



HYOSUNG

GT 125 R

GT 250 R

Euro 2, karburatormodel

ServiceManual

**Se også
FI Service
Manual for
indsprøjtnings-
delene og GT
250 Naked for
øvrige service
information**



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FOREWORD

This manual contains an introductory description on HYOSUNG 『Comet 250R』 & 『Comet 125R』 and procedures for its inspection/service and overhaul of its main components.

It covers the differences from 『Comet 250/125』 and please refer to the service manual of 『Comet 250/125 (99000-94710)』 for others which are not covered in this manual.

This page numbers on the top are ones which are in the service manual of 『Comet 250/125』 and ones on the bottom are the page numbers in this manual.

Other information considered as generally known is not included.

Read GENERAL INFORMATION section to familiarize yourself with outline of the vehicle and MAINTENANCE and other sections to use as a guide for proper inspection and service.

This manual will help you know the vehicle better so that you can assure your customers of your optimum and quick service.

- ◆ This manual has been prepared on the basis of the latest specification at the time of publication.
If modification has been made since then, difference may exist between the content of this manual and the actual vehicle.
- ◆ Illustrations in this manual are used to show the basic principles of operation and work procedures.
They may not represent the actual vehicle exactly in detail.

WARNING

This manual is intended for those who have enough knowledge and skills for servicing HYOSUNG vehicles. Without such knowledge and skills, you should not attempt servicing by relying on this manual only.
Instead, please contact your nearby authorized HYOSUNG motorcycle dealer.

GROUP INDEX

GENERAL INFORMATION

1

PERIODIC MAINTENANCE

2

ELECTRICAL SYSTEM

5

CHASSIS

6

SERVICING INFORMATION

7

 **HYOSUNG MOTORS & MACHINERY INC.**



Comet 250R & Comet 125R



Comet 250 & Comet 125

NOTE

Difference between photographs and actual motorcycles depends on the markets.

HOW TO USE THIS MANUAL
















TO LOCATE WHAT YOU ARE LOOKING FOR:

1. The text of this manual is divided into sections.
2. As the title of these sections are listed on the previous page as GROUP INDEX, select the section where you are looking for.
3. Holding the manual as shown at the right will allow you to find the first page of the section easily.
4. On the first page of each section, its contents are listed. Find the item and page you need.



SYMBOL

Listed in the table below are the symbols indicating instructions and other information necessary for servicing and meaning associated with them respectively.

SYMBOL	DEFINITION	SYMBOL	DEFINITION
	Torque control required. Data beside it indicates specified torque.		Apply THREAD LOCK "1324".
	Apply oil. Use engine oil unless otherwise specified.		Apply or use brake fluid.
	Apply SUPER GREASE "A".		Measure in voltage range.
	Apply SUPER GREASE "C".		Measure in resistance range.
	Apply SILICONE GREASE.		Measure in current range.
	Apply MOLY PASTE.		Use special tool.
	Apply BOND "1215".		Use engine coolant.
	Use fork oil.		

GENERAL INFORMATION

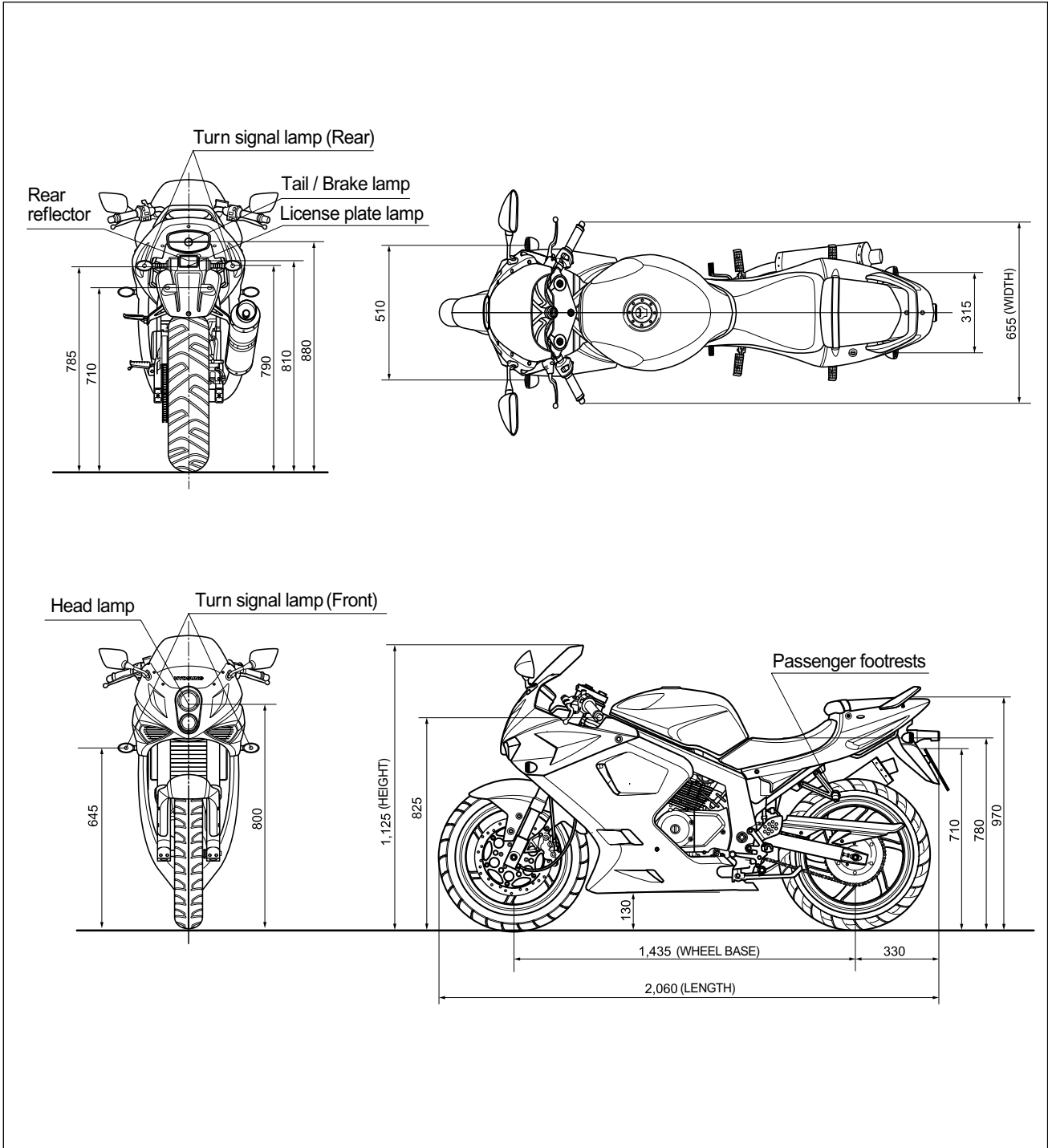
1

CONTENTS

<i>EXTERIOR ILLUSTRATION</i>	6 (1-6)
<i>SPECIFICATIONS</i>	7 (1-8)

1-6 GENERAL INFORMATION

EXTERIOR ILLUSTRATION [*Comet 250R* & *Comet 125R*]



SPECIFICATIONS

DIMENSIONS AND DRY MASS

ITEM	<i>Comet 250 R</i>	<i>Comet 125 R</i>
Overall length	2,060 mm (81.1 in)	←
Overall width	655 mm (25.8 in)	←
Overall height	1,125 mm (44.3 in)	←
Wheelbase	1,435 mm (56.5 in)	←
Ground clearance	130 mm (5.1 in)	←
Mass	185 kg (408 lbs)	180 kg (397 lbs)

ENGINE

ITEM	<i>Comet 250 R</i>	<i>Comet 125 R</i>
Type	Four-stroke, DOHC, Air cooled and oil cooled	←
Number of cylinder	V-2 cylinder	←
Bore	57.0 mm (2.24 in)	44.0 mm (1.73 in)
Stroke	48.8 mm (1.92 in)	41.0 mm (1.61 in)
Piston displacement	249 cm ³ (15.2 in ³)	124.7 cm ³ (7.6 in ³)
Carburetor	BDSR26 TYPE (DOUBLE)	←
Starter system	Electric starter	←
Lubrication system	Wet sump	←

TRANSMISSION

ITEM	<i>Comet 250 R</i>	<i>Comet 125 R</i>
Clutch	Wet multi-plate type	←
Transmission	5-speed constant mesh	←
Gearshift pattern	1-down, 4-up	←
Final reduction	3.290	3.690
Gear ratio, 1st	2.460	2.750
2nd	1.560	1.790
3rd	1.190	1.350
4th	0.960	1.090
5th	0.840	0.910
Drive chain	520HO 112 links	428HO 136 links

1-9 GENERAL INFORMATION

CHASSIS

ITEM	<i>Comet 250 R</i>	<i>Comet 125 R</i>
Front suspension	Telescopic type	←
Rear suspension	Swingarm type	←
Steering angle	27 ° (right & left)	←
Caster	25.5 °	←
Trail	90 mm (3.54 in)	←
Front brake	Double disc brake	Disc brake
Rear brake	Disc brake	←
Front tire size	110/70 - 17 54H	←
Rear tire size	150/70 - 17 69H	←
Front fork stroke	120 mm (4.72 in)	←

ELECTRICAL

ITEM	<i>Comet 250 R</i>	<i>Comet 125 R</i>	
Ignition type	“CDI” type	←	
Ignition timing	13° B.T.D.C. at 2,000 rpm and 30° B.T.D.C. at 6,000 rpm	13° B.T.D.C. at 2,000 rpm and 30° B.T.D.C. at 5,000 rpm	
Spark plug	CR8E	←	
Battery	12V 12Ah (MF)	←	
Fuse	15 A	←	
Head lamp	HI	12V - H1 : 55W × 1	←
	LO	12V - H3 : 55W × 1	←
Position lamp	12V - 5W × 1	←	
Turn signal lamp	12V - 10W × 4	←	
Brake / Tail lamp	12V - 21/5W × 1	←	
Illumination lamp	12V - 1.7W × 2	←	
License plate lamp	12V - 5W × 1	←	
High beam indicator lamp	VFD	←	
Turn signal indicator lamp(right & left)	VFD	←	
Neutral indicator lamp	VFD	←	
Fuel indicator lamp	VFD (Level type)	←	

CAPACITIES

ITEM	<i>Comet 250 R</i>	<i>Comet 125 R</i>
Fuel tank	17.0 l	←
Engine oil, oil change	1,450 ml	←
with filter change	1,500 ml	←
overhaul	1,800 ml	1,650 ml
Front fork oil capacity(One side)	400 ± 2.5 cc	400 ± 2.5 cc

NOTE

The specifications are subject to change without notice.

PERIODIC MAINTENANCE

CONTENTS

MAINTENANCE PROCEDURES

CARBURETOR	10 (2-7)
CLUTCH	11 (2-8-1)

MAINTENANCE PROCEDURES

CARBURETOR

Inspect Interval

Inspect Initial 1,000 km and Every 4,000 km.

⊙ IDLE SPEED

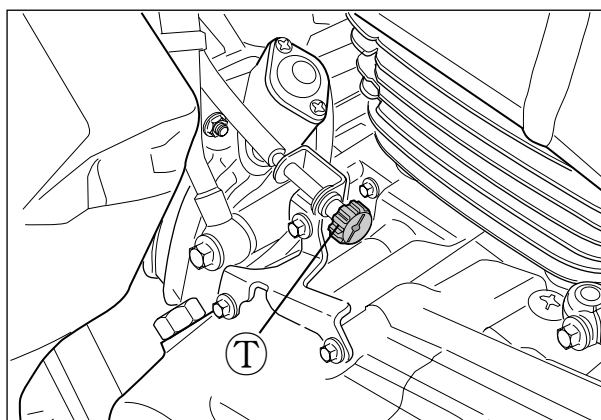
NOTE

Make this inspection when the engine is hot.

- Connect an engine tachometer to the high tension cord.
Start up the engine and set its speed at anywhere 1,400 and 1,500 rpm by turning throttle stop screw ①.

Engine idle speed	1,400~1,500 rpm
--------------------------	-----------------

 Engine tachometer : 09900-26006



CLUTCH

⊙ FOOTREST POSITION ADJUSTMENT


『Comet 250 R』 & 『Comet 125 R』 have 3 type of the footrest position, right and left.

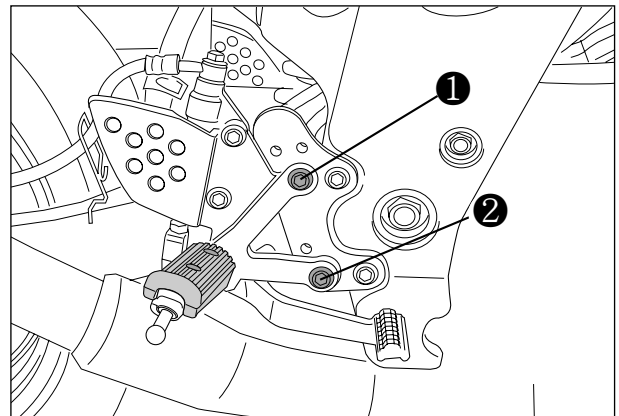
To change the position, remove the 8mm wrench bolts ①, ② and install the bolts to the desired position by using the hexagon wrench 6mm.

『Comet 250 R』 & 『Comet 125 R』 are delivered from the factory on position ①.

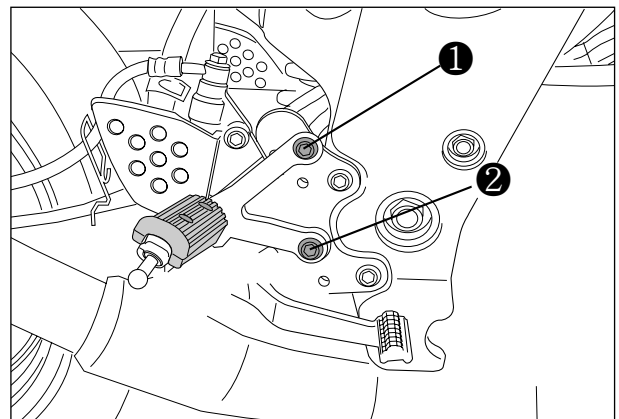
⚠ WARNING

When adjusting the footrest position, the 8mm wrench bolts be torqued to the proper specification.
If they are not, the footrest can come off unexpectedly.

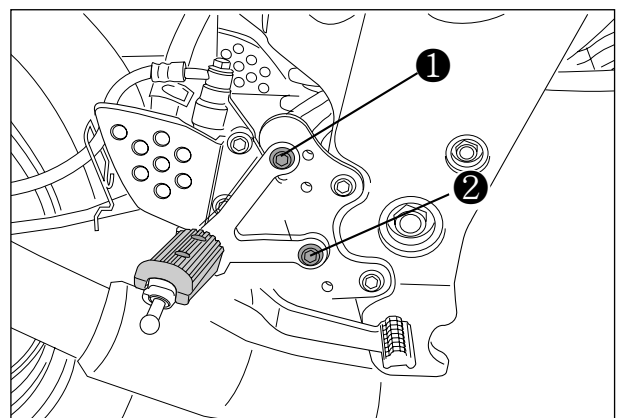
 Footrest mounting bolt
: 22 ~ 35 N · m (2.2 ~ 3.5 kgf · m)



[POSITION ①]



[POSITION ②]



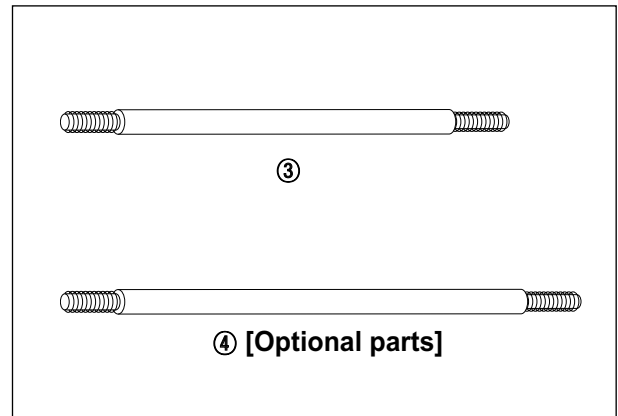
[POSITION ③]

⊙ GEARSHIFT LINK ROD

(FOR 『Comet 250 R』 & 『Comet 125 R』'S
OPTIONAL PARTS)

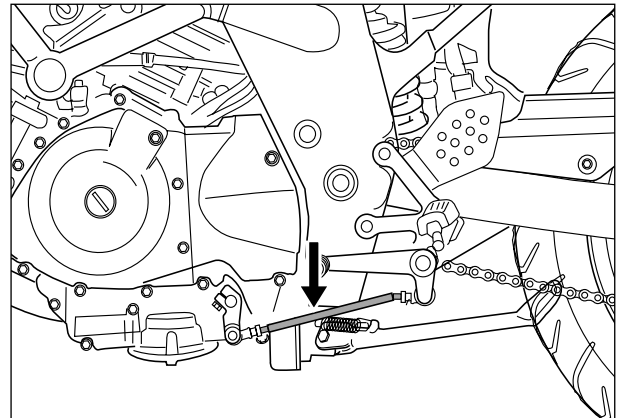
When the footrests in position ③, exchange the gearshift link rod for appropriate riding position.

- Position ① or ②
: Install the gearshift link rod ③
- Position ③
: Install the gearshift link rod ④



NOTE

The gearshift link rod ④ is optional parts.



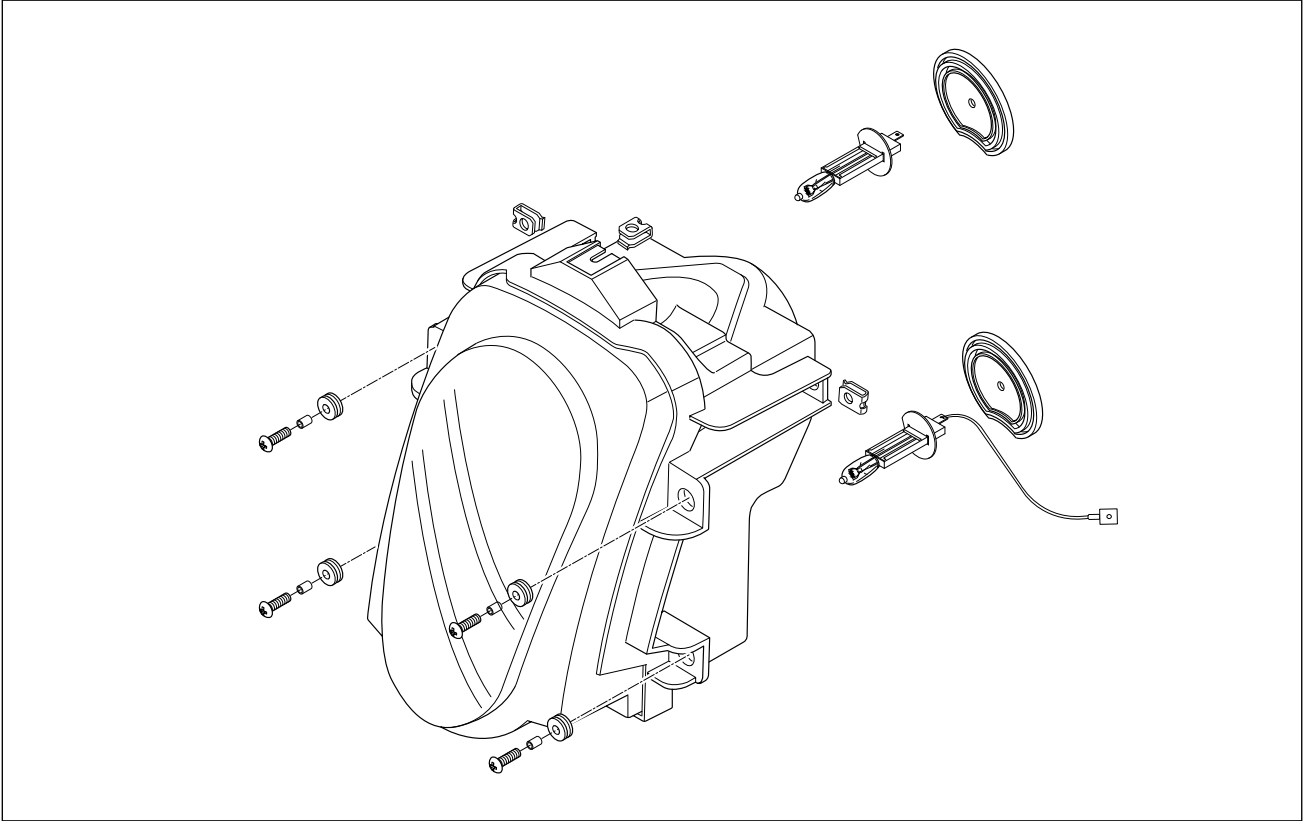
ELECTRICAL SYSTEM

CONTENTS

<i>LAMP</i>	14 (5-16-1)
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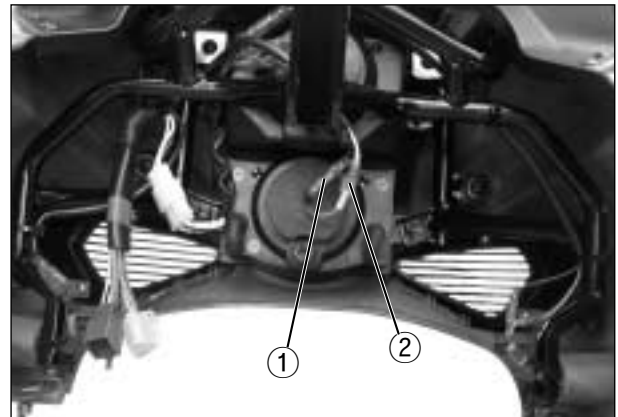
LAMP

⊙ HEAD LAMP

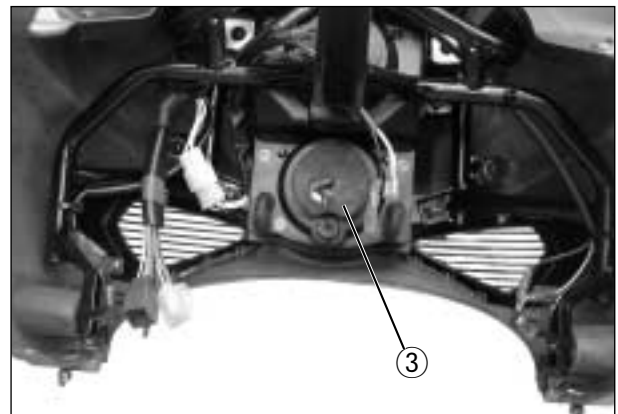


■ REPLACEMENT OF HEAD LAMP BULB

- Remove the under cowling.
(Refer to page 6-1-2 ~ 3)
- Remove the body cowling.
(Refer to page 6-1-4 ~ 5)
- Remove the head lamp coupler ①, ②.



- Remove the dust cover ③.

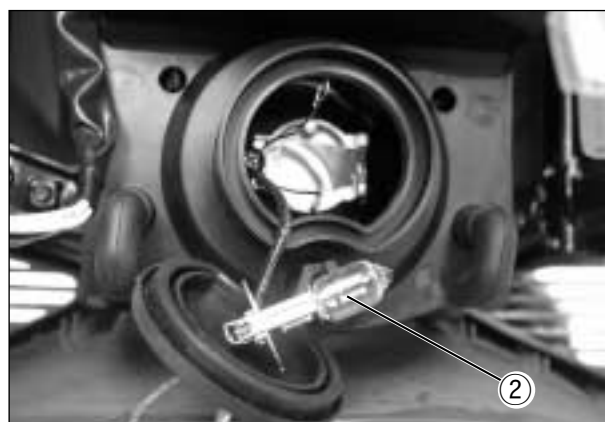


5-16-2 ELECTRICAL SYSTEM

- Remove the socket spring ①.



- Remove the bulb ② and replace the new bulb.



- Remove the head lamp "HI" bulb with the same manner of the head lamp "LOW" bulb removal.
- Reinstall the head lamp bulb in the reverse order of head lamp bulb removal.

⦿ COMBINATION METER

Remove the combination meter.

Disassemble the combination meter as shown in the illustration.

■ INSPECTION

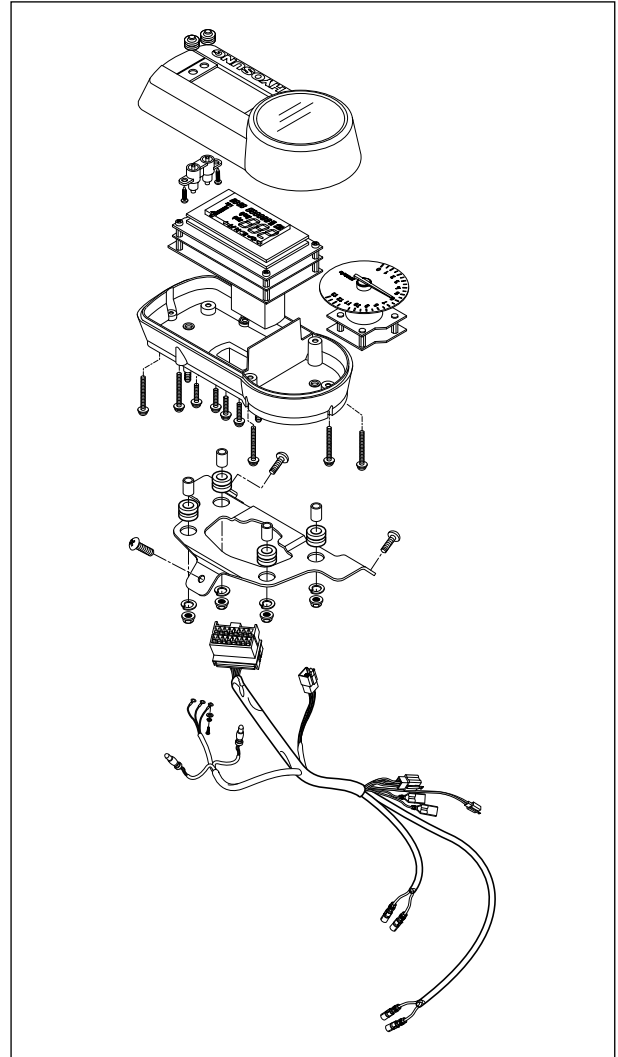
Using the pocket tester, check the continuity between lead wires in the following illustration.

If the continuity measured incorrect, replace the respective part.

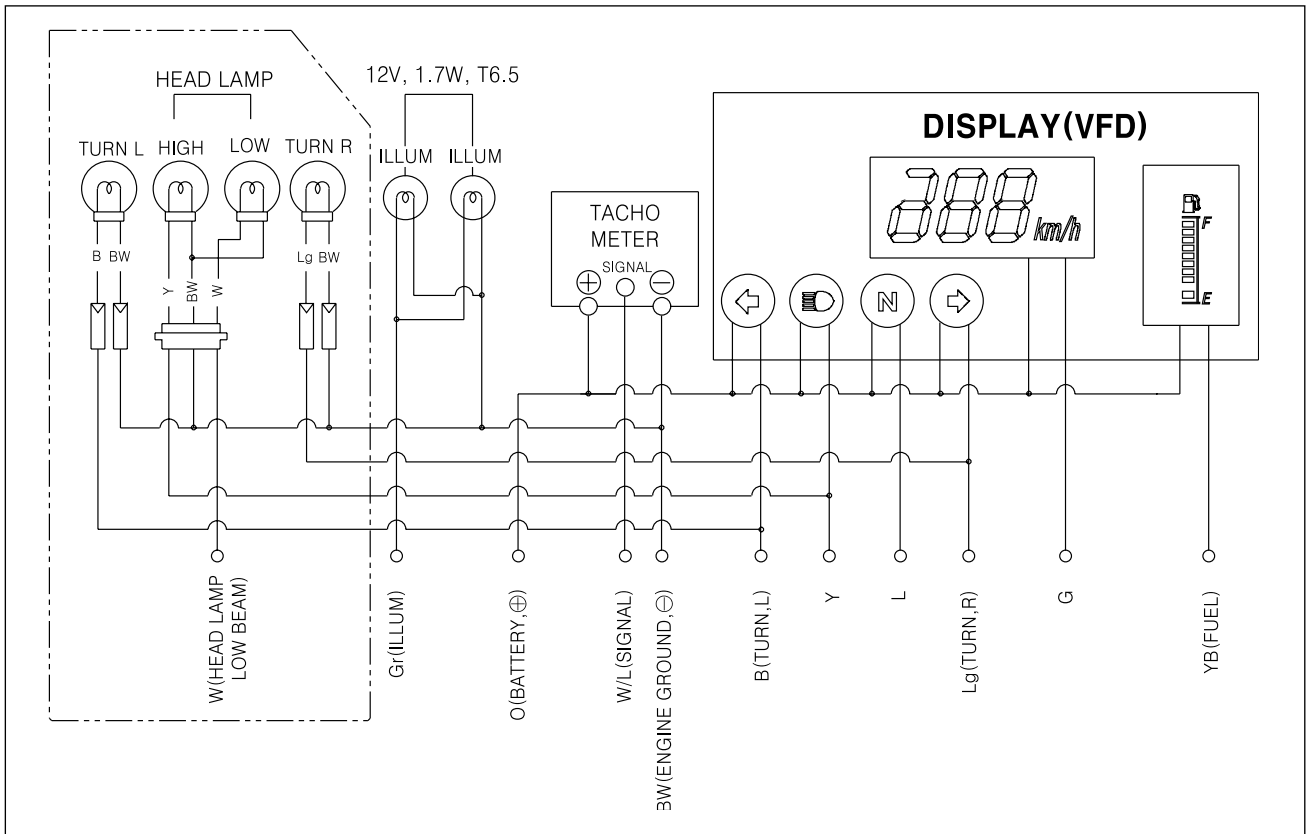
 Pocket tester : 09900-25002

CAUTION

When making this test, it is not necessary to remove the combination meter.



5-17-2 ELECTRICAL SYSTEM



CHASSIS

CONTENTS

EXTERIOR PARTS	20 (6-1-1)
HANDLEBARS	25 (6-12-1)
STEERING	29 (6-27)

EXTERIOR PARTS

⊙ REAR CARRIER

■ REMOVAL

- Open the rear seat with the ignition key.



- Remove the rear carrier mounting bolts ① and separate the rear carrier ②.



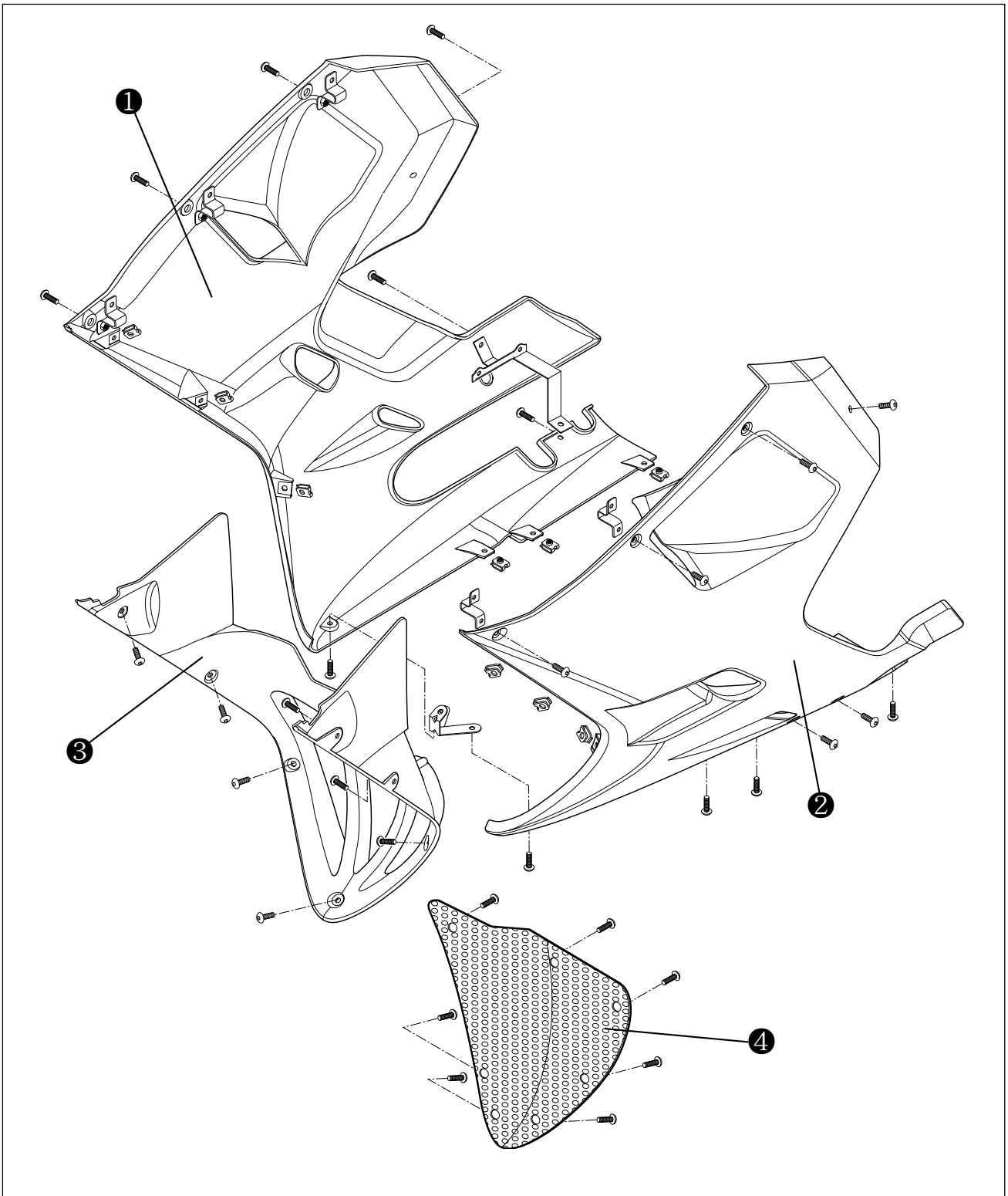
■ INSTALLATION

Reassemble the rear carrier in the reverse order of removal.

- To reinstall the rear seat, slide the seat hook into the seat hook retainer and push down firmly until the seat snaps into the locked position.



⊙ UNDER COWLING



① Under cowling RH

② Under cowling LH

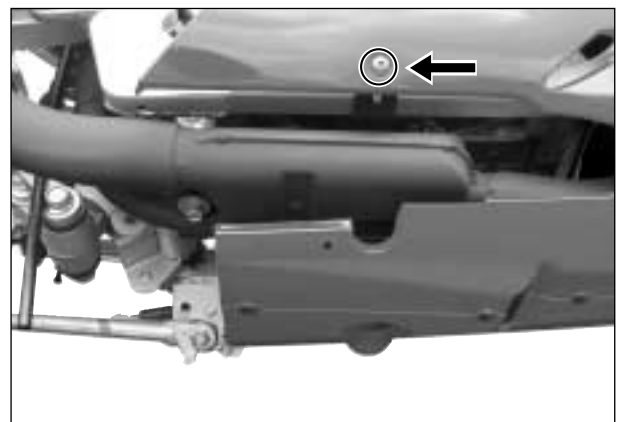
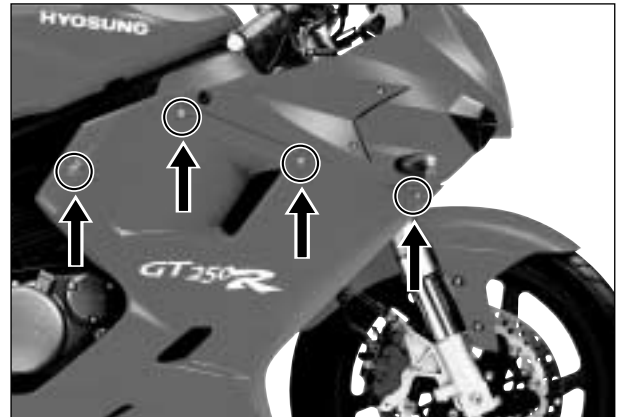
③ Under center cowling

④ Under center cowling grill

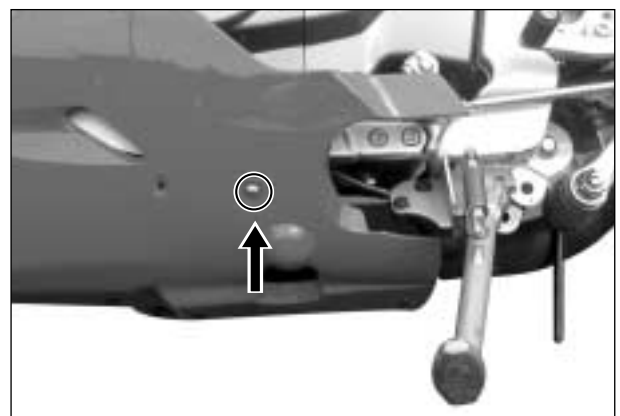
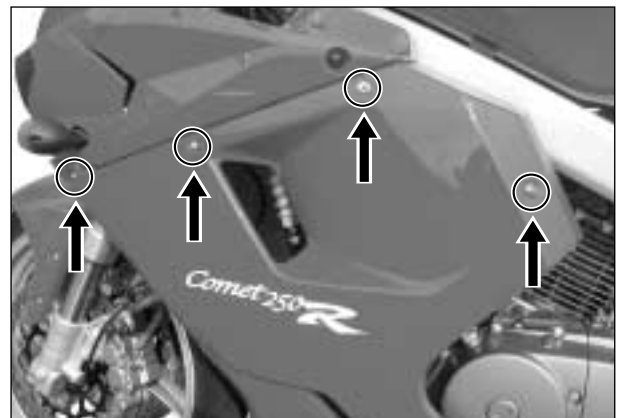
6-1-3 CHASSIS

■ REMOVAL

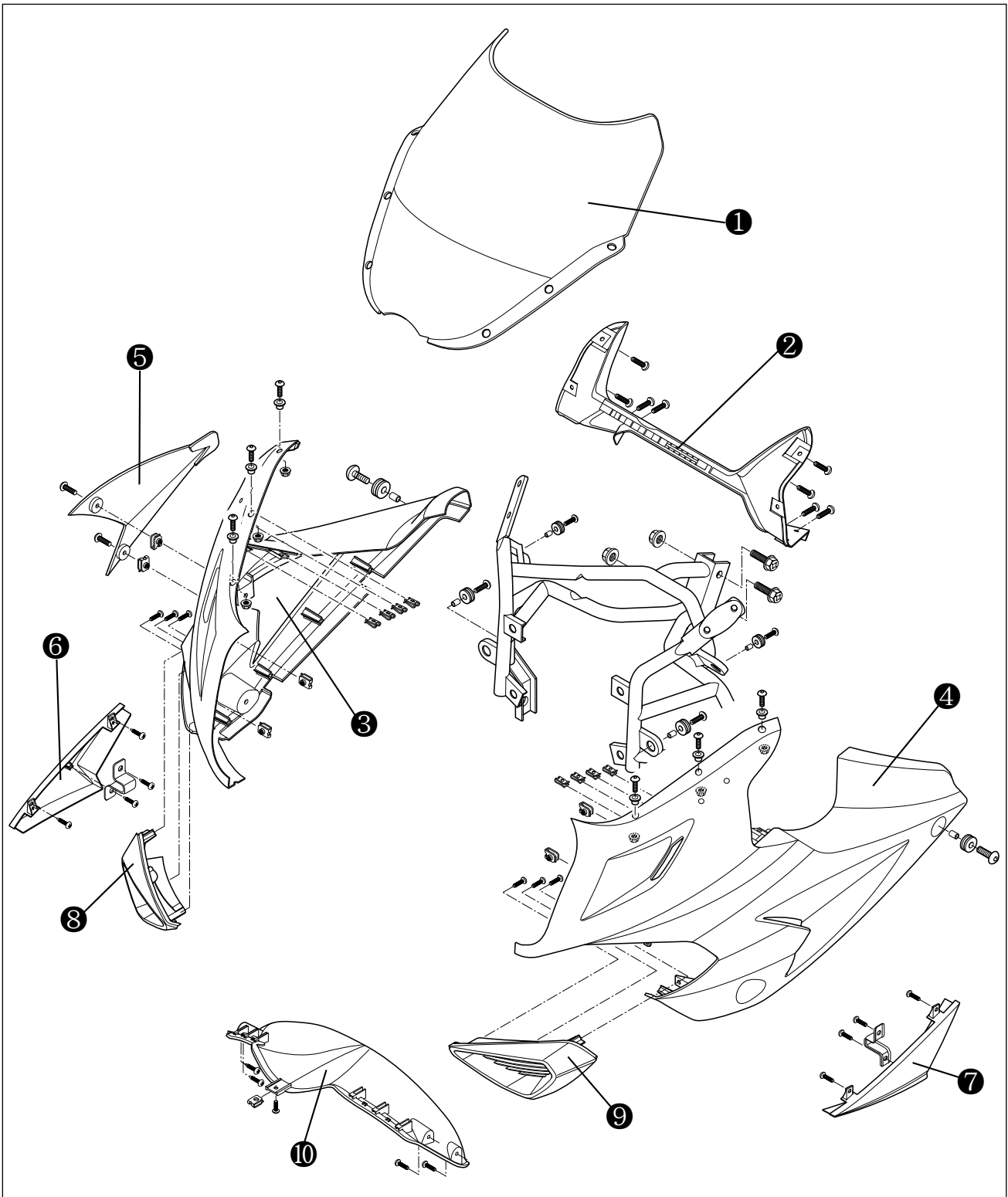
- Remove the under cowling screws at the rightside.



- Remove the under cowling screws at the leftside.



◎ BODY COWLING

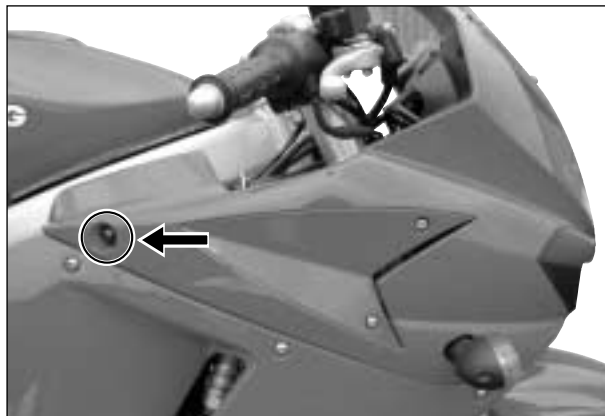


- | | | |
|------------------------|------------------------------|-----------------------------|
| ① Windscreen | ⑤ Body side cowling inner RH | ⑨ Air duct cowling LH |
| ② Meter panel | ⑥ Body side cowling lower RH | ⑩ Body center lower cowling |
| ③ Body side cowling RH | ⑦ Body side cowling lower LH | |
| ④ Body side cowling LH | ⑧ Air duct cowling RH | |

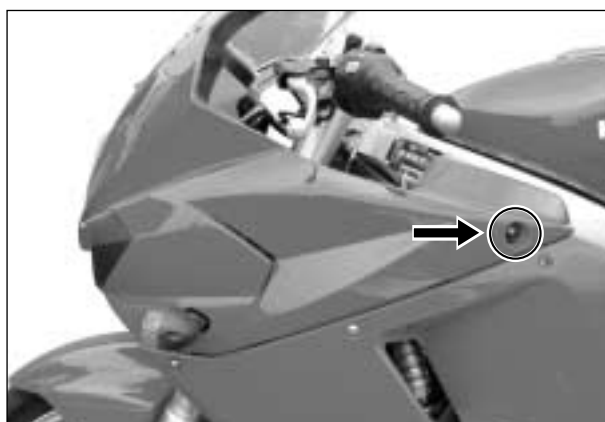
6-1-5 CHASSIS

■ REMOVAL

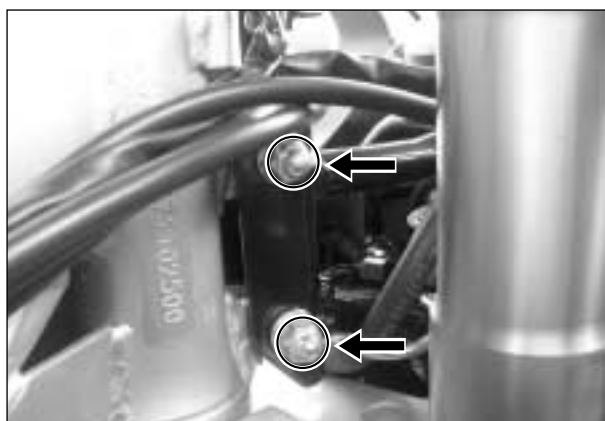
- Remove the body cowling screw at the rightside.



- Remove the body cowling screw at the leftside.




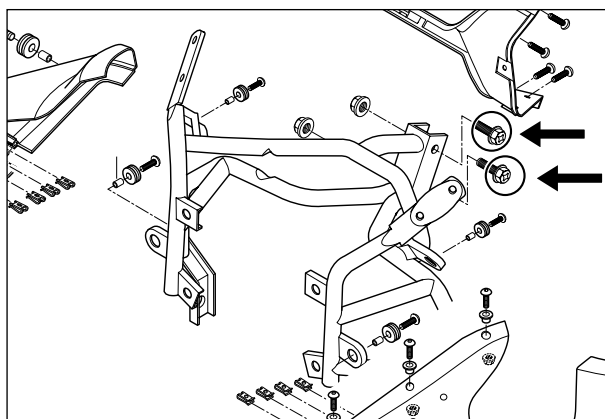
- Remove the two cowling brace bolts.
- Remove the speedometer lead wire and head lamp lead wire.



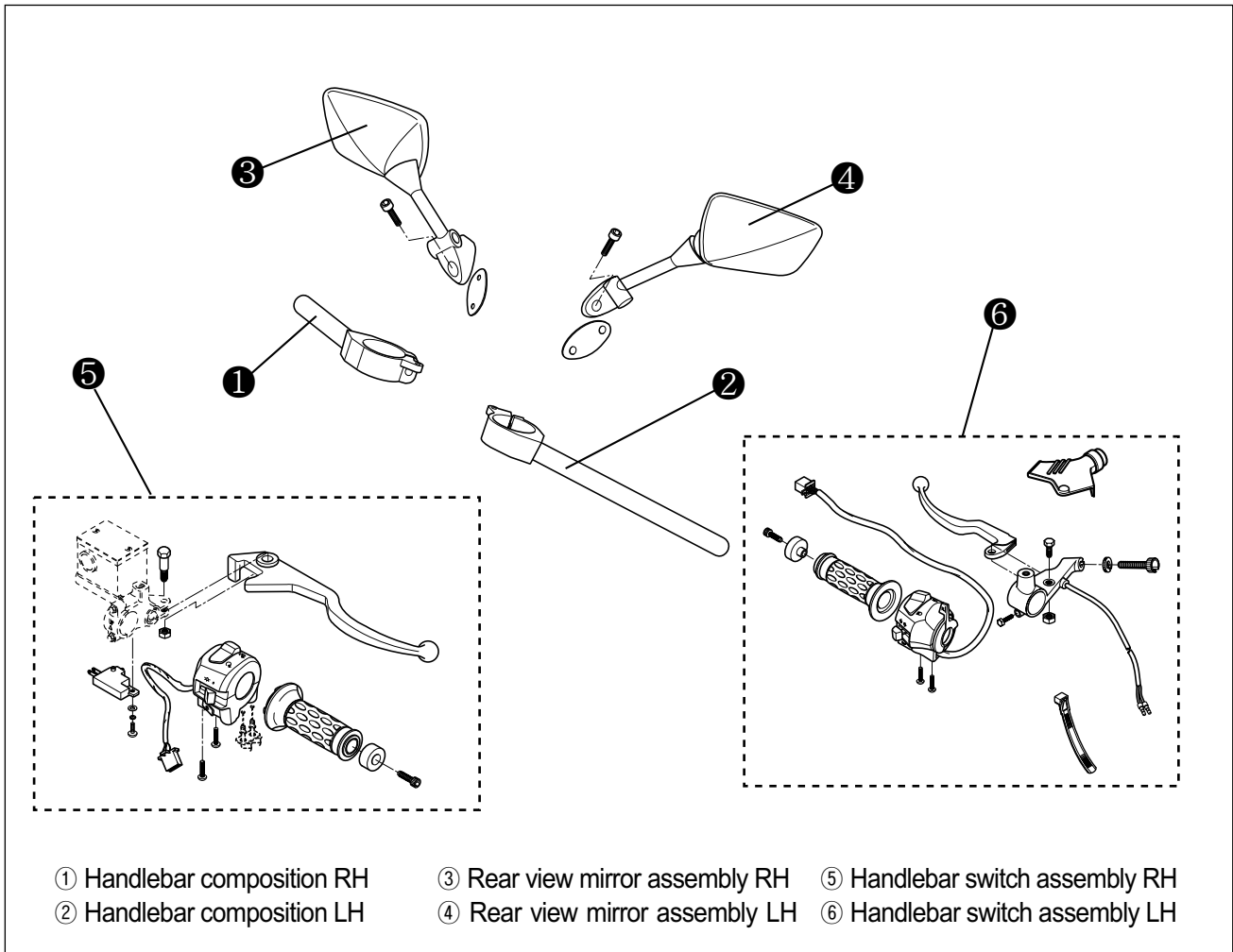
■ REMOUNTING

- Tighten the two cowling brace bolts.

 Cowling brace bolt
: 22 ~ 35 N · m (2.2 ~ 3.5 kg · m)

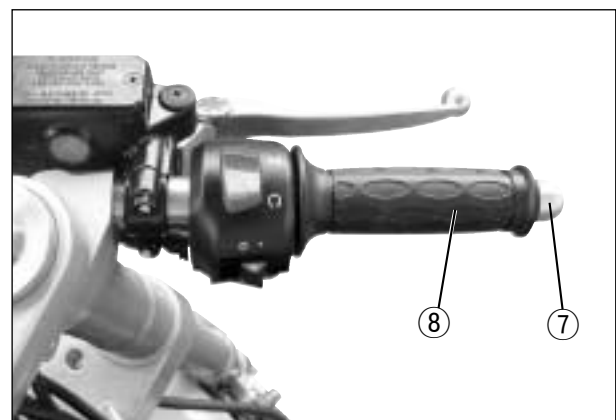


HANDLEBARS



■ HANDLEBAR RIGHT SIDE PARTS REMOVAL

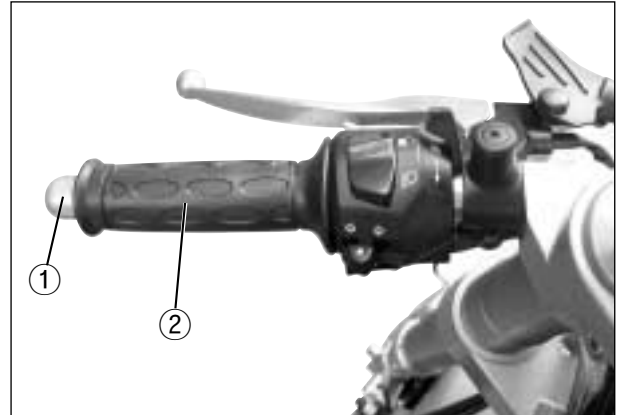
- Remove the right handlebar switches.
- Disconnect the brake lamp switch lead wires and remove the master cylinder.
 - ☞ Refer to the service manual 『Comet 250/125 (99000-94710)』 page 6-10
- Remove the handlebar balancer ⑦ and grip ⑧.



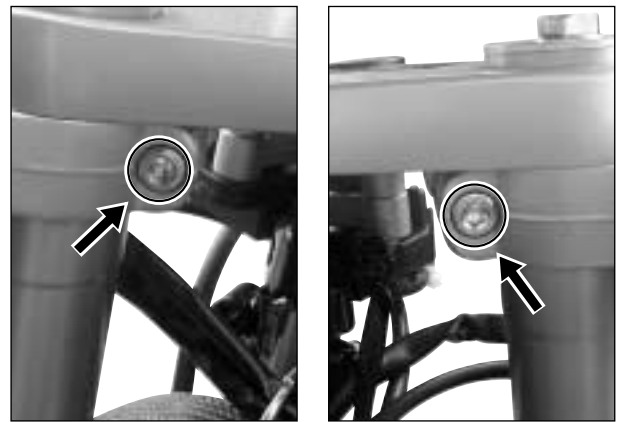
6-12-2 CHASSIS

■ HANDLEBAR LEFT SIDE PARTS REMOVAL

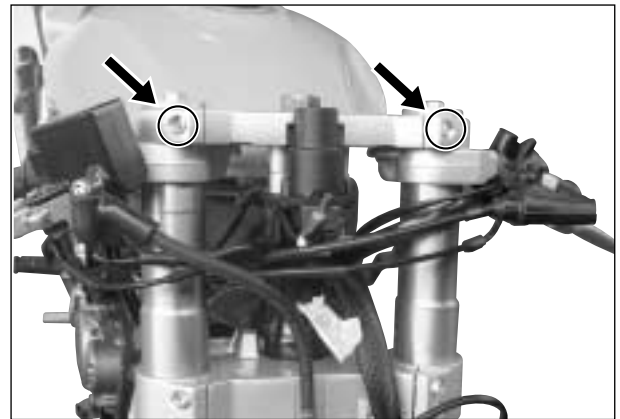
- Remove the left handlebar switches.
- Remove the handlebar balancer ① and grip ②.
- Remove the clutch lever holder.



- Loosen the handlebar clamp bolts, right and left.



- Loosen the front fork upper clamp bolt, right and left.



- Remove the steering stem upper bracket by removing the steering stem head nut.

NOTE

Place the rags under the steering stem upper bracket to prevent scratching the body cowling.



- Remove the handlebar holder bolt, right and left.
- Draw out the handlebars to upward.




■ REMOUNTING

Remount the handlebar in the reverse order of removal.


Pay attention to the following point :

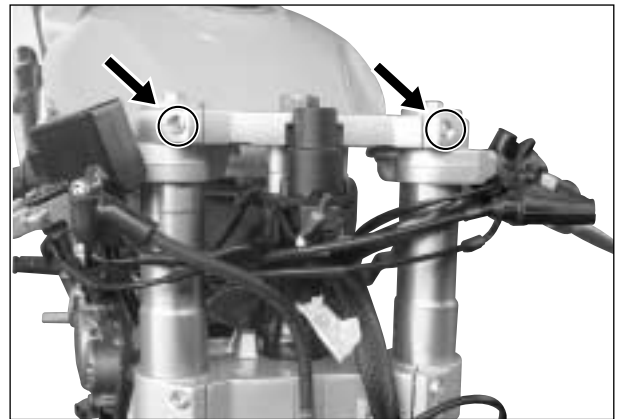
- Install the handlebars temporary.
- Install the steering stem upper bracket.
- Tighten the steering stem head nut.

 **Steering stem head nut**
: 80 ~ 100 N · m (8.0 ~ 10.0 kg · m)




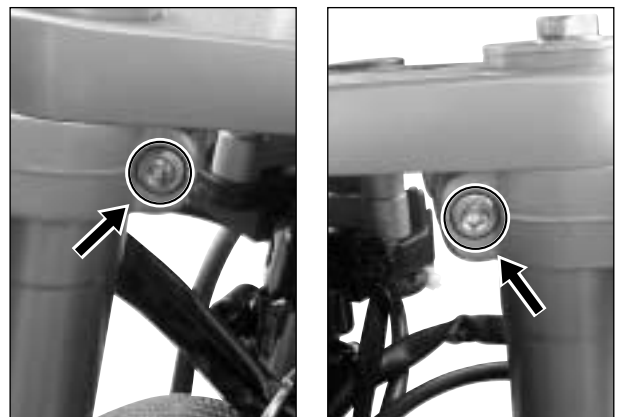
- Tighten the front fork upper clamp bolt, right and left.

 **Front fork upper clamp bolts**
: 22 ~ 35 N · m (2.2 ~ 3.5 kg · m)



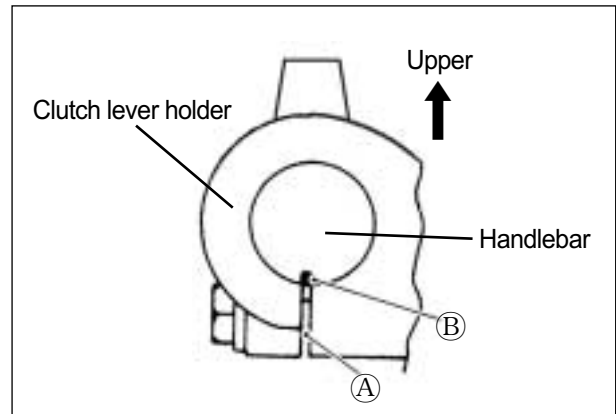
- Tighten the handlebar clamp bolts, right and left.

 **Handlebar clamp bolt**
: 22 ~ 35 N · m (2.2 ~ 3.5 kg · m)

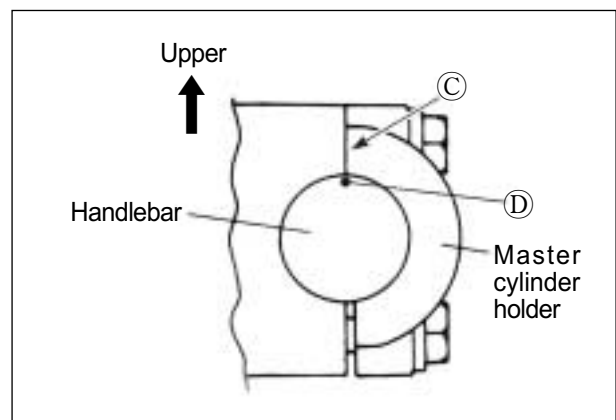


6-13-2 CHASSIS

- When remounting the clutch lever holder, align the holder's mating surface (A) with punch mark (B) on the handlebar.




- When remounting the front brake master cylinder onto the handlebar, align the master cylinder holder's mating surface (C) with punch mark (D) on the handlebar and tighten the upper clamp bolt first as shown.



WARNING

Bleed air from the brake fluid circuit after assembling master cylinder.

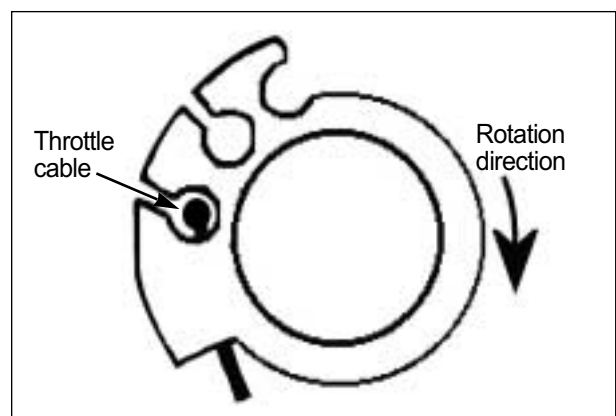
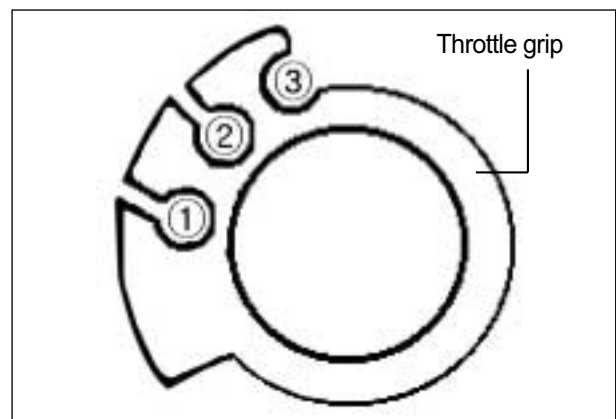
 Refer to the service manual 「*Comet-250/125* (99000-94710)」 page 2 - 16

- Apply SUPER GREASE "A" to the throttle cables.

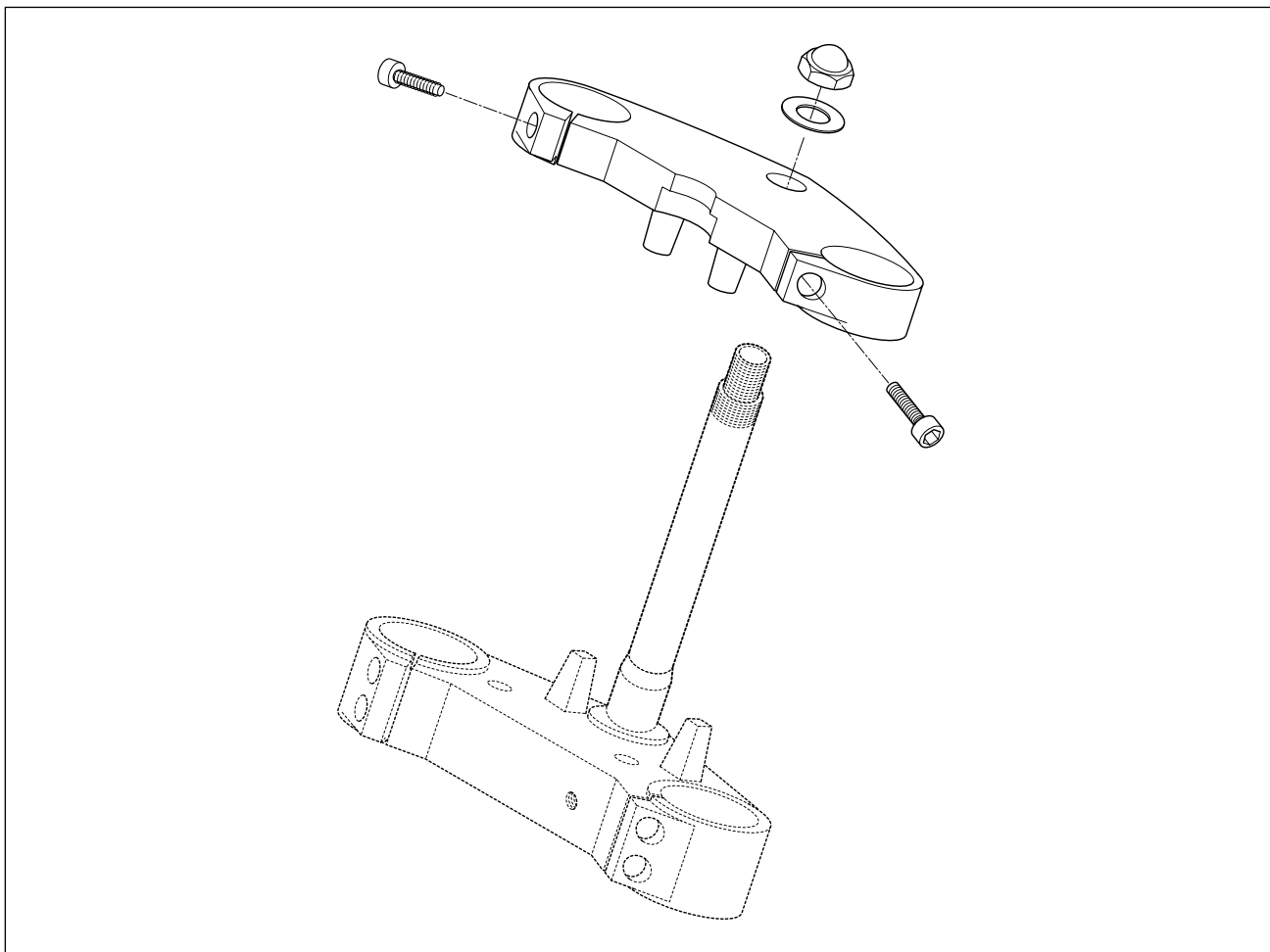
 SUPER GREASE "A"

- Install the throttle cable to the throttle grip (1).

① : Throttle cable

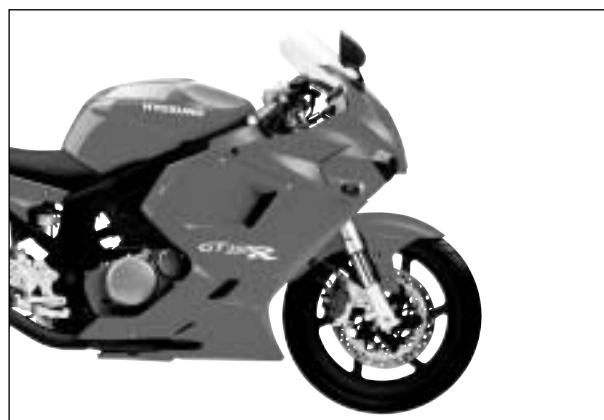


STEERING



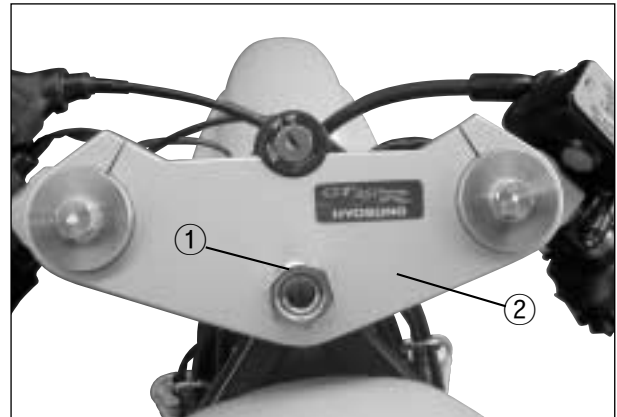
⊙ REMOVAL AND DISASSEMBLY

- Remove the under cowling and body cowling.
(Refer to page 6-1-2 ~ 5)
- Take off the front wheel.
 - ☞ Refer to the service manual 『*Comet 250/125*』 (99000-94710)』 page 6-2
- Remove the four bolts and front fender.
- Take off the front fork.
 - ☞ Refer to the service manual 『*Comet 250/125*』 (99000-94710)』 page 6-14



6-28 CHASSIS

- Remove the handlebar clamp bolts.
- Remove the steering stem head nut ① and take off the steering stem upper bracket ②.



- Remove the steering stem nut ③ and draw out the steering stem.



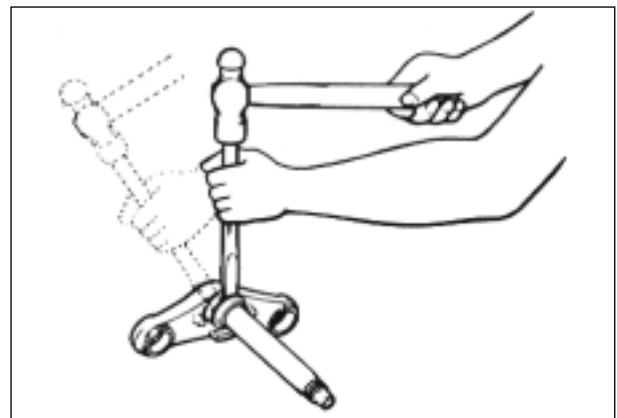
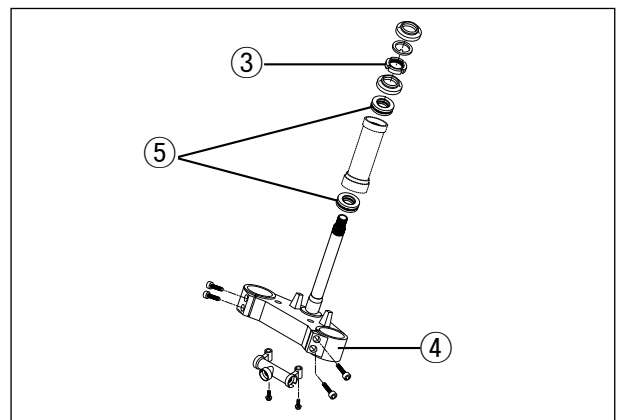
Clamp wrench : 09940-10122

- Take off the steering stem lower bracket ④.

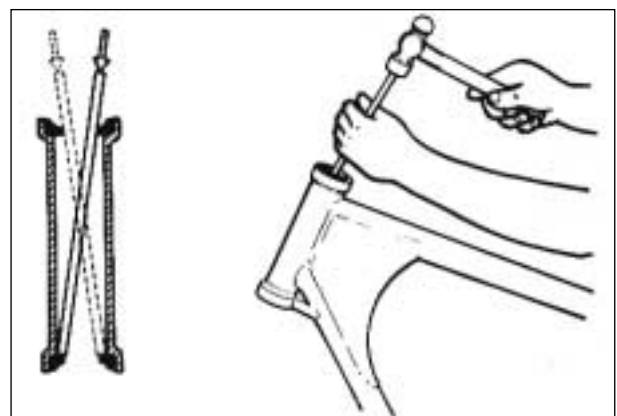
CAUTION

Hold the steering stem lower bracket by hand to prevent from falling.

- Remove the upper and lower bearings ⑤.
- Remove the outer race fitted on the steering stem.
This can be done with a chisel.



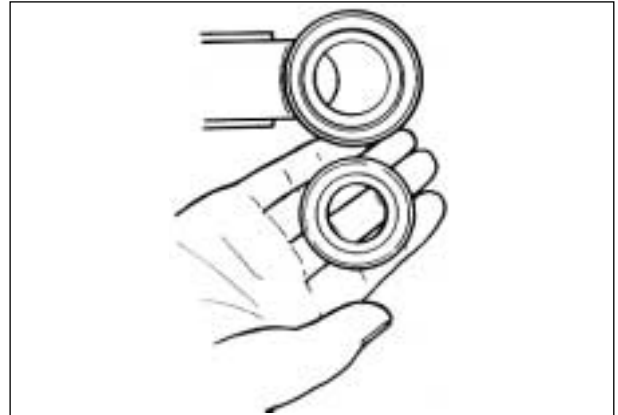
- Draw out the two inner races fitted to the top and bottom ends of the head pipe.



⊙ INSPECTION

Inspect and check the removed parts for the following abnormalities.

- Handlebar distortion.
- Handlebar clamp wear.
- Abnormality operation of bearing.
- Worn or damaged races.
- Distortion of steering stem.



⊙ REASSEMBLY

Reassemble and remount the steering stem in the reverse order of disassembly and removal, and also carry out the following steps :

- Apply SUPER GREASE "A" to the upper bearing and lower bearing ①.

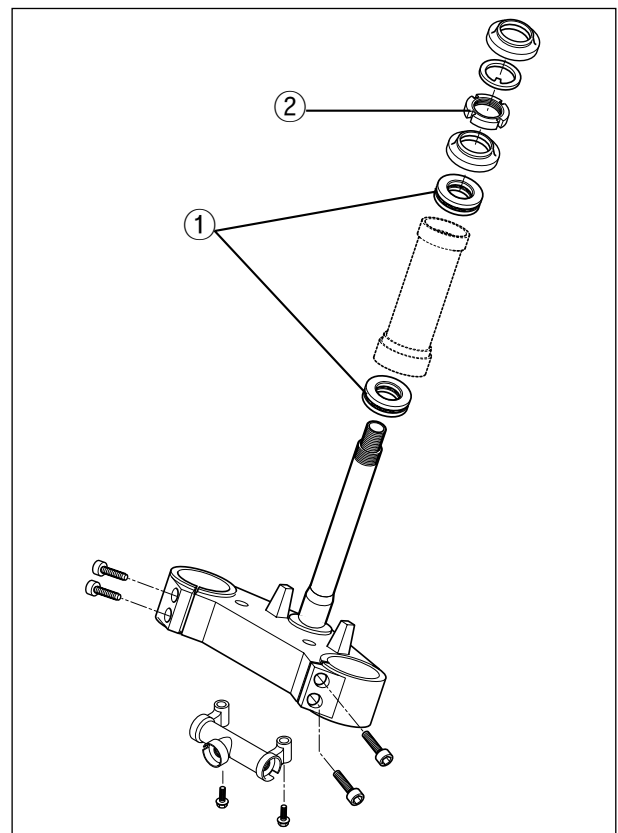
 SUPER GREASE "A"

- Tighten the steering stem nut ② with the special tool.


 Clamp wrench : 09940-10122

 Steering stem nut
: 80 ~ 100 N · m (8.0 ~ 10.0 kg · m)

- Turn the steering stem right and left, lock-to-lock, five or six times.



- Tighten the steering stem head nut ③ to the specified torque.

 Steering stem head nut
: 80 ~ 100 N · m (8.0 ~ 10.0 kg · m)


CAUTION

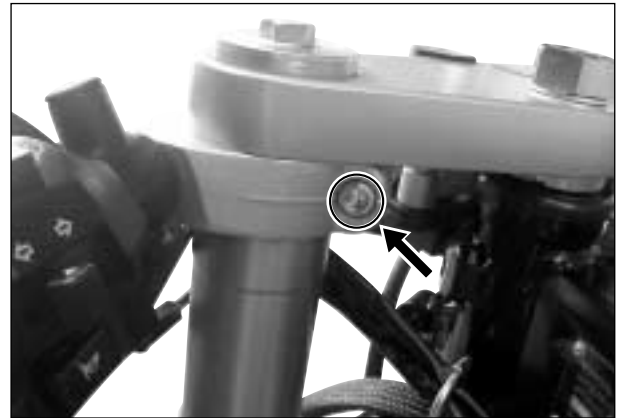
After performing the adjustment and installing the steering stem upper bracket, rock the front wheel assembly forward and backward to ensure that there is no play and that the procedure was accomplished correctly. If play is noticeable, re-adjust the steering stem nut.



6-29-2 CHASSIS

- Tighten the handlebar clamp bolts, right and left.

 **Handlebar clamp bolts**
: 22 ~ 35 N · m (2.2 ~ 3.5 kg · m)



SERVICING INFORMATION

CONTENTS

<i>SERVICE DATA</i>	34 (7-20)
<i>WIRING DIAGRAM</i>	35 (7-31)

SERVICE DATA

WATTAGE

Unit : W

ITEM	SPECIFICATION	
Head lamp	HI	H1 : 55W
	LO	H3 : 55W
Position lamp	5W	
License plate lamp	5W	
Brake/Tail lamp	21/5W	
Turn signal lamp	Front : 10W×2 / Rear : 10W×2	
Illumination lamp	1.7W×2	
Neutral indicator lamp	VFD	
Turn signal indicator lamp (Right & left)	VFD	
High beam indicator lamp	VFD	
Fuel indicator lamp	VFD	Level type



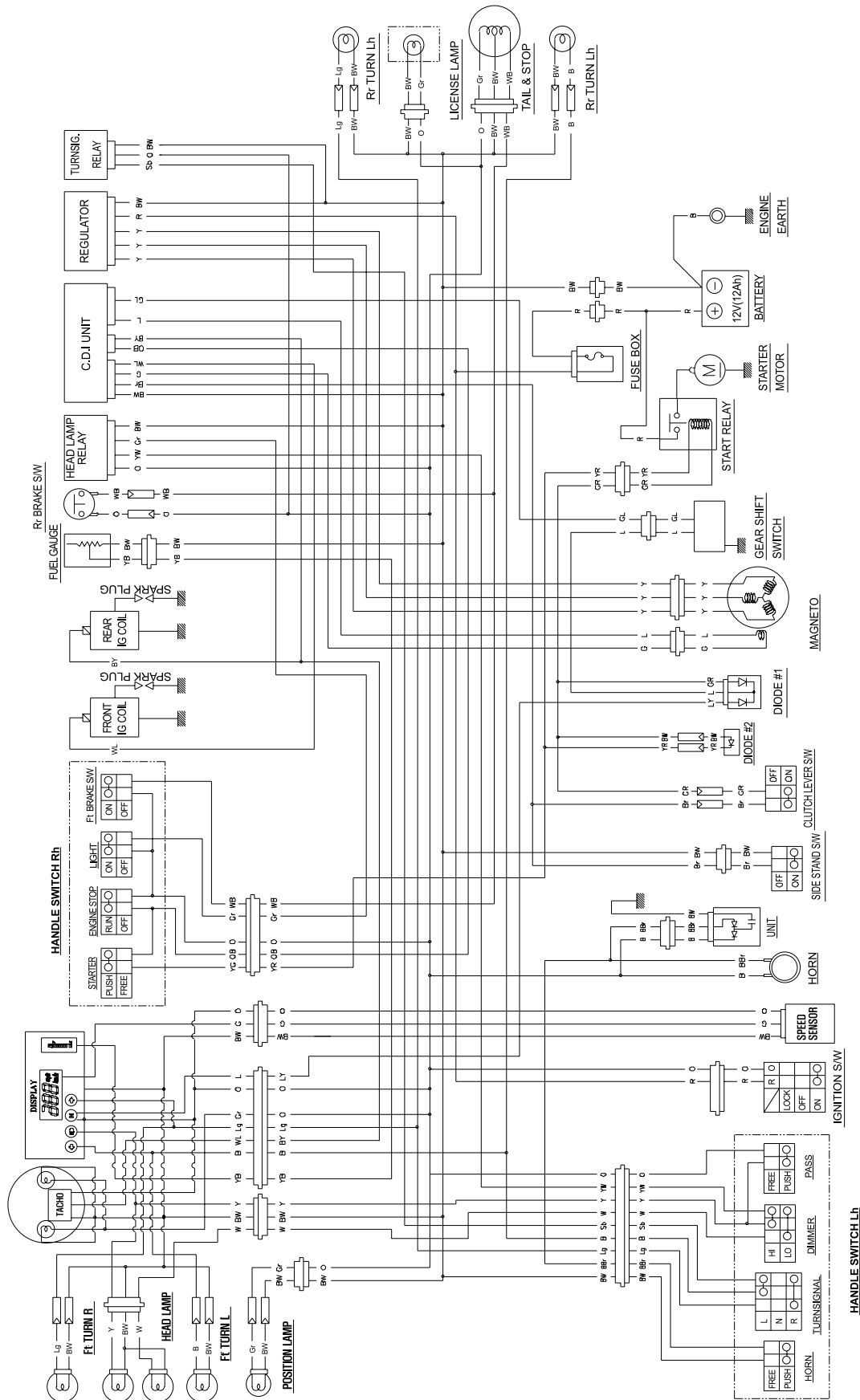
CAUTION

Do not use except the specified bulb (Wattage).

NOTE

VFD : Vacuum Fluorescent Display

WIRING DIAGRAM



- WIRE COLOR**
- B : Black
 - Br : Brown
 - G : Green
 - Gr : Gray
 - L : Blue
 - BG : Black with Green tracer
 - BW : Black with White tracer
 - BR : Black with Red tracer
 - LW : Blue with White tracer
 - Y : Yellow
 - YG : Black with Green tracer
 - BY : Black with White tracer
 - BR : Black with Red tracer
 - LW : Blue with White tracer
 - RB : Red with Black tracer
 - RW : Red with White tracer
 - WB : White with Black tracer
 - WR : White with Red tracer
 - YB : Yellow with Black tracer



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