2022

HONDA

MONKEY125A

INDEX

1. GENERAL INFORMATION

A Few Words About Safety

Service Information

The service and repair information contained in this manual is intended for use by qualified, professional technicians.

Attempting service or repairs without the proper training, tools, and equipment could cause injury to you or others. It could also damage the vehicle or create an unsafe condition.

This manual describes the proper methods and procedures for performing service, maintenance and repairs. Some procedures require the use of specially designed tools and dedicated equipment. Any person who intends to use a replacement part, service procedure or a tool that is not recommended by Honda, must determine the risks to their personal safety and the safe operation of the vehicle.

If you need to replace a part, use Honda genuine parts with the correct part number or an equivalent part. We strongly recommend that you do not use replacement parts of inferior quality.

For Your Customer's Safety

Proper service and maintenance are essential to the customer's safety and the reliability of the vehicle. Any error or oversight while servicing a vehicle can result in faulty operation, damage to the vehicle, or injury to others.

⚠WARNING

Improper service or repairs can create an unsafe condition that can cause your customer to be seriously hurt or killed.

Follow the procedures and precautions in this manual and other service materials carefully.

For Your Safety

Because this manual is intended for the professional service technician, we do not provide warnings about many basic shop safety practices (e.g., Hot parts–wear gloves). If you have not received shop safety training or do not feel confident about your knowledge of safe servicing practice, we recommended that you do not attempt to perform the procedures described in this manual.

Some of the most important general service safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in performing service and repair procedures. Only you can decide whether or not you should perform a given task.

⚠WARNING

Failure to properly follow instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in this manual carefully.

Important Safety Precautions

Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and using safety equipment. When performing any service task, be especially careful of the following:

- Read all of the instructions before you begin, and make sure you have the tools, the replacement or repair parts, and the skills required to perform the tasks safely and completely.
- Protect your eyes by using proper safety glasses, goggles or face shields any time you hammer, drill, grind, pry or work around pressurized air or liquids, and springs or other stored-energy components. If there is any doubt, put on eye protection.
- Use other protective wear when necessary, for example gloves or safety shoes. Handling hot or sharp parts can cause severe burns or cuts. Before you grab something that looks like it can hurt you, stop and put on gloves.
- Protect yourself and others whenever you have the vehicle up in the air. Any time you lift the vehicle, either with a hoist or a jack, make sure that it is always securely supported. Use jack stands.

Make sure the engine is off before you begin any servicing procedures, unless the instruction tells you to do otherwise. This will help eliminate several potential hazards:

- Carbon monoxide poisoning from engine exhaust. Be sure there is adequate ventilation whenever you run the engine.
- Burns from hot parts or coolant. Let the engine and exhaust system cool before working in those areas.
- Injury from moving parts. If the instruction tells you to run the engine, be sure your hands, fingers and clothing are out of the way.

Gasoline vapors and hydrogen gases from batteries are explosive. To reduce the possibility of a fire or explosion, be careful when working around gasoline or batteries.

- Use only a nonflammable solvent, not gasoline, to clean parts.
- Never drain or store gasoline in an open container.
- Keep all cigarettes, sparks and flames away from the battery and all fuel-related parts.

How To Use This Manual

This manual is "Spec (Specific)" Service Manual. The service and repair information for this model is described in this manual as specific information. Refer to "Basic" Service Manual for basic/common service information and instructions.

Follow the Maintenance Schedule recommendations to ensure that the vehicle is in peak operating condition and the emission levels are within the standards set by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB).
Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Find the section you want on this page, then turn to the table of contents on the first page of the section.

Your safety, and the safety of others, is very important. To help you make informed decisions we have provided safety messages and other information throughout this manual. Of course, it is not practical or possible to warn you about all the hazards associated with servicing this vehicle.
You must use your own good judgment.
You will find important safety information in a variety of forms including:

- Safety Labels – on the vehicle
- Safety Messages – preceded by a safety alert symbol ⚠ and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

⚠DANGER You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

⚠WARNING You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

⚠CAUTION You CAN be HURT if you don't follow instructions.

- Instructions – how to service this vehicle correctly and safely.

As you read this manual, you will find information that is preceded by a **NOTICE** symbol. The purpose of this message is to help prevent damage to your vehicle, other property, or the environment.

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SYMBOLS

The symbols used throughout this manual show specific service procedures. If supplementary information is required pertaining to these symbols, it would be explained specifically in the text without the use of the symbols.

INSTRUCTION SYMBOL

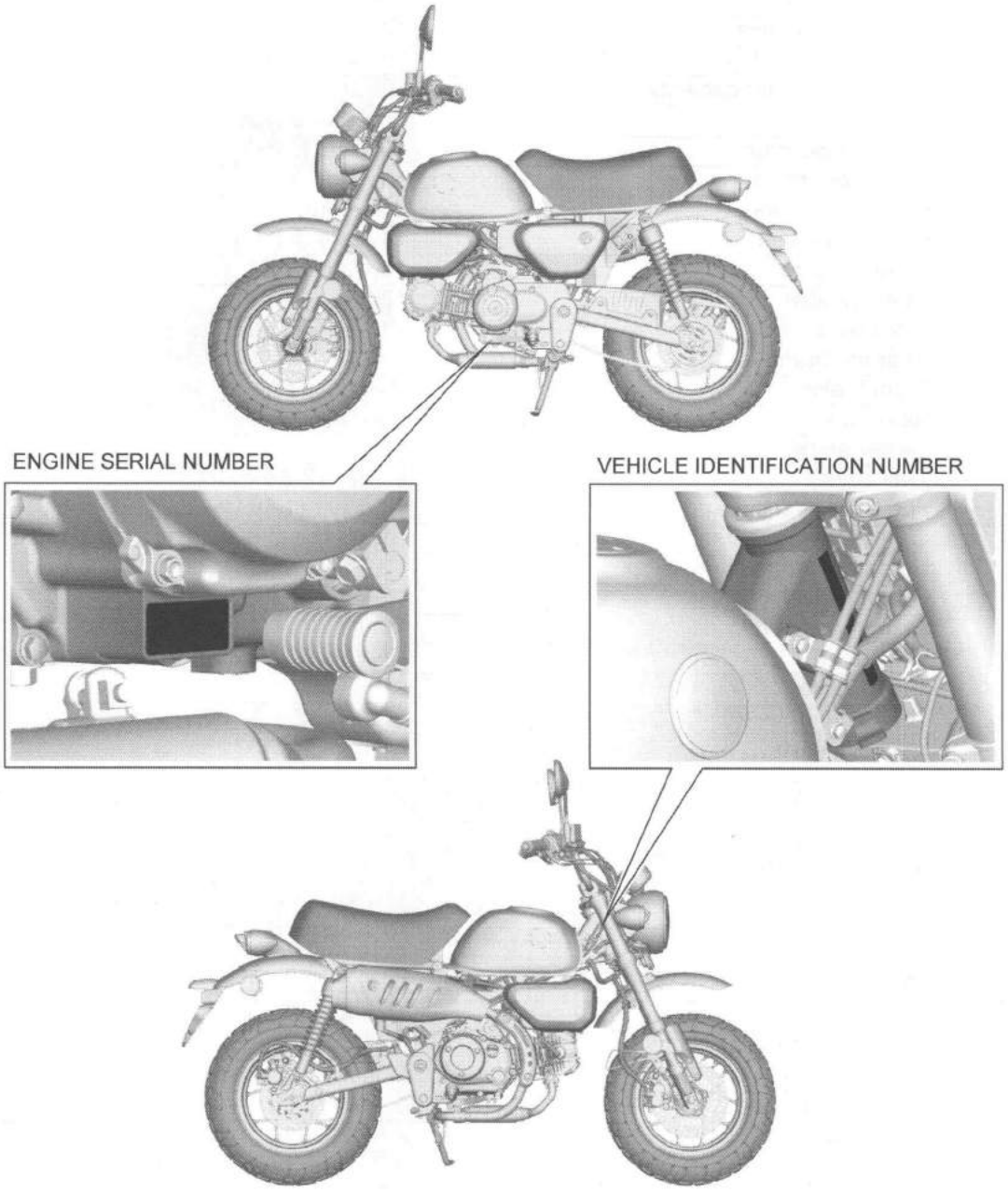
	Removal or Disassembly procedure. Disconnect the connector.		Installation or Assembly procedure. Connect the connector.
	Order of removal/disassembly with a point of note.		Order of installation/assembly with a point of note.
	Tighten specified torque.		Replace with a new one before assembly.
	Check the part for an inspection.		Measure the part for an inspection.
	Turn ignition switch to OFF.		Turn ignition switch to ON.
	Start the engine.		Measure a resistance or check continuity.
	Measure a voltage.		Measure an ampere.
	Use the Honda special tool.		Refer to "Basic" Service Manual for the instruction.

LUBRICATION AND SEAL SYMBOL

	Use the recommend engine oil.		Apply molybdenum oil solution (mixture of an engine oil and molybdenum grease in a ratio of 1:1).
	Apply a specified grease. Use a multi-purpose grease unless otherwise specified.		Apply a liquid sealant.
	Apply a locking agent. Use a medium strength one unless otherwise specified.		Use DOT 3 or DOT 4 brake fluid.
	Use a specified fork oil or suspension fluid.		

MODEL IDENTIFICATION

MODEL NAME	CODE/TYPE	DESTINATION	EVAP
MONKEY125A	AC	50-State, meets California	O
	II AC	50-State, meets California	O
	CM	Canada	-
	II CM	Canada	-



SPECIFICATIONS

GENERAL SPECIFICATIONS

ITEM			SPECIFICATION
DIMENSIONS	Overall length		1,710 mm (67.3 in)
	Overall width		755 mm (29.7 in)
	Overall height		1,030 mm (40.6 in)
	Wheelbase		1,145 mm (45.1 in)
	Seat height		776 mm (30.6 in)
	Footpeg height		286 mm (11.3 in)
	Ground clearance		175 mm (6.9 in)
	Curb weight		104 kg (229 lbs)
	Maximum weight capacity		105 kg (231 lbs)
FRAME	Frame type		Back bone type
	Front suspension		Telescopic fork
	Front axle travel		100 mm (3.9 in)
	Rear suspension		Swingarm
	Rear axle travel		102 mm (4.0 in)
	Front tire size		120/80-12 65J
	Rear tire size		130/80-12 69J
	Front tire brand		V133 (VEE RUBBER)
	Rear tire brand		V133 (VEE RUBBER)
	Front brake		Hydraulic single disc
	Rear brake		Hydraulic single disc
	Caster angle		25° 00'
	Trail length		82 mm (3.2 in)
	Fuel tank capacity		5.6 liters (1.48 US gal, 1.23 Imp gal)
ENGINE	Cylinder arrangement		Single cylinder inclined 80° from vertical
	Bore and stroke		50.0 x 63.1 mm (1.97 x 2.48 in)
	Displacement		124 cm^3 (7.6 cu-in)
	Compression ratio		10.0:1
	Valve train		Chain driven, OHC
	Intake valve at 1.0 mm (0.04 in) lift	opens	-5° BTDC
		closes	25° ABDC
	Exhaust valve at 1.0 mm (0.04 in) lift	opens	25° BBDC
		closes	-5° ATDC
	Lubrication system		Forced pressure and wet sump
	Oil pump type		Trochoid
	Cooling system		Air cooled
	Air filtration		Viscous paper element
	Engine dry weight		21.7 kg (47.8 lbs)
FUEL SYSTEM	Type		PGM-FI
	Throttle bore		24 mm (0.9 in)
DRIVE TRAIN	Clutch system		Multi-plate, wet
	Clutch operation system		Cable operating
	Transmission		Constant mesh, 5 speeds
	Primary reduction		3.040 (76/25)
	Final reduction		2.642 (37/14)
	Gear ratio	1st	2.846 (37/13)
		2nd	1.777 (32/18)
		3rd	1.315 (25/19)
		4th	1.034 (30/29)
		5th	0.843 (27/32)
	Gearshift pattern		Left foot operated return system
			1 - N - 2 - 3 - 4 - 5

ITEM		SPECIFICATION
ELECTRICAL	Ignition system	Computer-controlled digital transistorized with electric advance
	Starting system	Electric starter motor
	Charging system	Single phase output alternator
	Regulator/rectifier	SCR opened, single phase half-wave rectification
	Lighting system	Alternator

FUEL & ENGINE SPECIFICATIONS

FUEL SYSTEM

ITEM	SPECIFICATIONS
Throttle body identification number	GQYVB
Engine idle speed	1,400 ± 100 rpm
Idle air screw standard opening	1 7/8 turns out from the fully seated position
Throttle grip freeplay	2 – 6 mm (0.1 – 0.2 in)
Fuel pressure at idle	263 – 316 kPa (2.68 – 3.22 kgf/cm^2, 38 – 46 psi)
Fuel pump flow (at 12 V)	82 cm^3 (2.8 US oz, 2.9 Imp oz) minimum/10 seconds

LUBRICATION SYSTEM

Unit: mm (in)

ITEM		STANDARD	LIMIT
Engine oil capacity	After draining	0.9 liter (1.0 US qt, 0.8 Imp qt)	–
	After draining/filter change	0.9 liter (1.0 US qt, 0.8 Imp qt)	–
	After disassembly	1.05 liter (1.11 US qt, 0.92 Imp qt)	–
Recommended engine oil		Pro Honda GN4 4-stroke oil (U.S.A. & Canada) or equivalent motorcycle oil. API service classification: SJ or higher JASO T903 standard: MA Viscosity: SAE 10W-30	–
Oil pump rotor	Tip clearance	0.15 (0.006)	0.20 (0.008)

CYLINDER HEAD/VALVES

Unit: mm (in)

ITEM			STANDARD	LIMIT
Cylinder compression			600 kPa (6.12 kgf/cm^2, 87 psi) at 600 rpm	–
Valve clearance		IN	0.08 ± 0.02 (0.003 ± 0.001)	–
		EX	0.20 ± 0.02 (0.008 ± 0.001)	–
Camshaft	Cam lobe height	IN	31.963 – 32.123 (1.2584 – 1.2647)	31.933 (1.2572)
		EX	32.033 – 32.193 (1.2611 – 1.2674)	32.003 (1.2600)
Valve, valve guide	Valve stem O.D.	IN	4.475 – 4.490 (0.1762 – 0.1768)	4.465 (0.1758)
		EX	4.455 – 4.470 (0.1754 – 0.1760)	4.445 (0.1750)
	Valve guide I.D.	IN/EX	4.500 – 4.512 (0.1772 – 0.1776)	4.542 (0.1788)
	Valve guide projection above cylinder head	IN/EX	10.2 – 10.4 (0.40 – 0.41)	–
	Valve seat width	IN/EX	0.90 – 1.10 (0.035 – 0.043)	1.5 (0.059)
Valve spring	Free length	IN/EX	32.50 (1.280)	31.85 (1.254)
Cylinder head warpage			–	0.10 (0.004)

CYLINDER/PISTON

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Cylinder		I.D.	50.005 – 50.015 (1.9687 – 1.9691)	50.100 (1.9724)
		Warpage	–	0.10 (0.004)
Piston, Piston pin		Piston O.D.	49.980 – 49.995 (1.9677 – 1.9683) at 7.8 mm (0.31 in) from bottom of skirt	49.900 (1.9646)
		Piston pin bore I.D.	12.002 – 12.008 (0.4725 – 0.4728)	12.02 (0.473)
		Piston pin O.D.	11.994 – 12.000 (0.4722 – 0.4724)	11.98 (0.472)
Piston rings	Piston ring end gap	Top	0.07 – 0.12 (0.003 – 0.005)	0.22 (0.009)
		Second	0.12 – 0.22 (0.005 – 0.009)	0.32 (0.013)
		Oil (side rail)	0.10 – 0.35 (0.004 – 0.014)	0.55 (0.022)
	Piston ring-to-ring groove clearance	Top	0.015 – 0.045 (0.0006 – 0.0018)	–
		Second	0.015 – 0.045 (0.0006 – 0.0018)	–
Connecting rod small end I.D.			12.010 – 12.028 (0.4728 – 0.4735)	12.038 (0.4739)

CLUTCH/GEARSHIFT LINKAGE

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Clutch lever freeplay			10 – 20 (0.4 – 0.8)	–
Clutch	Spring free length		27.4 (1.08)	26.4 (1.04)
	Disc thickness		2.5 – 2.7 (0.10 – 0.11)	2.3 (0.09)
	Plate warpage		–	0.3 (0.012)
Clutch outer I.D.			23.000 – 23.021 (0.9055 – 0.9063)	–
Clutch outer guide		I.D.	16.991 – 17.009 (0.6689 – 0.6696)	–
		O.D.	22.959 – 22.980 (0.9039 – 0.9047)	–
Mainshaft O.D. at clutch outer guide			16.966 – 16.984 (0.6680 – 0.6687)	–

ALTERNATOR/STARTER CLUTCH

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Starter driven gear boss	I.D.	26.987 – 27.003 (1.0625 – 1.0631)	–
	O.D.	45.660 – 45.673 (1.7976 – 1.7981)	–

CRANKSHAFT/TRANSMISSION

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Connecting rod	Side clearance		0.10 – 0.35 (0.004 – 0.014)	0.45 (0.018)
	Radial clearance		0 – 0.008 (0 – 0.0003)	0.05 (0.002)
Crankshaft	Runout		–	→2-32
Shift fork, fork shaft	Fork I.D.		10.000 – 10.018 (0.3937 – 0.3944)	–
	Fork shaft O.D.		9.966 – 9.975 (0.3924 – 0.3927)	–
	Claw thickness		4.93 – 5.00 (0.194 – 0.197)	4.83 (0.190)
Transmission	Gear I.D.	M4, M5	20.000 – 20.021 (0.7874 – 0.7882)	–
		C1	18.000 – 18.018 (0.7087 – 0.7094)	–
		C2	20.020 – 20.041 (0.7882 – 0.7890)	–
		C3	23.020 – 23.041 (0.9063 – 0.9071)	–
	Gear bushing O.D.	M4, M5	19.959 – 19.980 (0.7858 – 0.7866)	–
		C1	17.966 – 17.984 (0.7073 – 0.7080)	–
		C2	19.979 – 20.000 (0.7866 – 0.7874)	–
		C3	22.979 – 23.000 (0.9047 – 0.9055)	–
	Gear bushing I.D.	M4	17.000 – 17.018 (0.6693 – 0.6700)	–
		C1	15.000 – 15.018 (0.5906 – 0.5913)	–
		C2	17.005 – 17.023 (0.6695 – 0.6702)	–
		C3	20.000 – 20.021 (0.7874 – 0.7882)	–
	Mainshaft O.D.	at M4 bushing	16.966 – 16.984 (0.6680 – 0.6687)	–
	Countershaft O.D.	at C1 bushing	14.966 – 14.984 (0.5892 – 0.5899)	–
		at C2 bushing	16.978 – 16.989 (0.6684 – 0.6689)	–
		at C3 bushing	19.978 – 19.989 (0.7865 – 0.7870)	–

FRAME & CHASSIS SPECIFICATIONS

FRONT WHEEL/SUSPENSION/STEERING

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Cold tire pressure	Driver only	200 kPa (2.00 kgf/cm^2, 29 psi)	–
	Driver and passenger	–	–
Axle runout		–	0.2 (0.01)
Wheel rim runout	Radial	–	2.0 (0.08)
	Axial	–	2.0 (0.08)
Fork	Recommended fork fluid	Fork Fluid (viscosity: 10W)	–
	Fluid level	95 (3.7)	–
	Fluid capacity	216.0 ± 1.5 cm^3 (7.31 ± 0.05 US oz, 7.60 ± 0.05 Imp oz)	–

REAR WHEEL/BRAKE/SUSPENSION

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Cold tire pressure	Driver only	200 kPa (2.00 kgf/cm^2, 29 psi)	–
	Driver and passenger	–	–
Axle runout		–	0.2 (0.01)
Wheel rim runout	Radial	–	2.0 (0.08)
	Axial	–	2.0 (0.08)
Drive chain	Size/link	DID420D2-98RB	–
	Slack	30 – 40 (1.2 – 1.6)	–

HYDRAULIC BRAKE

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Front	Specified brake fluid	DOT 3 or DOT 4	–
	Brake disc thickness	3.3 – 3.7 (0.13 – 0.15)	3.0 (0.12)
	Brake disc warpage	–	0.30 (0.012)
	Master cylinder I.D.	12.700 – 12.743 (0.5000 – 0.5017)	–
	Master piston O.D.	12.657 – 12.684 (0.4983 – 0.4994)	–
	Caliper cylinder I.D.	25.400 – 25.450 (1.0000 – 1.0020)	–
	Caliper piston O.D.	25.335 – 25.368 (0.9974 – 0.9987)	–
Rear	Specified brake fluid	DOT 3 or DOT 4	–
	Brake disc thickness	3.8 – 4.2 (0.15 – 0.17)	3.5 (0.14)
	Brake disc warpage	–	0.30 (0.012)
	Master cylinder I.D.	12.700 – 12.743 (0.5000 – 0.5017)	–
	Master piston O.D.	12.657 – 12.684 (0.4983 – 0.4994)	–
	Caliper cylinder I.D.	27.000 – 27.050 (1.0630 – 1.0650)	–
	Caliper piston O.D.	26.935 – 26.968 (1.0604 – 1.0617)	–

ELECTRICAL SYSTEM SPECIFICATIONS

PGM-FI SYSTEM

ITEM		SPECIFICATIONS
EOT sensor resistance (20°C/68°F)		2.4 – 2.8 kΩ
IAT sensor resistance (40°C/104°F)		1.0 – 1.3 kΩ
Fuel injector resistance (24°C/75°F)		11.4 – 12.6 Ω
Fast idle solenoid valve resistance (24°C/75°F)		24 – 27 Ω
EVAP purge control solenoid valve resistance (20°C/68°F)	AC, II AC type	30 – 34 Ω

IGNITION SYSTEM

ITEM	SPECIFICATIONS
Spark plug	CPR7EA – 9S (NGK)
Spark plug gap	0.80 – 0.90 mm (0.031 – 0.035 in)
Ignition coil peak voltage	100 V minimum
CKP sensor peak voltage	0.7 V minimum
Ignition timing ("F"mark)	5° BTDC at idle speed

ABS SYSTEM

ITEM	SPECIFICATIONS
Air gap (between the wheel sensor bracket of the fork and pulser ring)	0.54 – 1.04 mm (0.021 – 0.041 in)

BATTERY/CHARGING SYSTEM

ITEM			SPECIFICATIONS
Battery	Type		YTZ5S
	Capacity		12 V – 3.5 Ah (10HR)
	Current leakage		1.8 mA max.
	Voltage	Fully charged	12.8 V minimum
		Needs charging	Below 12.3 V
	Charging current	Normal	0.4 A/5 – 10 h
		Quick	3.0 A/0.5 h
Alternator	Capacity		0.15 kW/5,000 rpm
	Charging coil resistance (20°C/68°F)		0.2 – 1.0 Ω

LUBRICATION SYSTEM

ITEM	Q'TY	DIA	TRQ	REMARKS
Engine oil drain bolt	1	12	24 (2.4, 18)	
Oil pump cover bolt	1	5	5.2 (0.5, 3.8)	

CYLINDER HEAD

ITEM	Q'TY	DIA	TRQ	REMARKS
Timing hole cap	1	14	6.0 (0.6, 4.4)	
Crankshaft hole cap	1	30	8.0 (0.8, 5.9)	
Tappet adjusting screw lock nut	2	5	9.0 (0.9, 6.6)	Apply engine oil.
Cam chain tensioner socket bolt	1	6	10 (1.0, 7)	
Cam sprocket bolt	1	8	27 (2.8, 20)	Apply engine oil.
Cylinder head cap nut	4	7	18 (1.8, 13)	Apply engine oil.
Rocker arm shaft bolt	2	5	5.0 (0.5, 3.7)	Apply engine oil.
Camshaft stopper washer-bolt	1	6	10 (1.0, 7)	
Cam chain tensioner cap bolt	1	14	14 (1.4, 10)	

CYLINDER/PISTON

ITEM	Q'TY	DIA	TRQ	REMARKS
Cam chain guide roller pin bolt	1	8	10 (1.0, 7)	
Cylinder stud bolt	4	7	7.5 (0.8, 5.5)	→2-23

CLUTCH/GEARSHIFT LINKAGE

ITEM	Q'TY	DIA	TRQ	REMARKS
Right crankcase cover protector socket bolt	3	6	7.0 (0.7, 5.2)	
Clutch center lock nut	1	14	64 (6.5, 47)	Apply engine oil.
Primary drive gear lock nut	1	14	64 (6.5, 47)	Apply engine oil.
Clutch lifter plate bolt	3	6	12 (1.2, 9)	
Gearshift cam plate socket bolt	1	6	10 (1.0, 7)	Apply locking agent. (Coating width: 6.5 ± 1 mm from tip (Exclude end for 2 ± 1 mm))
Shift drum stopper arm bolt	1	6	12 (1.2, 9)	Apply locking agent. (Coating width: 6.5 ± 1 mm from tip (Exclude end for 2 ± 1 mm))

ALTERNATOR/STARTER CLUTCH

ITEM	Q'TY	DIA	TRQ	REMARKS
Flywheel nut	1	12	64 (6.5, 47)	Apply engine oil.
Starter clutch mounting torx bolt	6	6	16 (1.6, 12)	Apply locking agent. (Coating width: 6.5 ± 1 mm from tip (Exclude end for 2 ± 1 mm))

CRANKCASE/CRANKSHAFT

ITEM	Q'TY	DIA	TRQ	REMARKS
Piston jet socket bolt	1	6	10 (1.0, 7)	Apply locking agent. (Coating width: 6.5 ± 1 mm from tip (Exclude end for 2 ± 1 mm))

ENGINE UNIT

ITEM	Q'TY	DIA	TRQ	REMARKS
Engine hanger nut	3	10	54 (5.5, 40)	
Drive sprocket fixing plate bolt	2	6	12 (1.2, 9)	

LIGHTS/METERS/SWITCHES

ITEM			SPECIFICATIONS
Bulbs	Headlight		LED
	Meter light		LED
	Brake/tail light		LED
	Turn signal light	Front	12V - 21W x 2
		Rear	12V - 21W x 2
	License light		LED
	Turn signal indicator		LED
	High beam indicator		LED
	Neutral indicator		LED
	MIL		LED
	ABS indicator		LED
Fuse	Main fuse		15 A
	Sub fuse		10 A x 3
	ABS main fuse		15 A
	ABS sub fuse		10 A
Fuel level sensor resistance		Full	7 – 11 Ω
		Empty	384 – 396 Ω

TORQUE VALUE

- Each fastener should be tightened to the standard torque value except the fasteners specified torque value.
- Q'TY: Quantity, DIA: Thread diameter (mm), TRQ: Tightening torque [N·m (kgf·m, lbf·ft)]

STANDARD TIGHTENING TORQUE

FASTENER TYPE	TRQ	FASTENER TYPE	TRQ
5 mm hex bolt and nut	5.2 (0.5, 3.8)	5 mm screw	4.2 (0.4, 3.1)
6 mm hex bolt and nut	10 (1.0, 7)	6 mm screw	9.0 (0.9, 6.6)
8 mm hex bolt and nut	21.5 (2.2, 16)	6 mm flange bolt	12 (1.2, 9)
10 mm hex bolt and nut	34 (3.5, 25)	8 mm flange bolt and nut	26.5 (2.7, 20)
12 mm hex bolt and nut	54 (5.5, 40)	10 mm flange bolt and nut	39 (4.0, 29)

FUEL TANK

ITEM	Q'TY	DIA	TRQ	REMARKS
Fuel filler cap socket bolt	3	4	1.8 (0.2, 1.3)	

FUEL PUMP UNIT

ITEM	Q'TY	DIA	TRQ	REMARKS
Fuel pump set plate nut	4	6	12 (1.2, 9)	→2-6
Fuel pump bracket set plate nut	2	6	12 (1.2, 9)	

AIR CLEANER

ITEM	Q'TY	DIA	TRQ	REMARKS
Air cleaner housing cover screw	8	5	1.1 (0.1, 0.8)	
Air cleaner element screw	1	5	1.1 (0.1, 0.8)	
Connecting hose band screw	1	4	1.5 (0.2, 1.1)	

THROTTLE BODY

ITEM	Q'TY	DIA	TRQ	REMARKS
Throttle cable nut (throttle body side)	2	6	4.5 (0.5, 3.3)	
Throttle cable bracket screw	1	5	3.4 (0.3, 2.5)	
Fast idle solenoid valve torx screw	2	5	3.4 (0.3, 2.5)	

BODY PANELS

ITEM	Q'TY	DIA	TRQ	REMARKS
Rear fender B mounting socket bolt	4	6	12 (1.2, 9)	
Seat bracket mounting nut	3	6	12 (1.2, 9)	Self-lock nut
Step holder mounting bolt	2	8	31 (3.2, 23)	
Rear side reflector nut	2	6	1.7 (0.2, 1.3)	Self-lock nut
Rear reflector mounting nut	1	5	1.7 (0.2, 1.3)	Self-lock nut

SIDESTAND

ITEM	Q'TY	DIA	TRQ	REMARKS
Sidestand pivot bolt	1	10	10 (1.0, 7)	
Sidestand pivot nut	1	10	30 (3.1, 22)	Self-lock nut

EXHAUST PIPE/MUFFLER

ITEM	Q'TY	DIA	TRQ	REMARKS
Exhaust pipe joint nut	2	8	27 (2.8, 20)	→3-14
Exhaust pipe mounting bolt	1	8	27 (2.8, 20)	
Muffler band bolt	1	8	20 (2.0, 15)	
Muffler mounting bolt	2	8	27 (2.8, 20)	
Exhaust pipe protector socket bolt	2	6	10 (1.0, 7)	
Muffler protector socket bolt	1	6	10 (1.0, 7)	
Exhaust pipe stud bolt	2	8	11 (1.1, 8)	→3-14
Muffler cap cover socket bolt	2	6	10 (1.0, 7)	

FRONT WHEEL

ITEM	Q'TY	DIA	TRQ	REMARKS
Front axle nut	1	12	59 (6.0, 44)	Self-lock nut
Front brake disc socket bolt	5	6	20 (2.0, 15)	Pre-coated bolt, replace with a new one.
Front wheel pulser ring torx bolt	3	5	7.0 (0.7, 5.2)	Pre-coated bolt, replace with a new one.
Front side reflector stay mounting bolt	4	6	12 (1.2, 9)	
Front side reflector nut	2	6	1.7 (0.2, 1.3)	Self-lock nut

FORK

ITEM	Q'TY	DIA	TRQ	REMARKS
Top bridge pinch socket bolt	2	8	27 (2.8, 20)	
Bottom bridge pinch socket bolt	4	8	27 (2.8, 20)	
Fork bolt	2	36	30 (3.1, 22)	
Fork rod lock nut	2	12	27.5 (2.8, 20)	

HANDLEBAR

ITEM	Q'TY	DIA	TRQ	REMARKS
Handlebar lower holder mounting nut	2	8	27 (2.8, 20)	Self-lock nut
Handlebar upper holder socket bolt	4	8	27 (2.8, 20)	
Left handlebar switch screw	2	5	2.5 (0.3, 1.8)	
Right handlebar switch screw	2	5	2.5 (0.3, 1.8)	

STEERING STEM

ITEM	Q'TY	DIA	TRQ	REMARKS
Steering stem adjusting nut	1	26	1.5 (0.2, 1.1)	→3-20
Steering stem nut	1	24	88 (9.0, 65)	

REAR WHEEL

ITEM	Q'TY	DIA	TRQ	REMARKS
Rear axle nut	1	12	59 (6.0, 44)	Self-lock nut
Rear brake disc socket bolt	4	8	42 (4.3, 31)	Pre-coated bolt, replace with a new one.
Driven sprocket nut	4	10	64 (6.5, 47)	Self-lock nut
Driven sprocket stud bolt	4	10	–	➔3-22

REAR SUSPENSION

ITEM	Q'TY	DIA	TRQ	REMARKS
Shock absorber upper mounting cap nut	2	10	29 (3.0, 21)	
Shock absorber lower mounting cap nut	2	10	29 (3.0, 21)	
Swingarm pivot nut	1	12	54 (5.5, 40)	Self-lock nut

FRONT BRAKE

ITEM	Q'TY	DIA	TRQ	REMARKS
Master cylinder reservoir cover screw	2	4	1.5 (0.2, 1.1)	
Brake caliper bleed valve	1	8	5.4 (0.6, 4.0)	
Brake hose oil bolt	2	10	34 (3.5, 25)	
Front master cylinder holder bolt	2	6	10 (1.0, 7)	
Brake lever pivot bolt	1	6	1.0 (0.1, 0.7)	
Brake lever pivot nut	1	6	5.9 (0.6, 4.4)	
Front brake light switch screw	1	4	1.2 (0.1, 0.9)	
Brake pad hanger pin	1	10	17 (1.7, 13)	
Brake caliper mounting bolt	2	8	30 (3.1, 22)	Pre-coated bolt, replace with a new one.
Brake caliper pin bolt	1	8	17 (1.7, 13)	

REAR BRAKE

ITEM	Q'TY	DIA	TRQ	REMARKS
Brake caliper bleed valve	1	8	5.4 (0.6, 4.0)	
Brake hose oil bolt	2	10	34 (3.5, 25)	
Master cylinder reservoir bolt	1	6	10 (1.0, 7)	
Master cylinder mounting bolt	2	6	12 (1.2, 9)	Pre-coated bolt, replace with a new one.
Master cylinder push rod lock nut	1	8	17 (1.7, 13)	
Master cylinder hose joint screw	1	4	1.5 (0.2, 1.1)	Apply locking agent.
Brake pad hanger pin	1	10	17 (1.7, 13)	

PGM-FI SYSTEM

ITEM	Q'TY	DIA	TRQ	REMARKS
IAT sensor screw	2	5	1.1 (0.1, 0.8)	
EOT sensor bolt	1	6	10 (1.0, 7)	
EOT sensor guard bolt	1	6	12 (1.2, 9)	
O_2 sensor	1	12	24.5 (2.5, 18)	
O_2 sensor guard bolt	1	6	12 (1.2, 9)	
Bank angle sensor bolt	2	6	10 (1.0, 7)	

IGNITION SYSTEM

ITEM	Q'TY	DIA	TRQ	REMARKS
Spark plug	1	10	16 (1.6, 12)	

ELECTRICAL STARTER

ITEM	Q'TY	DIA	TRQ	REMARKS
Starter motor terminal screw-washer	1	4	2.0 (0.2, 1.5)	

ABS

ITEM	Q'TY	DIA	TRQ	REMARKS
Front wheel speed sensor mounting bolt	1	6	10 (1.0, 7)	Pre-coated bolt, replace with a new one.
Brake pipe joint nut	2	10	14 (1.4, 10)	
IMU mounting bolt	2	6	7.0 (0.7, 5.2)	

LIGHTING SYSTEM

ITEM	Q'TY	DIA	TRQ	REMARKS
Tail light unit mounting screw	2	6	10 (1.0, 7)	
Tail light stay mounting nut	3	6	12 (1.2, 9)	
License light unit mounting screw	2	4	0.9 (0.1, 0.7)	
Headlight stay mounting bolt	4	6	12 (1.2, 9)	
Headlight aim adjusting bolt	1	4	2.0 (0.2, 1.5)	

COMBINATION METER

ITEM	Q'TY	DIA	TRQ	REMARKS
Combination Meter mounting screw	2	5	1.0 (0.1, 0.7)	
VS sensor mounting bolt	1	6	12 (1.2, 9)	

ELECTRICAL COMPONENT

ITEM	Q'TY	DIA	TRQ	REMARKS
Ignition switch mounting bolt	2	8	27 (2.8, 20)	One-way bolt, replace with a new one.
Sidestand switch mounting bolt	1	6	10 (1.0, 7)	Pre-coated bolt, replace with a new one.

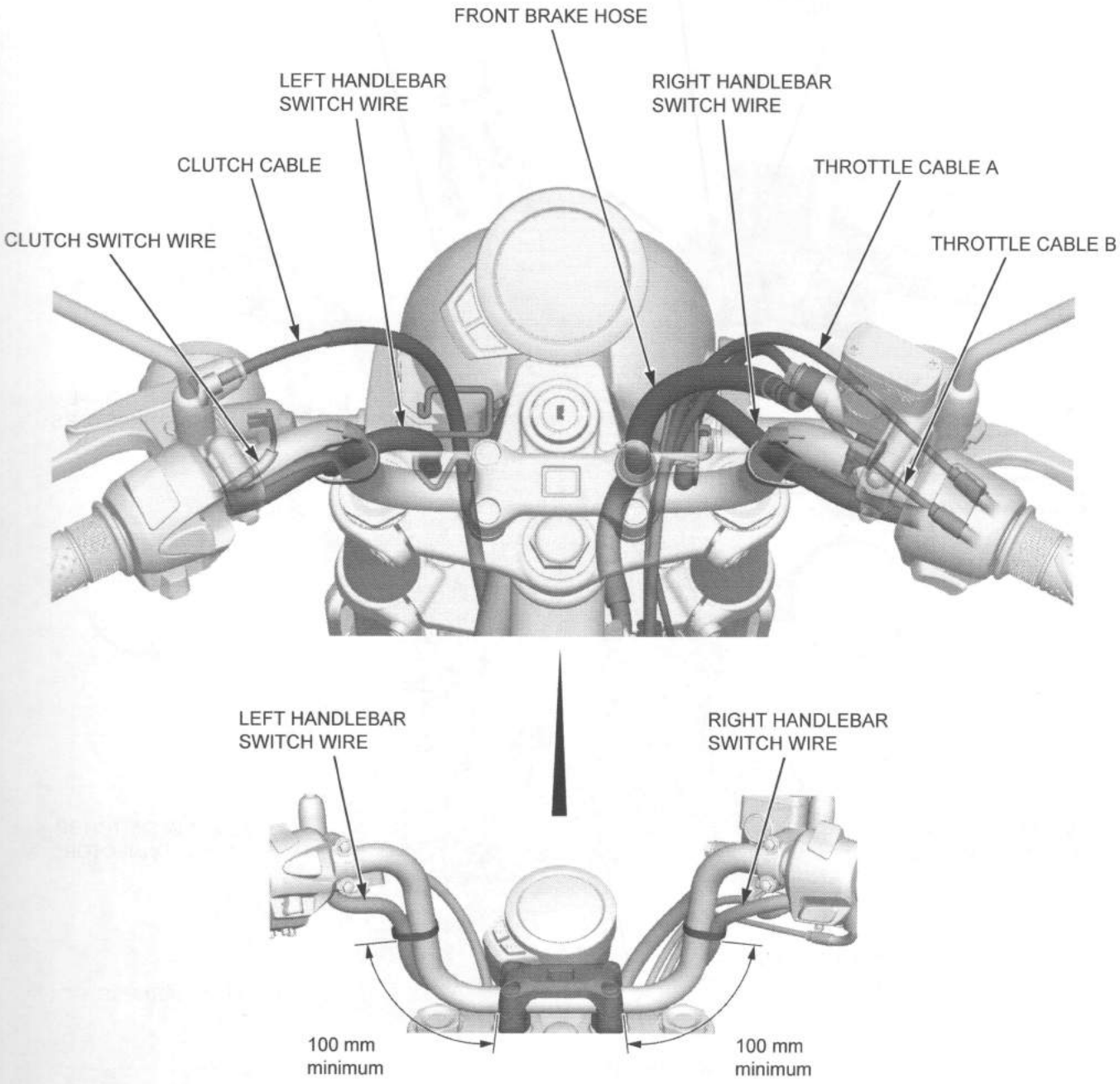
OTHERS

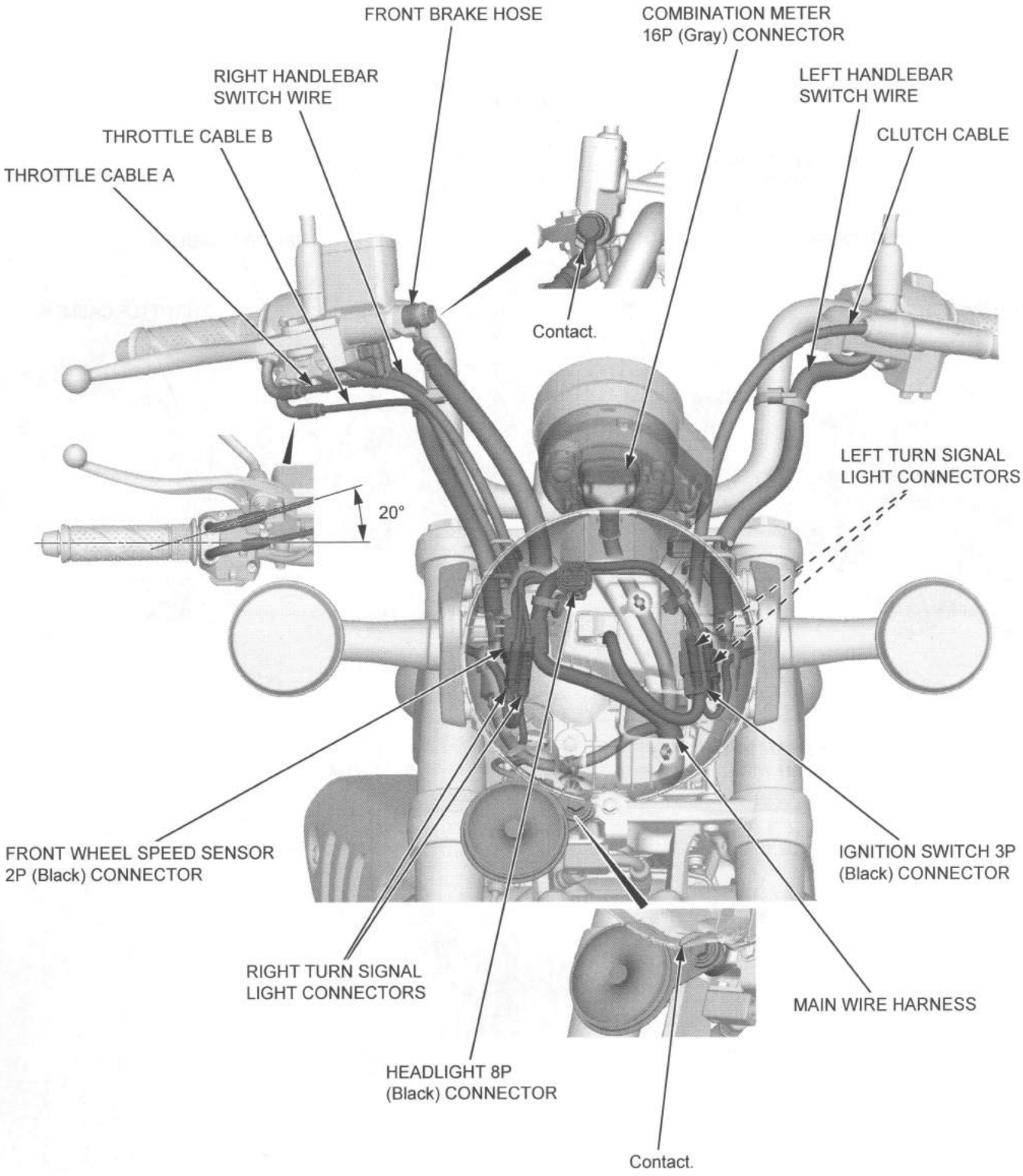
ITEM	Q'TY	DIA	TRQ	REMARKS
Left crankcase rear cover set plate bolt	3	6	12 (1.2, 9)	Apply locking agent.
Gearshift spindle return spring pin	1	8	30 (3.1, 22)	
Main step rubber bolt	2	6	5.1 (0.5, 3.8)	
Main step bank sensor nut	2	8	12 (1.2, 9)	
Throttle cable A lock nut (Throttle grip side)	1	10	3.0 (0.3, 2.2)	
Throttle cable B lock nut (Throttle grip side)	1	12	3.0 (0.3, 2.2)	
Clutch lever pivot bolt	1	6	1.0 (0.1, 0.7)	
Clutch lever pivot nut	1	6	5.9 (0.6, 4.4)	

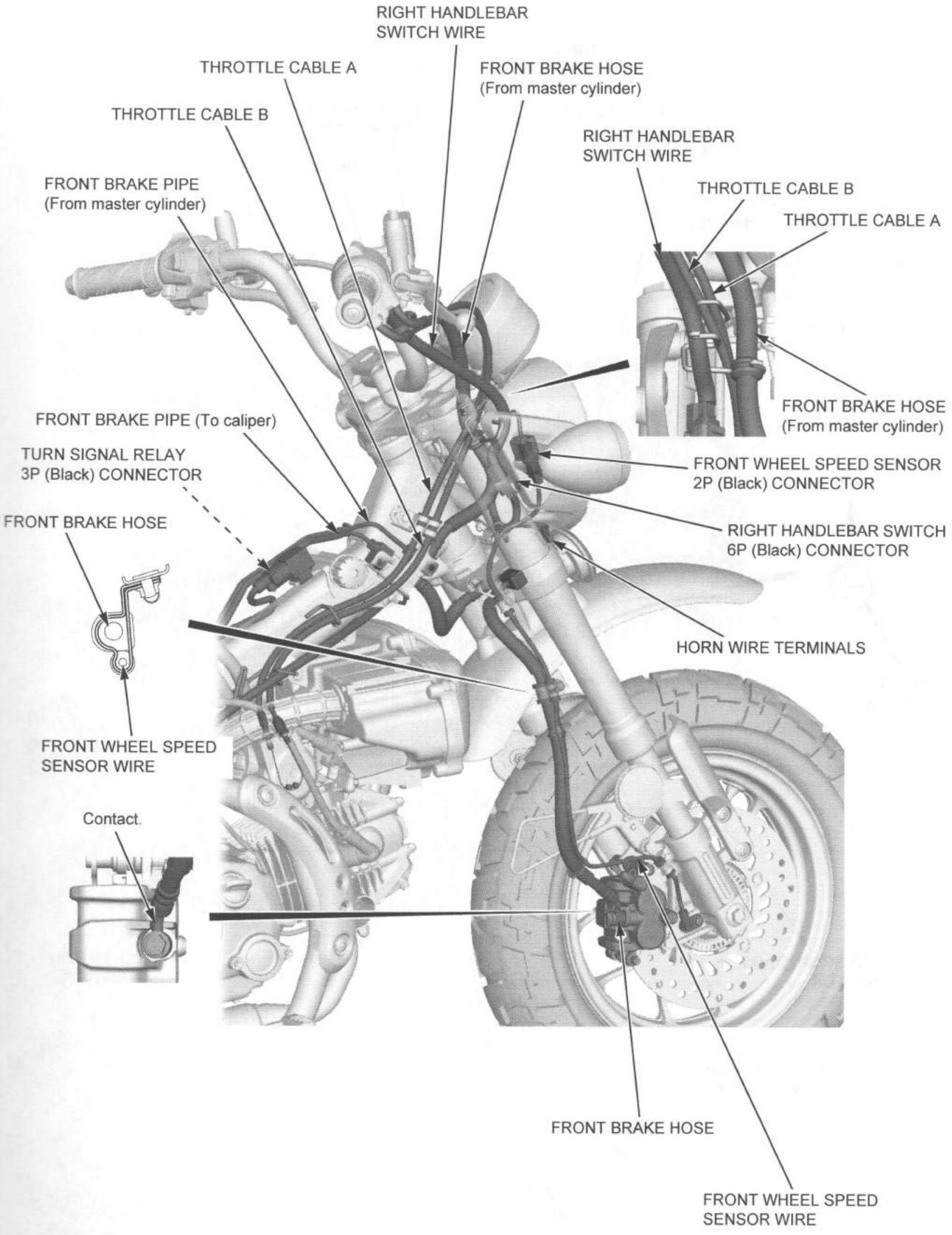
SPECIAL TOOL LIST

TITLE	TOOL No.	TOOL NAME
Fuel & Engine	07406-0040004 or 07406-004000C (U.S.A. only) or 07406-004000B (U.S.A. only)	Fuel pressure gauge
	070MJ-K260100 or 07AMJ-HW3A100 + 07AAJ-S6MA200 + 07AMJ-K26A100 (U.S.A. only)	Fuel pressure gauge attachment set
	070MF-KVS0300	Fuel pump case remover
	070MZ-0010300 or 070MZ-001A300 (U.S.A. only)	SCS short connector
	07708-0030100 or equivalent commercially available in U.S.A.	Lock nut wrench, 8 x 9
	07708-0030400 or 07908-KE90200 (U.S.A. only)	Valve adjusting wrench
	07725-0030000 or equivalent commercially available in U.S.A.	Universal holder
	07757-0010000	Valve spring compressor
	07959-KM30101	Valve spring compressor attachment
	07HMH-ML00101 or 07HMH-ML0010B (U.S.A. only)	Valve guide reamer, 4.5 mm
	07HMD-ML00101	Valve guide driver, 4.3 mm
	07743-0020000 or 07942-6570100 (U.S.A. only)	Valve guide adjusting driver
	07724-0010200 or 07724-001A200 (U.S.A. only)	Gear holder 1.5 mm
	07725-0040001 or equivalent commercially available in U.S.A.	Flywheel holder
	07KMC-HE00100	Flywheel puller, 30 mm
	07631-0010000 or equivalent commercially available in U.S.A.	Universal bearing puller
	07LMF-KAB0110 or 07965-GM00100 (U.S.A. only)	Assembly collar
	07WMF-KBP0100 or 07931-ME4010B + 07931-HB3020A (U.S.A. only)	Assembly shaft
Frame & Chassis	07746-0050300 or equivalent commercially available in U.S.A.	Remover head, 12 mm
	07746-0050100 or equivalent commercially available in U.S.A.	Bearing remover shaft
	07749-0010000	Driver
	07746-0010200	Attachment, 37 x 40 mm
	07746-0040200	Pilot, 12 mm
	070MD-K200100 or 070MD-K20A100 (U.S.A. only)	Oil seal driver, 31mm
	07916-3710101	Steering stem socket
	07747-0010300 or 07947-1180001 (U.S.A. only)	Fork seal driver attachment
	07WMF-GCM0100 or 07VMF-KZ30200 (U.S.A. only)	Shaft installer
	07WMF-GCM0200 or 07WMF-GCMA200 (U.S.A. only)	Head Base
	07WMF-GCM0300 or 07WMF-GCMA300 (U.S.A. only)	Base
	07WMF-GCM0400 or 07WMF-GCMA400 (U.S.A. only)	Driver Attachment 48.5 mm
	07WMF-GCM0600 or 07WMF-GCMA600 (U.S.A. only)	Remover 35 mm
	07746-0040400 or 07YMC-GCS0100 (U.S.A.)	Pilot, 17 mm
	07914-SA50001	Snap ring pliers
Electrical system	07HGJ-0020100 (Not available in U.S.A.) with commercially available digital multimeter (Impedance 10 MΩ/DCV min)	Peak voltage adaptor

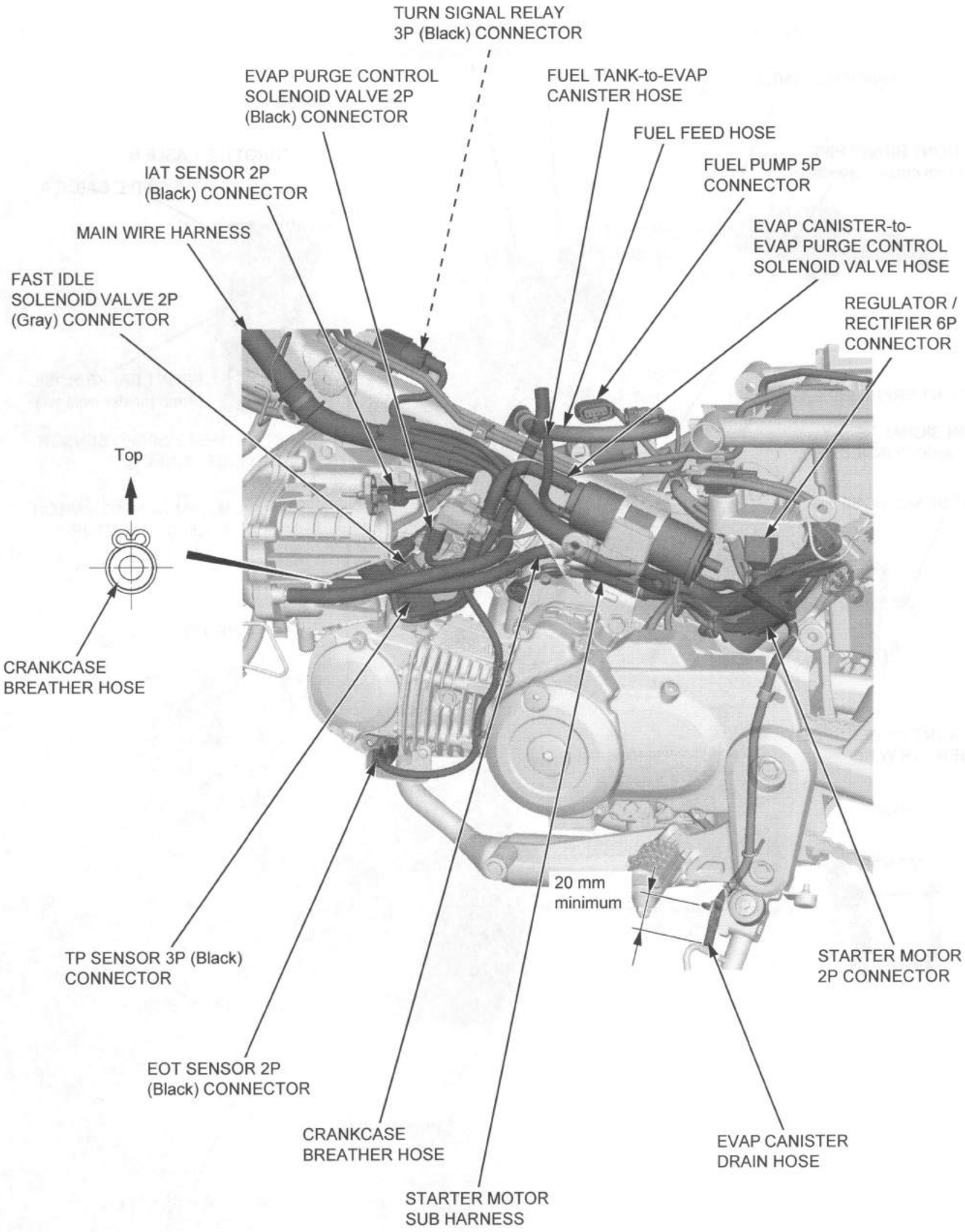
CABLE & HARNESS ROUTING



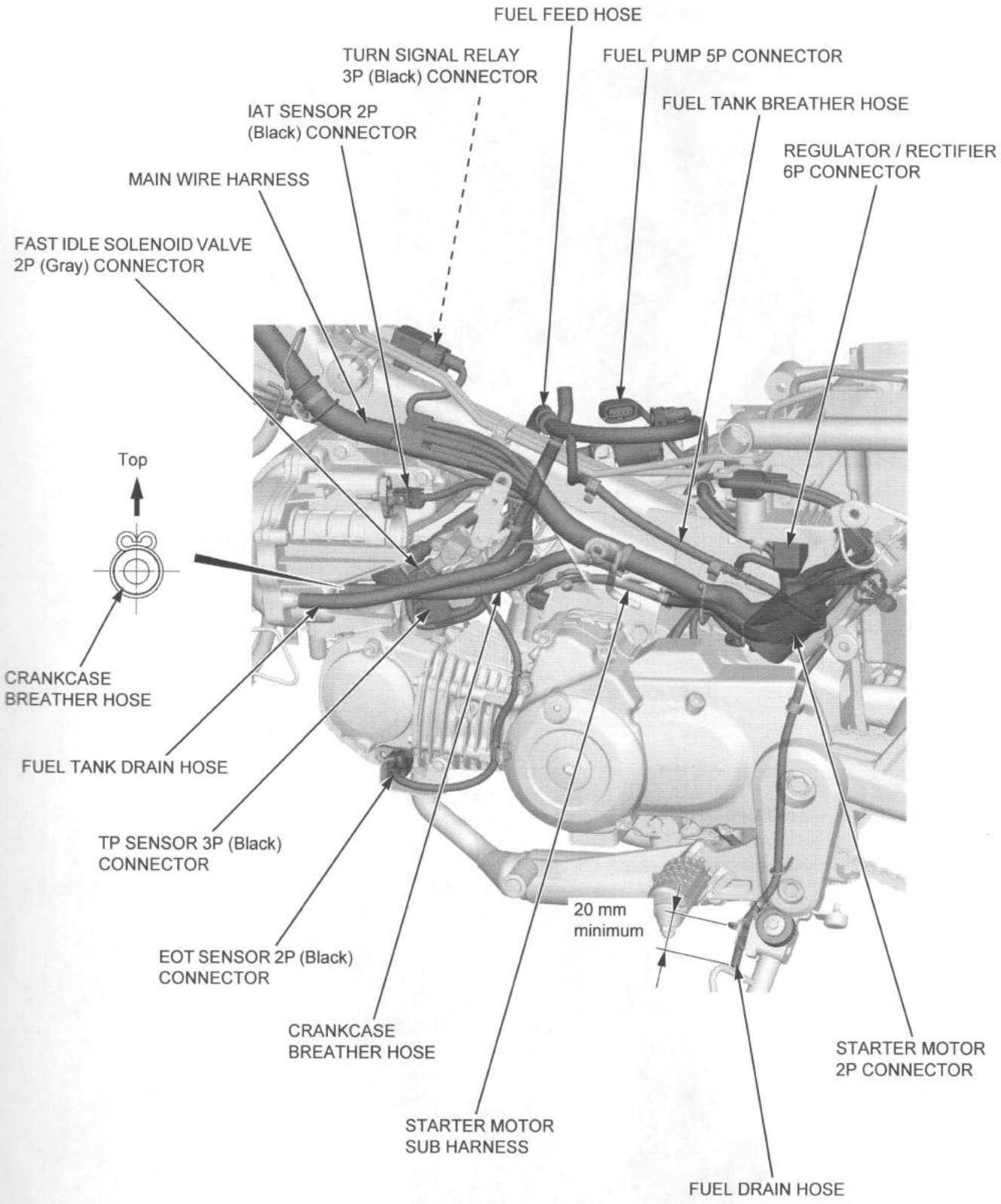

FRONT BRAKE HOSE
COMBINATION METER
16P (Gray) CONNECTOR
RIGHT HANDLEBAR
SWITCH WIRE
LEFT HANDLEBAR
SWITCH WIRE
THROTTLE CABLE B
CLUTCH CABLE
THROTTLE CABLE A
Contact.
LEFT TURN SIGNAL
LIGHT CONNECTORS
20°
FRONT WHEEL SPEED SENSOR
2P (Black) CONNECTOR
IGNITION SWITCH 3P
(Black) CONNECTOR
RIGHT TURN SIGNAL
LIGHT CONNECTORS
MAIN WIRE HARNESS
HEADLIGHT 8P
(Black) CONNECTOR
Contact.


RIGHT HANDLEBAR SWITCH WIRE
THROTTLE CABLE A
FRONT BRAKE HOSE (From master cylinder)
THROTTLE CABLE B
RIGHT HANDLEBAR SWITCH WIRE
FRONT BRAKE PIPE (From master cylinder)
THROTTLE CABLE B
THROTTLE CABLE A
FRONT BRAKE HOSE (From master cylinder)
FRONT BRAKE PIPE (To caliper)
TURN SIGNAL RELAY 3P (Black) CONNECTOR
FRONT WHEEL SPEED SENSOR 2P (Black) CONNECTOR
FRONT BRAKE HOSE
RIGHT HANDLEBAR SWITCH 6P (Black) CONNECTOR
HORN WIRE TERMINALS
FRONT WHEEL SPEED SENSOR WIRE
Contact
FRONT BRAKE HOSE
FRONT WHEEL SPEED SENSOR WIRE

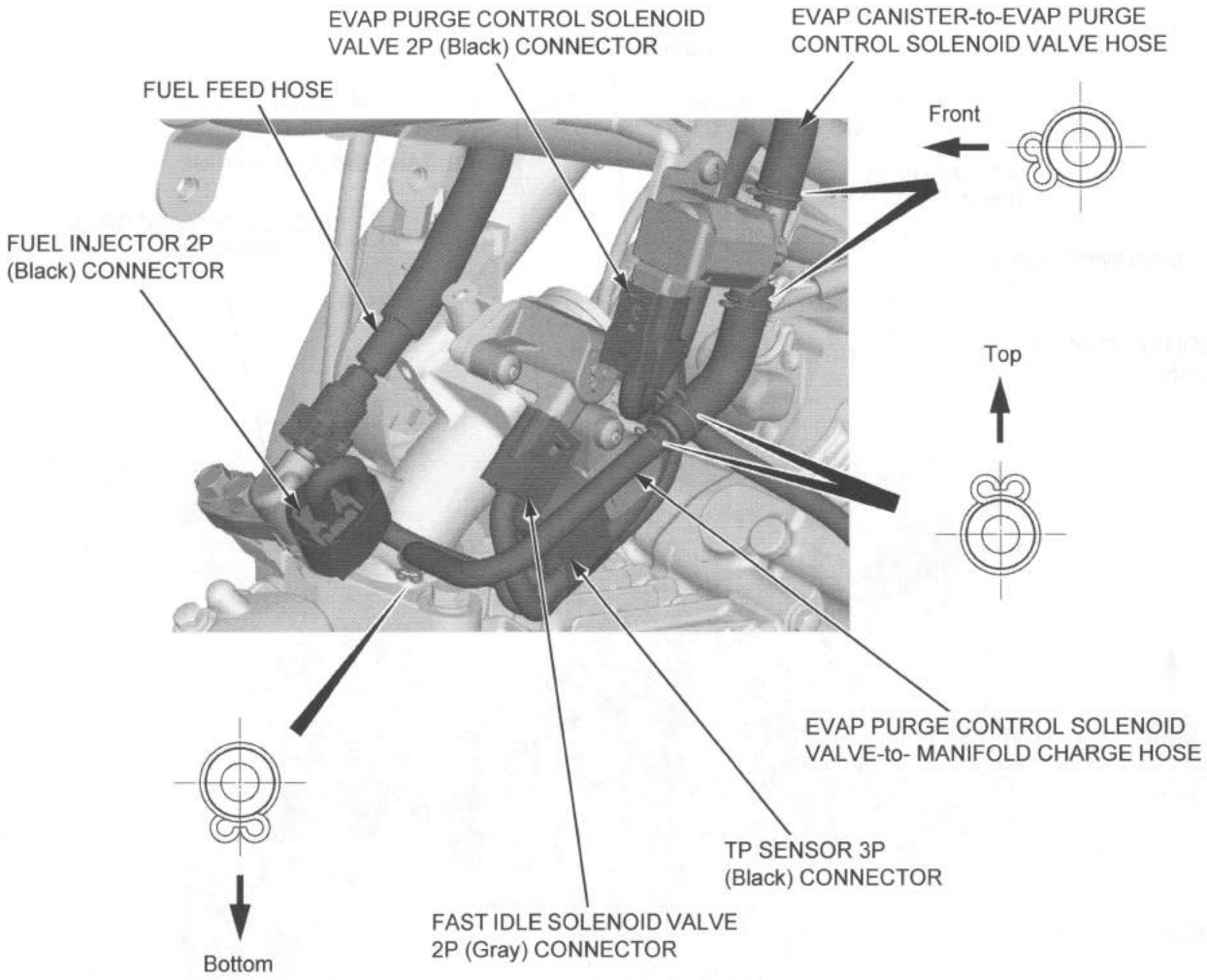
AC, II AC type:


TURN SIGNAL RELAY
3P (Black) CONNECTOR
EVAP PURGE CONTROL
SOLENOID VALVE 2P
(Black) CONNECTOR
FUEL TANK-to-EVAP
CANISTER HOSE
FUEL FEED HOSE
FUEL PUMP 5P
CONNECTOR
IAT SENSOR 2P
(Black) CONNECTOR
MAIN WIRE HARNESS
EVAP CANISTER-to-
EVAP PURGE CONTROL
SOLENOID VALVE HOSE
FAST IDLE
SOLENOID VALVE 2P
(Gray) CONNECTOR
REGULATOR /
RECTIFIER 6P
CONNECTOR
Top
CRANKCASE
BREATHER HOSE
20 mm
minimum
TP SENSOR 3P (Black)
CONNECTOR
STARTER MOTOR
2P CONNECTOR
EOT SENSOR 2P
(Black) CONNECTOR
CRANKCASE
BREATHER HOSE
EVAP CANISTER
DRAIN HOSE
STARTER MOTOR
SUB HARNESS

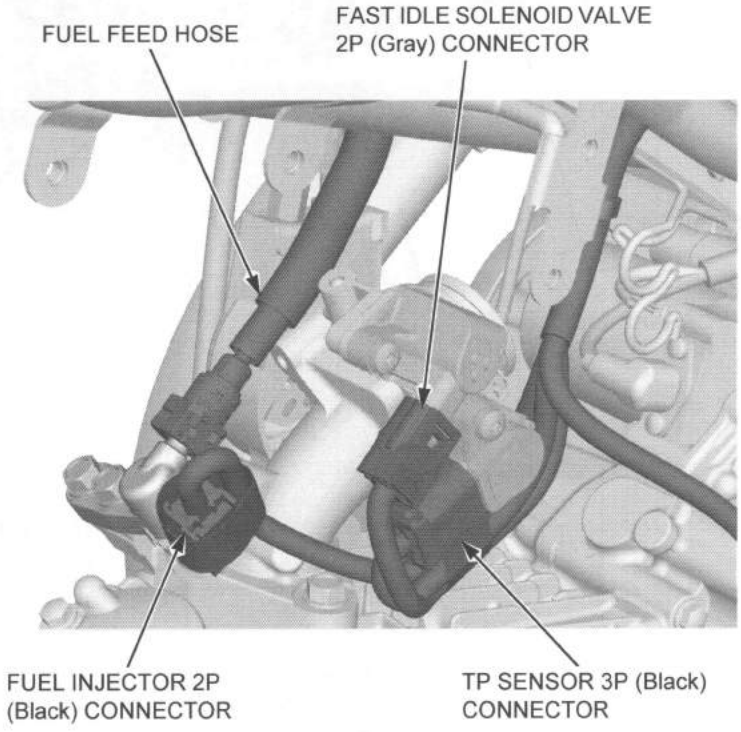
CM, II CM type:


FUEL FEED HOSE
TURN SIGNAL RELAY
3P (Black) CONNECTOR
FUEL PUMP 5P CONNECTOR
IAT SENSOR 2P
(Black) CONNECTOR
FUEL TANK BREATHER HOSE
REGULATOR / RECTIFIER
6P CONNECTOR
MAIN WIRE HARNESS
FAST IDLE SOLENOID VALVE
2P (Gray) CONNECTOR
Top
CRANKCASE
BREATHER HOSE
FUEL TANK DRAIN HOSE
TP SENSOR 3P (Black)
CONNECTOR
20 mm
minimum
EOT SENSOR 2P (Black)
CONNECTOR
CRANKCASE
BREATHER HOSE
STARTER MOTOR
2P CONNECTOR
STARTER MOTOR
SUB HARNESS
FUEL DRAIN HOSE

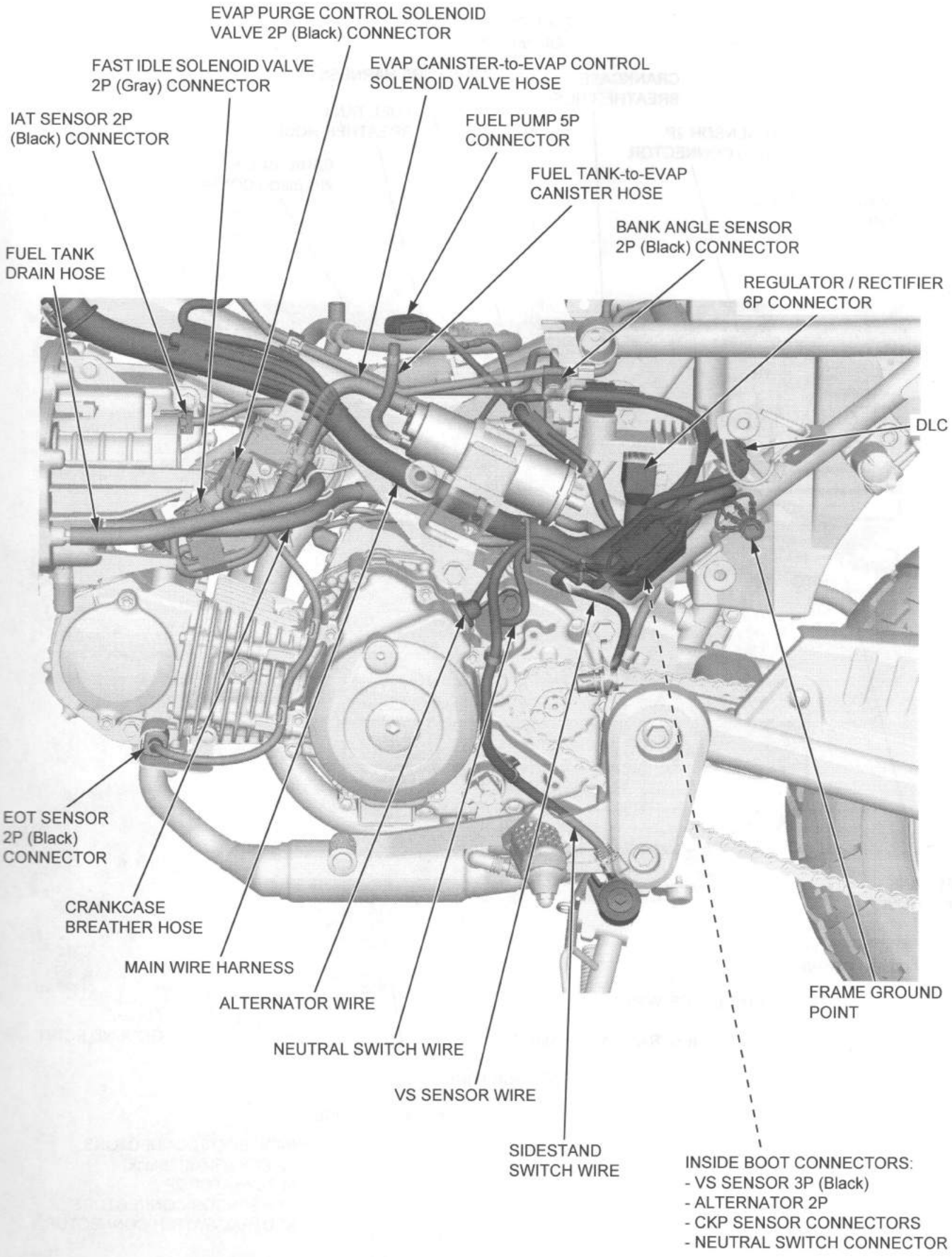
AC, II AC type:



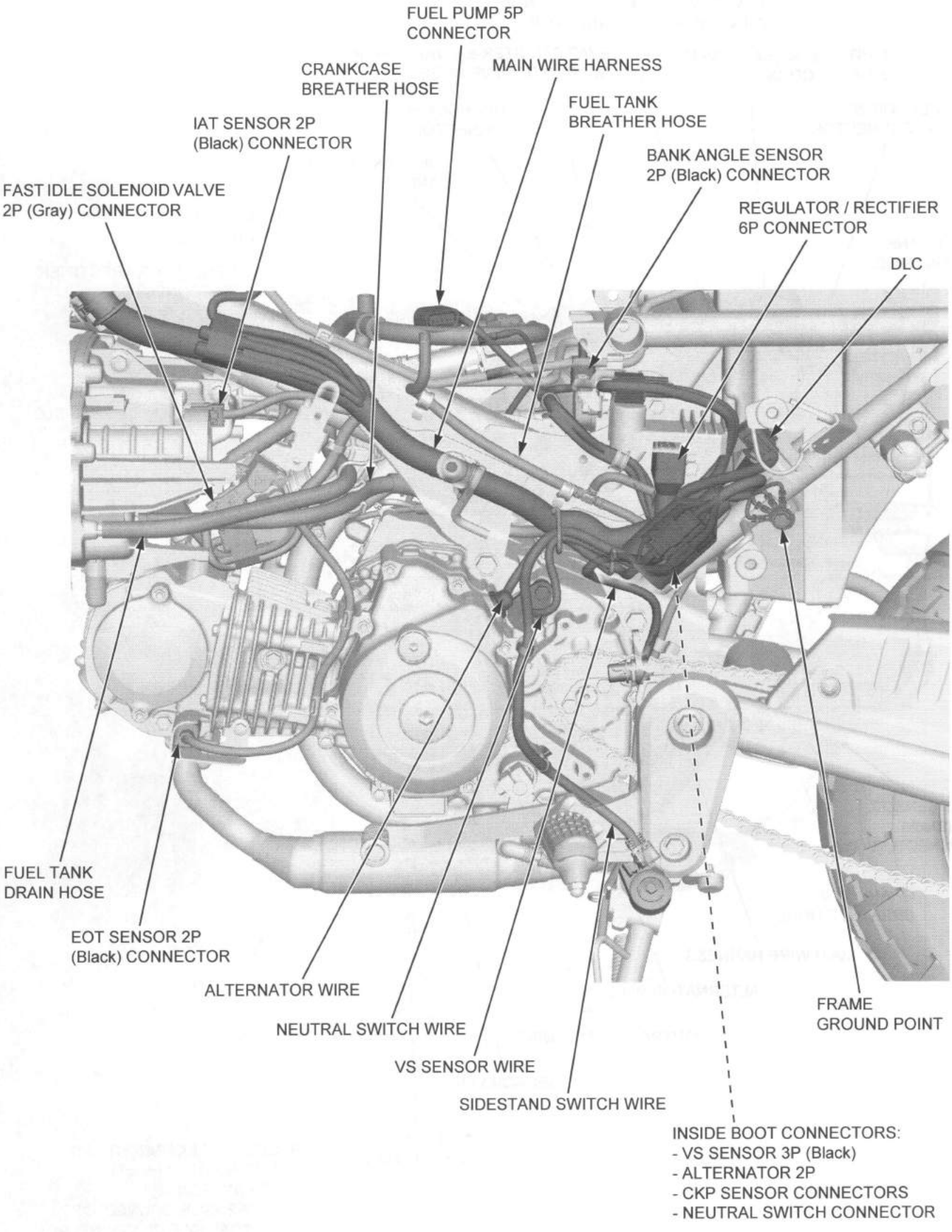
CM, IICM type:

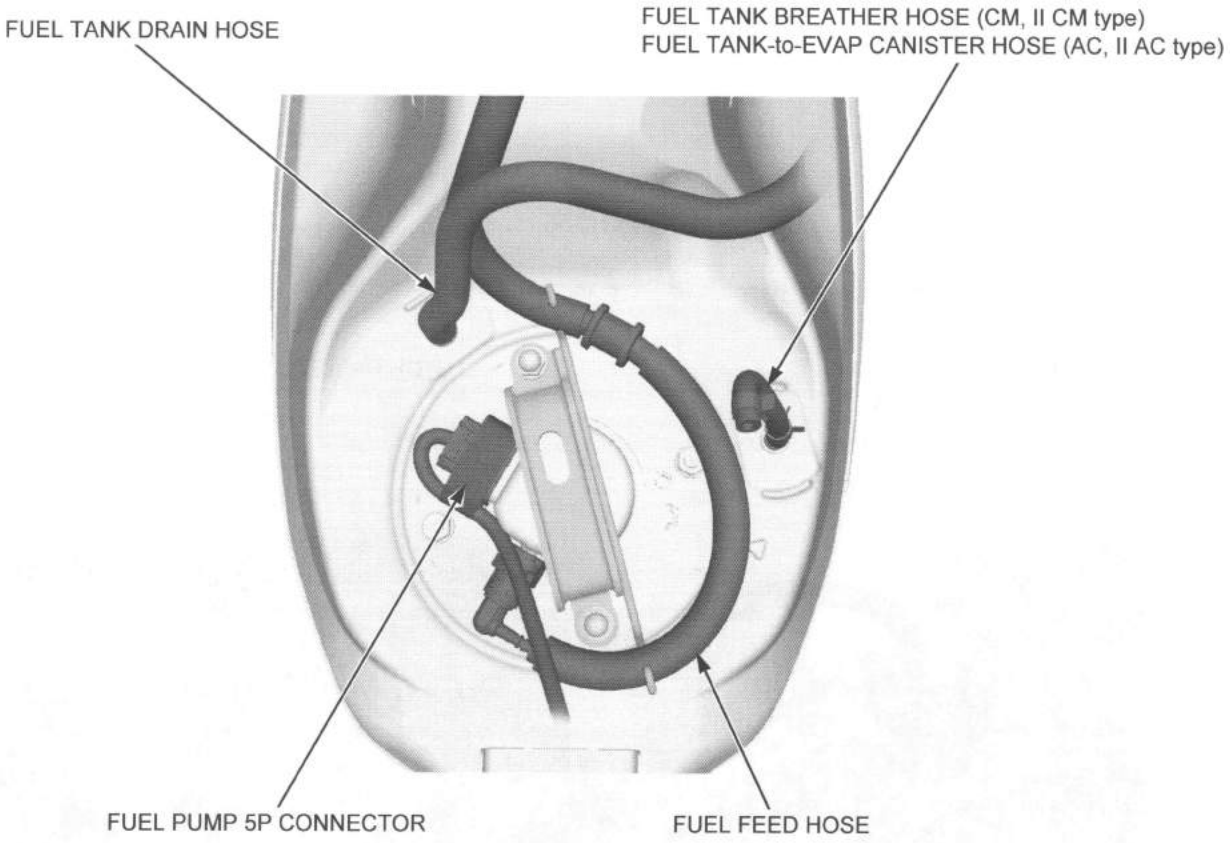


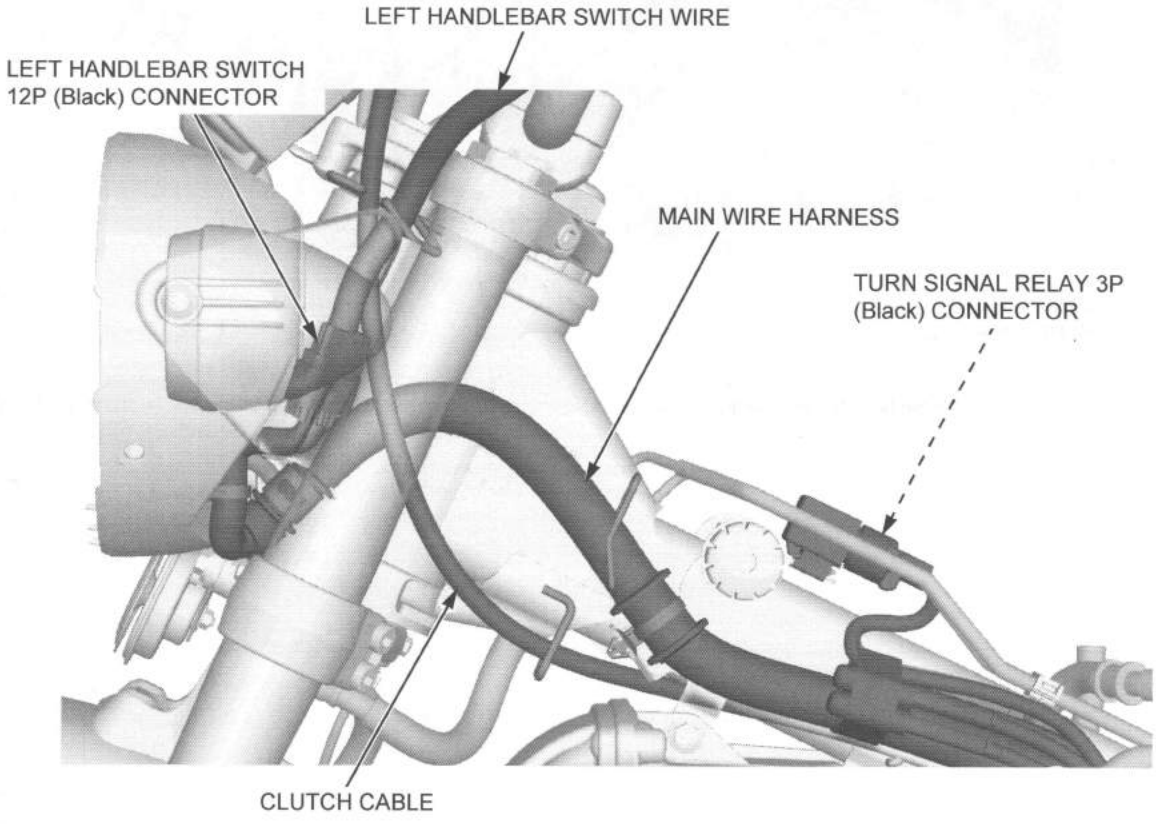
AC, II AC type:

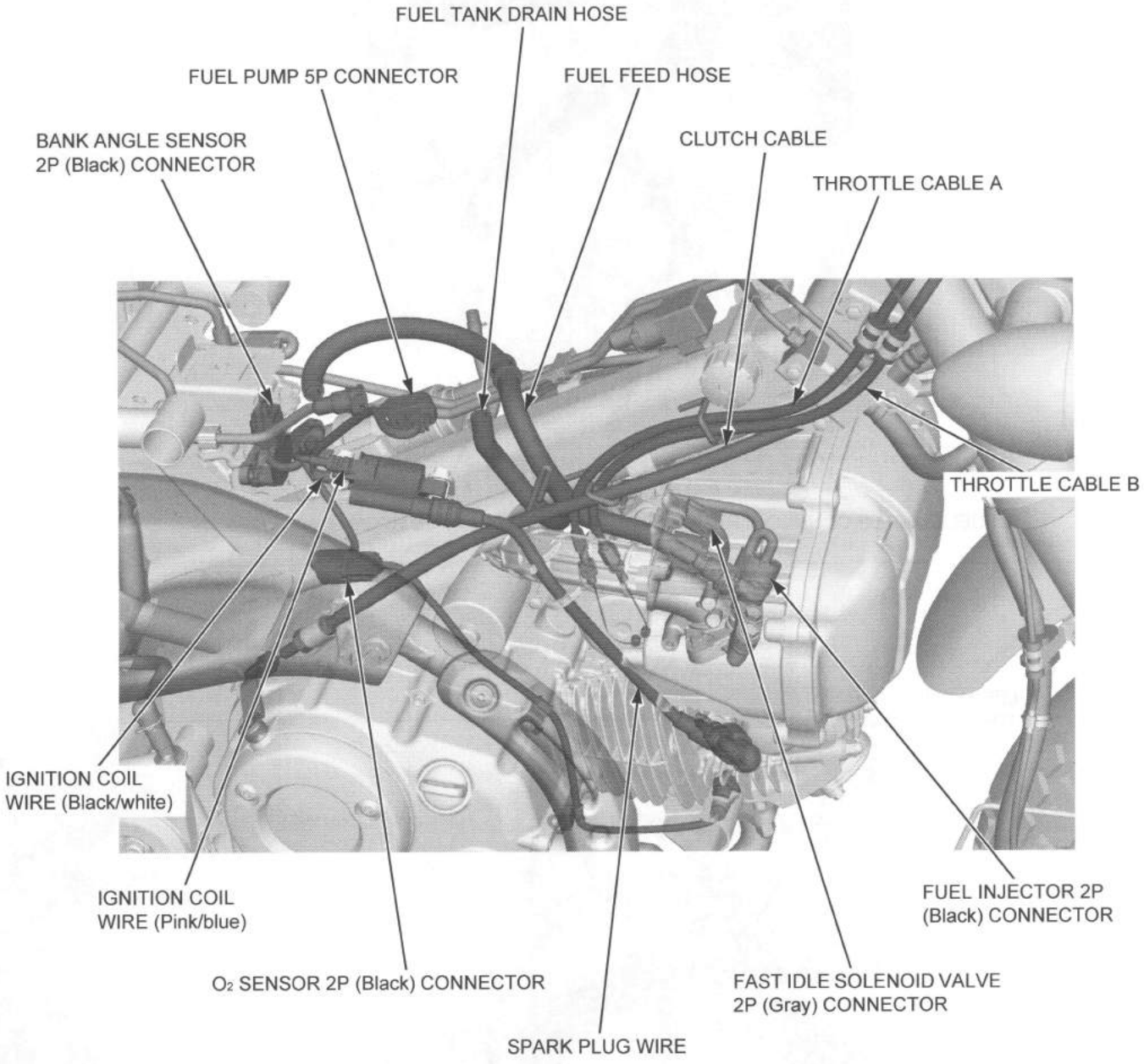

EVAP PURGE CONTROL SOLENOID VALVE 2P (Black) CONNECTOR
FAST IDLE SOLENOID VALVE 2P (Gray) CONNECTOR
EVAP CANISTER-to-EVAP CONTROL SOLENOID VALVE HOSE
IAT SENSOR 2P (Black) CONNECTOR
FUEL PUMP 5P CONNECTOR
FUEL TANK-to-EVAP CANISTER HOSE
BANK ANGLE SENSOR 2P (Black) CONNECTOR
FUEL TANK DRAIN HOSE
REGULATOR / RECTIFIER 6P CONNECTOR
DLC
EOT SENSOR 2P (Black) CONNECTOR
CRANKCASE BREATHER HOSE
MAIN WIRE HARNESS
ALTERNATOR WIRE
NEUTRAL SWITCH WIRE
VS SENSOR WIRE
SIDESTAND SWITCH WIRE
FRAME GROUND POINT
INSIDE BOOT CONNECTORS:
- VS SENSOR 3P (Black)
- ALTERNATOR 2P
- CKP SENSOR CONNECTORS
- NEUTRAL SWITCH CONNECTOR

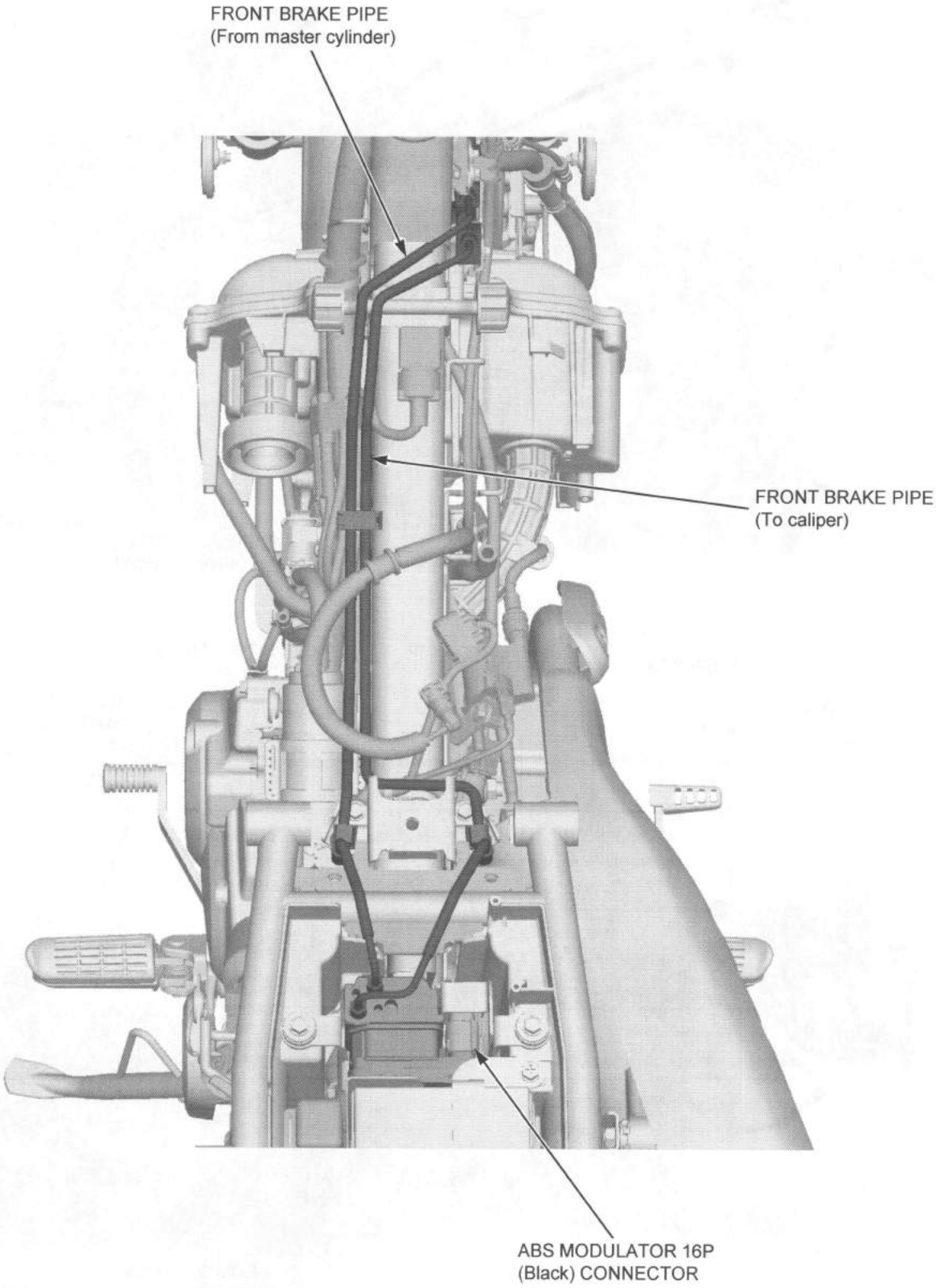
CM, II CM type:

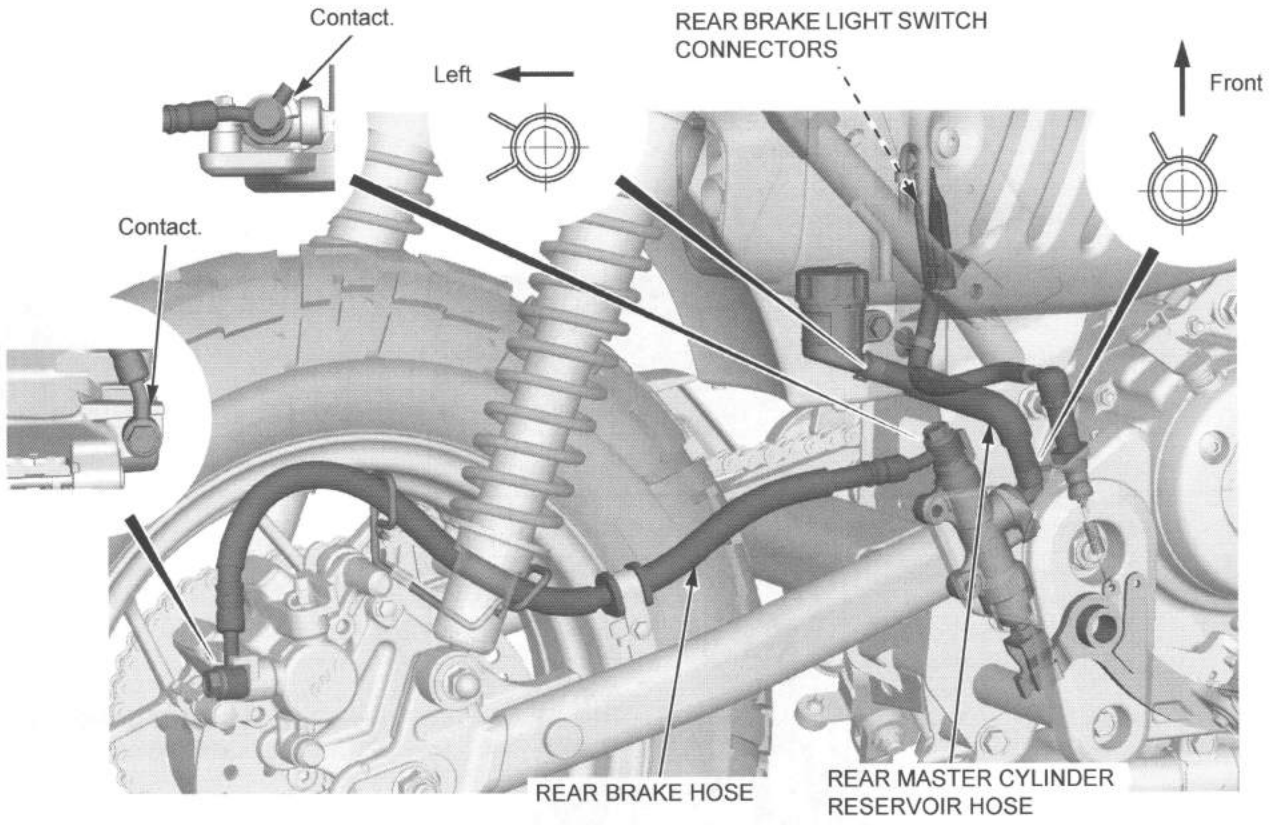

FUEL PUMP 5P CONNECTOR
CRANKCASE BREATHER HOSE
MAIN WIRE HARNESS
FUEL TANK BREATHER HOSE
IAT SENSOR 2P (Black) CONNECTOR
BANK ANGLE SENSOR 2P (Black) CONNECTOR
FAST IDLE SOLENOID VALVE 2P (Gray) CONNECTOR
REGULATOR / RECTIFIER 6P CONNECTOR
DLC
FUEL TANK DRAIN HOSE
EOT SENSOR 2P (Black) CONNECTOR
ALTERNATOR WIRE
NEUTRAL SWITCH WIRE
VS SENSOR WIRE
SIDESTAND SWITCH WIRE
FRAME GROUND POINT
INSIDE BOOT CONNECTORS:
- VS SENSOR 3P (Black)
- ALTERNATOR 2P
- CKP SENSOR CONNECTORS
- NEUTRAL SWITCH CONNECTOR

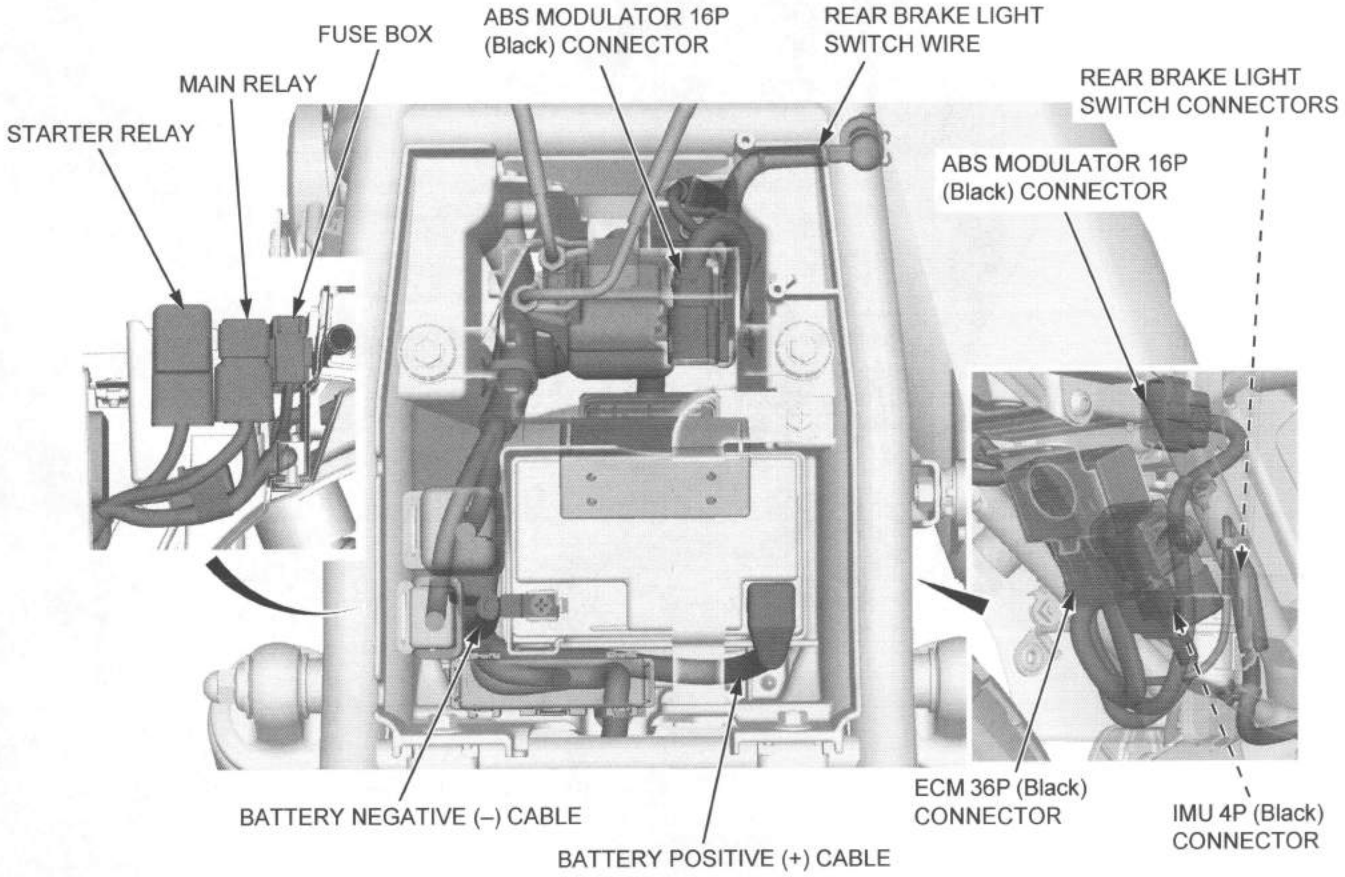

FUEL TANK DRAIN HOSE
FUEL TANK BREATHER HOSE (CM, II CM type)
FUEL TANK-to-EVAP CANISTER HOSE (AC, II AC type)
FUEL PUMP 5P CONNECTOR
FUEL FEED HOSE

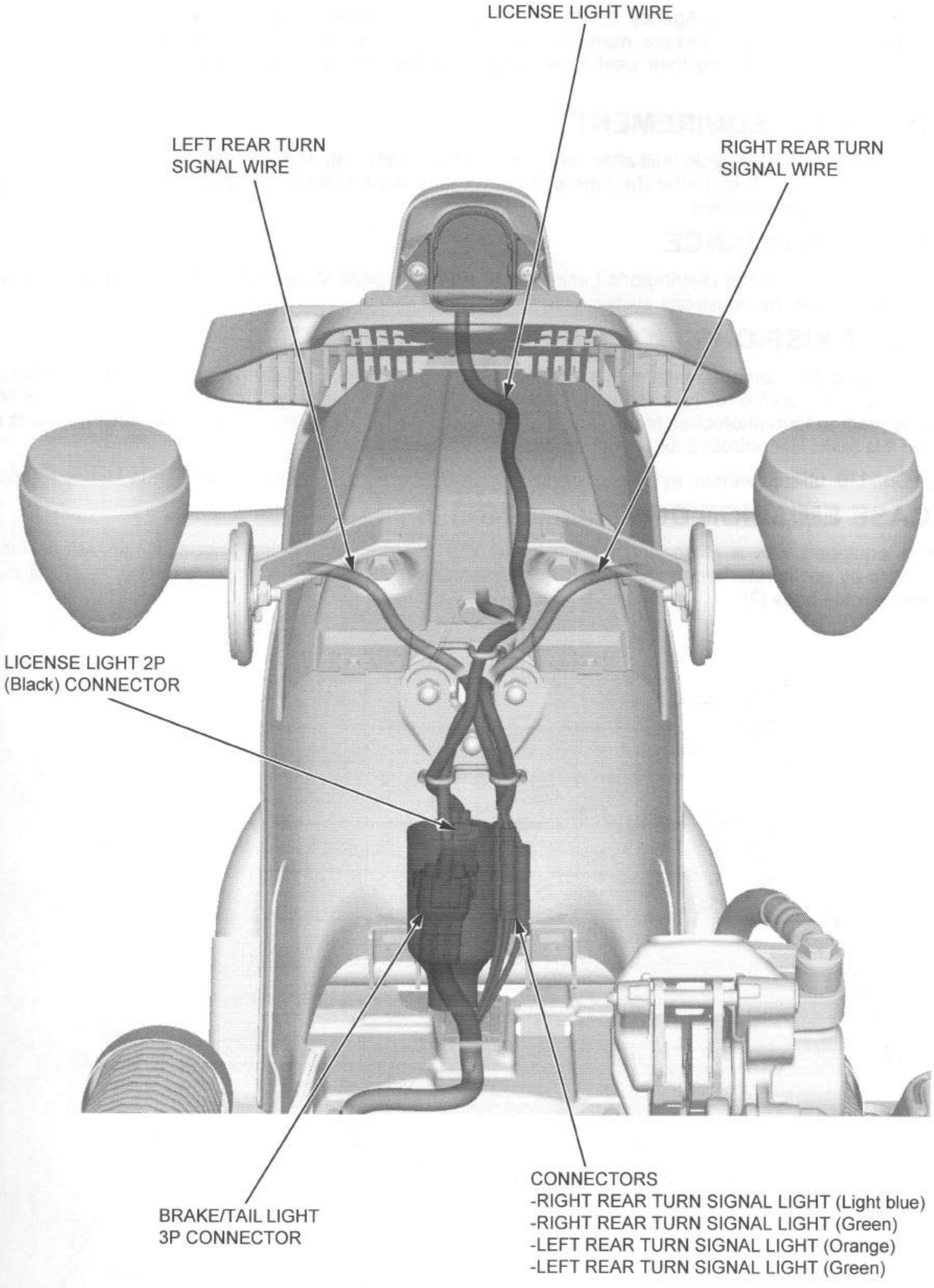

LEFT HANDLEBAR SWITCH WIRE
LEFT HANDLEBAR SWITCH
12P (Black) CONNECTOR
MAIN WIRE HARNESS
TURN SIGNAL RELAY 3P
(Black) CONNECTOR
CLUTCH CABLE


FUEL TANK DRAIN HOSE
FUEL PUMP 5P CONNECTOR
FUEL FEED HOSE
BANK ANGLE SENSOR
2P (Black) CONNECTOR
CLUTCH CABLE
THROTTLE CABLE A
THROTTLE CABLE B
IGNITION COIL
WIRE (Black/white)
IGNITION COIL
WIRE (Pink/blue)
FUEL INJECTOR 2P
(Black) CONNECTOR
O2 SENSOR 2P (Black) CONNECTOR
FAST IDLE SOLENOID VALVE
2P (Gray) CONNECTOR
SPARK PLUG WIRE


FRONT BRAKE PIPE
(From master cylinder)
FRONT BRAKE PIPE
(To caliper)
ABS MODULATOR 16P
(Black) CONNECTOR


Contact.
REAR BRAKE LIGHT SWITCH CONNECTORS
Left
Front
Contact.
REAR BRAKE HOSE
REAR MASTER CYLINDER RESERVOIR HOSE


FUSE BOX
ABS MODULATOR 16P (Black) CONNECTOR
REAR BRAKE LIGHT SWITCH WIRE
MAIN RELAY
REAR BRAKE LIGHT SWITCH CONNECTORS
STARTER RELAY
ABS MODULATOR 16P (Black) CONNECTOR
BATTERY NEGATIVE (–) CABLE
BATTERY POSITIVE (+) CABLE
ECM 36P (Black) CONNECTOR
IMU 4P (Black) CONNECTOR


LICENSE LIGHT WIRE
LEFT REAR TURN SIGNAL WIRE
RIGHT REAR TURN SIGNAL WIRE
LICENSE LIGHT 2P (Black) CONNECTOR
BRAKE/TAIL LIGHT 3P CONNECTOR
CONNECTORS
-RIGHT REAR TURN SIGNAL LIGHT (Light blue)
-RIGHT REAR TURN SIGNAL LIGHT (Green)
-LEFT REAR TURN SIGNAL LIGHT (Orange)
-LEFT REAR TURN SIGNAL LIGHT (Green)

EMISSION CONTROL SYSTEMS

SOURCE OF EMISSIONS

The U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB) and Environment and Climate Change Canada (ECCC) require manufacturers to certify that their motorcycles comply with applicable exhaust emissions standards during their useful life, when operated and maintained according to the instructions provided.

NOISE EMISSION REQUIREMENT

The EPA also requires that motorcycle built after January 1, 1983 comply with applicable noise emission standards for one year or 3,730 miles (6,000 km) after the time of sale to the ultimate purchaser, when operated and maintained according to the instructions provided.

WARRANTY COMPLIANCE

Compliance with the terms of the Distributor's Limited Warranty for Honda Motorcycle Emission Control Systems is necessary in order to keep the emissions system warranty in effect.

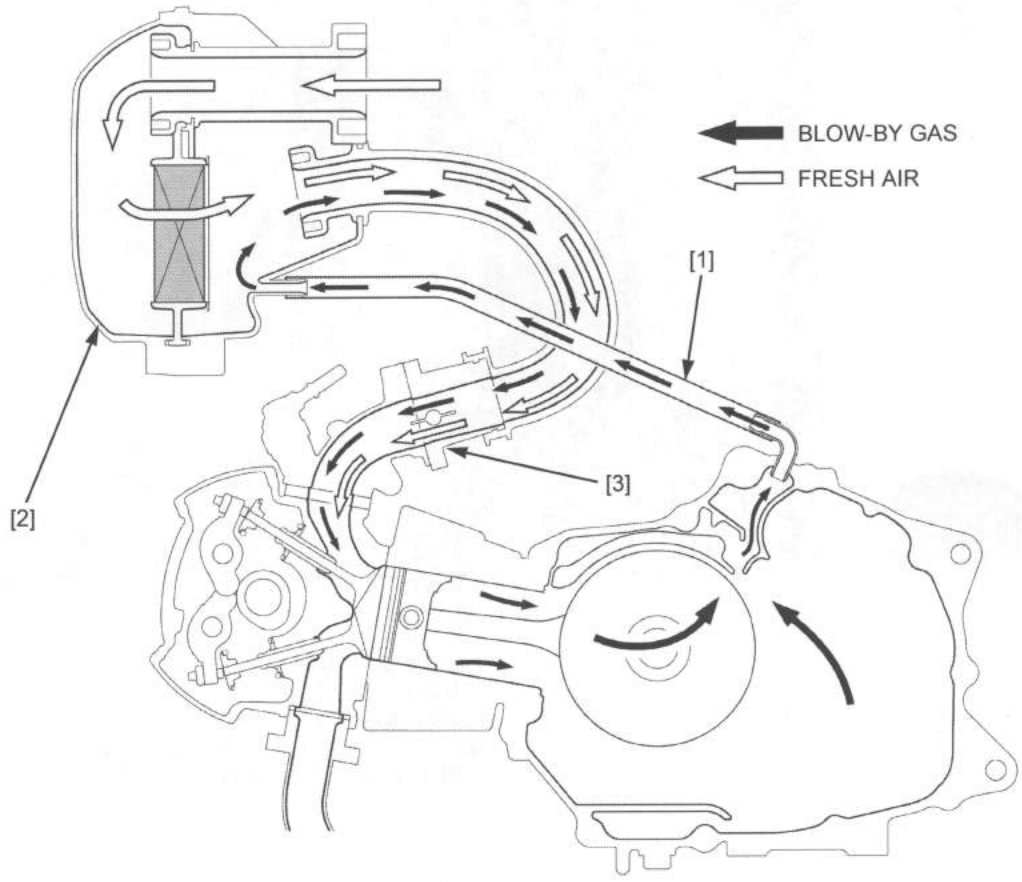
SOURCE OF EMISSIONS

Fuel evaporation and the combustion process produces carbon monoxide (CO), oxides of nitrogen (NOx), and hydrocarbons (HC). The control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic. Uncontrolled fuel evaporation also releases hydrocarbons to the atmosphere.

Honda Motor Co., Ltd. utilizes various systems to reduce carbon monoxide, oxides of nitrogen and hydrocarbons.

CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the combustion chamber through the crankcase breather hose [1] air cleaner housing [2] and throttle body [3].



EXHAUST EMISSION CONTROL SYSTEM

The exhaust emission control system is composed of a three-way catalytic converter and PGM-FI system.

The exhaust emission control system is separate from the crankcase emission control system.

3-WAY CATALYTIC CONVERTER

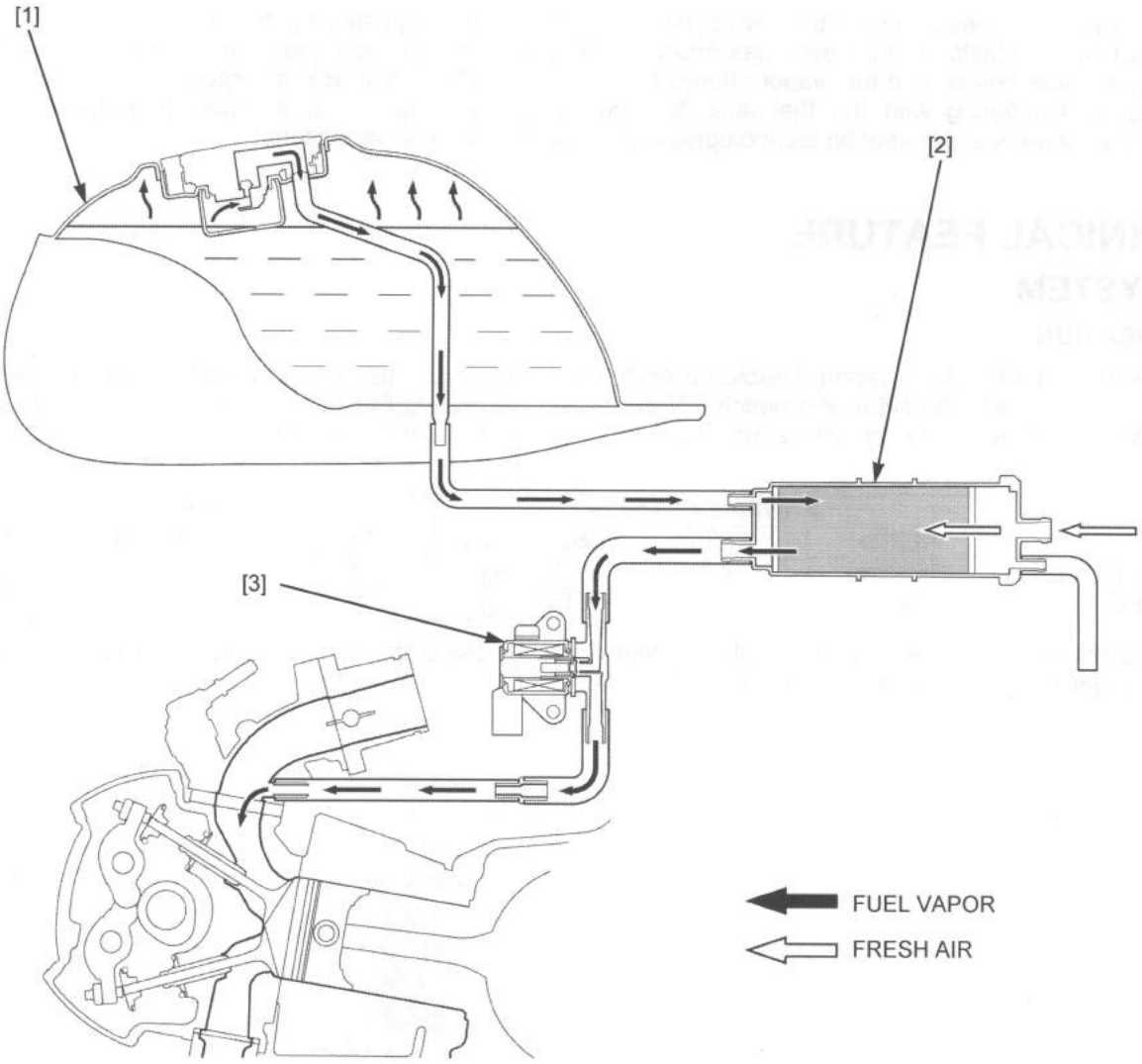
This motorcycle is equipped with a three-way catalytic converter.

The three-way catalytic converter is in the exhaust system. Through chemical reactions, it converts HC, CO, and NOx in the engine's exhaust to carbon dioxide (CO_2), nitrogen (N_2), and water vapor.

No adjustment to these systems should be made although periodic inspection of the components is recommended.

EVAPORATIVE EMISSION CONTROL SYSTEM (AC, II AC type)

Fuel vapor from the fuel tank [1] is routed into the EVAP canister [2] where is it absorbed and stored while the engine is stopped. When the engine is running and the EVAP purge control solenoid valve [3] is open, fuel vapor in the EVAP canister is drawn into the engine.



NOISE EMISSION CONTROL SYSTEM

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: U.S. Federal law prohibits, or Canadian provincial law may prohibit the following acts or the causing there of: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any vehicle for the purpose of noise control prior to its sale or delivery to the ultimate customer or while it is in use; (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

1. Removal of, or puncturing of the muffler, baffles, header pipes or any other component which conducts exhaust gases.
2. Removal of, or puncturing of any part of the intake system.
3. Lack of proper maintenance.
4. Removing or disabling any emissions compliance component, or replacing any compliance component with a non-compliant component.

FUEL PERMEATION EMISSION CONTROL SYSTEM

This motorcycle complies with the Fuel Permeation Emission Control regulations of the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and Environment and Climate Change Canada (ECCC). The fuel tank, fuel hoses, and fuel vapor charge hoses used on this motorcycle incorporate fuel permeation control technologies. Tampering with the fuel tank, fuel hoses, or fuel vapor charge hoses to reduce or defeat the effectiveness of the fuel permeation technologies is prohibited by federal regulations.

TECHNICAL FEATURE

MIL SYSTEM

MIL INDICATION

When the previous PGM-FI system detected a malfunction, the MIL blinked the number of trouble codes while the engine is idling, or with the sidestand switch ON. But when the current PGM-FI system detects a malfunction, it will turn the MIL ON without blinking, unless the SCS circuit is shorted (reading the DTC with a DLC connector).

	Previous PGM-FI			Current PGM-FI		
	At Idle	Riding	SCS short	At Idle	Riding	SCS short
Current trouble	Blinking	ON	Blinking	ON	ON	Blinking
Past trouble	OFF	OFF	Blinking	*ON	*ON	*Blinking

* This system will erase the past DTC if the system does not detect the same trouble again in three riding cycles (repeating ignition ON, riding, and ignition OFF three times).

MAINTENANCE SCHEDULE

- Perform the Pre-ride inspection in the Owner's Manual at each scheduled maintenance period.
- I: Inspect and Clean, Adjust, Lubricate or Replace if necessary. C: Clean. R: Replace. A: Adjust. L: Lubricate.
- The following items require some mechanical knowledge. Certain items (particularly those marked * and **) may require more technical information and tools. Consult a dealer.

- Refer to "Basic" Service Manual for each maintenance instruction except the instructions described in this manual.

		ITEMS	NOTE	FREQUENCY (NOTE 1) X1,000 mi	0.6	4	8	12	16	20	24	REGULAR REPLACE	REFER TO PAGE
				X1,000 km	1.0	6.4	12.8	19.2	25.6	32.0	38.4		
EMISSION RELATED ITEMS	*	FUEL LINE				I	I	I	I	I	I		
	*	THROTTLE OPERATION				I	I	I	I	I	I		
		AIR CLEANER	NOTE2					R			R		→2-8
		CRANKCASE BREATHER	NOTE3			C	C	C	C	C	C		
		SPARK PLUG				I	R	I	R	I	R		→4-23
	*	VALVE CLEARANCE				I	I	I	I	I	I		→2-18
		ENGINE OIL			R	R	R	R	R	R	R	1 year	→2-15
	**	ENGINE OIL STRAINER SCREEN					C		C		C		→2-16
		ENGINE OIL FILTER					R		R		R		→2-16
	*	ENGINE IDLE SPEED			I	I	I	I	I	I	I		→2-10
	*	EVAPORATIVE EMISSION CONTROL SYSTEM (AC, II AC type)	NOTE4					I			I		
NON-EMISSION RELATED ITEMS		DRIVE CHAIN			EVERY 300 mi (500 km) I, L								
		BRAKE FLUID	NOTE5			I	I	I	I	I	I	2 years	
		BRAKE PADS WEAR				I	I	I	I	I	I		
		BRAKE SYSTEM				I	I	I	I	I	I		→3-25
		BRAKE LIGHT SWITCH				I	I	I	I	I	I		
		HEADLIGHT AIM				I	I	I	I	I	I		→4-49
		CLUTCH SYSTEM				I	I	I	I	I	I		
		SIDESTAND				I	I	I	I	I	I		
	*	SUSPENSION				I	I	I	I	I	I		
	*	NUTS, BOLTS, FASTENERS					I		I		I		
	**	WHEELS/TIRES				I	I	I	I	I	I		
	**	STEERING HEAD BEARINGS					I		I		I		

* Should be serviced by a dealer, unless the owner has proper tools and service data and is mechanically qualified.

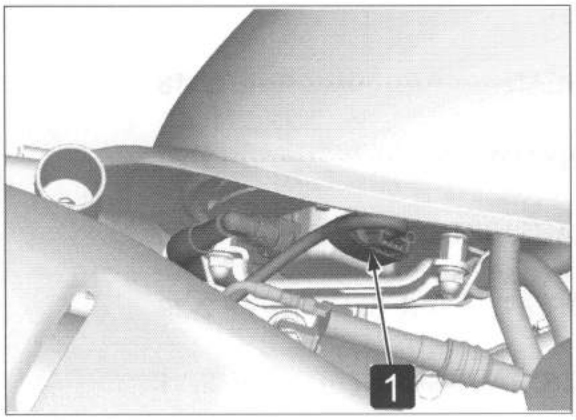
** In the interest of safety, we recommend these items be serviced only by a dealer.

NOTES:

1. At higher odometer readings, repeat at the frequency interval established here.
2. Service more frequently when riding in unusually wet or dusty areas.
3. Service more frequently when riding in rain or at full throttle.
4. 50 STATE (meets California)
5. Replacement requires mechanical skill.

2. FUEL & ENGINE

FUEL LINE

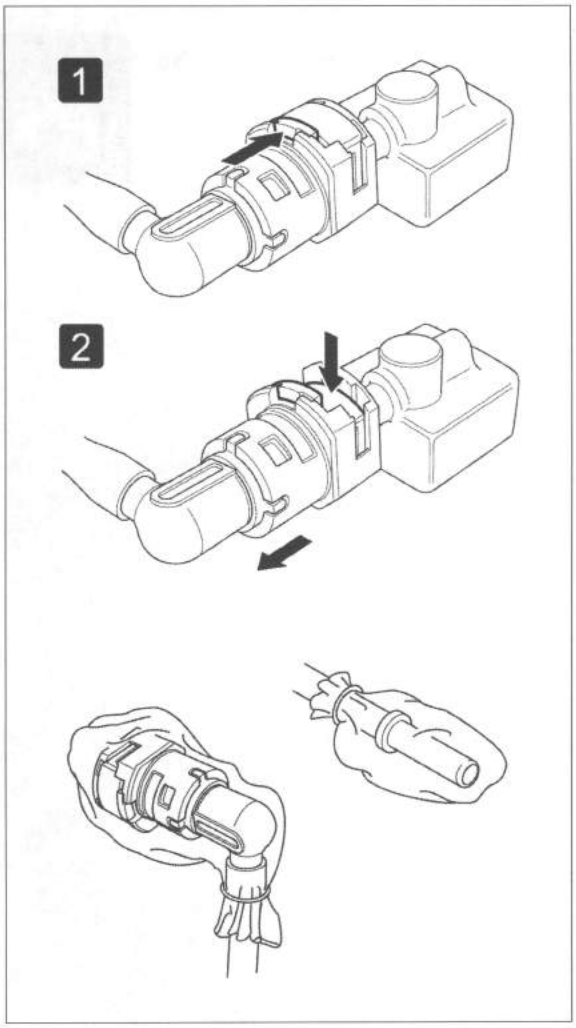


- Do not bend or twist the fuel feed hose.
- Fuel tank mounting bolt and raise the fuel tank ➔2-4

- 1 Fuel pump 5P connector

- Let it idle until the engine stalls.

- Battery negative (–) cable ➔4-45

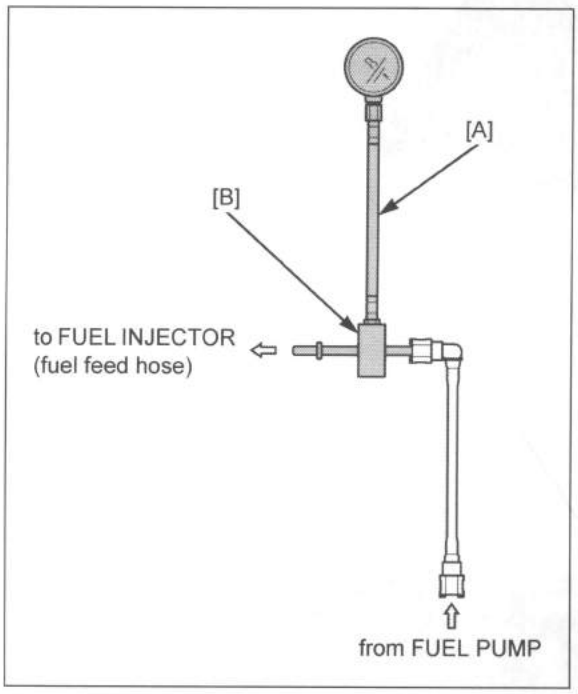


- Do not use tools when removing. If the connector does not move, alternately pull and push the connector until it comes off easily.
- Check the fuel quick connect fitting for dirt, and clean if necessary.
- Place a shop towel over the quick connect fitting.
- 1 Push the retainer tab forward.
- 2 Press down the retainer and disconnect the connector from the fuel pump joint/injector joint.
- Check the retainer condition and replace the fuel feed hose if necessary.
- To prevent damage and keep foreign matter out, cover the disconnected connector and pipe end with the plastic bags.
- Press the connector onto the fuel pump joint/injector joint until the retainer locks with a "CLICK". If it is hard to connect, put a small amount of engine oil on the pipe end.
- Make sure the connection is secure; check visually and by pulling the connector.
- After installing the removed parts, turn the ignition switch ON. (Do not start the engine.)
  The fuel pump will run for about 2 seconds, and fuel pressure will rise. Repeat 2 or 3 times, and check that there is no leakage in the fuel supply system.

FUEL SUPPLY TEST

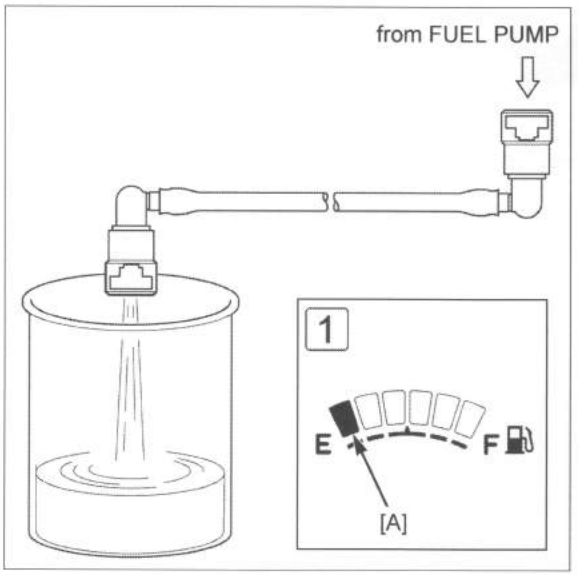
- If there is sufficient fuel in the fuel tank, but such symptoms as poor engine performance, lack of fuel, or engine start failure exist, perform the following.
- Perform the fuel pressure test. ➔2-3
  If the fuel pressure is within specification, perform the fuel flow inspection. ➔2-3
- Perform the fuel flow inspection in the specified fuel quantity. ➔2-3

FUEL PRESSURE TEST



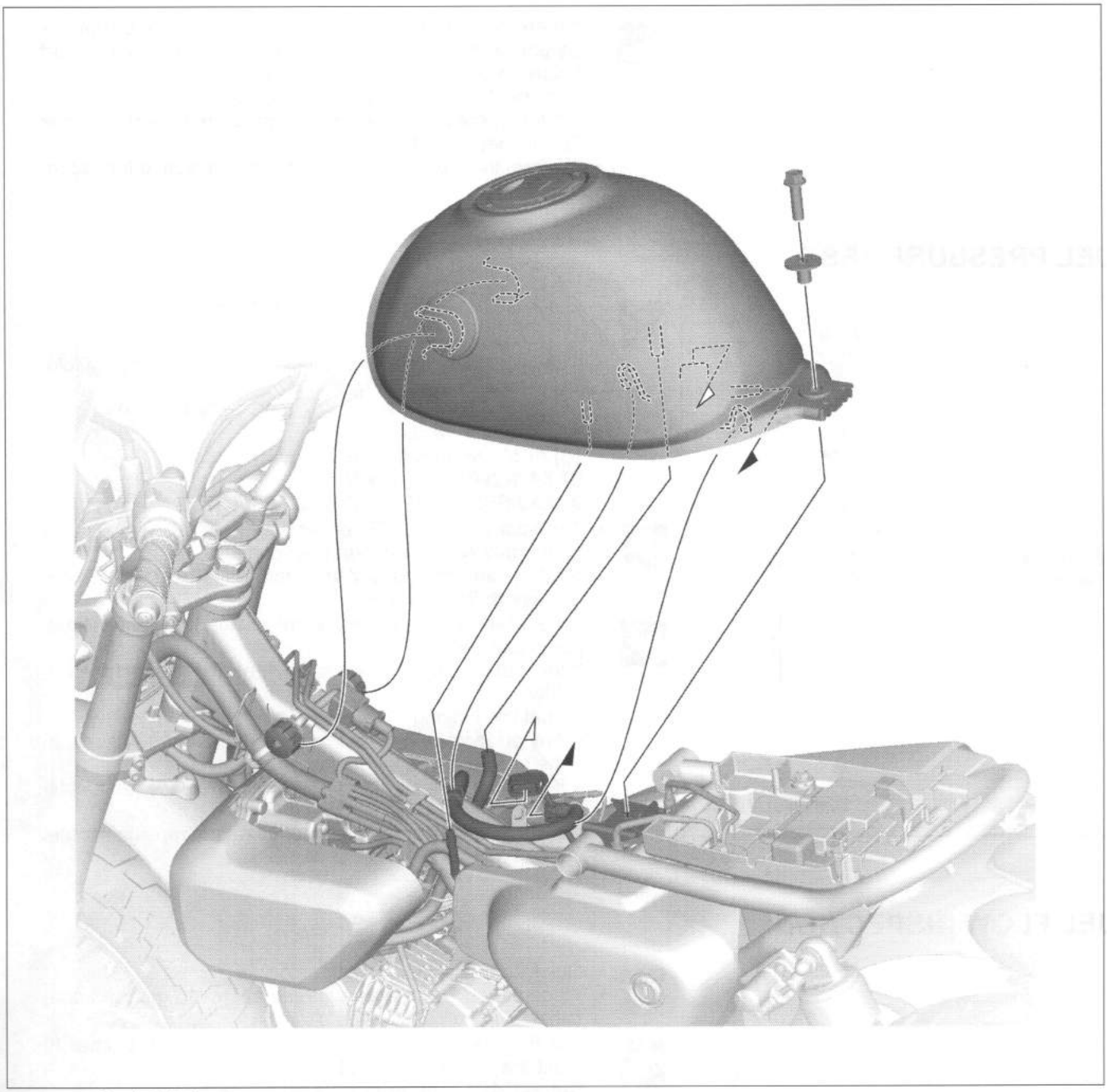
- Quick connect fitting (fuel pump side) ➔2-2
- Attach the fuel pressure gauge, attachments and manifold.
  [A] Fuel pressure gauge:
  07406-0040004 or 07406-004000C (U.S.A. only) or 07406-004000B (U.S.A. only)
  [B] Fuel pressure gauge attachment set:
  070MJK260100 or 07AMJ-HW3A100 + 07AAJ-S6MA200 + 07AMJ-K26A100 (U.S.A. only)
- Temporarily connect the positive cable and negative cable to the battery and fuel pump 5P connector.
  Start the engine and let it idle, and read the fuel pressure.
  Standard: 263 – 316 kPa
- If the fuel pressure is higher than specified, replace the fuel pump unit. ➔2-6
- If the fuel pressure is lower than specified, inspect the following.
  – Fuel line leaking
  – Any erratic swinging or vibration of the gauge needle in the pressure gauge reading.
  – If the needle is swinging or vibrating, replace the fuel filter. ➔2-7
  – If the needle is not swinging or vibrating, replace the fuel pump unit. ➔2-6

FUEL FLOW INSPECTION

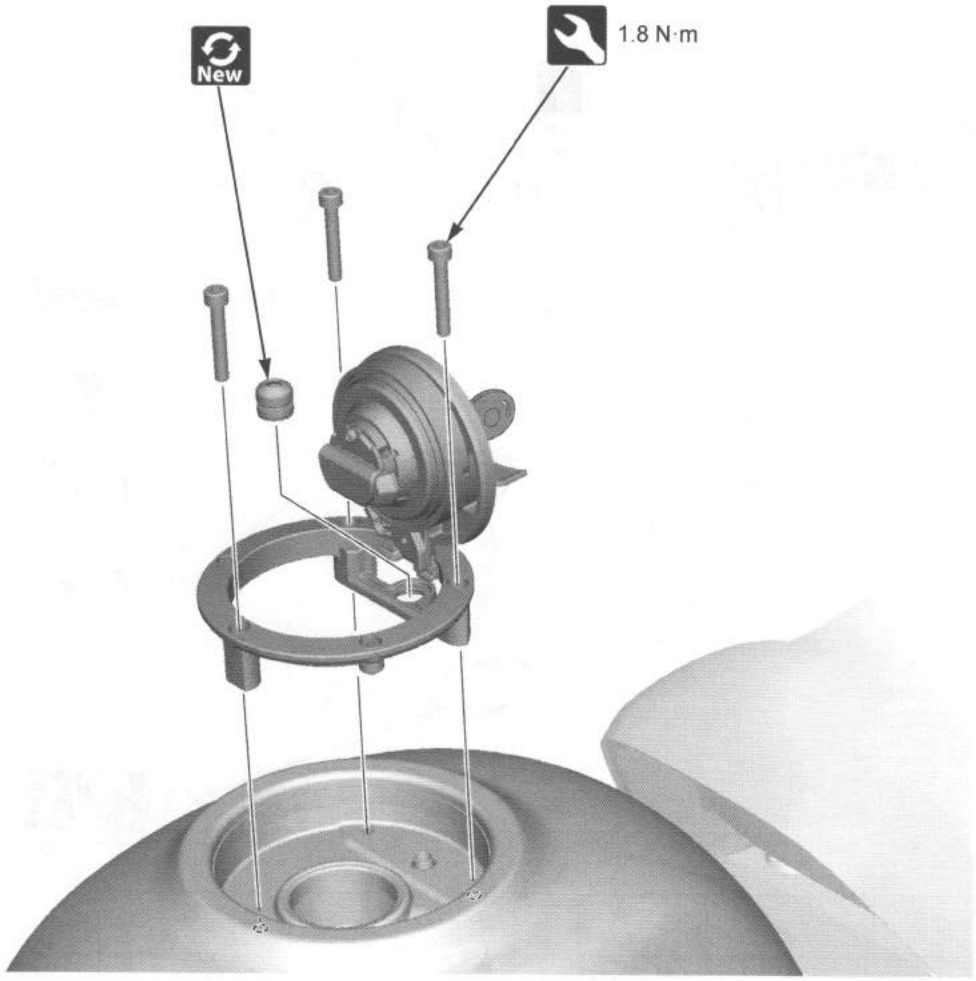


- Quick connect fitting (injector side) ➔2-2
- Place the end of the hose into an approved gasoline container. Wipe off any spilled gasoline.
- The fuel pump operates for 2 seconds. Repeat 5 times to meet the total measuring time.
  Standard: 82 cm³ minimum/10 seconds
- If fuel flow is less than specified, inspect the following:
  – Clogged fuel hose
  – Fuel pump unit
  – Clogged fuel filter
- [1] Place the vehicle on level ground with its sidestand. Adjust the fuel in the tank until the fuel gauge segment [A] is positioned in the specified range, and inspect the fuel flow.
  SPECIFIED RANGE: One segment (Not blinking)
- If the fuel flow is above specification, check for other malfunctioning parts.
- If the fuel flow is under specification, replace the fuel filter. ➔2-7

FUEL TANK

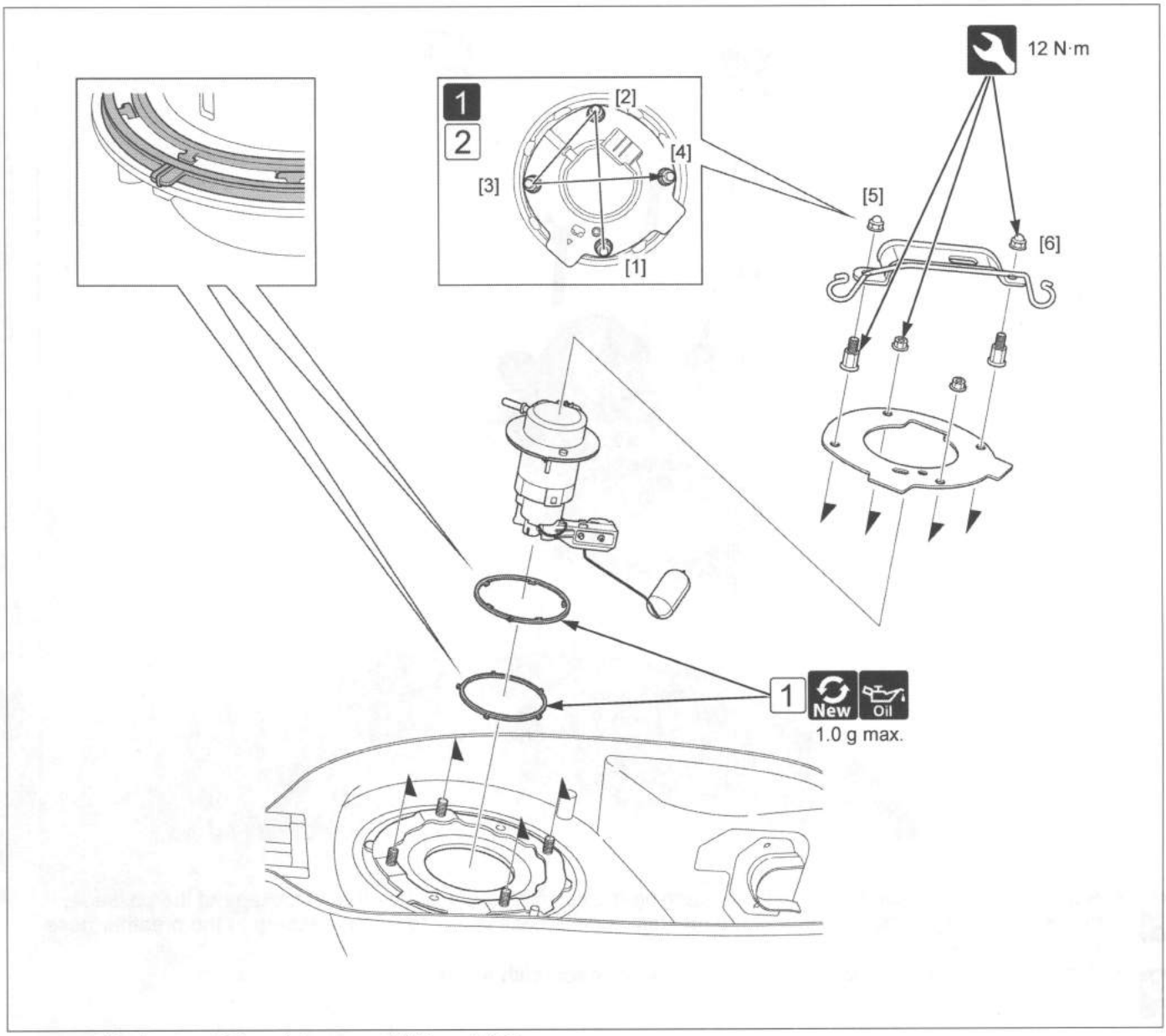


- Seat ➔3-5
- Quick connect fitting (fuel pump side) ➔2-2



- A pressure release can be heard when opening the fuel filler cap, but this is not blockage of the passage. If checking for clog in the passage of the fuel tank side is necessary, apply air pressure to the breather hose end with the fuel filler cap opened.
- If the fuel filler cap is removed, replace the breather seal with a new one.

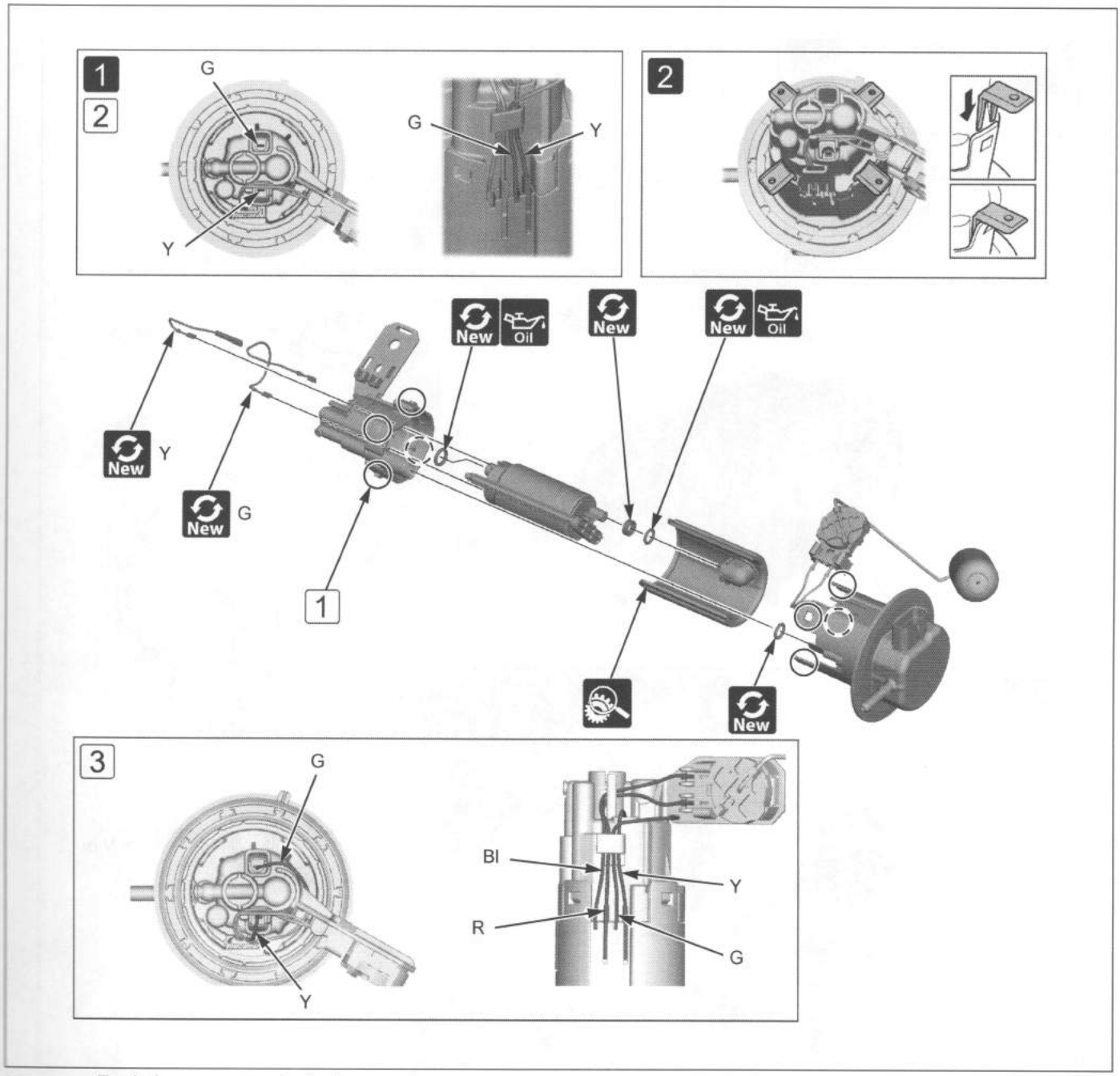
FUEL PUMP UNIT



- Fuel pump side quick connect fitting ➔2-2
- Fuel tank ➔2-4
- 1 Loosen the nuts in a crisscross pattern in several steps.
- Carefully remove the fuel pump unit from the fuel tank to prevent damage the fuel level sensor.
- [1] Apply 1.0 g maximum of engine oil to the inner and outer packings and install them to the fuel pump unit.
- [2] Tighten the fuel pump set plate nuts in the specified sequence as shown.
- Fuel clog or excessively damaged.
- Fuel pump malfunction and inspection.

Basic

FUEL FILTER



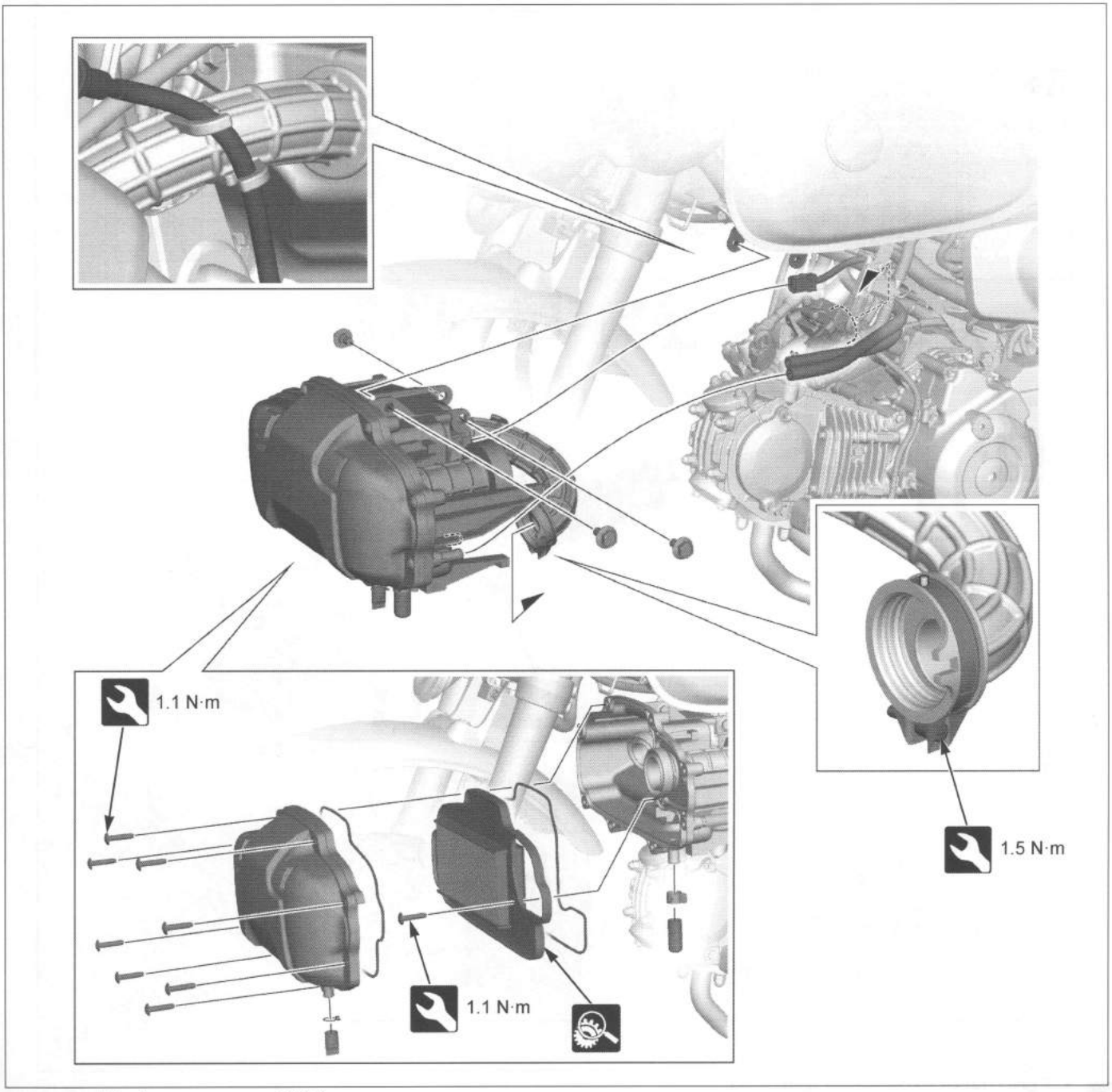
- Fuel clog or excessively damaged.
- If the fuel filter is clogged, replace it with a new one.

- Fuel pump unit ➔2-6
- To prevent dirt and debris from entering the fuel pump unit, always clean it before disassembly.
- Clean the fuel pump unit and fuel pump filter with clean gasoline. Never use commercially available carburetor cleaners.
- 1 Fuel pump motor wires (Y and G wires)
- 2 Release the hooks from the stoppers by slightly spreading the hooks.

Fuel pump case remover: 070MF-KVS0300

- Before installing the fuel pump filter, check the fuel pump unit for dirt. If necessary, clean the fuel pump unit with compressed air. Do not blow into the fuel pump unit.
- If the R or Bl wire connector is disconnected, replace the fuel level sensor with a new one.
- 1 Make sure the "CLICK" and install the four tabs securely when the fuel pump unit is assembled.
- 2 Connect the fuel pump motor wires to the specified terminals.
- 3 Route the fuel pump motor wires and fuel level sensor wires to the guide and terminals properly.

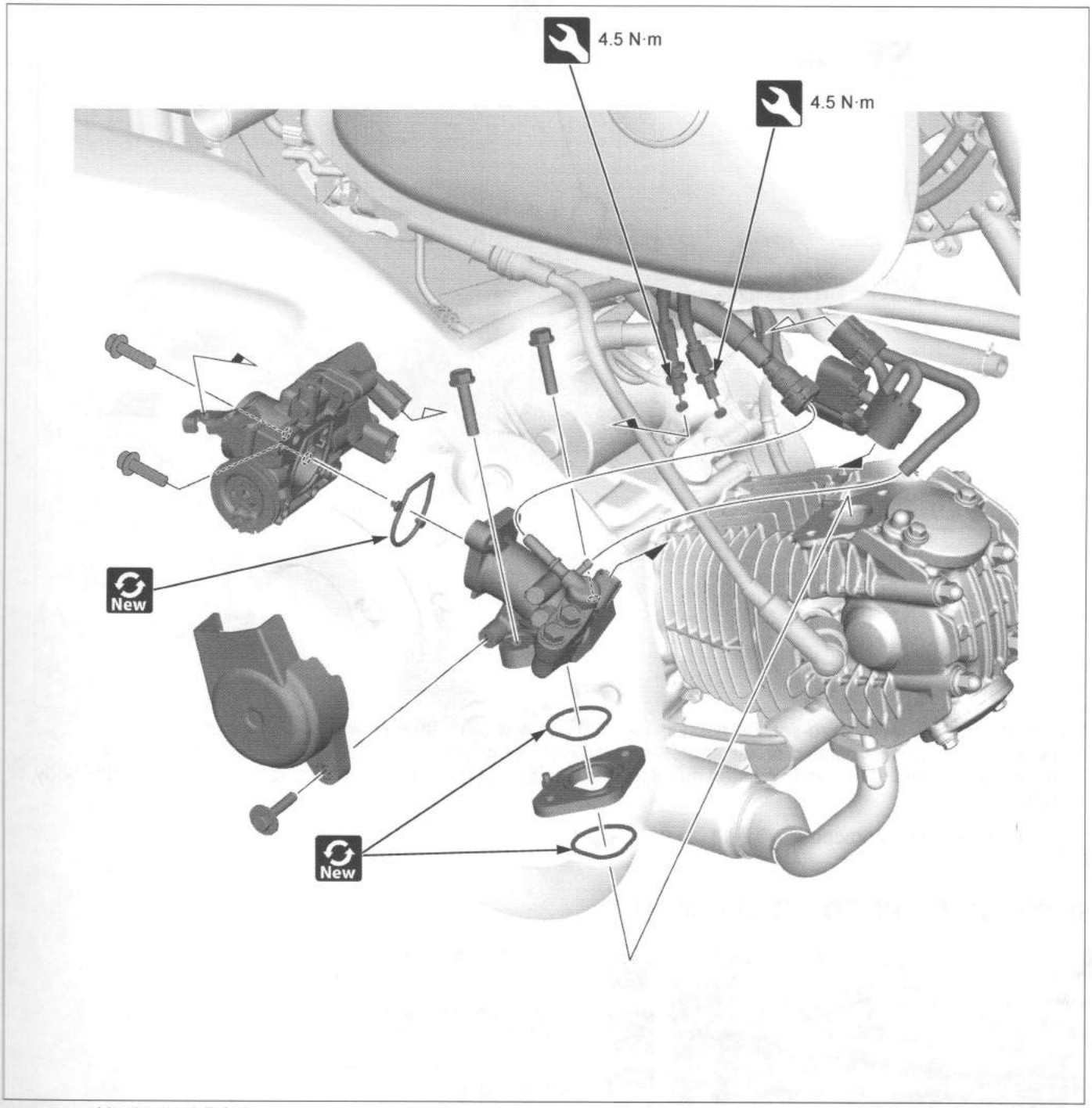
AIR CLEANER



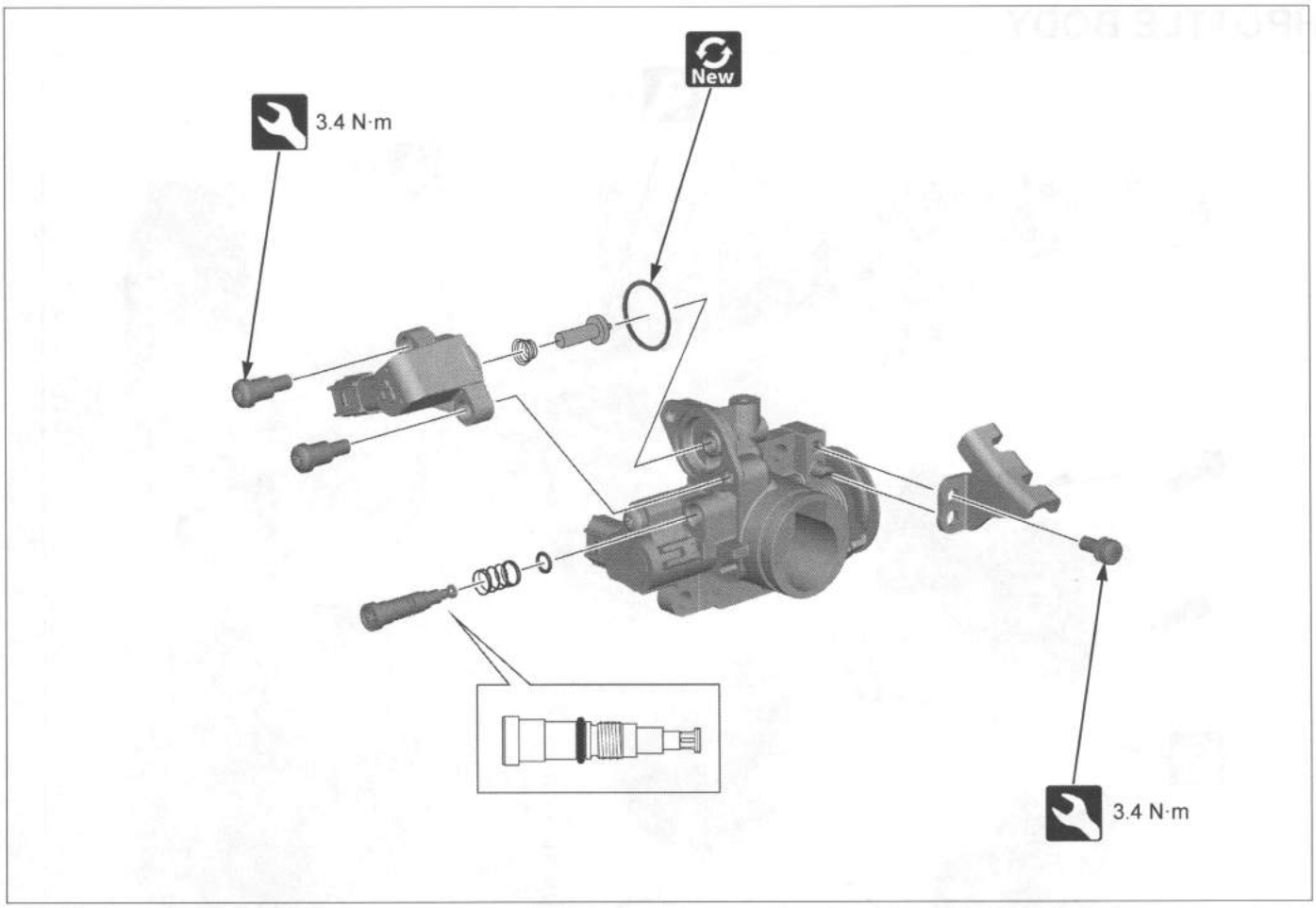
- Air cleaner covers ➔3-7

- Discard the air cleaner element in accordance with the maintenance schedule. ➔1-33
- Replace the element any time if it is excessively dirty or damaged.

THROTTLE BODY



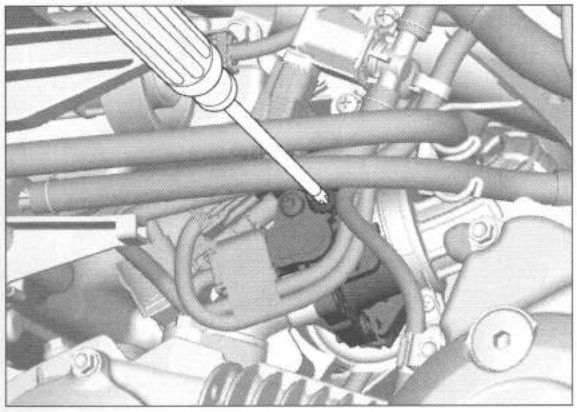
- Air cleaner ➔2-8
- TP sensor reset procedure ➔2-11
- Throttle body cleaning and inspection.



- The throttle body is factory pre-set. Do not disassemble in a way other than shown in this manual.
- Do not remove the white painted screw and TP sensor. Removing them can cause throttle body malfunction.
- Do not loosen or tighten the white painted nut of the throttle drum. Loosening or tightening it can cause throttle body malfunction.

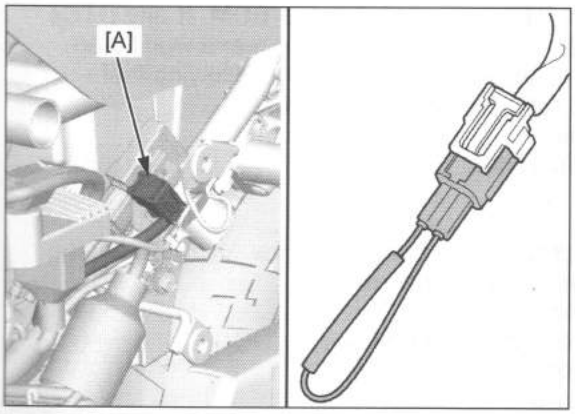
- TP sensor reset procedure ➔2-11

ENGINE IDLE SPEED ADJUSTMENT

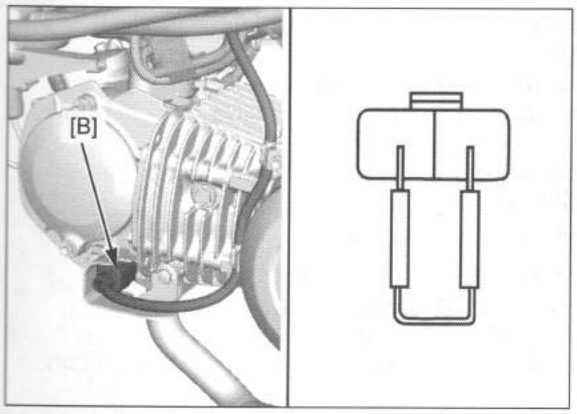


- Air cleaner cover ➔3-7
- Start the engine and let it idle.
  IDLE SPEED: 1,400 ± 100 rpm
- Idle air screw standard opening
  STANDARD:
  1 7/8 turns out from the fully seated position

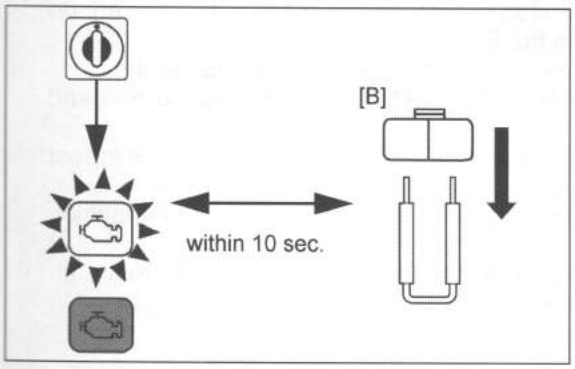
TP SENSOR RESET PROCEDURE



- Make sure no DTCs are stored in the ECM. If any DTCs are stored in the ECM, the TP sensor reset mode won't start by following the procedure below.
- Side cover ➔3-6
- Disconnect the dummy connector from the DLC [A].
- Connect the special tool to the DLC.
  SCS short connector: 070MZ-0010300 or 070MZ-001A300 (U.S.A. only)

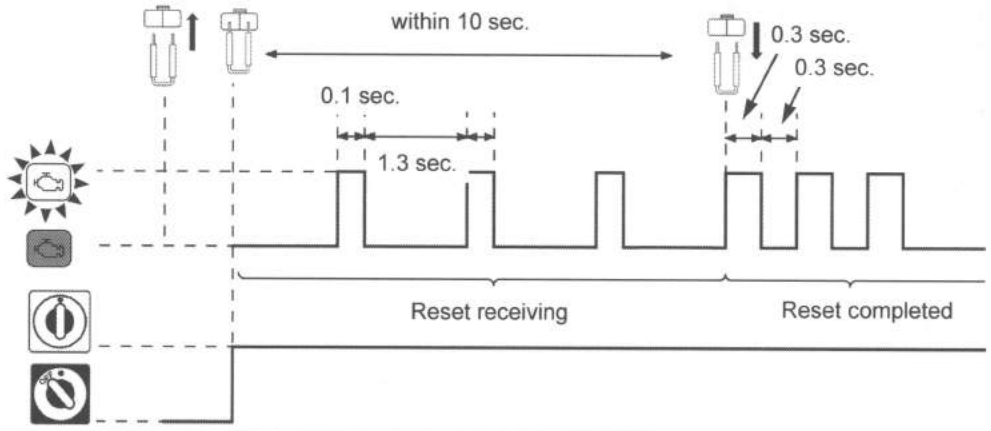


- EOT sensor 2P (Black) connector [B].
- Short the EOT sensor terminals with a jumper wire.

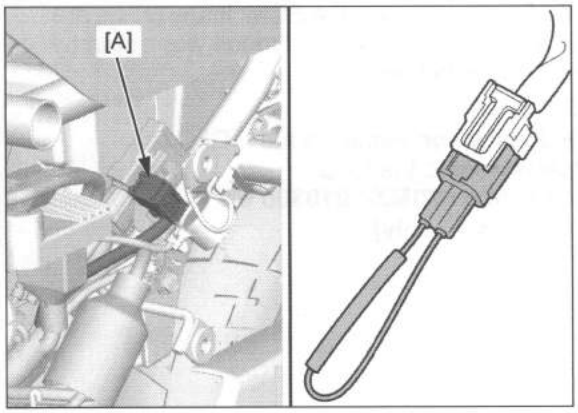


- Turn the ignition switch ON, then disconnect the jumper wire from the EOT sensor 2P (Black) connector within 10 seconds while the MIL is blinking (reset receiving pattern).
- Check if the MIL blinks.
  After disconnecting the jumper wire, the MIL should start blinking. (reset completed pattern)
  If the jumper wire is connected for more than 10 seconds, the MIL will stay ON (unsuccessful pattern). Try again from the beginning.
- Check the engine idle speed.

Reset procedure and MIL blinking pattern

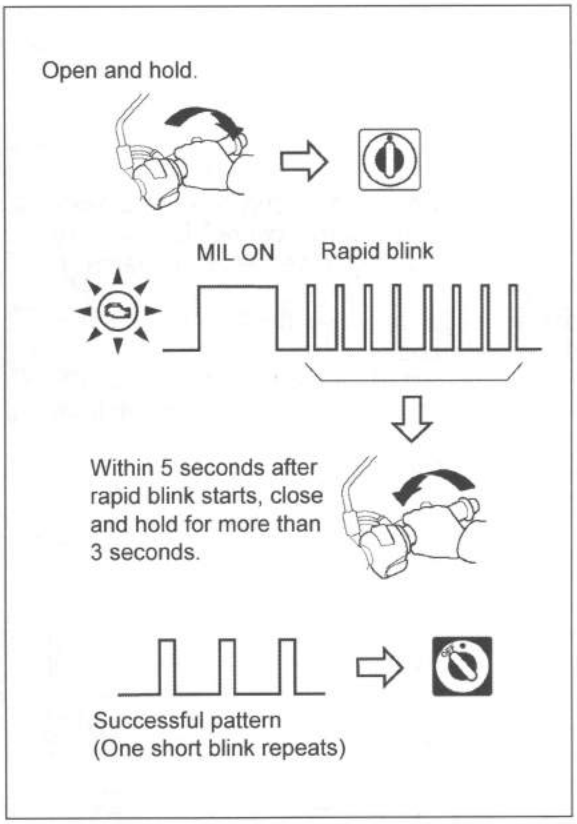


ECM INITIALIZING PROCEDURE



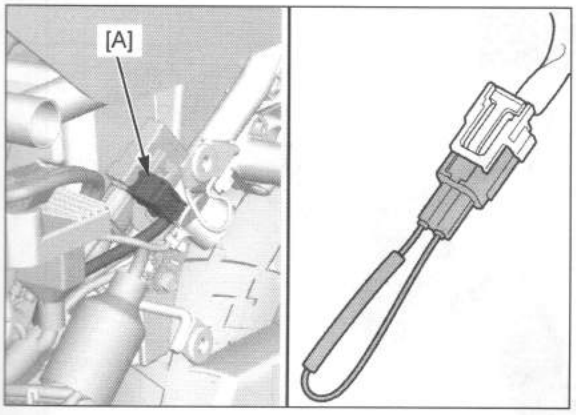
- Make sure no DTCs are stored in the ECM. If any DTCs are stored in the ECM, ECM initializing mode won't start.
- Perform this procedure when any of the following fuel related part is replaced with a new one.
  - Idle air screw
  - Fuel pump/fuel filter
  - Injector
  - O_2 sensor
- Perform this procedure when any of the following engine part is replaced or is overhauled.
  - Cylinder head
  - Valves/valve guides/valve seat
  - Cylinder/piston/piston ring

- Side cover ➔3-6
- Turn the idle air screw to specified opening.
  Initial opening:
  1 7/8 turns out from the fully seated position
- Disconnect the dummy connector from the DLC [A] and connect the special tool to the DLC.
  SCS short connector: 070MZ-0010300 or 070MZ-001A300 (U.S.A. only)
- Open the throttle grip fully and hold.

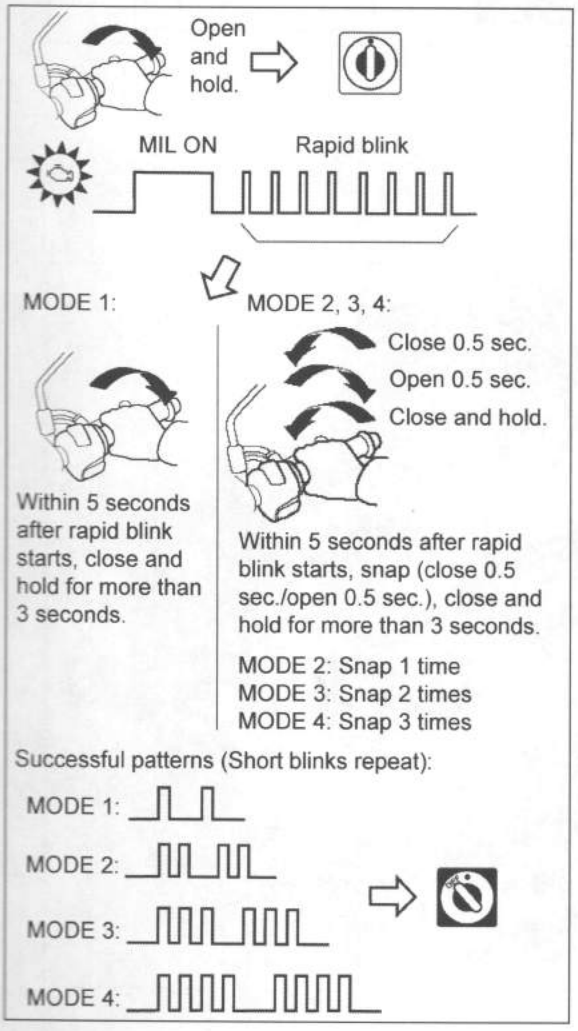


- The MIL should come on and then start blinking rapidly. Within 5 seconds after rapid blinking starts, close the throttle grip and hold for more than 3 seconds.
- If the MIL does not start blinking rapidly, turn the ignition switch OFF and try again.
- If you cannot restart the procedure, make sure there are no DTCs stored in the ECM.
- If no DTCs are stored, but you still cannot restart the procedure, replace the ECM with a known-good one and try again.
- When the ECM initializing is successful, the MIL will repeat one short blink.
- If the successful pattern is indicated, turn the ignition switch OFF.
- If altitude is higher than 2,000 m (6,500 ft), perform the altitude setting ➔2-13
- Check the engine idle speed.

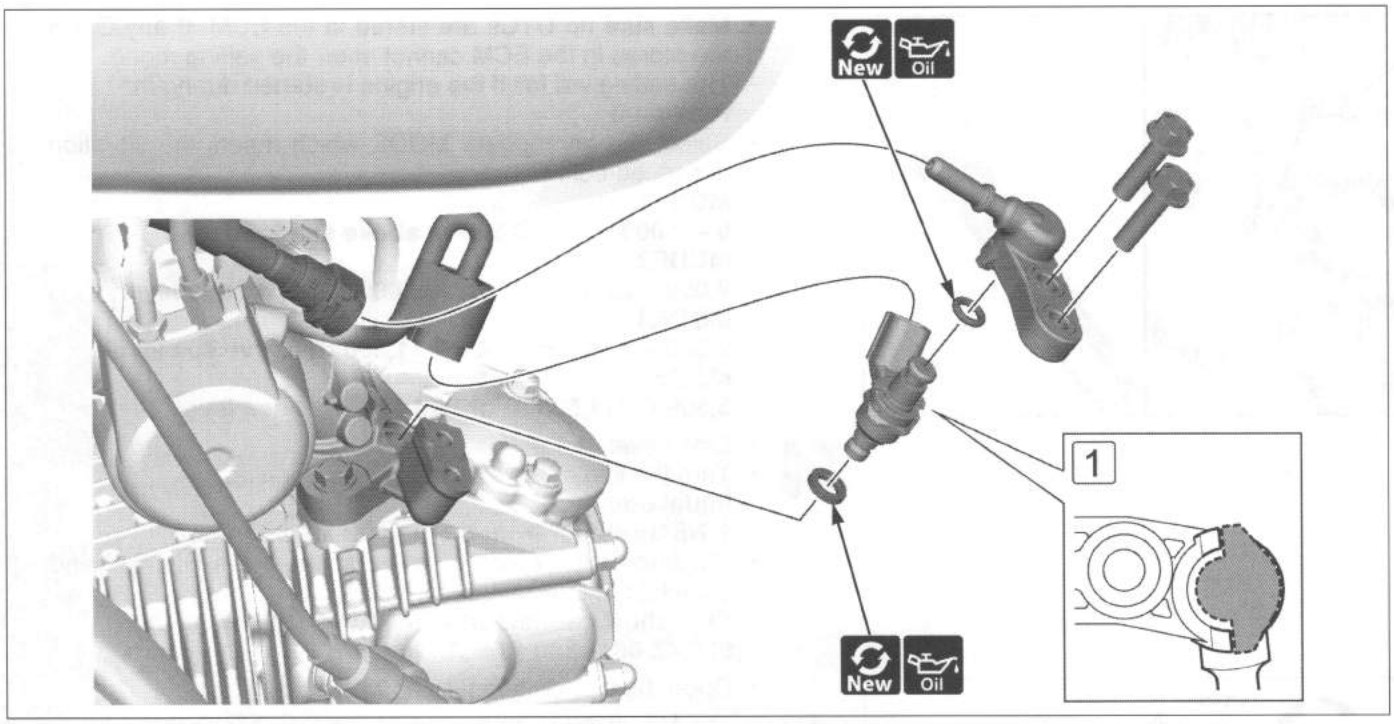
ALTITUDE SETTING



- Make sure no DTCs are stored in the ECM. If any DTCs are stored in the ECM cannot enter the setting mode.
- The setting will fail if the engine is started during the procedure.
- Select the appropriate MODE which meets the situation described below.
  MODE1:
  0 – 2,000 m (0 – 6,500 ft) above sea level
  MODE2:
  2,000 – 2,500 m (6,500 – 8,000 ft) above sea level
  MODE3:
  2,500 – 3,500 m (8,000 – 11,500 ft) above sea level
  MODE4:
  3,500 m (11,500 ft) or higher above sea level
- Side cover ➔3-6
- Turn the idle air screw to specified opening.
  Initial opening:
  1 7/8 turns out from the fully seated position
- Disconnect the dummy connector from the DLC [A] and connect the special tool to the DLC.
  SCS short connector: 070MZ-0010300 or 070MZ-001A300 (U.S.A. only)
- Open the throttle grip fully and hold.
- The MIL should come on and then start blinking rapidly.
  MODE1: Within 5 seconds after rapid blinking starts, close the throttle grip and hold for more than 3 seconds.
  MODE2, 3, 4: Within 5 seconds after rapid blinking starts, snap the throttle grip (close for 0.5 second/open for 0.5 second) as specified times, then close and hold for more than 3 seconds.
  MODE2: Snap 1 time
  MODE3: Snap 2 times
  MODE4: Snap 3 times
- If the MIL does not start blinking rapidly, turn the ignition switch OFF and try again.
- If you can not restart the procedure, recheck if the DTC is not stored in the ECM.
- If no DTCs are stored, but you still cannot restart the procedure, replace the ECM with a known-good one and try again.
- The MIL will repeat the short blinks as the number of the selected MODE.
- If the desired successful pattern is indicated, turn the ignition switch OFF.
- If the MIL starts blinking slowly during this step before successful pattern is indicated, turn the ignition switch OFF and try again.
- If the number of MIL blink and the number of desired MODE is different, turn the ignition switch OFF and try again.
- Turn the idle air screw to the specified opening and check the engine idle speed.



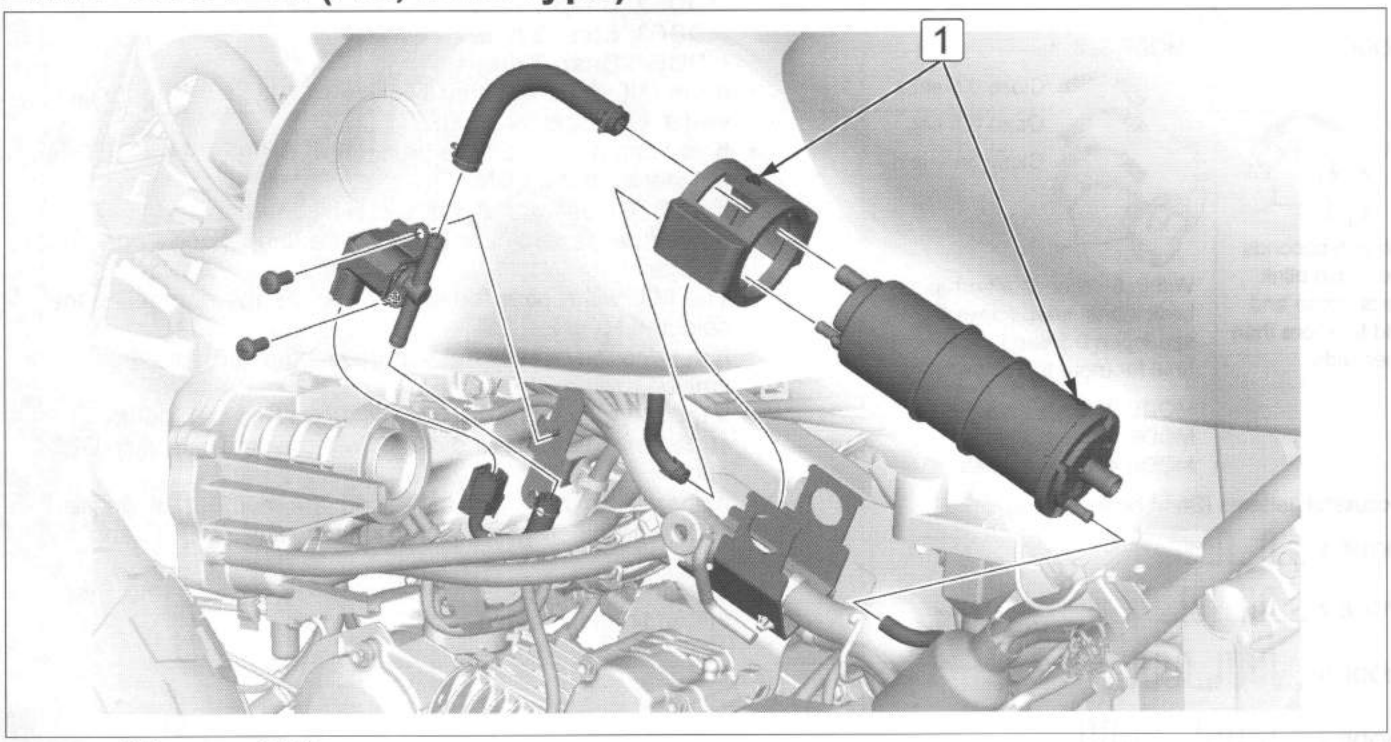
INJECTOR



- Quick connect fitting (injector side) ➔2-2
- Air cleaner ➔2-8

- [1] Install the injector joint to injector by aligning both tabs.

EVAP SYSTEM (AC, II AC type)

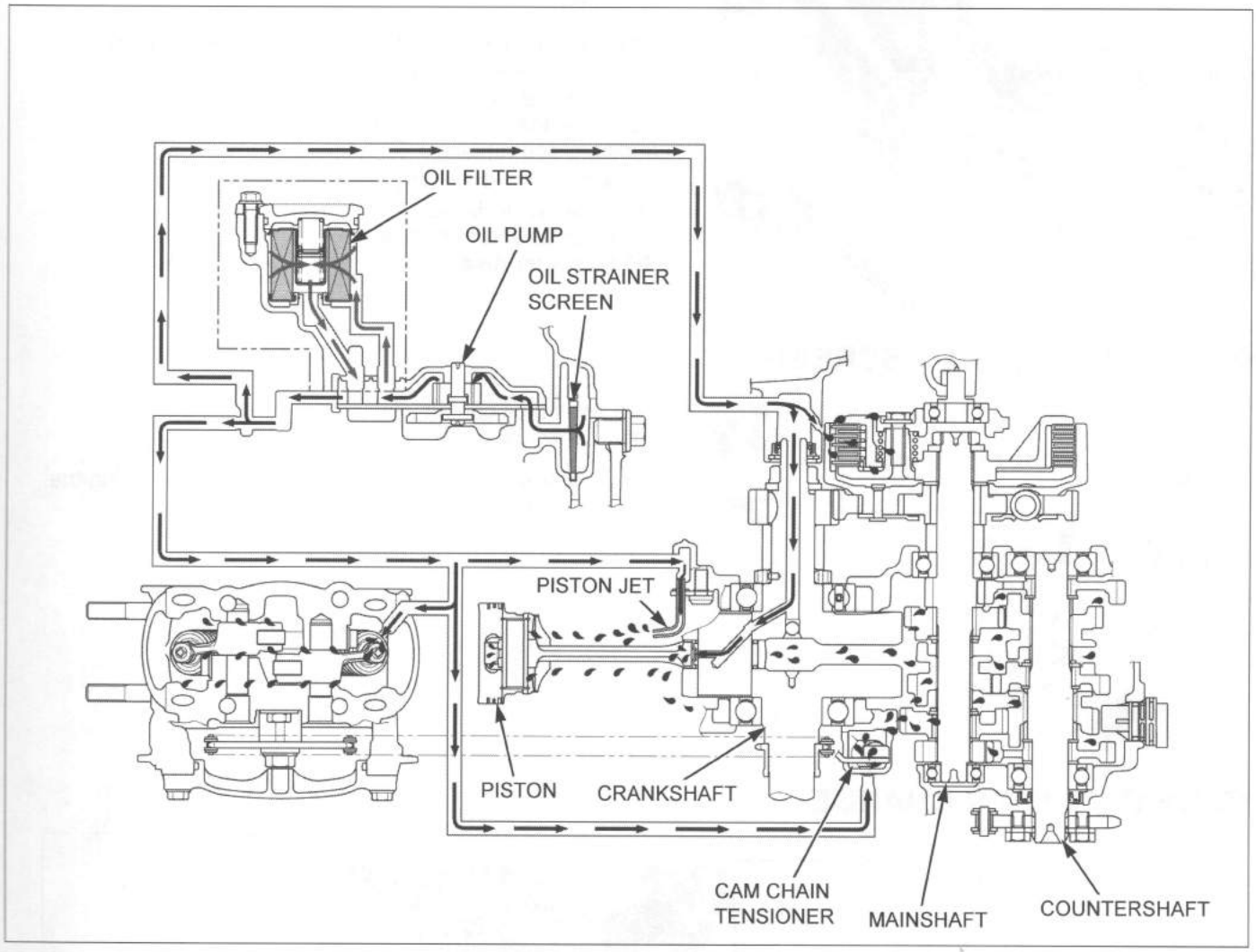


- Side cover ➔3-6
- Air cleaner cover ➔3-7

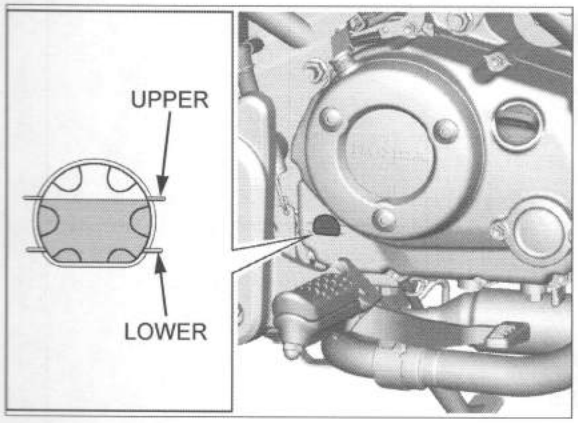
- [1] Assemble the canister holder mark and the canister mark in the same direction.

LUBRICATION SYSTEM

SYSTEM DIAGRAM

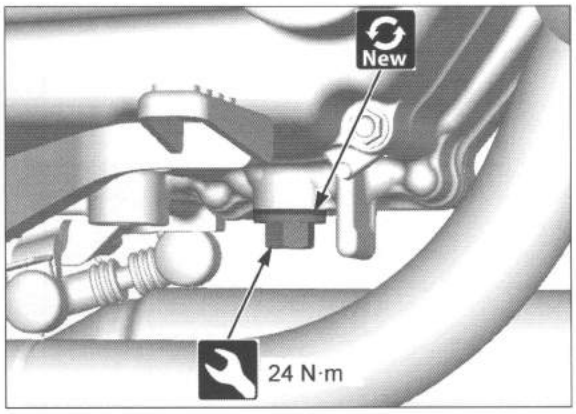


ENGINE OIL LEVEL CHECK



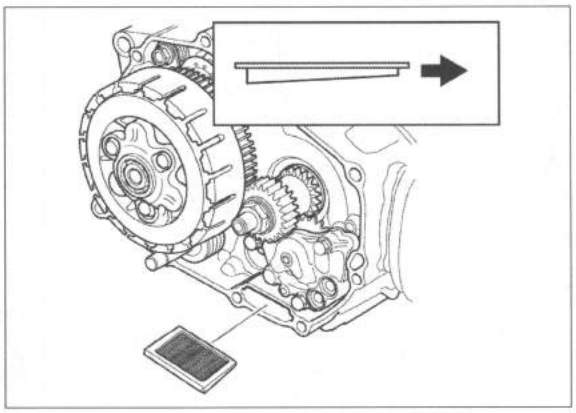
- Let it idle for 3 - 5 minutes.
- Wait for 2 - 3 minutes.
- Hold the motorcycle in an upright position.
- Check the oil level through the inspection window.
- If the oil level is below or near the lower level line, remove the filler cap and add the recommended oil to the upper level.
- **RECOMMENDED ENGINE OIL:**
  Pro Honda GN4 4-stroke oil (U.S.A. & Canada) or equivalent motorcycle oil.
  API service classification: SJ or higher
  JASO T903 standard: MA
  Viscosity: SAE 10W-30

ENGINE OIL CHANGE



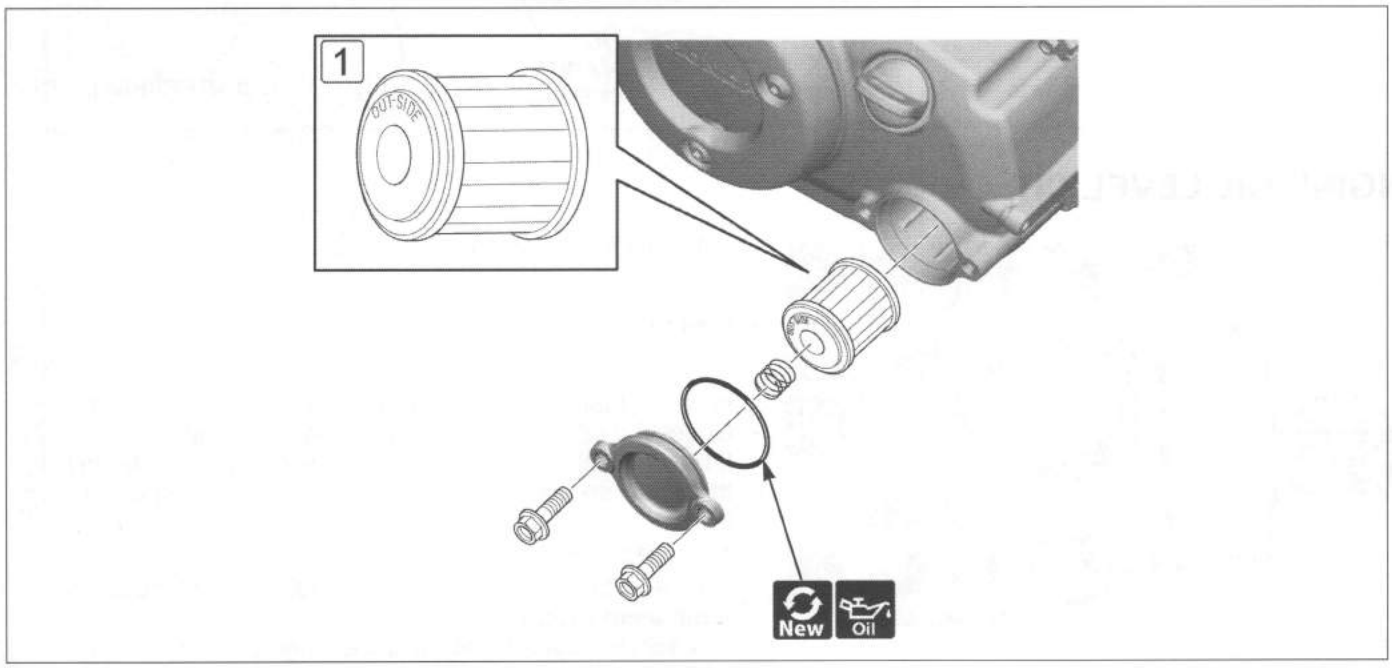
- Remove the drain bolt and sealing washer. Drain oil completely.
- Install the oil drain bolt with a new sealing washer and tighten it to the specified torque.
- Fill the engine with the recommended engine oil.
- Check that the O-ring on the oil filler cap is in good condition, and replace it if necessary.
- **ENGINE OIL CAPACITY:**
  0.9 liter after draining
  0.9 liter after filter change
  1.05 liter after disassembly

ENGINE OIL STRAINER SCREEN



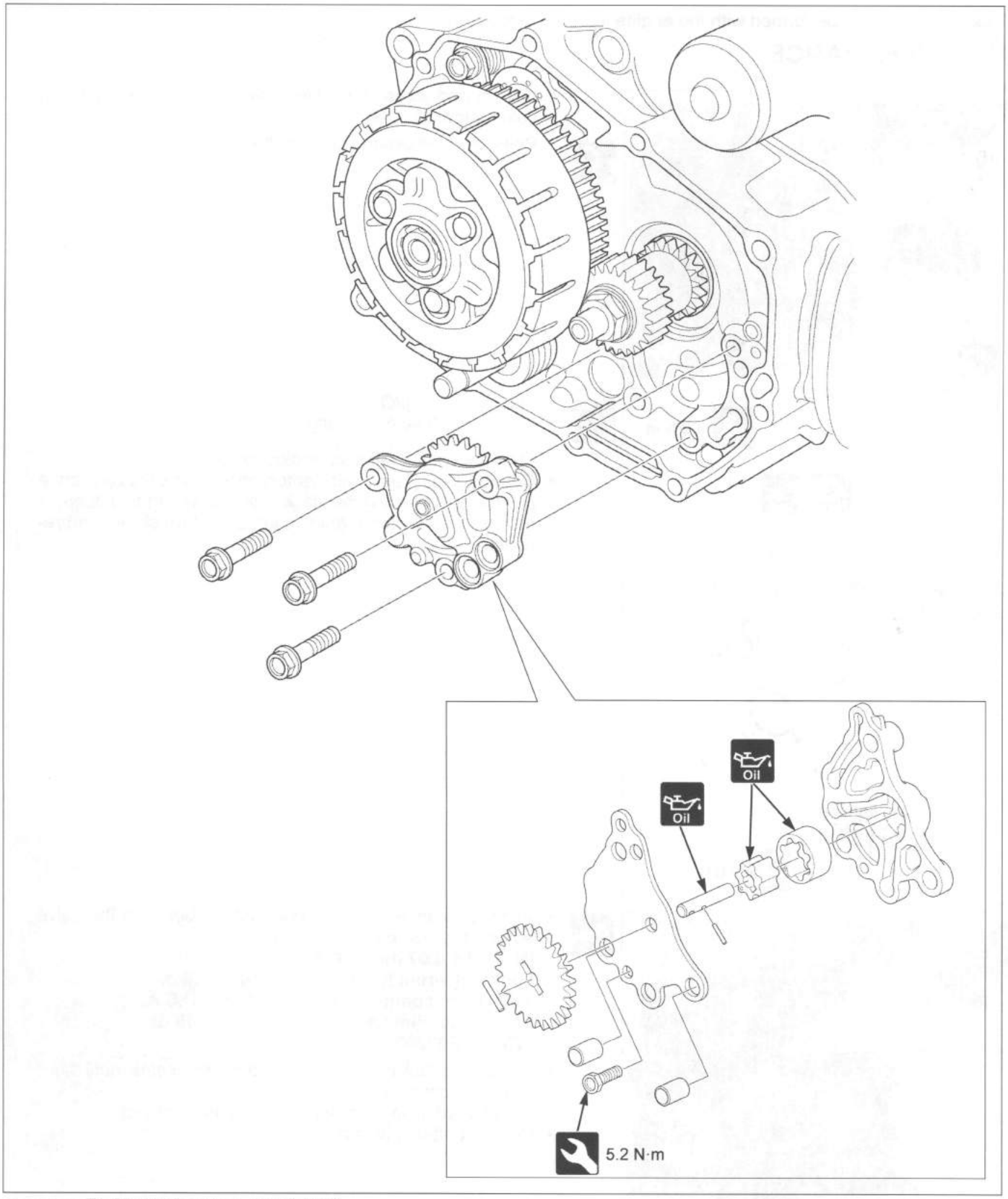
- Drain engine oil completely.
- Right crankcase cover ➔2-24
- Install the oil strainer screen with its tapered side facing the crankcase and thinner edge facing up.

ENGINE OIL FILTER CHANGE



- Drain the engine oil ➔2-16
- [1] Install the oil filter with the "OUT-SIDE" mark facing out.
- **Installing the oil filter backwards will result in severe engine damage.**
- Engine oil filter inspection

OIL PUMP

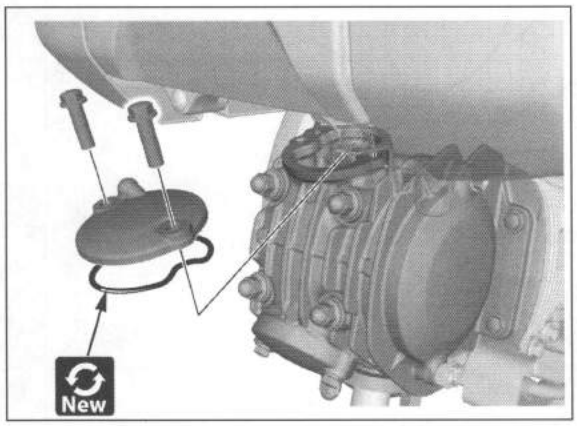


- Right crankcase cover ➔2-24
- Oil pump inspection.

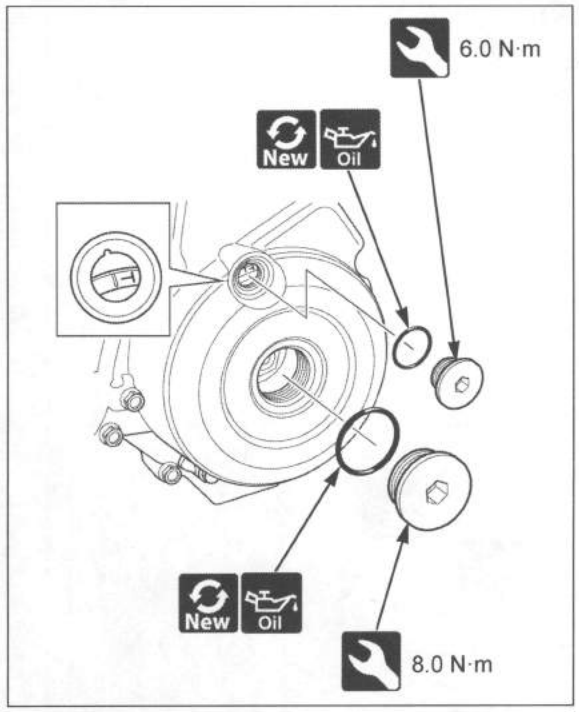
CYLINDER HEAD

- This service can be performed with the engine installed in the frame.

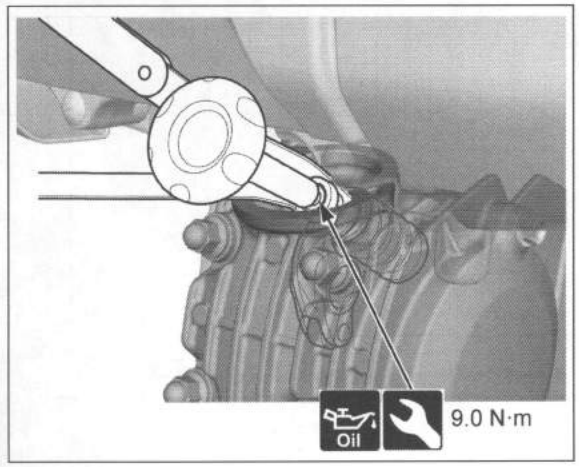
VALVE CLEARANCE



- Inspect and adjust the valve clearance while the engine is cold (below 35 °C/95 °F).
- Bolts/valve adjusting hole caps/O-rings

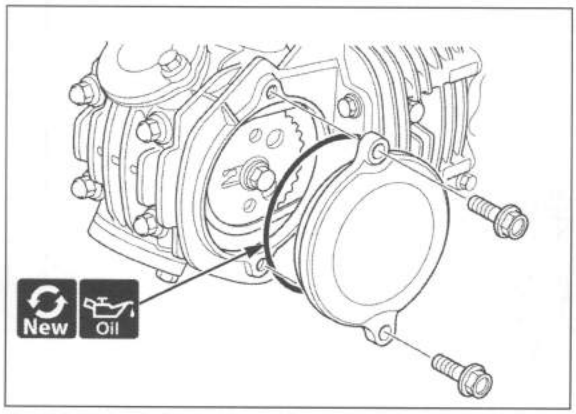


- Timing hole cap/O-ring
- Crankshaft hole cap/O-ring
- Turn the crankshaft counterclockwise slowly.
- Confirm TDC (Top Dead Center) on the compression stroke position by checking the slack in the rocker arms. If there is no slack, rotate the crankshaft one full turn slowly and re-check.

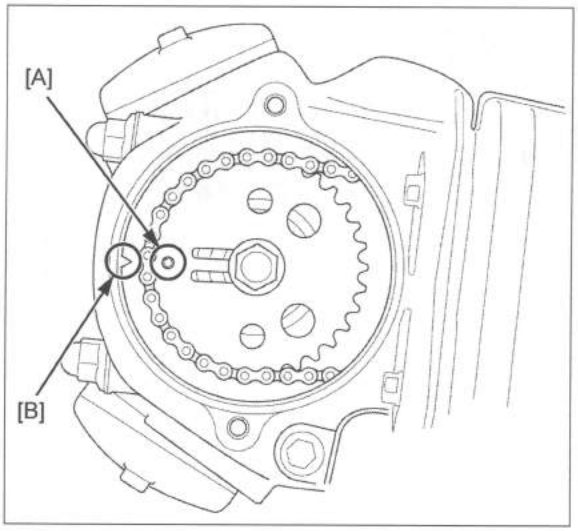


- Valve clearance (Insert a feeler gauge between the valve adjusting screw and valve stem).
  IN: 0.08 ± 0.02 mm, EX: 0.20 ± 0.02 mm
  Lock nut wrench, 8 x 9: 07708-0030100 or equivalent commercially available in U.S.A.
  Valve adjusting wrench: 07708-0030400 or 07908-KE90200 (U.S.A. only)
- Loosen the lock nut and turn the adjusting screw until there is a slight drag on the feeler gauge.
- Hold the adjusting screw and tighten the lock nut.
- Recheck after tightening.

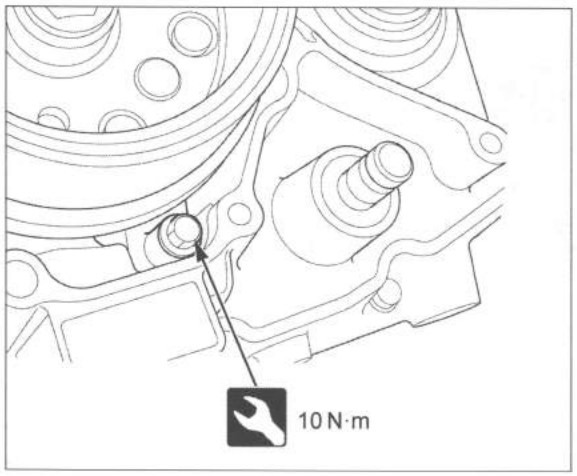
CAMSHAFT/ROCKER ARM



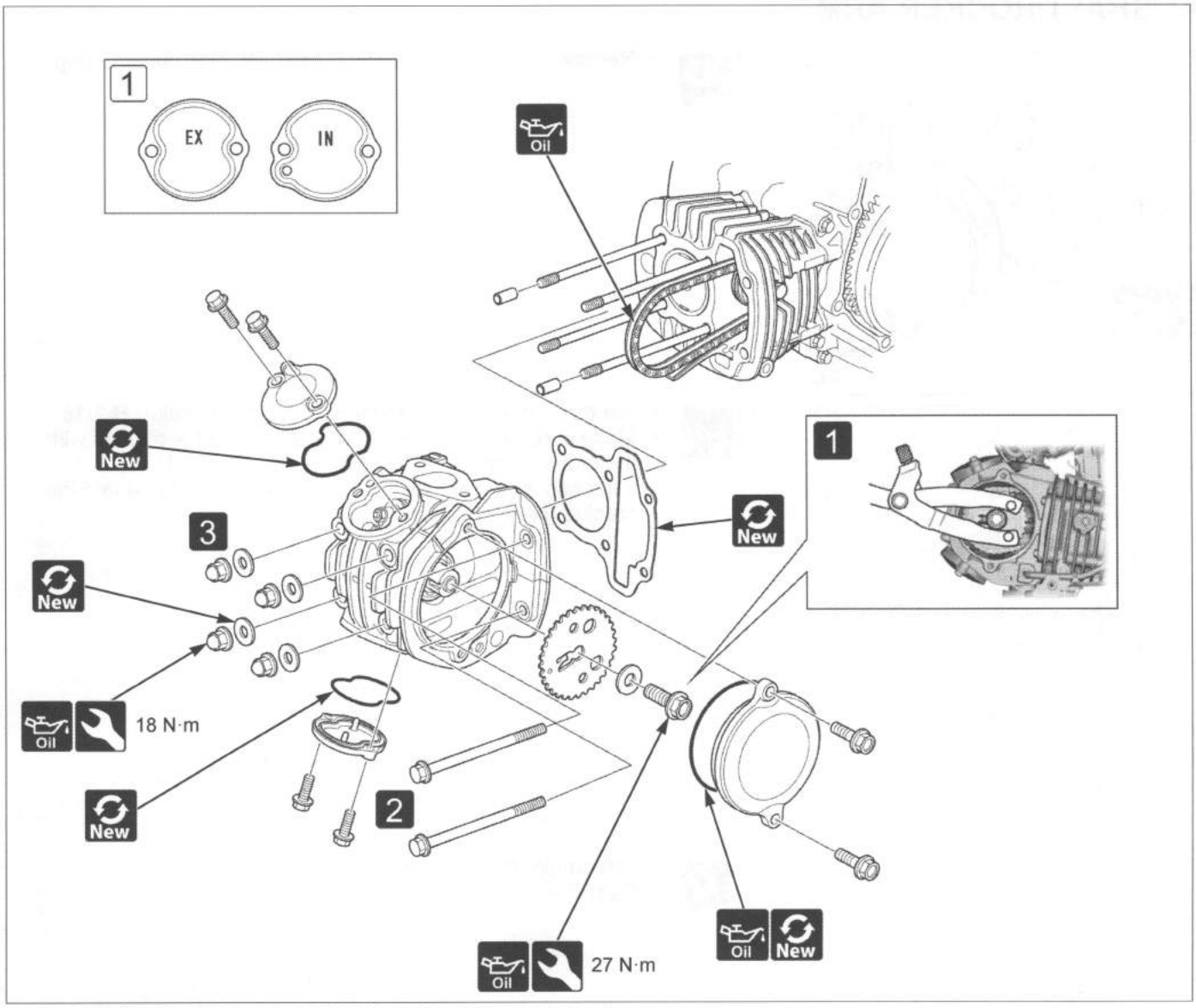
- Remove the bolts and cylinder head left side cover/O-ring.



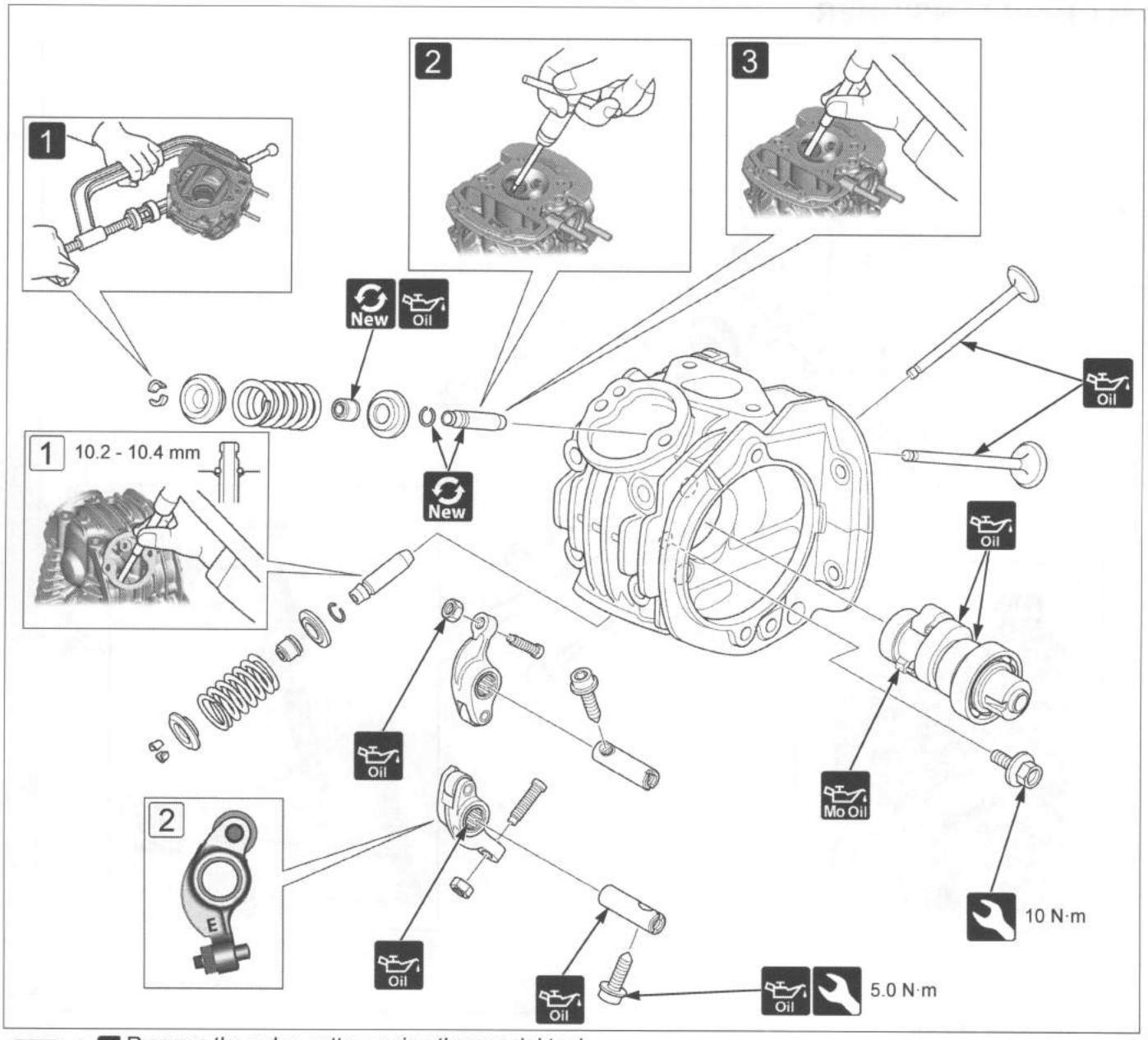
- Set the piston to TDC on the compression stroke. ➔2-18
- Make sure that the mark [A] on the sprocket is aligned with the index notch [B] on the cylinder head (TDC).
  If the cam sprocket mark is not in position shown, rotate the crankshaft one full turn



- Left crankcase cover ➔2-29
- Cam chain tensioner socket bolt.

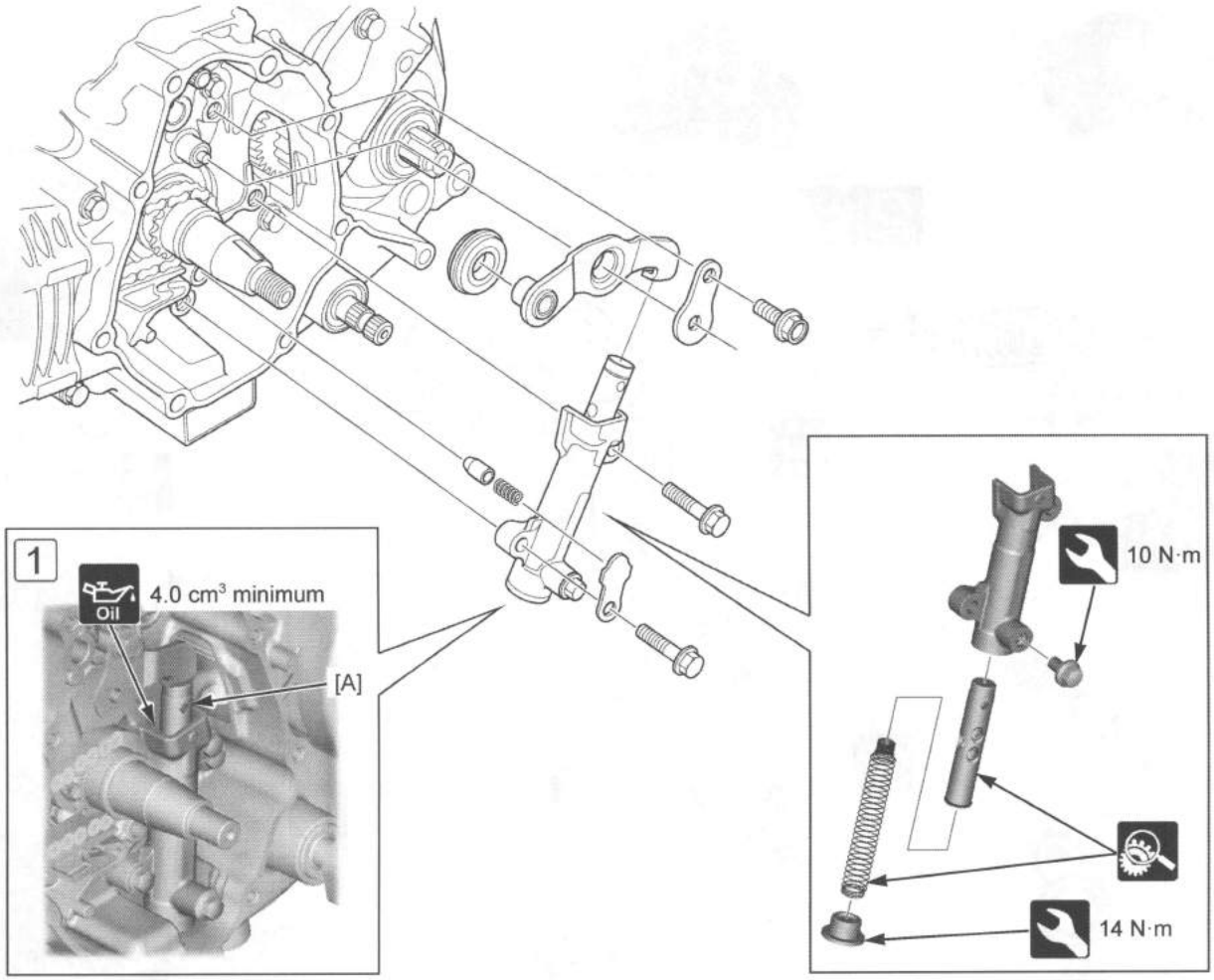


- 1 Hold the cam sprocket by using the special tool.
  Universal holder: 07725-0030000 or equivalent commercially available in U.S.A.
- Remove the bolt, cam sprocket from the camshaft and cam chain off the cam sprocket.
- Inlet pipe →2-9
- Front fender →3-3
- Exhausted pipe/muffler →3-14
- O_2 sensor →4-21
- EOT sensor →4-20
- Spark plug cap →4-23
- 2 Remove the cylinder head bolts.
- 3 Loosen the cylinder head nuts in a crisscross pattern in several steps.
- Inspect cam sprocket for damage, abnormal wear, deformation.
- Measure each part according to cylinder head/valves specification. Replace any part if it is out of service limit.
- [1] Intake and exhaust valve adjusting hole caps have identification marks, "IN" is for the intake side and "EX" is for the exhaust side.



- 1 Remove the valve cotters using the special tool.
  Valve spring compressor: 07757-0010000
  Valve spring compressor attachment: 07959-KM30101
- 2 Ream the valve guide. Insert the reamer from the combustion chamber side of the cylinder head and always rotate the reamer clockwise.
  Valve guide reamer, 4.5 mm: 07HMH-ML00101 or 07HMH-ML0010B (U.S.A. only)
- 3 Support the cylinder head and drive the valve guides out of the cylinder head from the combustion chamber side.
  Valve guide driver, 4.3 mm: 07HMD-ML00101
- Inspect camshaft and camshaft bearings for damage, abnormal wear, deformation, burning.
- Measure each part according to cylinder head/valves specification. Replace any part if it is out of service limit.
- [1] Drive new clips and valve guides into the cylinder head to the specified height from the cylinder head.
  VALVE GUIDE PROJECTION: IN/EX: 10.2 – 10.4 mm
  Valve guide adjusting driver: 07743-0020000 or 07942-6570100 (U.S.A. only)
- [2] The exhaust rocker arm has "E" mark.
- Camshaft inspection.
- Valve and valve spring inspection.
- Valve guide inspection.
- Valve seat inspection.

CAM CHAIN TENSIONER

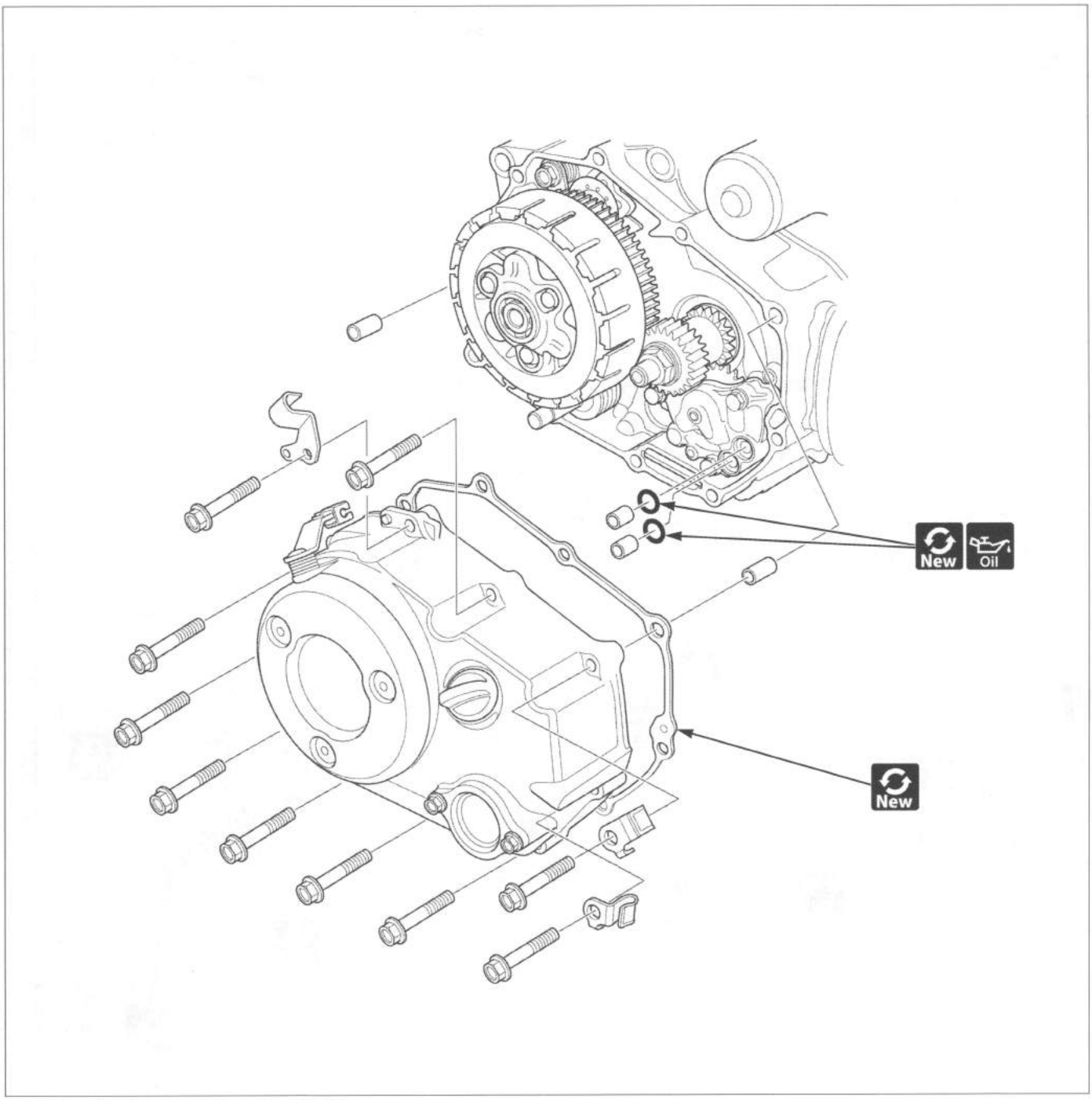


- Alternator ➔2-29
- Inspect tensioner spring length and push rod.
- [1] Pour 4.0 cm³ (0.14 US oz) minimum of engine oil into the cam chain tensioner lifter chamber. Bleed the air from the tensioner lifter by pumping the push rod [A] until it does not move.

CLUTCH/GEARSHIFT LINKAGE

- This service can be performed with the engine installed in the frame.

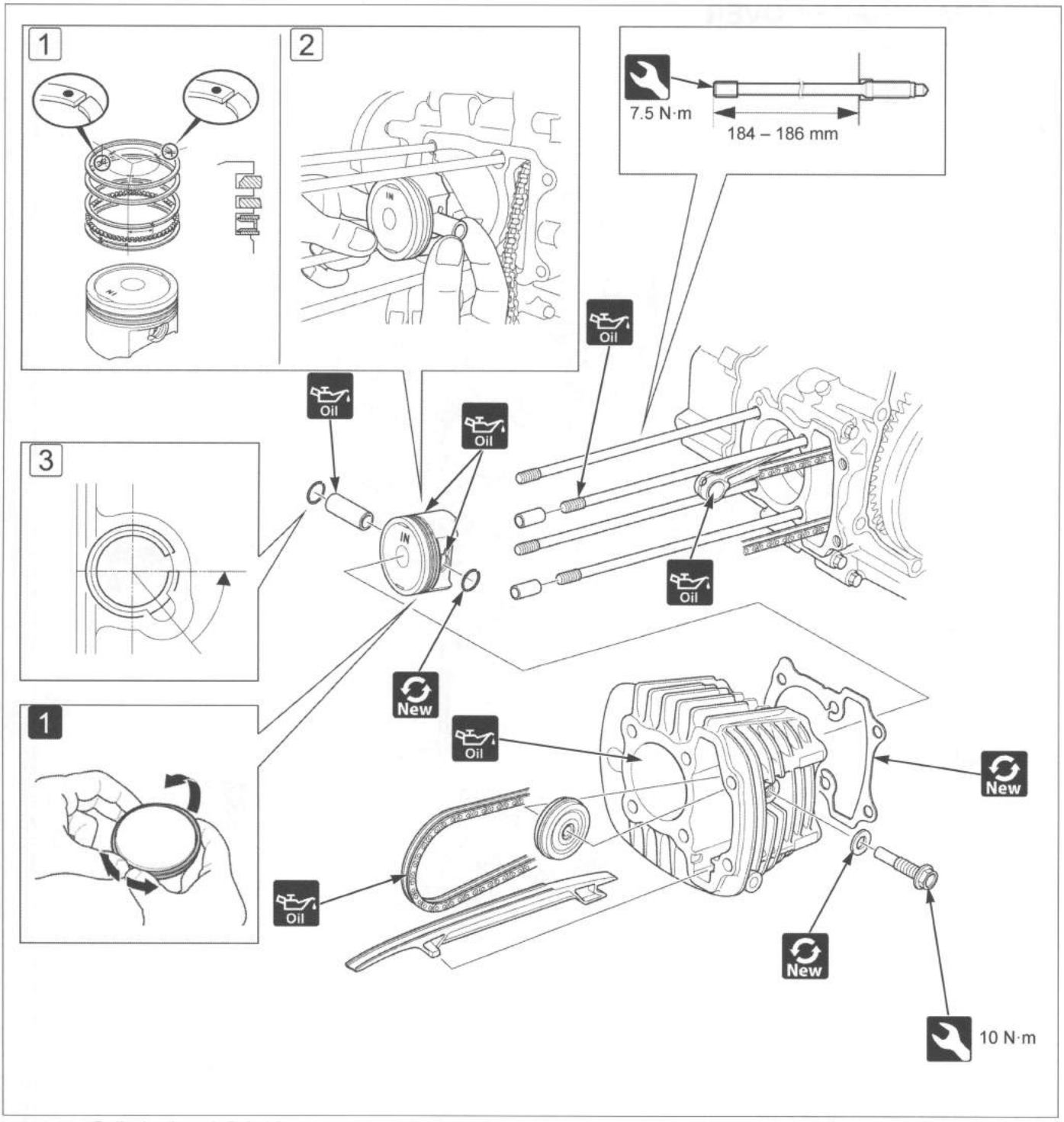
RIGHT CRANKCASE COVER



- Drain the engine oil ➔2-16
- Right step holder ➔3-12
- Loosen the bolts in crisscross pattern in several steps and remove them and guide.

CYLINDER/PISTON

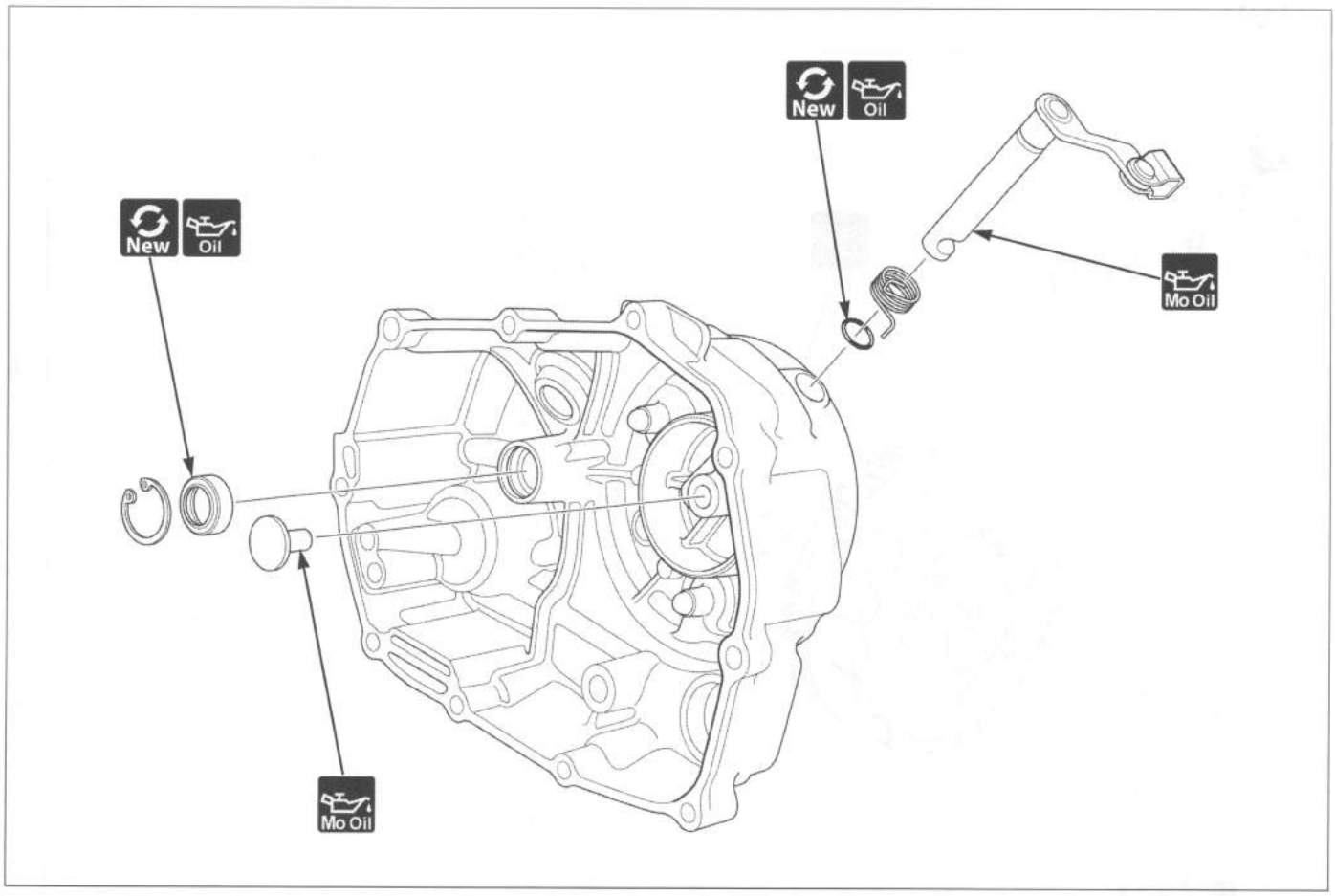
- This service can be performed with the engine installed in the frame.

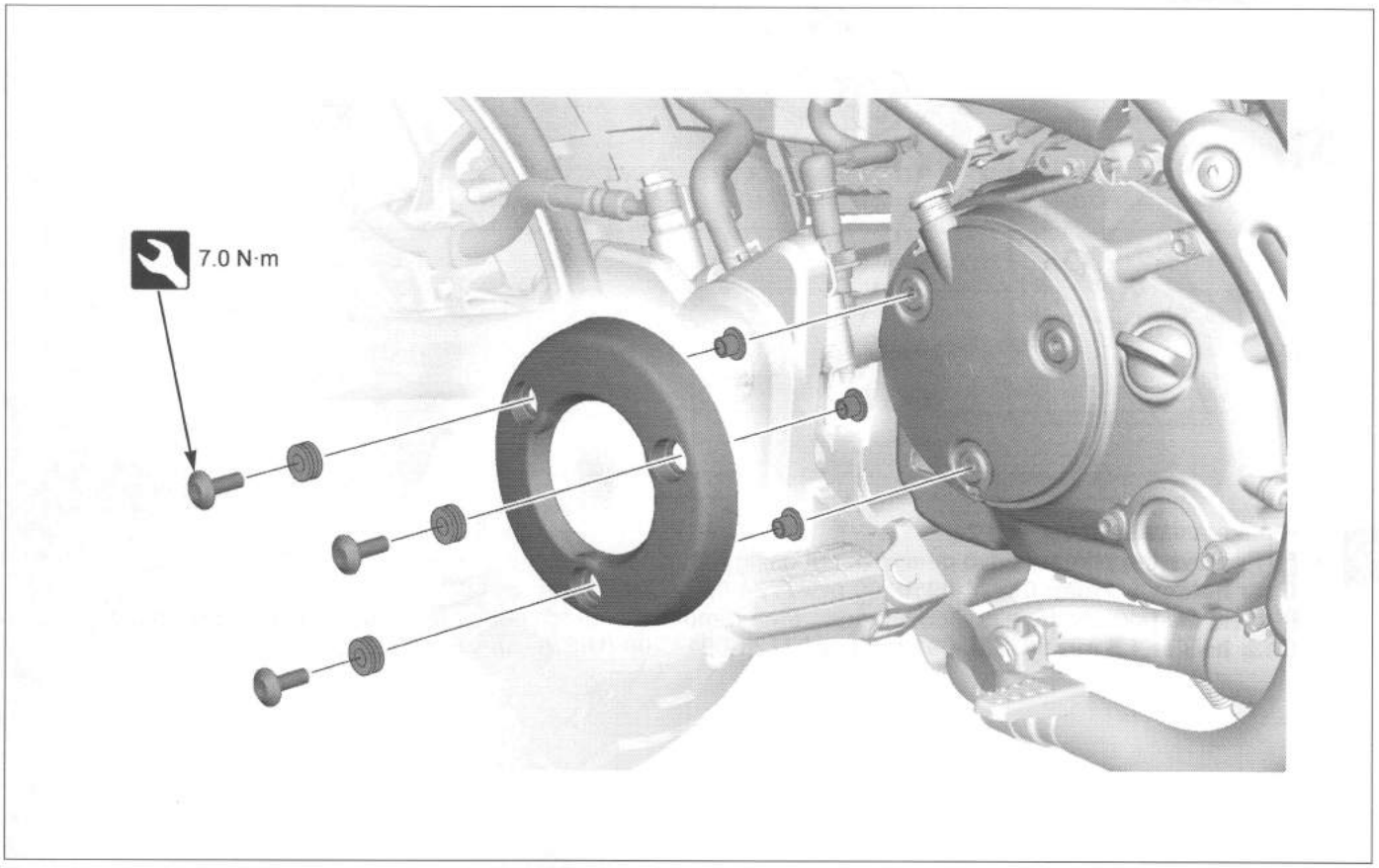


- Cylinder head ➔2-18
- 1 Spread each piston ring and remove it by lifting up at a point opposite the gap.

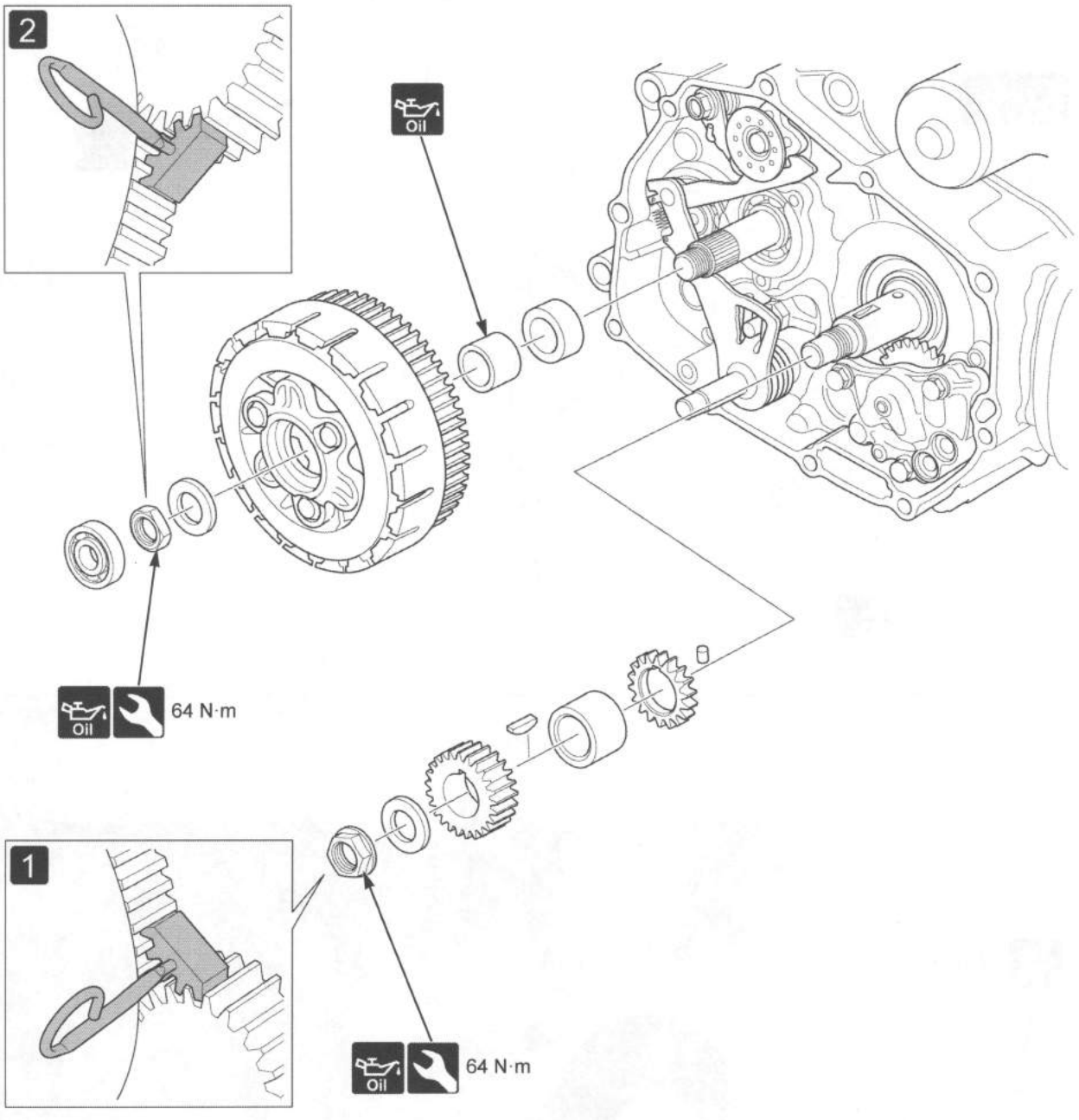
- 1 Carefully install the piston rings into the piston ring grooves with the markings facing up.
- 2 Install the piston with the "IN" mark facing the intake side.
- 3 Do not align the piston pin clip end gap with the piston cut-out.

Basic
- Piston and piston rings inspection.
- Cylinder inspection.

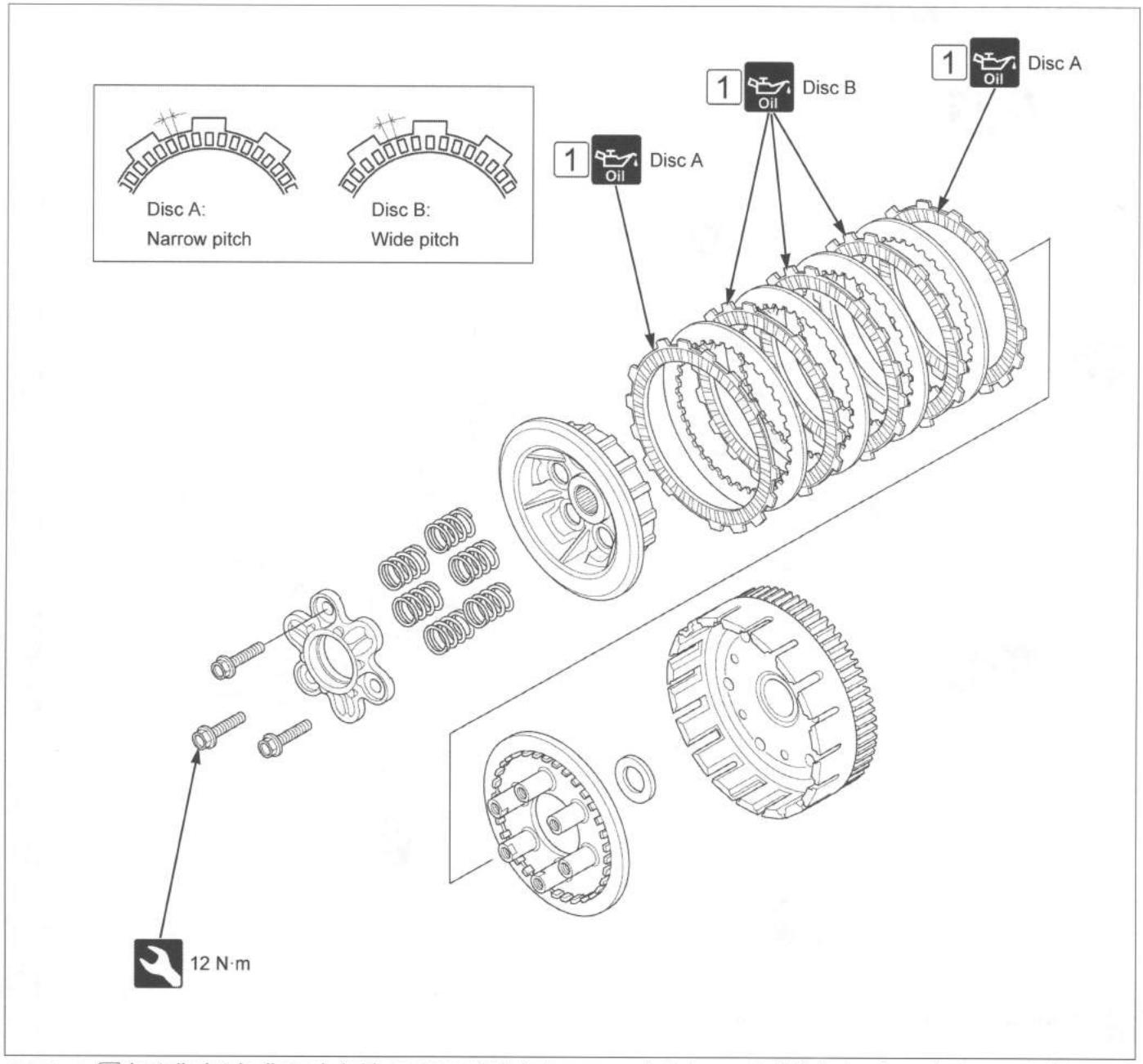

New
Oil
New
Oil
Mo Oil
Mo Oil


7.0 N·m

CLUTCH

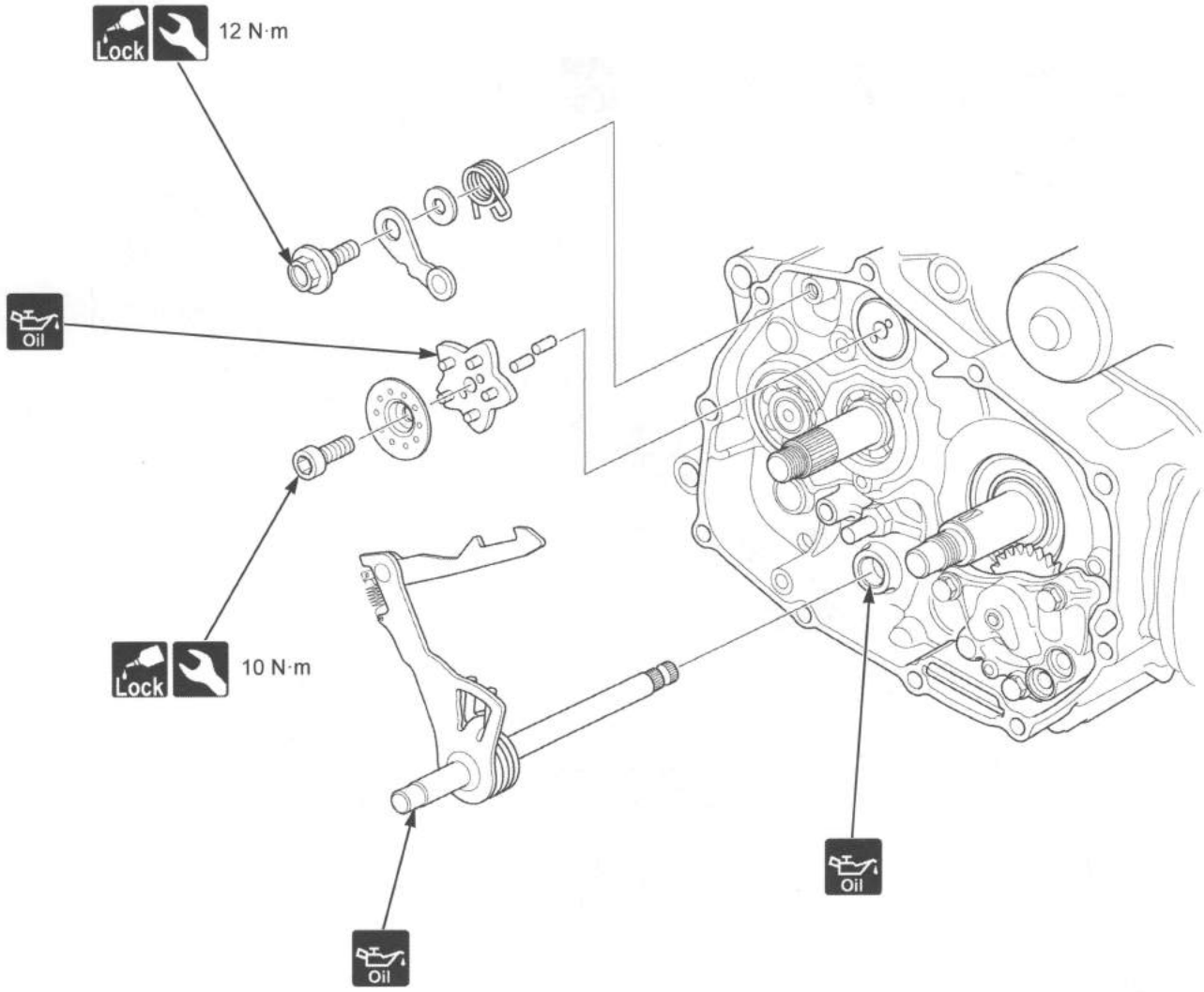


- Right crankcase cover ➔2-24
- 1 Remove the primary drive gear lock nut using the special tool.
  Gear holder 1.5 mm: 07724-0010200 or 07724-001A200 (U.S.A. only)
- 2 Hold the primary drive and driven gear, then remove the clutch center lock nut using the special tool.
  Gear holder 1.5 mm: 07724-0010200 or 07724-001A200 (U.S.A. only)



- [1] Install clutch discs A (with narrow pitch between each lining material) to the inner/outermost side, and three discs B (with wide pitch between each lining material) in between discs A.
- Clutch inspection.

GEARSHIFT LINKAGE



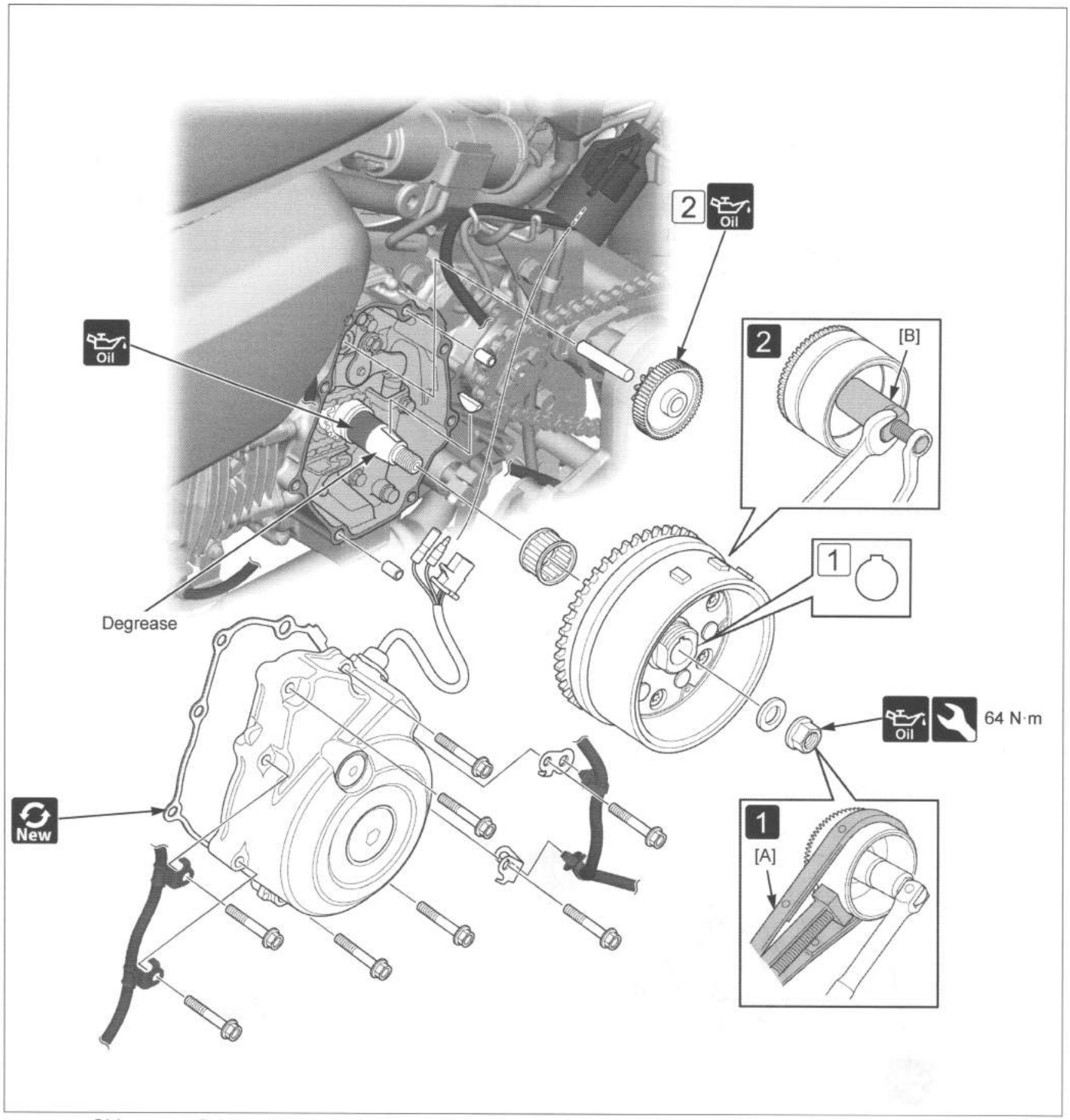
Lock : Coating width: 6.5 ± 1 mm from tip (Exclude end for 2 ± 1 mm).

- Clutch →2-26
- Gearshift pedal →3-13

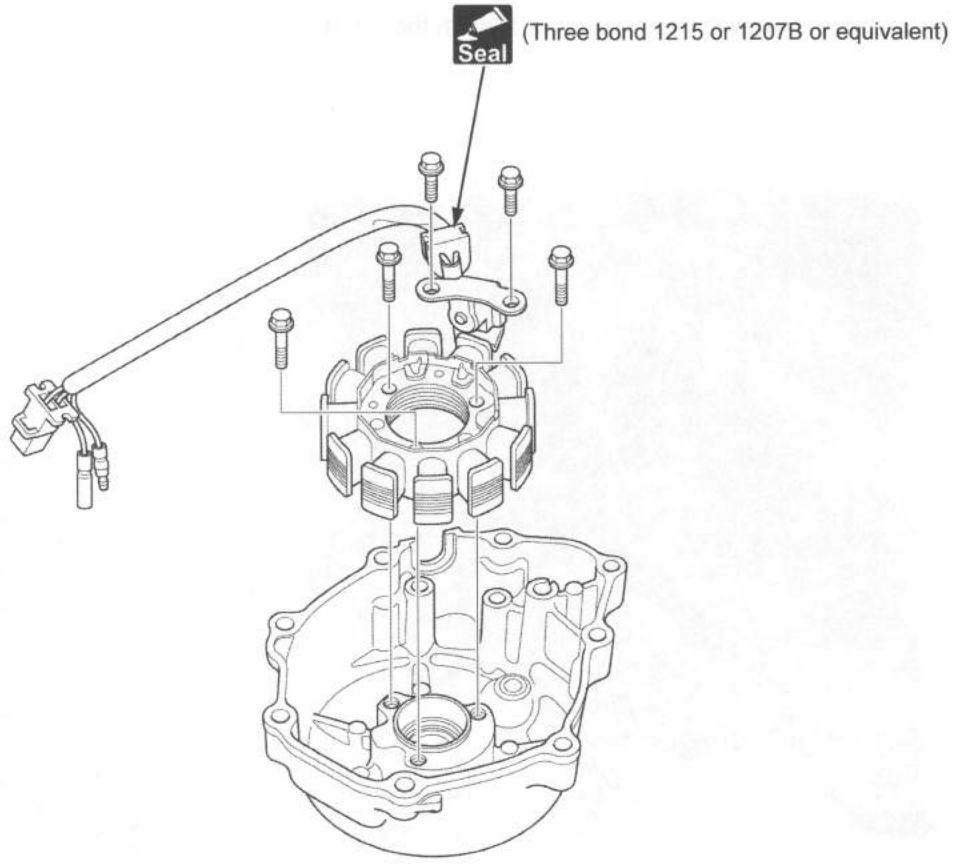
Basic
- Gearshift pedal inspection.

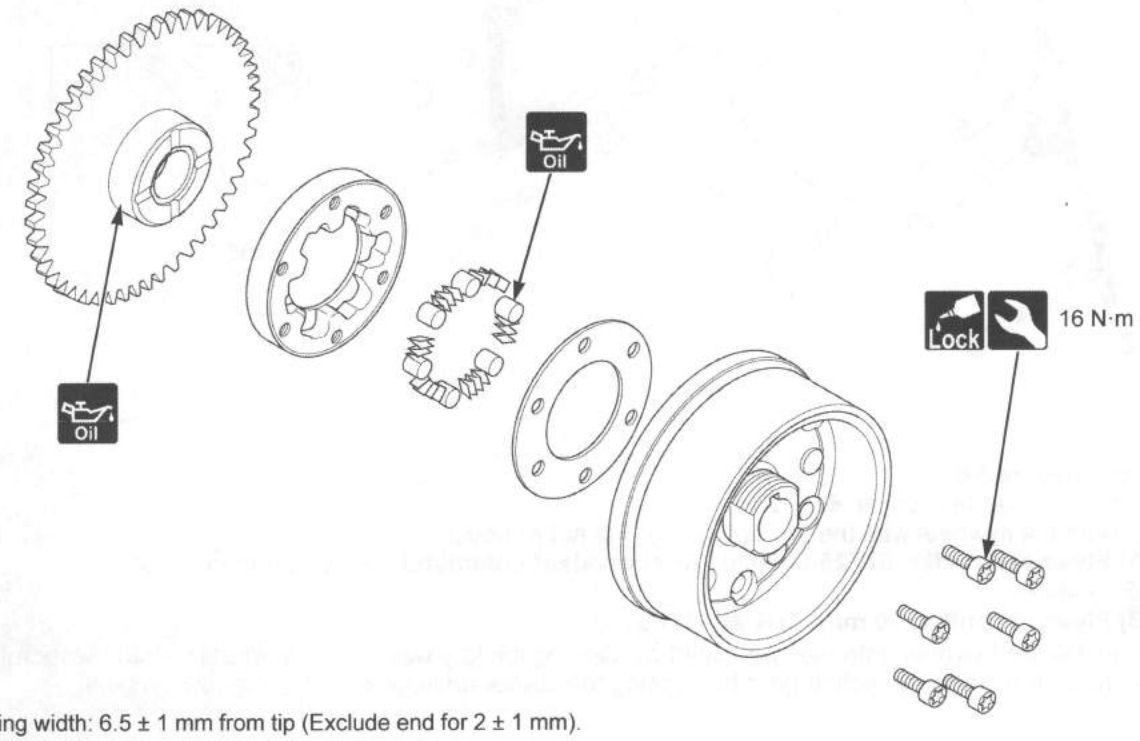
ALTERNATOR/STARTER CLUTCH

- This service can be performed with the engine installed in the frame.

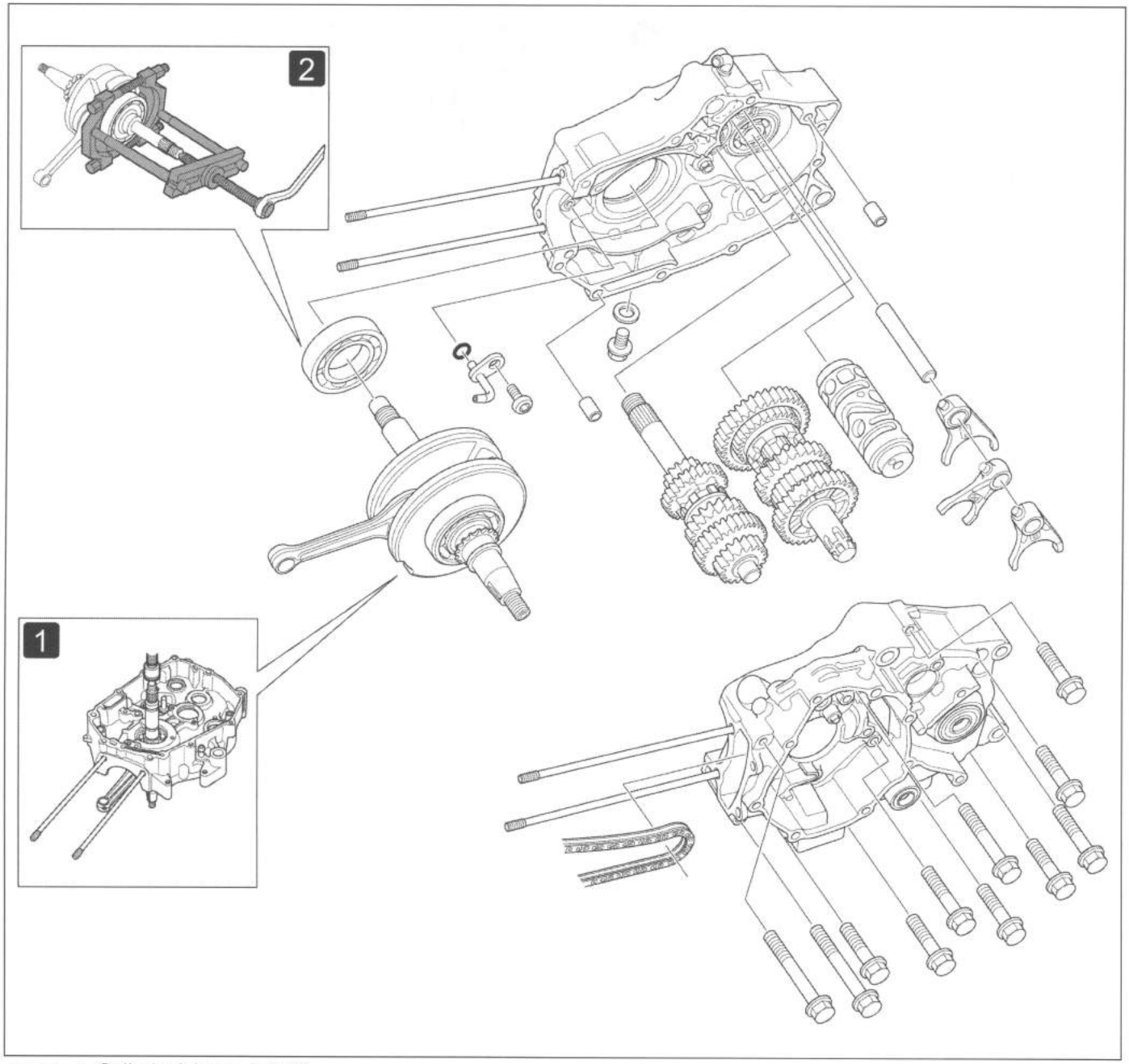


- Side cover ➔3-6
- Left crankcase rear cover ➔3-12
- 1 Hold the flywheel with the special tool for the nut removal.
  [A] Flywheel holder: 07725-0040001 or equivalent commercially available in U.S.A.
- 2 Flywheel
  [B] Flywheel puller, 30 mm: 07KMC-HE00100
- 1 Install the flywheel onto the crankshaft by aligning the key way on the flywheel with the woodruff key.
- 2 Install the starter reduction gear by aligning the starter drive gear and starter driven gear.


Seal
(Three bond 1215 or 1207B or equivalent)


Oil
Oil
Lock
16 N·m
Lock
: Coating width: 6.5 ± 1 mm from tip (Exclude end for 2 ± 1 mm).

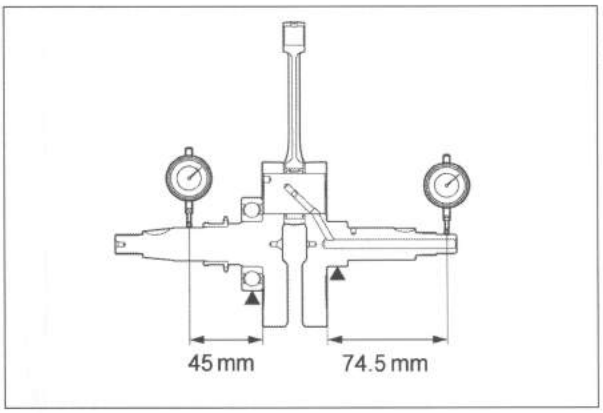
CRANKCASE/CRANKSHAFT



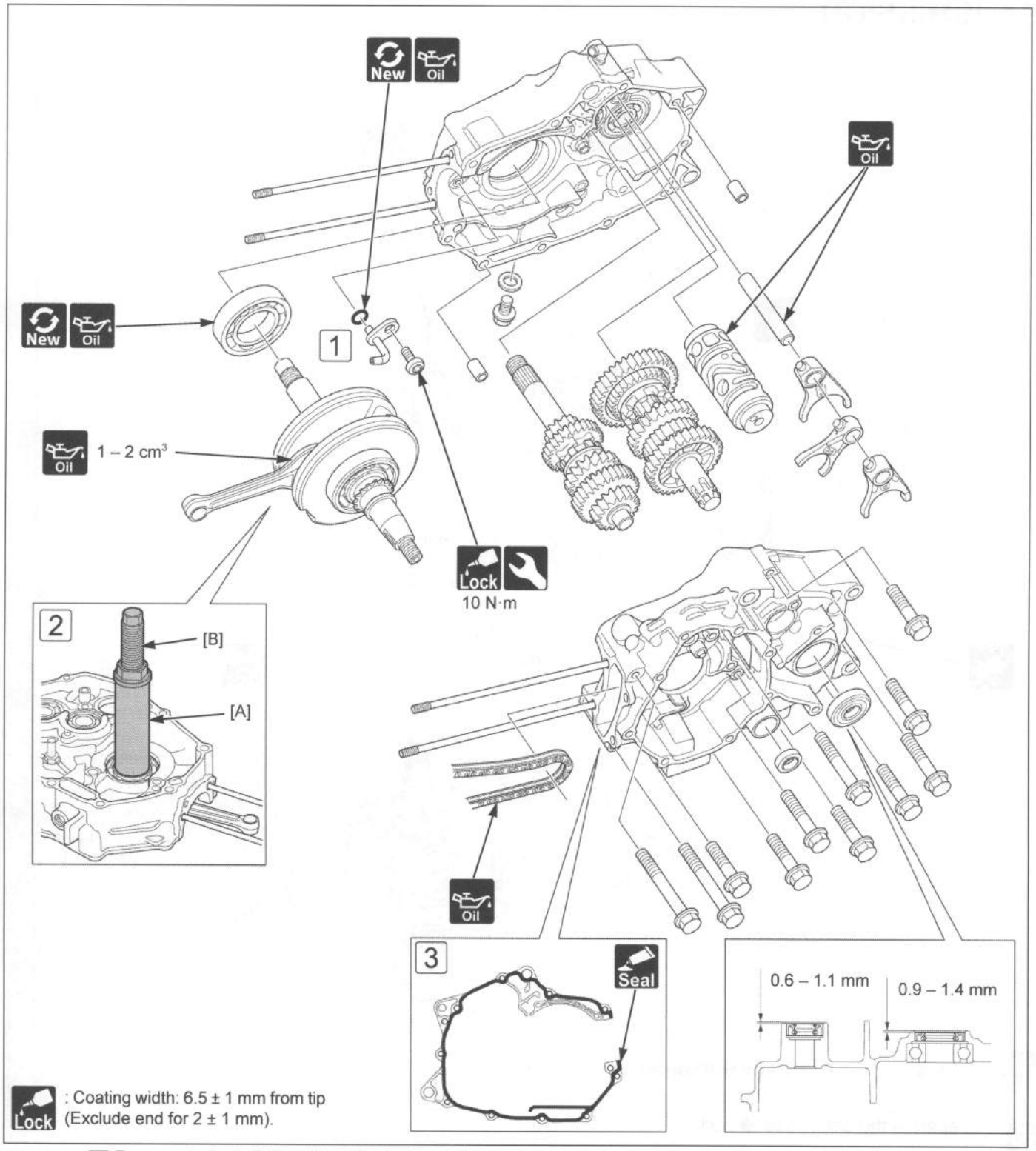
- Cylinder/piston ➔2-23
- Clutch/gearshift linkage ➔2-24
- Alternator/starter clutch ➔2-29
- Starter motor ➔4-27
- VS sensor ➔4-51
- Neutral switch ➔4-54
- Remove the crankcase bolts in a crisscross pattern in 2 - 3 steps.
- Place the crankcase with the right crankcase facing down and separate.
- 1 Remove the crankshaft from the right crankcase using a hydraulic press.
- If the crankshaft bearing remains in the right crankcase, remove it.
- 2 Bearing from the crankshaft
  Universal bearing puller: 07631-0010000 or equivalent commercially available in U.S.A.
- Replace any parts that exceeds the service limits.

- Crankshaft inspection.
- Connecting rod inspection.

CRANKSHAFT RUNOUT INSPECTION



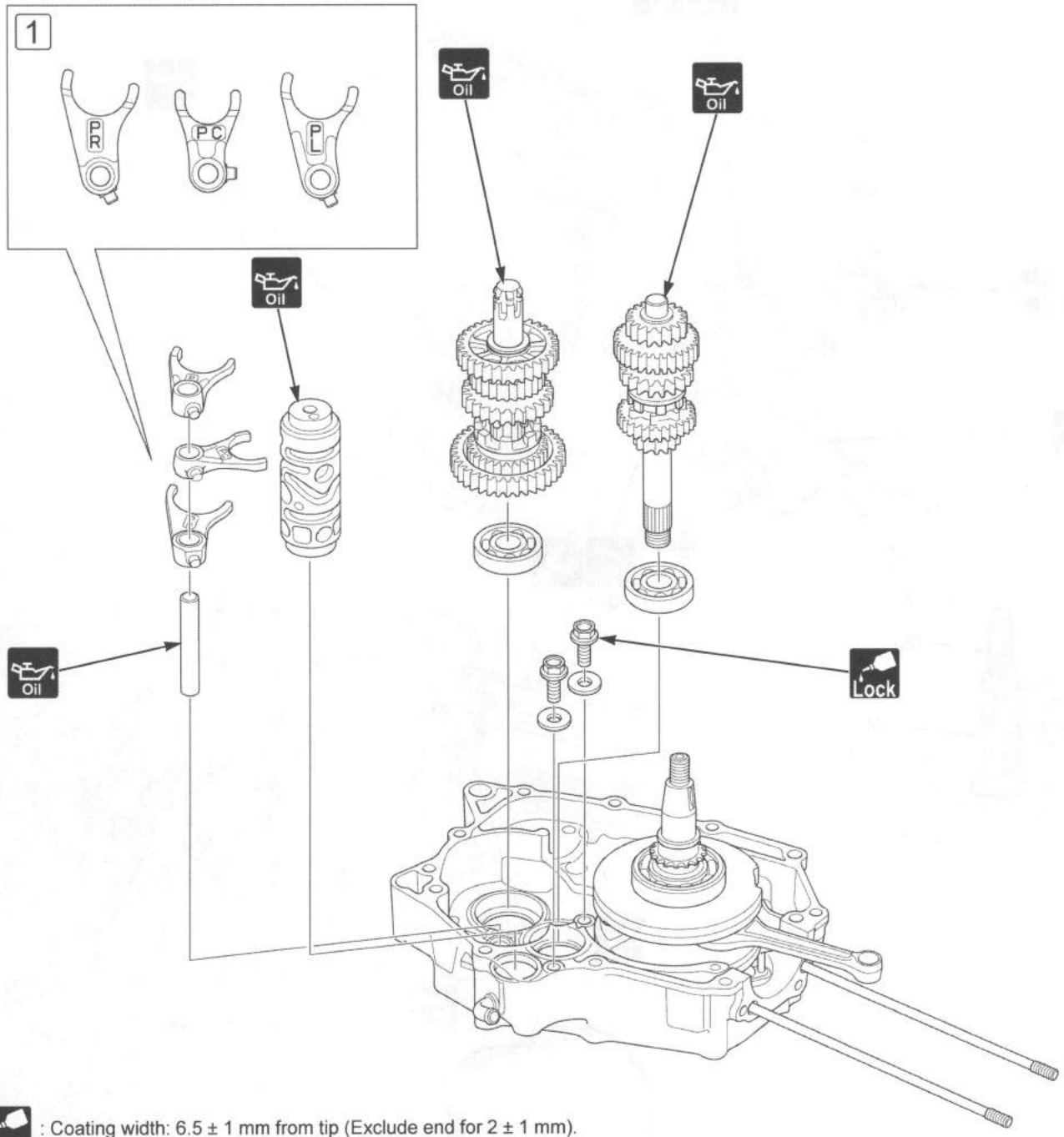
- Place the crankshaft on a stand of V-blocks and measure the runout using a dial gauge.
- SERVICE LIMIT:
  – Right (clutch side): 0.10 mm
  – Left (flywheel side): 0.05 mm



- 1 Be sure to install the piston jet to the right crankcase before pulling the crankshaft into the bearing.
- 2 Pull the crankshaft into the bearing until it is fully seated while positioning the connecting rod in the cylinder sleeve opening on the right crankcase.
  [A] Assembly collar: 07LMF-KAB0110 or 07965-GM00100 (U.S.A. only)
  [B] Assembly shaft: 07WMF-KBP0100 or 07931-ME4010B + 07931-HB3020A (U.S.A. only)
- 3 Apply sealant (Three bond 1215 or equivalent) to the right crankcase mating surface.
- Crankshaft inspection.
- Connecting rod inspection.

Basic

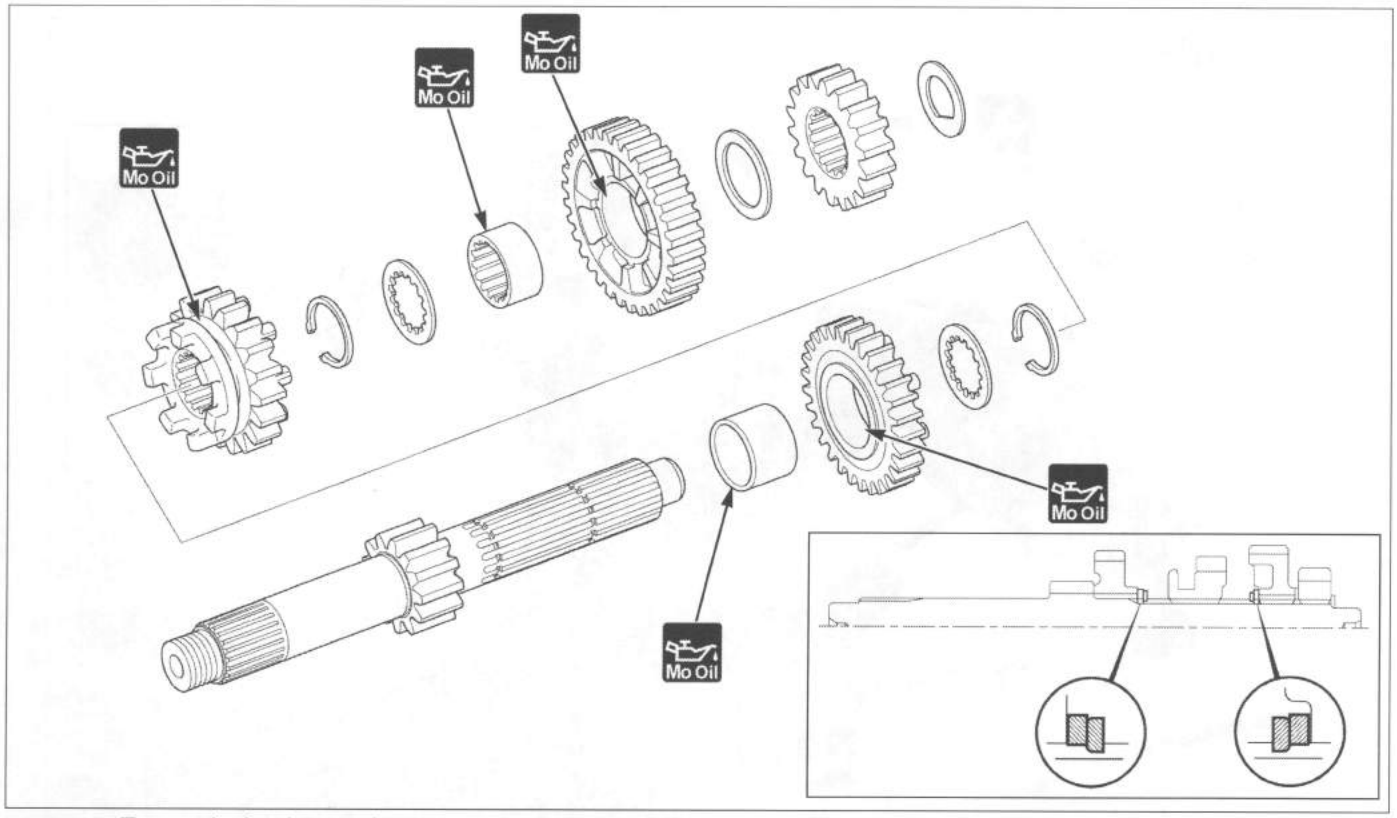
TRANSMISSION



- Separate the crankcase ➔2-31

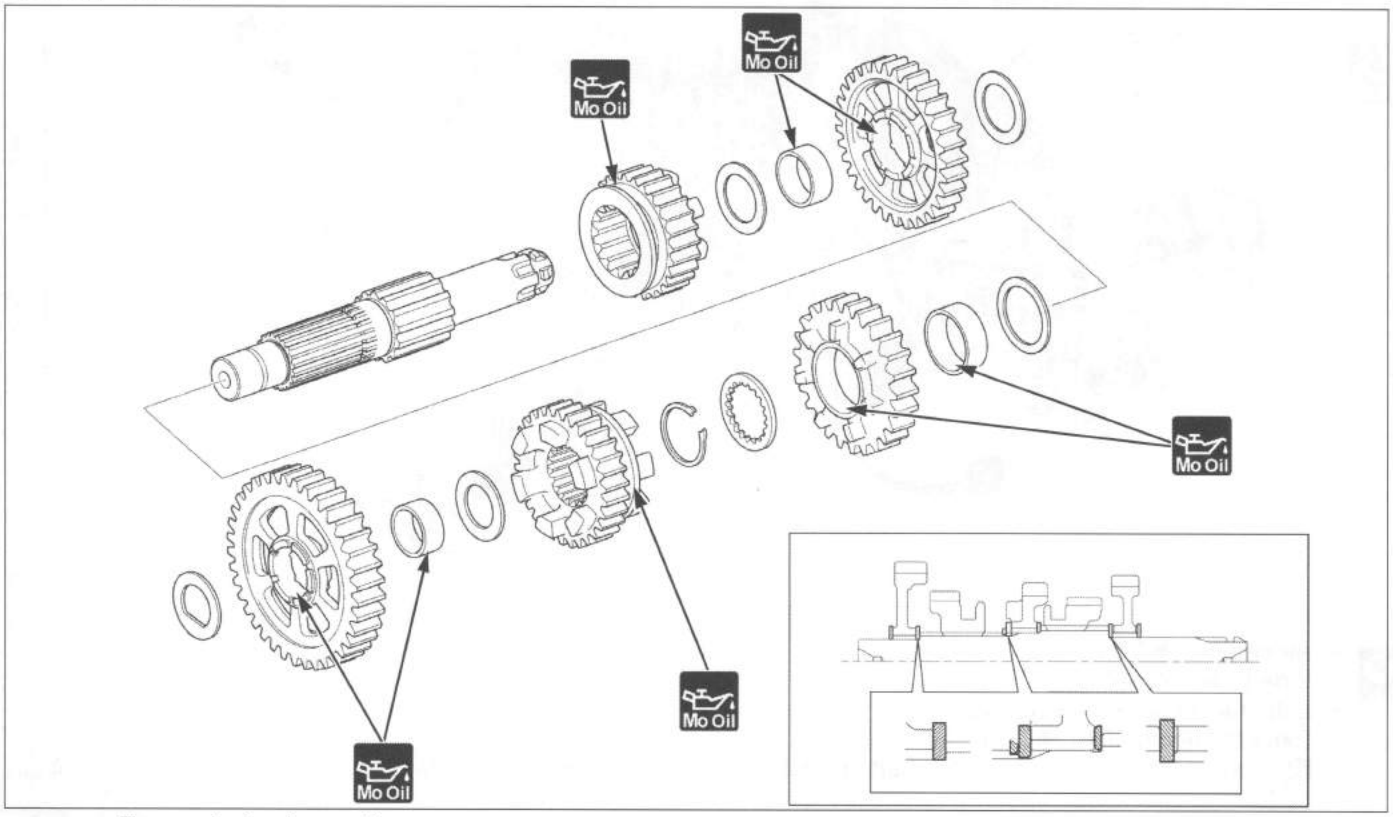
- 1 The shift forks have identification marks.
  – "PR" mark: Right shift fork
  – "PC" mark: Center shift fork
  – "PL" mark: Left shift fork
- Assemble the crankcase ➔2-31

MAINSHAFT



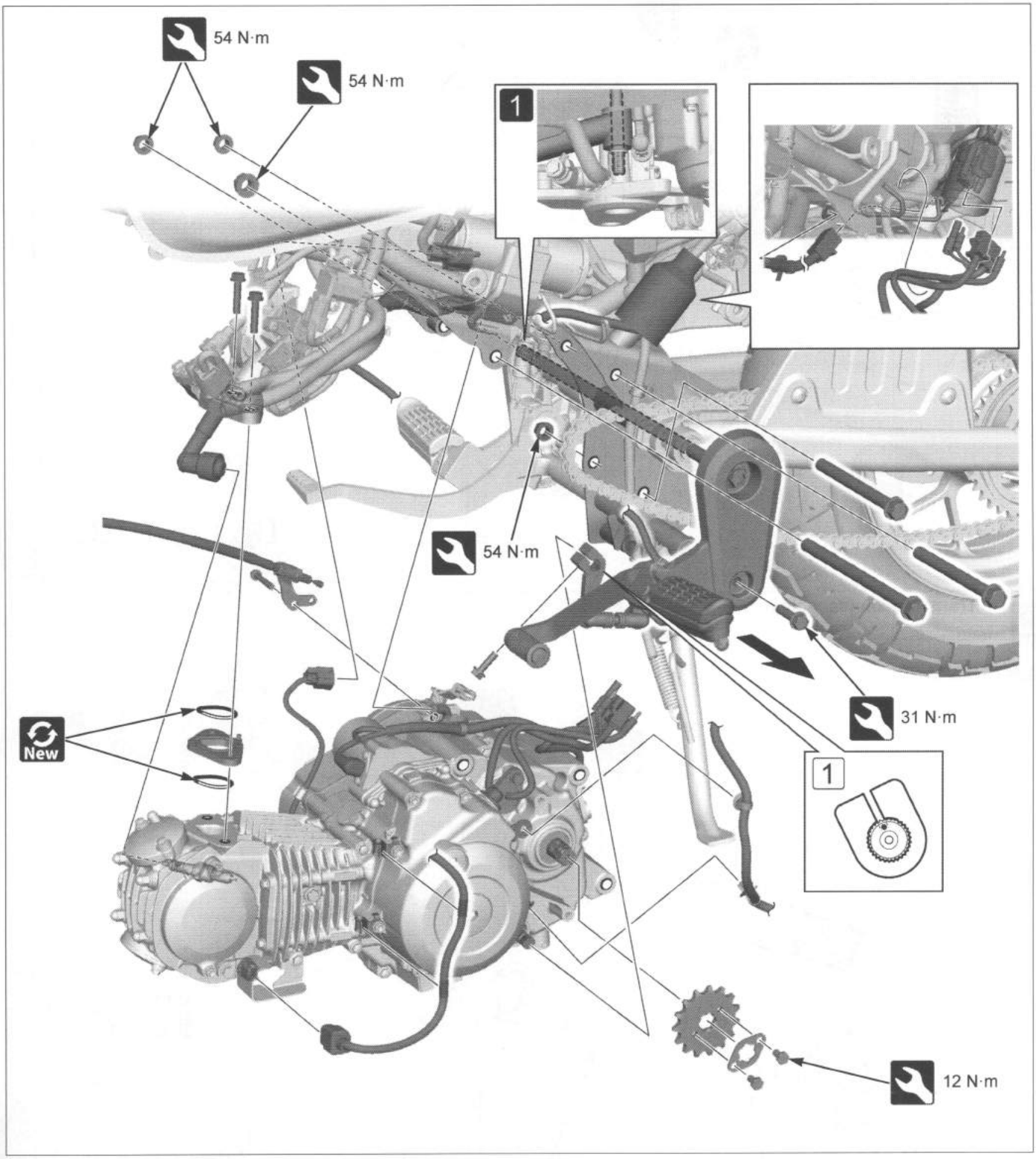
Basic • Transmission inspection

COUNTERSHAFT



Basic • Transmission inspection

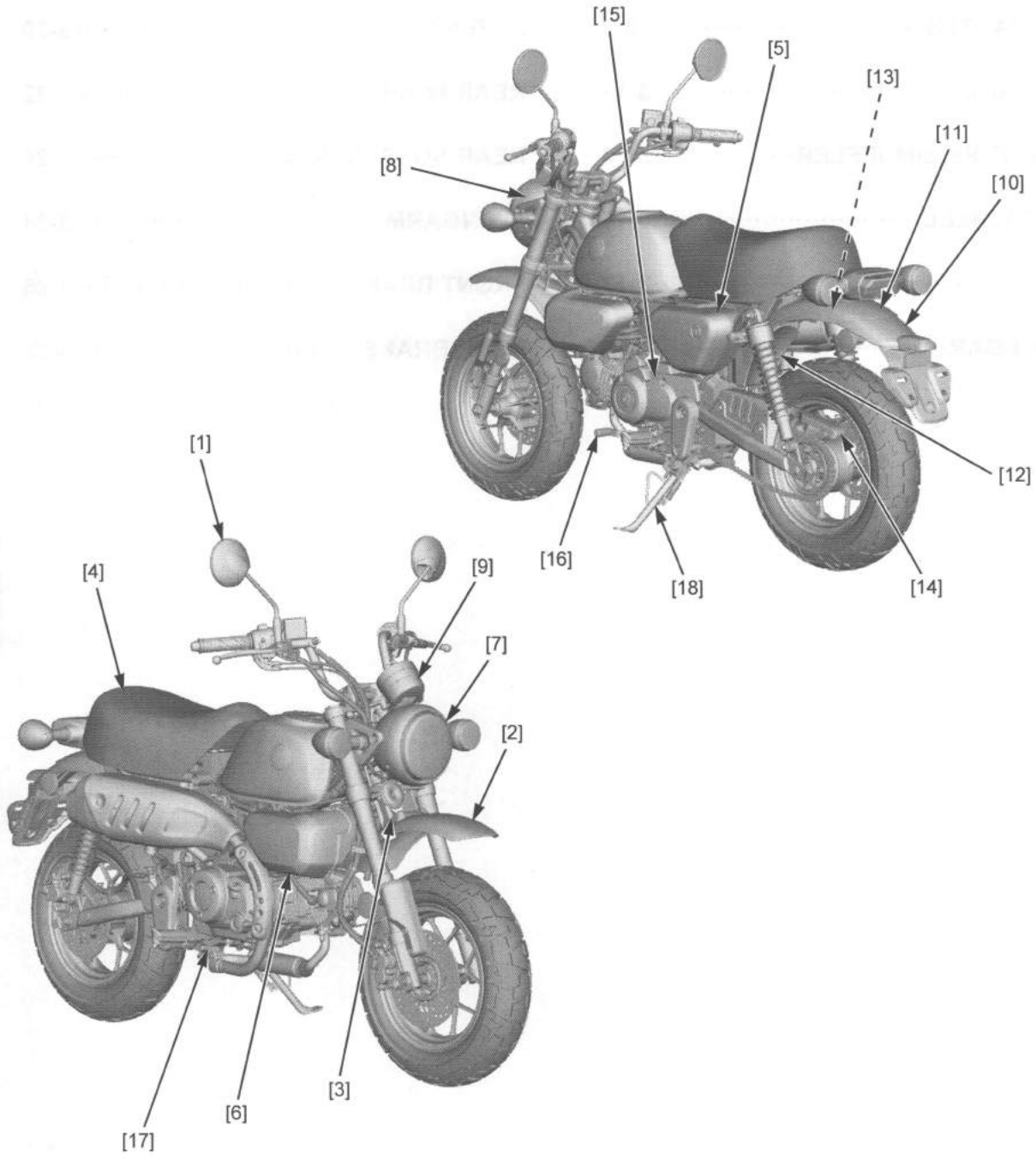
ENGINE UNIT



- Air cleaner ➔2-8
- Side cover ➔3-6
- Left crankcase rear cover ➔3-12
- Exhaust pipe/muffler ➔3-14
- 1 Push out the swingarm pivot shaft and left step holder to the left to gain access to the engine mounting bolts.
- [1] Align the slit of the gearshift pedal with the punch mark of the gearshift spindle.

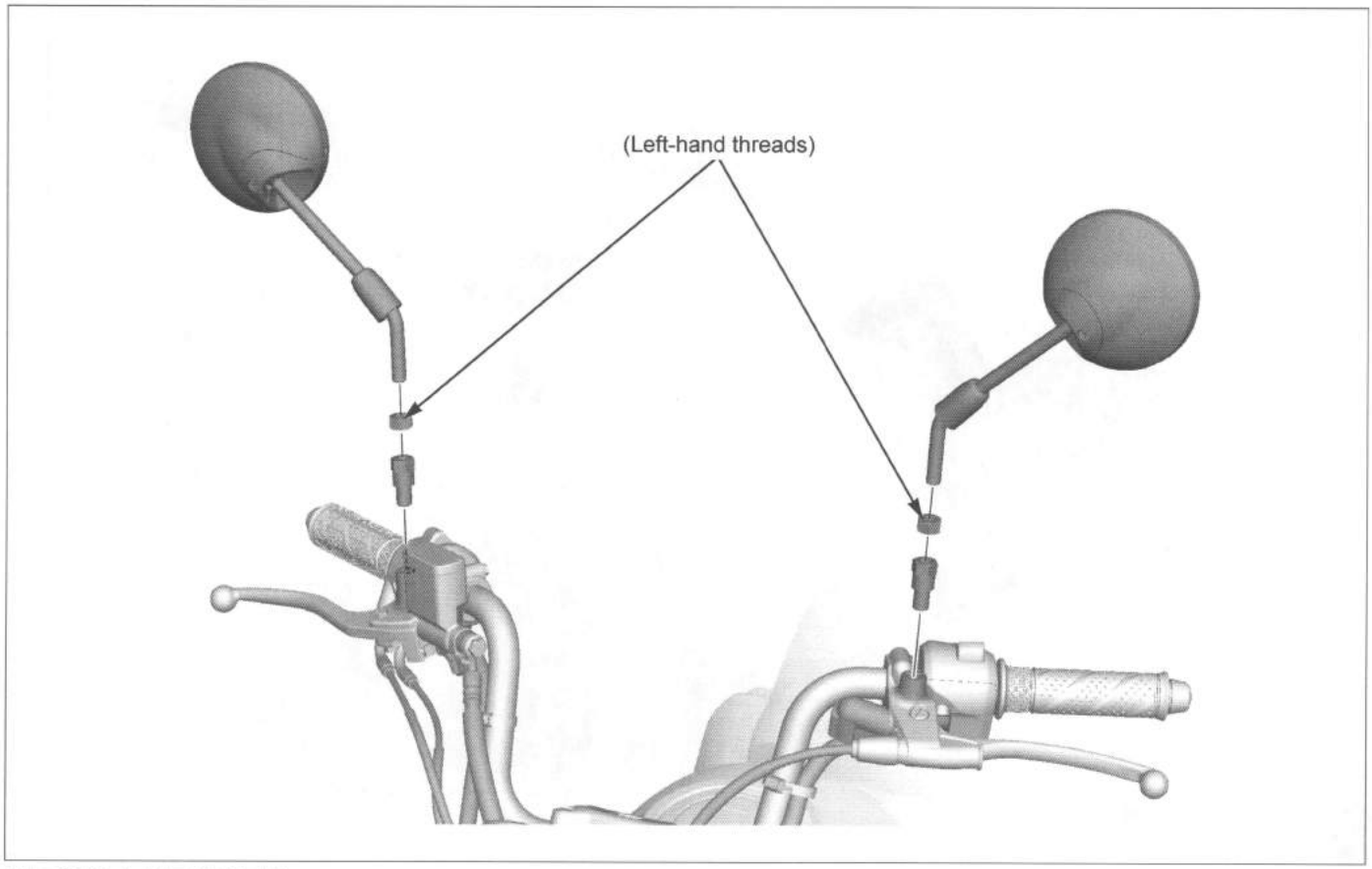
3. FRAME & CHASSIS

BODY PANELS

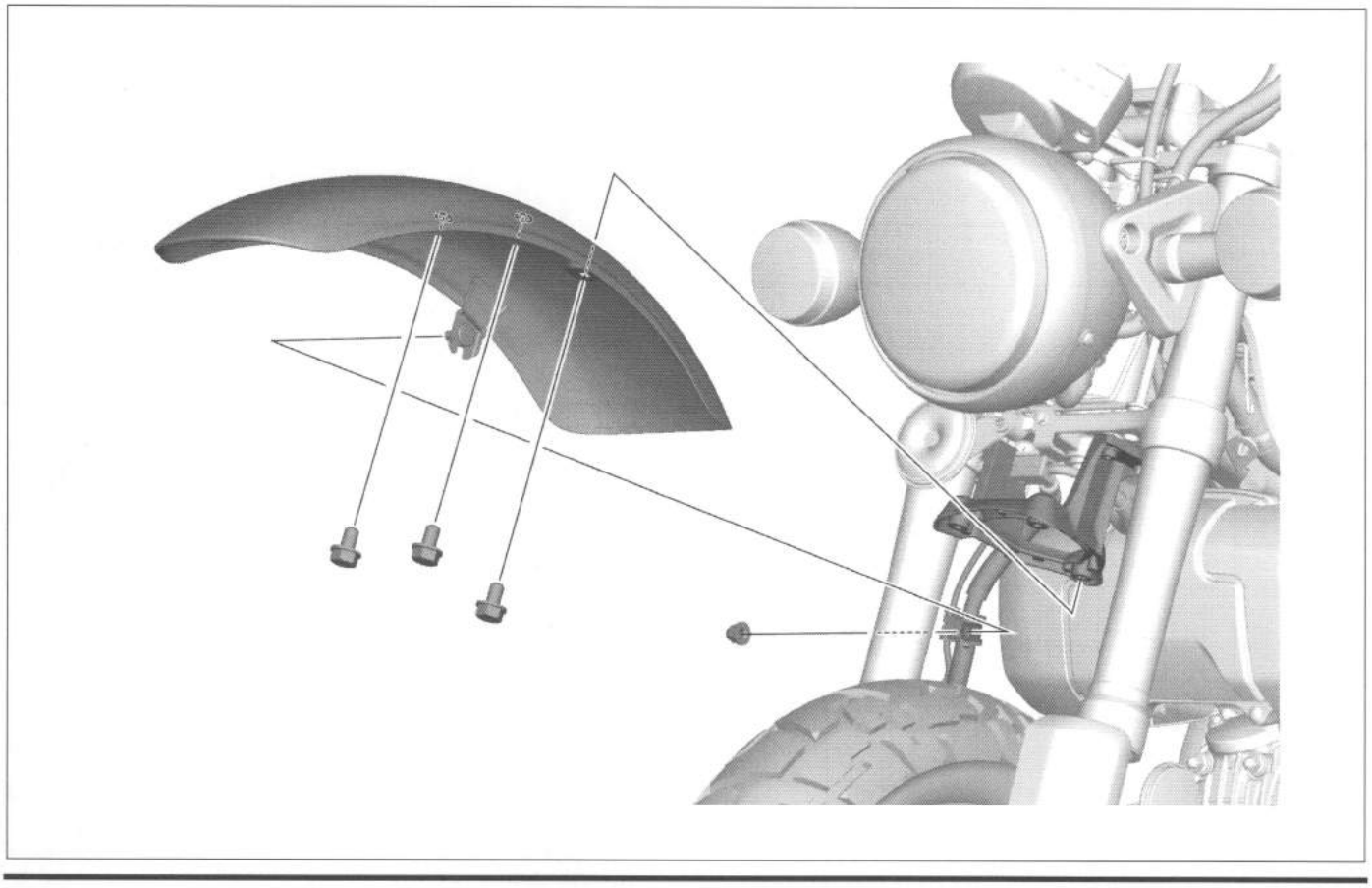


[1] Rearview mirror ➔3-3
[2] Front fender ➔3-3
[3] Front fender bracket ➔3-4
[4] Seat ➔3-5
[5] Side cover ➔3-6
[6] Air cleaner cover ➔3-7
[7] Headlight cover ➔3-7
[8] Headlight case ➔3-8
[9] Meter lower case ➔3-8
[10] Rear fender A ➔3-9
[11] Rear fender B ➔3-10
[12] Rear fender C ➔3-10
[13] Rear fender D ➔3-11
[14] Drive chain cover ➔3-11
[15] Left crankcase rear cover ➔3-12
[16] Brake pedal ➔3-12
[17] Gearshift pedal ➔3-13
[18] Sidestand ➔3-13

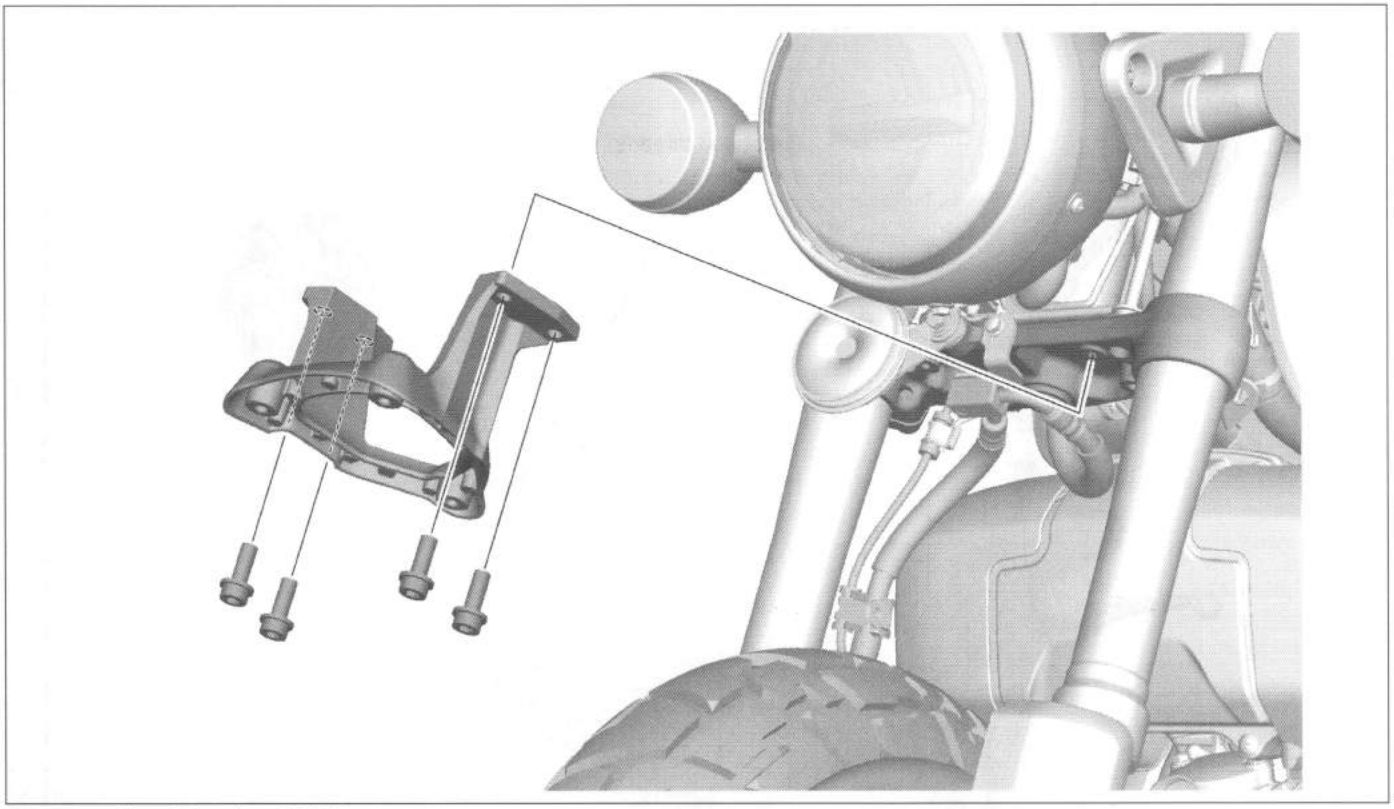
REARVIEW MIRROR



FRONT FENDER

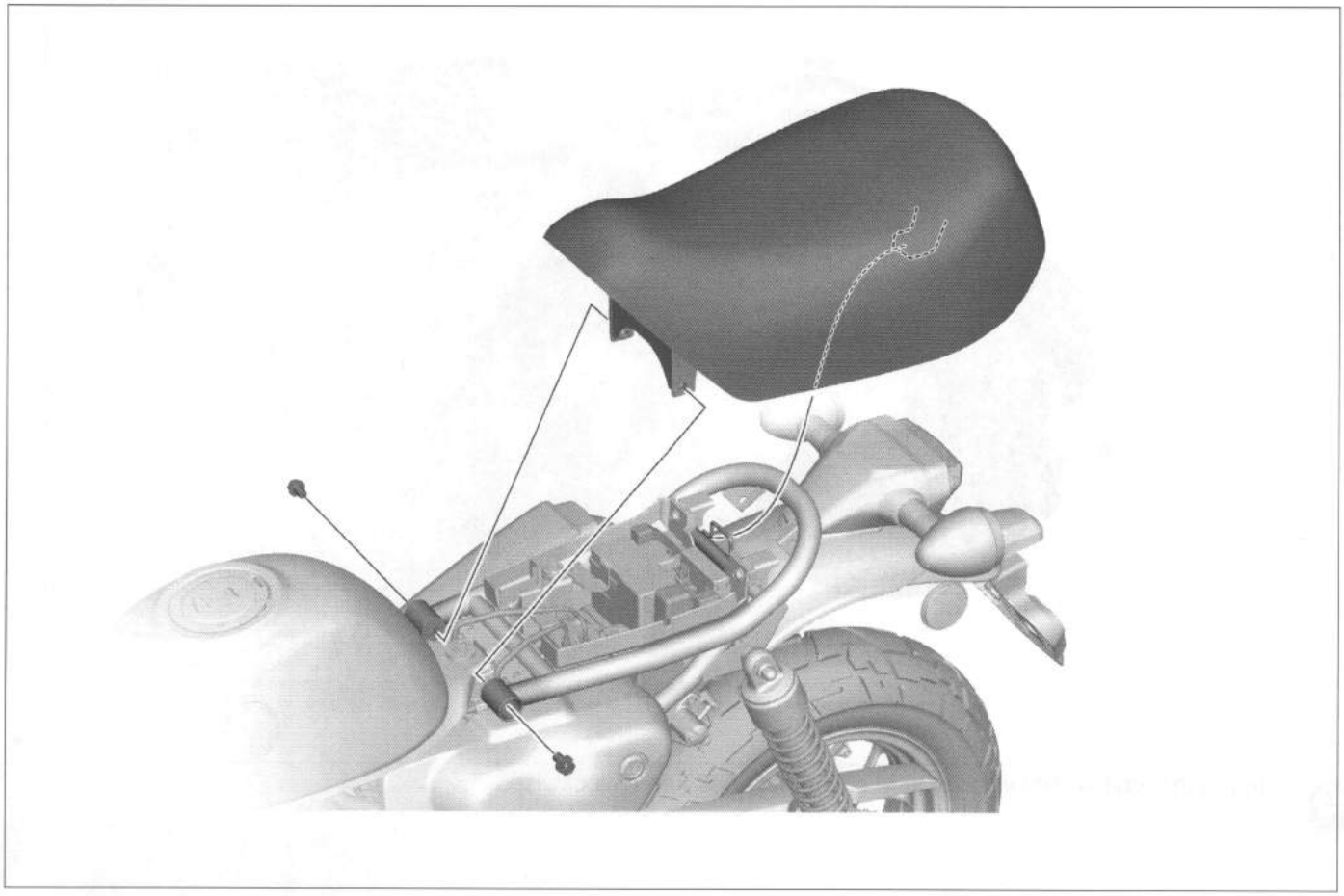


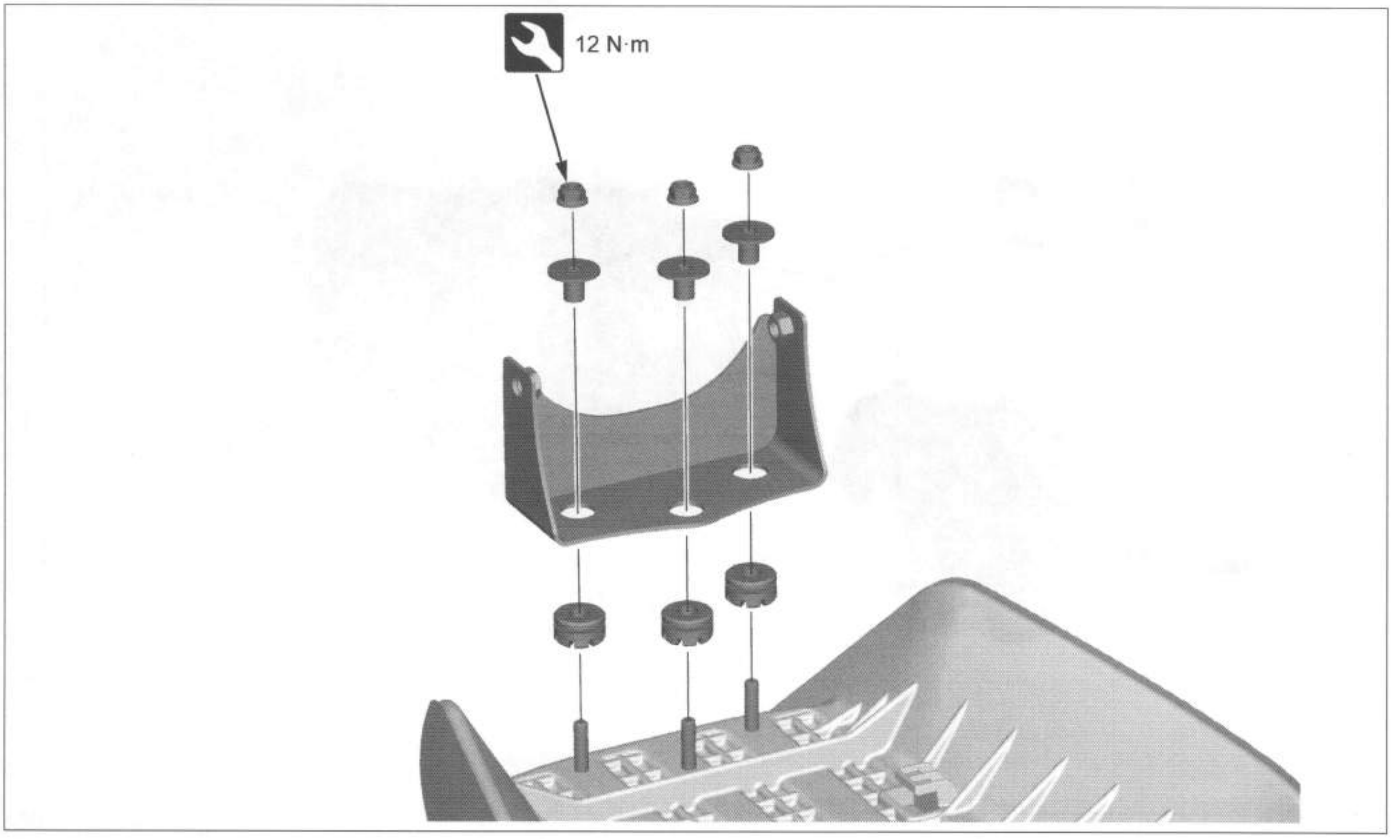
FRONT FENDER BRACKET



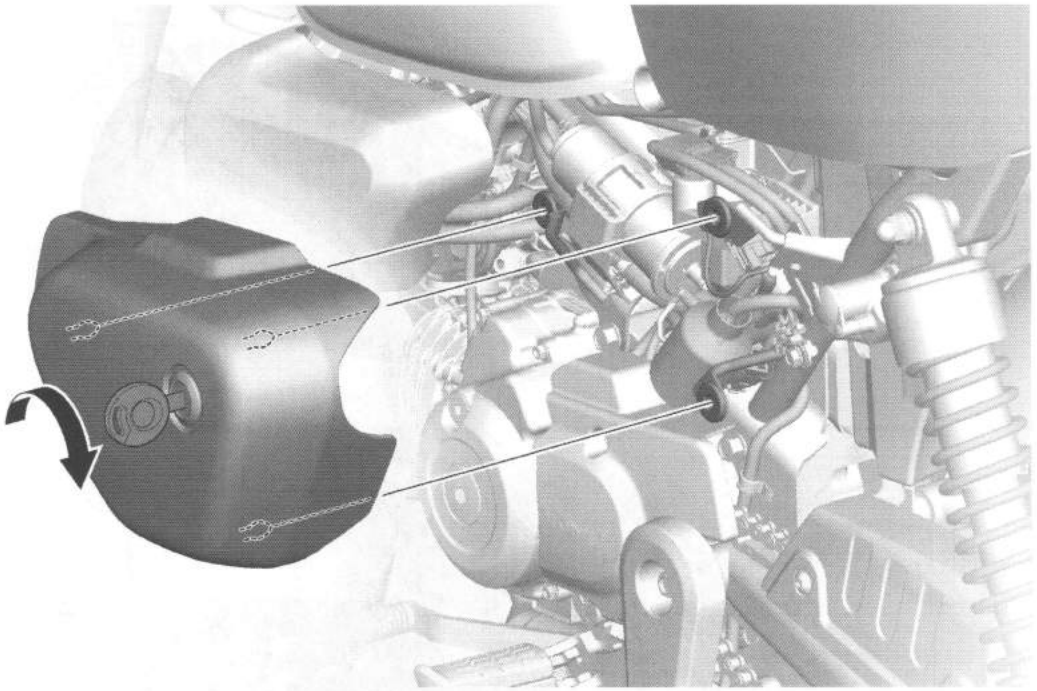
- Front fender ➔3-3

SEAT

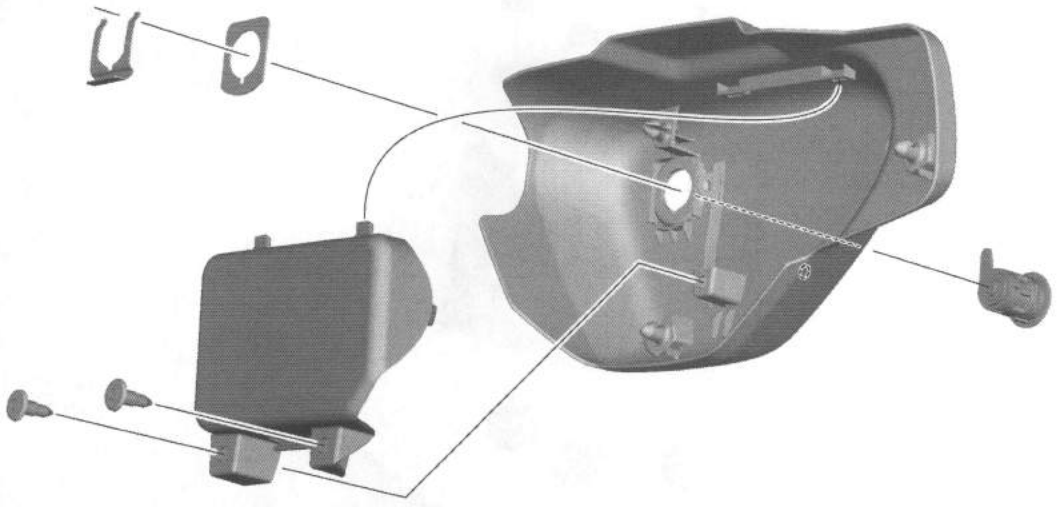




SIDE COVER

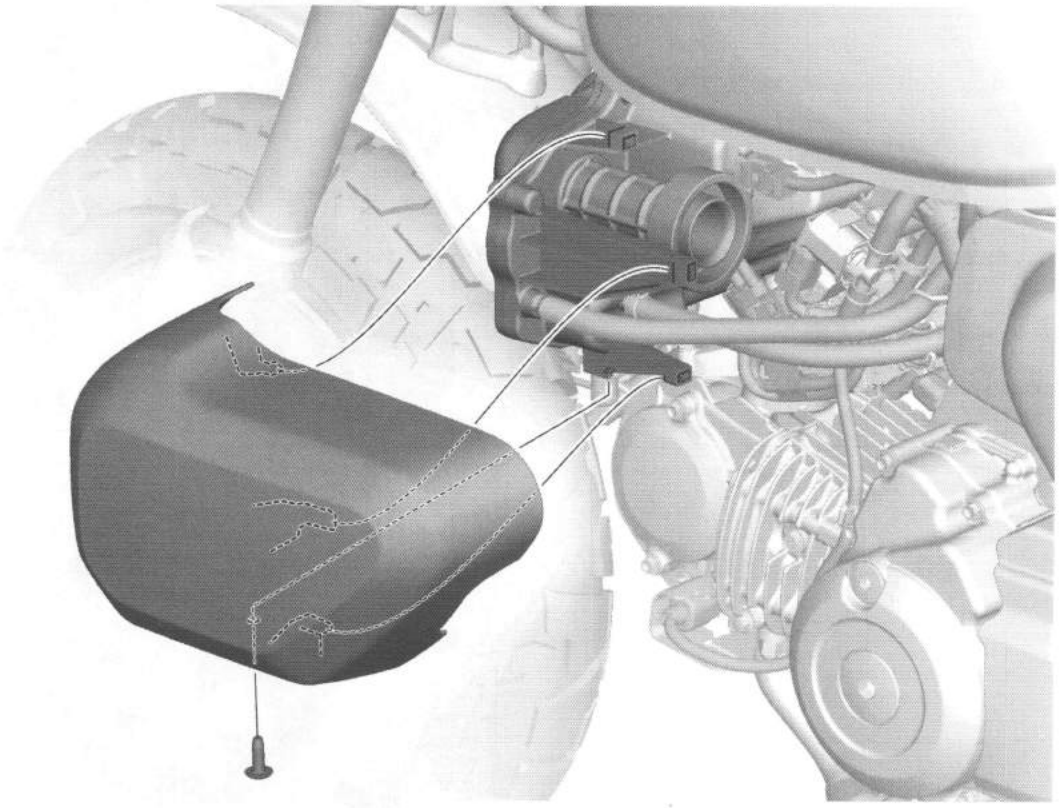


- Insert the ignition key into the side cover lock, and turn it clockwise.

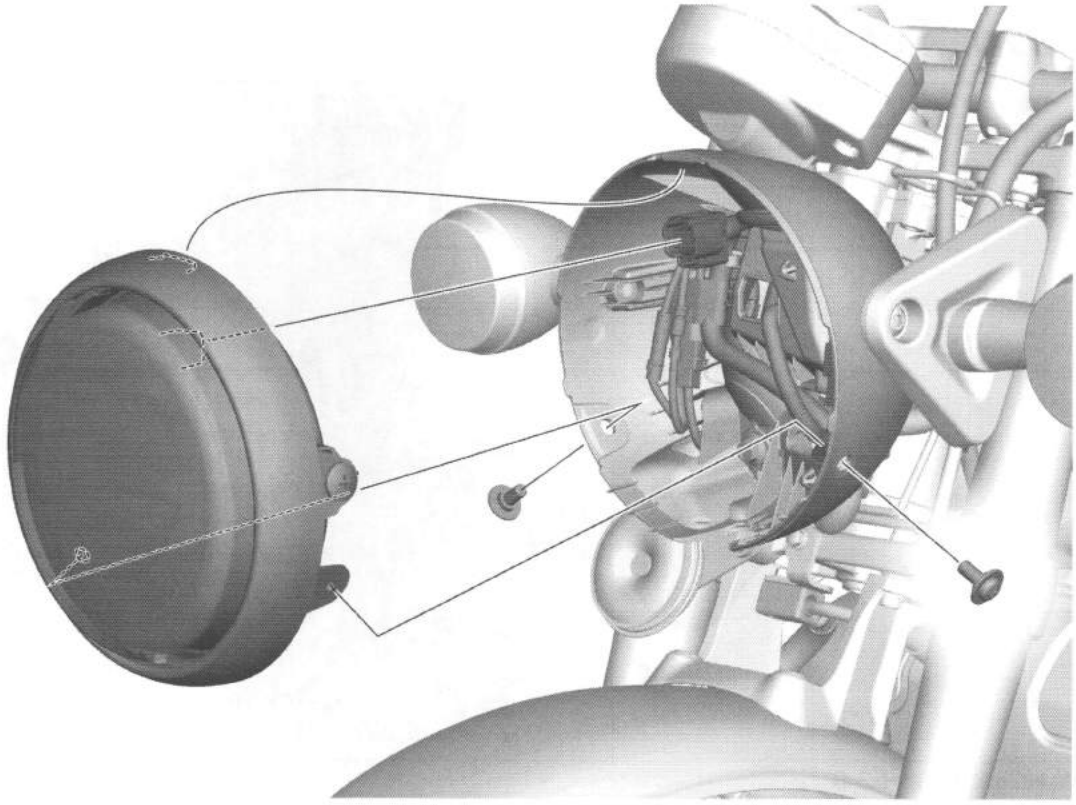


AIR CLEANER COVER

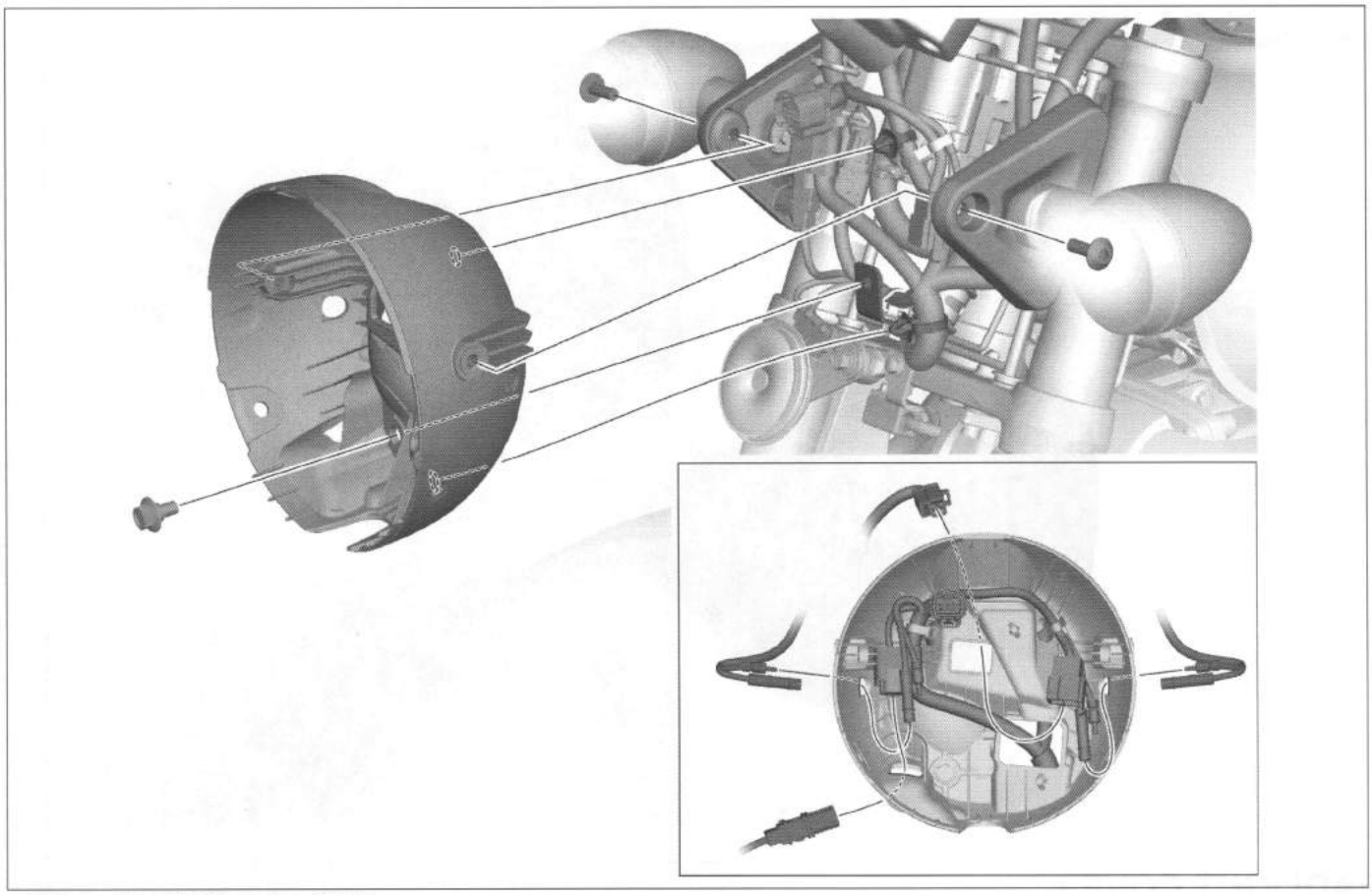
Left side shown:



HEADLIGHT COVER

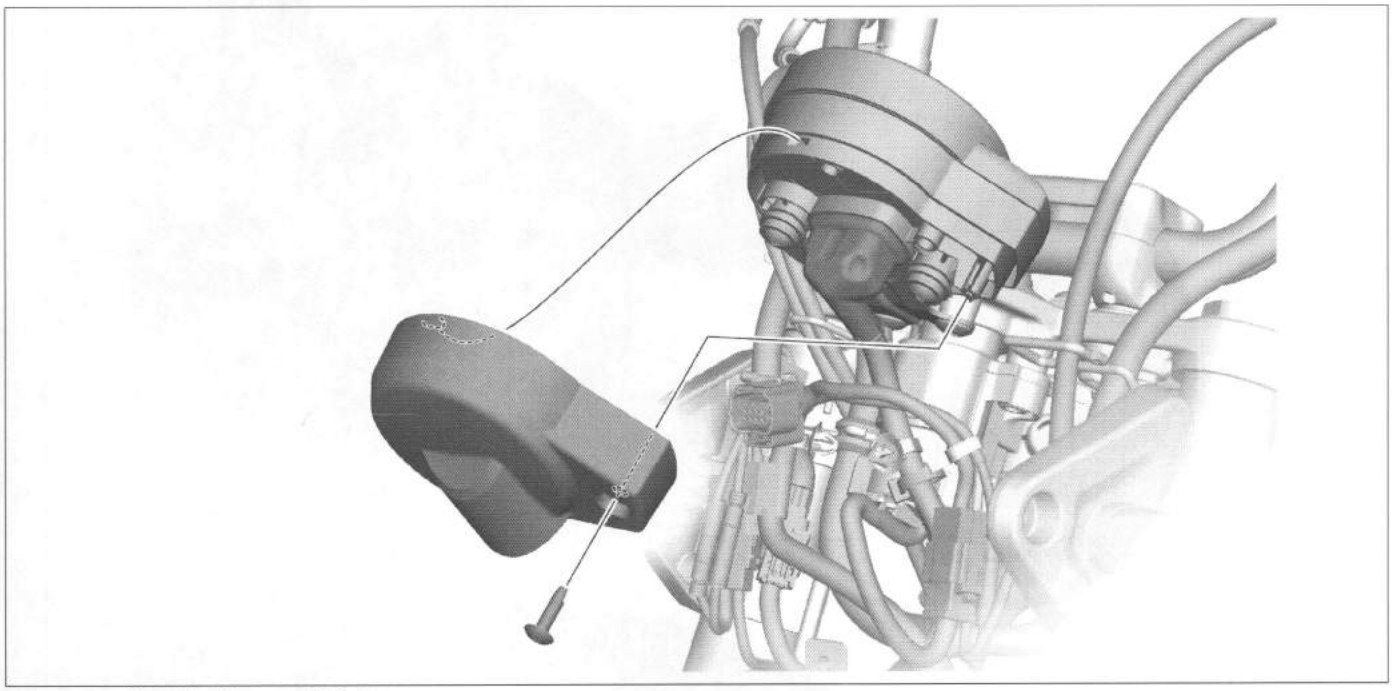


HEADLIGHT CASE



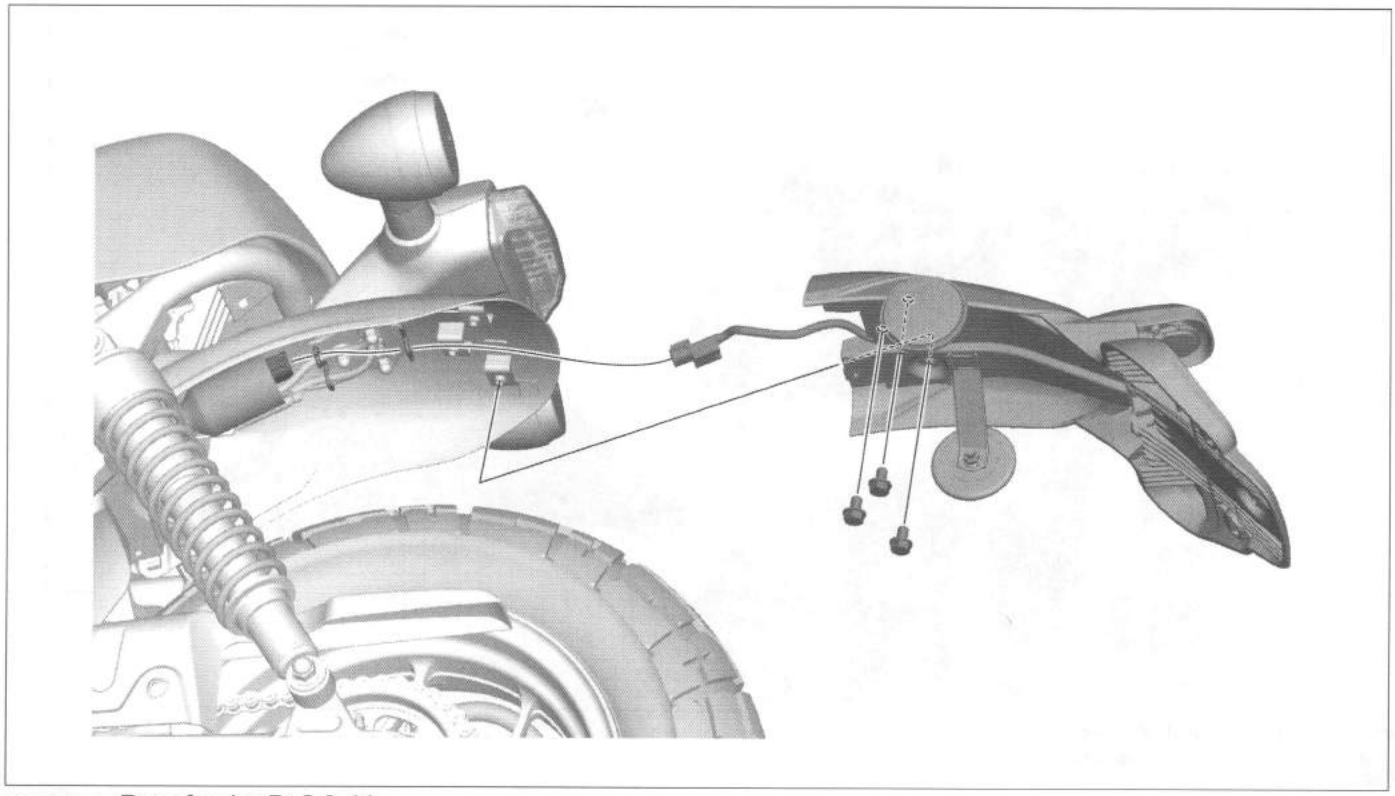
- Headlight cover →3-7

METER LOWER CASE

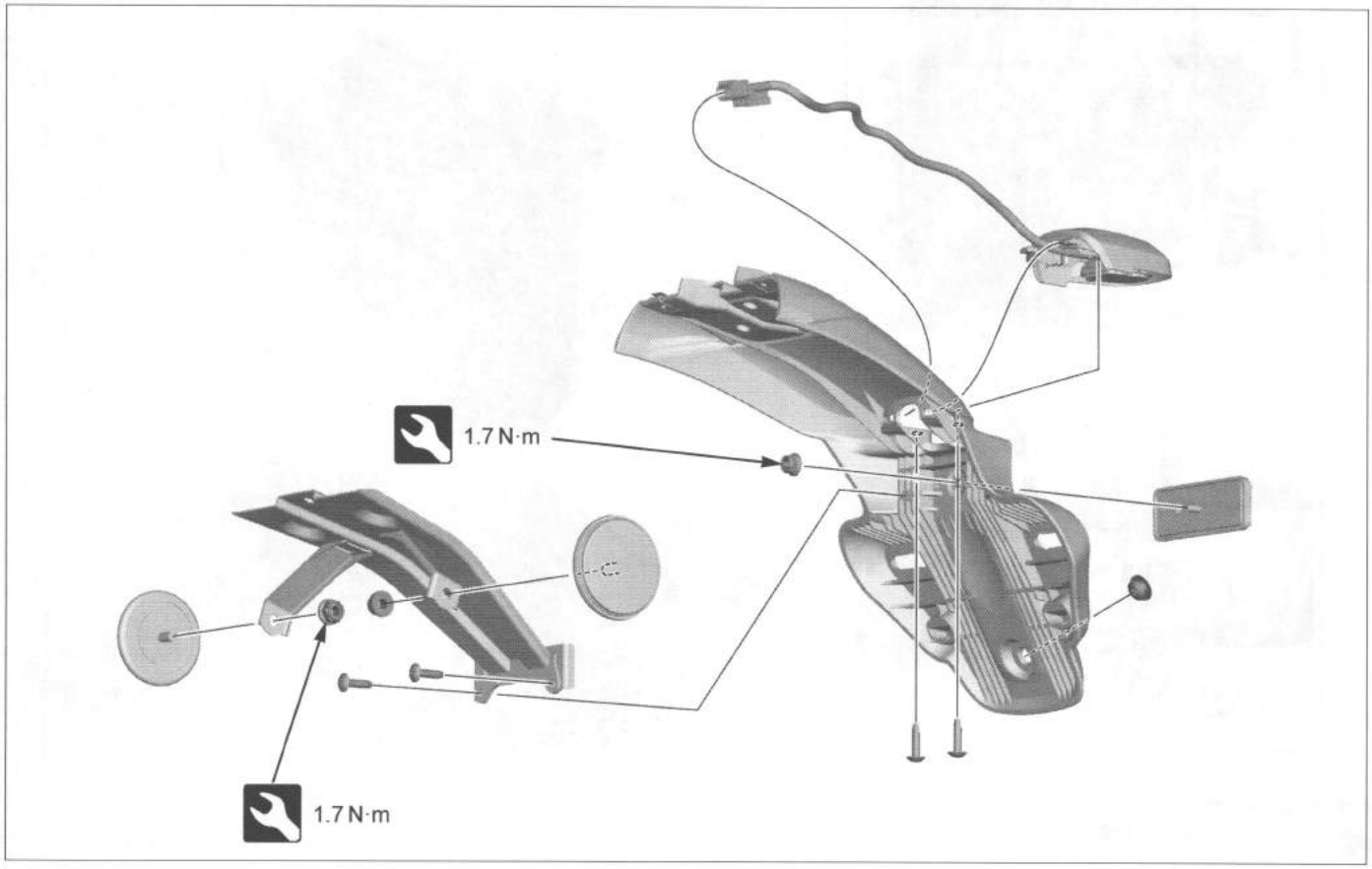


- Headlight case →3-8

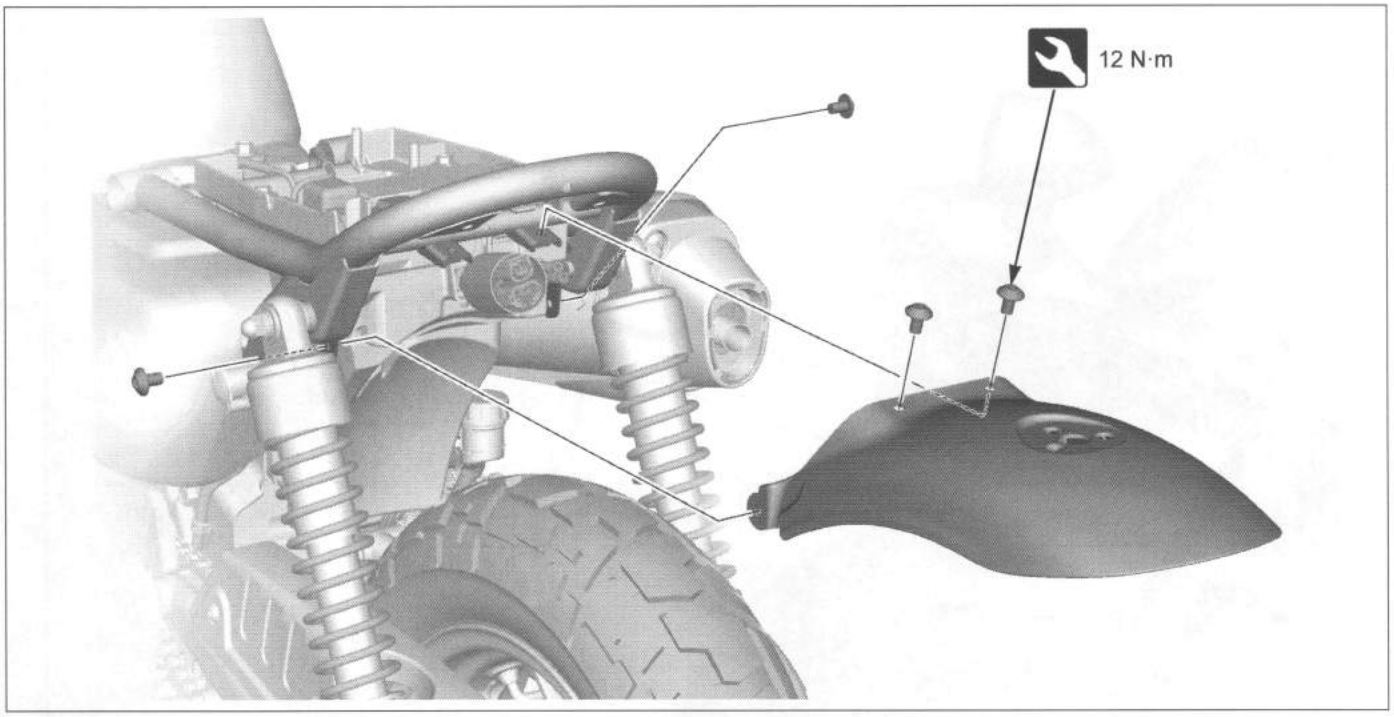
REAR FENDER A



- Rear fender D ➔3-11

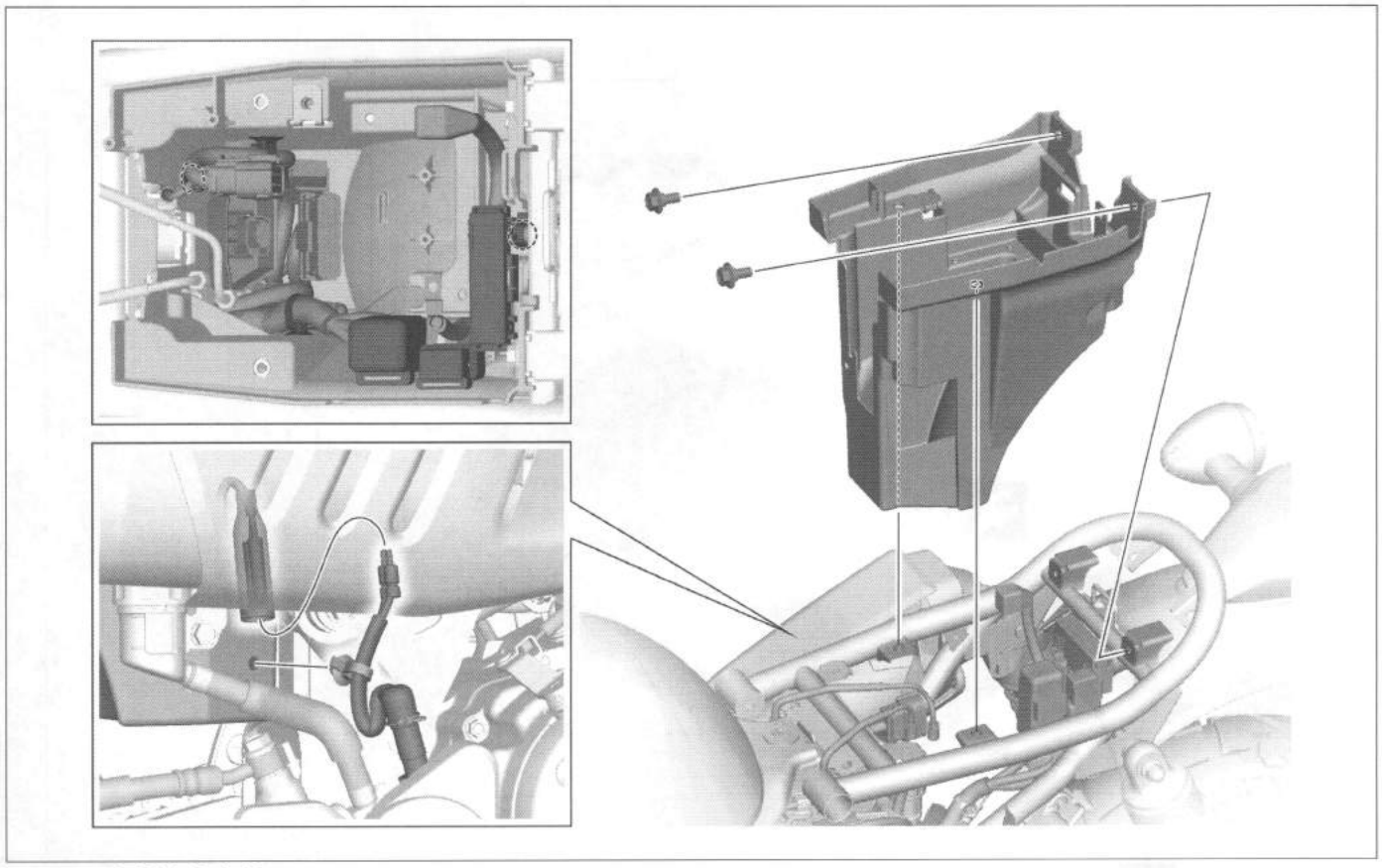


REAR FENDER B



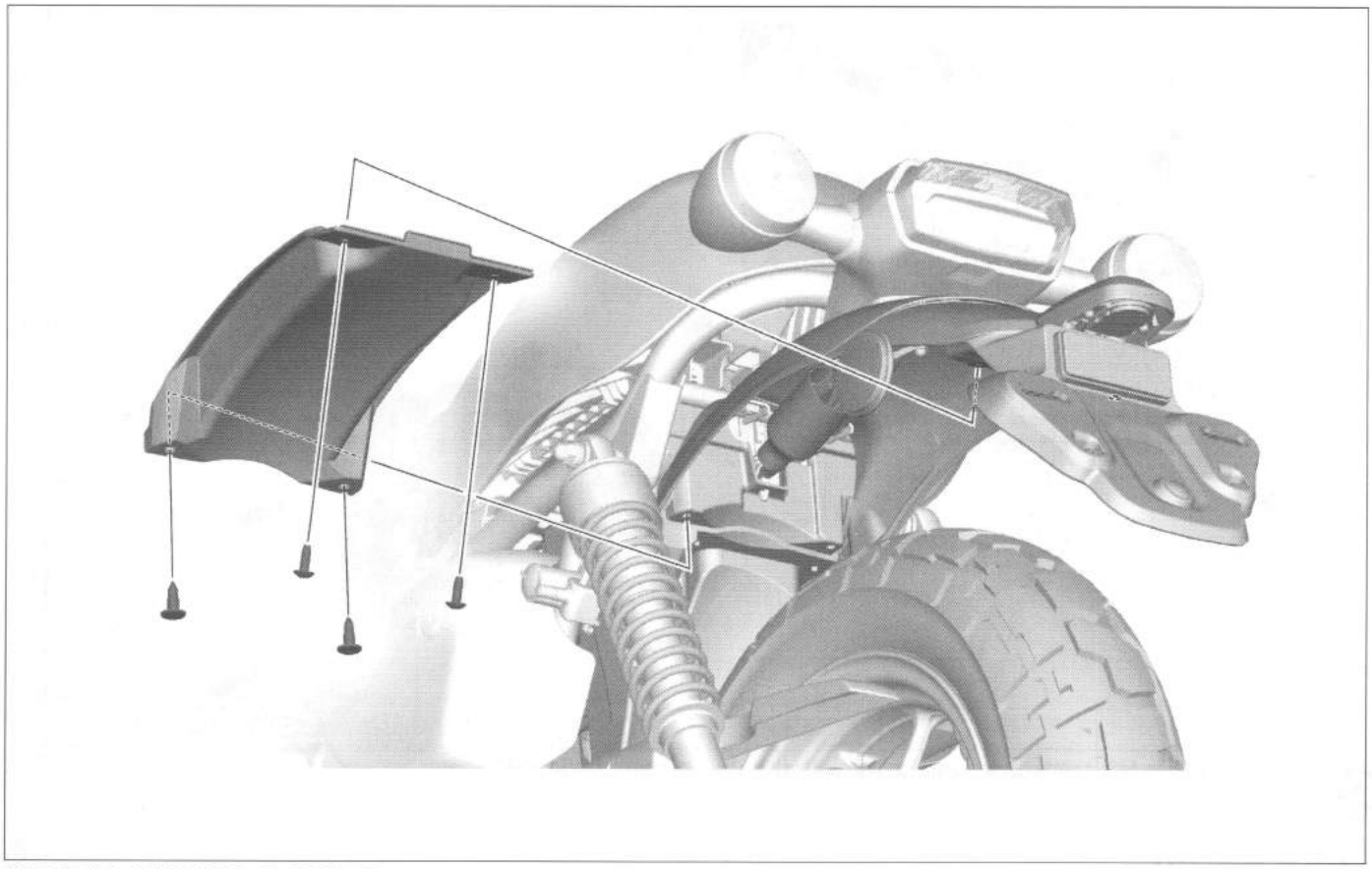
- Tail light unit ➔4-46
- Rear fender A ➔3-9

REAR FENDER C

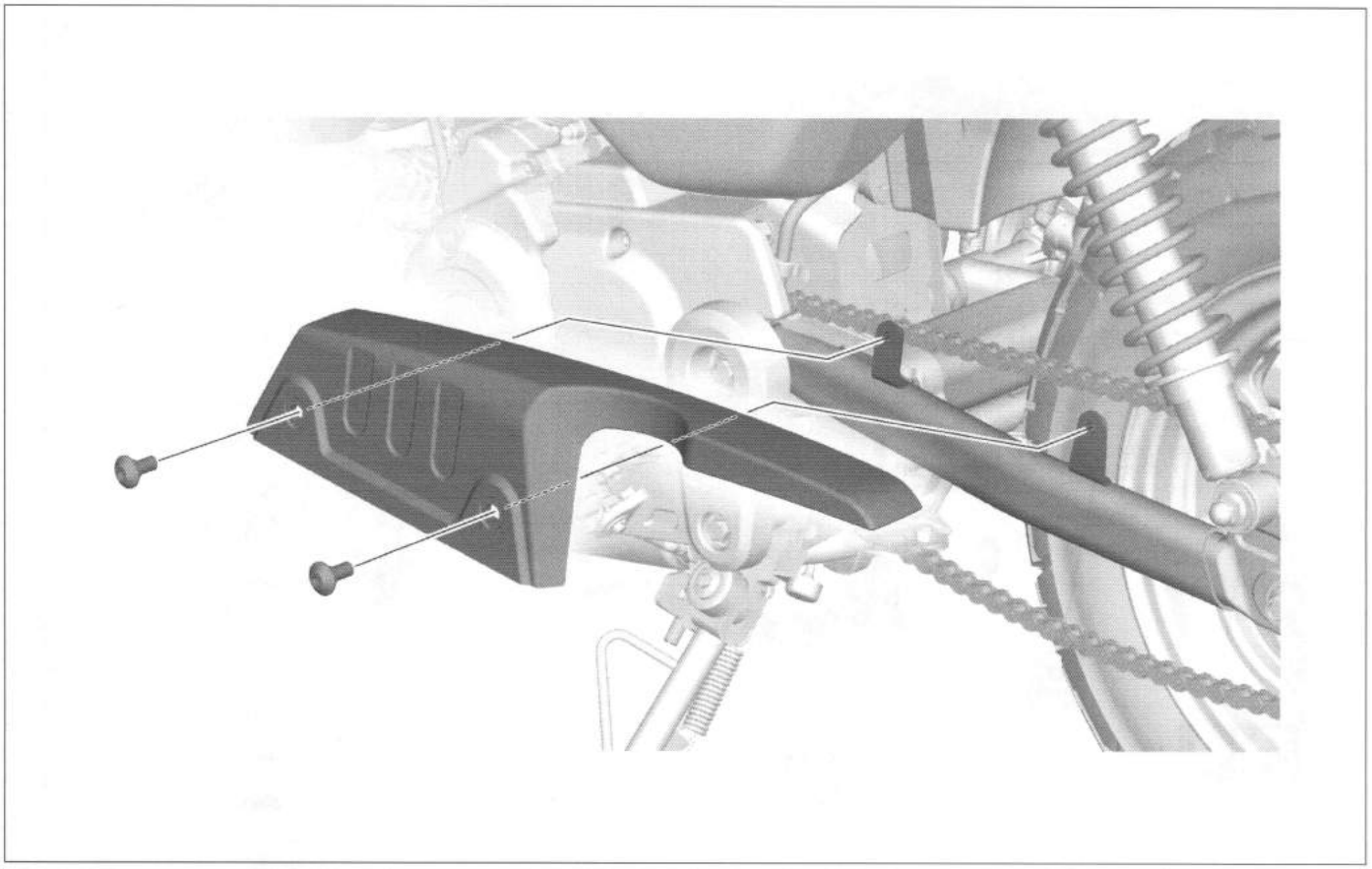


- ECM ➔4-19
- Rear fender D ➔3-11

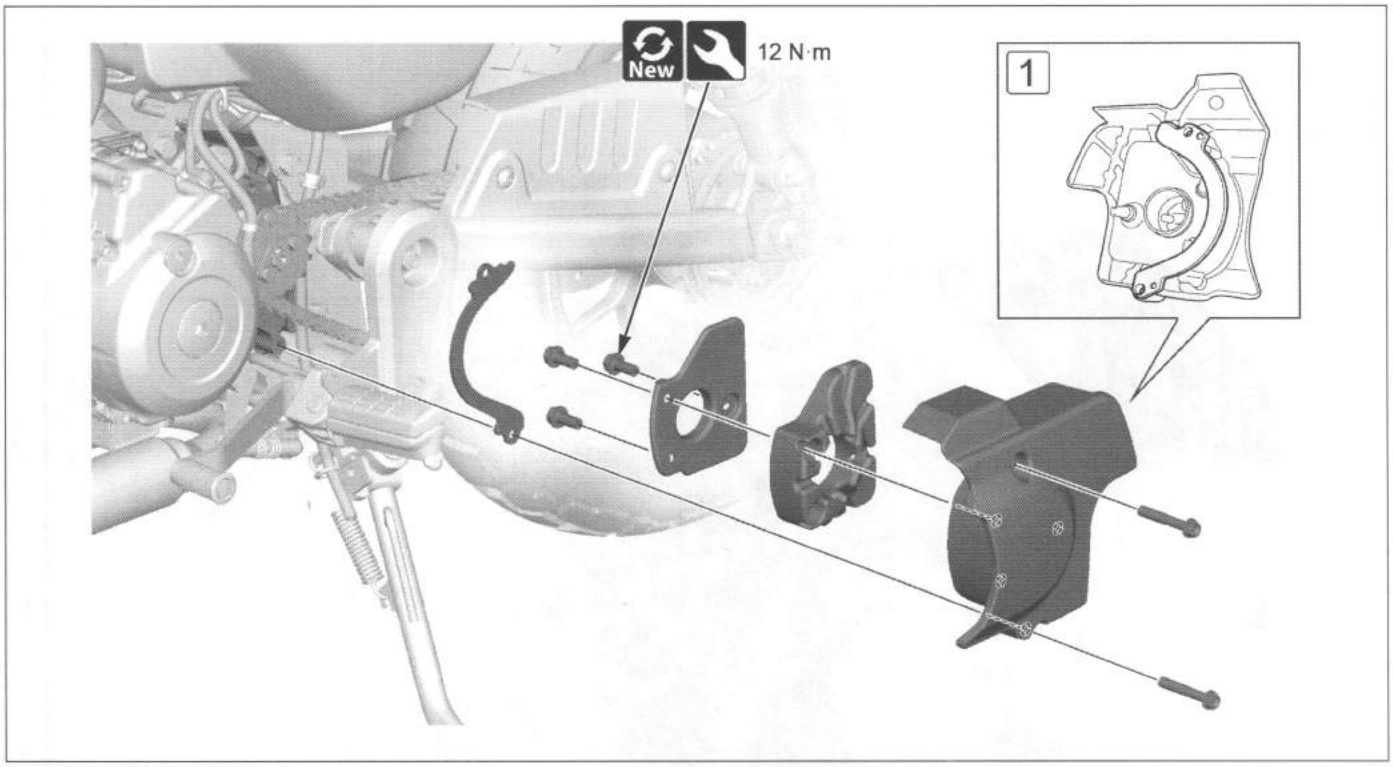
REAR FENDER D



DRIVE CHAIN COVER

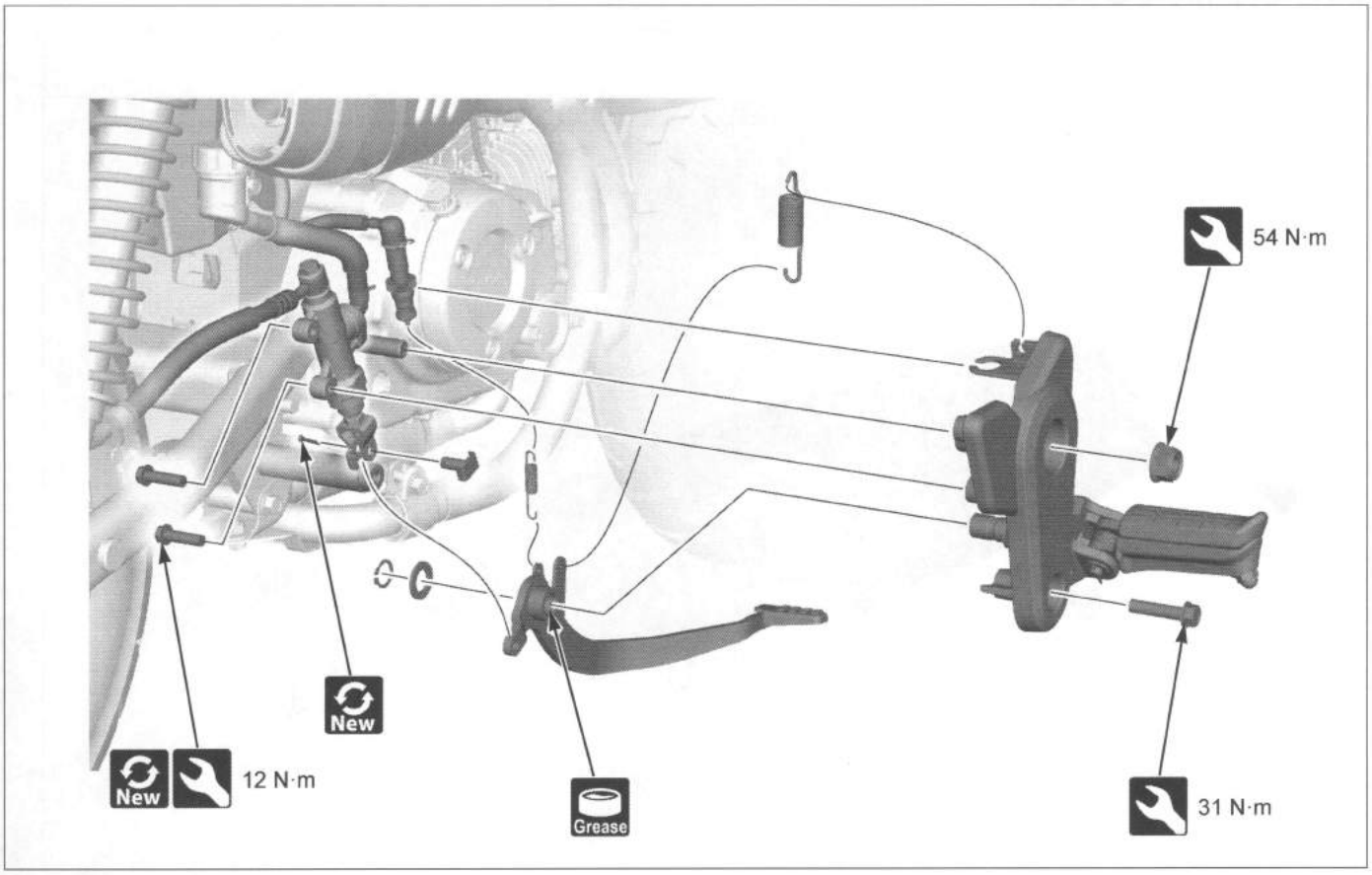


LEFT CRANKCASE REAR COVER

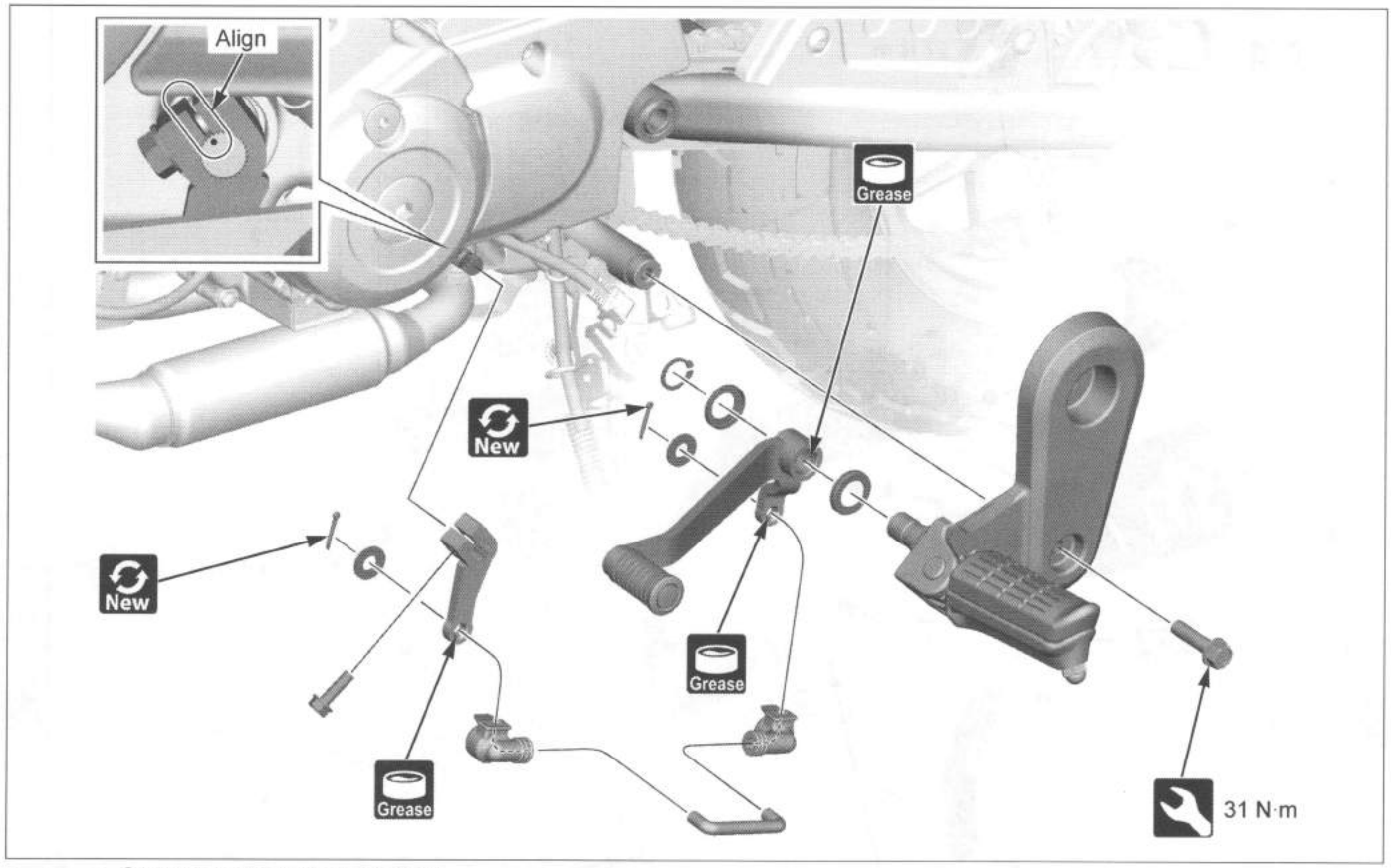


- 1 Install the left crankcase rear cover with the drive chain guide in place.

BRAKE PEDAL

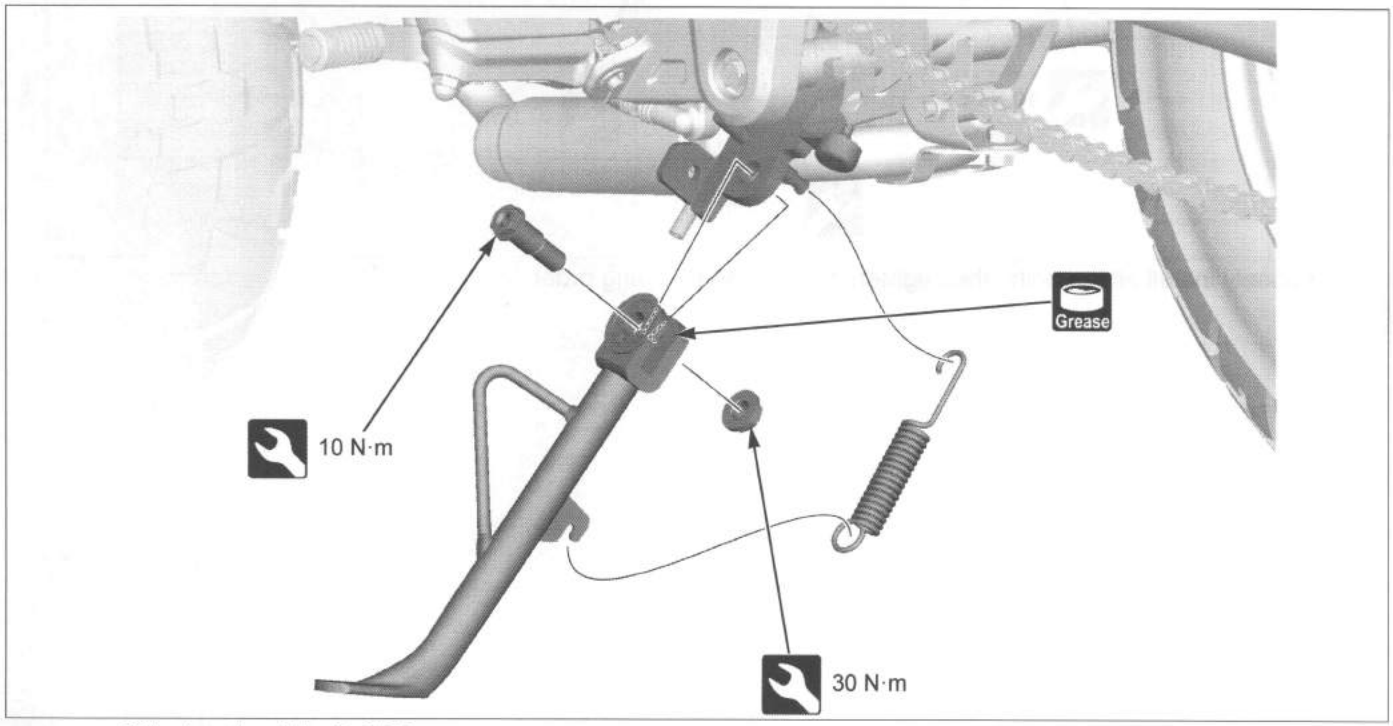


GEARSHIFT PEDAL



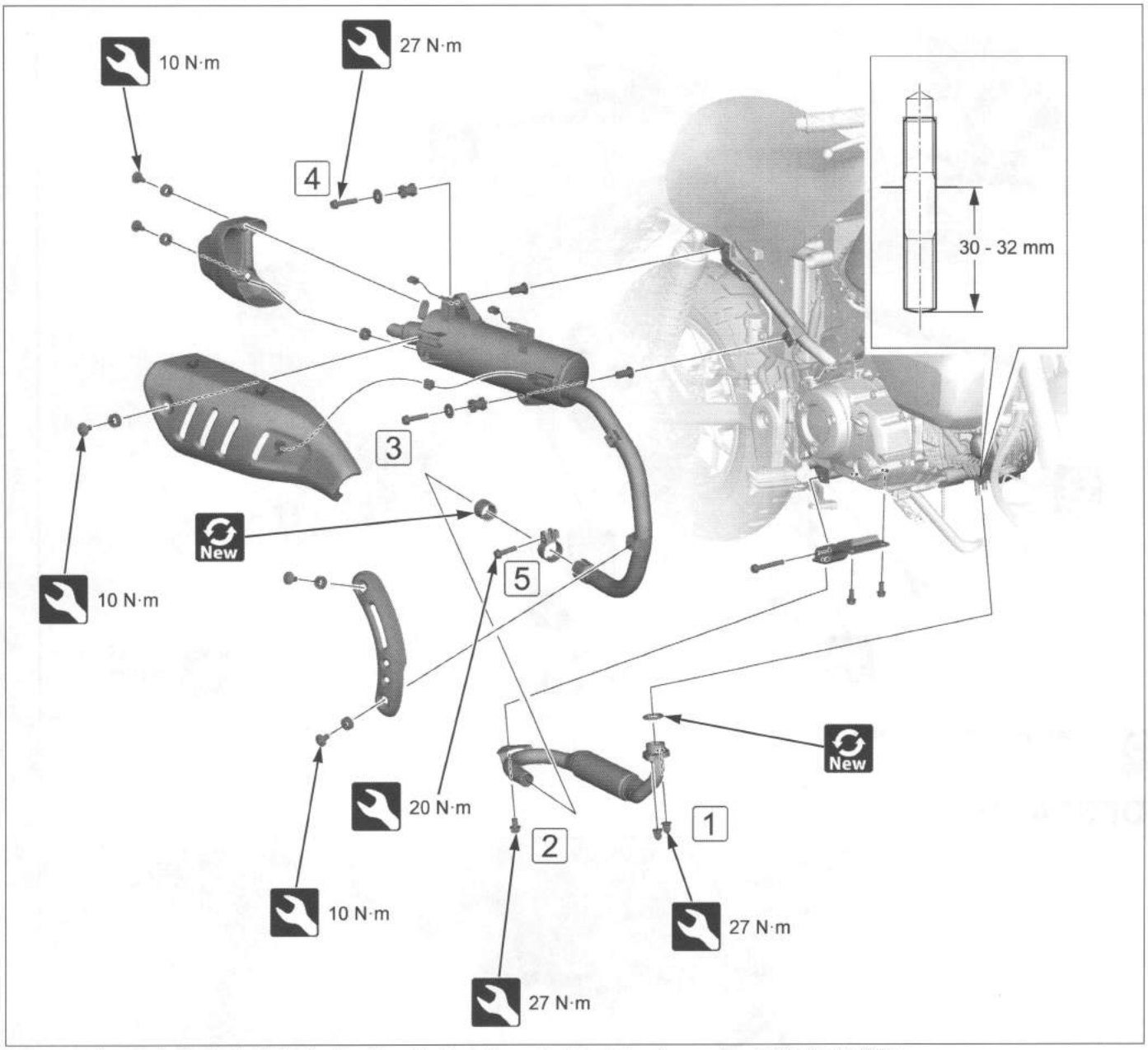
- Swingarm pivot bolt ➔3-24

SIDESTAND



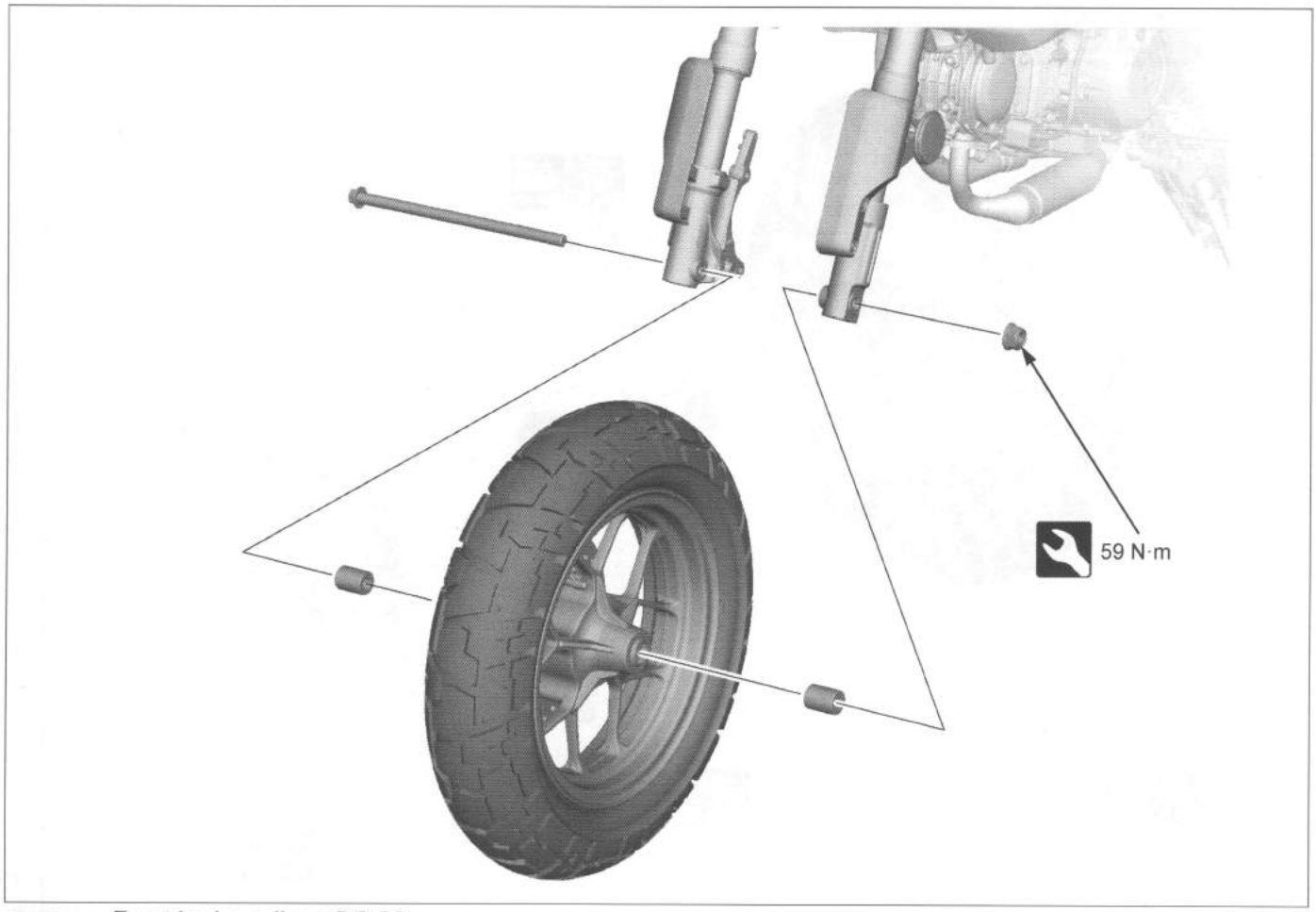
- Sidestand switch ➔4-55

EXHAUST PIPE/MUFFLER



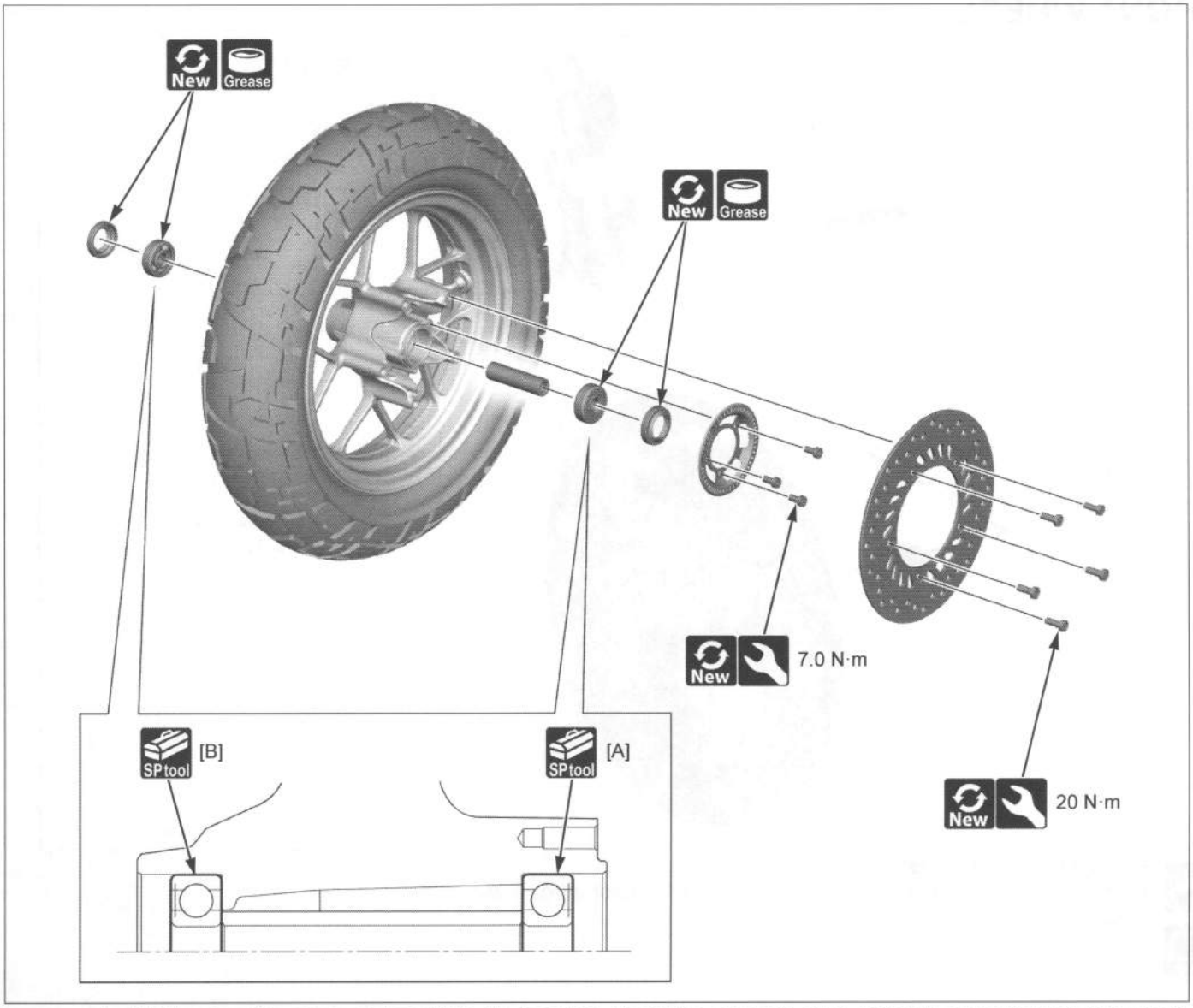
- Loosely install all the bolts, then tighten them in the following order: 1/2/3/4/5.

FRONT WHEEL



- Front brake caliper ➔3-26
- After installation, check the front wheel speed sensor air gap ➔4-41

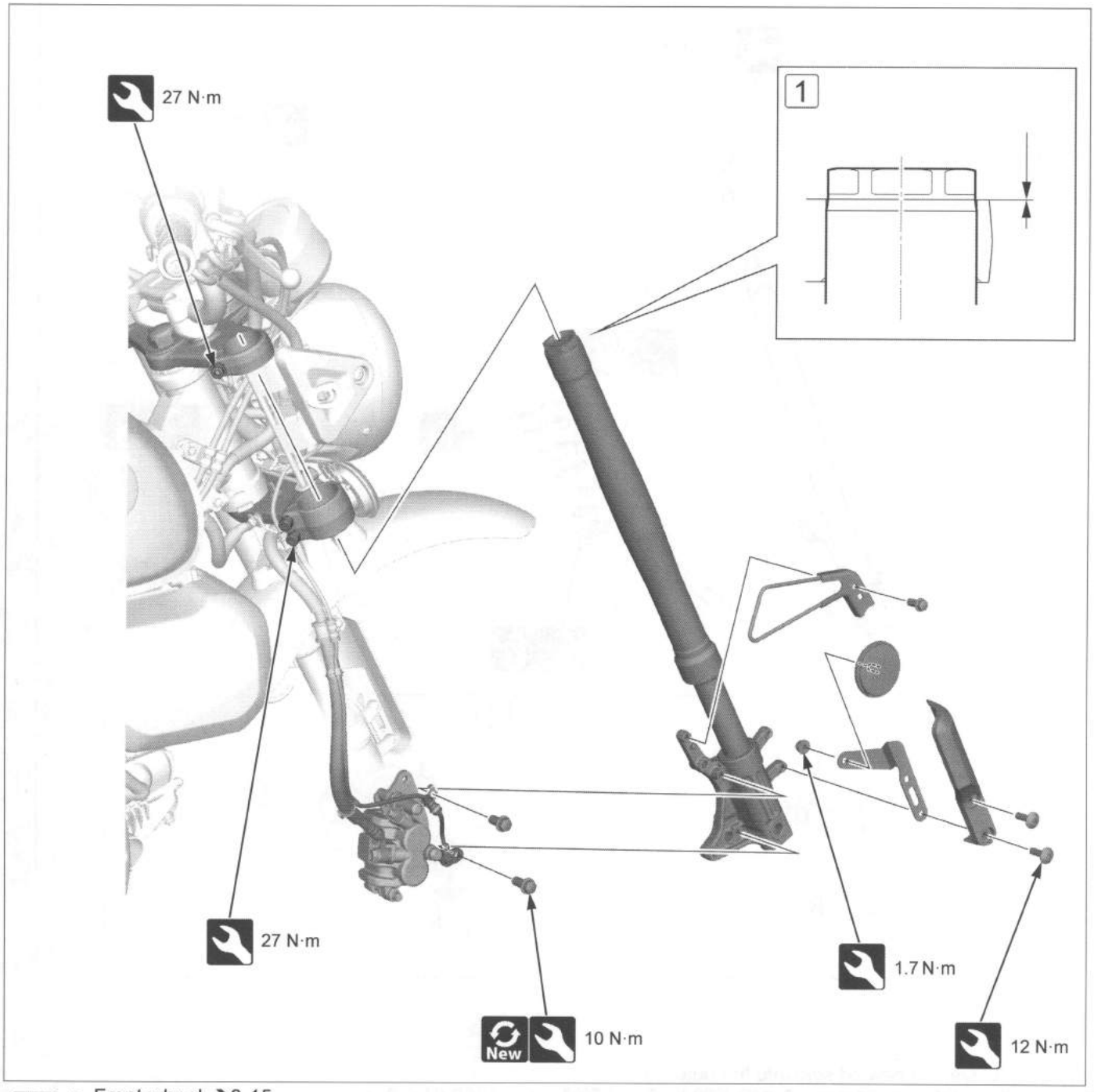
- Wheel inspection.



- Install the bearing remover head into the bearing. From the opposite side, install the bearing remover shaft and drive the bearing out of the wheel hub.
  Remover head, 12 mm: 07746-0050300 or equivalent commercially available in U.S.A.
  Bearing remover shaft: 07746-0050100 or equivalent commercially available in U.S.A.
- Drive in a new brake disc side bearing [A] squarely with its marked side facing up until it is fully seated.
  Driver: 07749-0010000
  Attachment, 37 x 40 mm: 07746-0010200
  Pilot, 12 mm: 07746-0040200
- Install the distance collar
- Drive in a new bearing [B] squarely with its sealed side facing outside until its inner race is seated on the distance collar.
  Driver: 07749-0010000
  Attachment, 37 x 40 mm: 07746-0010200
  Pilot, 12 mm: 07746-0040200
- Wheel disassembly and inspection.

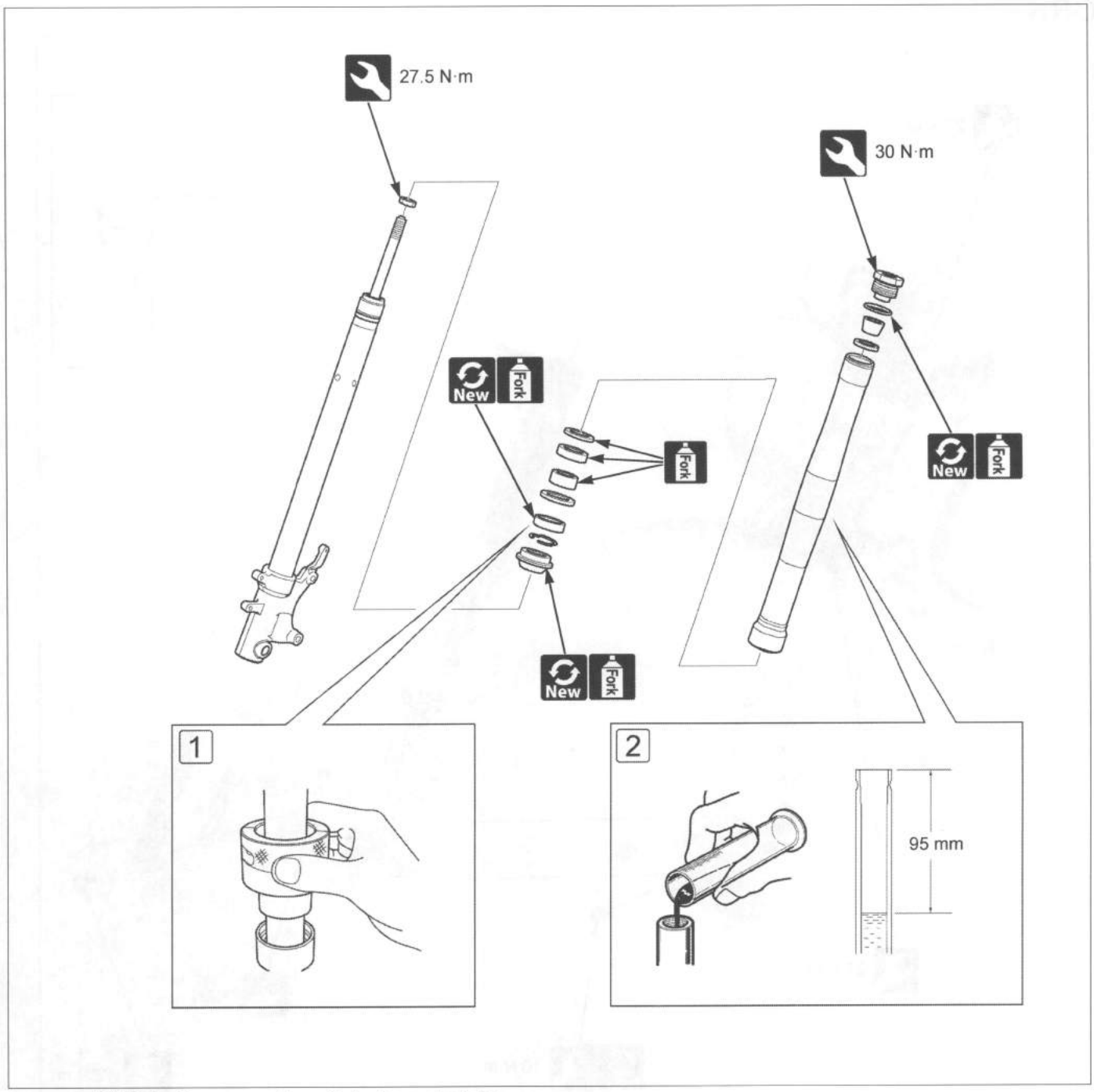
Basic

FORK



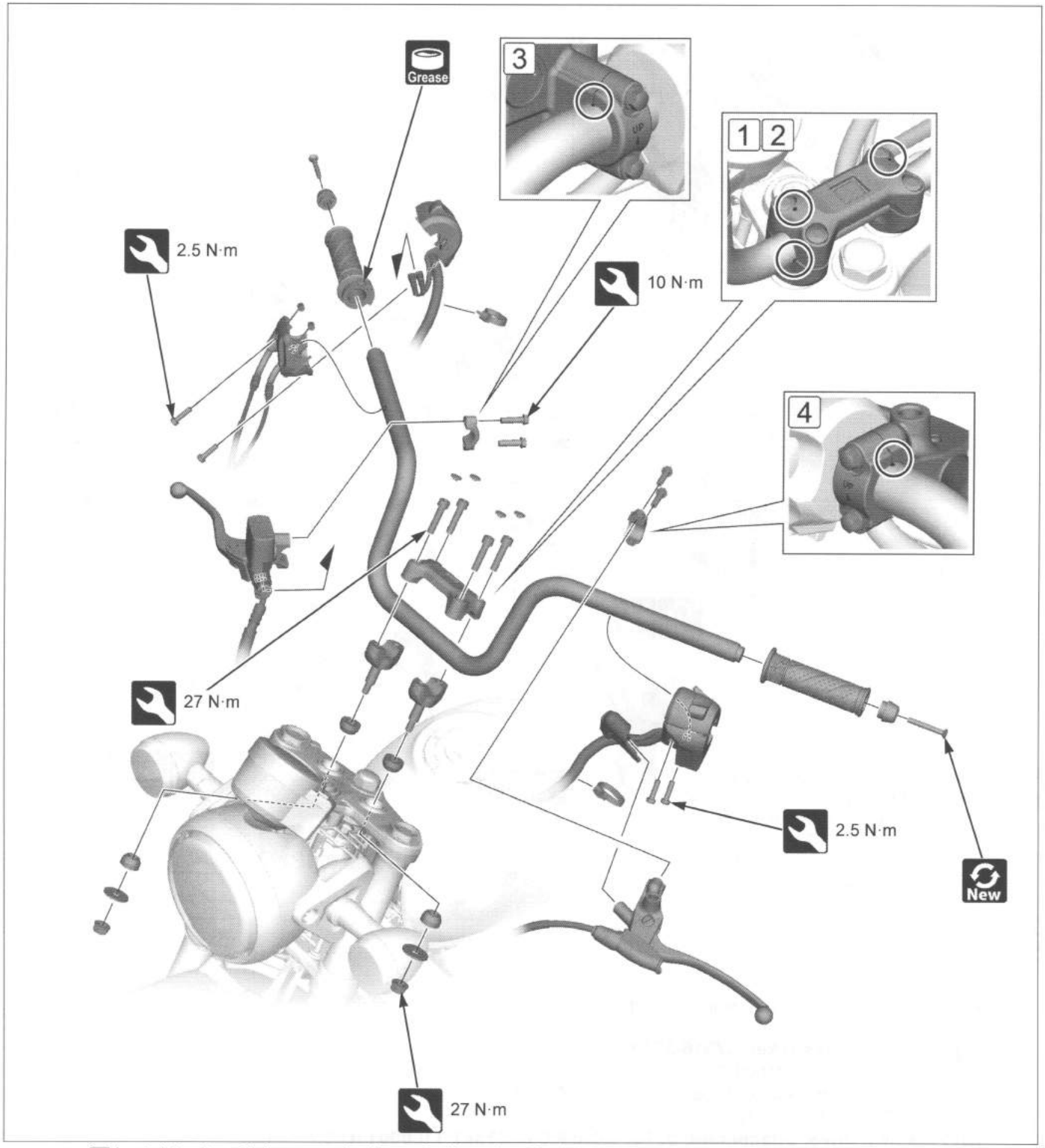
- Front wheel ➔3-15

- 1 Install the front fork so that the end of the outer pipe is aligned with the top bridge upper surface.



- [1] Drive in a new oil seal into the outer tube.
  Oil seal driver, 31mm: 070MD-K200100 or 070MD-K20A100 (U.S.A. only)
- [2] Pour the specified amount of recommended fork fluid into the fork pipe.
  RECOMMENDED FORK FLUID: Fork Fluid (viscosity: 10W)
  FORK FLUID CAPACITY: 216.0 ± 1.5 cm³
- Compress the fork pipe fully and measure the fluid level from the top of the fork pipe.
  FORK FLUID LEVEL: 95 mm
- Fork disassembly and inspection

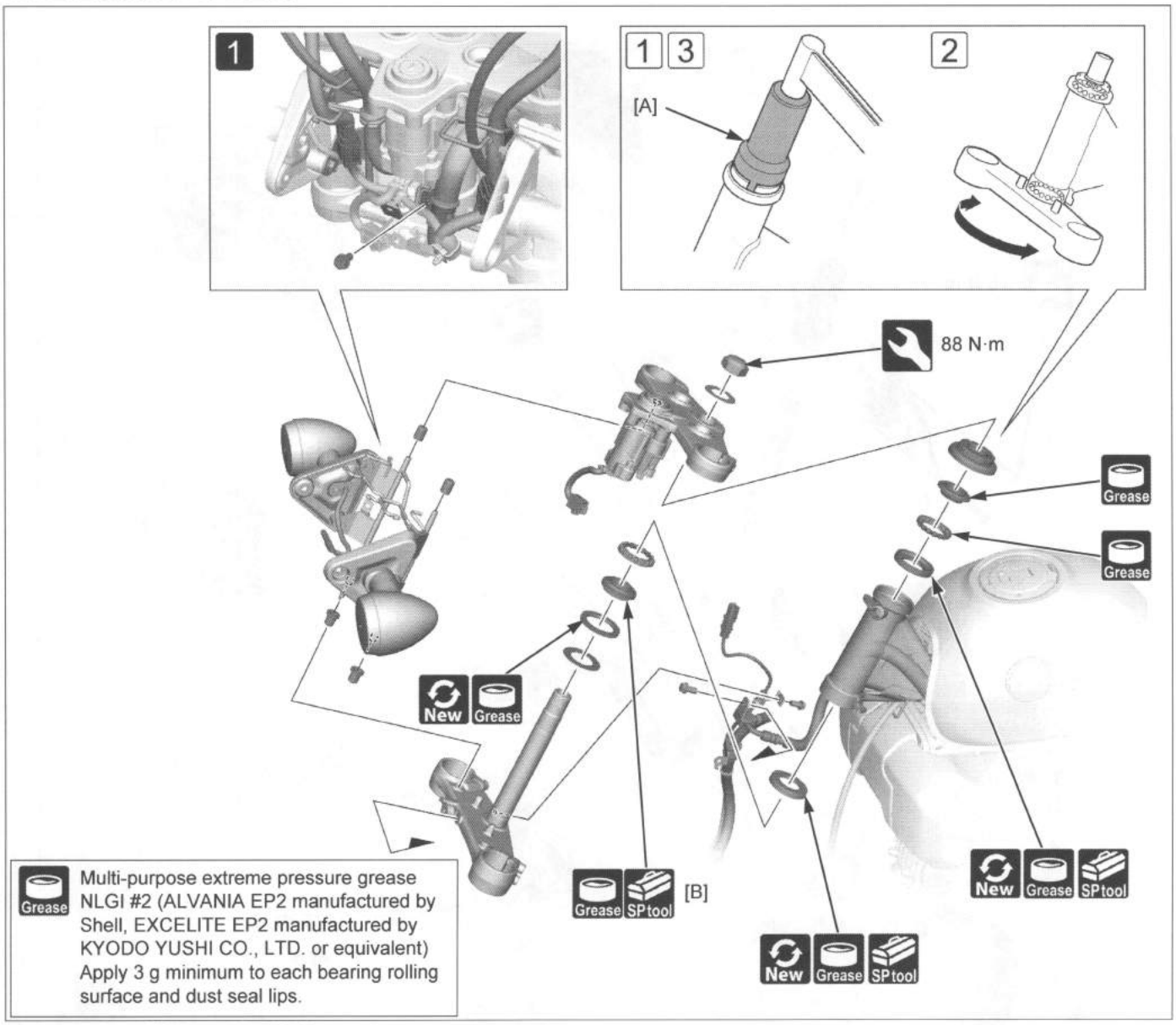
HANDLEBAR



- 1 Install the handlebar onto the lower holders by aligning the punch mark on the handlebar with the top edge of the lower holder.
- 2 Install the upper holders with the punch marks facing forward.
- 3 Install the brake master cylinder and holder with the "UP" mark facing up. Align the edge of the master cylinder with the punch mark on the handlebar.
- 4 Install the clutch lever bracket and holder with the "UP" mark facing up. Align the edge of the clutch lever bracket with the punch mark on the handlebar.
- Handlebar disassembly/assembly and inspection.

Basic

STEERING STEM



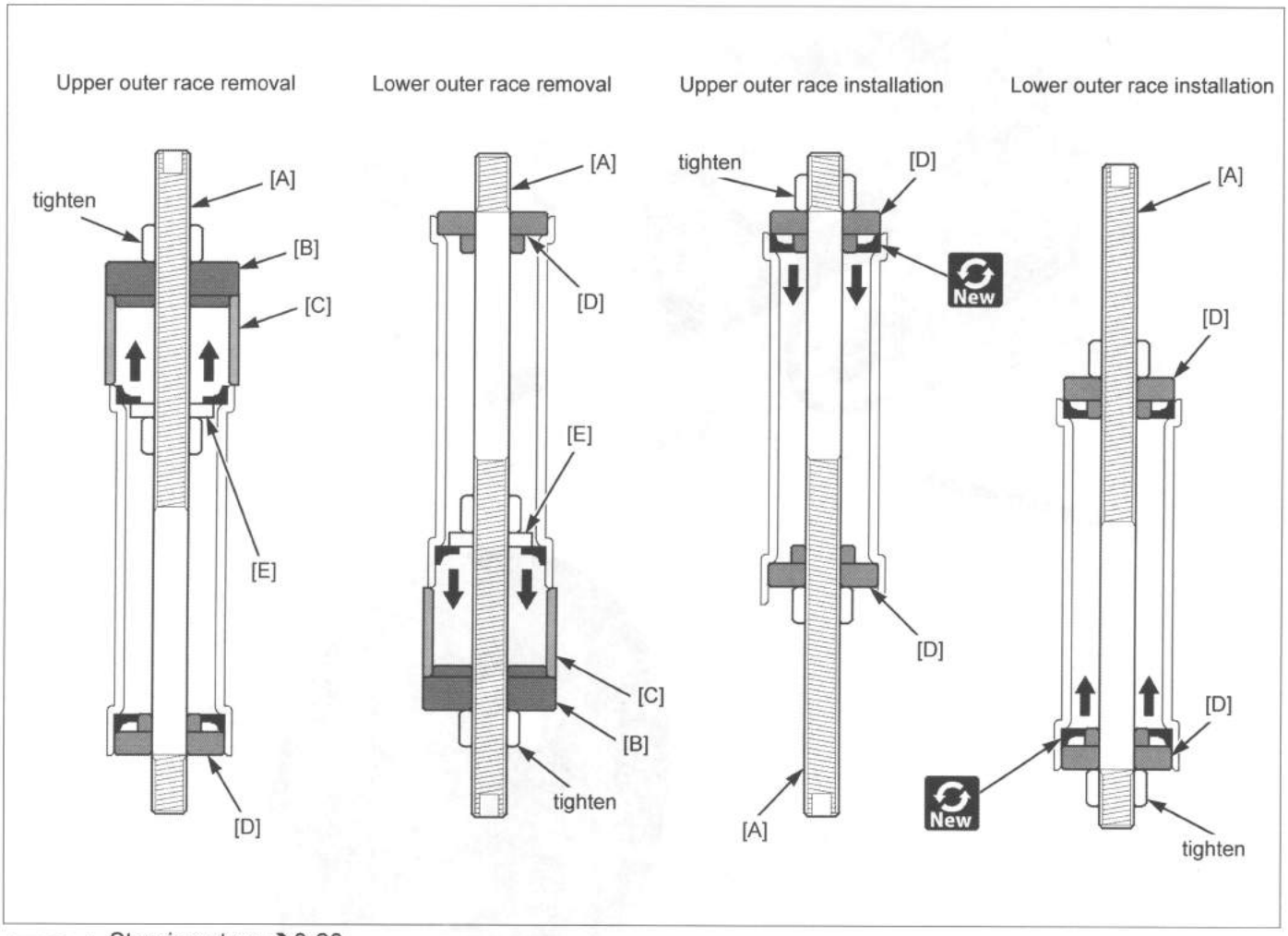
- Headlight case ➔3-8
- Horn ➔4-55
- Fork ➔3-17
- Handlebar ➔3-19
- 1 Remove the main wire harness clamp bolt.
- STEERING STEM:
  [A] Steering stem socket: 07916-3710101
- STEERING STEM BEARINGS:
  Steering stem bearing outer race replacement ➔3-21

- STEERING STEM BEARINGS:
  [B] Fork seal driver attachment: 07747-0010300 or 07947-1180001 (U.S.A. only)
- STEERING STEM:
  [A] Steering stem socket: 07916-3710101
- 1 Install the top thread. Hold the steering stem and tighten the top thread to the initial torque.
  TORQUE: 27 N·m
- 2 Turn the steering stem lock-to-lock several times to seat the bearing. Completely loosen the top thread.
- 3 Tighten the top thread to the specified torque while holding the steering stem.
  TORQUE: 1.5 N·m

- Steering disassembly/assembly and inspection.

STEERING STEM BEARING OUTER RACE REPLACEMENT

- Be sure to replace the bearing and race as a set.



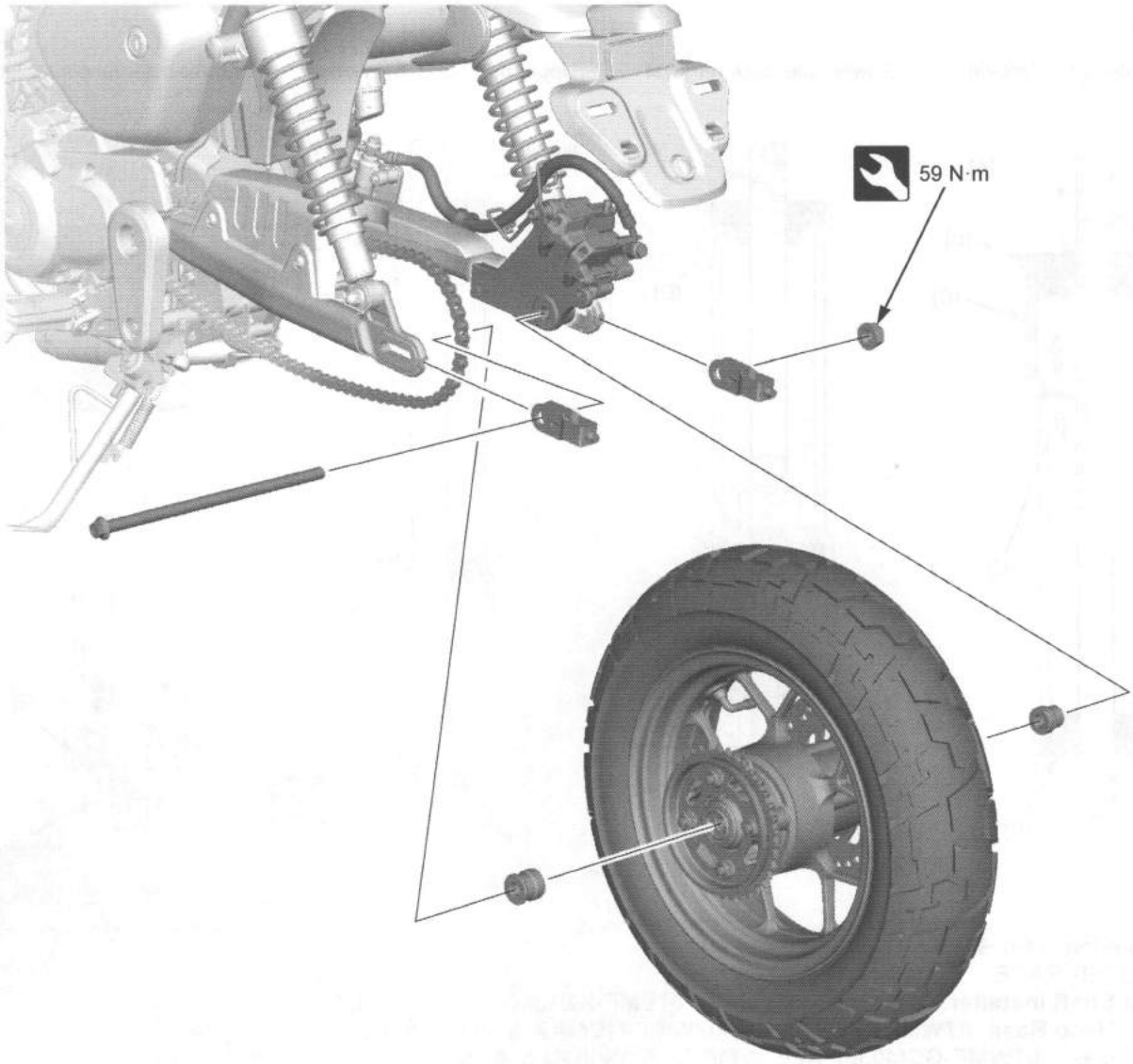
- Steering stem ➔3-20
- OUTER RACE:

[A] Shaft installer: 07WMF-GCM0100 or 07VMF-KZ30200 (U.S.A. only)
[B] Head Base: 07WMF-GCM0200 or 07WMF-GCMA200 (U.S.A. only)
[C] Base: 07WMF-GCM0300 or 07WMF-GCMA300 (U.S.A. only)
[D] Driver Attachment 48.5 mm: 07WMF-GCM0400 or 07WMF-GCMA400 (U.S.A. only)
[E] Remover 35 mm: 07WMF-GCM0600 or 07WMF-GCMA600 (U.S.A. only)

- OUTER RACE:

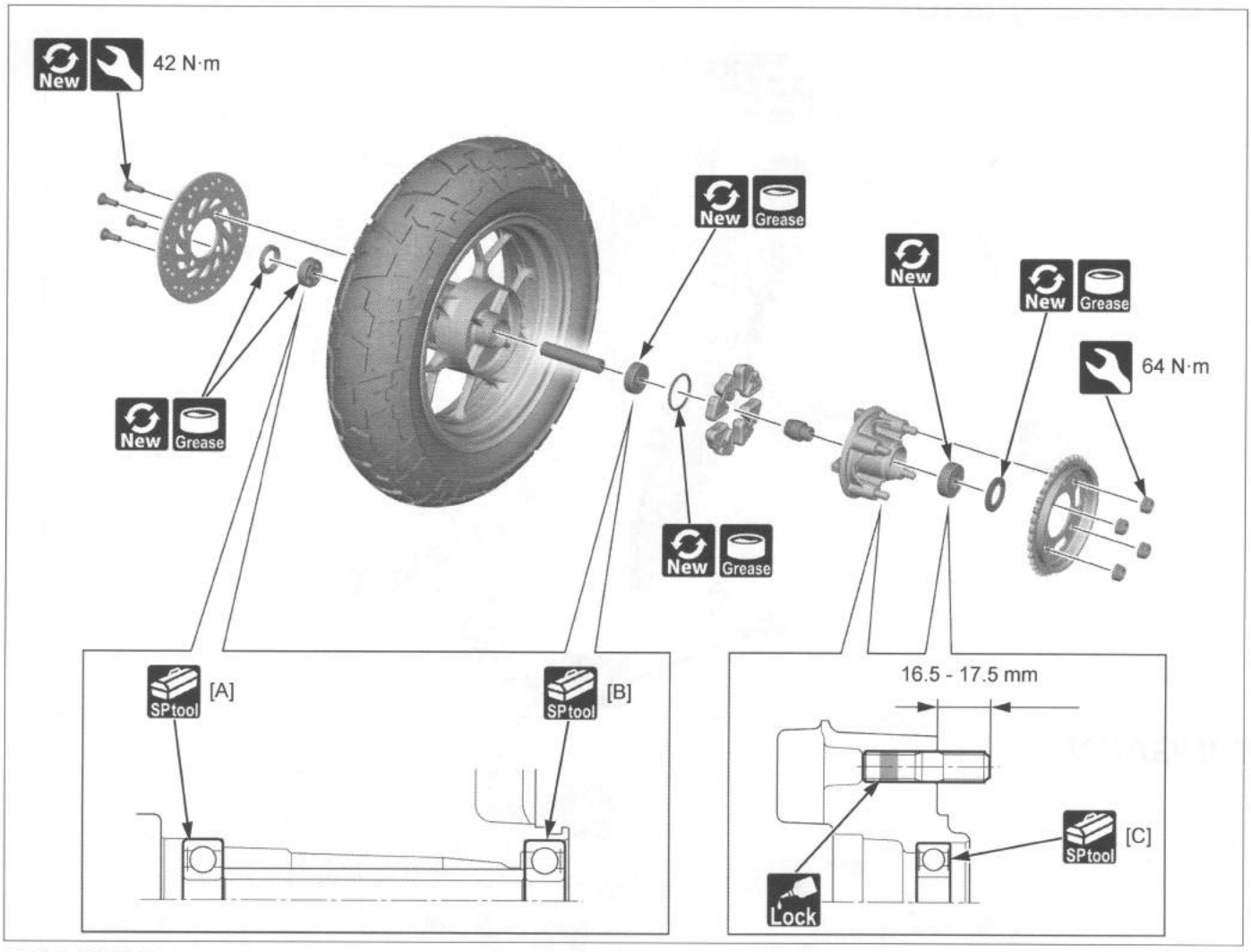
[A] Shaft installer: 07WMF-GCM0100 or 07VMF-KZ30200 (U.S.A. only)
[D] Driver Attachment 48.5 mm: 07WMF-GCM0400 or 07WMF-GCMA400 (U.S.A. only) (2 sets)

REAR WHEEL



Basic

- Wheel inspection.



REAR WHEEL

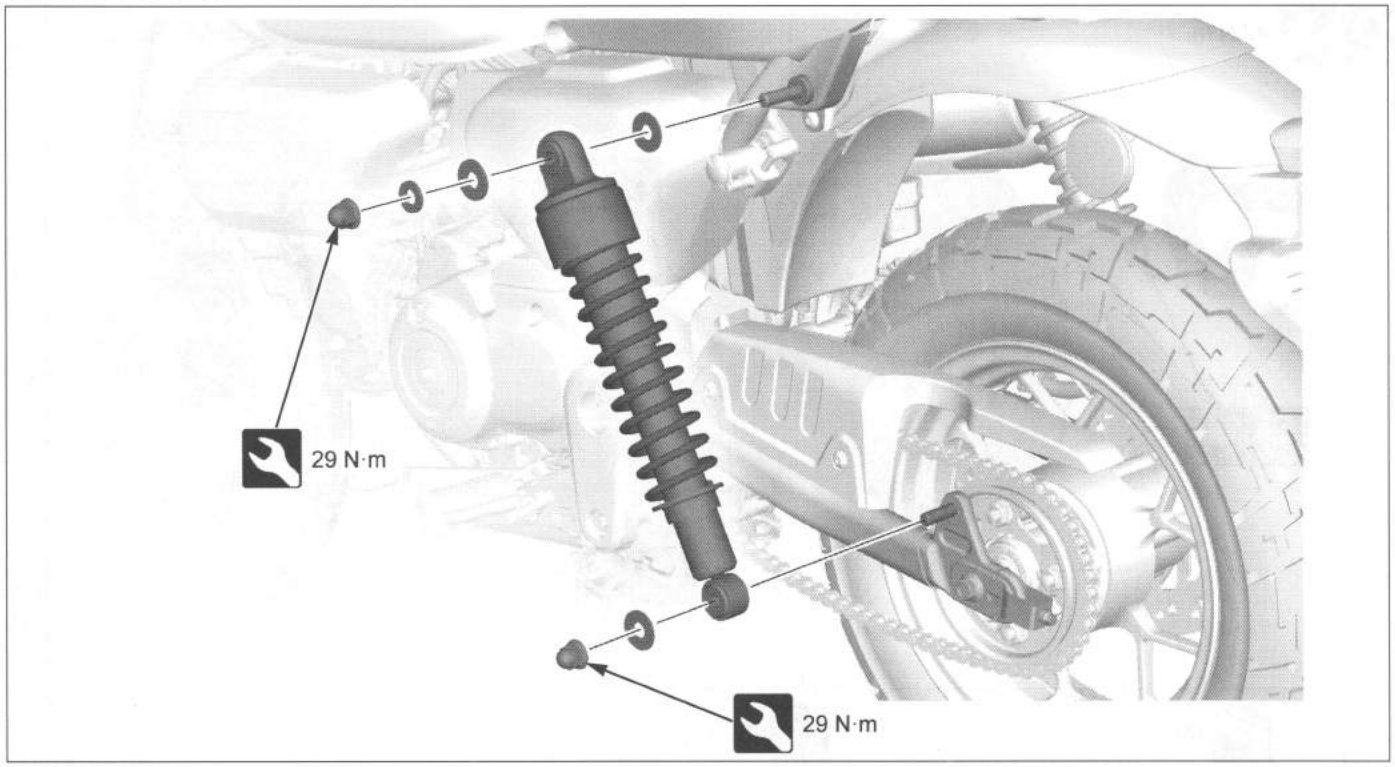
- Install the bearing remover head into the bearing. From the opposite side, install the bearing remover shaft and drive the bearing out of the wheel hub.
  Remover head, 12 mm: 07746-0050300 or equivalent commercially available in U.S.A.
  Bearing remover shaft: 07746-0050100 or equivalent commercially available in U.S.A.
- Drive in a new brake disc side bearing [A] squarely with its marked side facing up until it is fully seated.
  Driver: 07749-0010000
  Attachment, 37 x 40 mm: 07746-0010200
  Pilot, 12 mm: 07746-0040200
- Install the distance collar
- Drive in a new bearing [B] squarely with its sealed side facing outside until its inner race is seated on the distance collar.
  Driver: 07749-0010000
  Attachment, 37 x 40 mm: 07746-0010200
  Pilot, 12 mm: 07746-0040200
- Wheel disassembly and inspection.

Basic

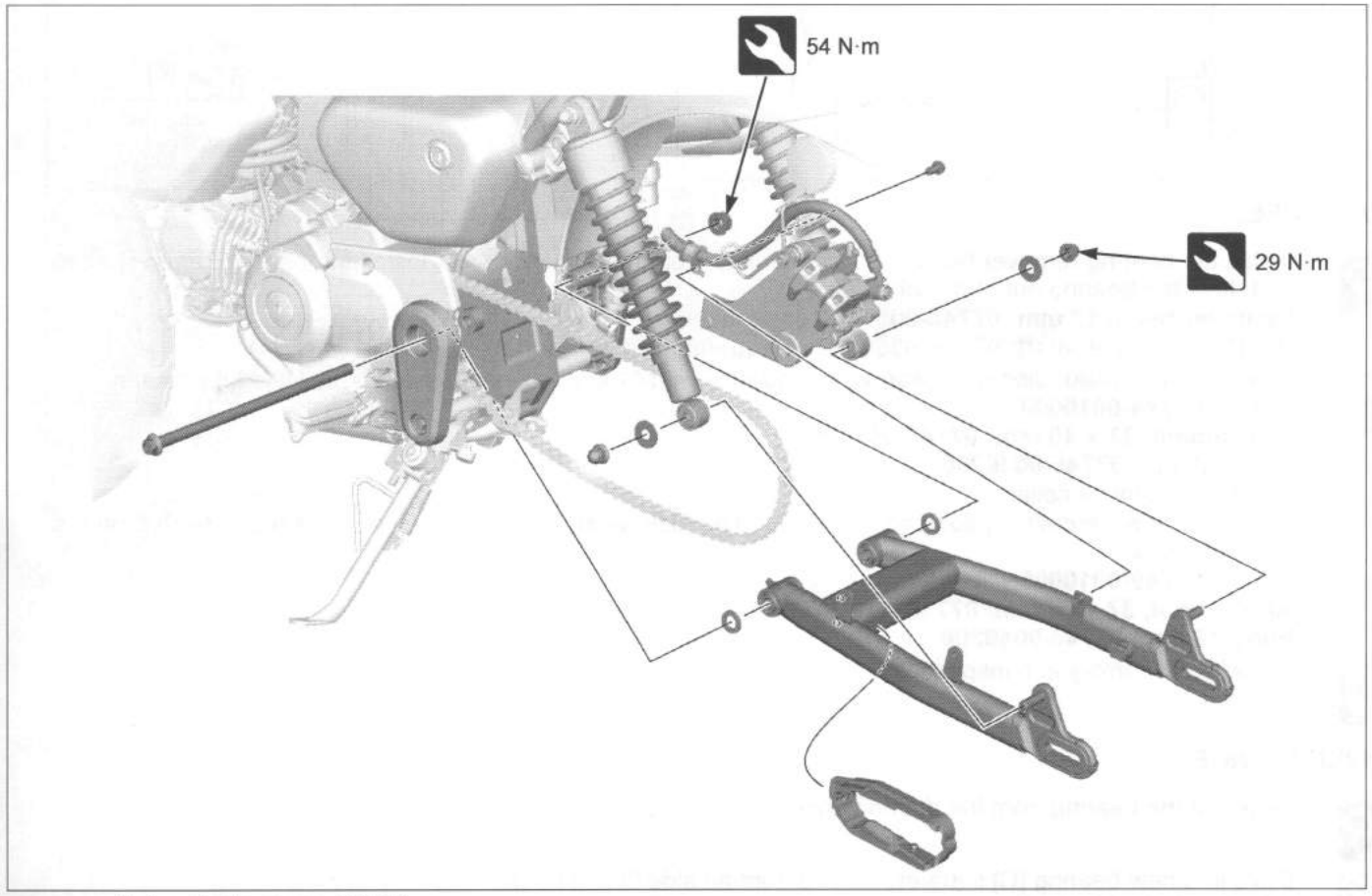
DRIVEN FLANGE

- Drive out the bearing from the driven flange.
- Drive in a new bearing [C] squarely with its marked side facing up until it is fully seated.
  Driver: 07749-0010000
  Attachment, 37 x 40 mm: 07746-0010200
  Pilot, 17 mm: 07746-0040400 or 07YMC-GCS0100 (U.S.A.)

REAR SUSPENSION



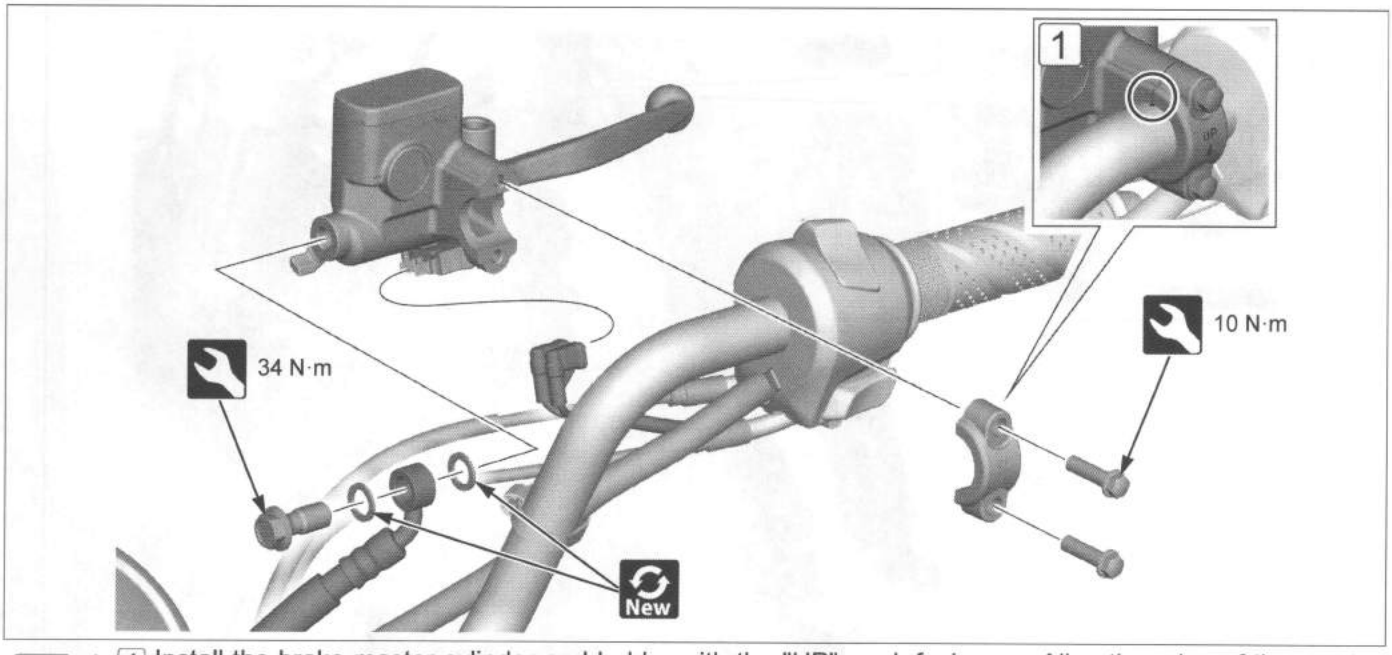
SWINGARM



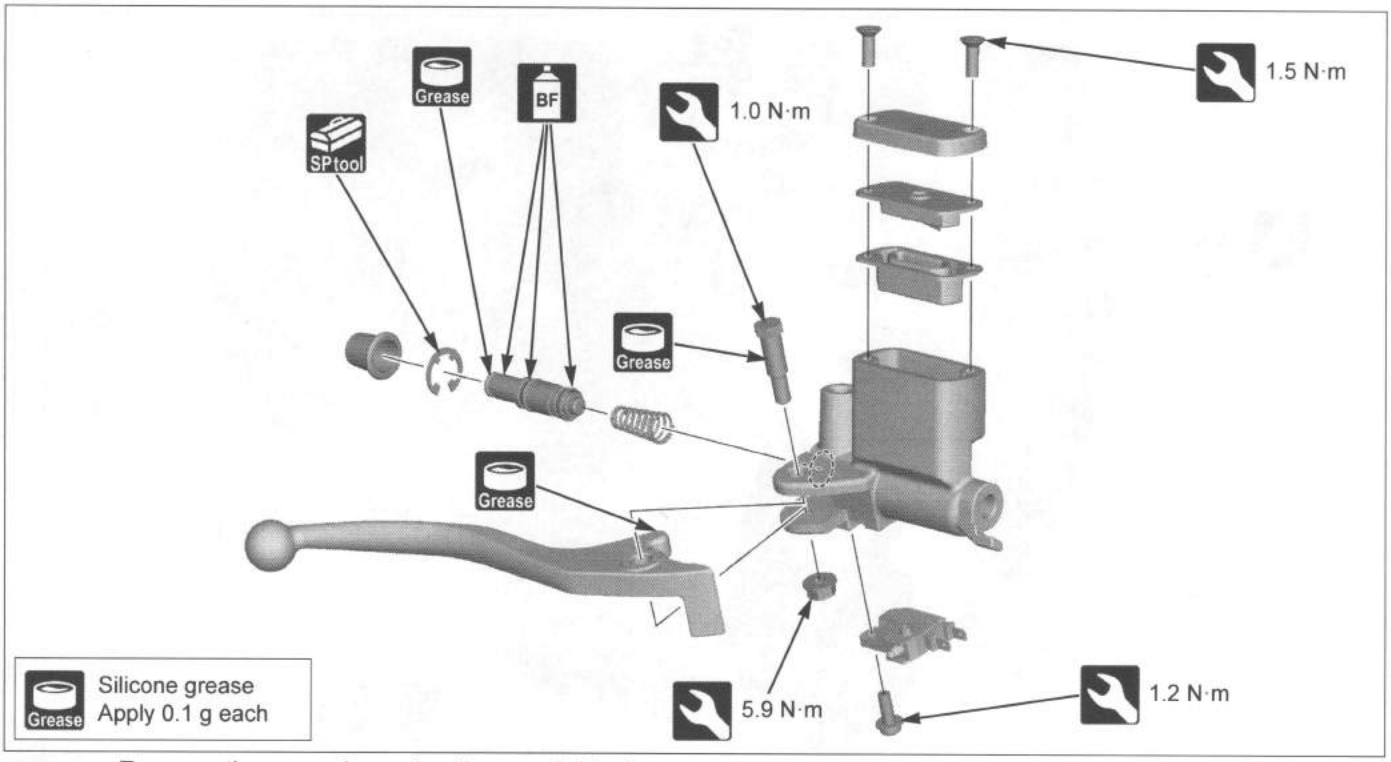
- Drive chain cover ➔3-11
- Rear wheel ➔3-22

FRONT BRAKE

BRAKE MASTER CYLINDER



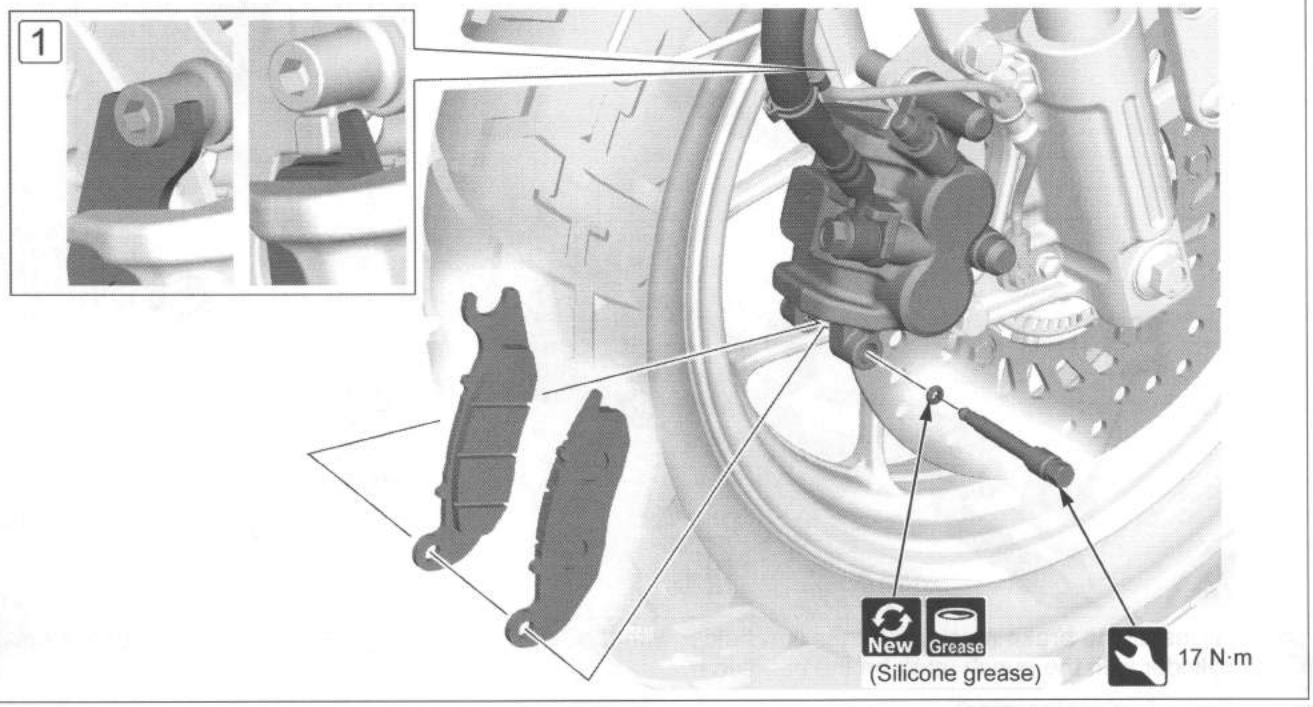
- 1 Install the brake master cylinder and holder with the "UP" mark facing up. Align the edge of the master cylinder with the punch mark on the handlebar.
- Brake fluid replacement



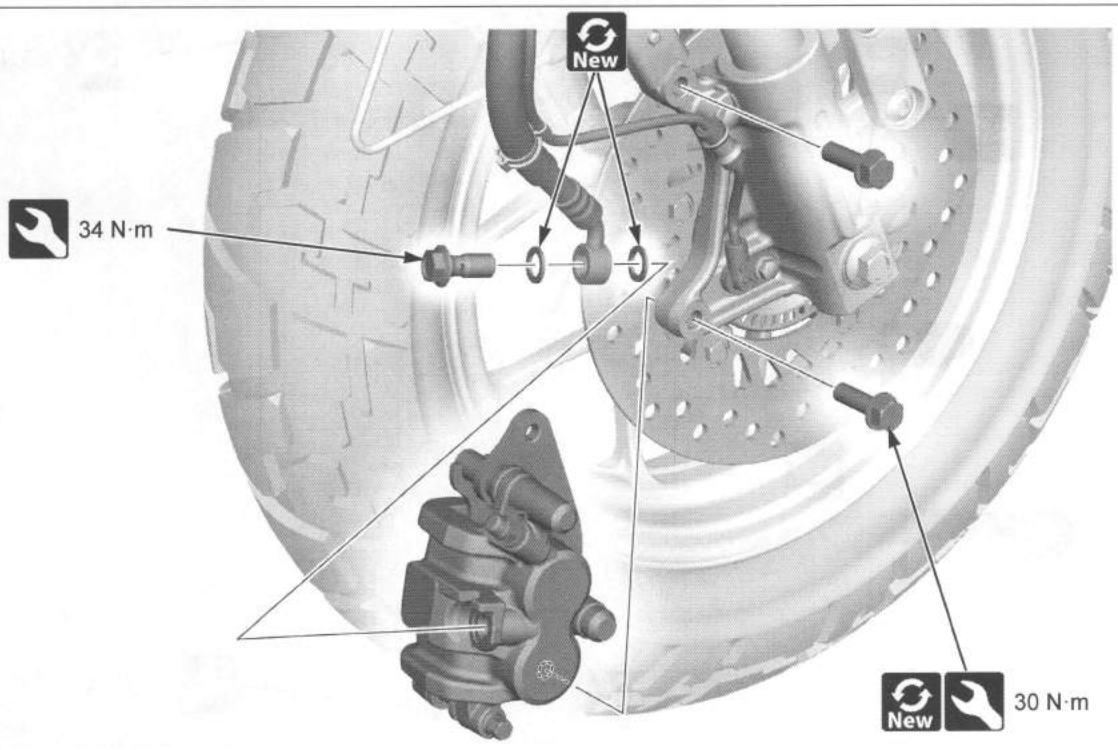
- Remove the snap ring using the special tool.
  Snap ring pliers: 07914-SA50001
- Master cylinder inspection.

BRAKE CALIPER

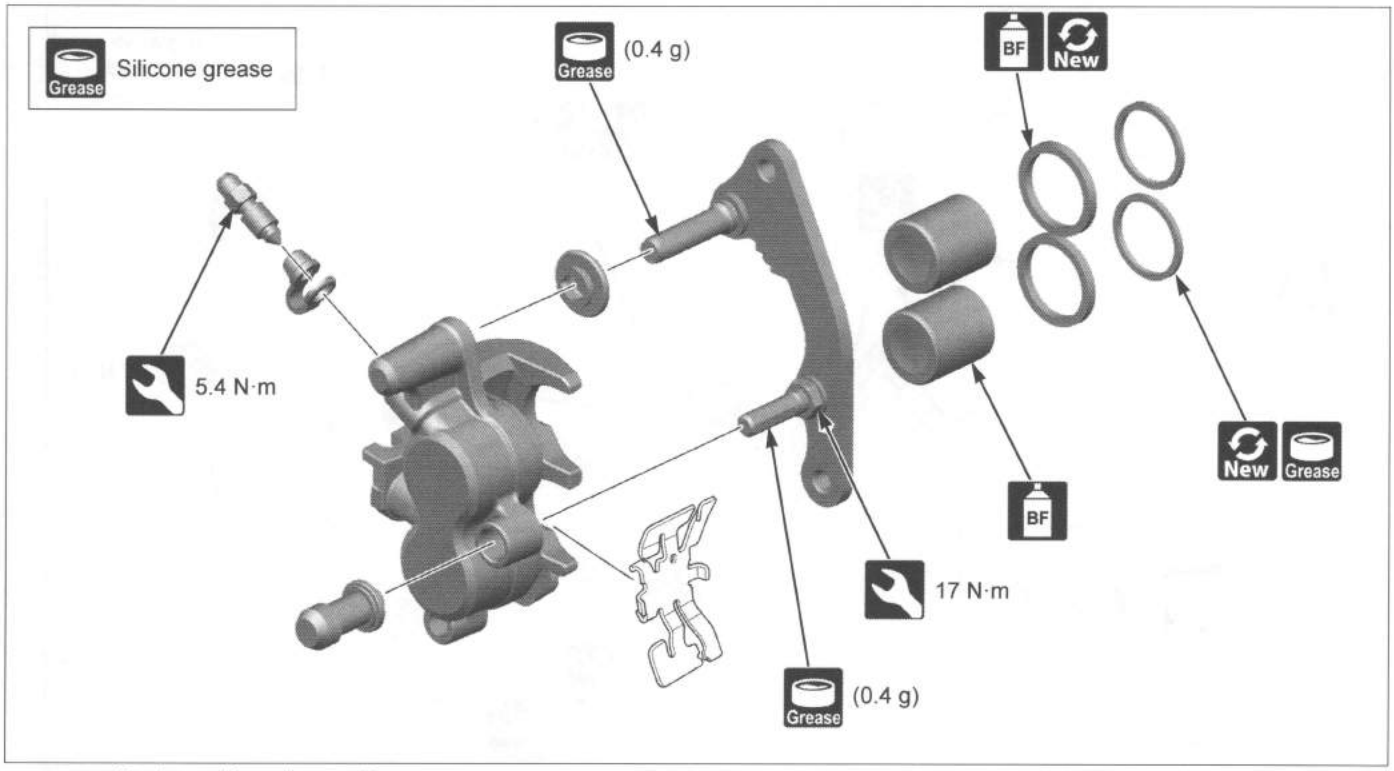
BRAKE PAD REPLACEMENT



- 1 Install brake pads so that they are set on the brake caliper bracket and bracket pin.



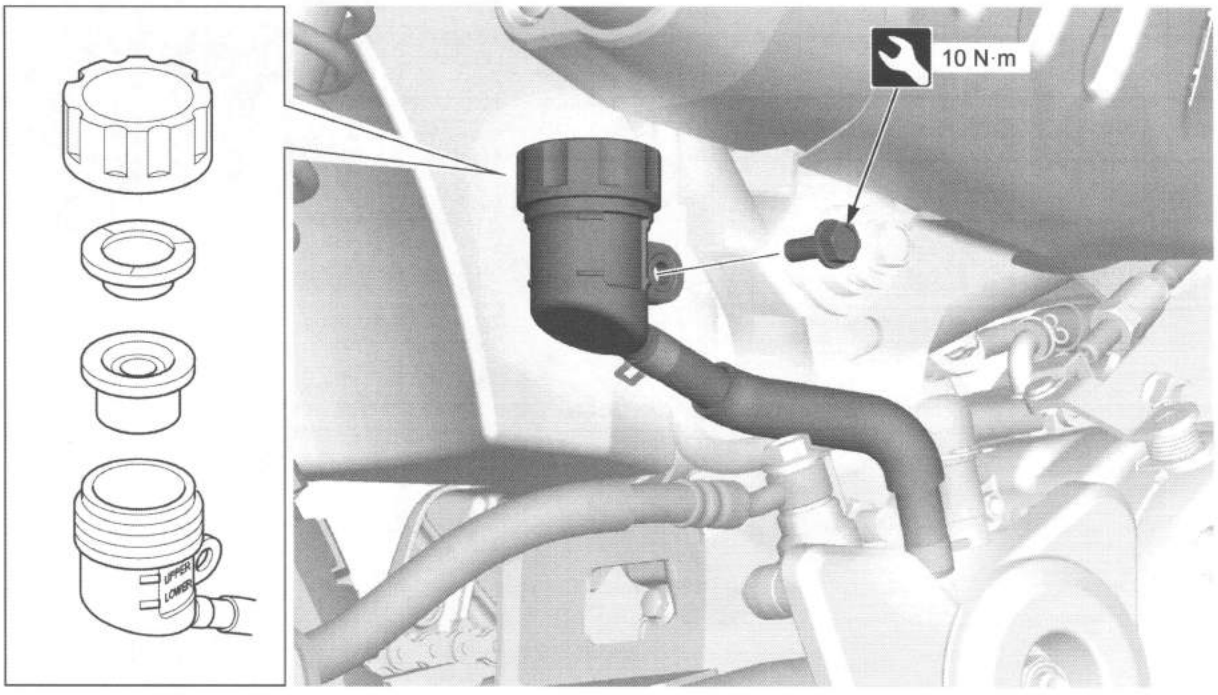
- Brake fluid replacement

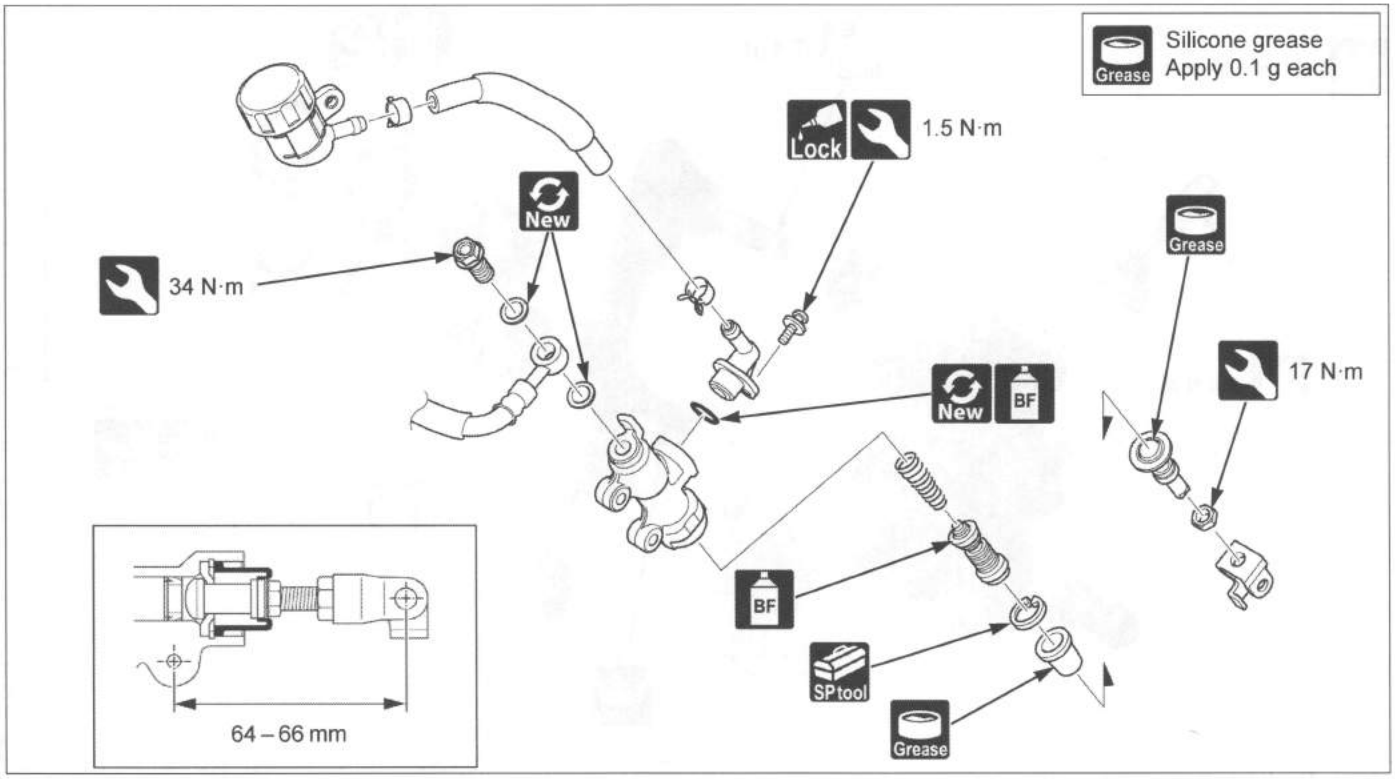


Basic • Brake caliper inspection

REAR BRAKE

BRAKE MASTER CYLINDER

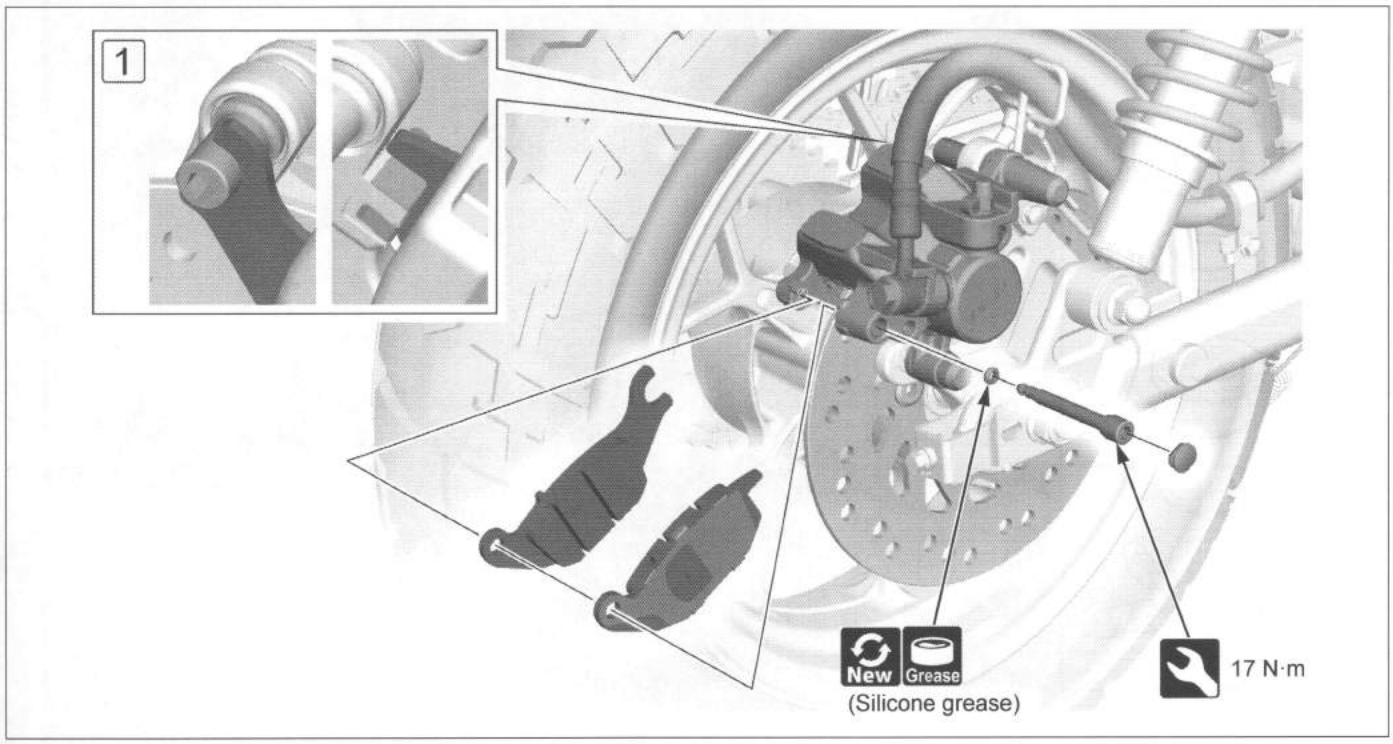




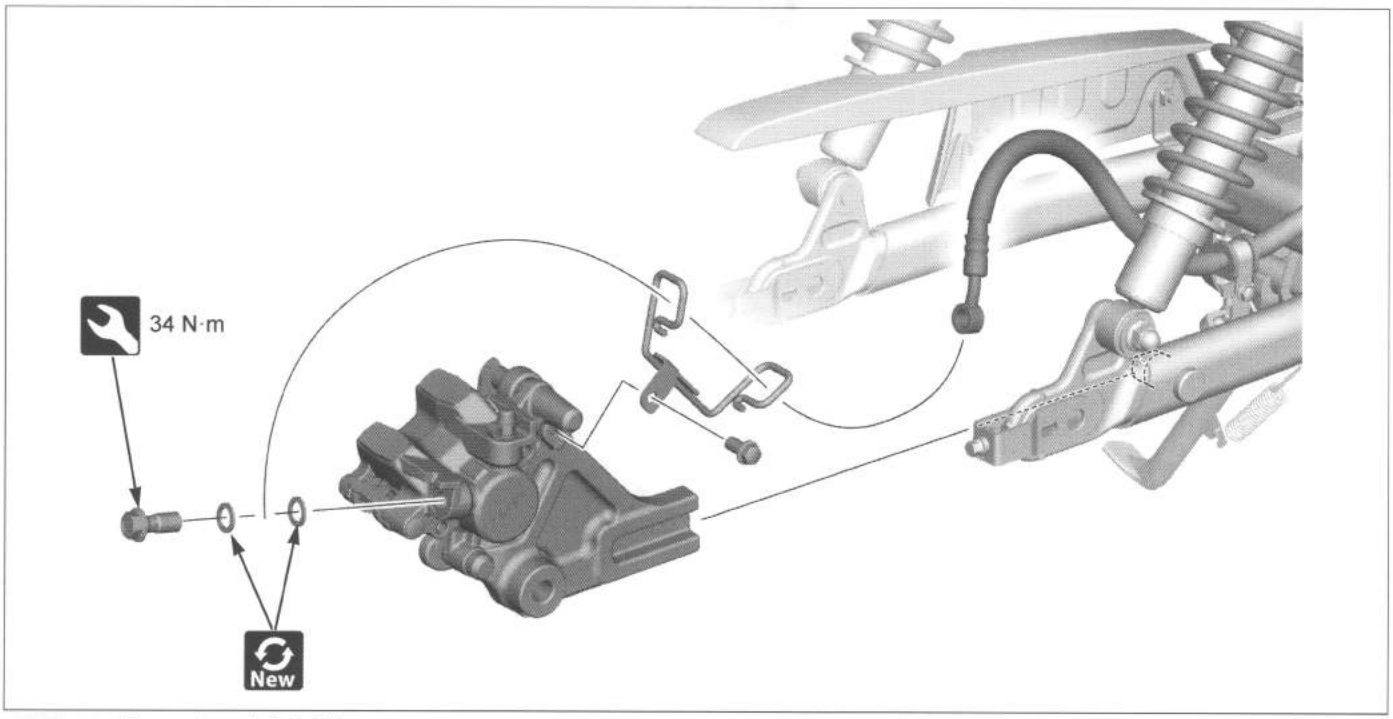
- Brake pedal ➔3-12
- Remove the snap ring using the special tool.
  Snap ring pliers: 07914-SA50001
- Master cylinder inspection.
- Brake fluid replacement

BRAKE CALIPER

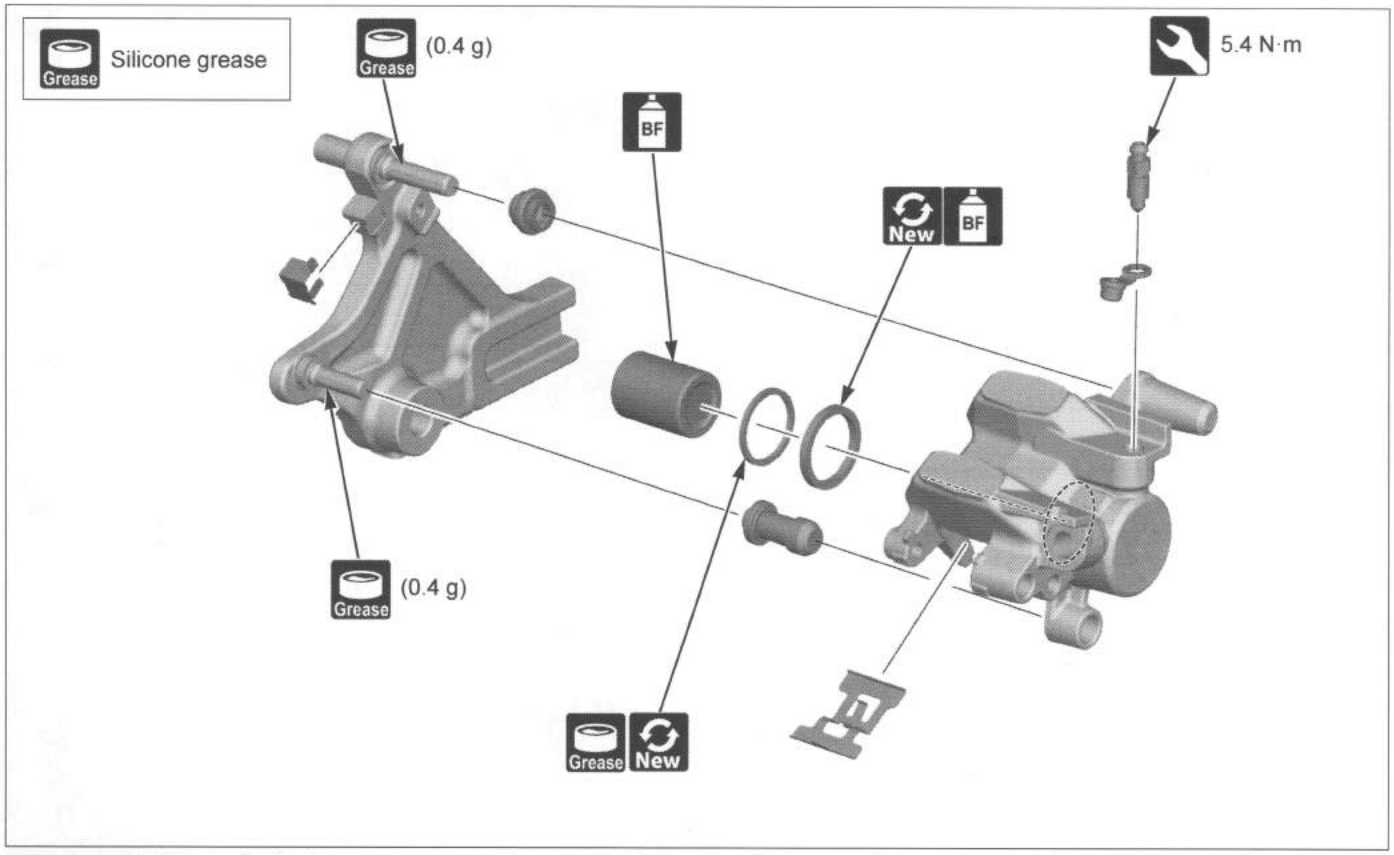
BRAKE PAD REPLACEMENT



- 1 Install brake pads so that they are set on the brake caliper bracket and bracket pin.

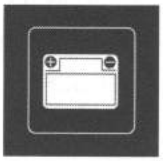


- Rear wheel ➔3-22
- Brake fluid replacement



- Caliper cylinder inspection.

4. ELECTRICAL SYSTEM



PGM-FI SYSTEM

Basic

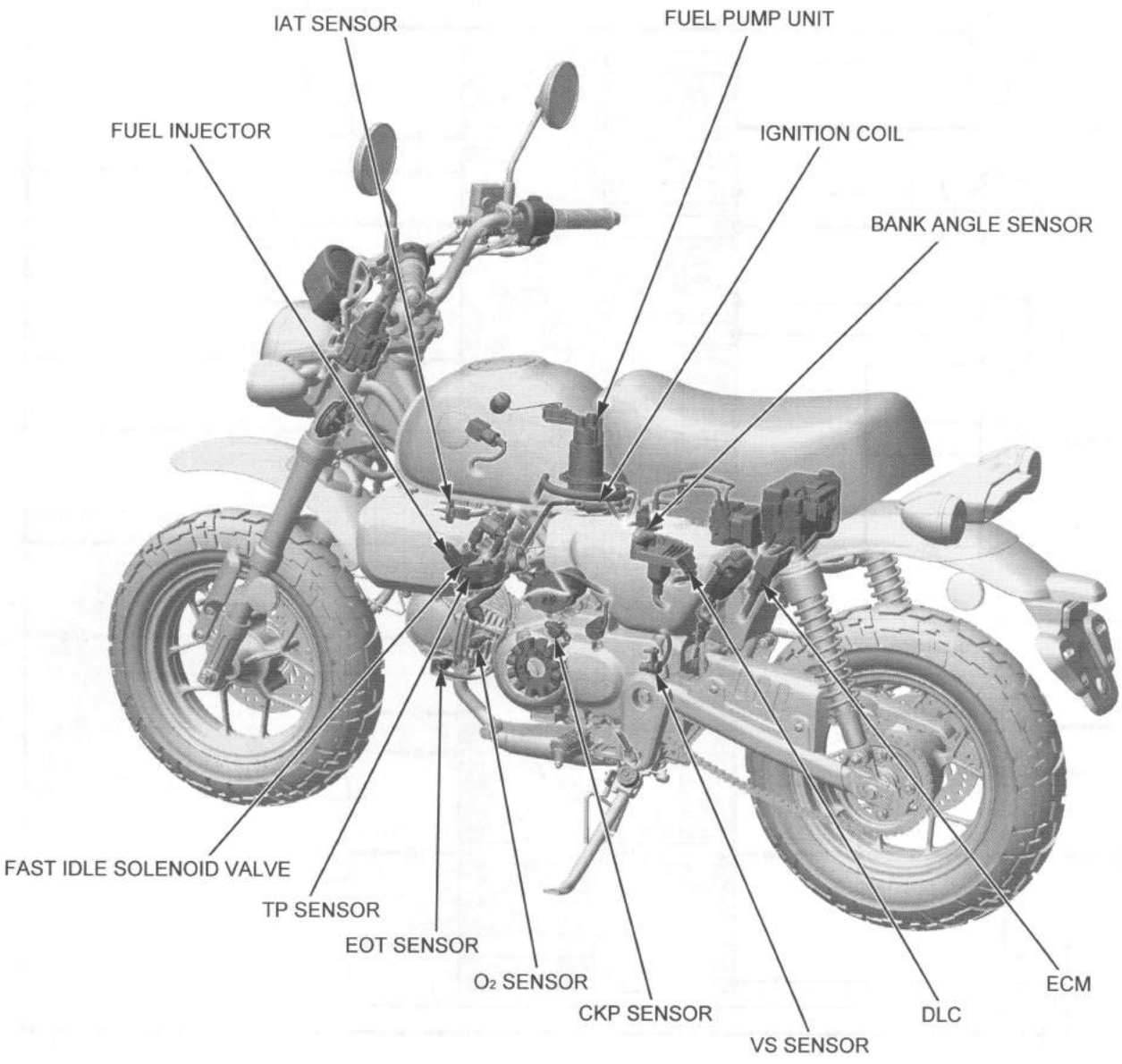
- Refer to the "Basic Shop manual" for the following information.
  – PGM-FI technical feature and each sensor function.
  – Symptom troubleshooting for the PGM-FI system.
  – MCS (Motorcycle Communication System) information.

DTC INDEX

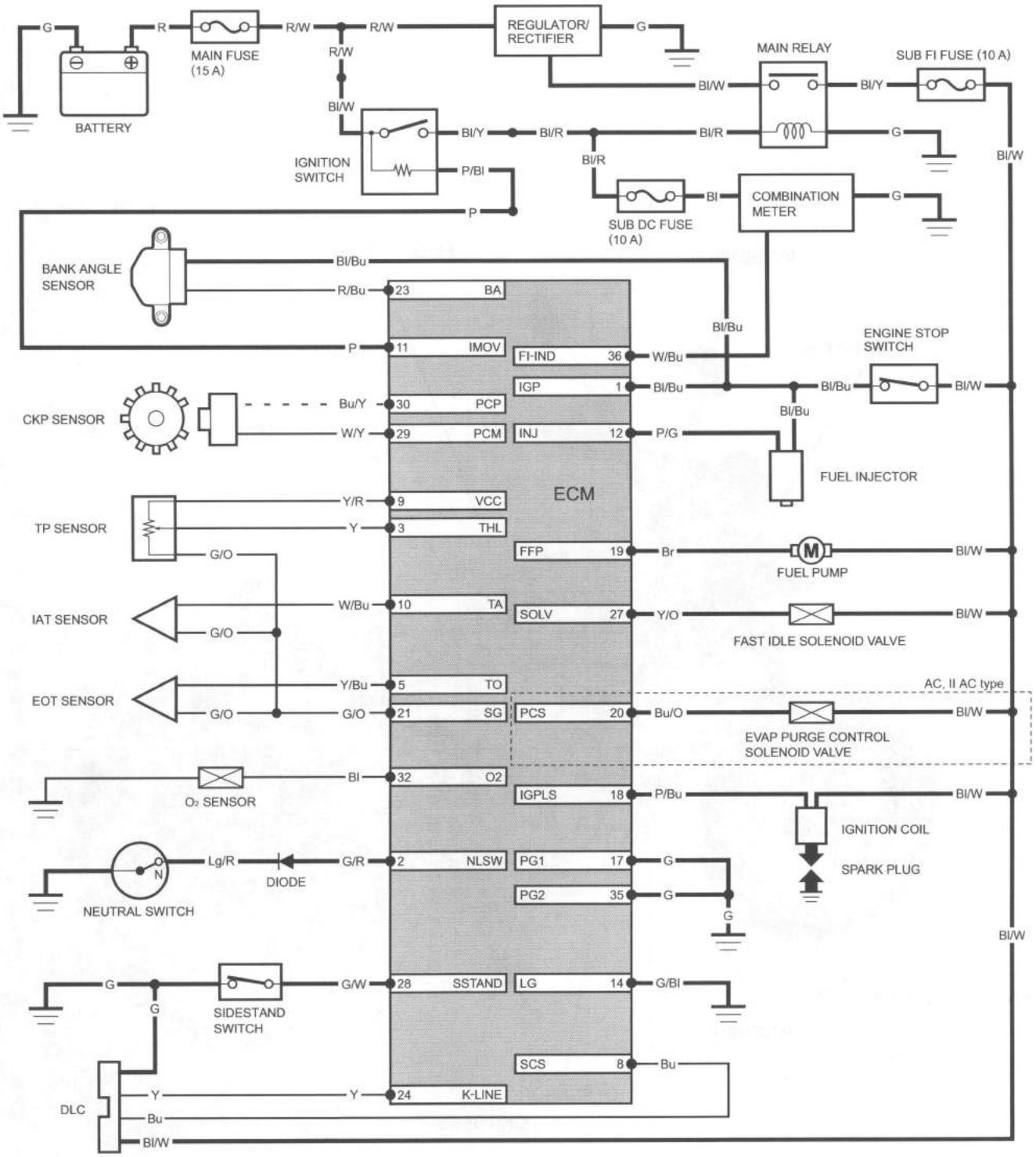
DTC (Honda code)	Function Failure	Symptom/Fail-safe function	Page
P0197 (7-1)	EOT sensor malfunction • EOT sensor low voltage	• Hard to start at a low temperature • O_2 sensor feedback stops	→4-5
P0198 (7-2)	EOT sensor malfunction • EOT sensor high voltage	• Hard to start at a low temperature • O_2 sensor feedback stops	→4-6
P0122 (8-1)	TP sensor malfunction • TP sensor low voltage	• Poor engine acceleration • O_2 sensor feedback stops	→4-7
P0123 (8-2)	TP sensor malfunction • TP sensor high voltage	• Poor engine acceleration • O_2 sensor feedback stops	→4-8
P0112 (9-1)	IAT sensor malfunction • IAT sensor low voltage	• Engine operates normally	→4-9
P0113 (9-2)	IAT sensor malfunction • IAT sensor high voltage	• Engine operates normally	→4-10
P0201 (12-1)	Fuel injector malfunction	• Engine does not start • Fuel injector, fuel pump and ignition coil shut down	→4-11
P0131 (21-1)	O_2 sensor low voltage	• Engine operates normally • O_2 sensor feedback stops	→4-12
P0132 (21-2)	O_2 sensor high voltage	• Engine operates normally • O_2 sensor feedback stops	→4-13
P062F (33-2)	ECM EEPROM malfunction	• Engine stalls, hard to start, rough idling • Does not hold the self diagnosis data • Does not erase the self diagnosis data with SCS short connector	→4-13
P1000 (54-1)	Bank angle sensor malfunction • Bank angle sensor low voltage	• Engine operates normally • Engine stop function does not operate	→4-14
P1001 (54-2)	Bank angle sensor malfunction • Bank angle sensor high voltage	• Engine operates normally • Engine stop function does not operate	→4-15
P0511 (82-1)	Fast idle solenoid valve malfunction	• Engine operates normally • Engine stalls, hard to start, rough idling	→4-16
P0443 (88-1)*	EVAP purge control solenoid valve malfunction • Loose or poor contact of the EVAP purge control solenoid valve connector • EVAP purge control solenoid valve or its circuit malfunction	• Engine operates normally • O_2 sensor feedback stops	→4-17
P0351 (91-1)	Ignition coil primary circuit malfunction	• Engine does not start • Injector and ignition coil shut down	→4-18

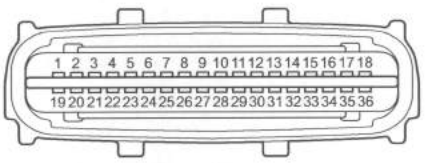
*: AC, II AC type

PGM-FI SYSTEM LOCATION



PGM-FI SYSTEM DIAGRAM



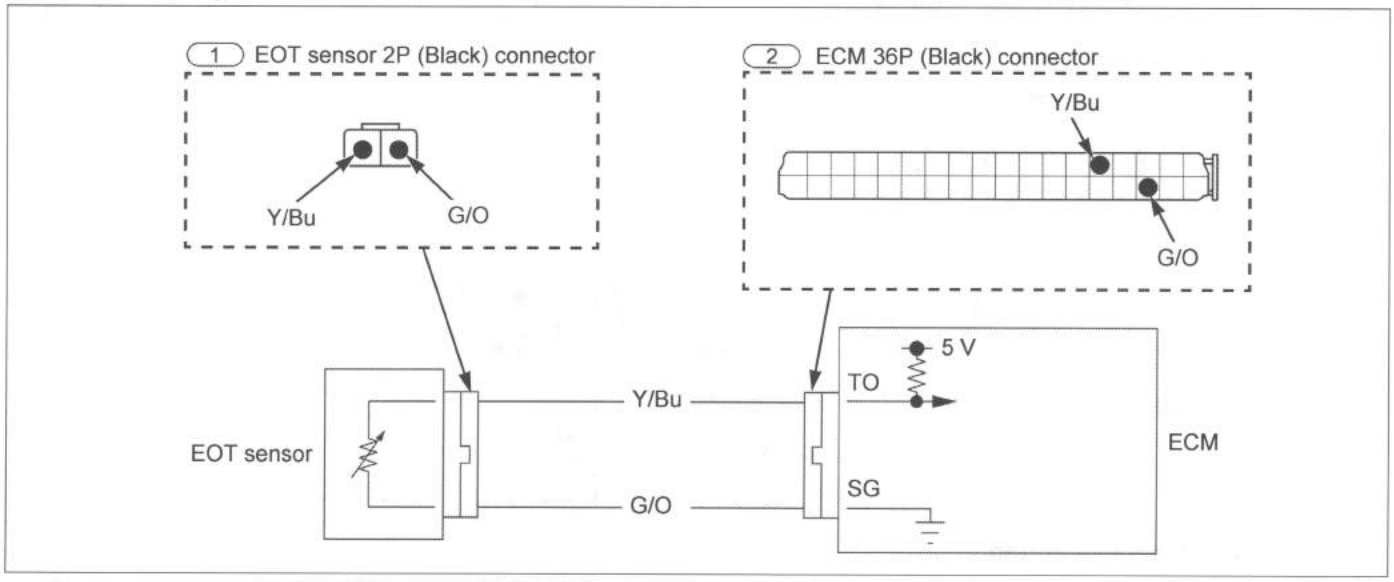


ECM 36P (BLACK) CONNECTOR (ECM side of the male terminals)

DTC TROUBLESHOOTING

DTC P0197 (EOT SENSOR LOW VOLTAGE)

EOT Sensor Diagram



1. EOT Sensor System Inspection

- Check the EOT sensor voltage with MCS.
- Is the voltage about 0 V indicated?

No ►

- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. EOT Sensor Inspection

- Check the EOT sensor voltage with MCS.
- Is the voltage about 0 V indicated?

No ►

- Replace the EOT sensor with a new one ➔4-20, and recheck.

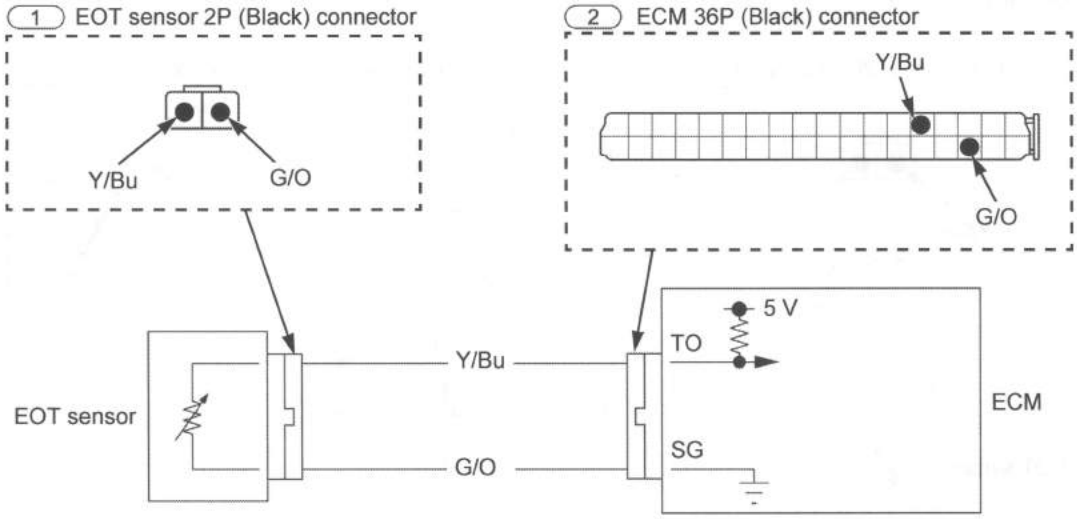
Yes ▼

3. EOT Sensor Output Line Inspection

- Check for a short circuit in Y/Bu wire.
- If there is no short circuit, replace the ECM with a new one ➔4-19, and recheck.

DTC P0198 (EOT SENSOR HIGH VOLTAGE)

EOT Sensor Diagram



1. EOT Sensor System Inspection

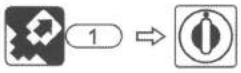
- Check the EOT sensor voltage with MCS.
- Is the voltage about 5 V indicated?

No ►

- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. EOT Sensor Inspection



- Install the jumper wire between the terminals.
  Connection: Y/Bu – G/O
- Check the EOT sensor voltage with MCS.
- Is the voltage about 0 V indicated?

Yes ►

- Replace the EOT sensor with a new one ➔4-20, and recheck.

No ▼

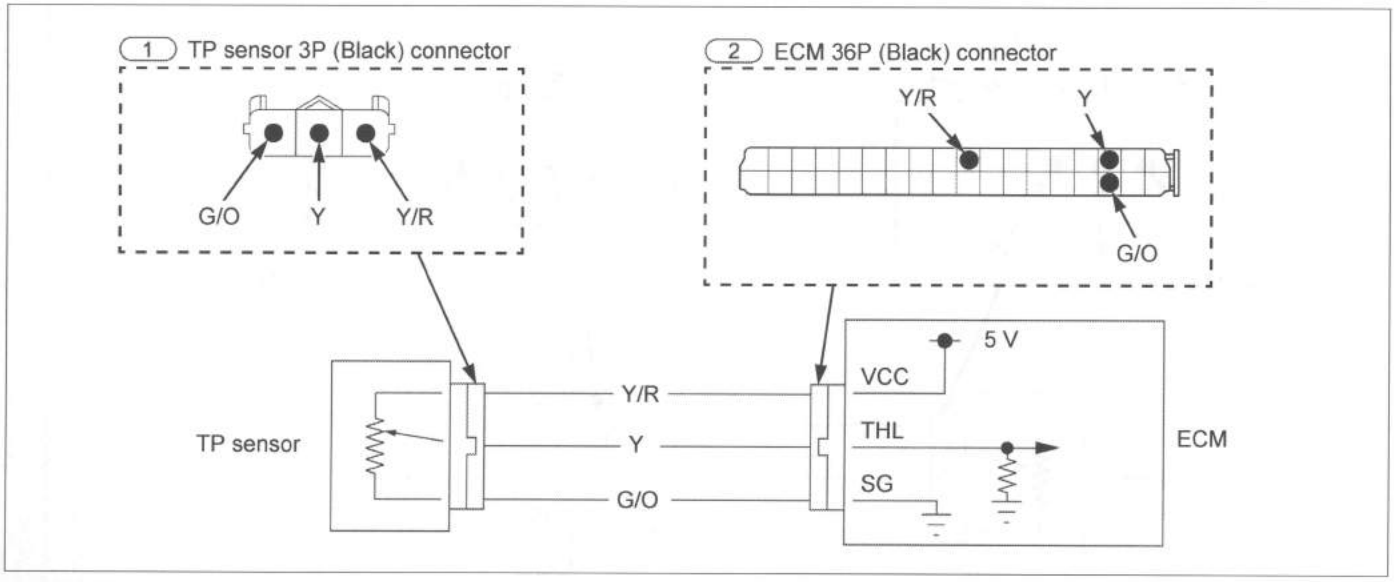
3. EOT Sensor Output Line Inspection

- Check an open circuit in Y/Bu and G/O wire.
- If there is no open circuit, replace the ECM with a new one ➔4-19, and recheck.

DTC P0122 (TP SENSOR LOW VOLTAGE)

- Left air cleaner cover ➔3-7

TP Sensor Diagram



1. TP Sensor System Inspection

- Check the TP sensor voltage with MCS.
- Is the voltage about 0 V indicated?

No ►
- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. TP Sensor Power Input Voltage Inspection

- Connection: Y/R (+) – G/O (–)
- Is the voltage within 4.75 – 5.25 V?

No ►
- Check an open or short circuit in Y/R and G/O wires.
- If there is no open or short circuit, replace the ECM with a new one ➔4-19, and recheck.

Yes ▼

3. TP Sensor Output Line Inspection

- Check an open or short circuit in Y wire.
- Is there open or short circuit?

Yes ►
- Faulty Y wire

No ▼

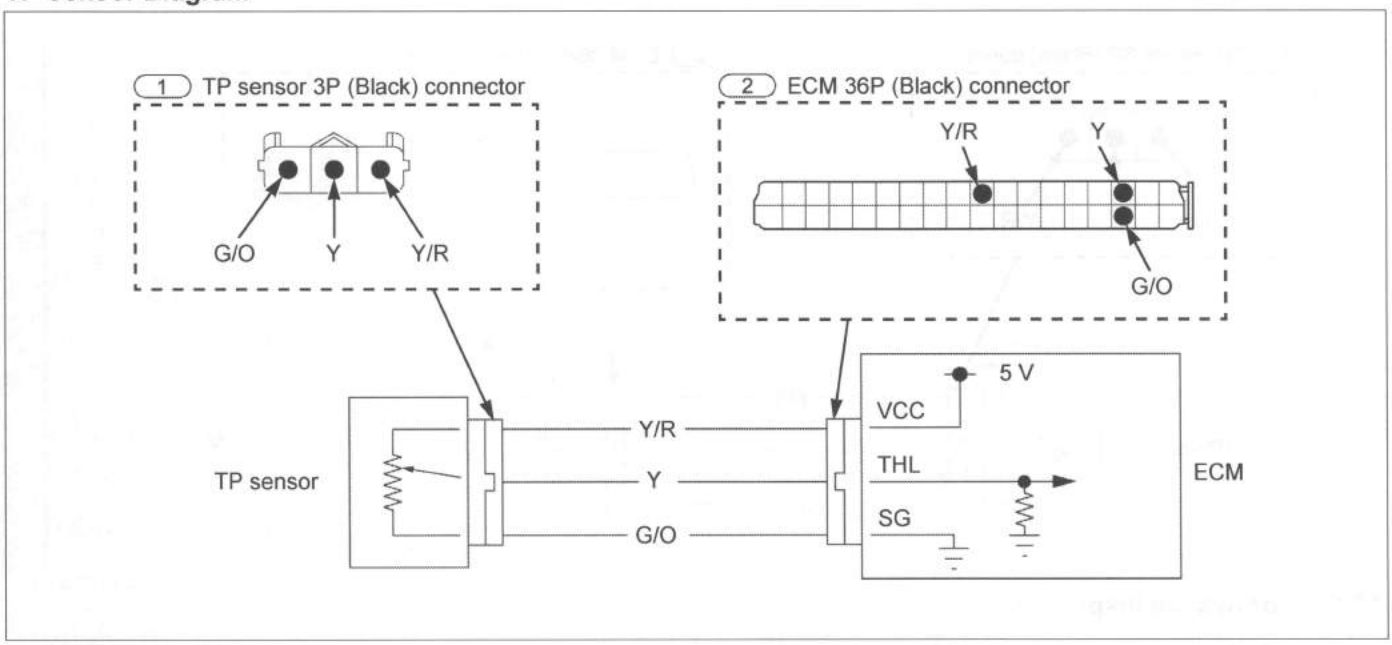
4. TP Sensor Inspection

- Replace the throttle body with a new one. ➔2-9
- Erase the DTC's.
- Check the TP sensor with MCS.
- If DTC P0122 is indicated, replace the ECM with a new one ➔4-19, and recheck.

DTC P0123 (TP SENSOR HIGH VOLTAGE)

- Left air cleaner cover ➔3-7

TP Sensor Diagram



1. TP Sensor System Inspection

- Check the TP sensor voltage with MCS when the throttle fully closed.
- Is the voltage about 5 V indicated?

No ►

- Check the TP sensor voltage with MCS.
- Operate the throttle from fully closed to fully opened.
- If the voltage is not increase continuously, replace the throttle body with a new one ➔2-9, and re-check.

Yes ▼

2. TP Sensor Ground Line Inspection

- Check a open circuit in G/O wire.
- Is there open circuit?

Yes ►

- Faulty G/O wire

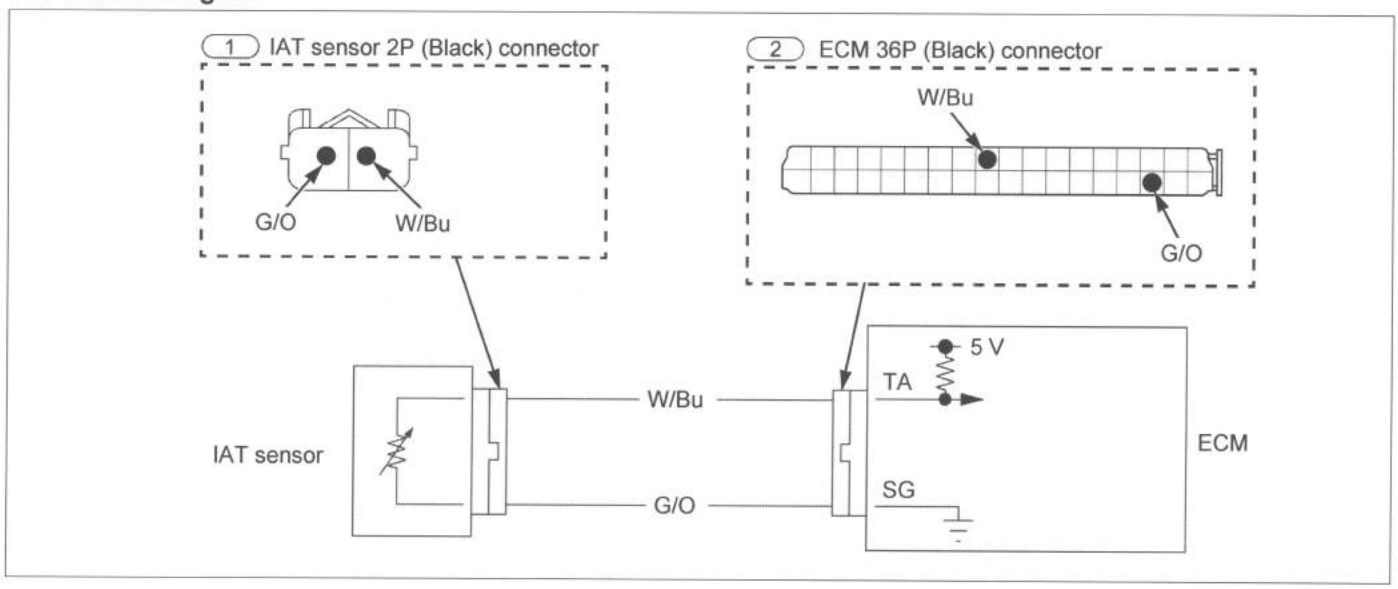
No ▼

- Replace the throttle body with a new one. ➔2-9
- Erase the DTC's.
- Check the TP sensor with MCS.
- If DTC P0123 is still indicated, replace the ECM with a new one ➔4-19, and recheck.

DTC P0112 (IAT SENSOR LOW VOLTAGE)

- Left air cleaner cover ➔3-7

IAT Sensor Diagram



1. IAT Sensor System Inspection

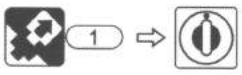
- Check the IAT sensor voltage with MCS.
- Is the voltage about 0 V indicated?

No ►

- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. IAT Sensor Inspection



- Check the IAT sensor voltage with MCS.
- Is the voltage about 0 V indicated?

No ►

- Replace the IAT sensor with a new one ➔4-20, and recheck.

Yes ▼

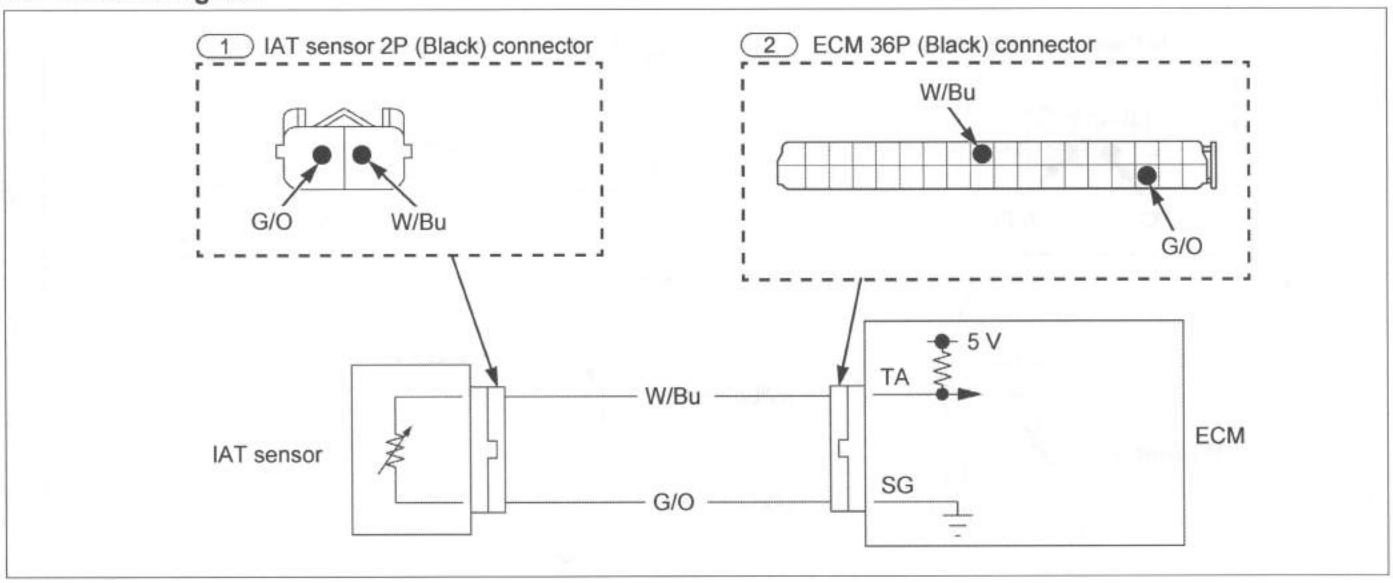
3. IAT Sensor Output Line Inspection

- Check an short circuit in W/Bu wire.
- If there is no short circuit, replace the ECM with a new one ➔4-19, and recheck.

DTC P0113 (IAT SENSOR HIGH VOLTAGE)

- Left air cleaner cover ➔3-7

IAT Sensor Diagram



1. IAT Sensor System Inspection

- Check the IAT sensor voltage with MCS.
- Is the voltage about 5 V indicated?

No ►

- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. IAT sensor Inspection

1 ⇨

- Install the jumper wire between the terminals.
  Connection: W/Bu – G/O
- Check the IAT sensor voltage with MCS.
- Is the voltage about 0 V indicated?

Yes ►

- Replace the IAT sensor with a new one ➔4-20, and recheck.

No ▼

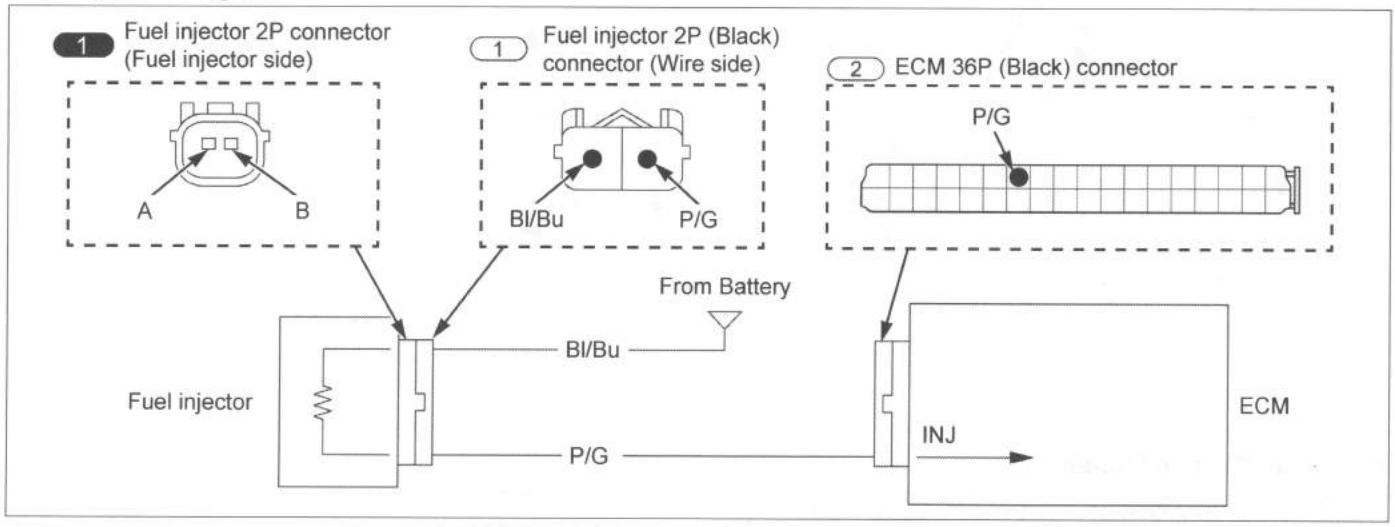
3. IAT Sensor Voltage Input Line Inspection

- Check an open circuit in W/Bu and G/O wire.
- If there is no open circuit, replace the ECM with a new one ➔4-19, and recheck.

DTC P0201 (FUEL INJECTOR)

- Left air cleaner cover ➔3-7

Fuel Injector Diagram



1. Fuel Injector System Inspection

- Check the fuel injector with MCS.
- Is the DTC P0201 indicated?

No ►
- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. Fuel Injector Input Voltage Inspection

- Connection: Bl/Bu (+) – Ground (–)
- Does the battery voltage exist?

No ►
- Faulty Bl/Bu wire

Yes ▼

3. Fuel Injector Signal Line Inspection

- Check a open or short circuit in P/G wire.
- Is there open or short circuit?

Yes ►
- Faulty P/G wire

No ▼

4. Fuel Injector Resistance inspection

- Connection: A – B
- Is the resistance within 11.4 – 12.6 Ω (24°C)?

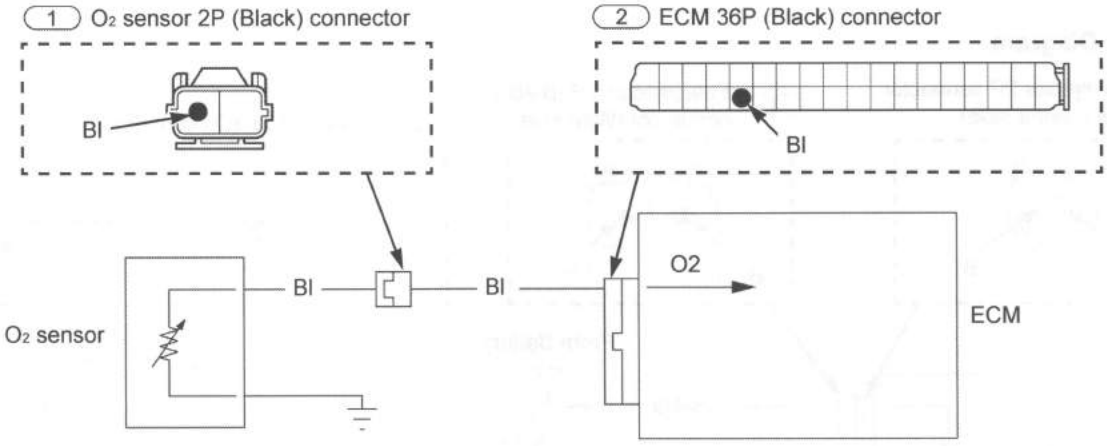
No ►
- Faulty fuel injector

Yes ▼

- Replace the ECM with a new one ➔4-19, and recheck.

DTC P0131 (O_2 SENSOR LOW VOLTAGE)

O_2 Sensor Diagram



1. O_2 Sensor System Inspection

• Test-ride the vehicle and check the O_2 sensor with MCS. • Is the DTC P0131 indicated?	No ►	• Intermittent failure • Loose or poor contact at the connector

Yes ▼

2. O_2 Sensor Circuit Inspection

• Check the short circuit in Bl wire. • Are there short circuit?	Yes ►	• Faulty Bl wire.

No ▼

3. Fuel Supply Test (Fuel Pressure Test)

• Perform the fuel pressure test. ➔2-3 • Is the fuel pressure within specification?	No ►	• Check that there is any erratic swing or vibration of the gauge needle in the pressure gauge reading. – If the needle is swing or vibration, replace the fuel filter. ➔2-7 – If the needle is stable, replace the fuel pump unit. ➔2-6

Yes ▼

4. Fuel Supply Test (Fuel Flow Test)

• Adjust the fuel in the tank until the fuel gauge segment is positioned in the specified range, and inspect the fuel flow.➔2-3 • Is the fuel flow within specification?	No ►	• Replace the fuel filter. ➔2-7

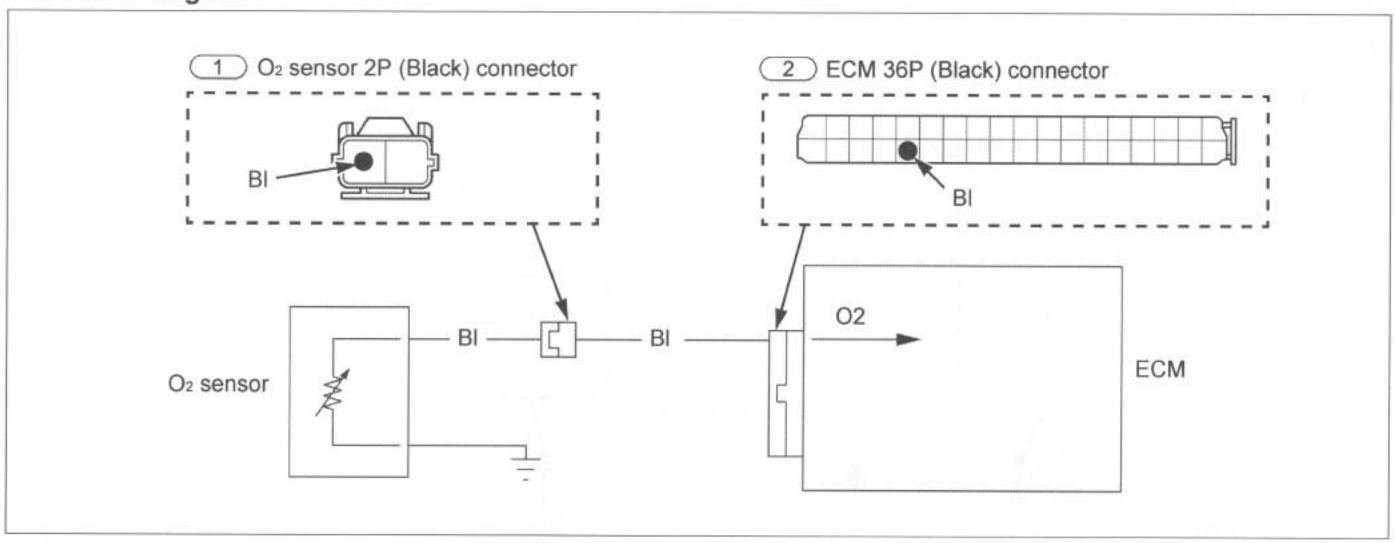
Yes ▼

5. O_2 Sensor Inspection

- Replace the O_2 sensor with a new one. ➔4-21
- Erase the DTC's.
- Test-ride the vehicle and check the O_2 sensor with MCS.
- If DTC P0131 is indicated, replace the ECM with a new one ➔4-19, and recheck.

DTC P0132 (O_2 SENSOR HIGH VOLTAGE)

O_2 Sensor Diagram



1. O_2 Sensor System Inspection

- Test-ride the vehicle and check the O_2 sensor with MCS.
- Is the DTC P0132 indicated?

No ►
- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. O_2 Sensor Circuit Inspection

- Check the open circuit in Bl wire.
- Are there open circuit?

Yes ►
- Faulty Bl wire.

No ▼

3. O_2 Sensor Inspection

- Replace the O_2 sensor with a new one. ➔4-21
- Erase the DTC's.
- Test-ride the vehicle and check the O_2 sensor with MCS.
- If DTC P0132 is indicated, replace the ECM with a new one ➔4-19, and recheck.

DTC P062F (EEPROM)

1. EEPROM System Inspection

- Check the EEPROM with MCS.
- Is the DTC P062F is indicated?

No ►
- Intermittent failure
- Loose or poor contact at the connector

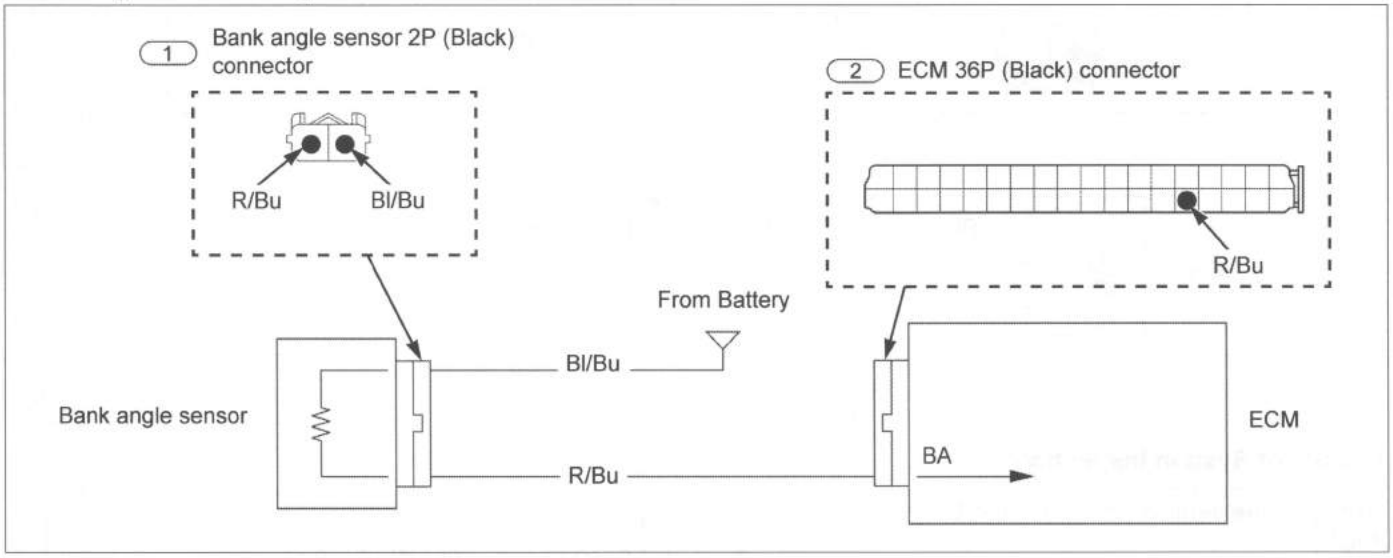
Yes ▼

- Replace the ECM with a new one. ➔4-19, and recheck.

DTC P1000 (BANK ANGLE SENSOR LOW VOLTAGE)

- Fuel tank ➔2-4

Bank Angle Sensor Diagram



1. Bank Angle Sensor System Inspection

- Check the bank angle sensor voltage with MCS.
- Is the voltage about 0 V indicated?

No ►
- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. Bank Angle Sensor Power Input Voltage Inspection

- Connection: Bl/Bu (+) – Ground (–)
- Does the battery voltage exist?

No ►
- Faulty Bl/Bu wire

Yes ▼

3. Bank Angle Sensor Output Line Inspection

- Check an open or short circuit in R/Bu wire.
- Is there open or short circuit?

Yes ►
- Faulty R/Bu wire

No ▼

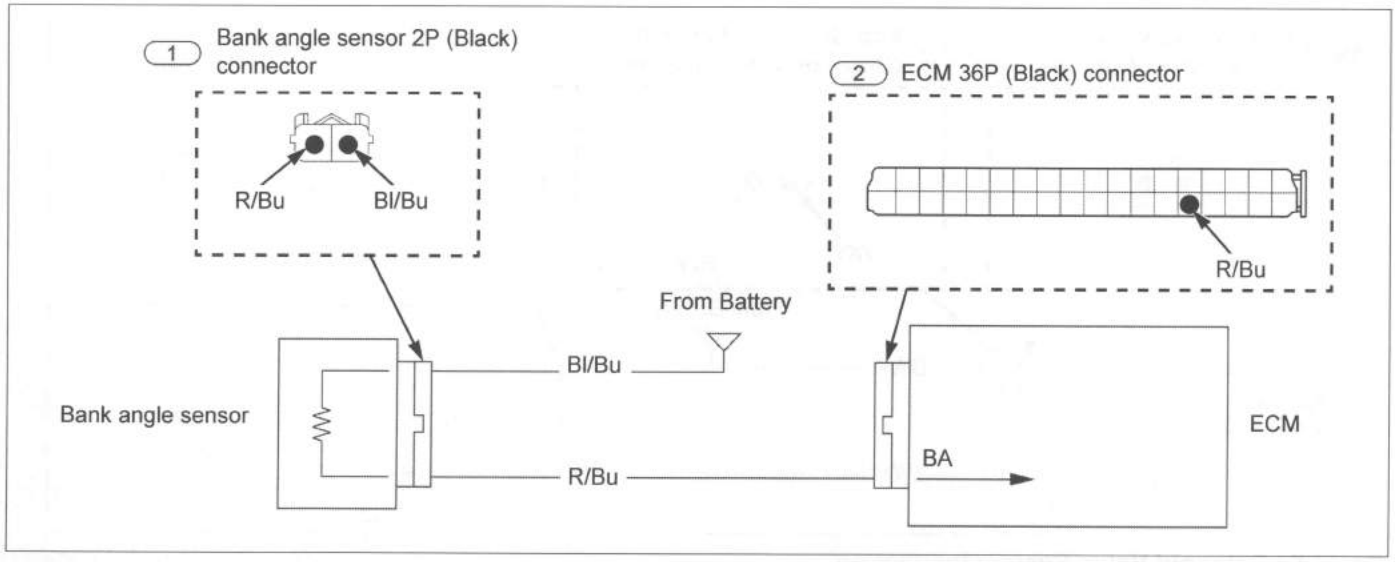
4. Bank Angle Sensor Inspection

- Replace the bank angle sensor with a new one. ➔4-21
- Erase the DTC's.
- Check the bank angle sensor with MCS.
- If DTC P1000 is indicated, replace the ECM with a new one ➔4-19, and recheck.

DTC P1001 (BANK ANGLE SENSOR HIGH VOLTAGE)

- Bank angle sensor (Connector is connected.) ➔4-21

Bank Angle Sensor Diagram



1. Bank Angle Sensor System Inspection

- Check the bank angle sensor voltage with MCS.
- Incline the bank angle sensor.
- Is the voltage decrease?

Yes ►

- Replace the ECM with a new one ➔4-19, and recheck.

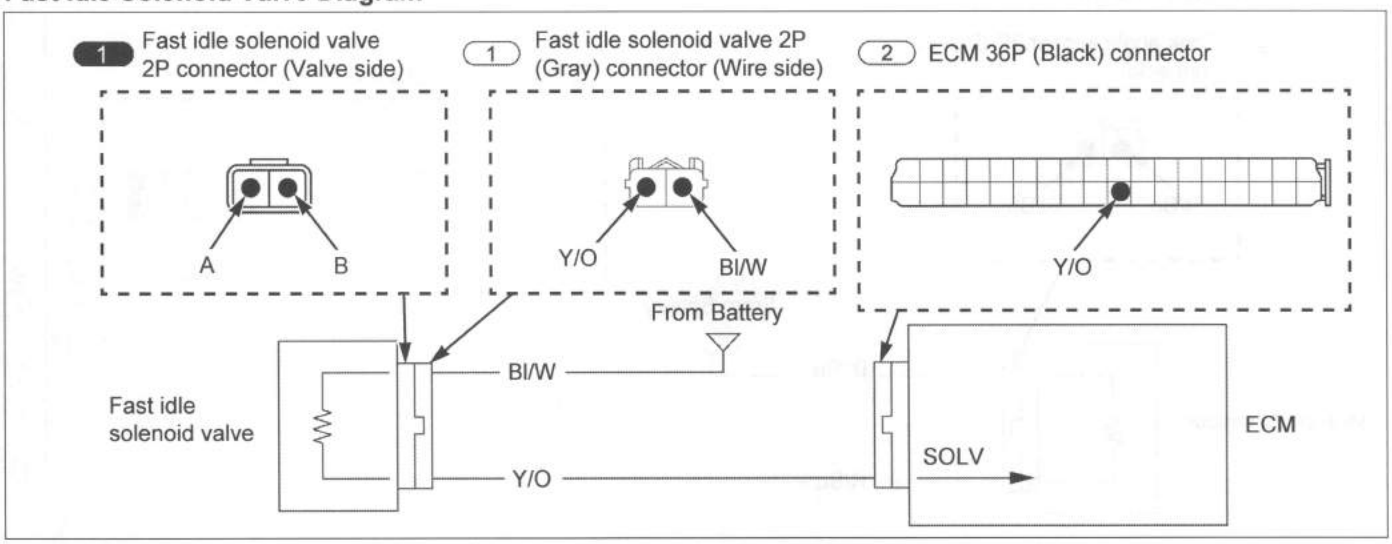
No ▼

- Replace the bank angle sensor with a new one ➔4-21, and recheck.

DTC P0511 (FAST IDLE SOLENOID VALVE)

- Left air cleaner cover ➔3-7

Fast Idle Solenoid Valve Diagram



1. Fast Idle Solenoid Valve System Inspection

- Check the fast idle solenoid valve with MCS.
- Is the DTC P0511 indicated?

No ►
- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. Fast Idle Solenoid Valve Input Voltage Inspection

- Connection: Bl/W (+) – Ground (–)
- Does the battery voltage exist?

No ►
- Faulty Bl/W wire

Yes ▼

3. Fast Idle Solenoid Valve Signal Line Inspection

- Check an open or short circuit in Y/O wire.
- Is there open or short circuit?

Yes ►
- Faulty Y/O wire

No ▼

4. Fast Idle Solenoid Valve Resistance inspection

- Connection: A – B
- Is the resistance within 24 – 27 Ω (24°C)?

No ►
- Faulty fast idle solenoid valve

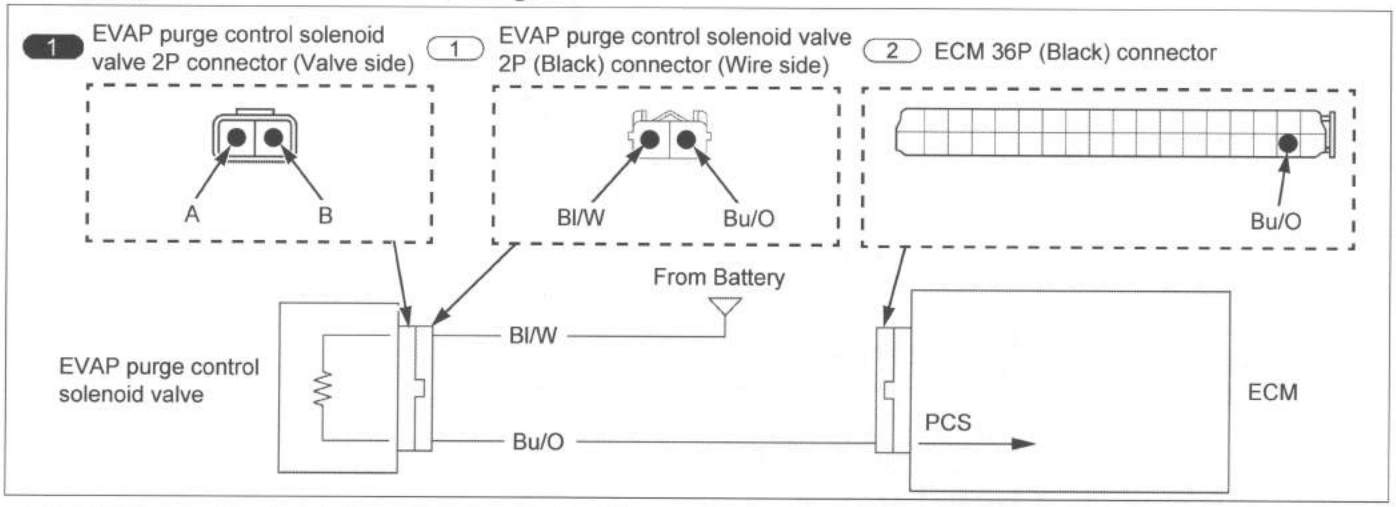
Yes ▼

- Replace the ECM with a new one ➔4-19, and re-check.

DTC P0443 (EVAP PURGE CONTROL SOLENOID VALVE) (AC, II AC type)

- Left air cleaner cover ➔3-7

EVAP Purge Control Solenoid Valve Diagram



1. EVAP Purge Control Solenoid Valve System Inspection

- Check the EVAP purge control solenoid valve with MCS.
- Is the P0443 is indicated?

No ►
- Intermittent failure
- Loose or poor contact at the connector

Yes ▼

2. EVAP Purge Control Solenoid Valve Input Voltage Inspection

- Connection: Bl/W (+) – Ground (–)
- Does the battery voltage exist?

No ►
- Faulty Bl/W wire

Yes ▼

3. EVAP Purge Control Solenoid Valve Signal Line Inspection

- Check an open or short circuit in Bu/O wire.
- Is there open or short circuit?

Yes ►
- Faulty Bu/O wire

No ▼

4. EVAP Purge Control Solenoid Valve Resistance inspection

- Connection: A – B
- Is the resistance within 30 – 34 Ω (20°C)?

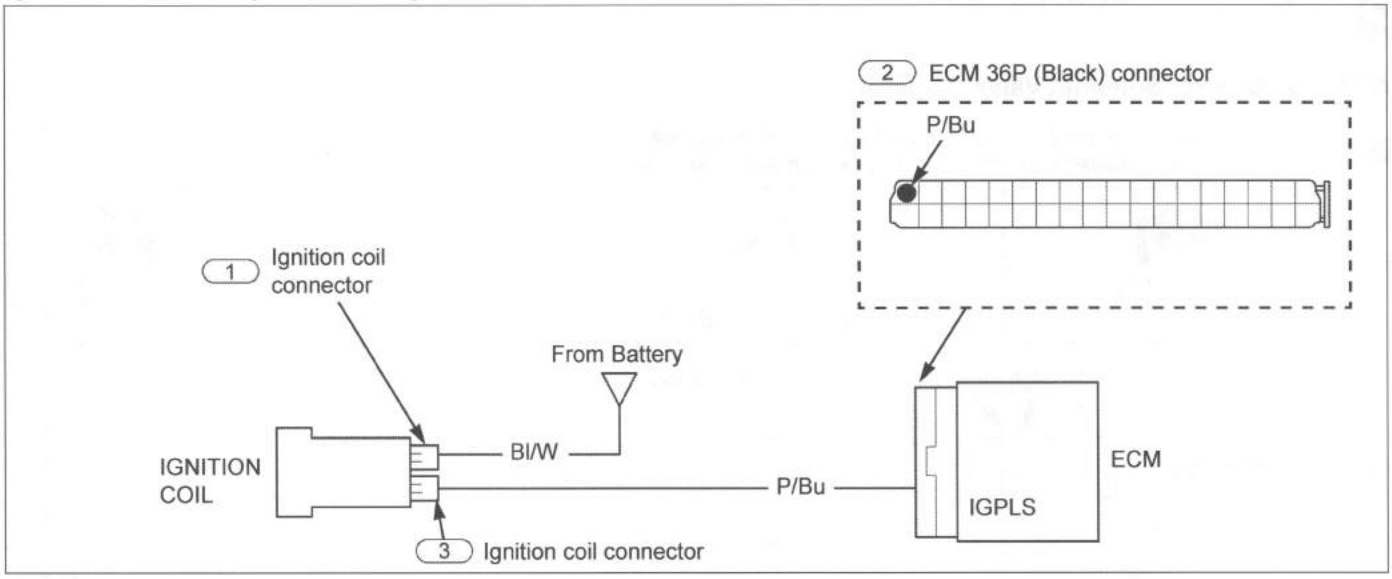
No ►
- Faulty EVAP purge control solenoid valve

Yes ▼

- Replace the ECM with a new one ➔4-19, and re-check.

DTC P0351 (IGNITION COIL PRIMARY CIRCUIT)

Ignition Coil Primary Circuit Diagram



1. Ignition Coil Primary Circuit System Inspection

• Check the Ignition coil with MCS. • Is the DTC P0351 is indicated?	No ►	• Intermittent failure • Loose or poor contact at the connector

Yes ▼

2. Ignition Coil Primary Circuit Input Voltage Inspection

 • Connection: Bl/W (+) – Ground (–) • Does the battery voltage exist?	No ►	• Faulty Bl/W wire

Yes ▼

3. Ignition Coil Primary Circuit Signal Line Inspection

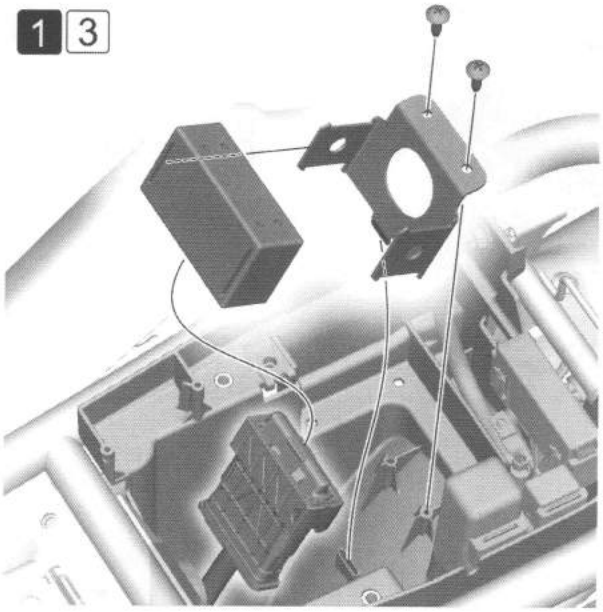
 • Check an open or short circuit in P/Bu wire • Is there open or short circuit?	Yes ►	• Faulty P/Bu wire

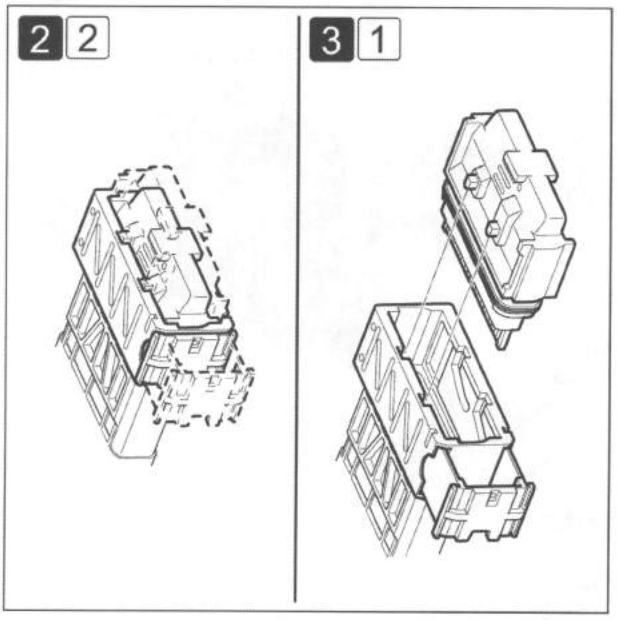
No ▼

4. Ignition Coil Inspection

- Replace the ignition coil with a new one, and re-check.
- Erase the DTC's.
- Start the engine and check the ignition coil with MCS.
- If DTC P0351 is indicated, replace the ECM with a new one ➔4-19, and recheck.

ECM

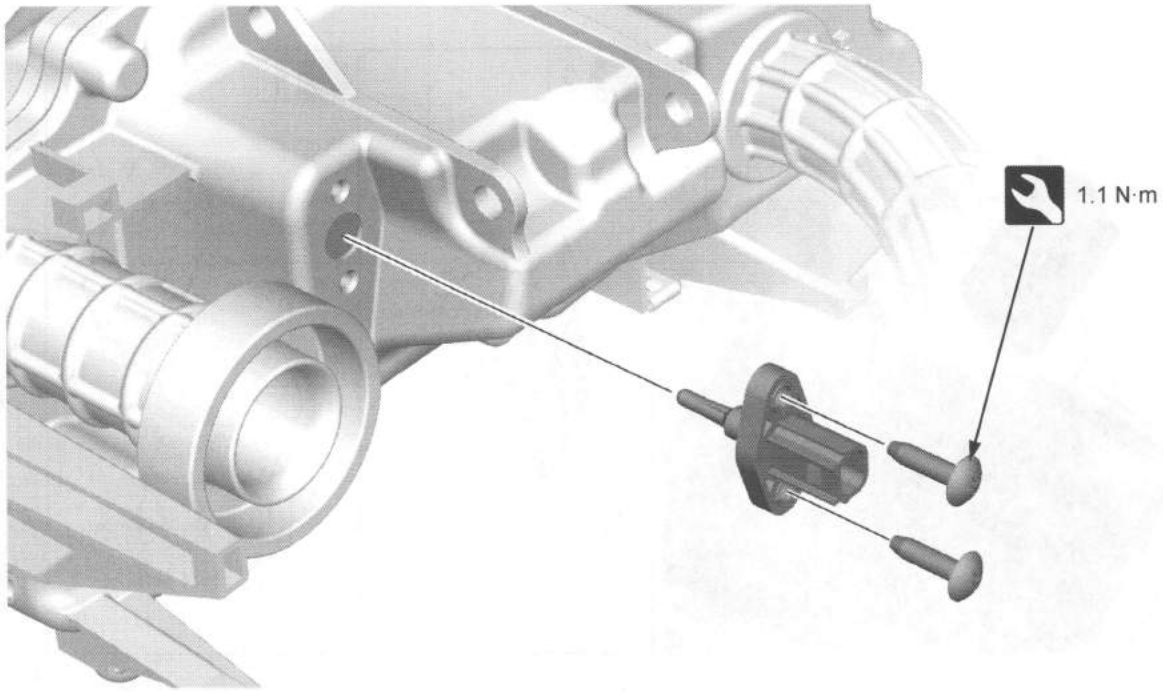




- Battery →4-45
- ABS modulator →4-43
- 1 Pull ECM storage rubber from stay and separate ECM cover from ECM storage rubber.
- 2 Pull the ECM cover lock tab until "click" sound before remove ECM rom.
- 3 Remove ECM rom from ECM cover.
  To prevent damage and keep foreign matter out, cover connector with the plastic bag.
- [1] Make sure the ECM dry and the seal ring is in the correct position then align ECM rom with ECM cover.
- [2] Push ECM lock cover completely until "click" sound.
- [3] Install the ECM storage rubber to the ECM cover as shown.
- ECM power circuit and ground circuit inspection.

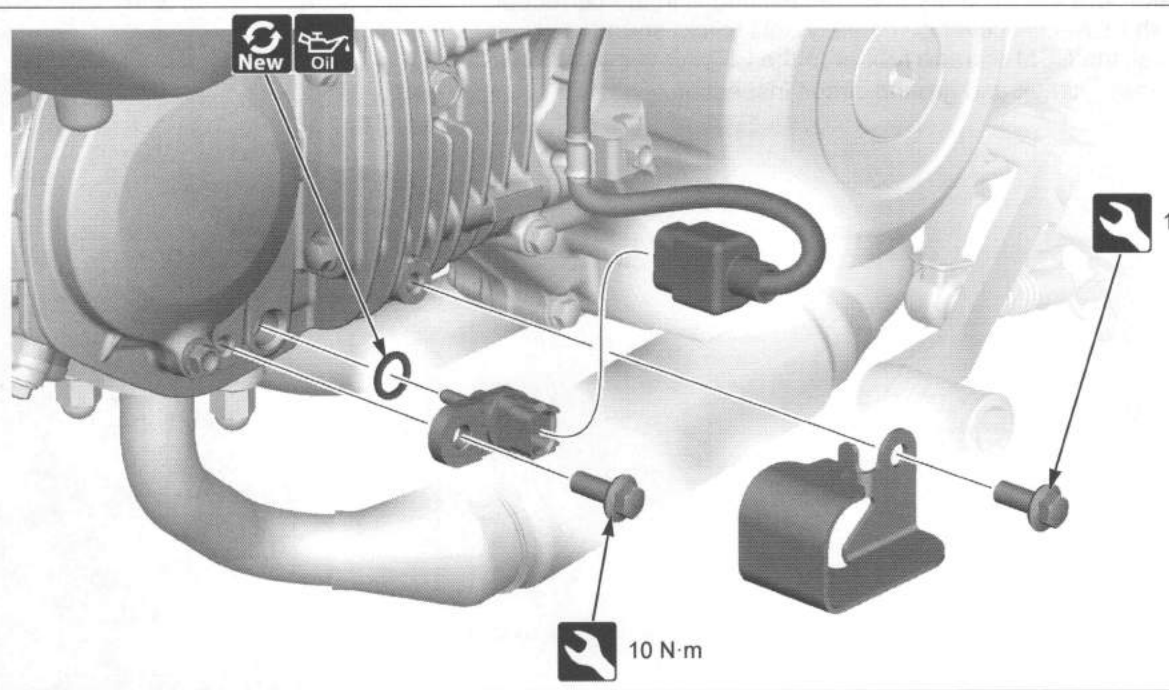
Basic

IAT SENSOR



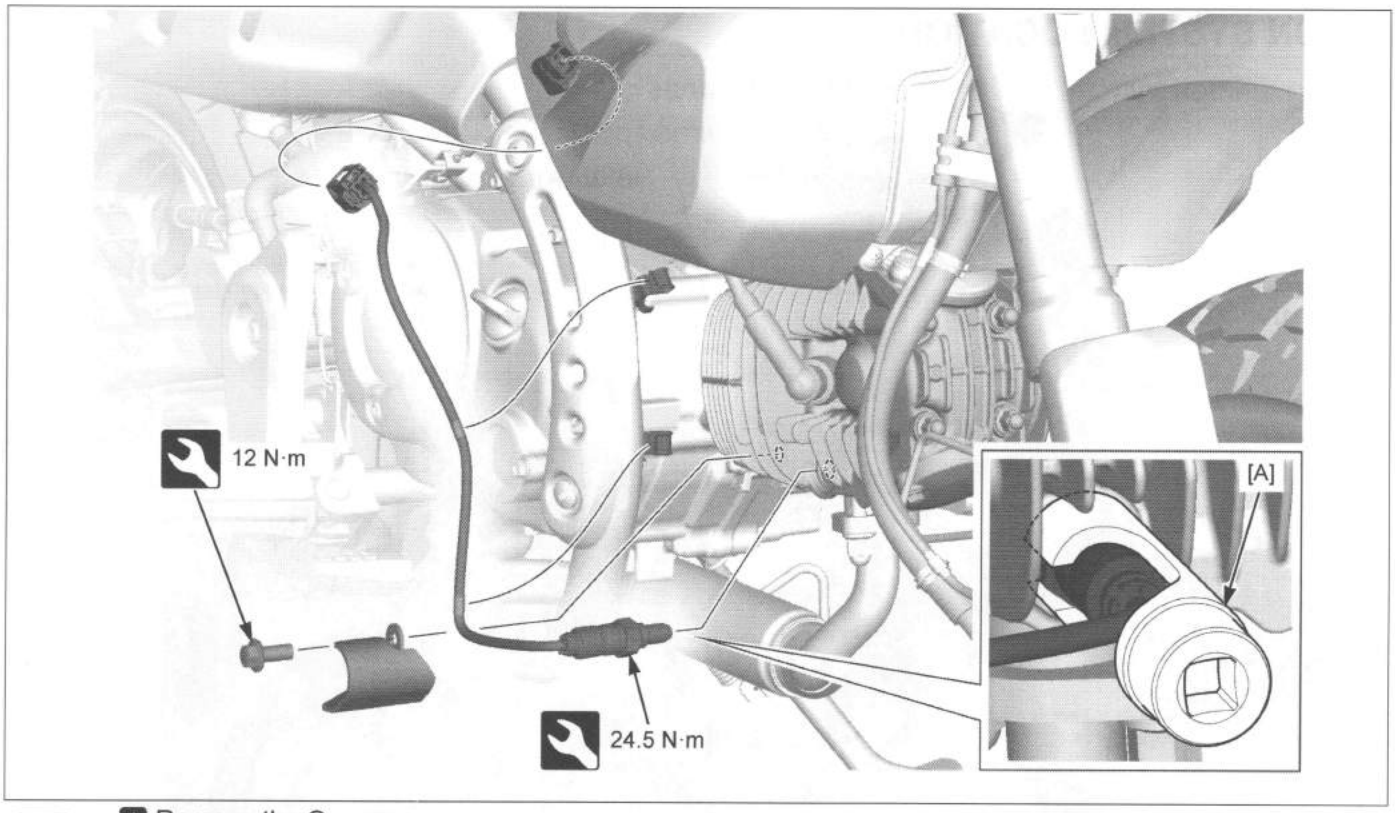
- Air cleaner housing ➔2-8
- IAT sensor inspection.

EOT SENSOR



- EOT sensor inspection.

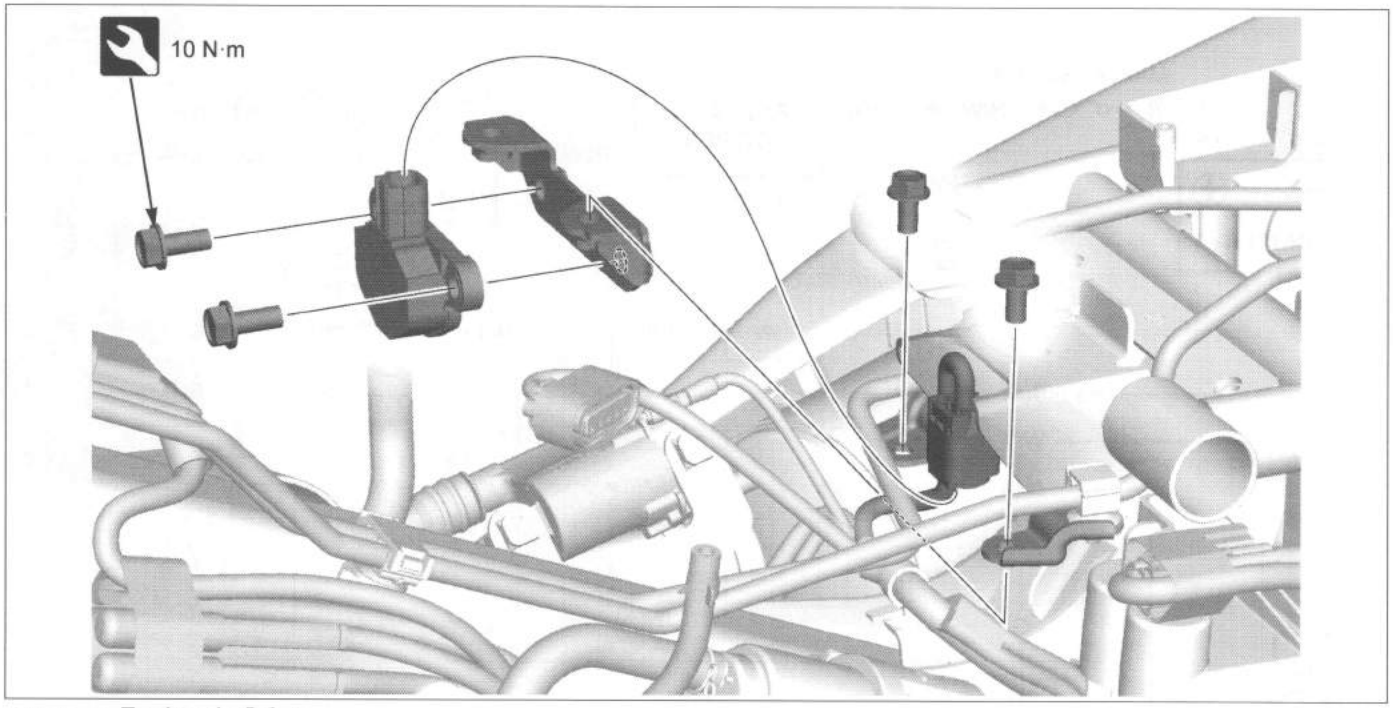
O_2 SENSOR



- 1 Remove the O_2 sensor.

[A] Flare nut socket: FRXM17 (Snap on) or equivalent

BANK ANGLE SENSOR



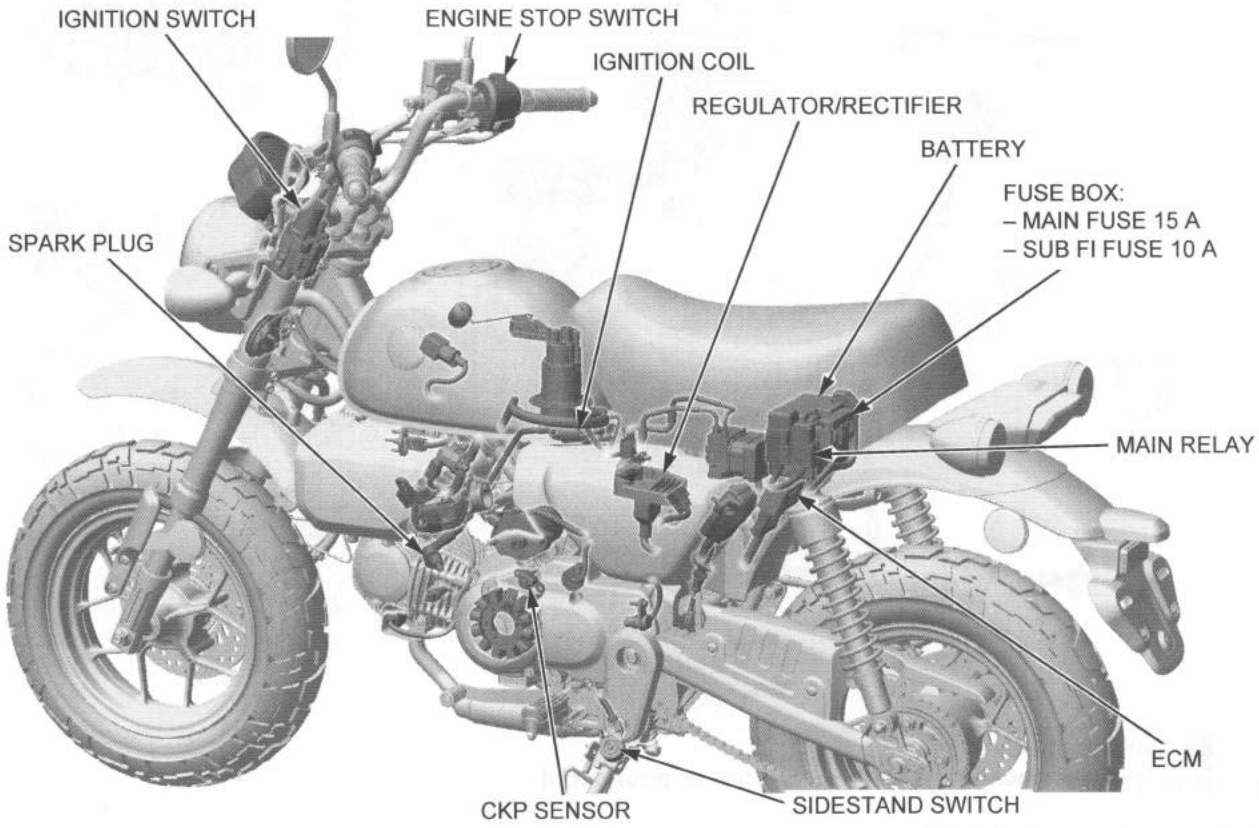
- Fuel tank ➔2-4
- Side cover ➔3-6

- Bank angle sensor inspection.

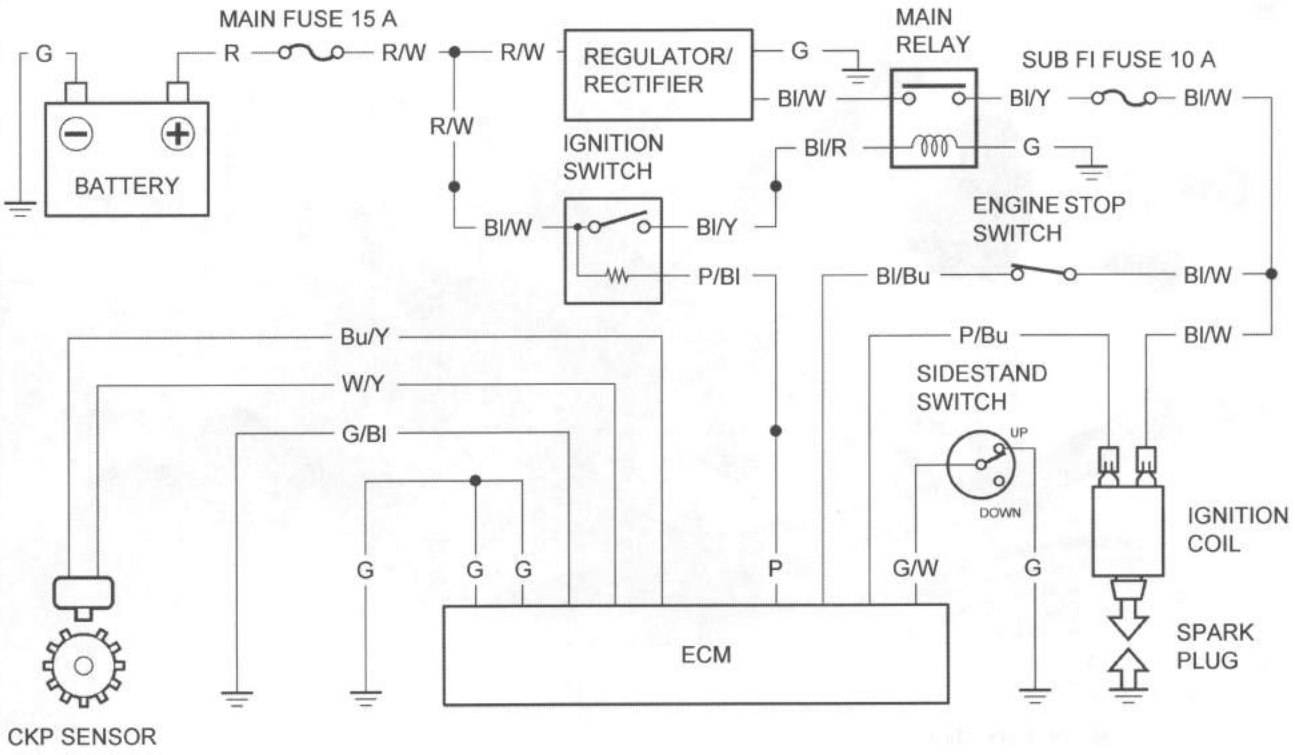
Basic

IGNITION SYSTEM

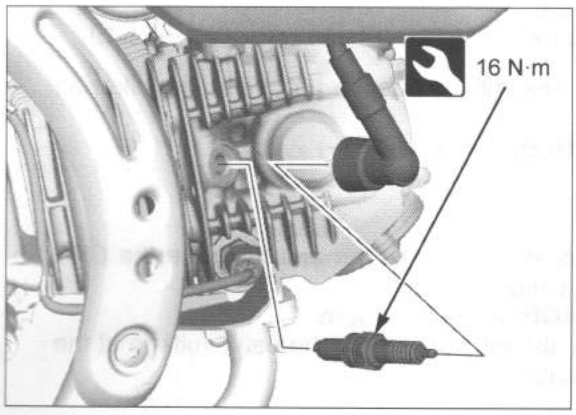
IGNITION SYSTEM LOCATION



IGNITION SYSTEM DIAGRAM



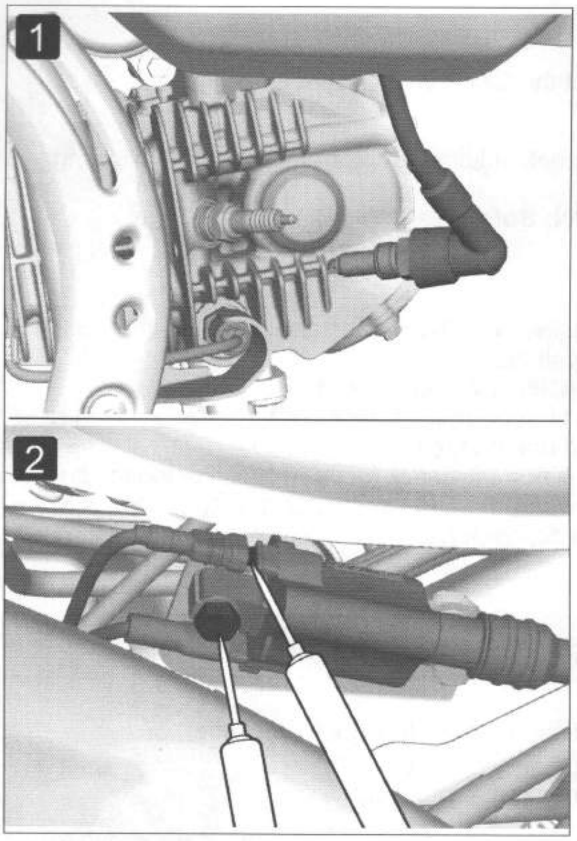
SPARK PLUG REPLACEMENT



- Spark plug inspection.

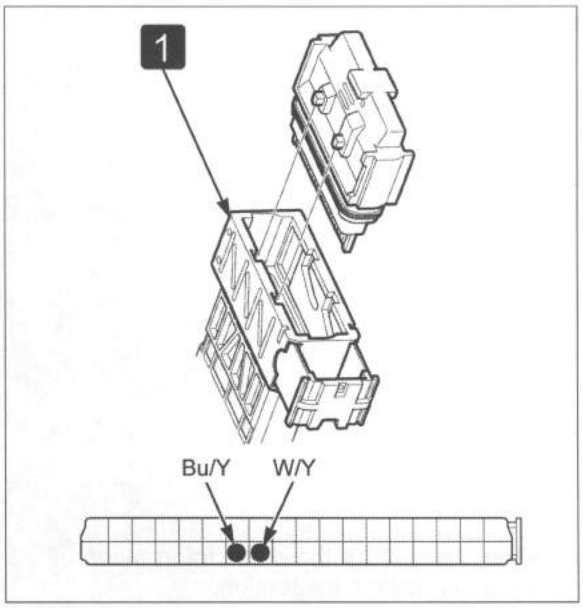
INSPECTION

IGNITION COIL PRIMARY PEAK VOLTAGE

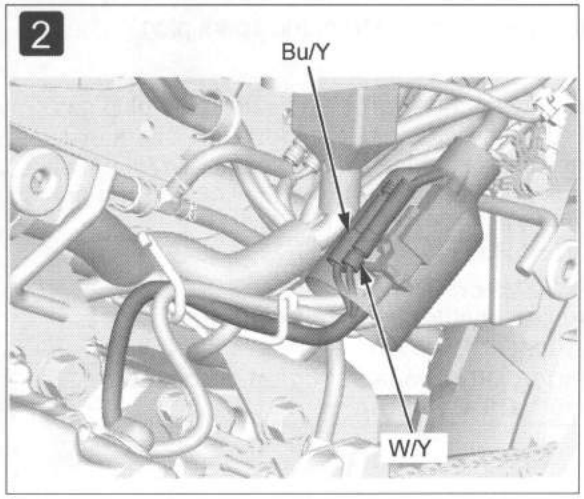


- Refer to "Basic Shop Manual" for the detail information of ignition coil primary peak voltage inspection.
- Disconnect the spark plug cap from the spark plug.
- 1 Connect a known-good spark plug to the spark plug cap and ground it to the cylinder head as done in a spark test.
- 2 With the ignition coil primary wires connected, connect the peak voltage adaptor probes to the ignition coil primary terminal and ground.
  CONNECTION: P/Bu (+) – Ground (–)
- **Peak Voltage Adaptor: 07HGJ-0020100**
  with commercially available digital multimeter
  (Impedance 10 MΩ/DCV min)
  (U.S.A.: Commercially available digital multimeter
  (Impedance 10 MΩ/DCV min))
- Check the initial voltage at this time.
  STANDARD VOLTAGE: Battery voltage
- Shift the transmission into neutral.
  Crank the engine with the starter and measure the ignition coil primary peak voltage.
  PEAK VOLTAGE: 100 V minimum

CKP SENSOR PEAK VOLTAGE

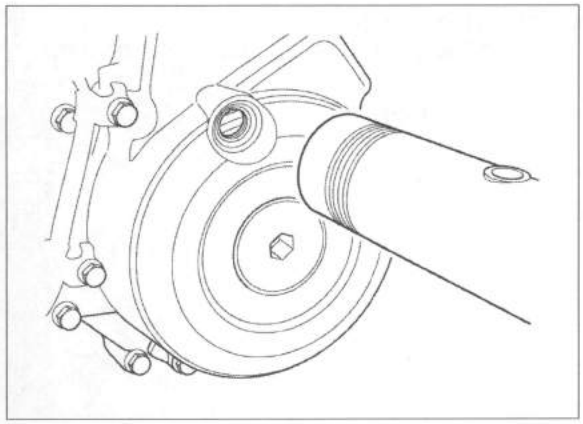


- Side cover ➔3-6
- 1 Disconnect the ECM 36P (Black) connector. ➔4-19
- Connect the peak voltage adaptor probes to the following terminals.
  CONNECTION: Bu/Y (+) – W/Y (–)
- Crank the engine with the starter and measure the CKP sensor peak voltage.
  PEAK VOLTAGE: 0.7 V minimum
  If the value is abnormal, measure the peak voltage at the CKP sensor connectors.



- 2 Disconnect the CKP sensor connectors.
- Connect the peak voltage adaptor probes to the following terminals.
  CONNECTION: Bu/Y (+) – W/Y (–)
- Crank the engine with the starter and measure the CKP sensor peak voltage.
  PEAK VOLTAGE: 0.7 V minimum
  – If the value is abnormal, replace the CKP sensor with a known-good one and recheck.
  – If the value is normal, check for open circuit or loose connection between the CKP sensor connectors and ECM 36P (Black) connector.

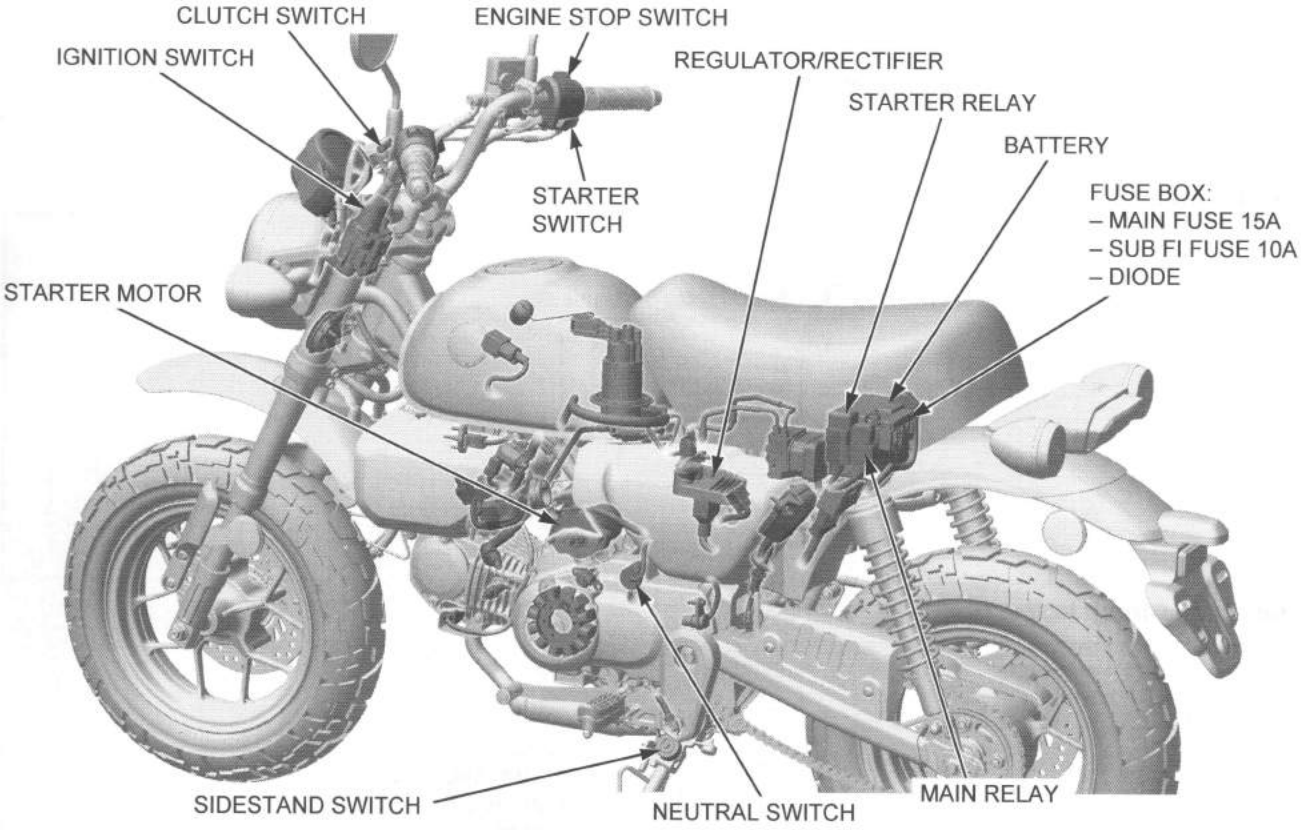
IGNITION TIMING



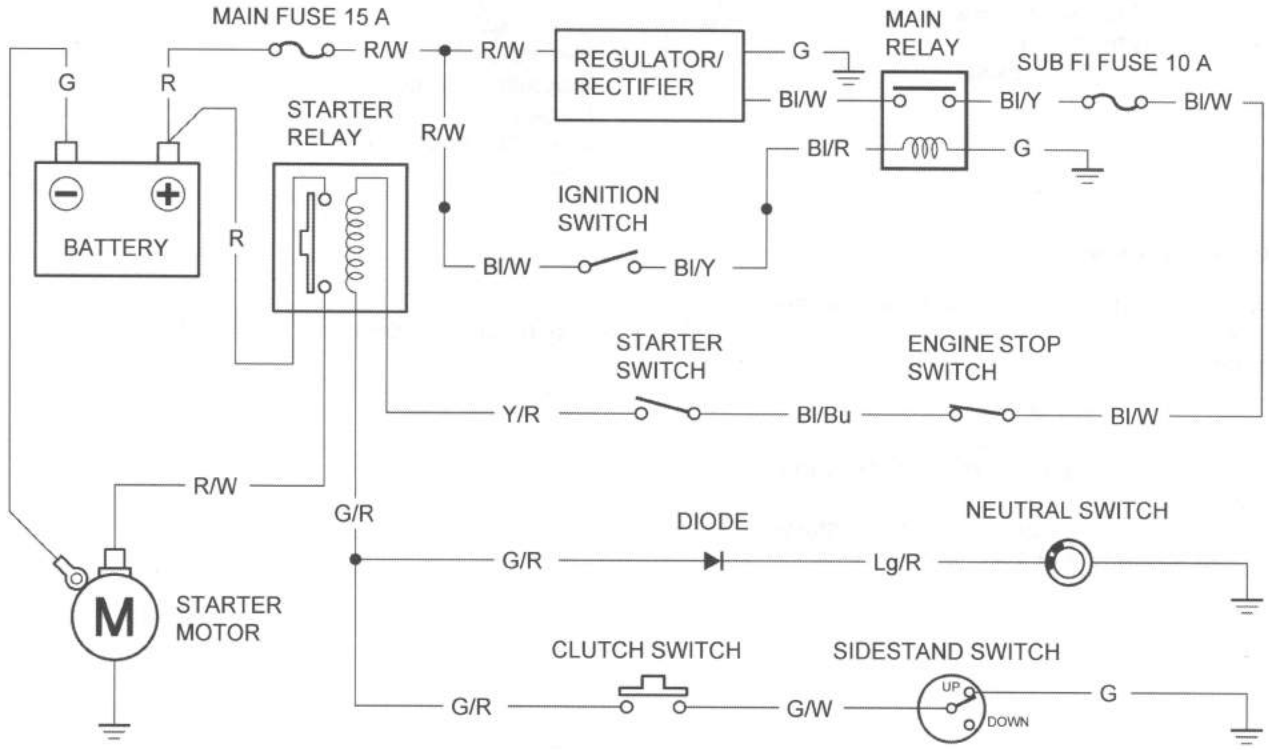
- Warm up the engine to normal operating temperature.
- Timing hole cap ➔2-18
- Connect the timing light to the spark plug wire.
- Start the engine and let it idle
  IDLE SPEED: 1,400 ± 100 rpm
- The ignition timing is correct if the "F" mark on the flywheel aligns with the index mark on the left crankcase cover.

ELECTRICAL STARTER

ELECTRICAL STARTER SYSTEM LOCATION



ELECTRICAL STARTER SYSTEM DIAGRAM



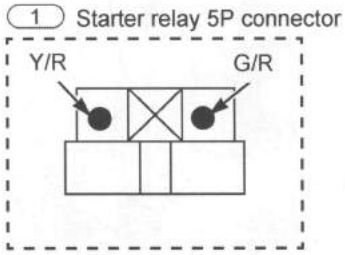
ELECTRICAL STARTER TROUBLESHOOTING

STARTER MOTOR DOES NOT TURN

- Seat ➔3-5
- Side cover ➔3-6

- Loose or poor contacts of related terminal/connector.
- Battery condition
- Burned fuse

Connector Diagram



1. Starter Relay Circuit inspection

- Connection: Y/R (+) – G/R (–)
- Shift the transmission in neutral, or squeeze the clutch lever and retract the sidestand.
- Depress the starter button.
- Does the battery voltage exist?

No ▶

- Inspect the following.
  - Ignition switch
  - Main relay
  - Engine stop switch
  - Starter switch
  - Clutch switch
  - Neutral switch
  - Sidestand switch
  - Diode
  - Starter relay coil input line related circuit

Yes ▼

2. Starter Relay inspection

- Replace the starter relay with a new one, and recheck.
- Does the starter motor turn?

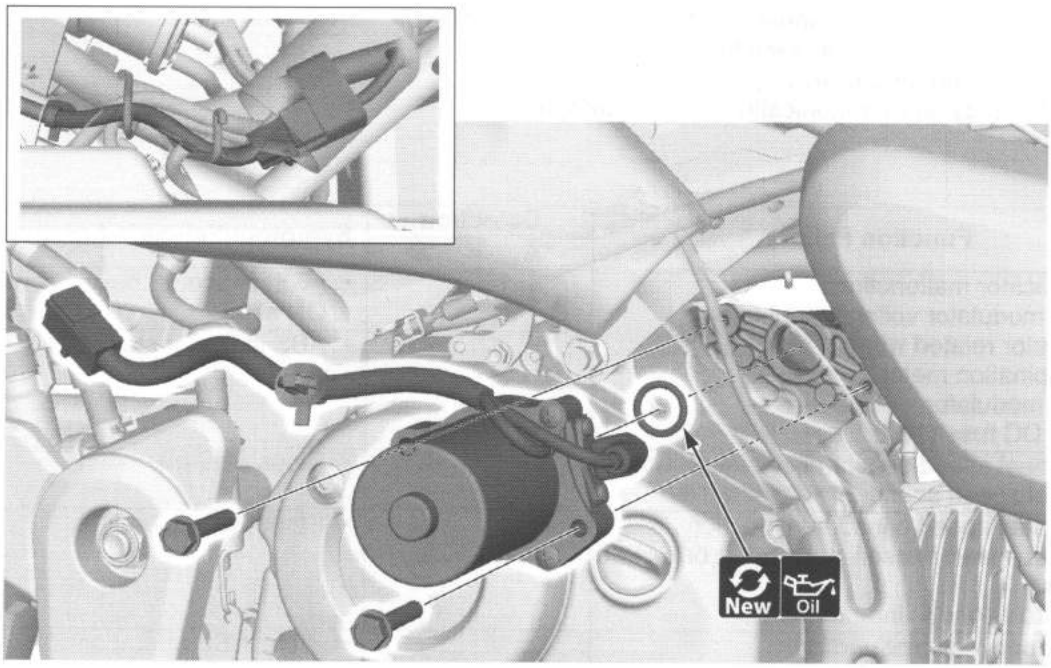
Yes ▶

- Faulty original starter relay.

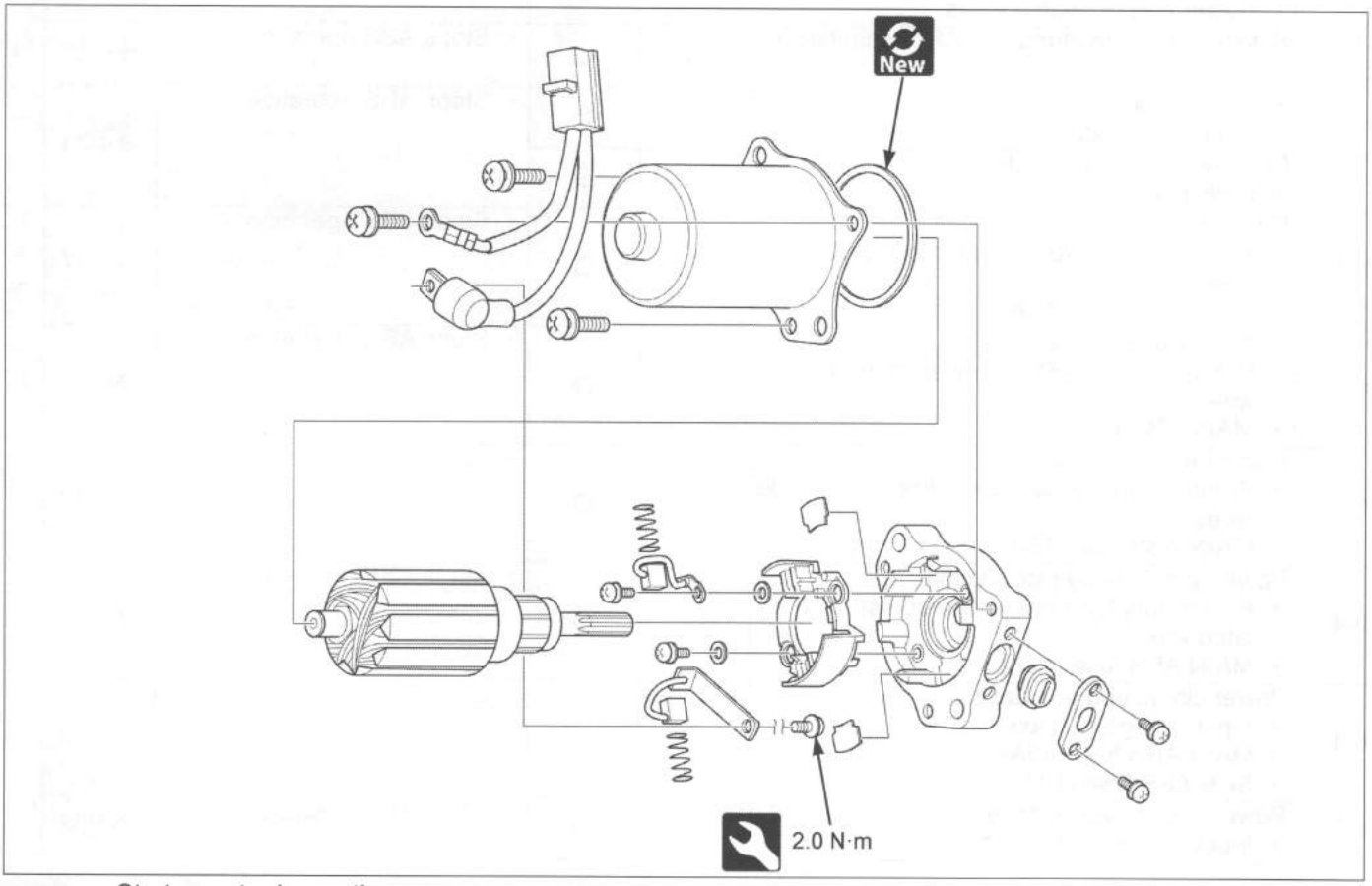
No ▼

- Check a short or open circuit in starter motor sub harness.
- If there is no faulty circuit, replace the starter motor with a new one ➔4-27, and recheck.

STARTER MOTOR



• Side cover ➔3-6



• Starter motor inspection

Basic

ABS

- Refer to the "Basic Shop manual" for the following information.
  – ABS technical feature and each function.
  – Troubleshooting for the ABS.
  – MCS (Motorcycle Communication System) information.

DTC INDEX

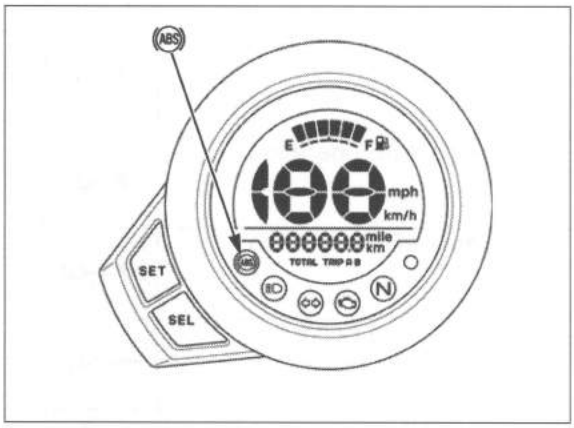
DTC	Function Failure	Detection		Symptom/Fail-safe function	Page
		*A	*B		
–	ABS indicator malfunction • ABS modulator voltage input line • Indicator related wires • Combination meter • ABS modulator • SUB DC fuse (10A)			• ABS indicator never come ON at all	→4-32
				• ABS indicator stays ON	→4-32
1-1	Front wheel speed sensor circuit inspection • Wheel speed sensor or related wires	○	○	• Stops ABS operation	→4-34
1-2	Front wheel speed sensor malfunction • Wheel speed sensor, pulser ring or related wires • Electromagnetic interference		○	• Stops ABS operation	→4-34
1-3	VS sensor circuit malfunction • VS sensor or related wires	○	○	• Stops ABS operation	→4-35
1-4	VS sensor malfunction • VS sensor or related wires • Electromagnetic interference		○	• Stops ABS operation	→4-35
2-1	Front pulser ring • Pulser ring or related wires		○	• Stops ABS operation	→4-34
3-3	Solenoid valve malfunction (ABS modulator)	○	○	• Stops ABS operation	→4-36
3-4					
4-1	Front wheel lock • Riding condition		○	• Stops ABS operation	→4-34
4-2	Front wheel lock (Wheelie) • Riding condition		○		
5-1	Pump motor lock • Pump motor (ABS modulator) or related wires • MAIN ABS fuse (15A)	○	○	• Stops ABS operation	→4-37
5-2	Pump motor stuck off • Pump motor (ABS modulator) or related wires • MAIN ABS fuse (15A)	○	○	• Stops ABS operation	→4-37
5-3	Pump motor stuck on • Pump motor (ABS modulator) or related wires • MAIN ABS fuse (15A)	○	○	• Stops ABS operation	→4-37
5-4	Power supply relay malfunction • Power supply relay (ABS modulator) or related wires • MAIN ABS fuse (15A)	○	○	• Stops ABS operation	→4-37
6-1	Power circuit under voltage • Input voltage (too low) • MAIN ABS fuse (15A) • SUB ABS fuse (10A)	○	○	• Stops ABS operation	→4-38
6-2	Power circuit over voltage • Input voltage (too high)	○	○	• Stops ABS operation	→4-38

DTC	Function Failure	Detection		Symptom/Fail-safe function	Page
		*A	*B		
7-1	Tire malfunction • Tire size • Incorrect sprocket gear ratio (Sprockets not recommended for the vehicle are installed.)		○	• Stops ABS operation	➔4-39
8-1	ABS control unit • ABS control unit malfunction (ABS modulator)	○	○	• Stops ABS operation	➔4-39
8-3	IMU acceleration malfunction • IMU or related wires • SUB ABS fuse (10A)	○	○	• Stops ABS operation	➔4-40
8-5	IMU circuit malfunction • IMU or related wires • SUB ABS fuse (10A)	○	○	• Stops ABS operation	➔4-40

*A: Pre-start self-diagnosis

*B: Ordinary self-diagnosis: diagnoses while the vehicle is running (after pre-start self-diagnosis)

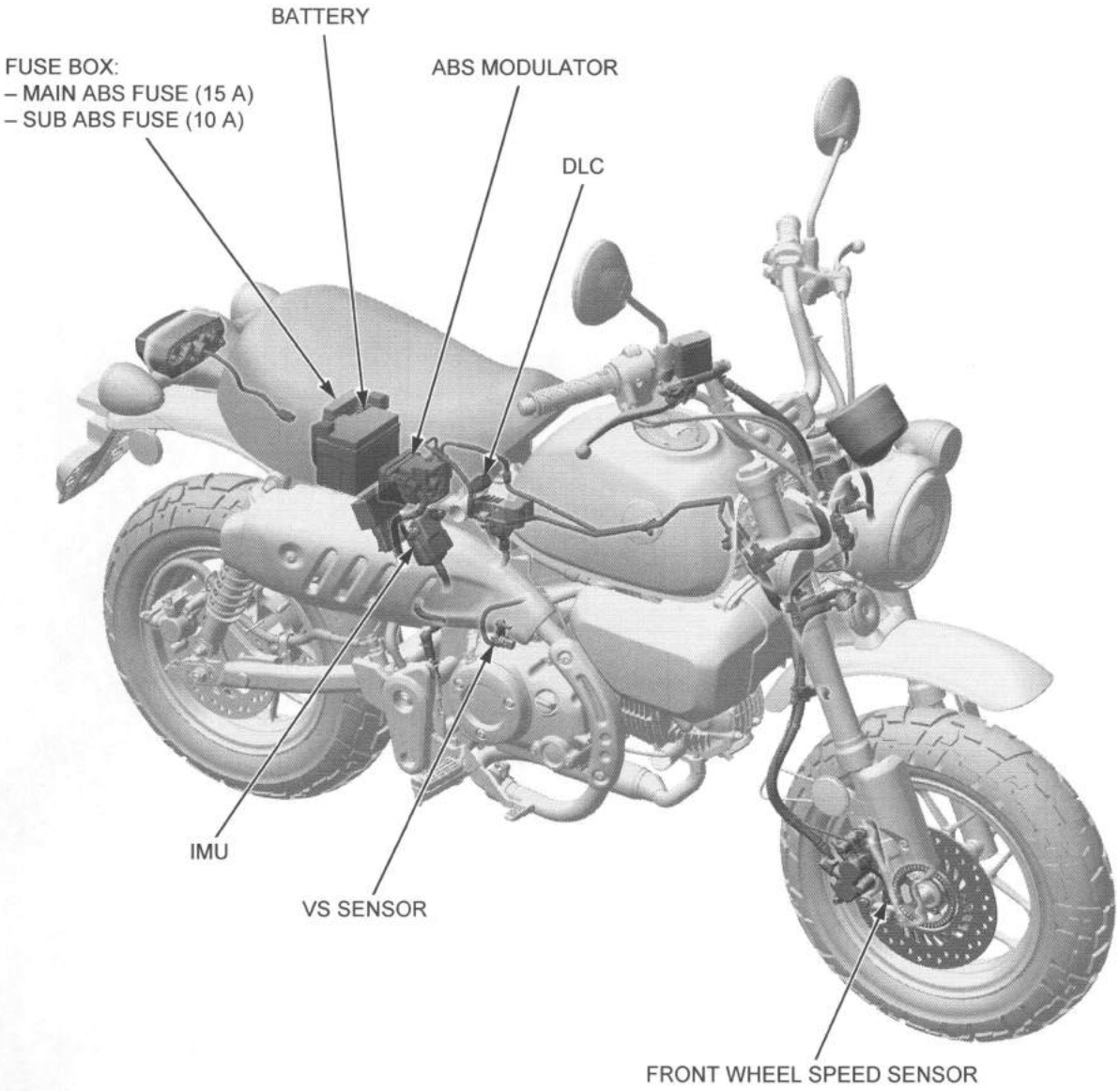
How To Erase the DTC Without MCS



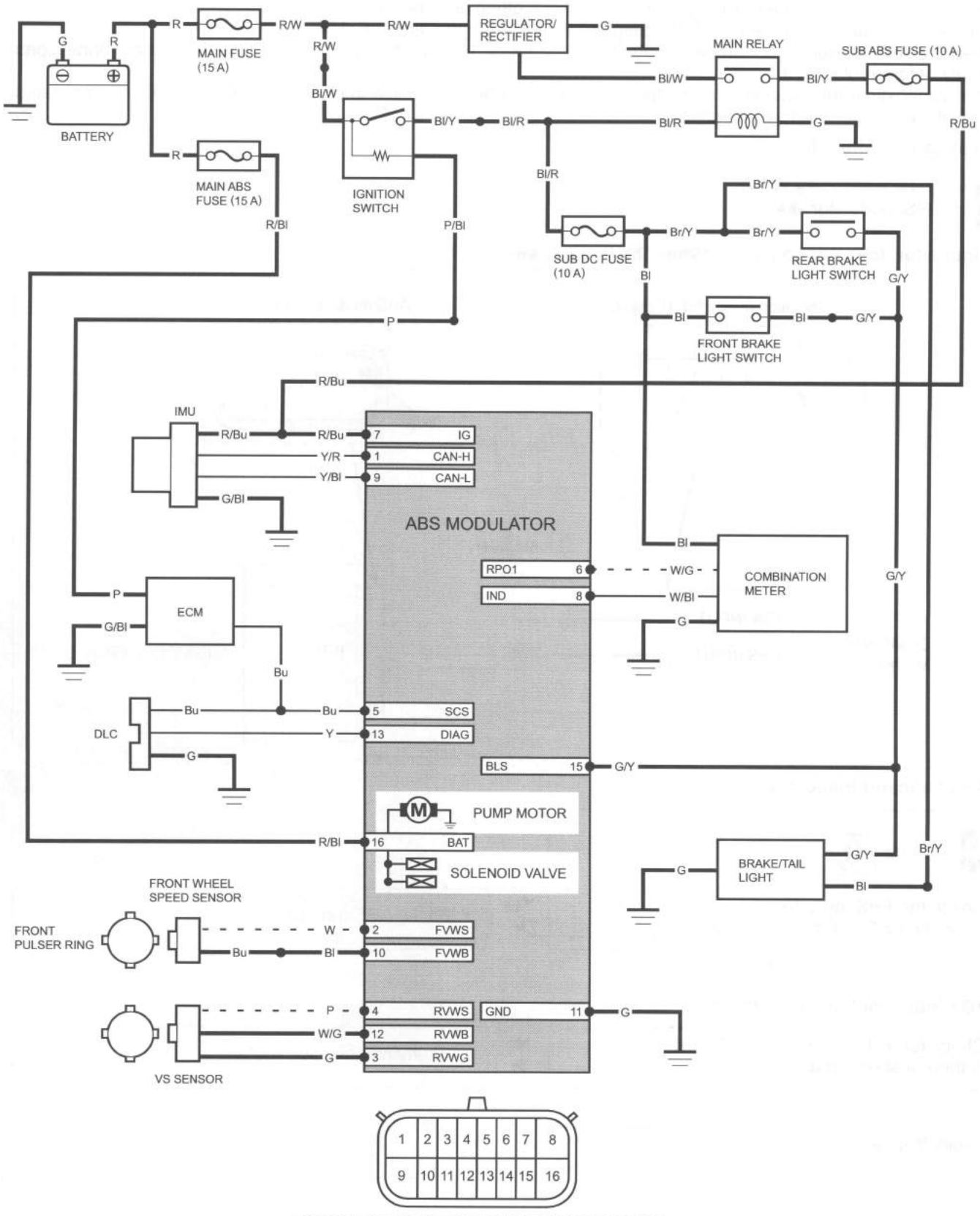
- Connect the DLC.
- Squeeze the brake lever.

- The ABS indicator should come on 2 seconds and go off.
- After the ABS indicator is off, release the brake lever immediately.
- After the ABS indicator is on, squeeze the brake lever immediately.
- After the ABS indicator is off, release the brake lever immediately.
  - When code erasure is complete, the ABS indicator blinks 2 times and stay on.
  - If the ABS indicator does not blink, the data has not been erased, so try again.

ABS SYSTEM LOCATION



ABS SYSTEM DIAGRAM



ABS MODULATOR 16P (BLACK) CONNECTOR (MODULATOR SIDE)

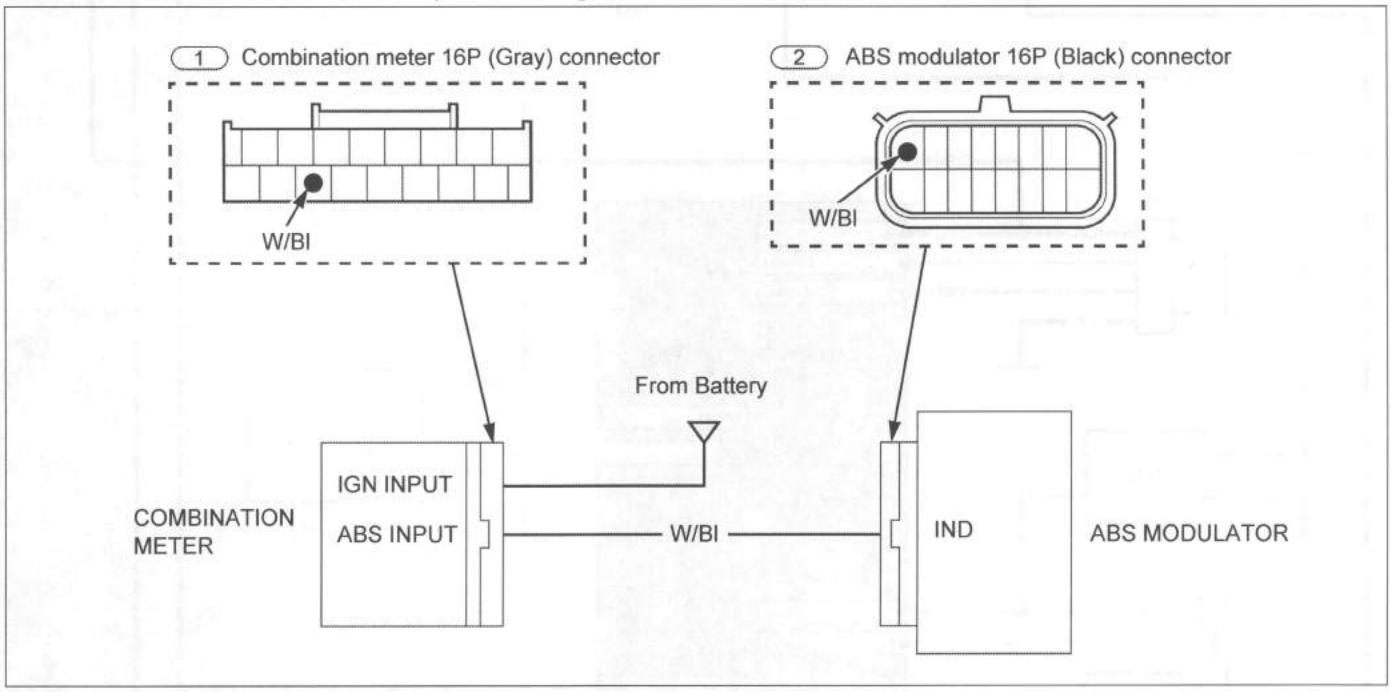
DTC TROUBLESHOOTING

- Before starting this troubleshooting, check for burned fuses and initial function of the meter.
- Use a fully charged battery. Do not diagnose with a charger connected to the battery.
- Perform inspection with the ignition switch OFF, unless otherwise specified.
- All connector diagrams in the troubleshooting are viewed from the terminal side.
- When the ABS modulator assembly is detected to be faulty, recheck the wire harness and connector connections closely before replacing it.
- After diagnostic troubleshooting, erase the DTC and test-ride the vehicle to check that the ABS indicator operates normally during pre-start self-diagnosis.

ABS indicator malfunction

- Meter lower case ➔3-8
- ABS modulator ➔4-43

ABS indicator does not come ON (When the ignition switch ON)



1. ABS Indicator Inspection

2 ⇨

- Check the ABS indicator.
- Does the ABS indicator come on?

Yes ► • Faulty ABS modulator

No ▼

2. ABS indicator Line Inspection

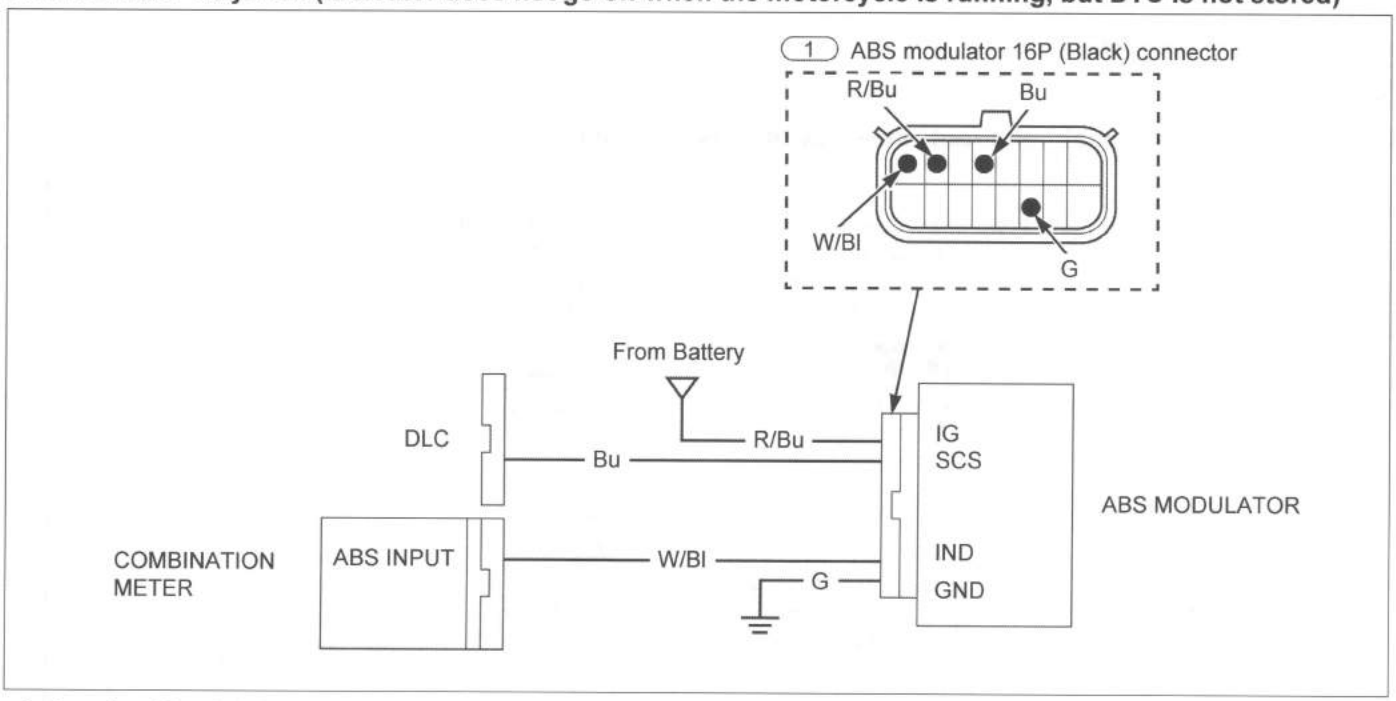
- Check for a short circuit in W/BI wire.
- Is there a short circuit?

No ► • Faulty combination meter

Yes ▼

- Faulty W/BI wire

ABS indicator stays ON (Indicator does not go off when the motorcycle is running, but DTC is not stored)



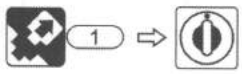
1. Service Check Line Inspection

- Check for a short circuit in Bu wire.
- Is there a short circuit?

Yes ► • Faulty Bu wire

No ▼

2. ABS Indicator Line Inspection



- Install a jumper wire between the terminal and ground.
  Jumper terminal: W/Bl
- Does the ABS indicator turn off?

No ► • Faulty W/Bl wire
• If wire is ok, faulty combination meter.

Yes ▼

3. ABS Modulator Ground Line Inspection

- Check an open circuit in G wire.
- Is there open circuit?

Yes ► • Faulty G wire

No ▼

4. ABS Modulator Power Line Inspection

- Connection: R/Bu (+) – Ground (–)
- Does the battery voltage exist?

No ► • Faulty R/Bu wire

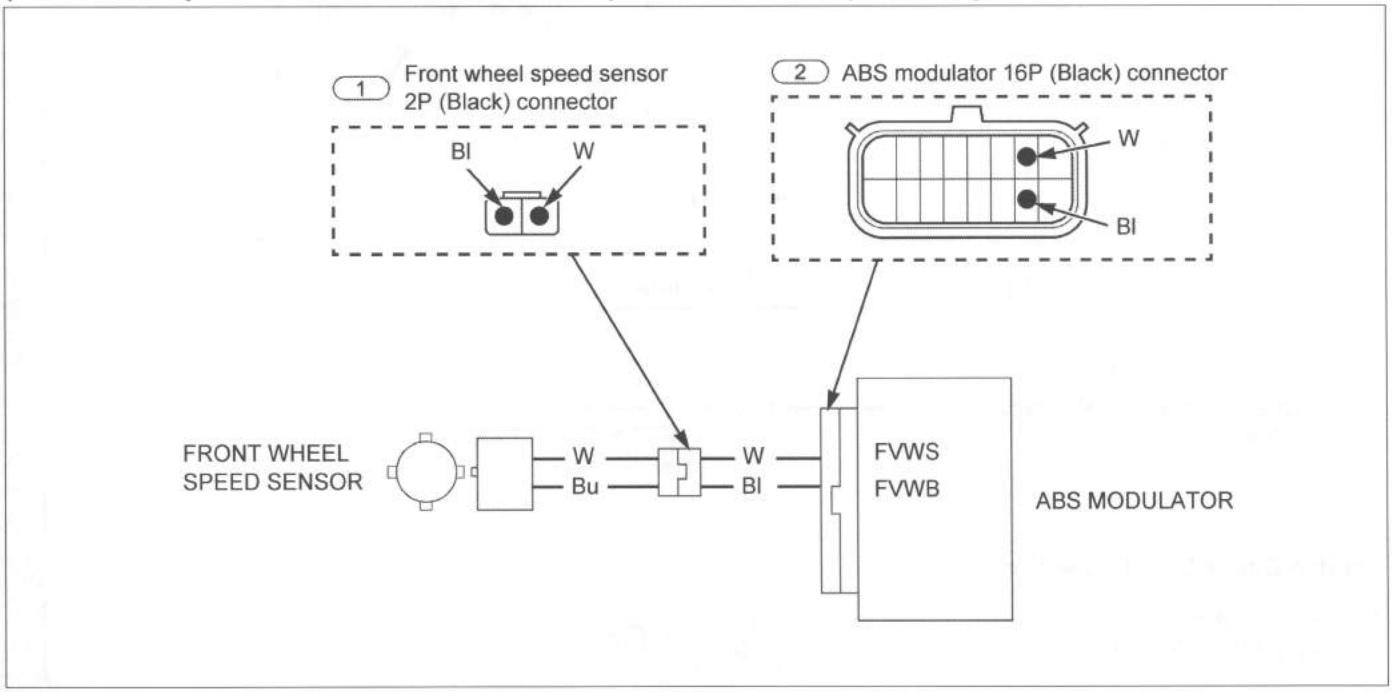
Yes ▼

• Faulty ABS modulator

DTC 1-1, 1-2, 2-1, 4-1, 4-2

- Headlight cover ➔3-7

(Front wheel speed sensor circuit/Front wheel speed sensor/Front pulser ring/Front wheel lock)



1. Air Gap Inspection

- Measure the air gap.➔4-41
- Is the air gap correct?

No ► • Check each part for deformation, looseness and correct accordingly. Recheck the air gap.

Yes ▼

2. Speed Sensor and Pulser Ring Inspection

- Check the speed sensor and pulser ring.
- Are the sensor and pulser ring in good condition and properly installed?

No ► • Remove any deposits. • Install properly or replace faulty part.

Yes ▼

3. Speed Sensor Line Inspection 1

1 2

- Install a jumper wire between the terminals. Jumper terminal: Bl and W
- Check the continuity between the above wires.
- Is there continuity?

No ► • Faulty Bl or W wire

Yes ▼

4. Speed Sensor Line Inspection 2

- Check for a short circuit in Bu, Bl, W wire.
- Is there a short circuit?

Yes ► • Faulty Bu or Bl or W wire

No ▼

5. Failure Reproduction

- Replace the speed sensor with a new one. ➔4-41
- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 1-1, 1-2, 2-1, 4-1, 4-2 indicated?

No ▶

- Faulty original speed sensor

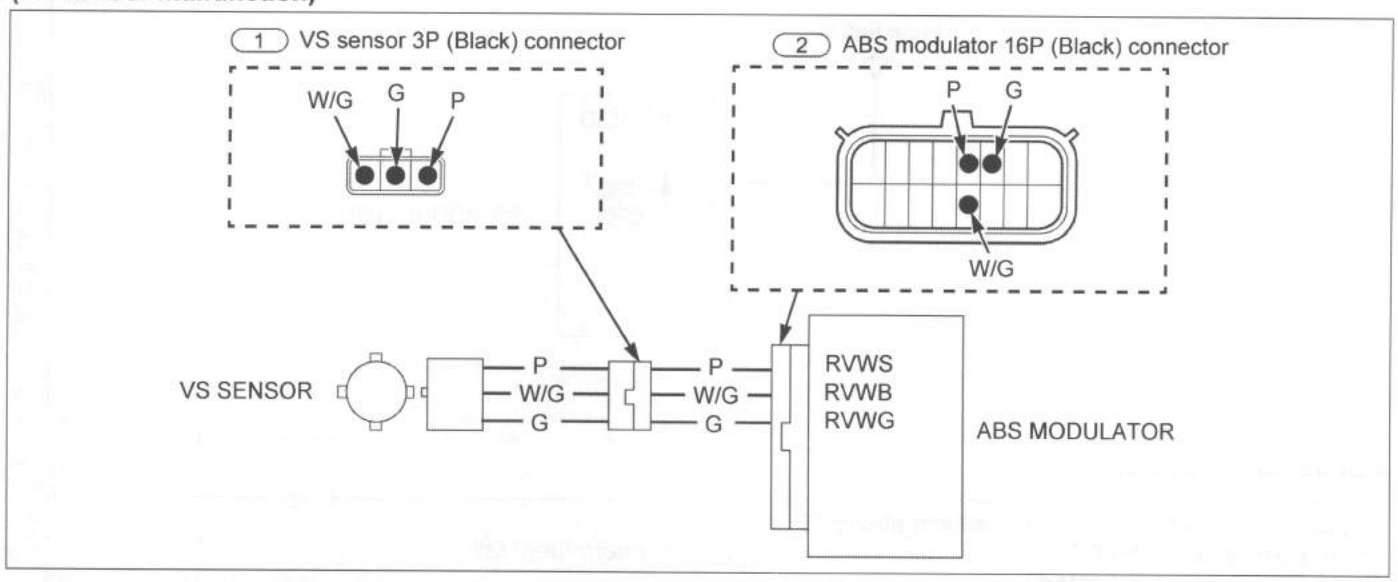
Yes ▼

- Faulty ABS modulator

DTC 1-3, 1-4

- Side cover ➔3-6

(VS sensor malfunction)



1. VS Sensor Line Inspection 1

1 2

- Install a jumper wire between the terminals.
  Jumper terminal: P and W/G
- Check the continuity between the above wires.
- Is there continuity?

No ▶

- Faulty P or W/G wire

Yes ▼

2. VS Sensor Line Inspection 2

- Check for a short circuit in P and W/G wire.
- Is there a short circuit?

Yes ▶

- Faulty P or W/G wire

No ▼

3. VS Sensor Ground Line Inspection

- Check an open circuit in G wire.
- Is there open circuit?

Yes ▶

- Faulty G wire

No ▼

4. Failure Reproduction

- Replace the VS sensor with a new one. ➔4-51
- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 1-3, 1-4 indicated?

No ▶

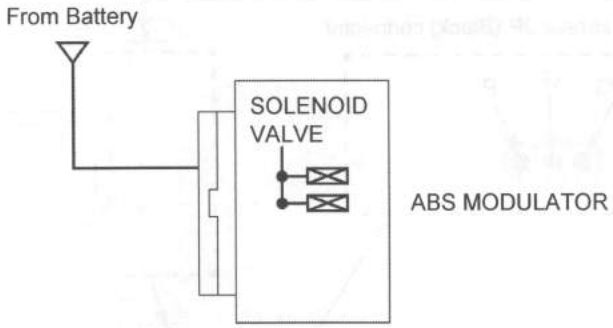
- Faulty original VS sensor

Yes ▼

- Faulty ABS modulator

DTC 3-3, 3-4

(Solenoid valve malfunction)



1. Failure Reproduction

- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 3-3, 3-4 indicated?

No ▶

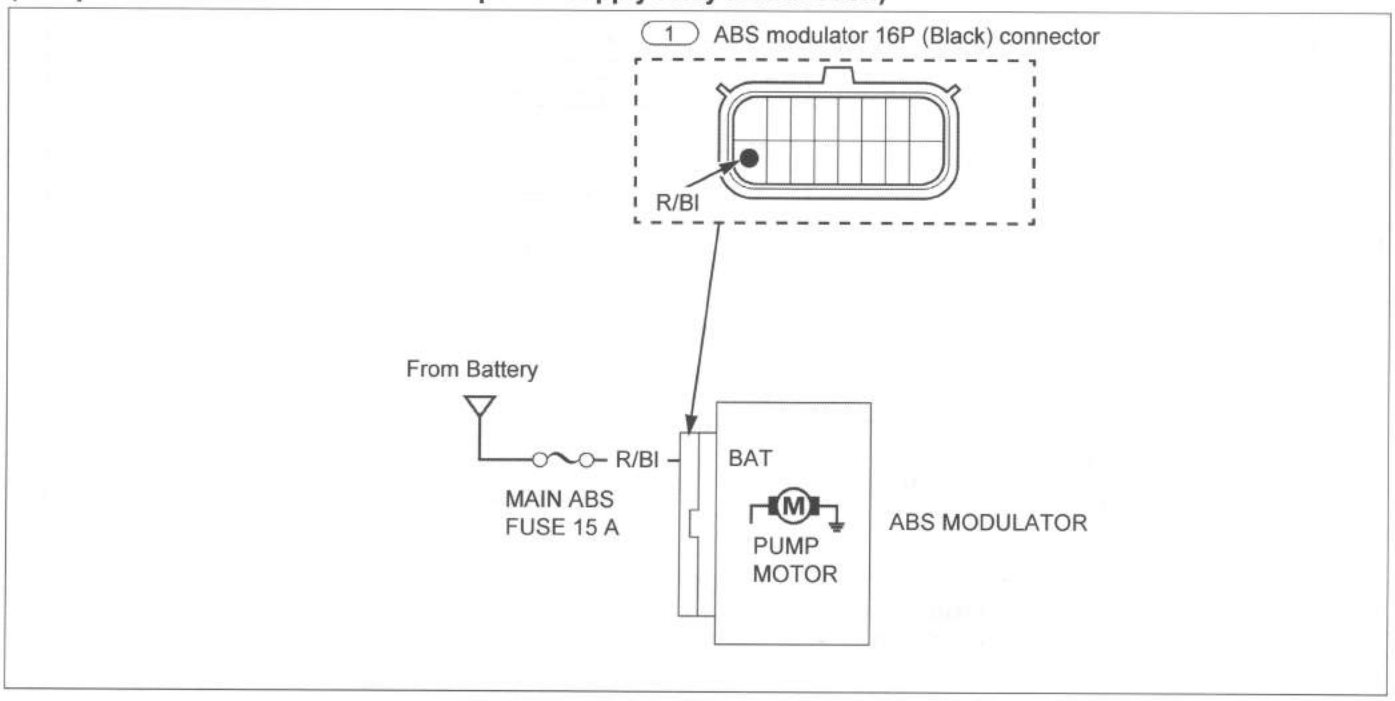
- Intermittent failure

Yes ▼

- Faulty ABS modulator

DTC 5-1, 5-2, 5-3, 5-4

(Pump motor lock/stuck on/stuck off/power supply relay malfunction)



1. ABS Modulator Power Line Inspection

- Connection: R/BI (+) – Ground
- Does the battery voltage exist?

No ▶

- Faulty R/BI wire

Yes ▼

2. Failure Reproduction

- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 5-1, 5-2, 5-3, 5-4 indicated?

No ▶

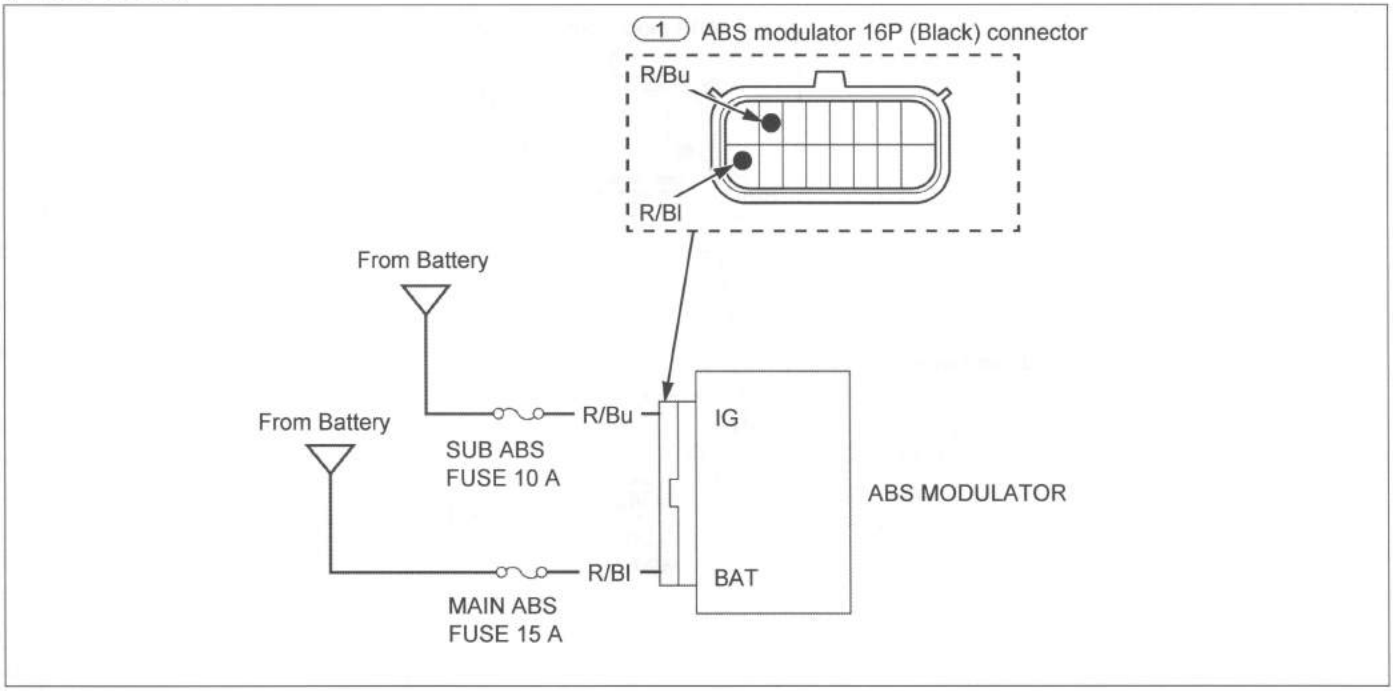
- Intermittent failure

Yes ▼

- Faulty ABS modulator

DTC 6-1, 6-2

(Power circuit)



1. ABS Modulator Power Line Inspection 1

- Connection: R/Bl (+) – Ground
- Connection: R/Bu (+) – Ground
- Does the battery voltage exist?

No ▶

- Faulty R/Bl wire
- Faulty R/Bu wire

Yes ▼

2. ABS Modulator Power Line Inspection 2

- Check for a short circuit in R/Bl, R/Bu wire.
- Is there a short circuit?

Yes ▶

- Faulty R/Bl wire
- Faulty R/Bu wire

No ▼

3. Failure Reproduction

- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 6-1, 6-2 indicated?

No ▶

- Intermittent failure

Yes ▼

- Faulty ABS modulator

DTC 7-1

(Tire size)

- Check the following and correct the faulty part.
- Incorrect tire pressure
- Tires not recommended for the vehicle were installed (incorrect tire size).
- Sprockets not recommended for the vehicle were installed (incorrect sprocket gear ratio).
- Deformation of the wheel or tire.

1. Failure Reproduction

- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 7-1 indicated?

No ► • Intermittent failure

Yes ▼

- Faulty ABS modulator

DTC 8-1

(ABS control unit)

1. Failure Reproduction

- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 8-1 indicated?

No ► • Intermittent failure

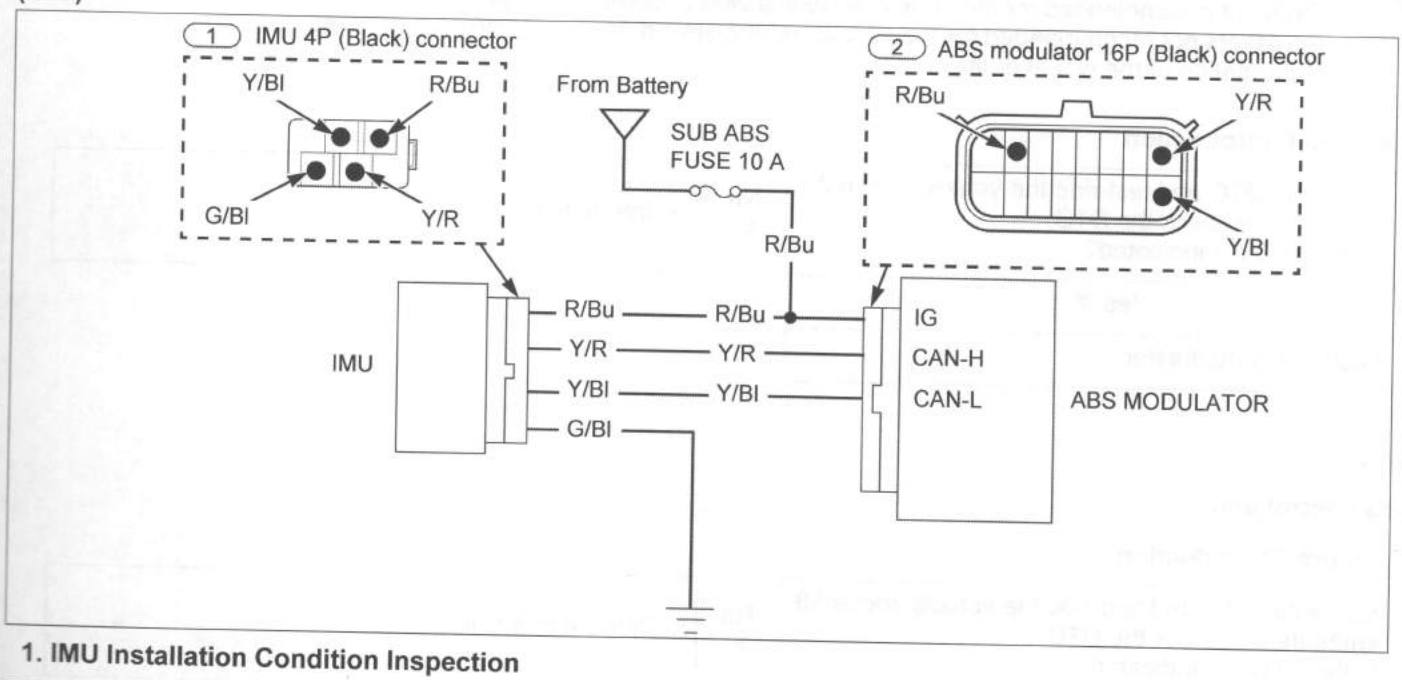
Yes ▼

- Faulty ABS modulator

DTC 8-3, 8-5

• IMU ➔4-42

(IMU)



1. IMU Installation Condition Inspection

- Check the IMU stay, mounting rubbers and fasteners.
- Is the installation condition normal?

No ▶ • Install properly or replace faulty part.

Yes ▼

2. IMU Line Inspection 1

(1) (2)

- Check for a short circuit in R/Bu wire.
- Is there a short circuit?

Yes ▶ • Faulty R/Bu wire

No ▼

3. IMU Line Inspection 2

⇨ (V) (1)

- Connection: R/Bu (+) – G/Bl (–)
- Does the battery voltage exist?

No ▶
- Faulty R/Bu wire
- Faulty G/Bl wire

Yes ▼

4. IMU Line Inspection 3

- Install a jumper wire between the terminals. Jumper terminal: Y/R and Y/Bl
- Check the continuity between the above wires.
- Is there continuity?

No ▶ • Faulty Y/R or Y/Bl wire

Yes ▼

5. IMU Line Inspection 4

• Check for a short circuit in Y/R, Y/Bl wire. • Is there a short circuit?	Yes ►	• Faulty Y/R or Y/Bl wire

No ▼

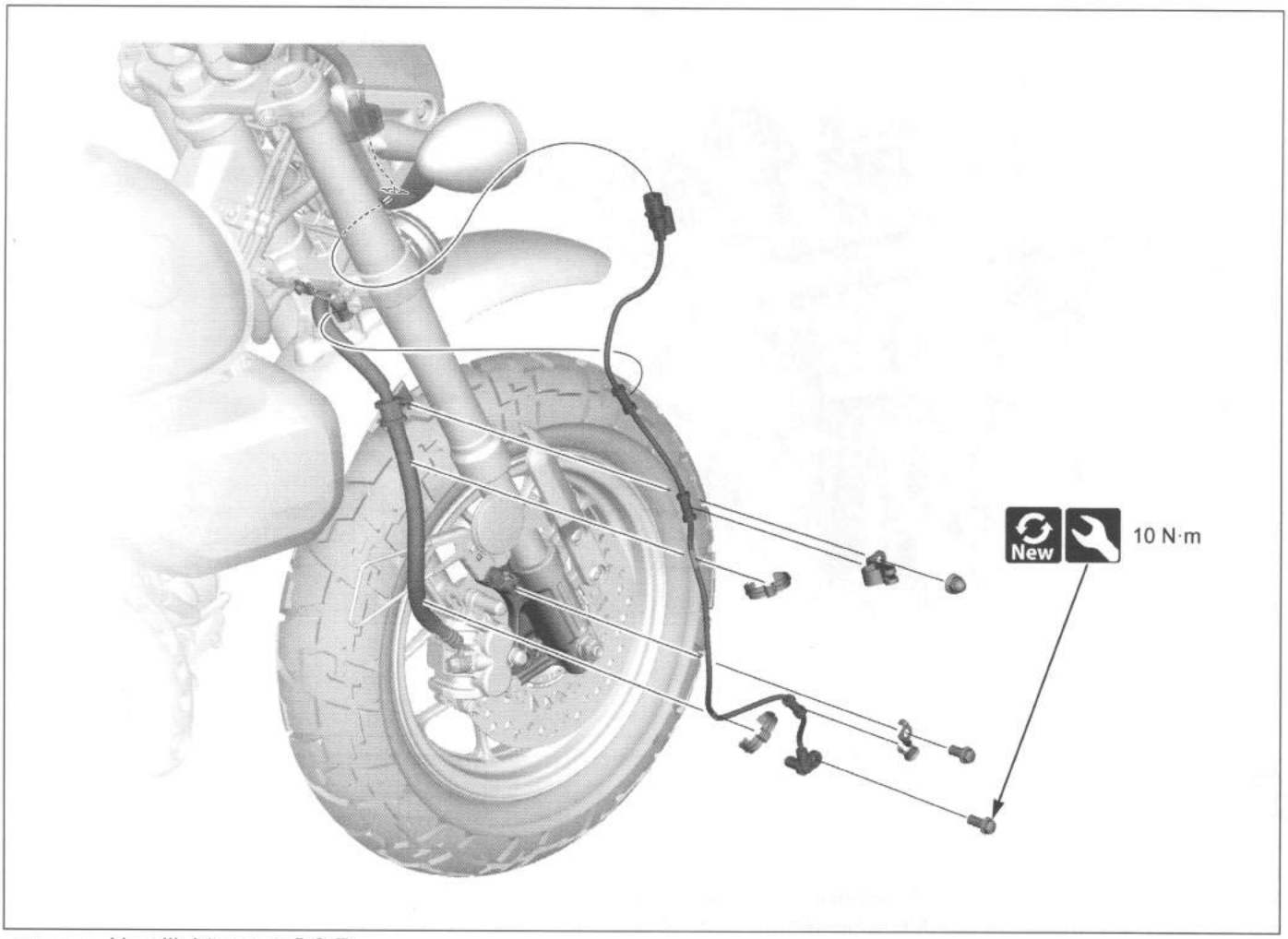
6. Failure Reproduction

• Replace the IMU with a new one. ➔4-42 • Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC. • Is the DTC 8-3, 8-5 indicated?	No ►	• Faulty original IMU

Yes ▼

• Faulty ABS modulator

WHEEL SPEED SENSOR

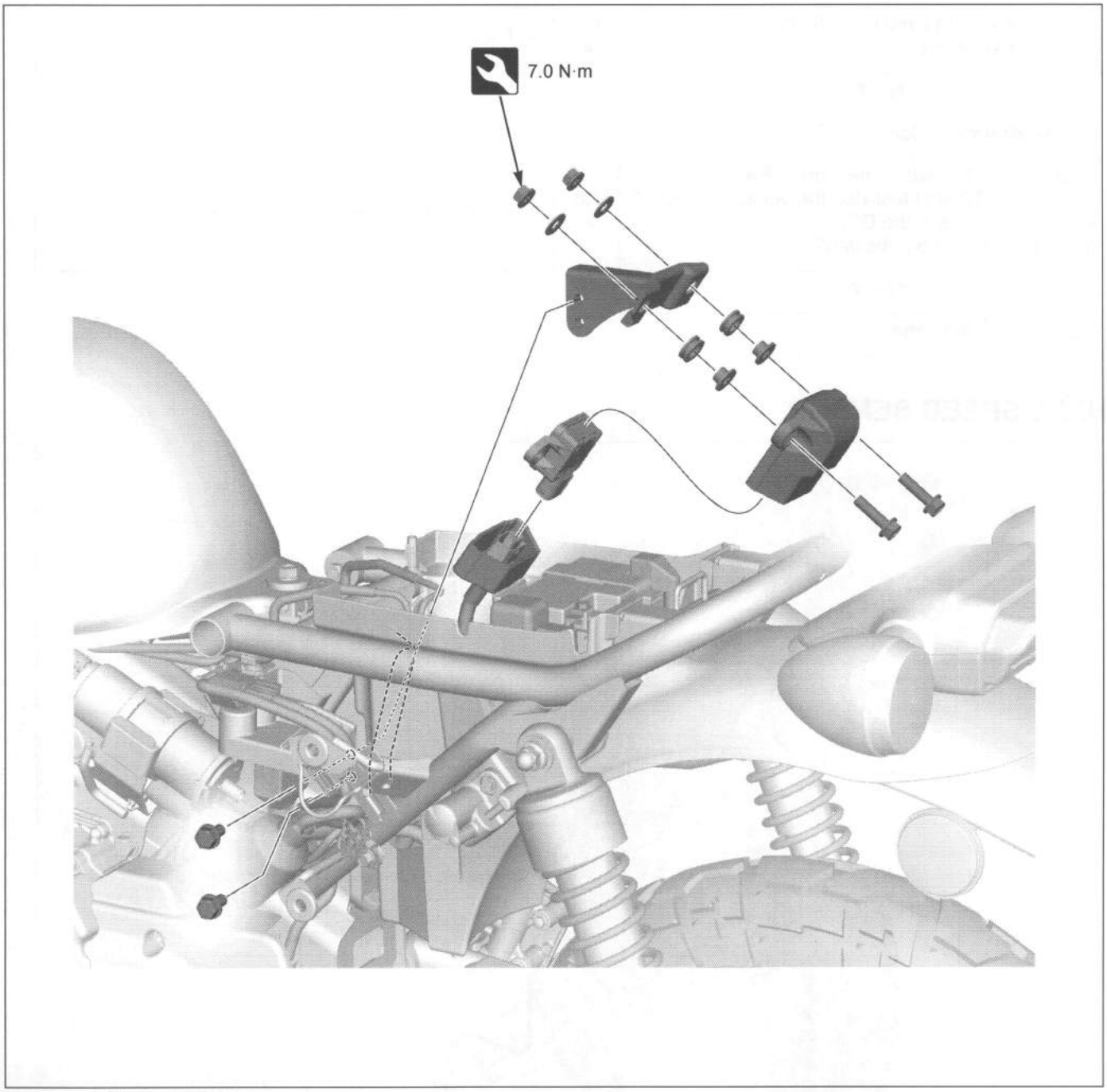


• Headlight cover ➔3-7

• Make sure that the clearance (air gap) between the fork bracket and the pulser ring is 0.54 - 1.04 mm.

• Wheel speed sensor inspection

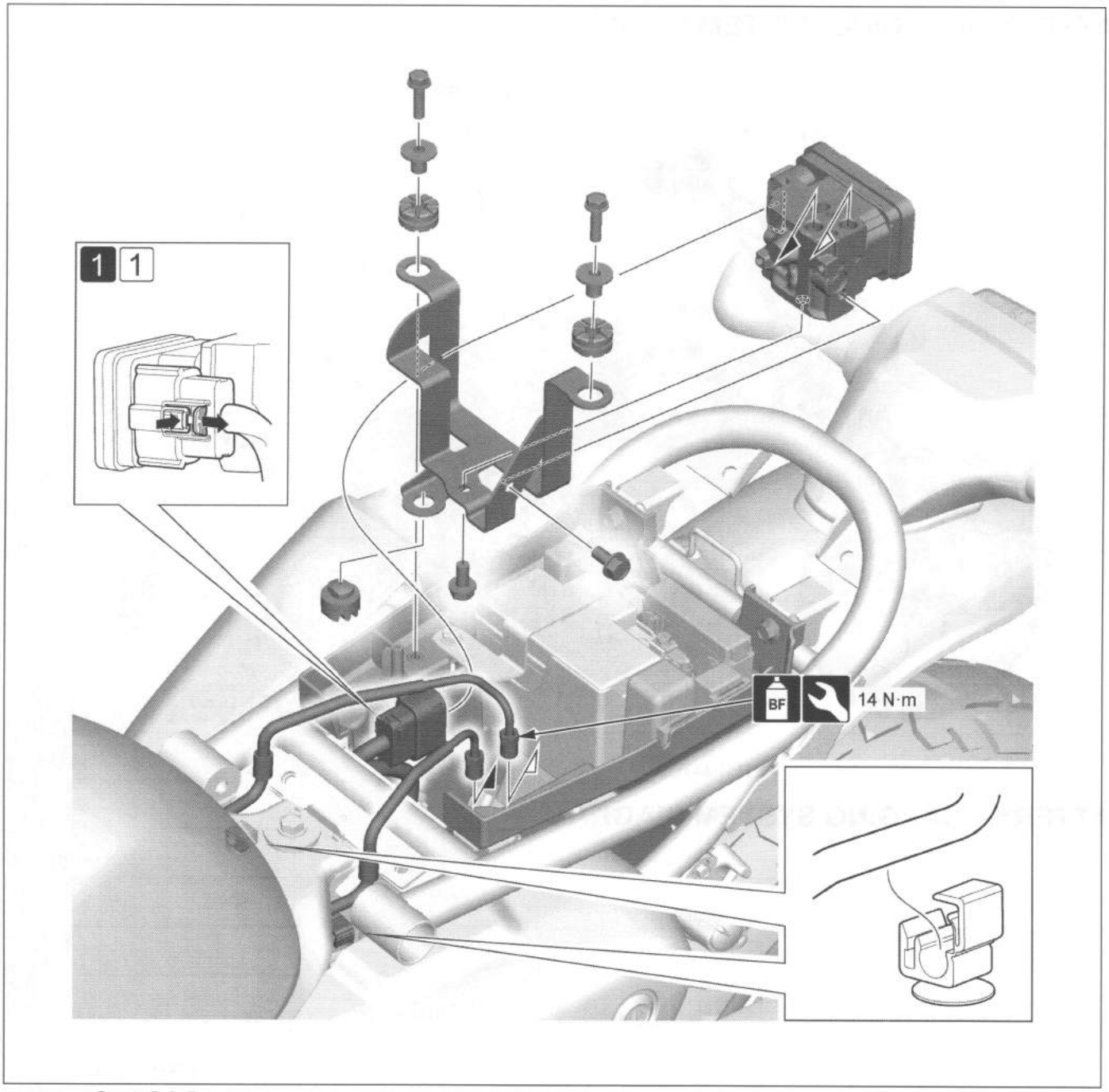
IMU



- Side cover ➔3-6
- ABS modulator ➔4-43

- Do not drop the IMU.
- Never use the dropped IMU.
- Do not use an impact wrench while removing or installing the IMU.
- Do not apply any impact on the IMU while removing or installing it.

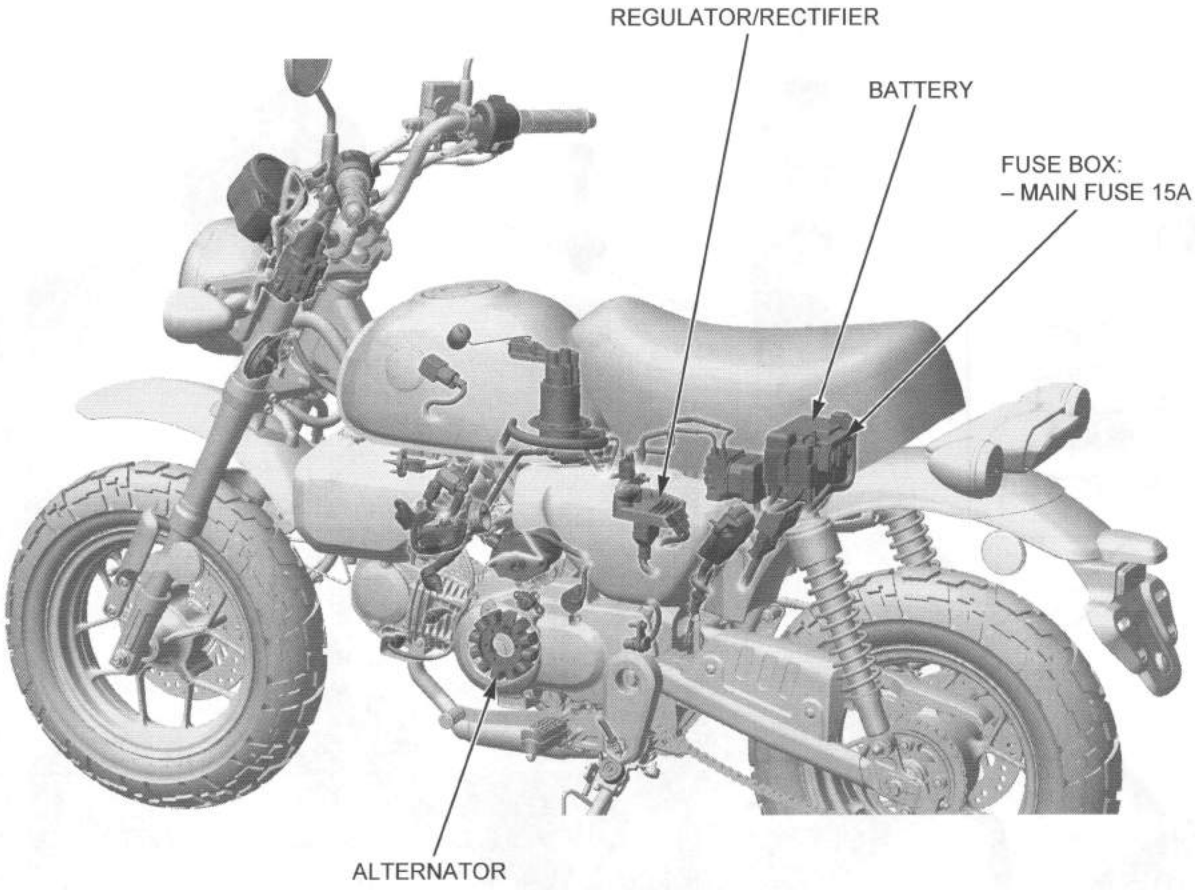
ABS MODULATOR



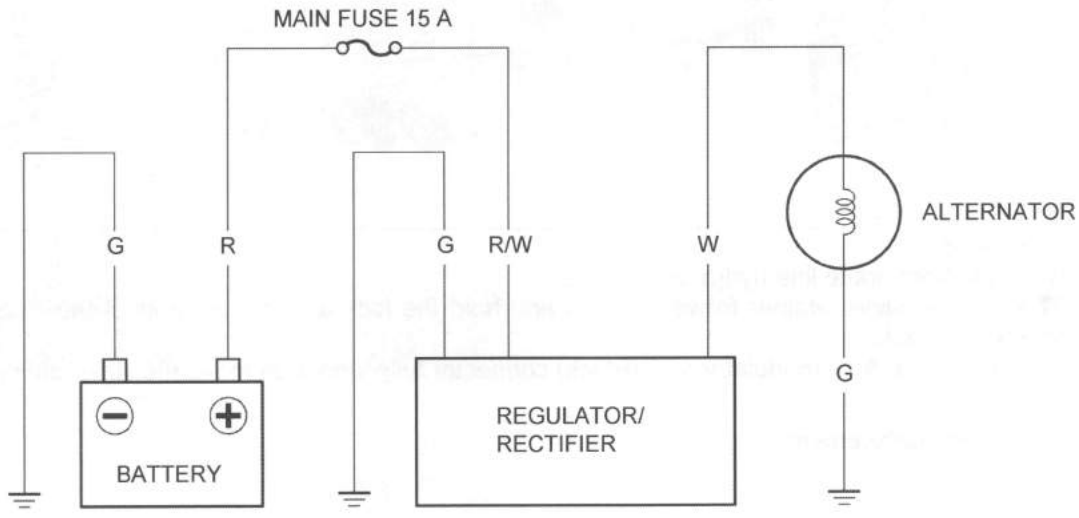
- Seat ➔3-5
- Drain the front brake line hydraulic system.
- 1 Move the slide retainer forward, press and hold the lock tab and disconnect the ABS modulator 16P (Black) connector.
- [1] Connect the ABS modulator 16P (Black) connector fully, and then move the slide retainer rearward.
- Brake fluid replacement

BATTERY/CHARGING SYSTEM

BATTERY/CHARGING SYSTEM LOCATION



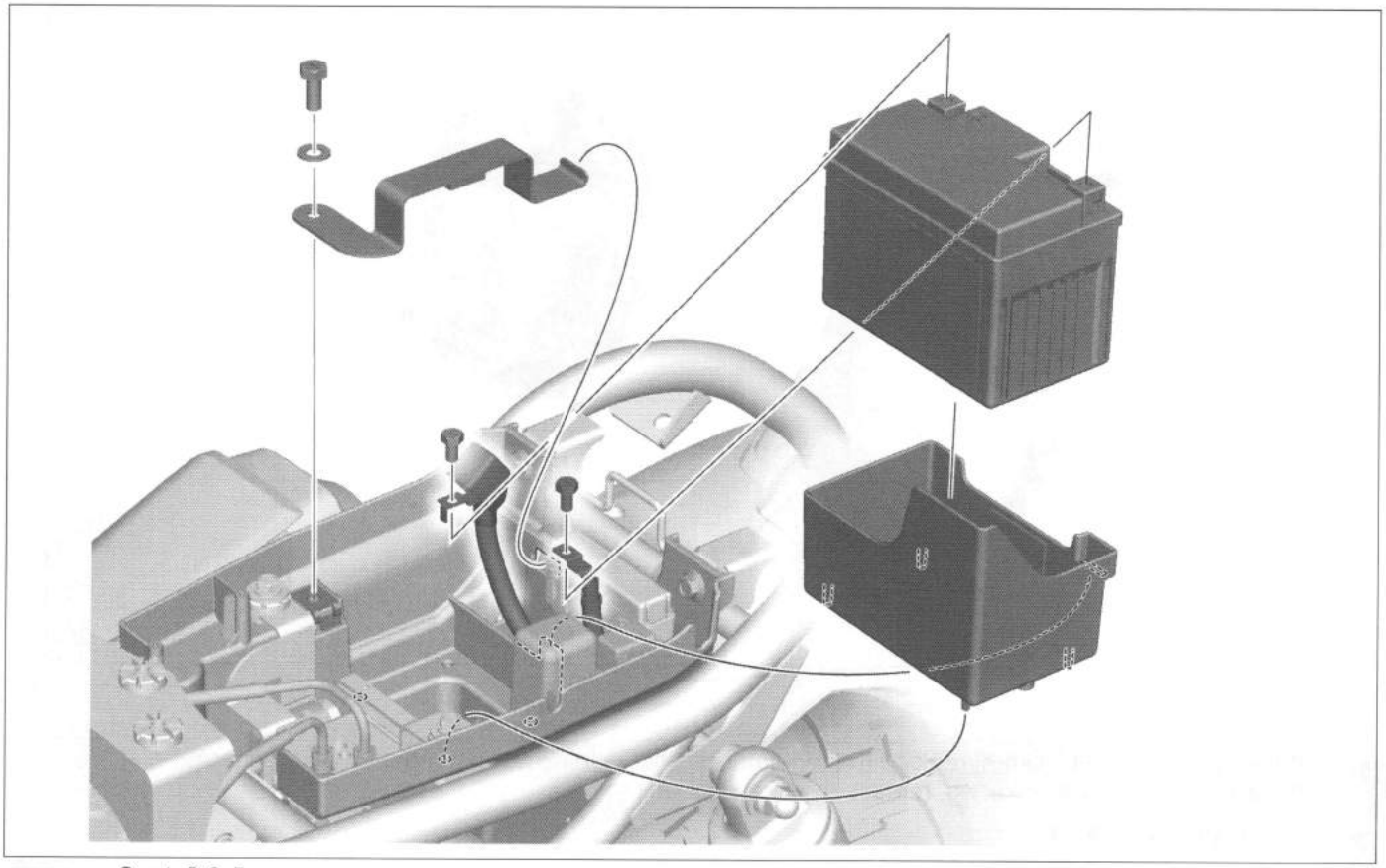
BATTERY/CHARGING SYSTEM DIAGRAM



Basic

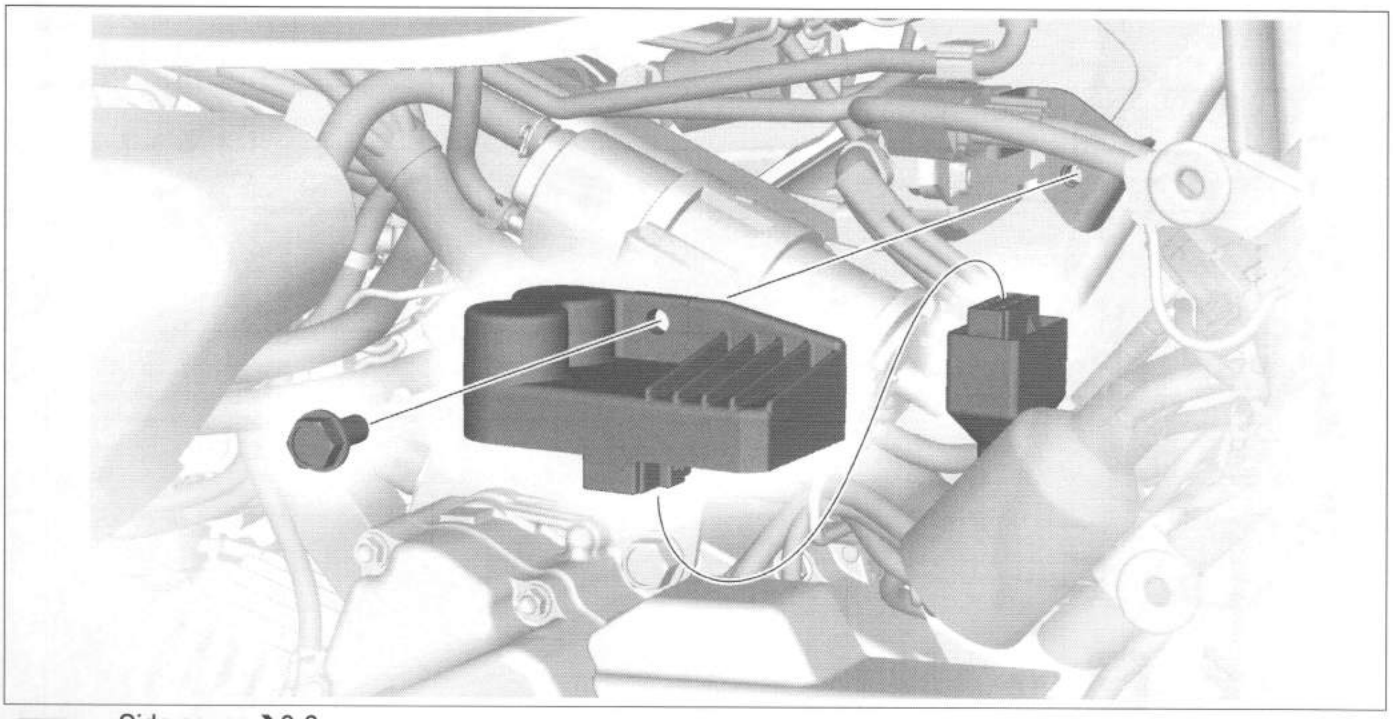
- Battery/charging system information, troubleshooting and inspection.

BATTERY



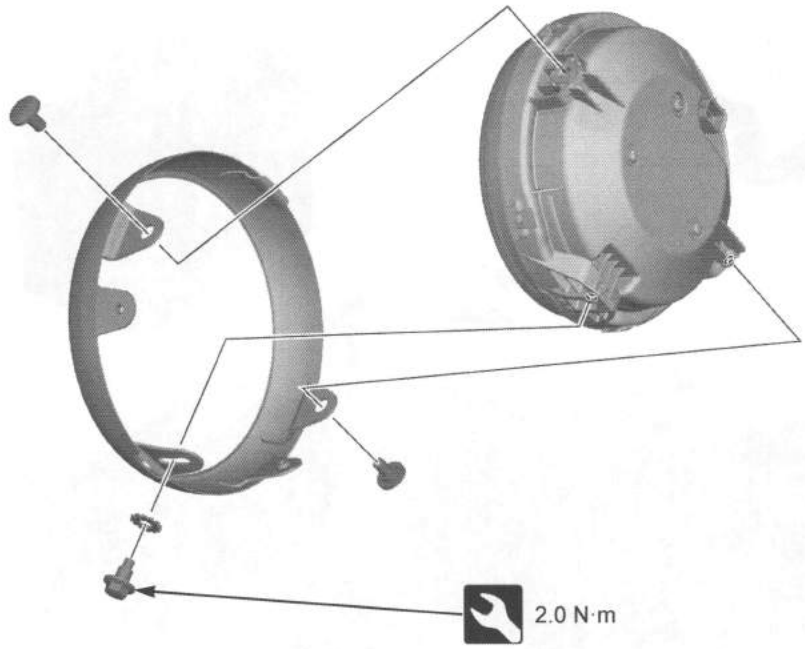
- Seat ➔3-5

REGULATOR/RECTIFIER

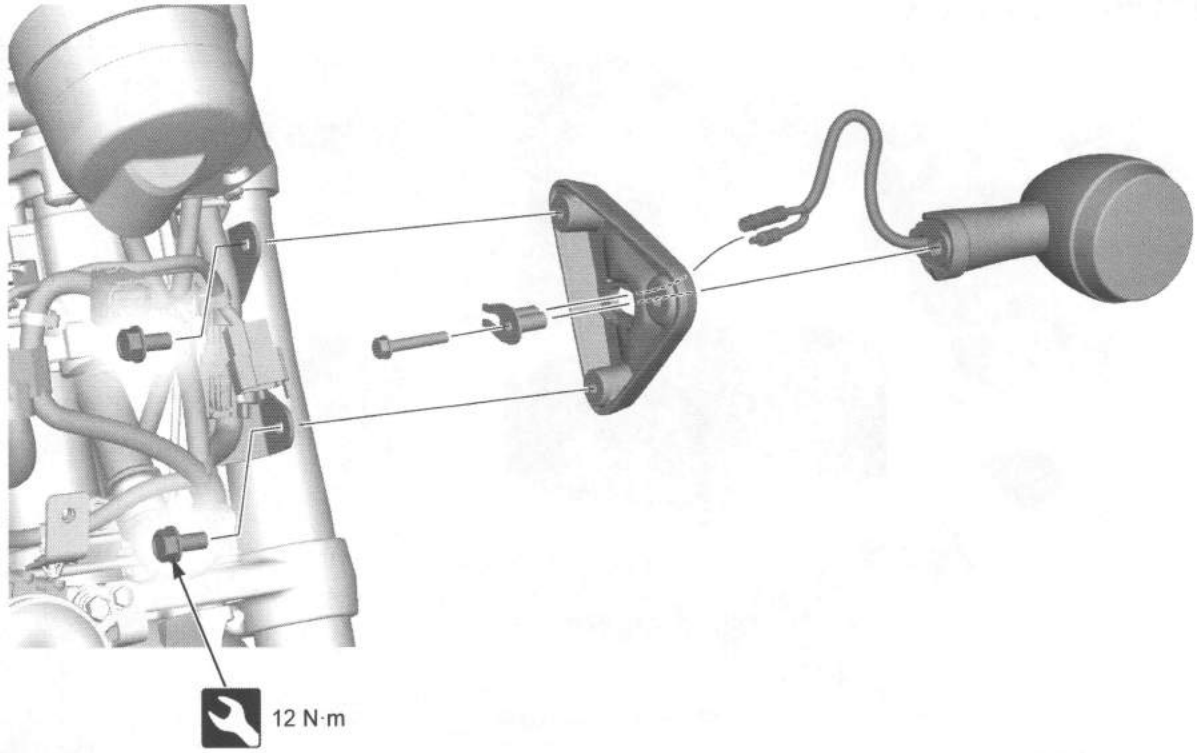


- Side cover ➔3-6

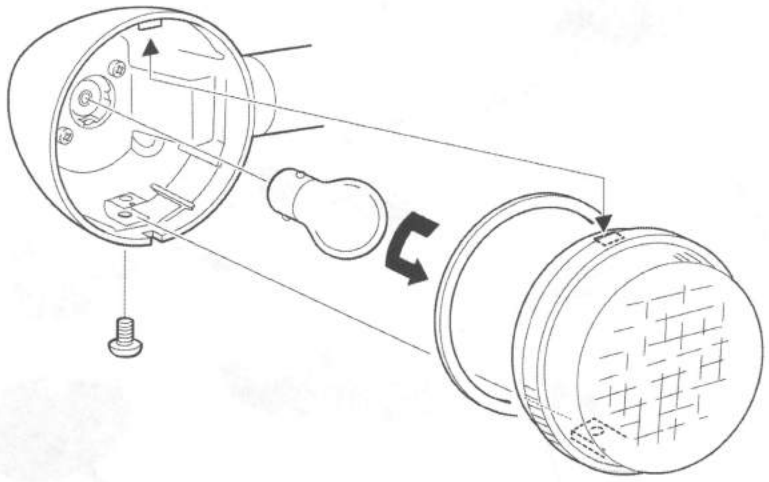
LIGHTING SYSTEM

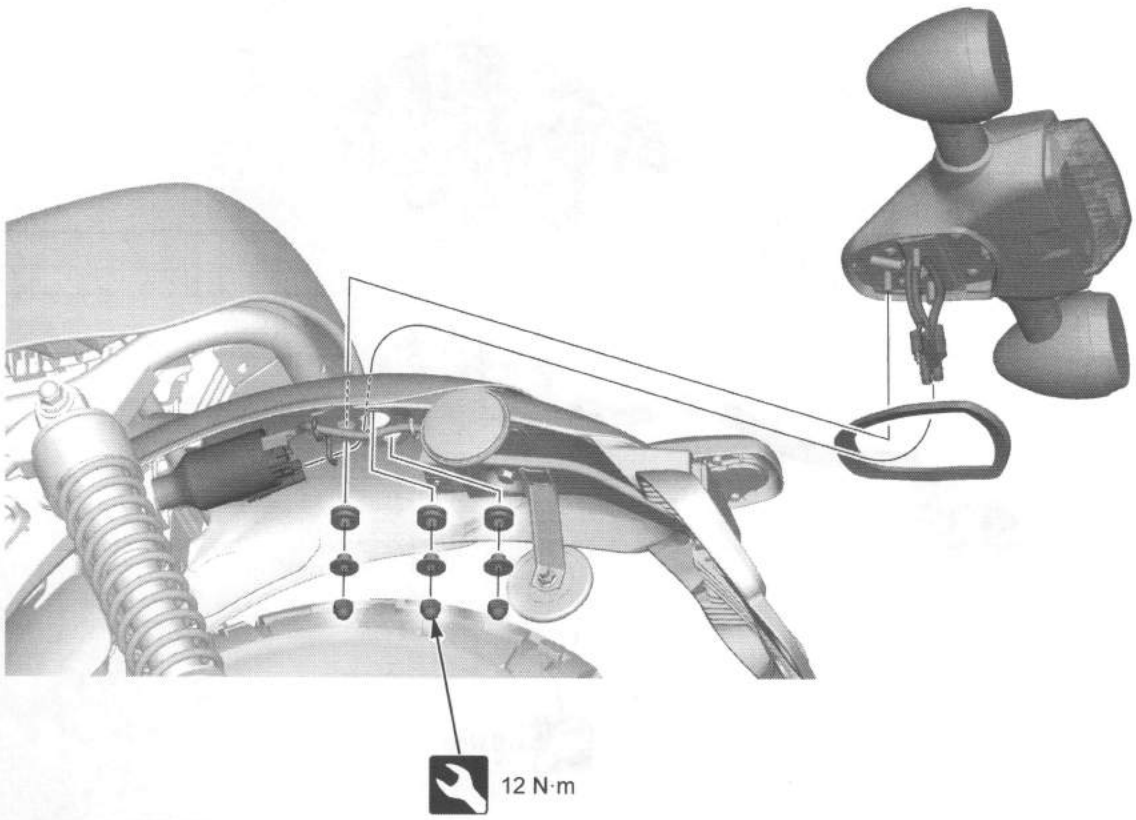


- If the LED headlight flickers, replace the regulator/rectifier with a known good one, and recheck. If the headlight is still flickering, replace the headlight unit.
- Headlight cover ➔3-7

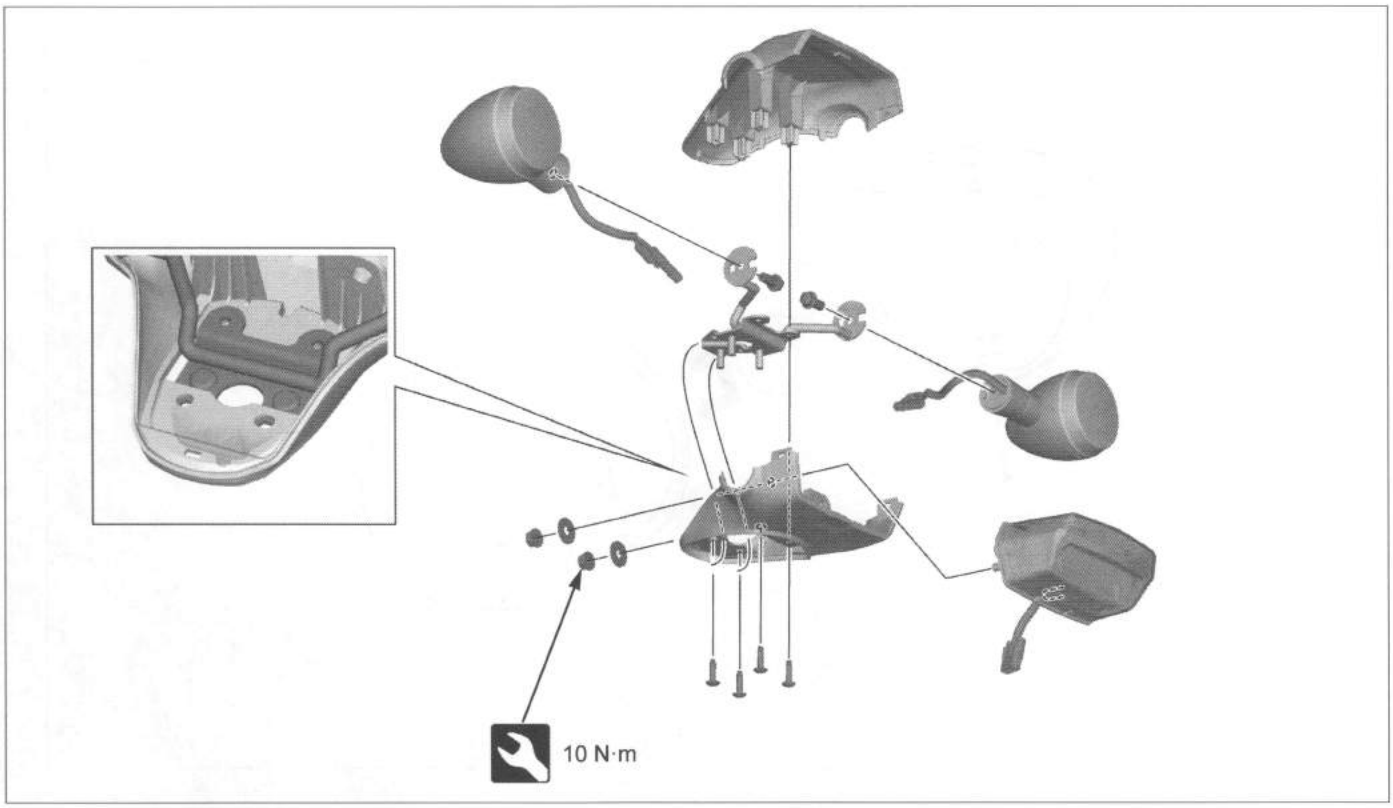


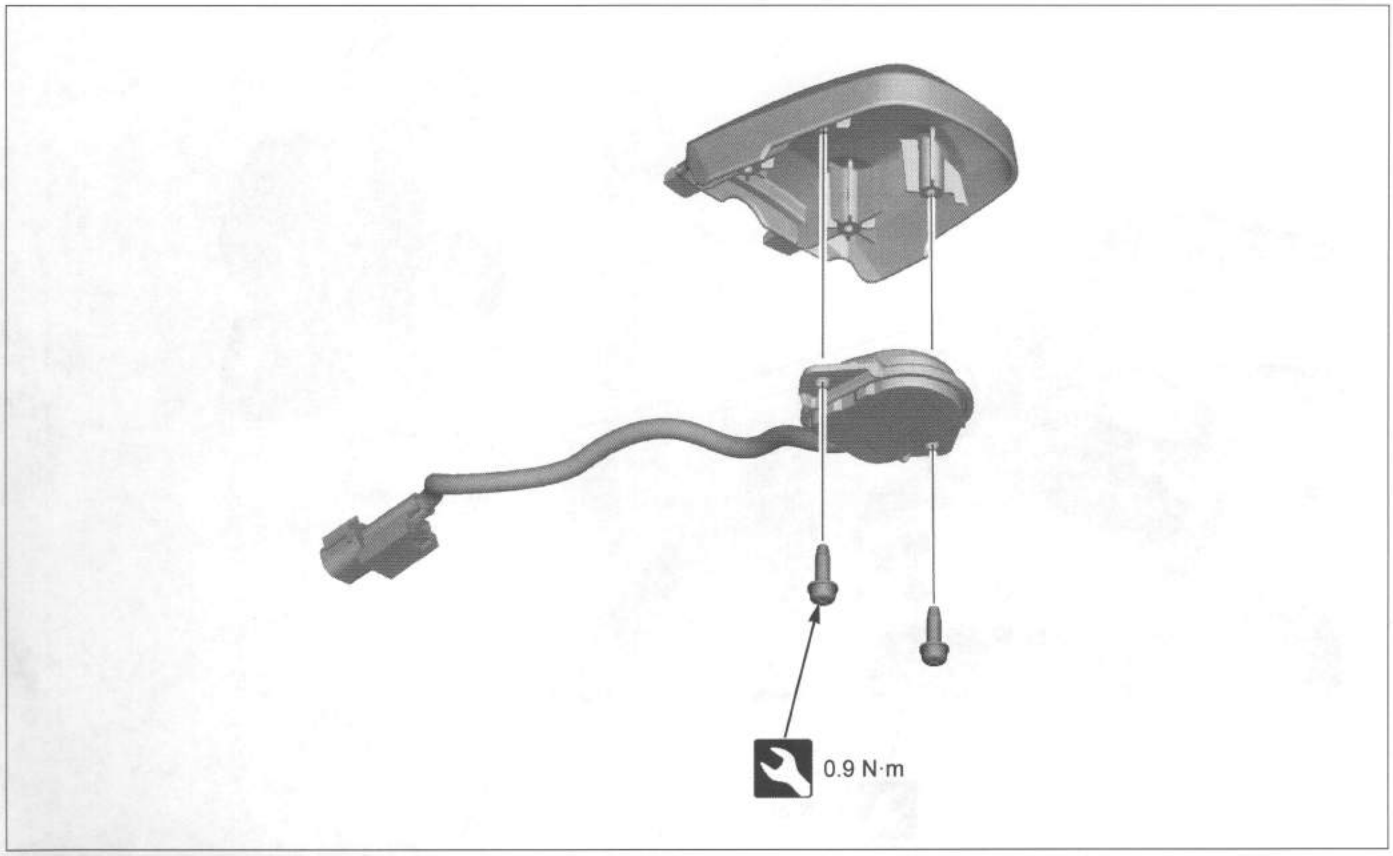
- Headlight case ➔3-8





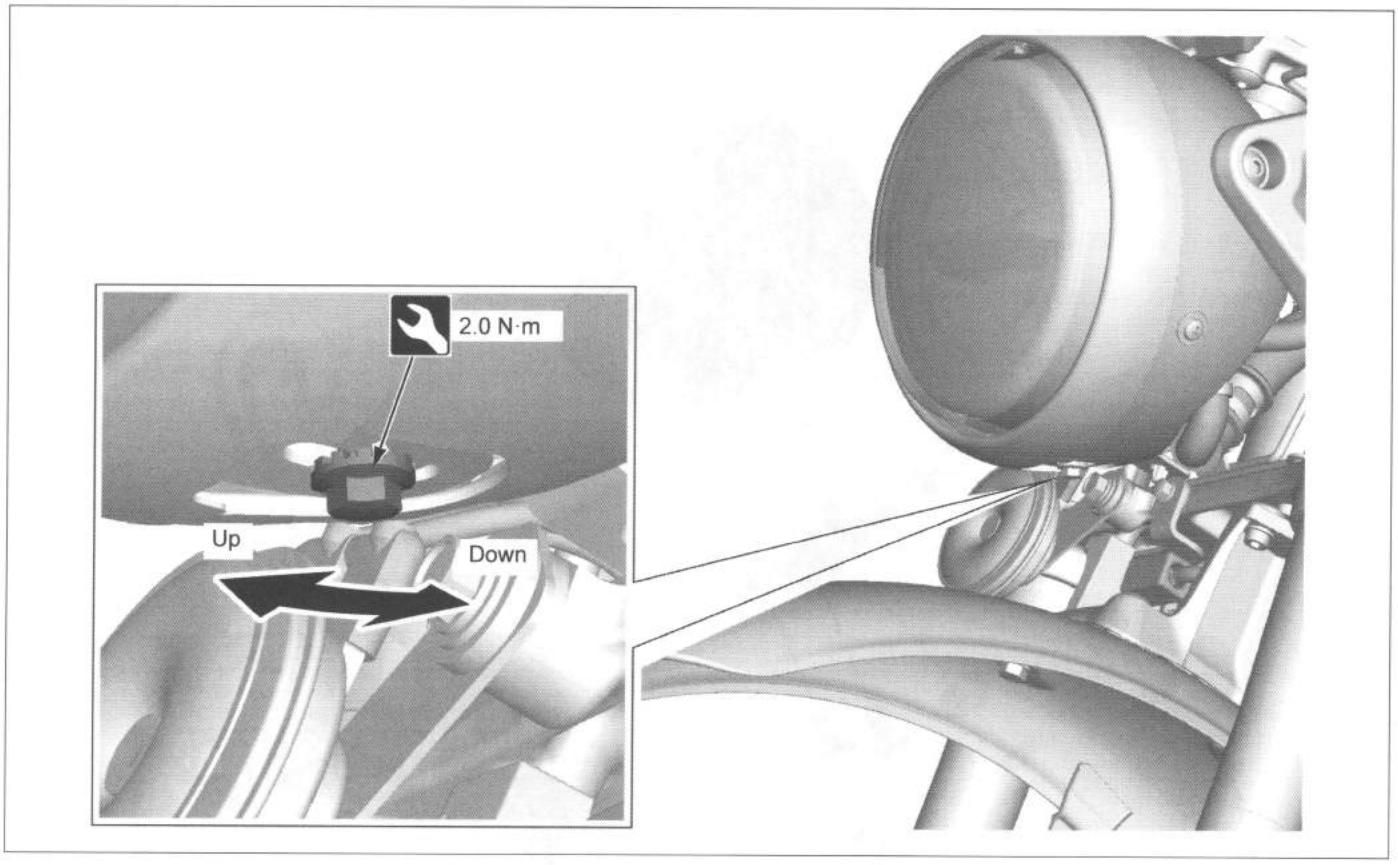
- Rear fender D ➔3-11



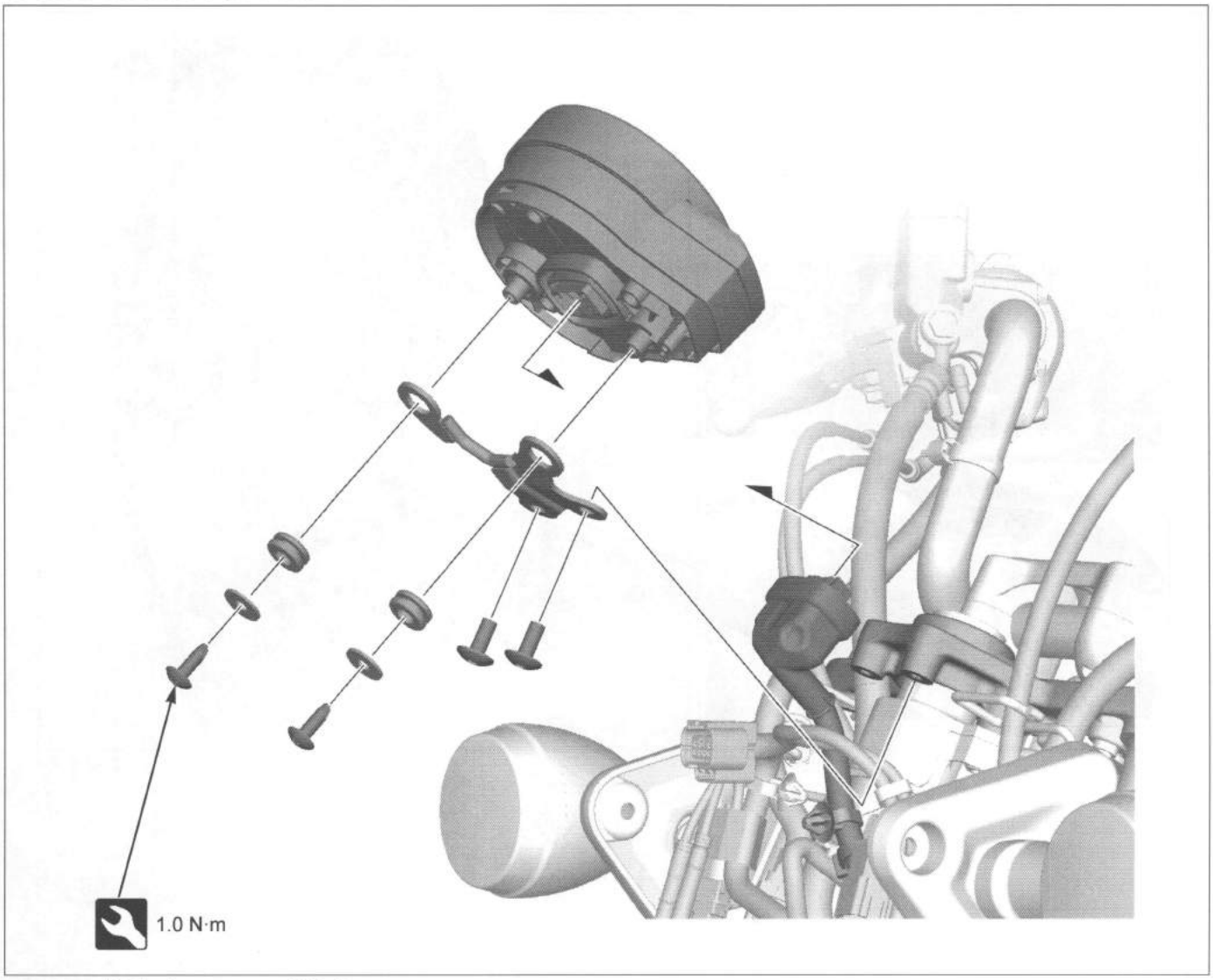


- Rear fender A ➔3-9

HEADLIGHT AIM

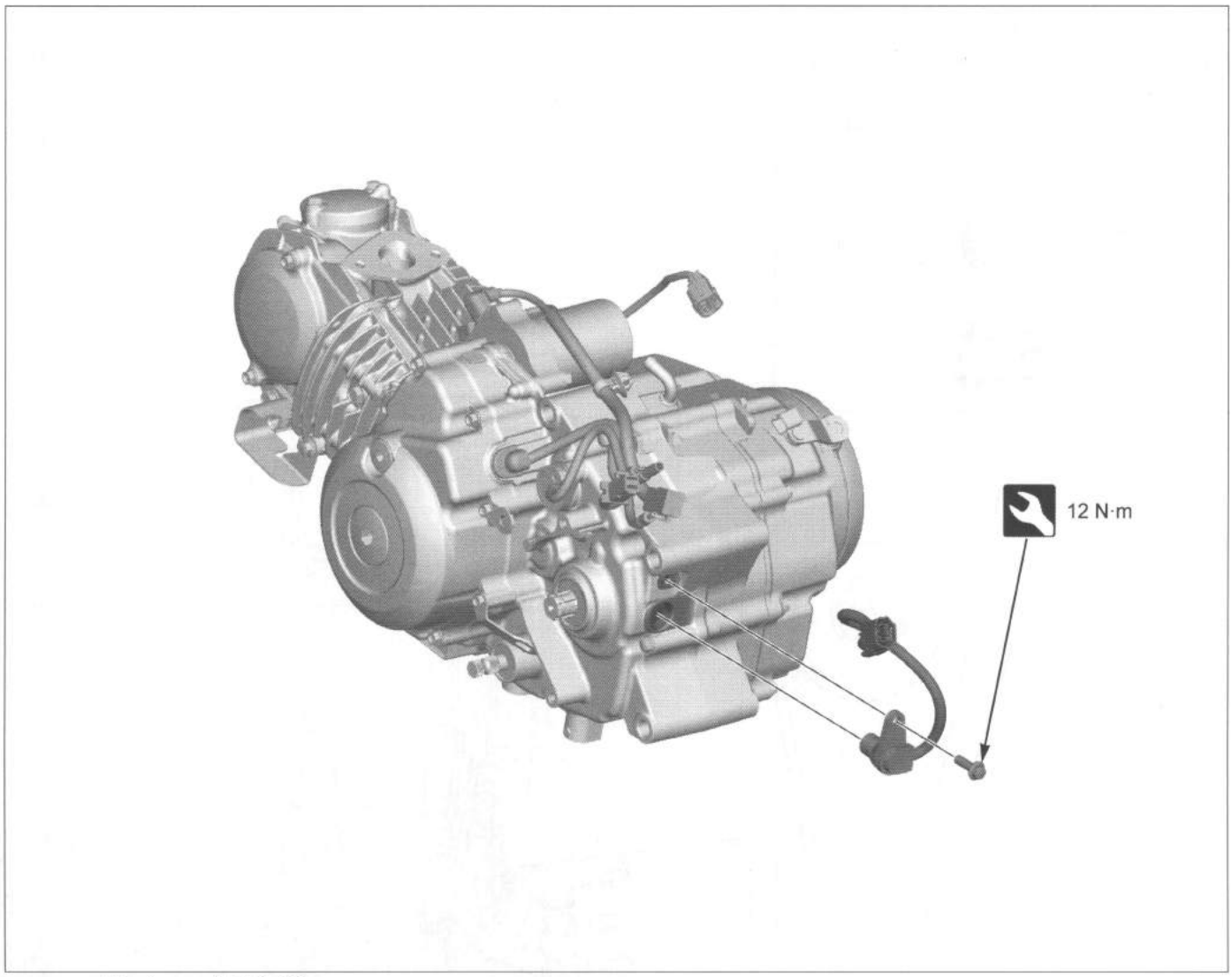


COMBINATION METER



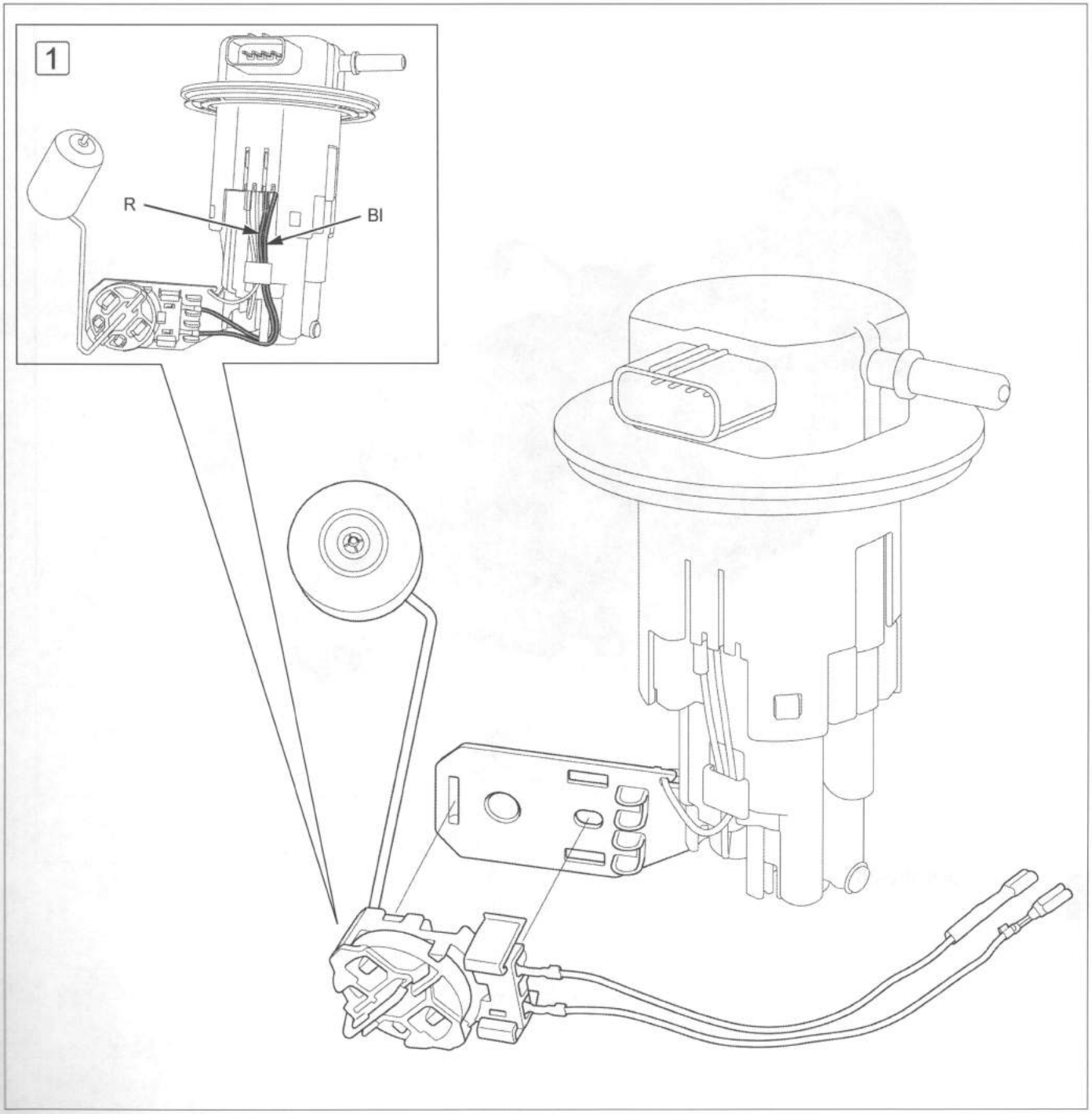
- Meter lower case ➔3-8

VS SENSOR



- Engine unit →2-36

FUEL LEVEL SENSOR



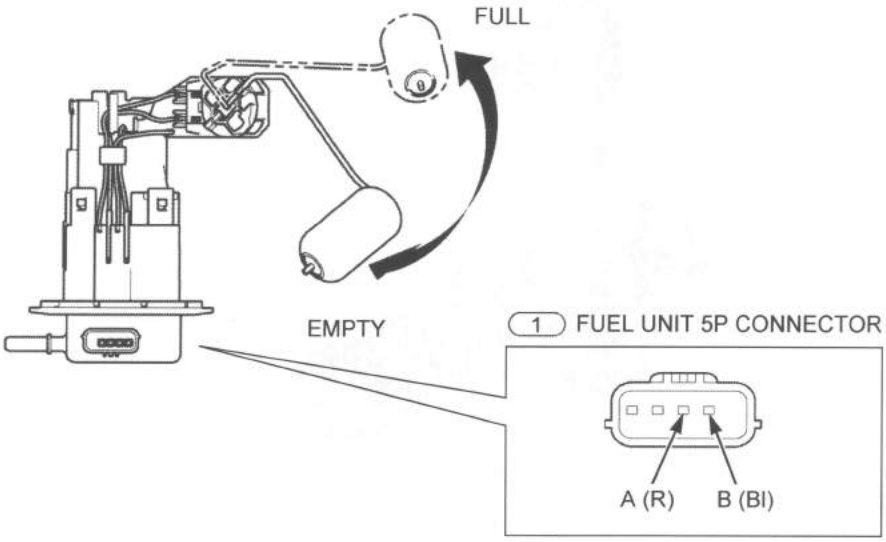
- Fuel pump unit ➔2-6

- 1 Route the fuel level sensor wires to the guide properly.

FUEL GAUGE TROUBLESHOOTING

FUEL GAUGE FAILURE

- Fuel pump unit ➔2-6
- Loose or poor contacts of related terminal/connector.



1. Fuel Gauge Circuit Inspection

• Check the R, Bl wire. • Is there no open or short circuit?	No ►	• Faulty R or Bl wire.

Yes ▼

2. Fuel Level Sensor Inspection

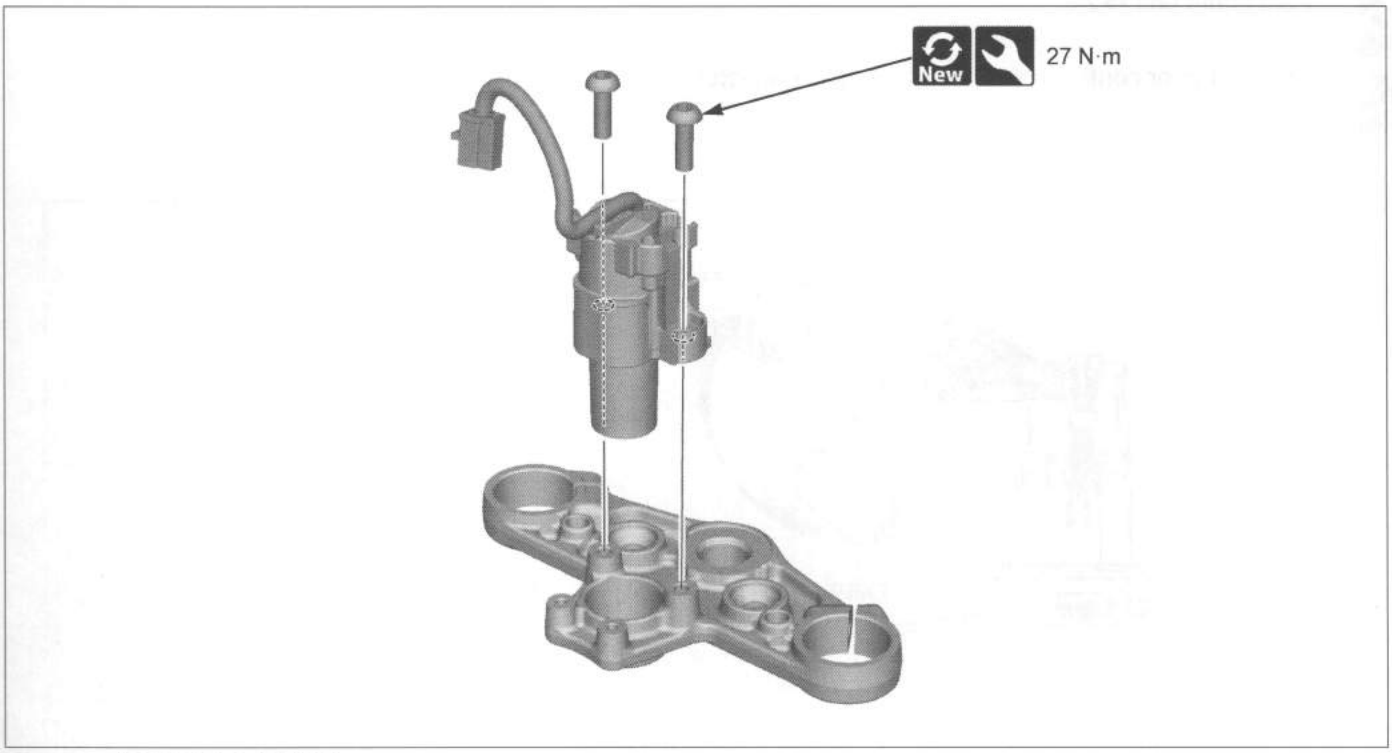
1 ⇨ Ω • Connection: A – B • Standard: FULL 7 – 11 Ω, EMPTY 384 – 396 Ω. • Does the standard resistance exist?	No ►	• Replace the fuel level sensor with a new one ➔4-52, and recheck.

Yes ▼

Replace the Combination Meter with a new one ➔4-50, and recheck.

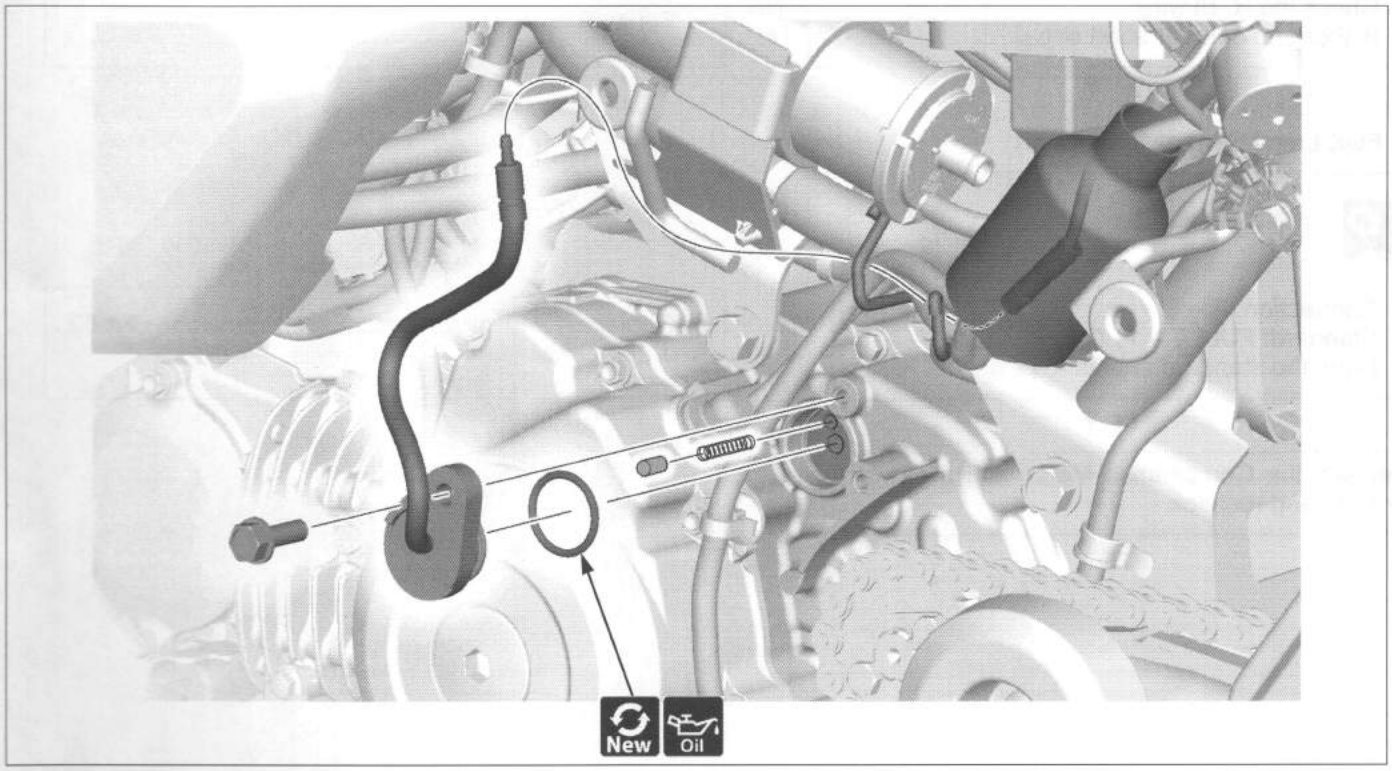
ELECTRICAL COMPONENT

IGNITION SWITCH



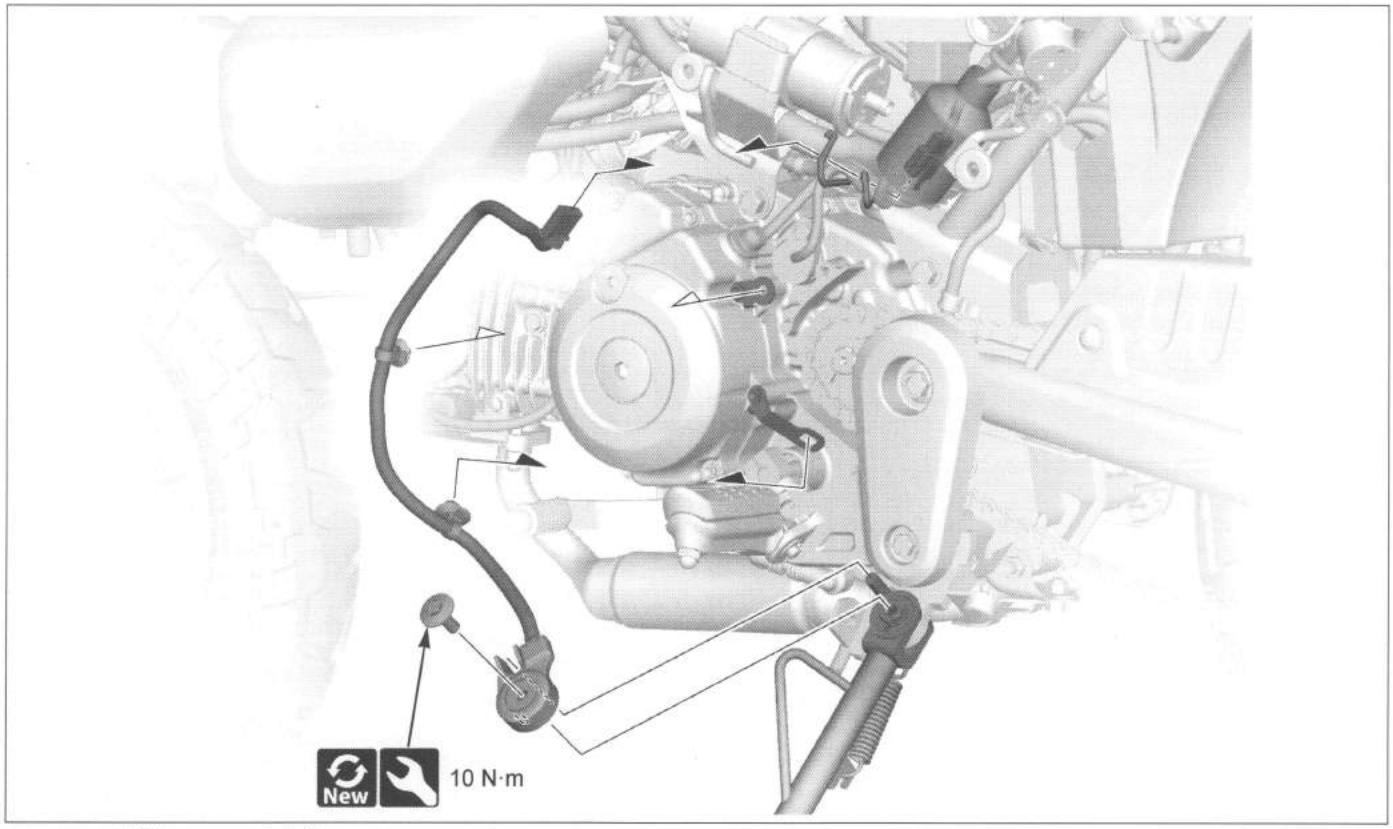
- Top bridge ➔3-20

NEUTRAL SWITCH



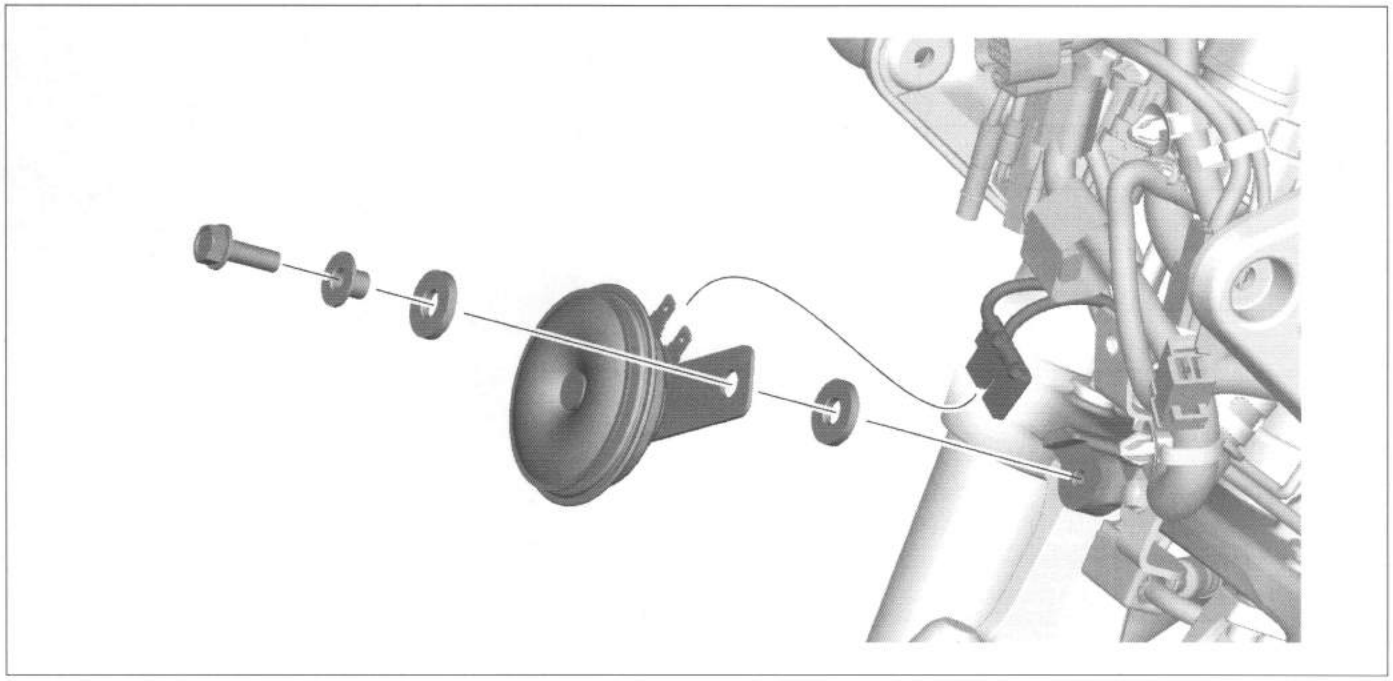
- Side cover ➔3-6
- Left crankcase rear cover ➔3-12

SIDESTAND SWITCH



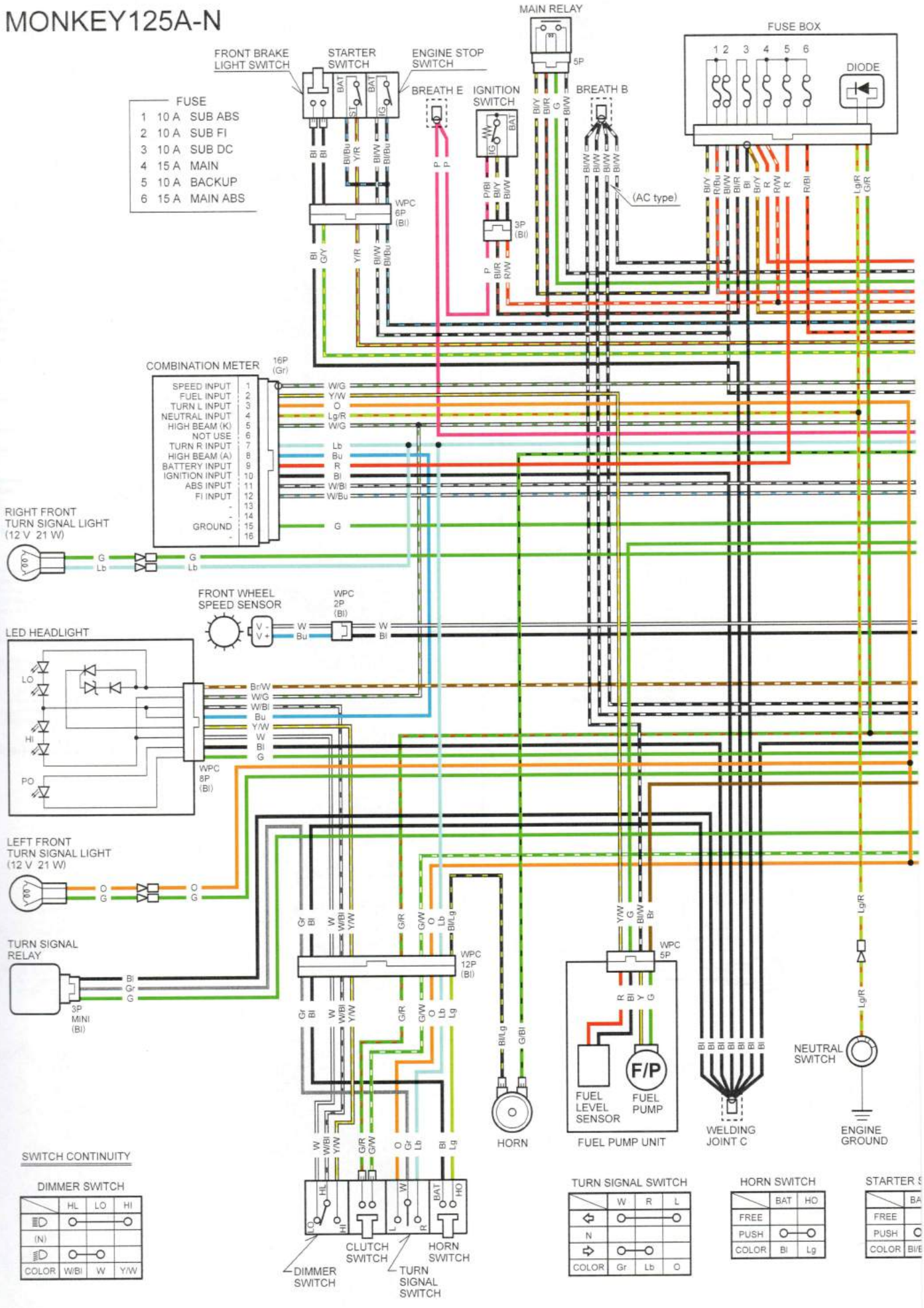
- Side cover ➔3-6
- Left crankcase rear cover ➔3-12

HORN



- Headlight case ➔3-8

MONKEY125A-N



SWITCH CONTINUITY

DIMMER SWITCH

	HL	LO	HI
	○		○
(N)			
	○		
COLOR	W/Bl	W	Y/W

TURN SIGNAL SWITCH

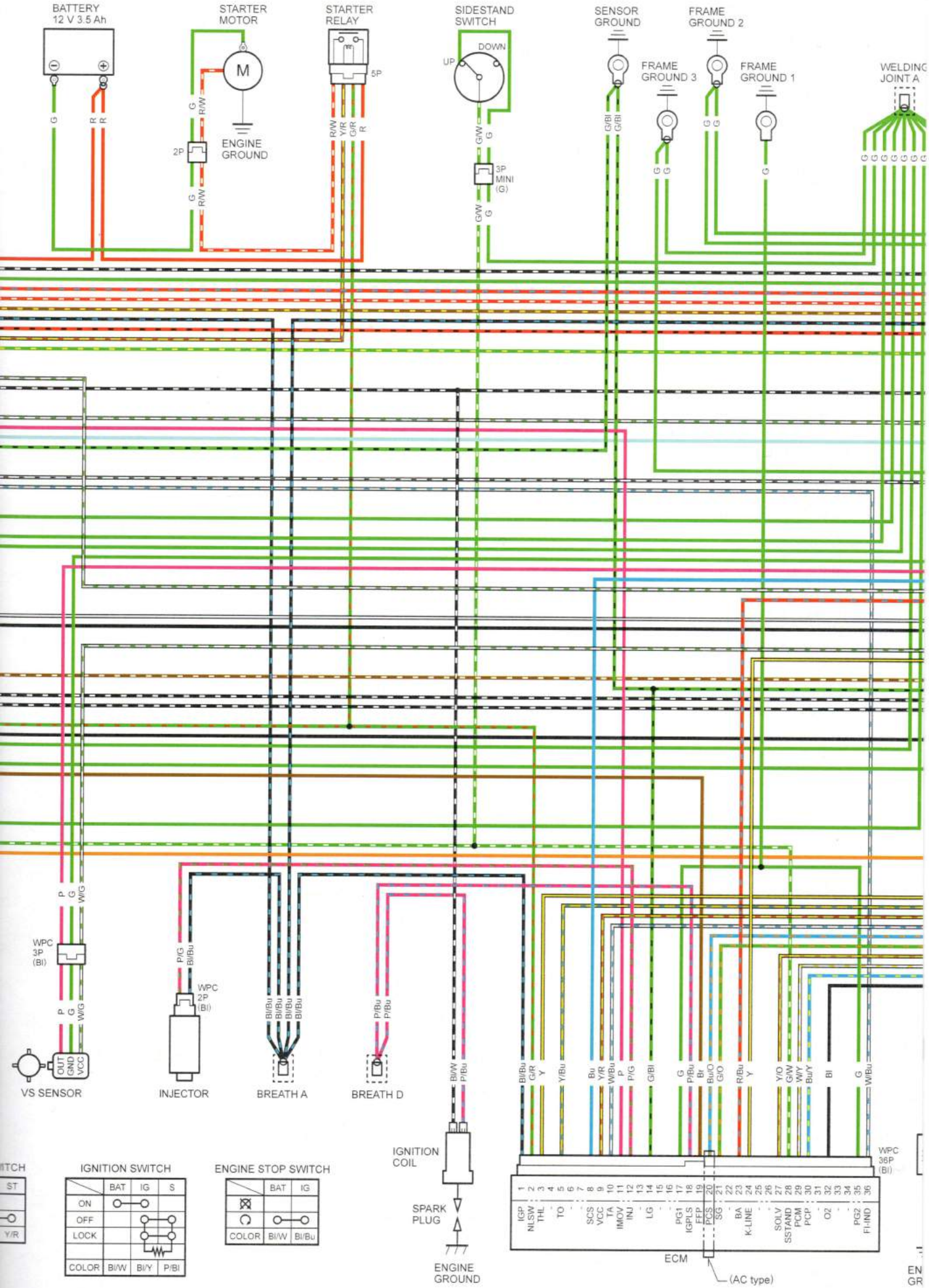
	W	R	L
⇦	○		○
N			
⇨		○	
COLOR	Gr	Lb	O

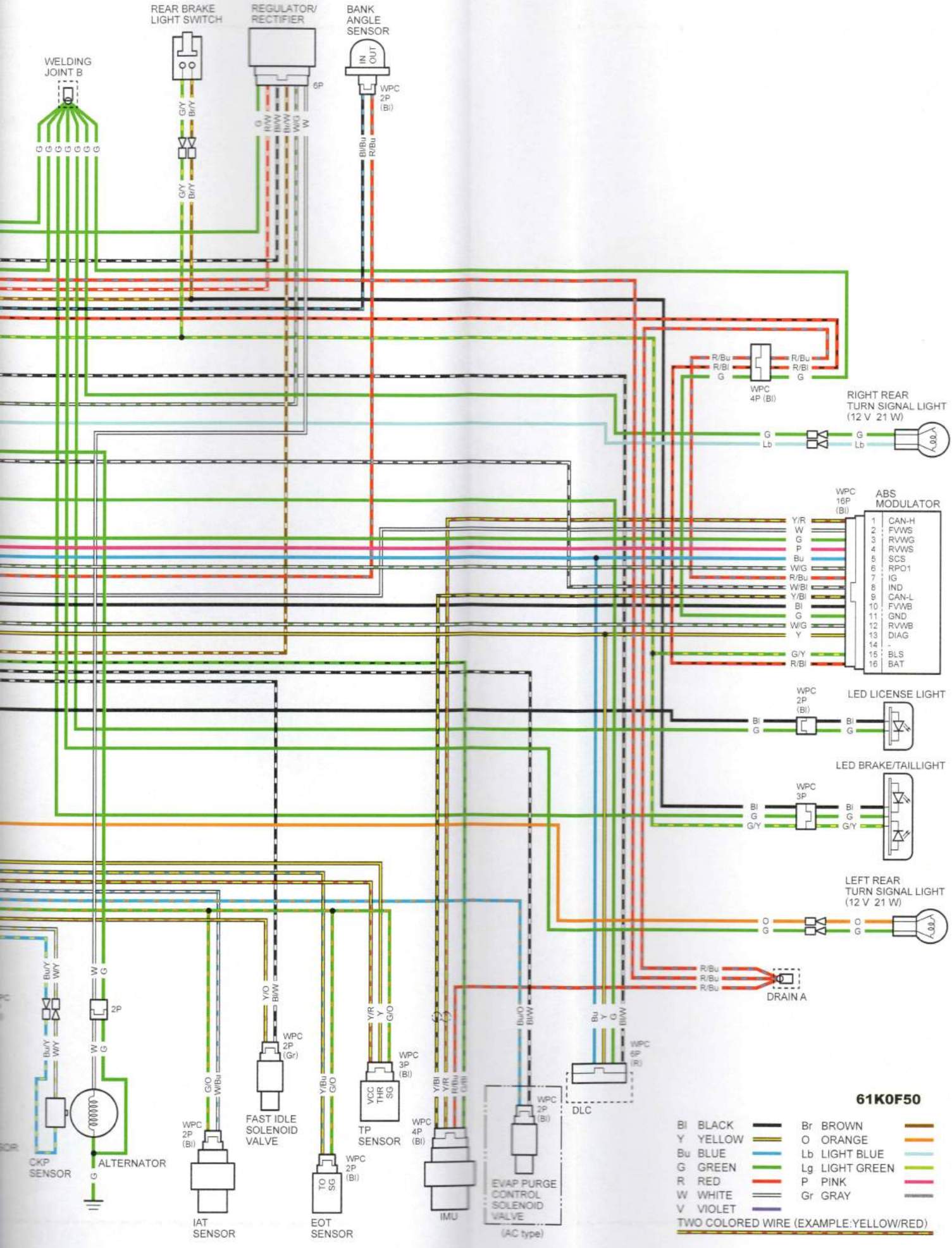
HORN SWITCH

	BAT	HO
FREE		
PUSH	○	○
COLOR	Bl	Lg

STARTER S

	BA
FREE	
PUSH	○
COLOR	Bl/


BATTERY
12 V 3.5 Ah
STARTER MOTOR
STARTER RELAY
SIDESTAND SWITCH
SENSOR GROUND
FRAME GROUND 2
FRAME GROUND 3
FRAME GROUND 1
WELDING JOINT A
ENGINE GROUND
5P
2P
3P MINI (G)
UP
DOWN
WPC 3P (BI)
WPC 2P (BI)
WPC 36P (BI)
VS SENSOR
INJECTOR
BREATH A
BREATH D
IGNITION COIL
SPARK PLUG
ENGINE GROUND
ECM
(AC type)
IGNITION SWITCH
ENGINE STOP SWITCH


REAR BRAKE LIGHT SWITCH
REGULATOR/ RECTIFIER
BANK ANGLE SENSOR
WELDING JOINT B
6P
WPC 2P (Bl)
WPC 4P (Bl)
RIGHT REAR TURN SIGNAL LIGHT (12 V 21 W)
WPC 16P (Bl)
ABS MODULATOR
1 CAN-H
2 FVWS
3 RVWG
4 RVWS
5 SCS
6 RPO1
7 IG
8 IND
9 CAN-L
10 FVWB
11 GND
12 RVWB
13 DIAG
14 -
15 BLS
16 BAT
WPC 2P (Bl)
LED LICENSE LIGHT
WPC 3P
LED BRAKE/TAILLIGHT
LEFT REAR TURN SIGNAL LIGHT (12 V 21 W)
DRAIN A
2P
CKP SENSOR
ALTERNATOR
WPC 2P (Gr)
FAST IDLE SOLENOID VALVE
WPC 2P (Bl)
IAT SENSOR
WPC 3P (Bl)
TP SENSOR
VCC THR SG
WPC 2P (Bl)
EOT SENSOR
TO SG
WPC 4P (Bl)
IMU
WPC 2P (Bl)
EVAP PURGE CONTROL SOLENOID VALVE
(AC type)
WPC 6P (R)
DLC
61K0F50
Bl BLACK
Y YELLOW
Bu BLUE
G GREEN
R RED
W WHITE
V VIOLET
Br BROWN
O ORANGE
Lb LIGHT BLUE
Lg LIGHT GREEN
P PINK
Gr GRAY
TWO COLORED WIRE (EXAMPLE:YELLOW/RED)