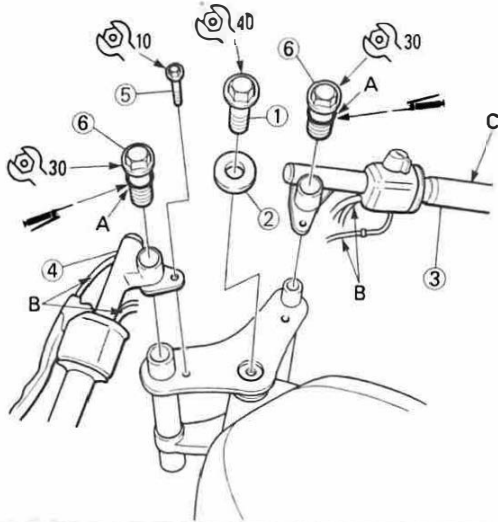
2. Handlebar

REMOVAL



1	Front fork cap Bolt	2	*	
---	---------------------	---	---	--

INSTALLATION



1	Steering stem bolt	1	*	d = 10 (0.39)
2	Plain washer	1	V	d = 10 (0.39)
3	Handlebar (Right)	1	*	
4	Handlebar (Left)	1	*	
5	Flange bolt	2	V	d = 6 (0.24), ℓ = 16 (0.63)
6	Front fork cap bolt	2	*	

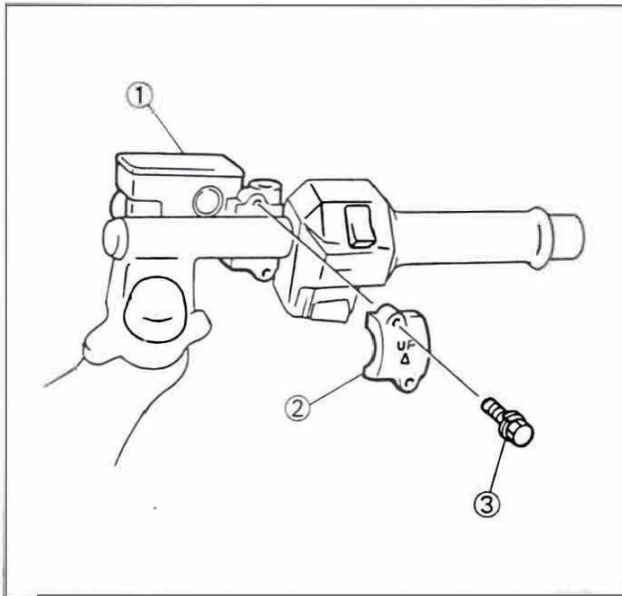
A: Apply the lithium soap base grease onto the O-ring.

C: **WARNING:** Check the throttle grip for smooth action.

NOTE: Check the O-ring. If it is damaged, replace.

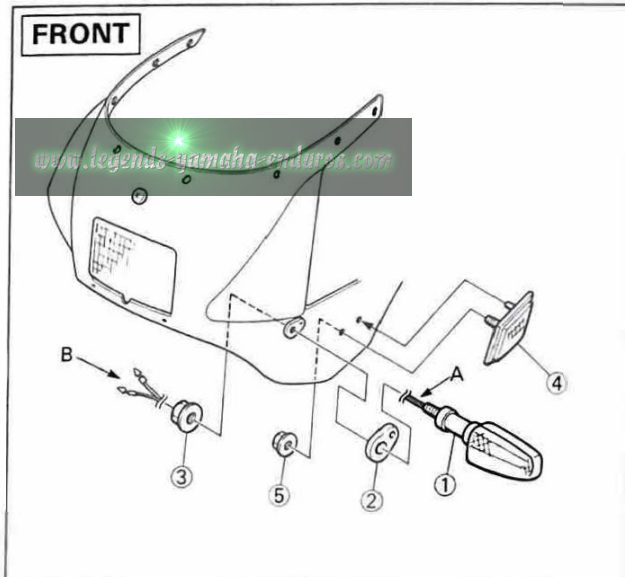
B: **WARNING:** REFER TO "CABLE ROUTING".

3. Front brake master cylinder



1	Front brake master cylinder	1	*	
2	Master cylinder bracket	1	V	
3	Hexagon bolt with spring washer	2	V	

4. Flasher light (Front and rear)

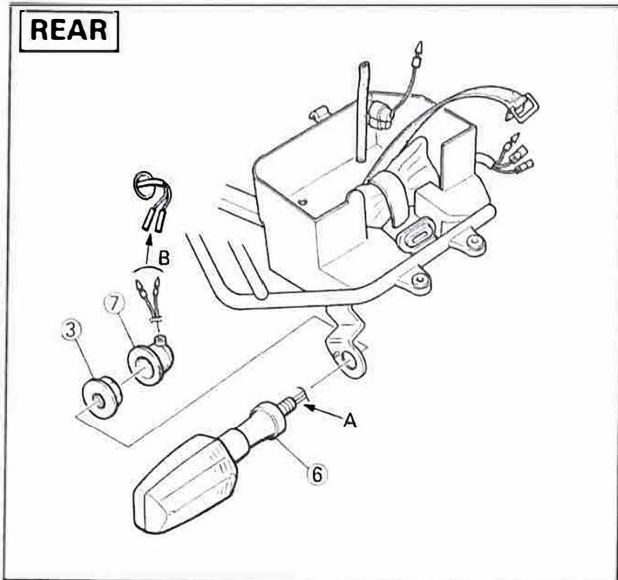


1	Front flasher light	2	S	
2	Flasher light bracket	2	S	
3	Flange nut	4	V	d = 12 (0.47)
4	Reflector	2	V	
5	Flange nut	2	V	d = 5 (0.20)
6	Rear flasher light	2	S	
7	Cap	2	V	

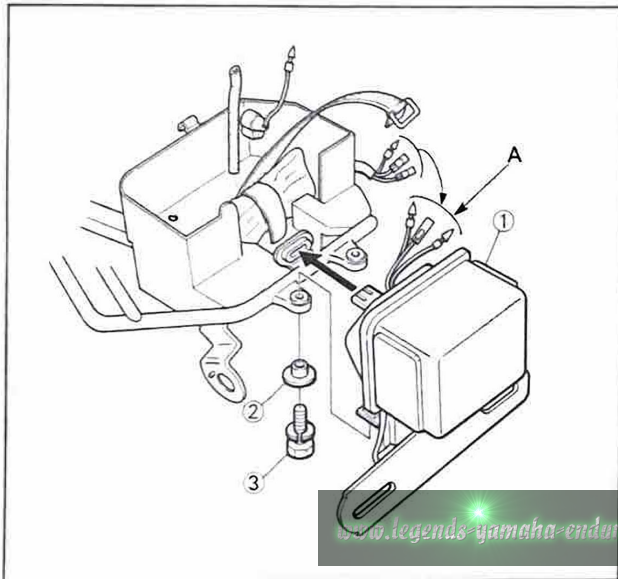
A: Flasher light with longer lead → Rear.

B: Connect the flasher leads.

NOTE: REFER TO CABLE ROUTING.



5. Taillight

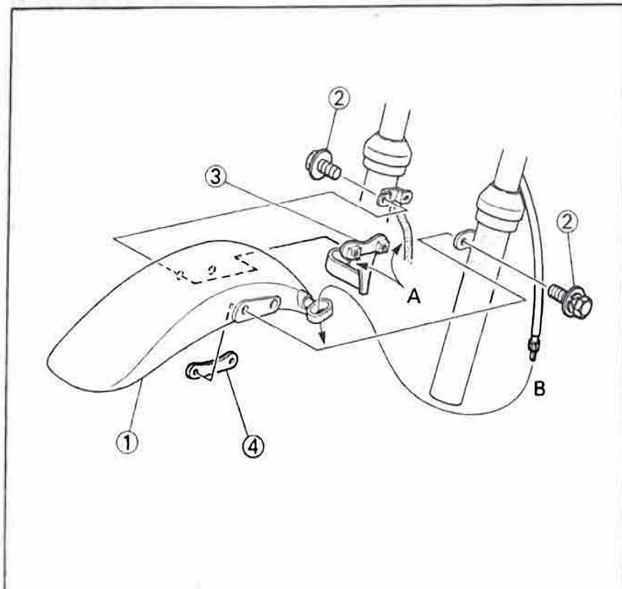


1	Taillight	1	S	
2	Collar	2	✳	d = 6 (0.24)
3	Hexagon bolt with spring washer	2	V	d = 6 (0.24)

A: Connect the taillight lead.

NOTE: _____
REFER TO "CABLE ROUTING".

6. Front fender



1	Front fender	1	S	
2	Hexagon bolt with spring washer and plain washer	4	V	d = 6 (0.24), ℓ = 12 (0.47)
3	Brake hose holder	1	V	
4	Special nut	1	V	

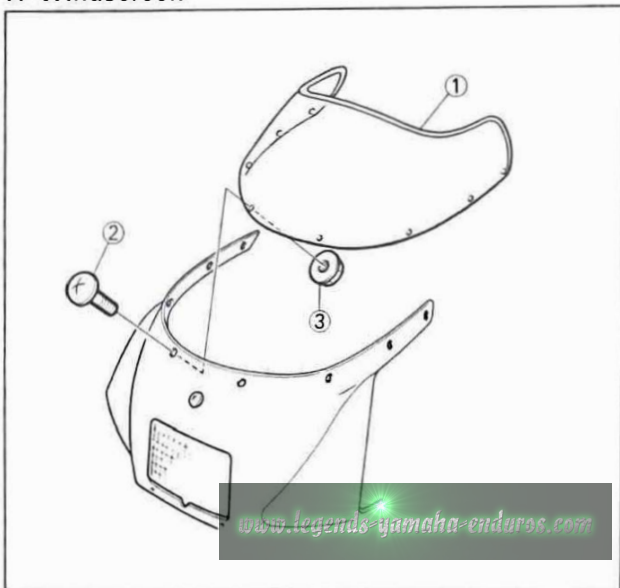
A: Clamp the front brake hose.

NOTE: _____
Refer to "CABLE ROUTING".

B: Pass the speedometer cable through the cable holder and connect the speedometer cable to the speedometer gear unit.

NOTE: _____
Refer to "CABLE ROUTING".

7. Windscreen

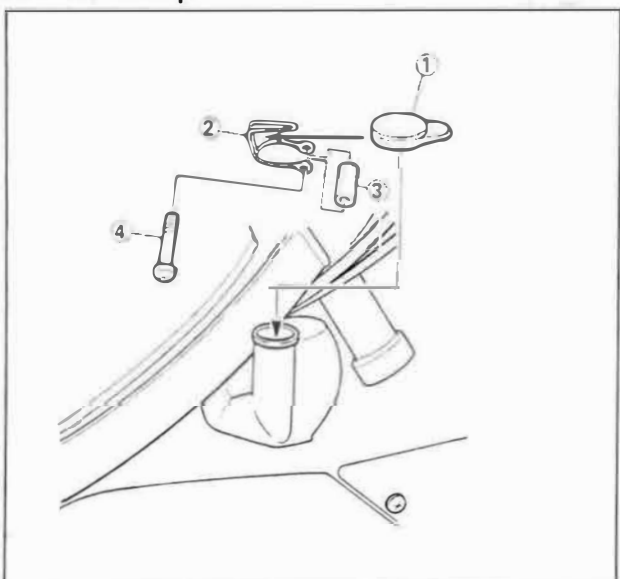


1	Windscreen	1	C	
2	Screw	8	V	d=5 (0.20)
3	Flange nut	8	V	d=5 (0.20)

CAUTION:

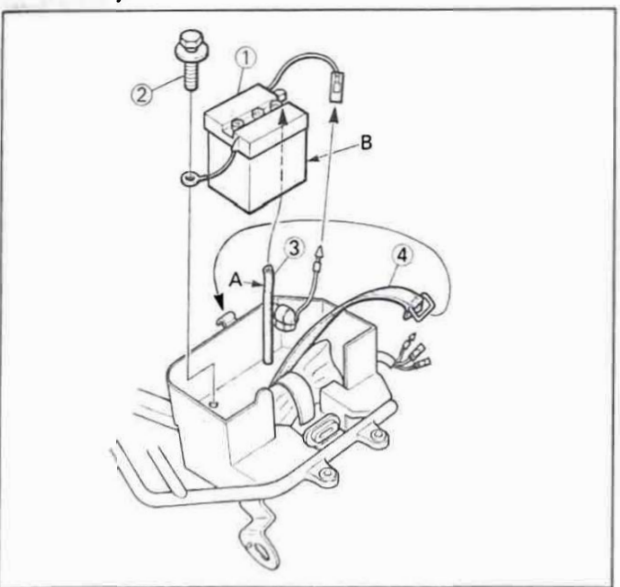
The windscreen is made of an acrylate resin. So take care so that it is not scratched.

8. Oil tank cap



1	Oil tank cap	1	C	
2	Bracket	1	V	
3	Collar	1	V	d=6 (0.24)
4	Panhead screw	1	V	d=4 (0.16), ℓ=30 (1.2)

9. Battery



1	Battery	1	*	
2	Hexagon bolt with plain washer	1	*	d=6 (0.24)
3	Battery breather hose	1	*	
4	Band	1	*	

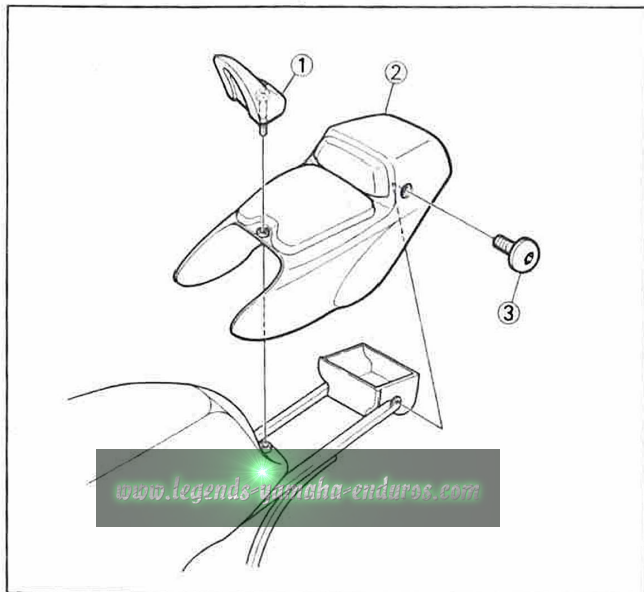
A: Before installing the battery, the battery breather hose should be routed.

B: Before installing the battery, charge the battery.

NOTE: REFER TO "CABLE ROUTING".

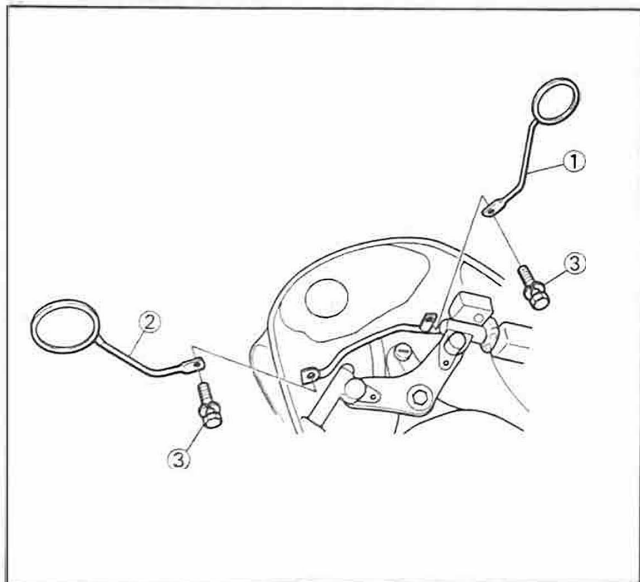
NOTE: REFER TO "ADJUSTMENTS AND PREDELIVERY SERVICE".

10. Side cover assembly



1	Front seat	1	*	
2	Side cover assembly	1	*	
3	Bolt	2	*	

11. Rear view mirror

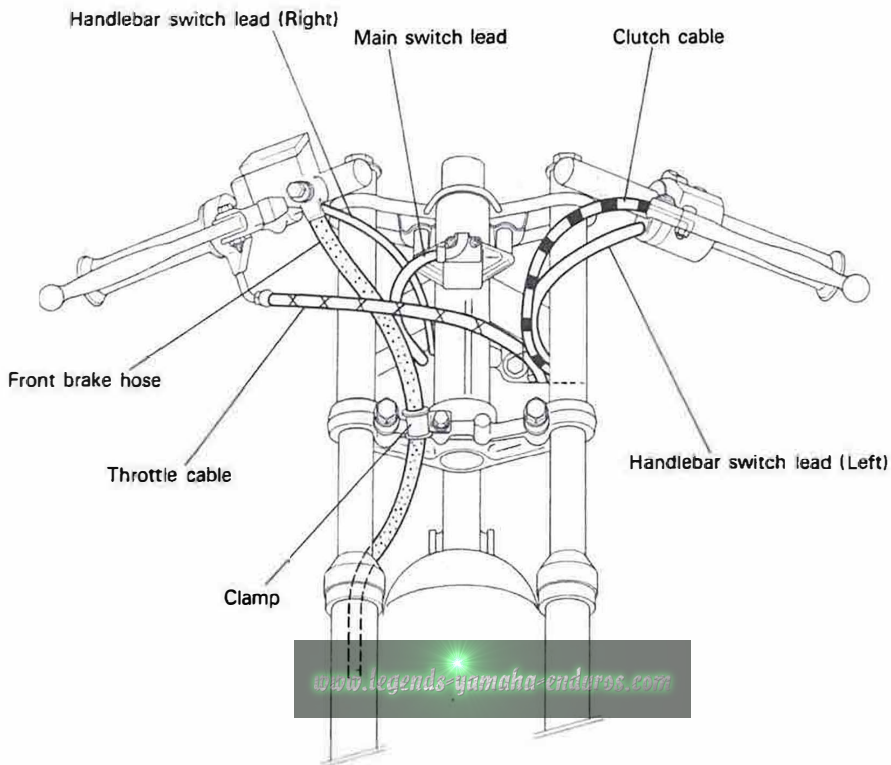
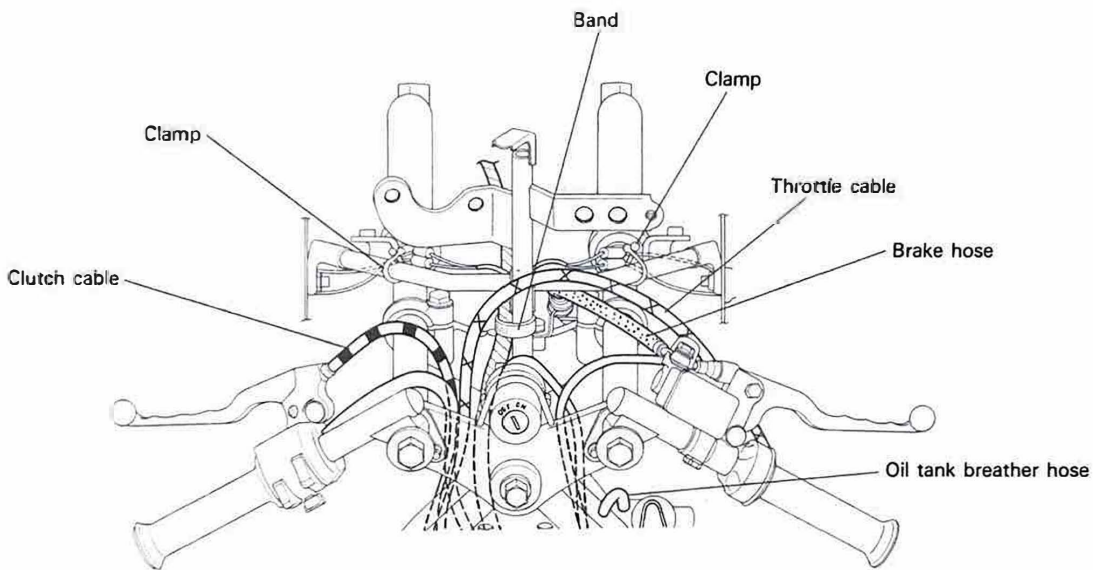


1	Rear view mirror (Right)	1	C	
2	Rear view mirror (Left)	1	C	
3	Hexagon bolt with spring washer	2	V	d=6 (0.24)

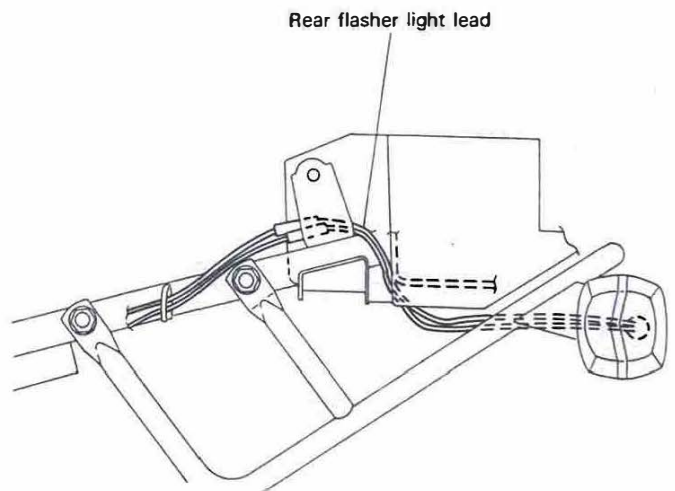
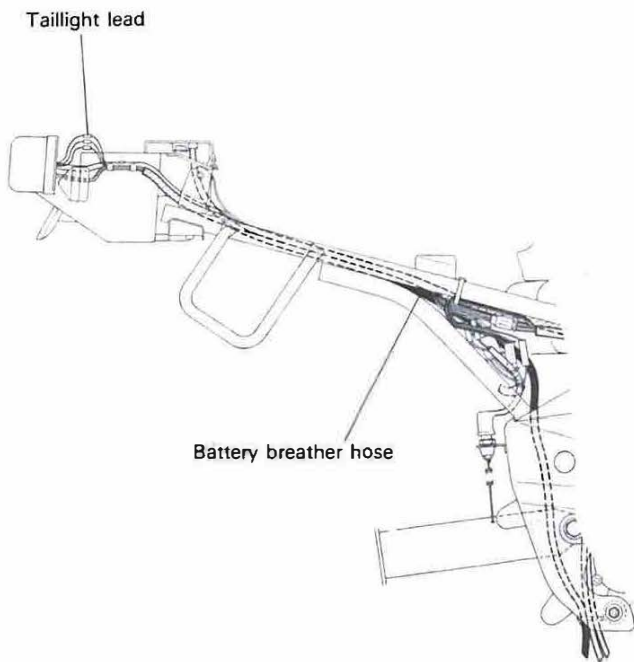
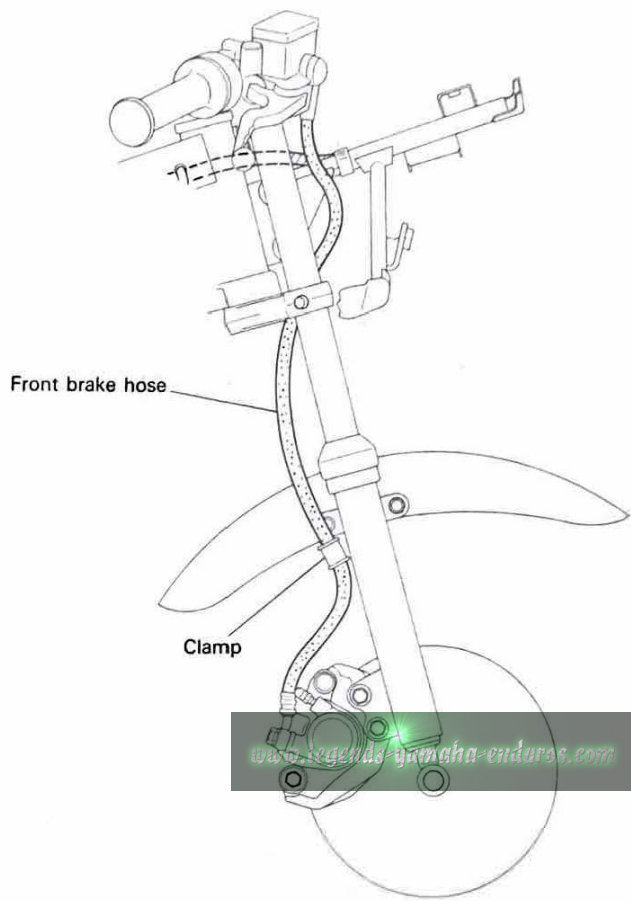
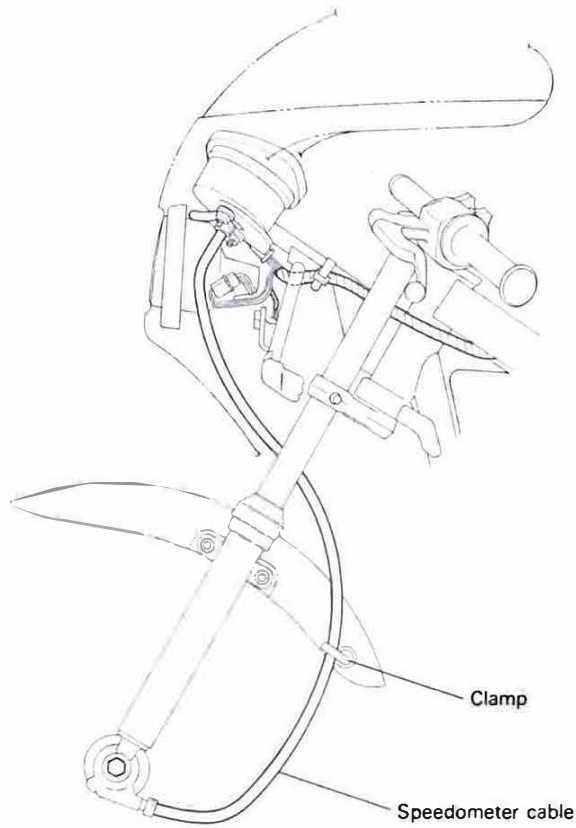
CABLE ROUTING

CAUTION:

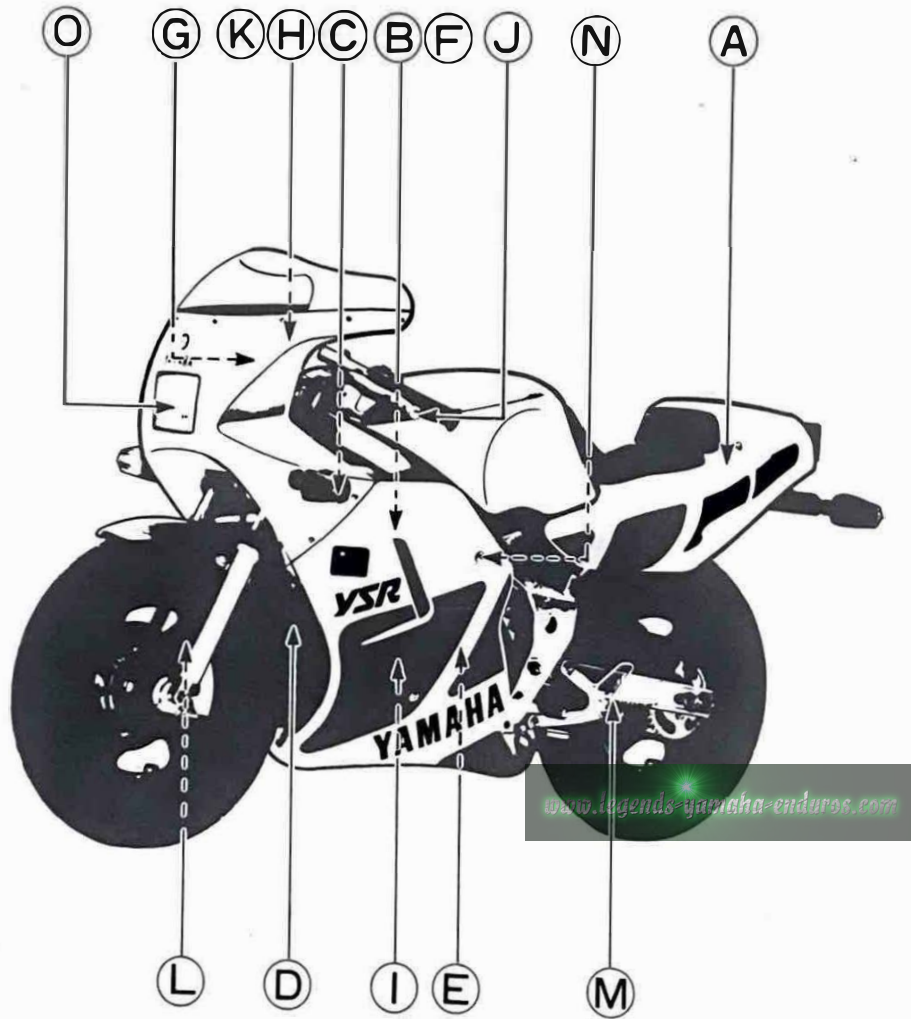
Proper cable and lead routing is essential to insure safe motorcycle operation.



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ADJUSTMENT AND PREDELIVERY SERVICE



A. Battery

1. Charging

The battery must be charged properly before using for the first time. This initial charge will prolong the life of the battery.

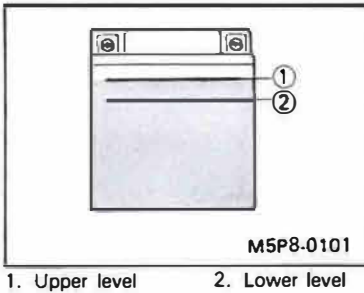
CAUTION:

Never try to add battery electrolyte (battery acid) to a battery that is installed on a motorcycle. Even a skilled mechanic will spill enough acid to damage metal parts. Always remove the battery before filling with electrolyte and during charging. Always completely clean the exterior of the battery before reinstalling.

- a. Remove all filler caps from the battery, and remove the breather hose cap at the same time.

NOTE:

Place the battery on a level place.



- b. Cool the electrolyte down to below 30°C (86°F).
- c. Pour electrolyte into each cell little by little up to the upper level line, and leave it for a while. When the battery fluid permeates the plates and separators, the fluid level begins to lower. Add electrolyte and bring back to upper level line.

NOTE:

Fill the battery with diluted sulfuric acid (electrolyte).

- d. Charge the battery as required and measure the specific gravity of the fluid. Use a battery hydrometer of the single float type.

Specific gravity at 20°C (68°F):
1.280
Battery capacity:
12V 4AH

- e. Install the filler caps, and thoroughly wipe off the fluid around the filler caps. Wipe off the battery completely before installation.

WARNING:

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. 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 for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc., away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN.

2. Installation

- a. The breather pipe should be connected and routed properly.

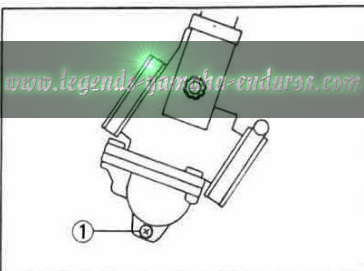
WARNING:

Proper cable and lead routing is essential to assure safe motorcycle operation. REFER TO "CABLE ROUTING".

- b. Make sure the main switch is turned off, and install the battery in the battery box.
- c. Connect the positive lead first, and then connect the negative lead.

CAUTION:

Make sure battery lead are connected properly. Reversing leads can seriously damage the electrical system.



B. Fuel draining

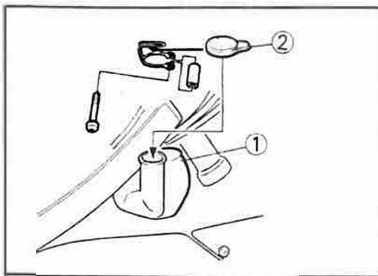
1. Remove the side covers (Left and right).
2. Put a rag under the carburetor drain hose so fuel does not contact the crankcase.
3. Loosen the two drain screws and drain the standing fuel.

WARNING:

FUEL IS HIGHLY FLAMMABLE:

- Always turn off the engine when draining.
- Take care not to spill any fuel on the engine or exhaust pipe(s)/muffler(s) when draining.
- Never drain fuel while smoking or in the vicinity of an open flame.

4. Retighten the four drain screws securely.

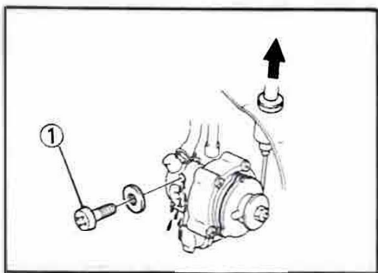


1. Oil tank 2. Oil cap

C. Engine oil level check

1. Check Oil level
2. Adjust
Full the oil tank up with specific 2-cycle engine oil.

Recommended oil:
Yamalube 2-cycle oil or Air cooled 2-stroke engine oil
Oil capacity:
0,73 L (0,64 Imp qt, 0,77 US qt)



1. Bleed screw

D. Bleeding the Autolube pump

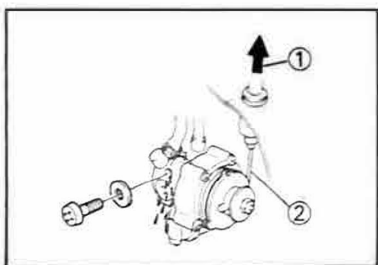
The Autolube pump and delivery lines must be bled on the following occasions:

- Setting up a new motorcycle out of the crate.
- Whenever the Autolube tank has run dry.
- Whenever any portion of the Autolube system is disconnected.

1. Bleeding the pump case and/or oil pipe:
 - a. Remove the pump cover and remove the bleed screw.
 - b. Keep the oil running out until air bubbles disappear.

NOTE: _____
Check the bleed screw gasket, and if damaged, replace with a new one.

- c. When air bubbles are expelled completely, tighten the bleed screw.

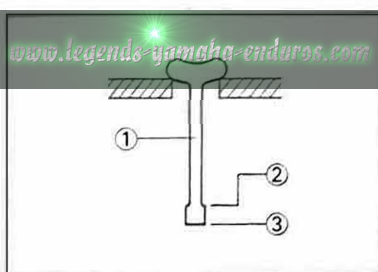


1. Pull 2. Pump cable

2. Bleeding the pump distributor and/or delivery pipe:
 - a. Start the engine.
 - b. Pull the pump cable all the way out to set the pump stroke to a maximum.

- c. Keep the engine running at about 2,000 r/min for two minutes or so, and both distributor and delivery pipe can be completely bled. Then, install the pump cover.

NOTE: _____
It is difficult to bleed the distributor completely with the pump stroke at a minimum, and therefore the pump stroke should be set to a maximum.



1. Dip stick 2. Maximum mark 3. Minimum mark

E. Transmission oil level

1. Check
 - a. Place the motorcycle on the level place. Warm up the engine for several minutes.

The dip stick has a minimum and maximum mark; the oil level should be between the two. If the level is low, add oil to raise it to the proper level.

NOTE: _____
To check the oil level, the motorcycle must stand VERTICALLY with its both wheels on the ground. A slight tilt toward the side can produce false readings.

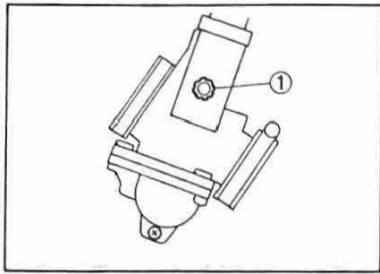
2. Adjust
 - a. To increase oil level, add the oil to proper level.

- b. With the engine stopped, remove the filler cap. Rest the dip stick on the threads of the hole.

Oil capacity (Periodic oil change):
0.65 L (0.57 Imp qt, 0.69 US qt)
Recommended oil:
SAE 10W30 type SE motor oil

NOTE: _____
The dip stick is included in owner's tool kit.

CAUTION: _____
Do not add any chemical additives to the oil. The engine oil also lubricates the clutch, and additives could cause the clutch to slip.



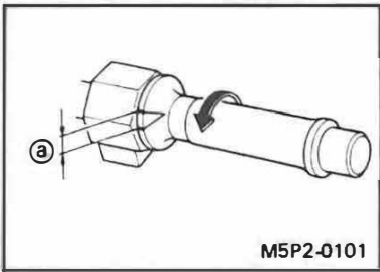
1. Throttle stop screw

F. Engine idle speed

1. Check
 - a. Start the engine and warm it up for a few minutes.
 - b. Check the engine idle speed.

Engine idle: 1,200 r/min

2. Adjust
 - Turning the throttle stop screw in (Clockwise) → Engine speed increases.
 - Turning the throttle stop screw out (Counterclockwise) → Engine speed decreases.



a. Free play

M5P2-0101

G. Throttle grip free play

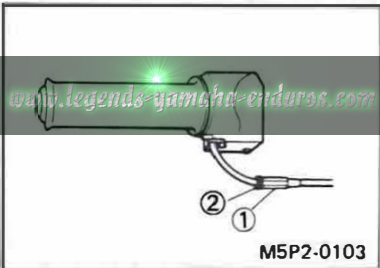
1. Check

Free play: 2 ~ 5 mm (0.08 ~ 0.20 in)

2. Adjust

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

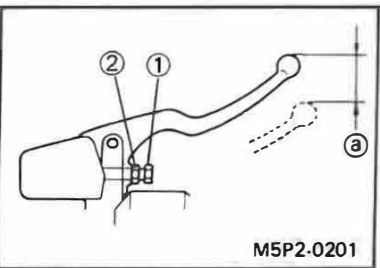
- a. Loosen the locknut.
- b. Turn the adjuster in or out until the correct free play is obtained.
- c. Tighten the locknut.



1. Adjuster

2. Locknut

M5P2-0103



1. Adjuster

2. Locknut

a. Free play

M5P2-0201

H. Front brake lever free play

1. Check:

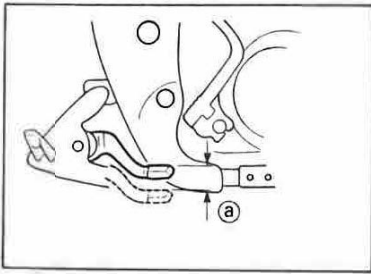
Free play:
2 ~ 5 mm (0.08 ~ 0.20 in)

2. Adjust
 - a. Loosen the locknut.
 - b. Turn the adjuster in or out until the correct free play is obtained.
 - c. Tighten the locknut.

NOTE: _____
Make sure the brake is working properly.

WARNING: _____

A soft or spongy feeling in the brake lever can indicate the presence of air in the brake system. This air must be removed by bleeding the brake system before the motorcycle is operated. Air in the system will result in greatly diminished braking capability and can result in loss of control and an accident. Inspect and bleed the system if necessary.



a. Free play

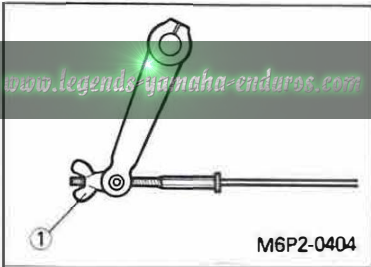
I. Rear brake pedal free play

1. Check:

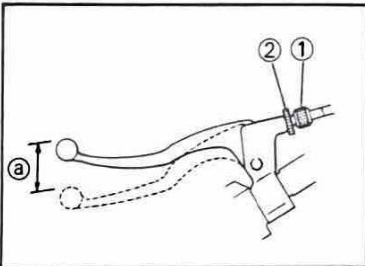
Free play:
20 ~ 30 mm (0.8 ~ 1.2 in)

2. Adjust
 - a. Loosen the locknut.
 - b. Turn the adjuster in or out until the correct free play is obtained.
 - c. Tighten the locknut.

NOTE: _____
Make sure the brake is working properly.



1. Adjuster



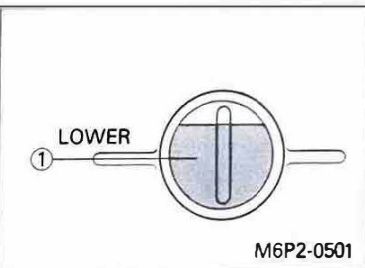
1. Adjuster 2. Locknut
a. Free play

J. Clutch lever free play

1. Check

Free play:
2 ~ 3 mm (0.08 ~ 0.12 in)

2. Adjust
 - a. Loosen the locknut
 - b. Turn the adjuster in or out until the correct free play is obtained.
 - c. Tighten the locknut.



1. "Lower" level

K. Brake fluid level (Front and rear)

1. Check

Front

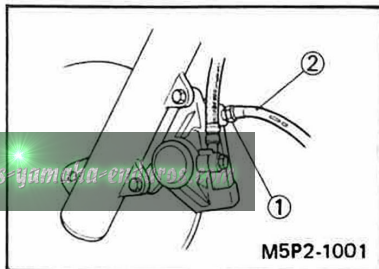
- a. Make sure the master cylinder top is horizontal by turning the handlebar.
- b. The brake fluid level is satisfactory if it is over the "LOWER" level.

Recommended brake fluid:
DOT #3

NOTE: _____
Check the operation of the brake after refilling with the brake fluid.

WARNING: _____

- Use only designated quality brake fluid to avoid poor brake performance.
- Refill with same type and brand of brake fluid; mixing fluids could result in poor brake performance.
- Be sure that water or other contaminants do not enter master cylinder when refilling.
- Clean up spilled fluid immediately to avoid erosion of painted surfaces or plastic parts.



1. Bleed screw 2. Plastic tube

L. Bleeding the brake systems (Front and rear brake)

WARNING:

Bleed the brake system if:

- The system has been disassembled.
- A brake hose has been loosened or removed.
- The brake fluid is very low.
- The brake operation is faulty.

A dangerous loss of braking performance may occur if the brake system is not properly bled.

- f. Pull the lever in or push down on the pedal. Hold the lever in position.
- g. Loosen the bleed screw and allow the lever to travel towards its limit.
- h. Tighten the bleed screw when the lever limit has been reached; then release the lever.
- i. Repeat steps (e) to (h) until all of the air bubbles have been removed from the systems.

NOTE:

If bleeding is difficult, it may be necessary to let the brake fluid system stabilize for a few hours. Repeat the bleeding procedure when the tiny bubbles in system have disappeared.

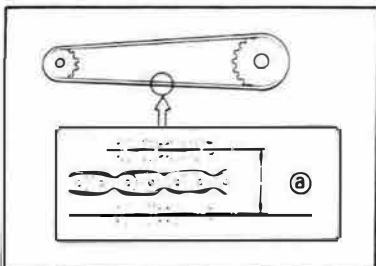
- j. Add brake fluid (DOT #3) until the reservoir is full.

WARNING:

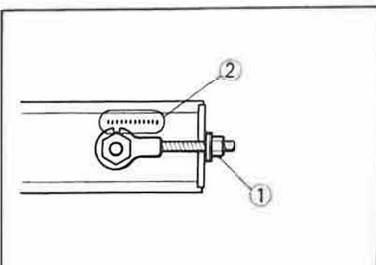
Check the operation of the brake after bleeding the brake systems.

Air bleeding steps:

- a. Add proper brake fluid to the reservoir.
- b. Install master cylinder cap.
Be careful not to spill any fluid or allow the reservoir to overflow.
- c. Connect the clear plastic hose (4.5 mm, 0.18 in inside dia.) tightly to the caliper bleed screw 1.
- d. Place the other end of the hose into a container.
- e. Slowly apply the brake lever several times.



a. Chain slack



1. Adjuster 2. Mark for alignment

M. Drive chain slack

1. Check

NOTE:

Before checking the drive chain slack, rotate the rear wheel several turns and check slack at several points to find the tightest point. Check the chain slack with the rear wheel in this "tightest" position.

- a. Place the motorcycle on level place and hold it on upright position.
- b. Check the chain slack.

Chain slack:
25 ~ 30 mm (1.0 ~ 1.2 in)

CAUTION:

Too small chain slack will overload the engine and other vital parts; keep the slack within the specified limits.

NOTE:

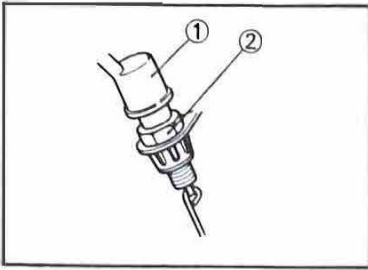
Be sure the motorcycle is positioned straight up without an operator on it when checking the chain slack.

2. Adjust

- a. Loosen the rear brake adjuster.
- b. Remove the cotter pin and loosen the rear wheel axle nut.
- c. Turn each adjuster exactly the same amount to maintain correct axle alignment. (There are marks on each side of swingarm and on each chain adjuster.)
- d. Tighten the rock nut.
- e. Tighten the rear axle nut.

Axle nut torque:
60 Nm (6.0 m·kg, 43 ft·lb)

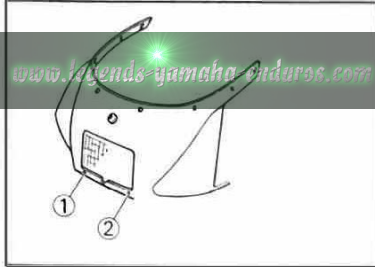
- f. Insert the cotter pin.



1. Brake light switch 2. Adjuster

N. Brake light switch

1. Check
 - a. Proper adjustment is achieved when the brake light comes on just before the brake begins to take effect.
2. Adjust
 - a. Turn the adjuster in or out until the adjustment is suitable.



1. Horizontal adjusting screw
2. Vertical adjusting screw

O. Headlight beam adjustment

1. Horizontal adjustment:
To adjust the beam to the right, turn the adjusting screw clockwise.
To adjust the beam to the left, turn the screw counterclockwise.
2. Vertical adjustment:
To raise the beam, turn the adjusting screw clockwise.
To lower the beam, turn the screw counterclockwise.

APPENDICES

SERVICE DATA

		YSR50T	
Idling engine speed:		1,200 r/min	
Spark plug: Type Gap		B7HS or B8HS (N.G.K.) 0.5~0.6 mm (0.020~0.024 in)	
Fuel: Recommended fuel Fuel tank capacity: Total Reserve		Regular gasoline 8 L (1.8 Imp gal, 2.1 US gal) 1.5 L (0.33 Imp gal, 0.70 US gal)	
Tire pressure	Up to Maximum load* (90 kg (198 lb).)	Front	Rear
		130 kPa (1.3 kg/cm ² , 18 psi)	150 kPa (1.5 kg/cm ² , 21 psi)

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

STANDARD EQUIPMENT

No.	Part name	Q'ty
1	Owner's manual	1
2	Owner's tool kit*	1

OWNER'S TOOL KIT

No.	Part name	Q'ty
1	Owner's tool bag	1
2	Spanner (8 – 10)	1
3	Spanner (10 – 12)	1
4	Spanner (14 – 17)	1
5	Spark plug wrench	1
6	Screwdriver grip	1
7	Screwdriver bit (Phillips head)	1
8	Screwdriver bit (Phillips head-slotted head)	1
9	Hexagon wrench	1
10	Spanner handle	1
11	Oil level gauge	1

TIGHTENING TORQUE

Part to be tightened	Bolt/Nut size	Q'ty	Tightening torque		
			Nm	m•kg	ft•lb
Engine:					
Spark plug	—	1	25	2.5	18
Transmission oil drain bolt	—	1	20	2.0	14
Chassis:					
Engine mounting;					
Engine stay	M 8×1.25	2	25	2.5	18
Frame and engine	M 8×1.25	3	25	2.5	18
Pivot shaft and nut	M10×1.25	1	40	4.0	29
Rear shock absorber and frame	M10×1.25	1	40	4.0	29
Front fork cap bolt (Handlebar)	M21×1.0	2	55	5.5	40
Under bracket and inner tube	M10×1.25	2	30	3.0	22
Steering stem bolt	M10×1.25	1	40	4.0	29
Wheel hub and wheel rim	M 8×1.25	4	31	3.1	22
Front brake disc and wheel hub	M 8×1.25	4	20	2.0	14
Brake caliper and outer tube	M10×1.25	2	35	3.5	25
Front wheel axle and nut	M10×1.25	1	40	4.0	29
Brake cam lever and camshaft	M 6×1.0	1	10	1.0	7.2
Rear wheel sprocket and wheel hub	M 8×1.25	4	36	3.6	25
Tension bar and plate/frame	M 8×1.25	2	19	1.9	13
Rear wheel axle and nut	M12×1.25	1	60	6.0	43
Rear view mirror and stay	M 8×1.25	2	19	1.9	13
Brake hose union bolt	M10×1.25	2	26	2.6	19
Footrest and frame	M 8×1.25	4	25	2.5	18
Cowling stay and frame	M 8×1.25	2	19	1.9	13
Windscreen and cowling	M 5×0.8	8	0.6	0.06	0.43
CDI unit and frame	—	2	2	0.2	1.4
Rectifier/Regulator	—	1	1	0.1	0.7
Down tube and frame	M 8×1.25	6	25	2.5	18
Engine bracket (Front) and frame	M10×1.25	2	40	4.0	29
Engine bracket (Rear) and frame	M10×1.25	1	25	2.5	18

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