Shop Manual

MC250/A

Spec

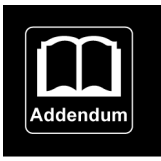
This book is Specific Shop Manual.
Refer to “Basic Shop Manual” for basic and common maintenance instructions.

MC250/A-G (2016)

MC250-H (2017)

MC250/A/C/W-K (2019)

6. MC250/A/C/W-K ADDENDUM



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 genuine Honda 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 describes the service procedures for the MC250/A/C/W-K.

Refer to MC250-H SHOP MANUAL (No.62K31B0Z) for service procedures and data not included in this addendum.

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 judgement.
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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SERVICE PUBLICATION OFFICE

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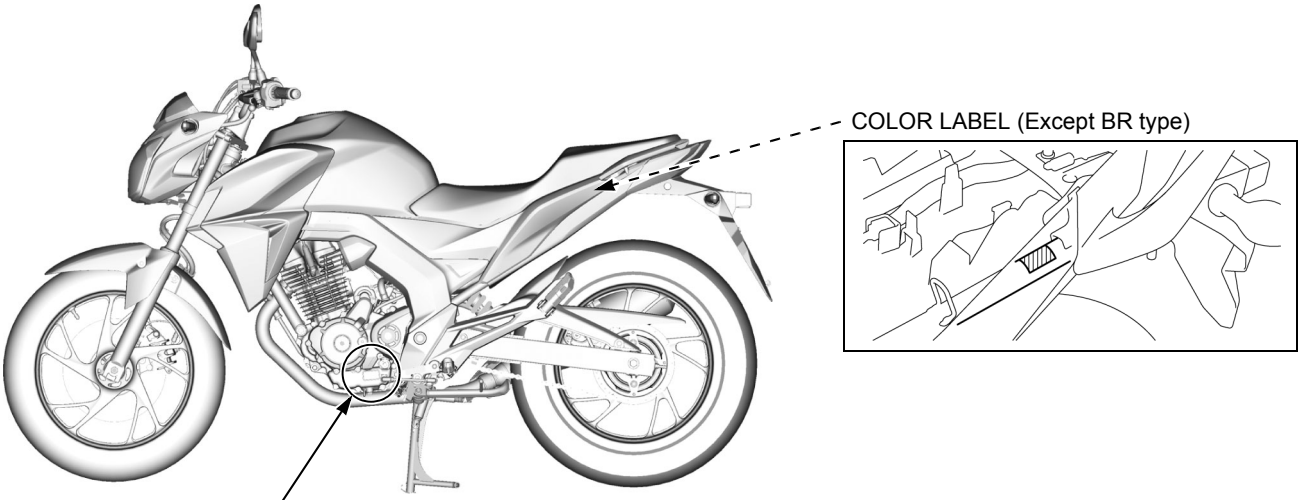
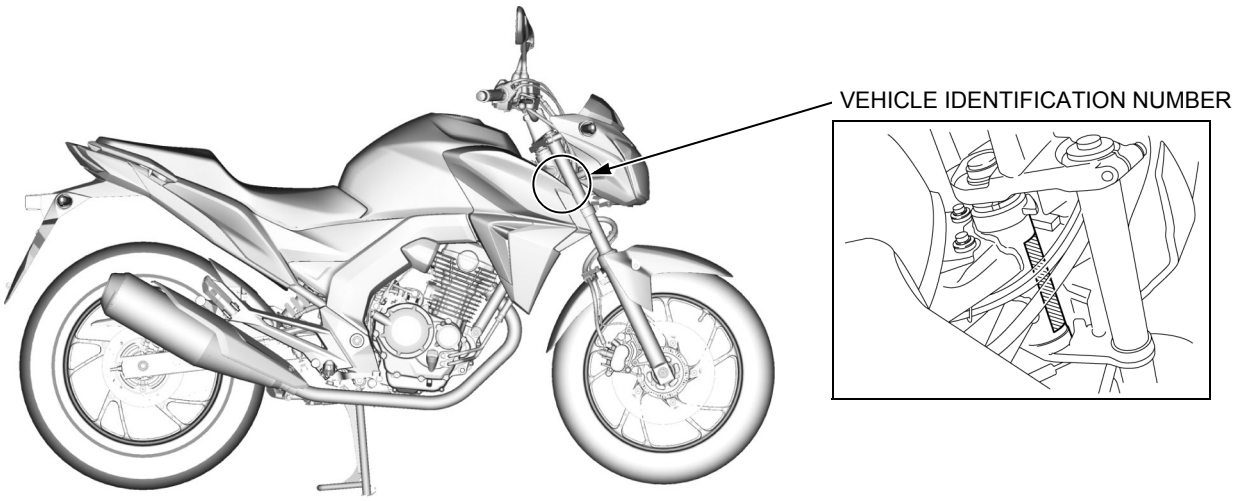
MODEL IDENTIFICATION

- Model name: MC250/A/C/W-K

TYPE	MC250	MC250A	MC250C	MC250W
Code	AG, LA	BR	BR	LA
CBS	–	–	O	–
ABS	–	O	–	–
ETHANOL INDICATOR	–	O	O	–

Code	Destination
AG	Argentina
LA	Latin america
BR	Brazil





SPECIFICATIONS

GENERAL SPECIFICATIONS

ITEM			SPECIFICATIONS
DIMENSIONS	Overall length		2,065 mm
	Overall width		753 mm
	Overall height		1,072 mm
	Wheelbase		1,386 mm
	Seat height		784 mm
	Footpeg height		320 mm
	Ground clearance		192 mm
	Curb weight	STD	148 kg
		CBS	149 kg
		ABS	150 kg
	Maximum weight capacity		175 kg
FRAME	Frame type		Diamond type
	Front suspension		Telescopic fork
	Front axle travel		117 mm
	Rear suspension		Swingarm
	Rear axle travel		108 mm
	Front tire size		110/70R17M/C 54H
	Rear tire size		140/70R17M/C 66H
	Front tire brand		DIABLO ROSSO II (PIRELLI)
	Rear tire brand		DIABLO ROSSO II (PIRELLI)
	Front brake		Hydraulic disc brake
	Rear brake		Hydraulic disc brake
	Caster angle		25°33’
	Trail length		101 mm
	Fuel tank capacity		16.5 liters
	Fuel tank reserve capacity		3.3 liters
ENGINE	Cylinder arrangement		Single cylinder 15° inclined from vertical
	Bore and stroke		71.000 x 63.038 mm
	Displacement		249.58 cm^3
	Compression ratio		9.6 : 1
	Valve train		Chain driven, OHC
	Intake valve	opens	0° BTDC at 1 mm lift
		closes	35° ABDC at 1 mm lift
	Exhaust valve	opens	40° BBDC at 1 mm lift
		closes	–5° ATDC at 1 mm lift
	Lubrication system		Forced pressure and wet sump
	Oil pump type		Trochoid
	Cooling system		Air cooled
	Air filtration		Viscous paper filter
	Engine dry weight	STD	33.2 kg
		CBS	33.2 kg
		ABS	33.3 kg
	Emission control system		Crankcase emission control system Three-way catalytic converter
FUEL SYSTEM	Type		PGM-FI
	Throttle bore		34 mm

ITEM			SPECIFICATIONS
DRIVE TRAIN	Clutch system		Multi-plate, wet
	Clutch operation system		Cable operating
	Transmission		6 speed
	Primary reduction		2.863 (63/22)
	Final reduction		3.076 (40/13)
	Gear ratio	1st	2.846 (37/13)
		2nd	1.777 (32/18)
		3rd	1.272 (28/22)
		4th	1.083 (26/24)
		5th	0.961 (25/26)
		6th	0.851 (23/27)
	Gearshift pattern		Left foot operated return system
			1 - N - 2 - 3 - 4 - 5 - 6
ELECTRICAL	Ignition system		Full transistorized ignition
	Starting system		Electric starter motor
	Charging system		Triple phase output alternator
	Regulator/rectifier		SCR shorted, triple phase full wave rectification
	Lighting system		Battery

FUEL & ENGINE SPECIFICATIONS

FUEL SYSTEM

ITEM	SPECIFICATIONS
Throttle body identification number	GQB8A

FRAME & CHASSIS SPECIFICATIONS

FRONT WHEEL/SUSPENSION/STEERING

Unit: mm

ITEM		STANDARD	LIMIT
Fork	Recommended fluid	MOBIL ATF 200R	–

HYDRAULIC BRAKE

Unit: mm

ITEM				STANDARD	LIMIT
Front	Specified brake fluid			DOT3 or 4 brake fluid	–
	Caliper cylinder I.D.	STD, ABS		25.400 – 25.450	–
		CBS	Upper, Lower	25.400 – 25.450	–
			Center	22.650 – 22.700	–
	Caliper piston O.D.	STD, ABS		25.318 – 25.368	–
		CBS	Upper, Lower	25.318 – 25.368	–
			Center	22.585 – 22.618	–
Rear	Specified brake fluid			DOT3 or 4 brake fluid	–
	Caliper cylinder I.D.	STD, ABS		32.030 – 32.080	–
		CBS		33.96 – 34.01	–
	Caliper piston O.D.	STD, ABS		31.948 – 31.998	–
		CBS		33.878 – 33.928	–

ELECTRICAL SYSTEM SPECIFICATIONS

BATTERY/CHARGING SYSTEM

ITEM				SPECIFICATIONS
Battery	Type		STD	YTZ7S
			CBS, ABS	DTZ6
	Capacity		STD	12 V – 6 Ah (10 HR)
			CBS, ABS	12 V – 5 Ah (10 HR)
	Voltage (20°C)	Fully charged		12.8 V minimum
		Needs charging		Below 12.3 V
	Charging current	Normal	STD	0.6 A/5 – 10 h
			CBS, ABS	0.5 A/5 – 10 h
		Quick	STD	3 A/1 h
			CBS, ABS	5 A/0.5 h
Current leakage				0.10 mA maximum

LIGHTS/METERS/SWITCHES

ITEM			SPECIFICATIONS
Bulbs (LED)	Front turn signal light		LED
	Rear turn signal light		LED
Fuse	Main fuse		20 A
	Sub fuse		10 A x 4
	ABS fuse (ABS type)	Main	10 A
		Sub	20 A x 2

TORQUE VALUE

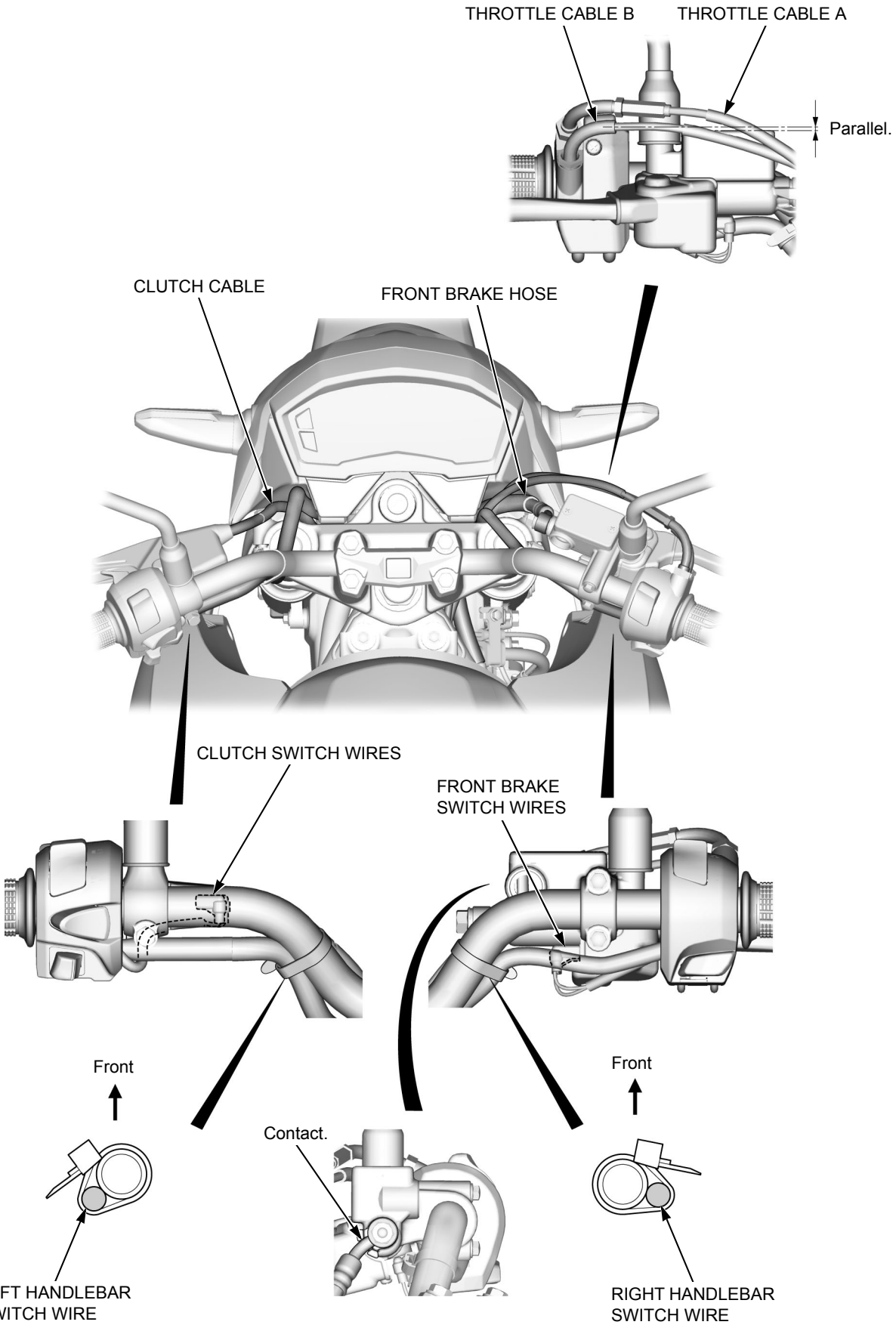
BODY PANELS

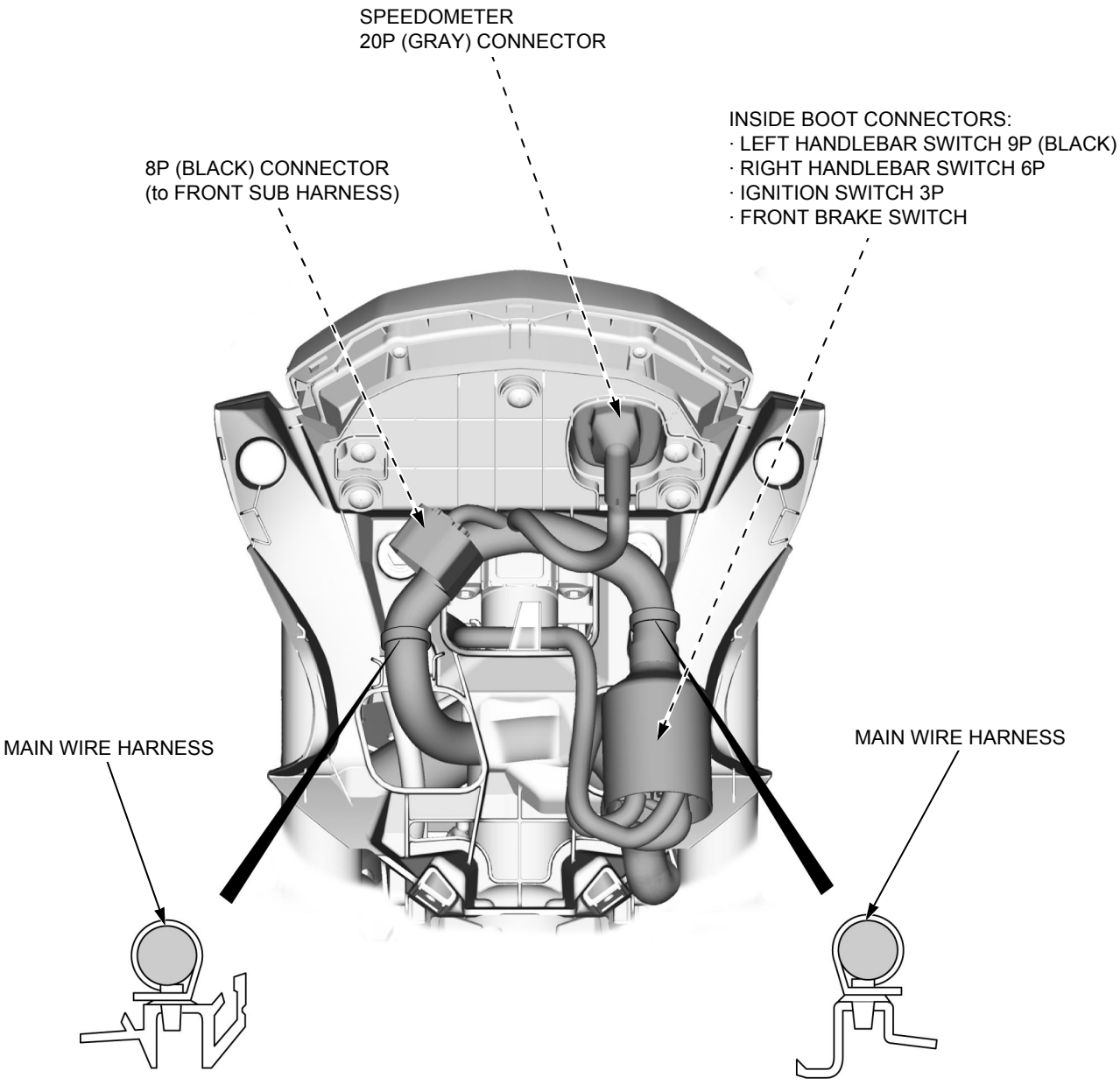
ITEM	Q'TY	DIA	TRQ	REMARKS
Rearview mirror adapter bolt	2	10	20	

FRONT BRAKE

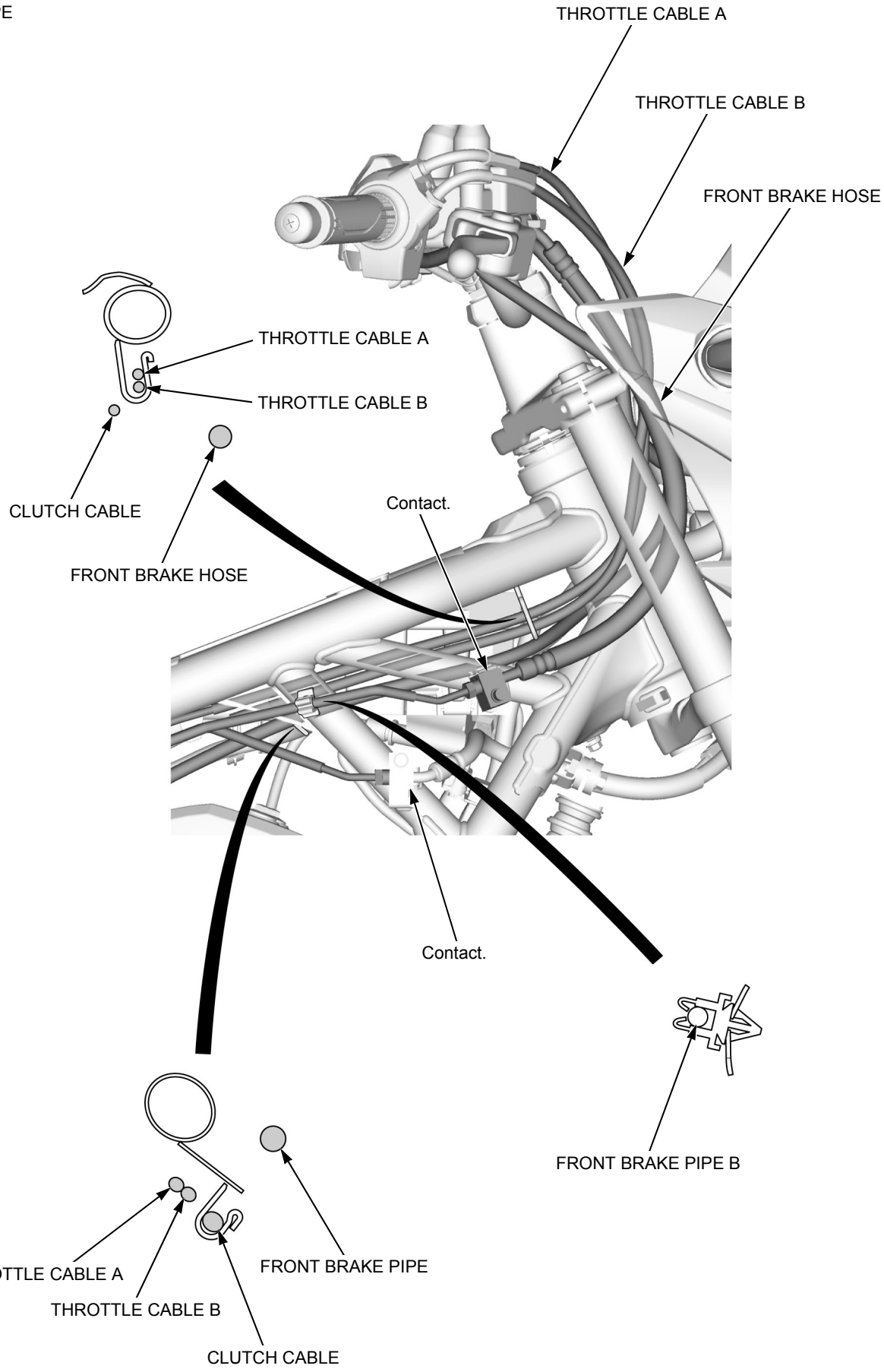
ITEM	Q'TY	DIA	TRQ	REMARKS
Front brake hose oil bolt (CBS type)	3	10	34	
Brake pipe joint nut (CBS type)	4	10	14	

CABLE & HARNESS ROUTING

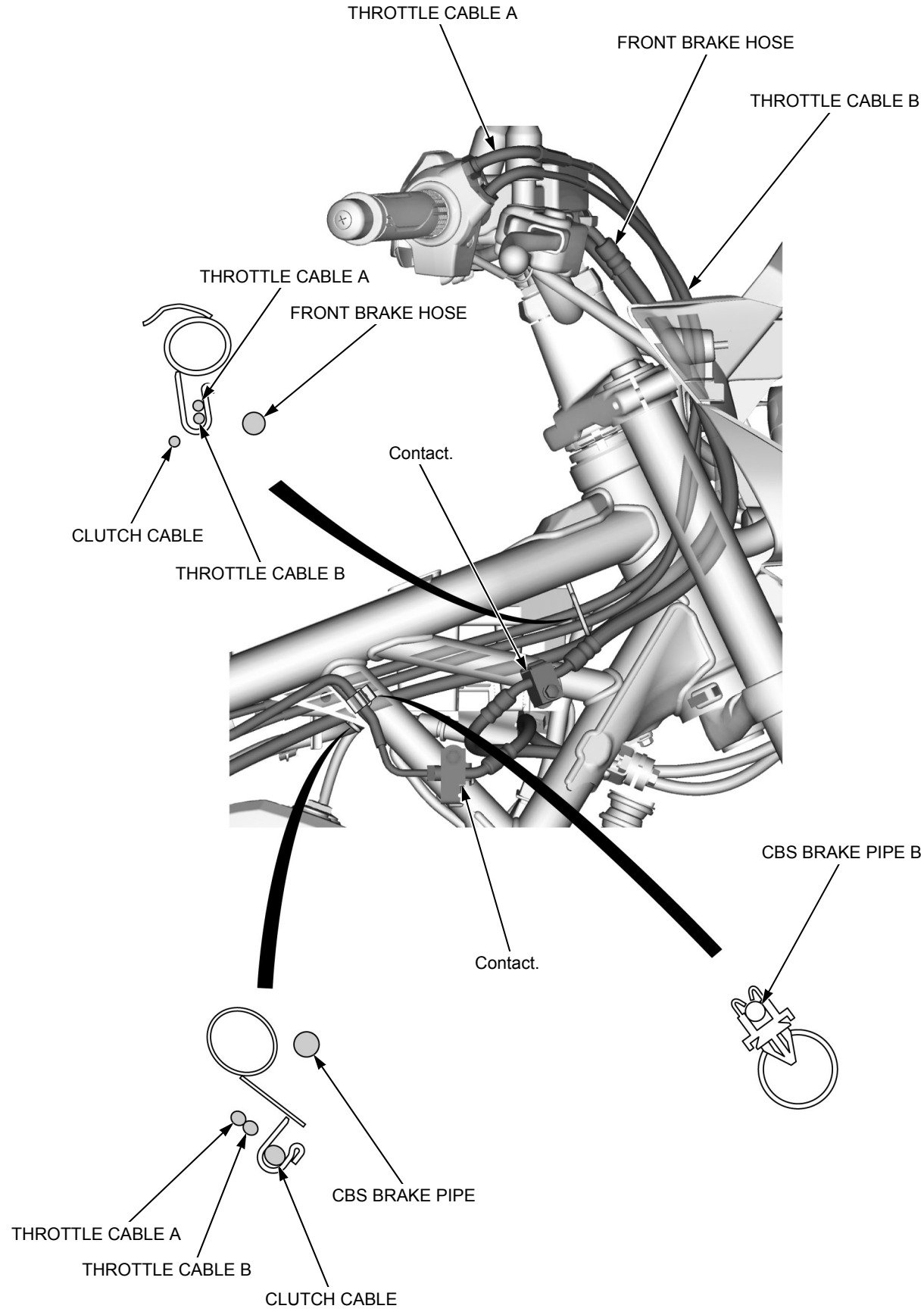



SPEEDOMETER
20P (GRAY) CONNECTOR
INSIDE BOOT CONNECTORS:
· LEFT HANDLEBAR SWITCH 9P (BLACK)
· RIGHT HANDLEBAR SWITCH 6P
· IGNITION SWITCH 3P
· FRONT BRAKE SWITCH
8P (BLACK) CONNECTOR
(to FRONT SUB HARNESS)
MAIN WIRE HARNESS
MAIN WIRE HARNESS

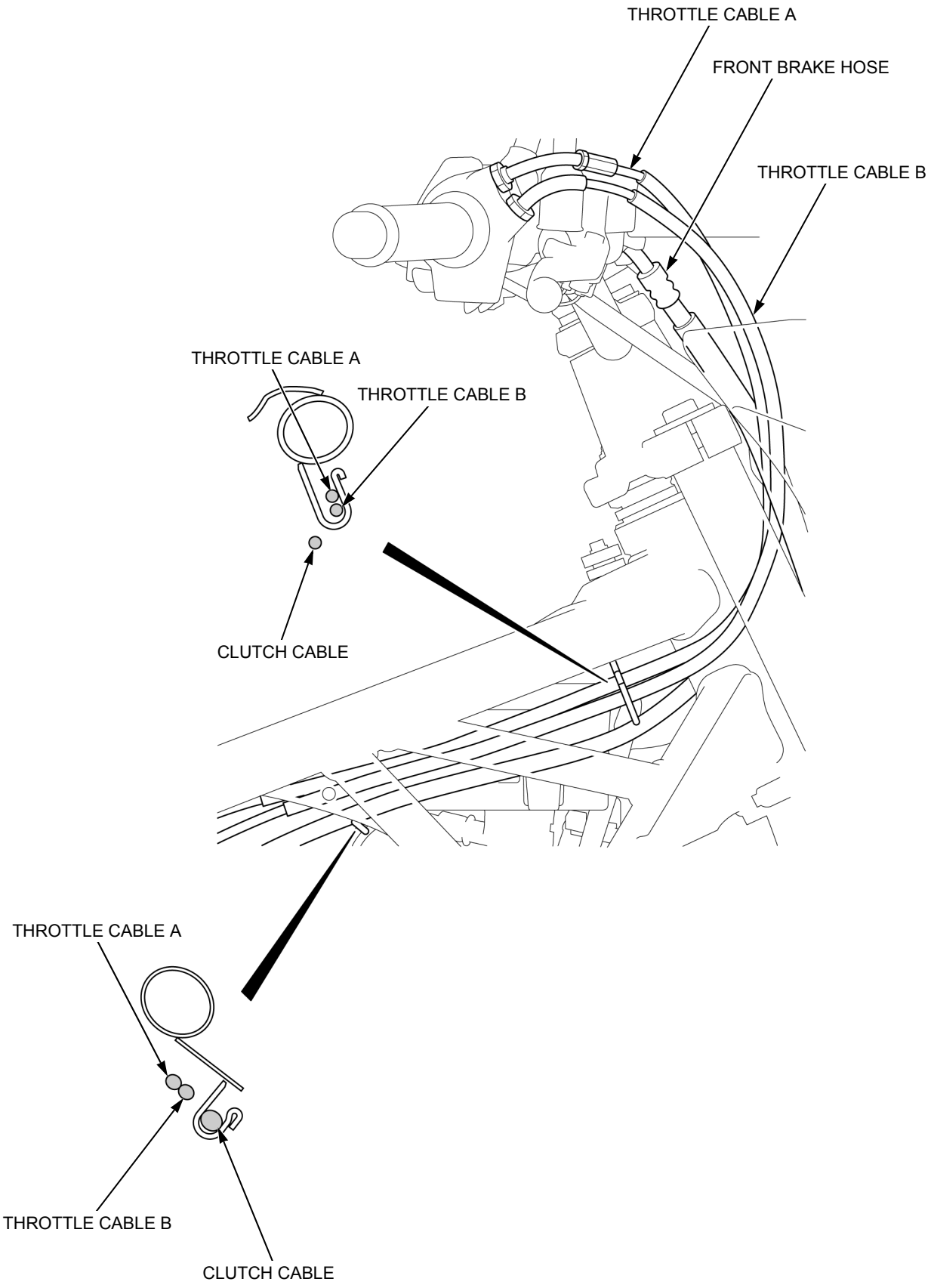
ABS TYPE


THROTTLE CABLE A
THROTTLE CABLE B
FRONT BRAKE HOSE
THROTTLE CABLE A
THROTTLE CABLE B
CLUTCH CABLE
FRONT BRAKE HOSE
Contact.
Contact.
FRONT BRAKE PIPE B
FRONT BRAKE PIPE
THROTTLE CABLE A
THROTTLE CABLE B
CLUTCH CABLE

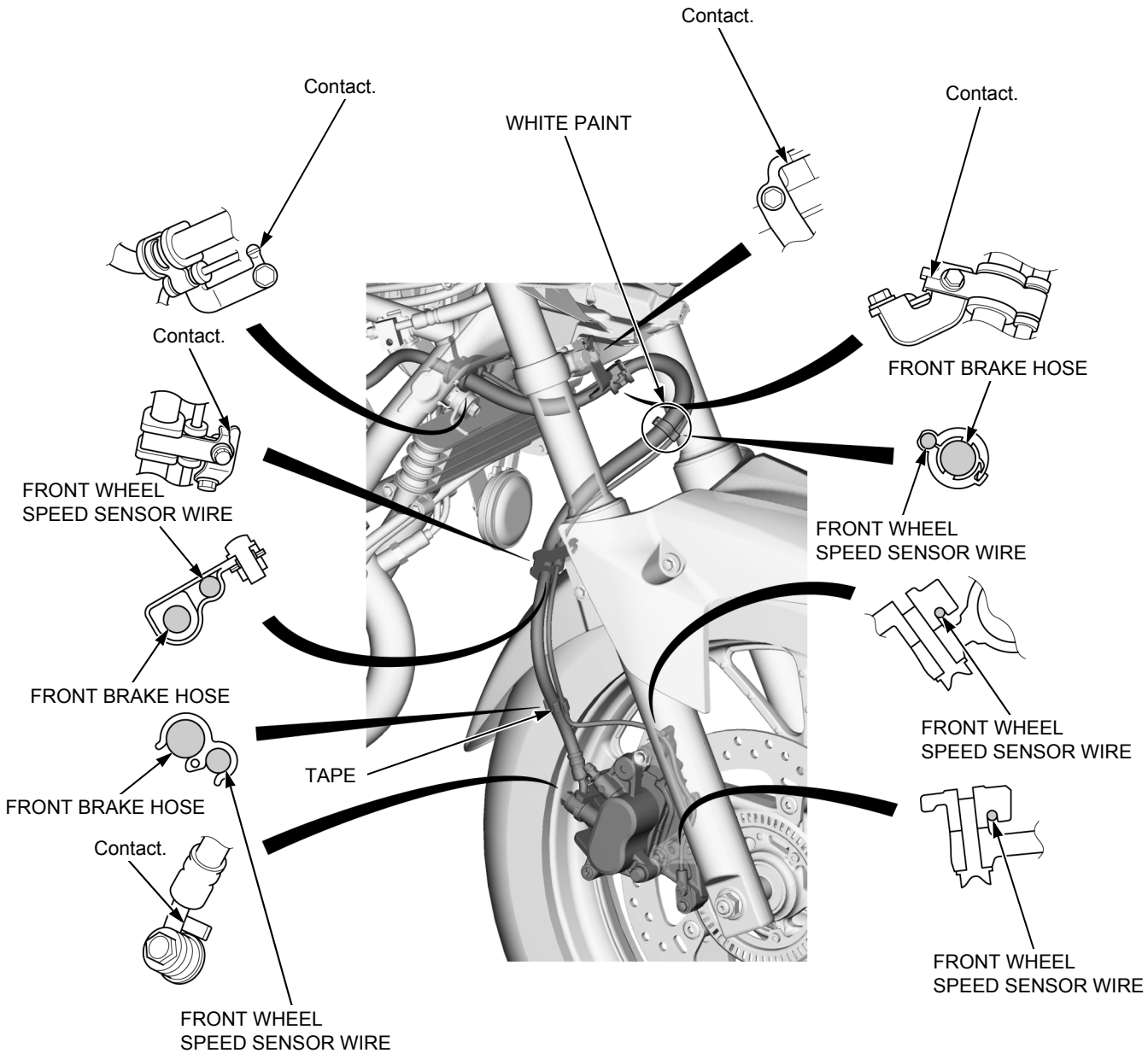
CBS TYPE


THROTTLE CABLE A
FRONT BRAKE HOSE
THROTTLE CABLE B
THROTTLE CABLE A
FRONT BRAKE HOSE
Contact.
CLUTCH CABLE
THROTTLE CABLE B
CBS BRAKE PIPE B
Contact.
CBS BRAKE PIPE
THROTTLE CABLE A
THROTTLE CABLE B
CLUTCH CABLE

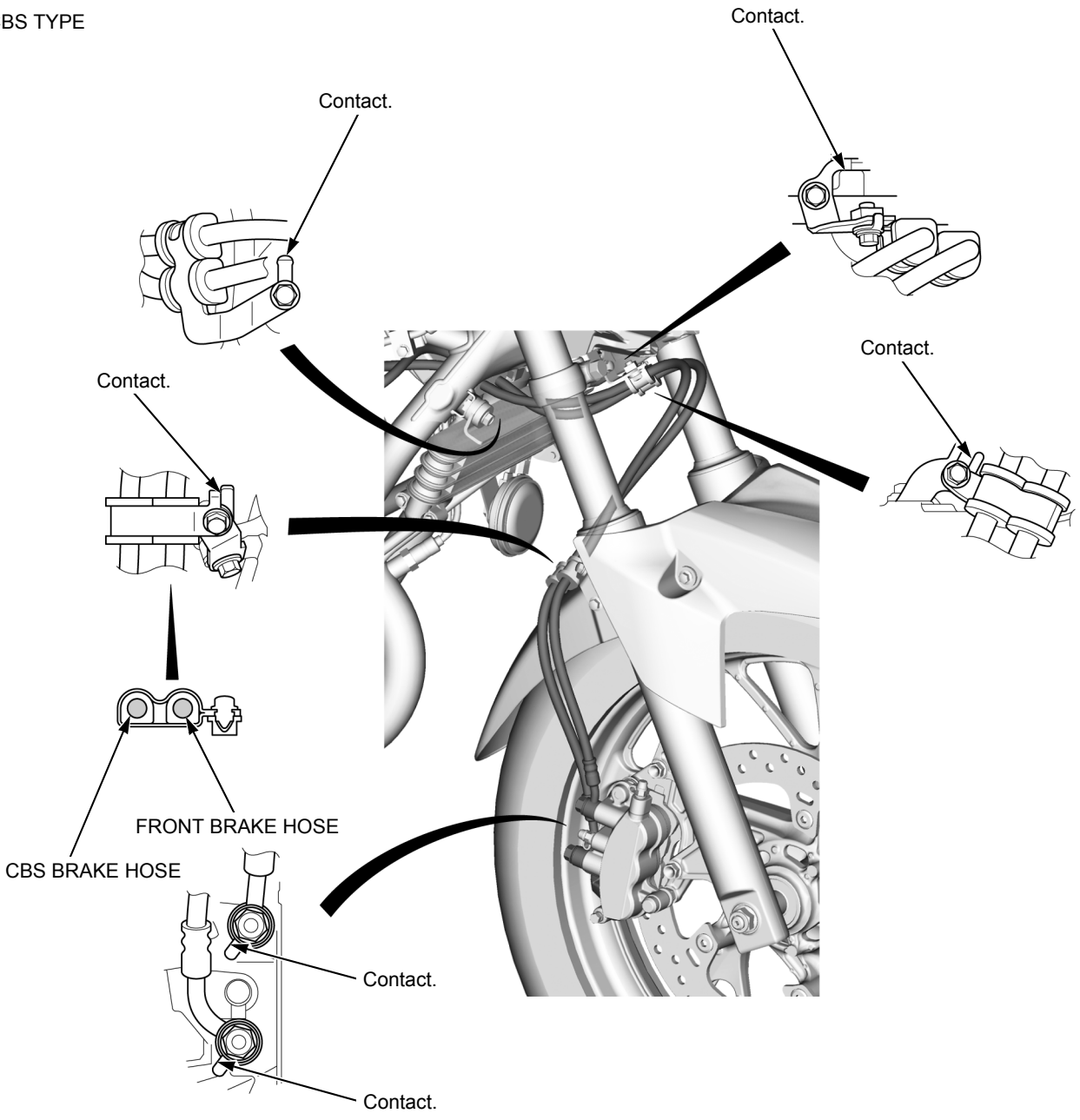
STD TYPE


THROTTLE CABLE A
FRONT BRAKE HOSE
THROTTLE CABLE B
THROTTLE CABLE A
THROTTLE CABLE B
CLUTCH CABLE
THROTTLE CABLE A
THROTTLE CABLE B
CLUTCH CABLE

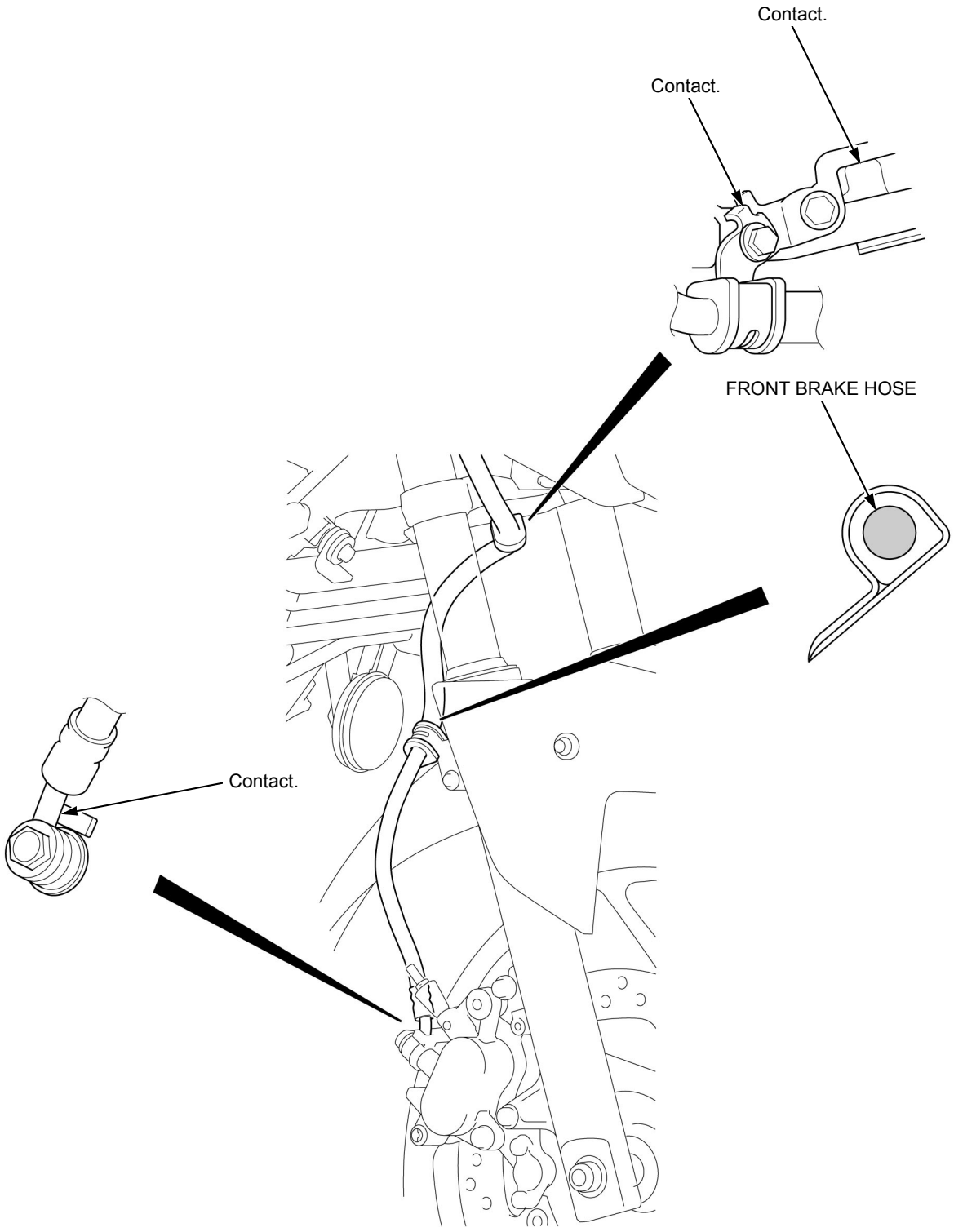
ABS TYPE

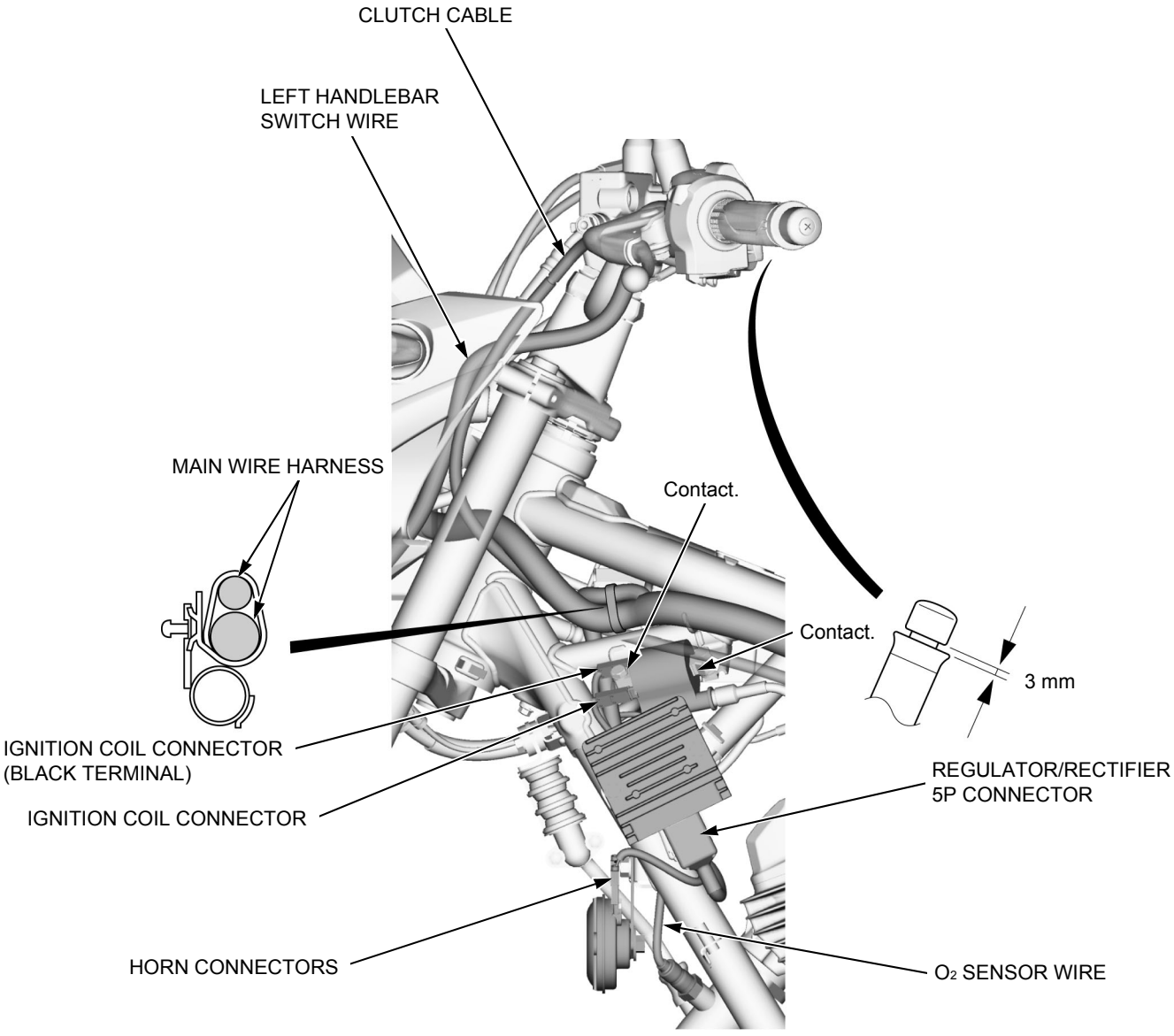

Contact.
Contact.
WHITE PAINT
Contact.
Contact.
FRONT BRAKE HOSE
FRONT WHEEL
SPEED SENSOR WIRE
FRONT WHEEL
SPEED SENSOR WIRE
FRONT BRAKE HOSE
FRONT WHEEL
SPEED SENSOR WIRE
TAPE
FRONT BRAKE HOSE
Contact.
FRONT WHEEL
SPEED SENSOR WIRE
FRONT WHEEL
SPEED SENSOR WIRE

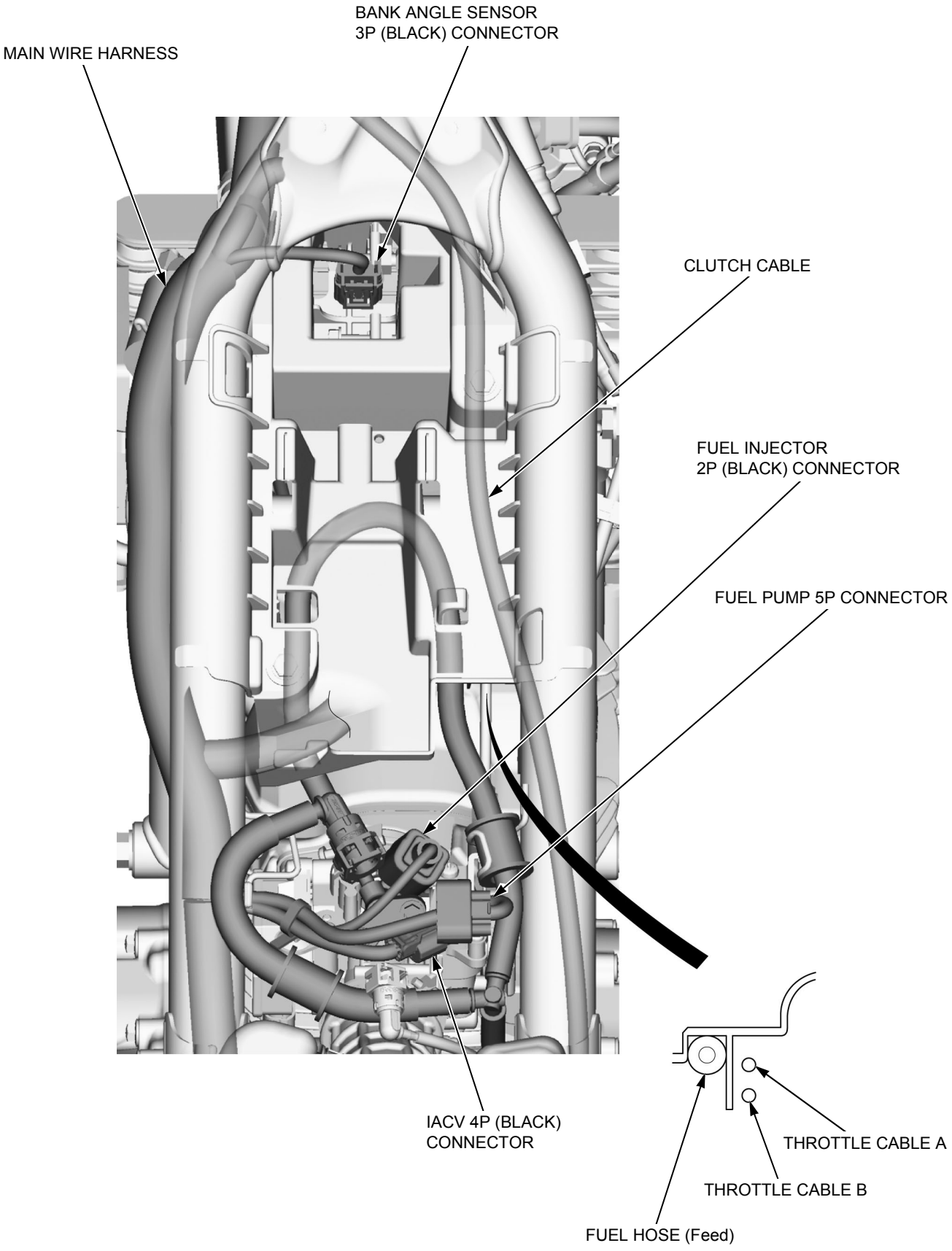
CBS TYPE


Contact.
Contact.
Contact.
Contact.
FRONT BRAKE HOSE
CBS BRAKE HOSE
Contact.
Contact.

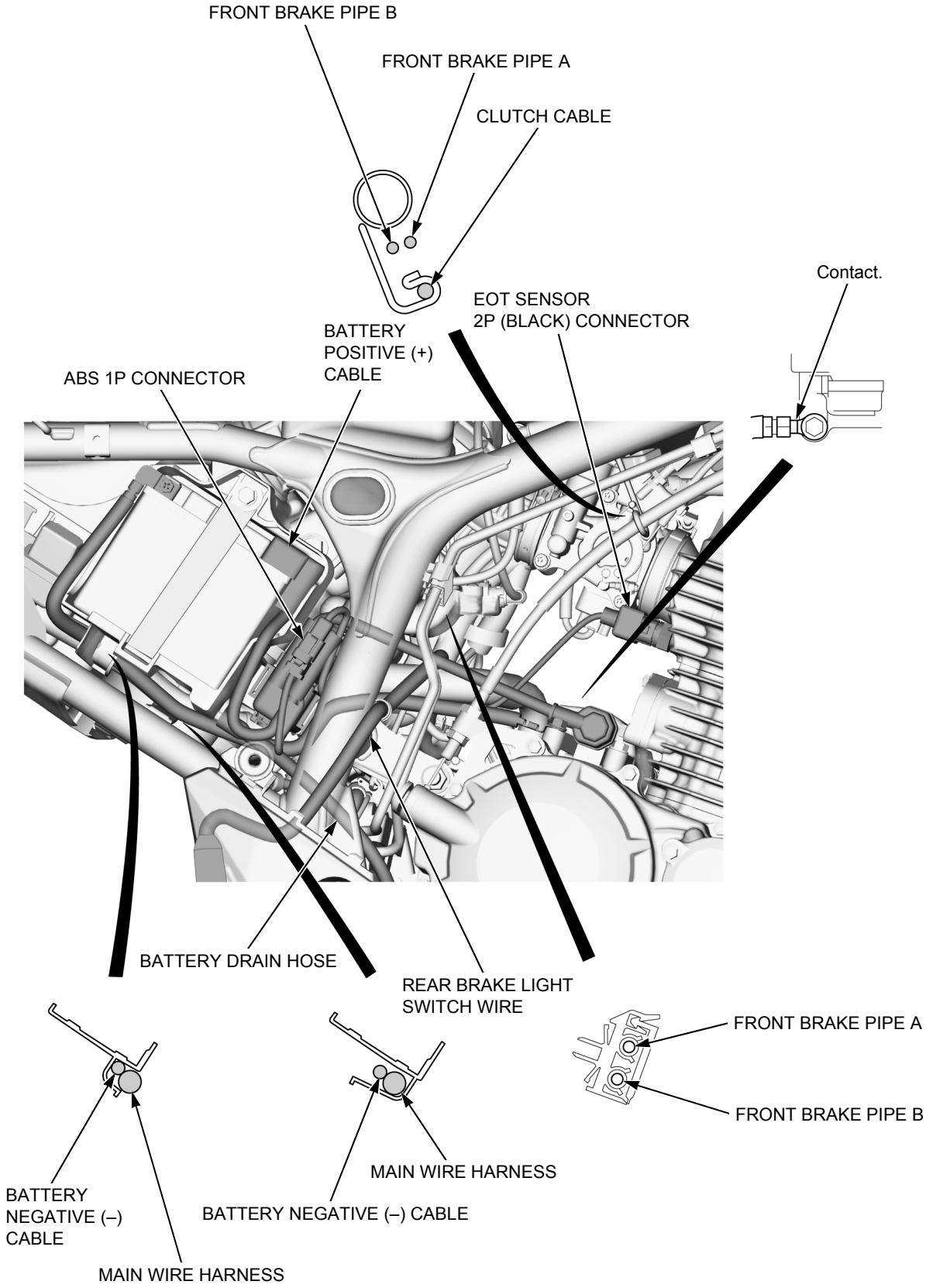
STD TYPE



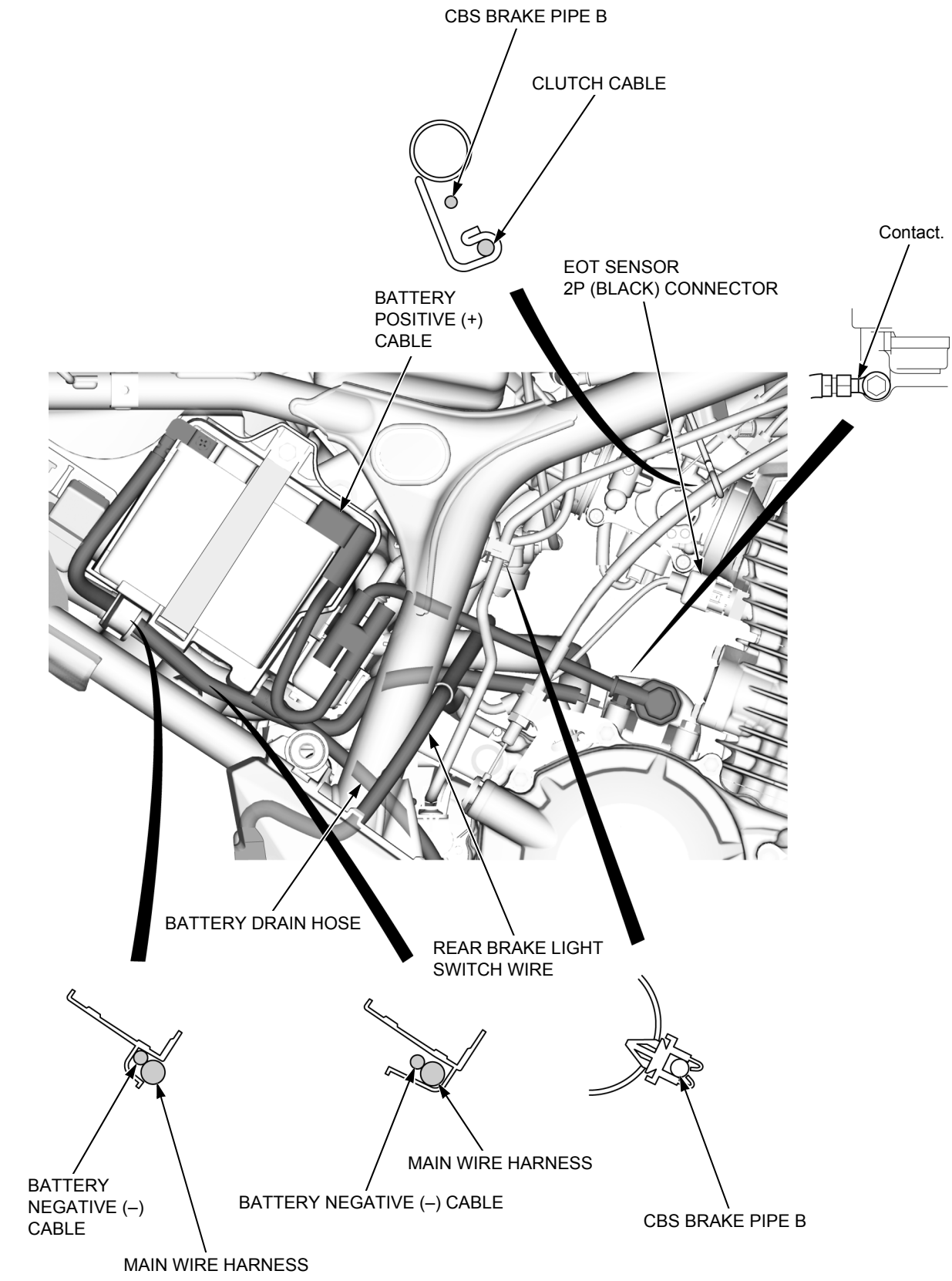

CLUTCH CABLE
LEFT HANDLEBAR SWITCH WIRE
MAIN WIRE HARNESS
Contact.
Contact.
3 mm
IGNITION COIL CONNECTOR (BLACK TERMINAL)
IGNITION COIL CONNECTOR
REGULATOR/RECTIFIER 5P CONNECTOR
HORN CONNECTORS
O2 SENSOR WIRE


BANK ANGLE SENSOR
3P (BLACK) CONNECTOR
MAIN WIRE HARNESS
CLUTCH CABLE
FUEL INJECTOR
2P (BLACK) CONNECTOR
FUEL PUMP 5P CONNECTOR
IACV 4P (BLACK)
CONNECTOR
THROTTLE CABLE A
THROTTLE CABLE B
FUEL HOSE (Feed)

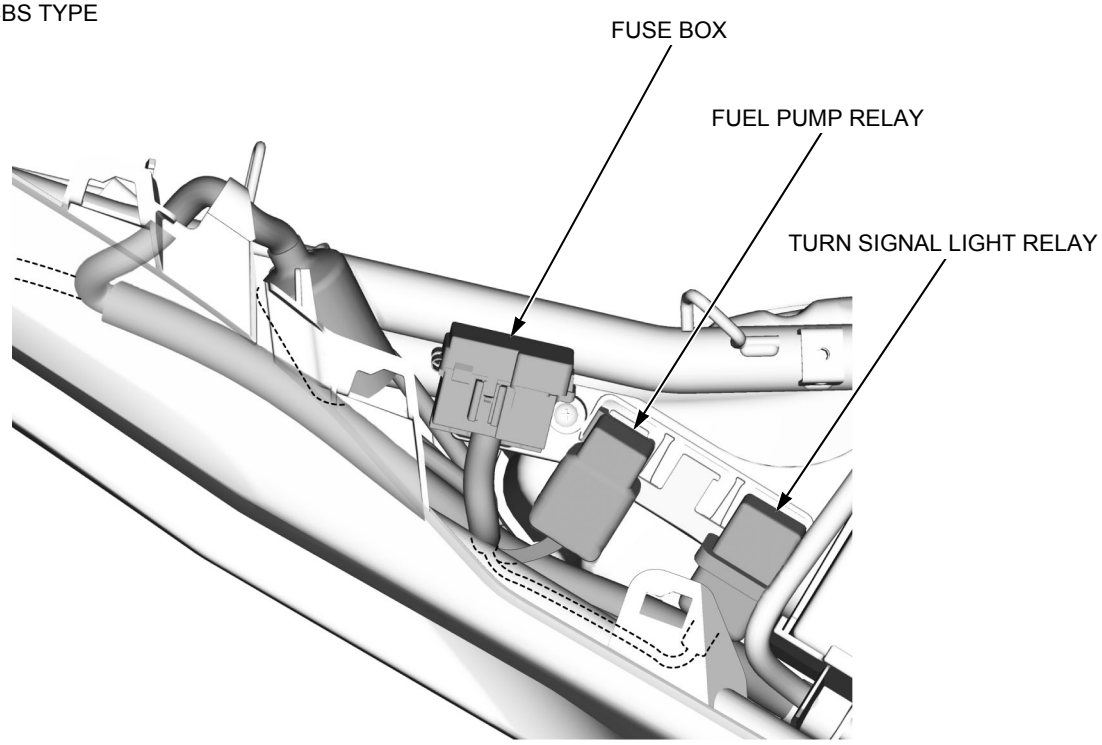
ABS TYPE


FRONT BRAKE PIPE B
FRONT BRAKE PIPE A
CLUTCH CABLE
Contact.
EOT SENSOR
2P (BLACK) CONNECTOR
BATTERY
POSITIVE (+)
CABLE
ABS 1P CONNECTOR
BATTERY DRAIN HOSE
REAR BRAKE LIGHT
SWITCH WIRE
FRONT BRAKE PIPE A
FRONT BRAKE PIPE B
MAIN WIRE HARNESS
BATTERY
NEGATIVE (–)
CABLE
BATTERY NEGATIVE (–) CABLE
MAIN WIRE HARNESS

STD, CBS TYPE
(CBS TYPE shown)



STD, CBS TYPE



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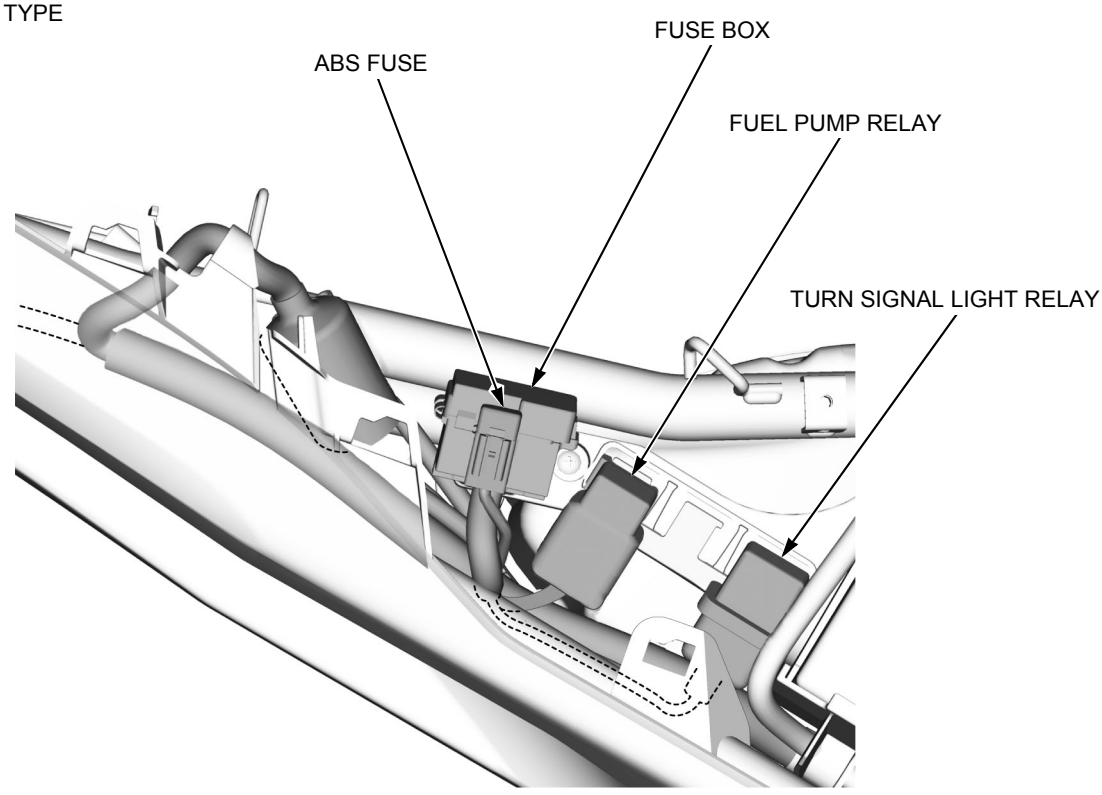
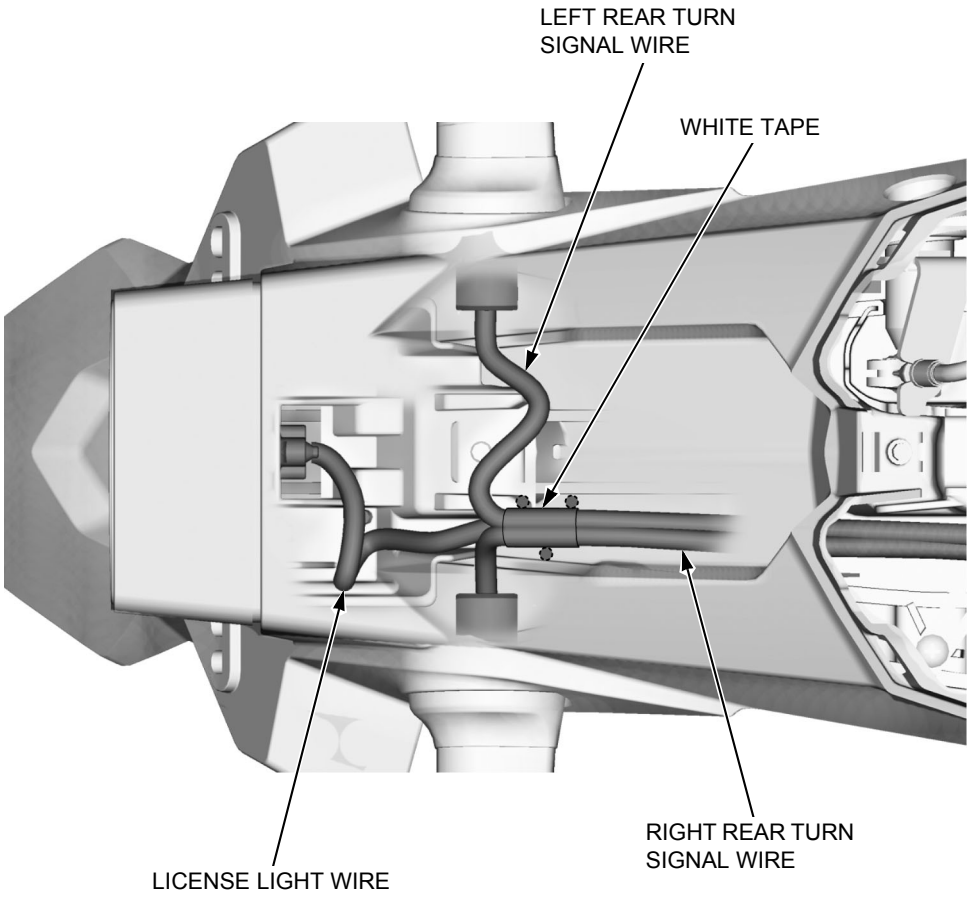
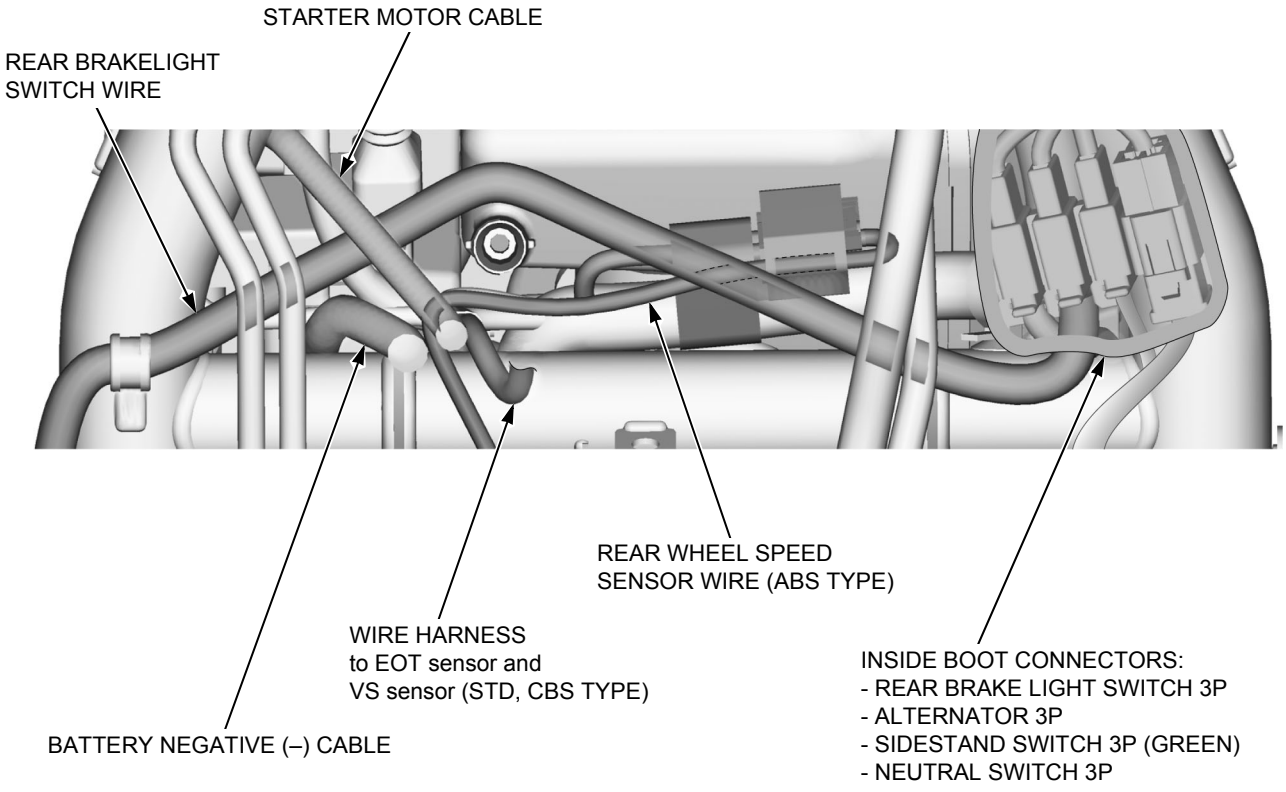
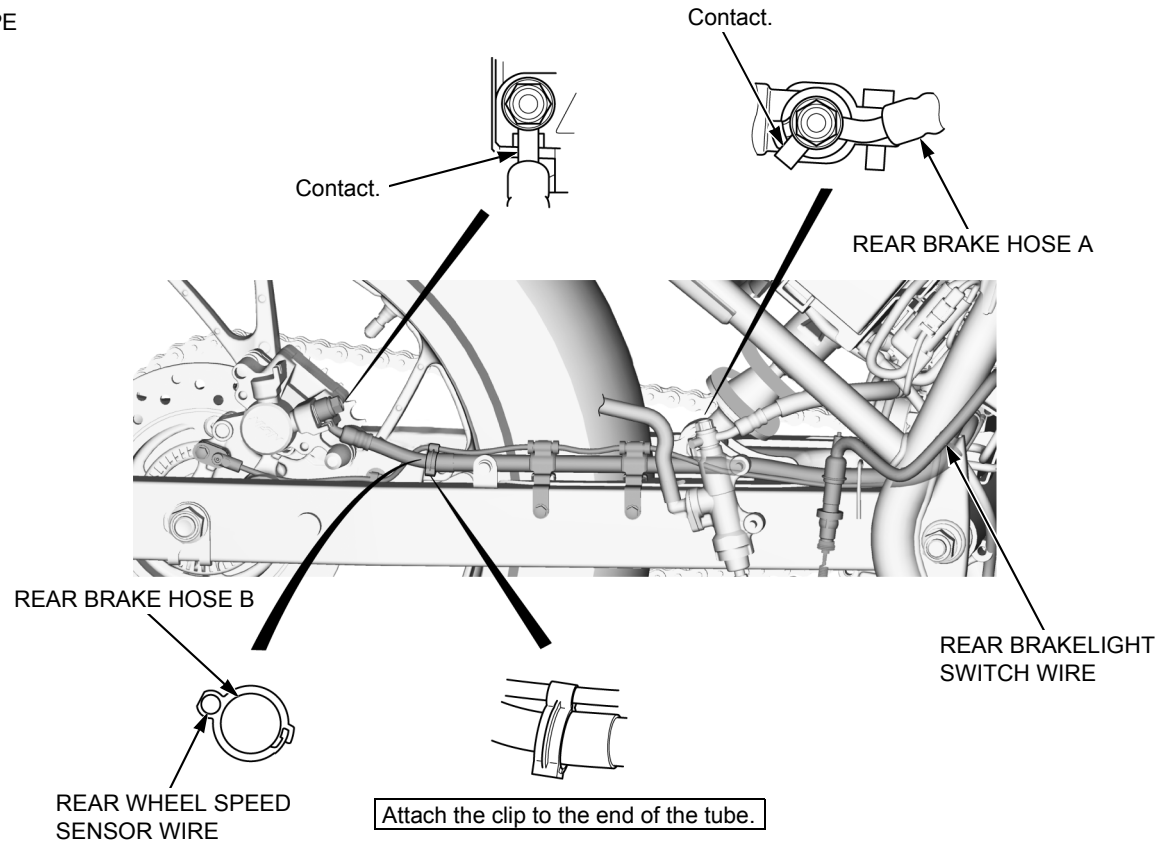


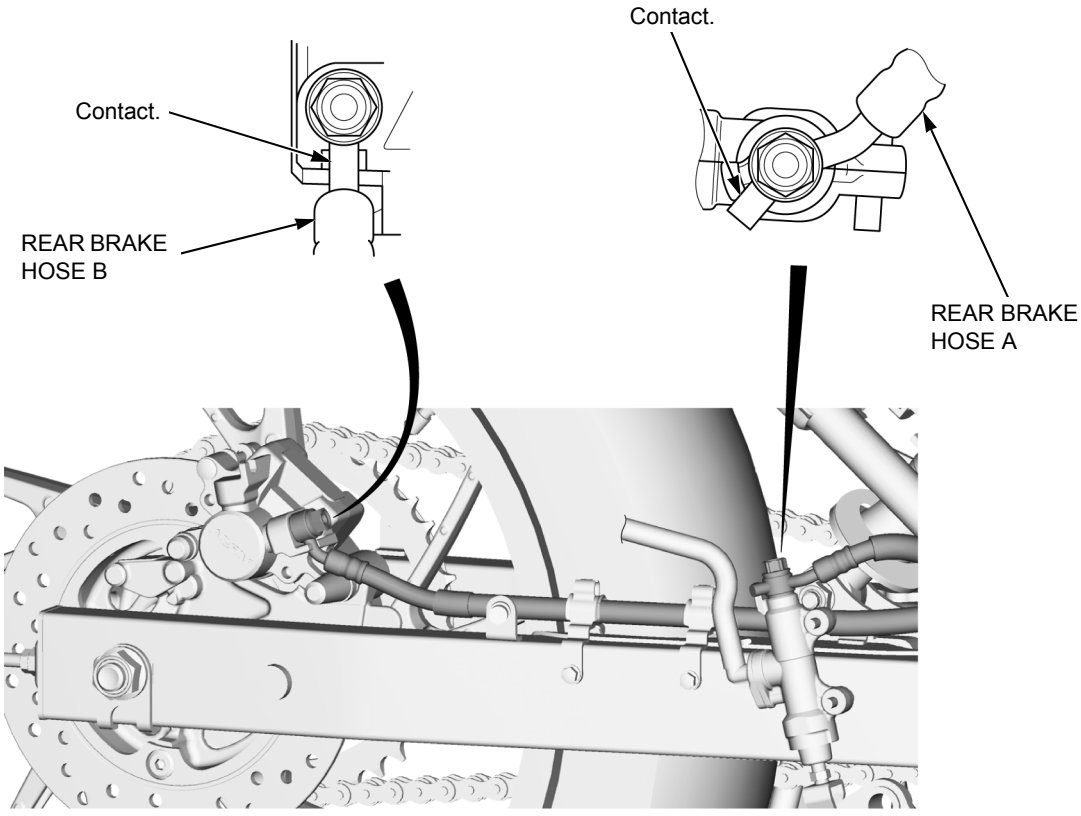

LEFT REAR TURN
SIGNAL WIRE
WHITE TAPE
LICENSE LIGHT WIRE
RIGHT REAR TURN
SIGNAL WIRE

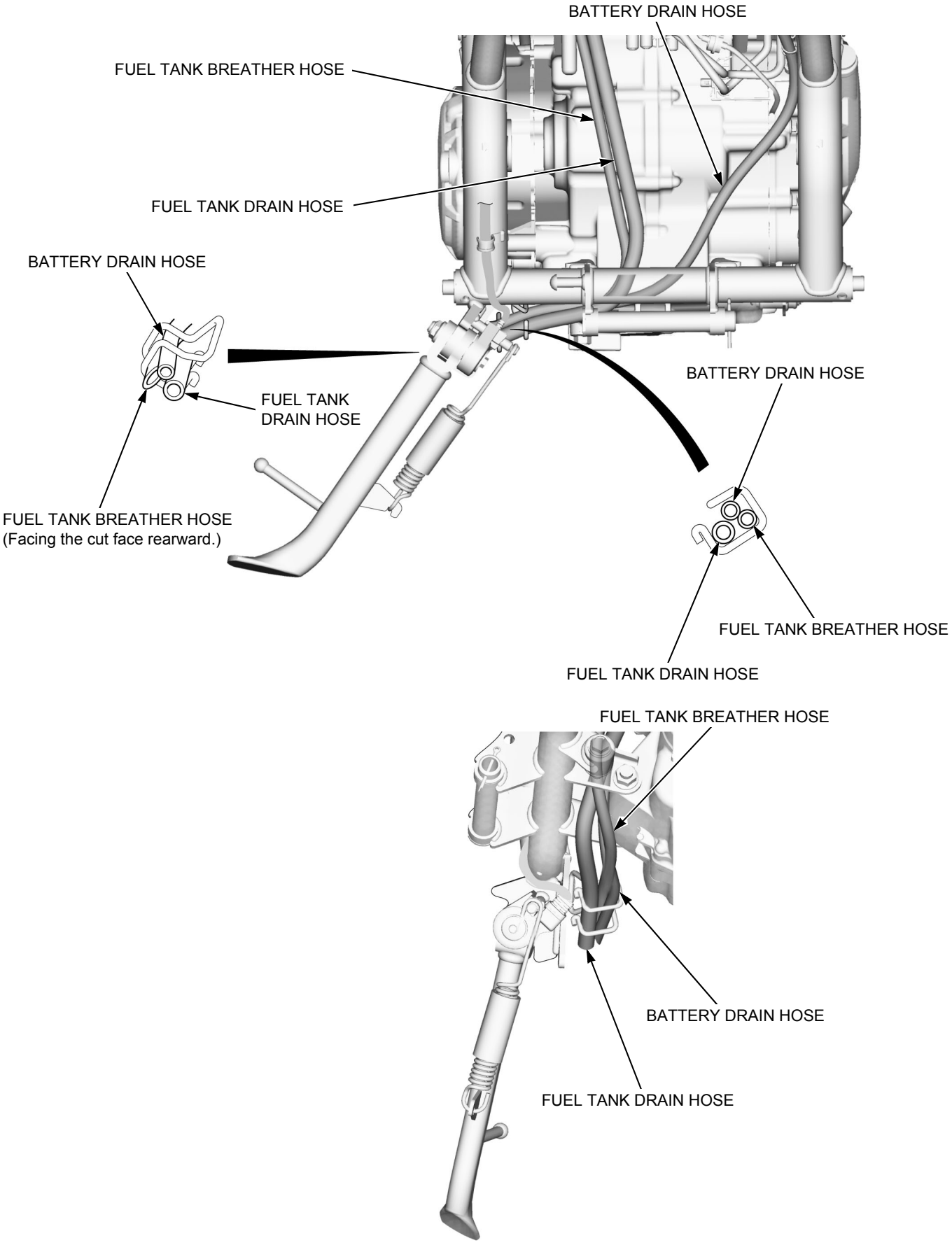

STARTER MOTOR CABLE
REAR BRAKELIGHT
SWITCH WIRE
REAR WHEEL SPEED
SENSOR WIRE (ABS TYPE)
WIRE HARNESS
to EOT sensor and
VS sensor (STD, CBS TYPE)
BATTERY NEGATIVE (–) CABLE
INSIDE BOOT CONNECTORS:
- REAR BRAKE LIGHT SWITCH 3P
- ALTERNATOR 3P
- SIDESTAND SWITCH 3P (GREEN)
- NEUTRAL SWITCH 3P

ABS TYPE



STD, CBS TYPE




BATTERY DRAIN HOSE
FUEL TANK BREATHER HOSE
FUEL TANK DRAIN HOSE
BATTERY DRAIN HOSE
FUEL TANK
DRAIN HOSE
FUEL TANK BREATHER HOSE
(Facing the cut face rearward.)
BATTERY DRAIN HOSE
FUEL TANK BREATHER HOSE
FUEL TANK DRAIN HOSE
FUEL TANK BREATHER HOSE
BATTERY DRAIN HOSE
FUEL TANK DRAIN HOSE

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.

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

AG, LA type

	ITEMS	NOTE	FREQUENCY (NOTE 1)								ANNUAL CHECK	REGULAR REPLACE	REFER TO PAGE
			X1,000 km	1	6	12	18	24	30	36			
			X1,000 mi	0.6	4	8	12	16	20	24			
*	FUEL LINE					I		I		I	I		
**	FUEL FILTER			Every 48,000 km (32,000 mi) R									➔2-5
*	THROTTLE OPERATION					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			
*	VALVE CLEARANCE					I		I		I			➔2-17
	ENGINE OIL			R		R		R		R	R		➔2-13
	ENGINE OIL FILTER			R				R					
*	ENGINE IDLE SPEED					I		I		I	I		
	DRIVE CHAIN			Every 1,000 km (600 mi) I, L									
	DRIVE CHAIN SLIDER					I		I		I			
	BRAKE FLUID	NOTE4			I	I	I	I	I	I	I	2 years	
	BRAKE PADS WEAR				I	I	I	I	I	I	I		
	BRAKE SYSTEM					I		I		I	I		
	BRAKE LIGHT SWITCH					I		I		I	I		
	HEADLIGHT AIM					I		I		I	I		➔4-51
	CLUTCH SYSTEM				I	I	I	I	I	I	I		
	SIDESTAND					I		I		I	I		
*	SUSPENSION					I		I		I	I		
*	NUTS, BOLTS, FASTENERS					I		I		I	I		
**	WHEELS/TIRES					I		I		I	I		
**	STEERING HEAD BEARINGS					I		I		I	I		

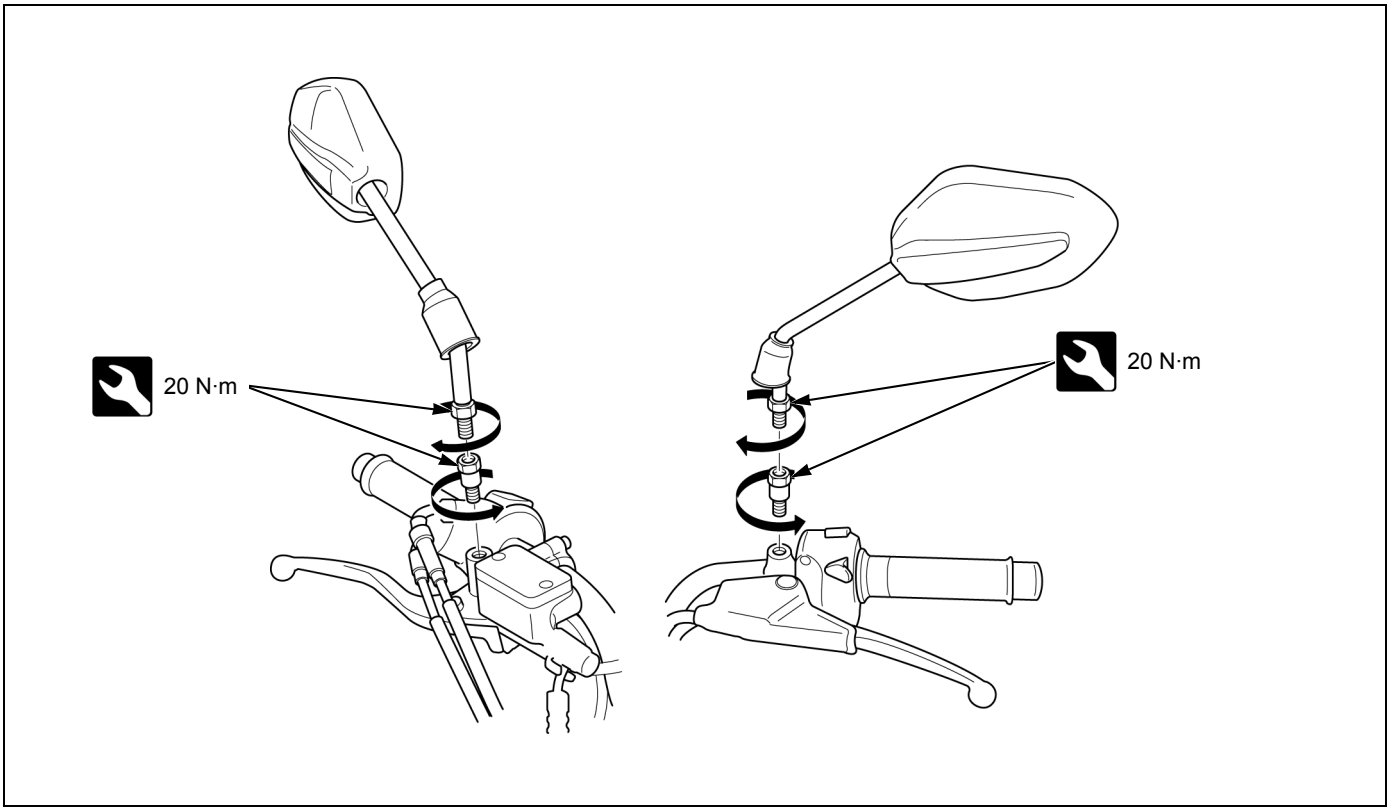
- * Should be serviced by a dealer, unless the owner has proper tools and service data and is mechanically qualified.
- ** In the interest of safety, we recommend these items be serviced only by a dealer.
- Honda recommends that a dealer should road test the vehicle after each periodic maintenance is carried out.

NOTES:

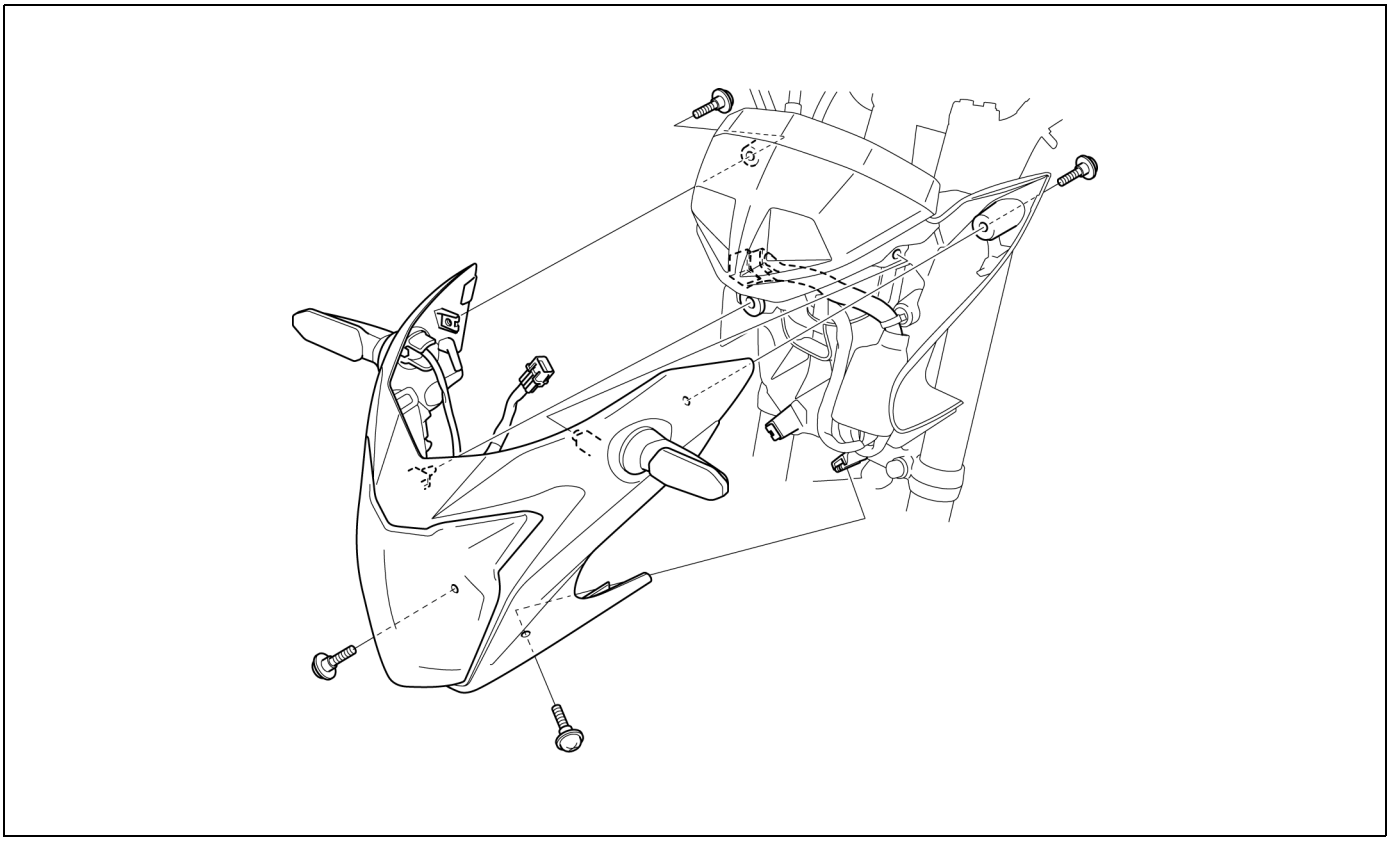
1. At higher odometer readings, repeat at the frequency interval established here.
2. Service more frequently when riding in unusually wet or dusty areas.
3. Service more frequently when riding in rain or at full throttle.
4. Replacement requires mechanical skill.

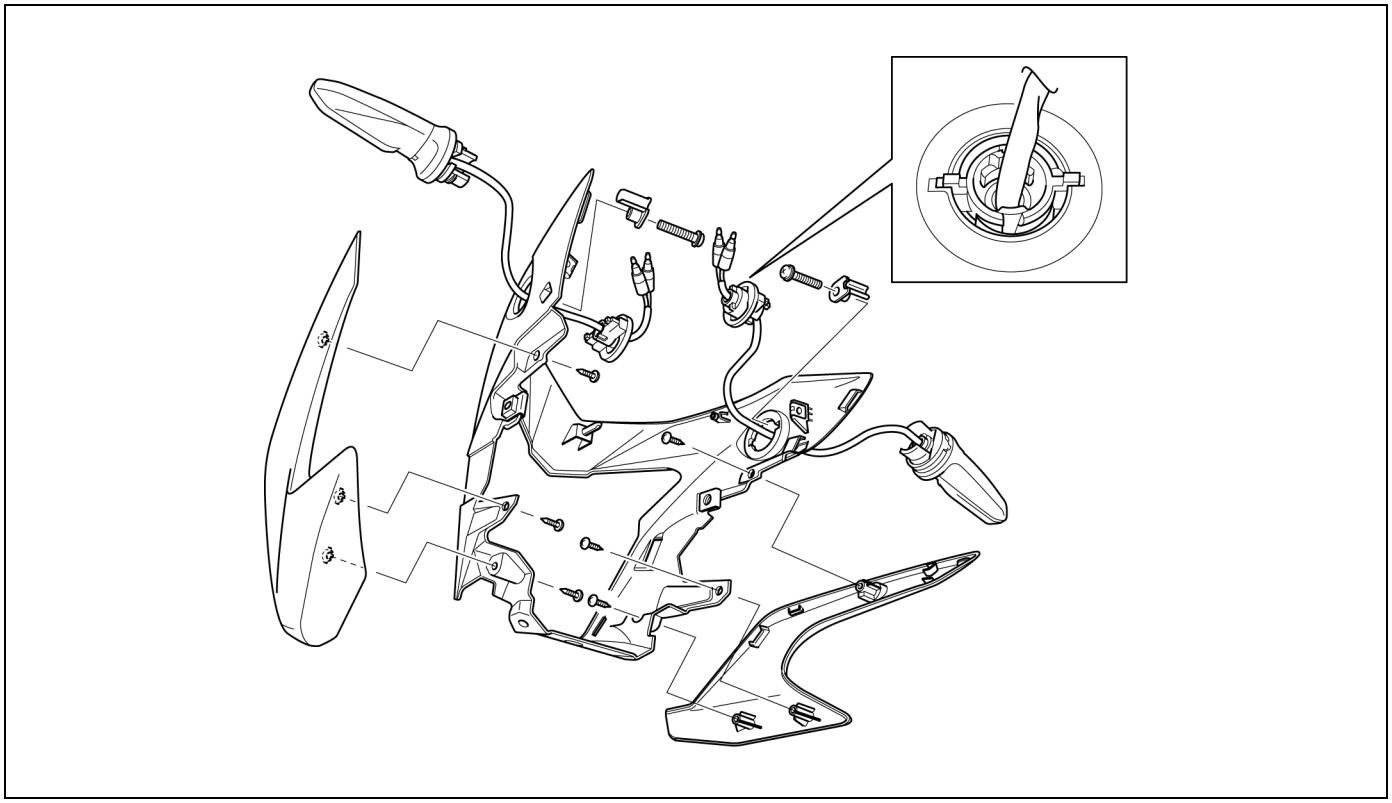
BODY PANELS

REARVIEW MIRROR



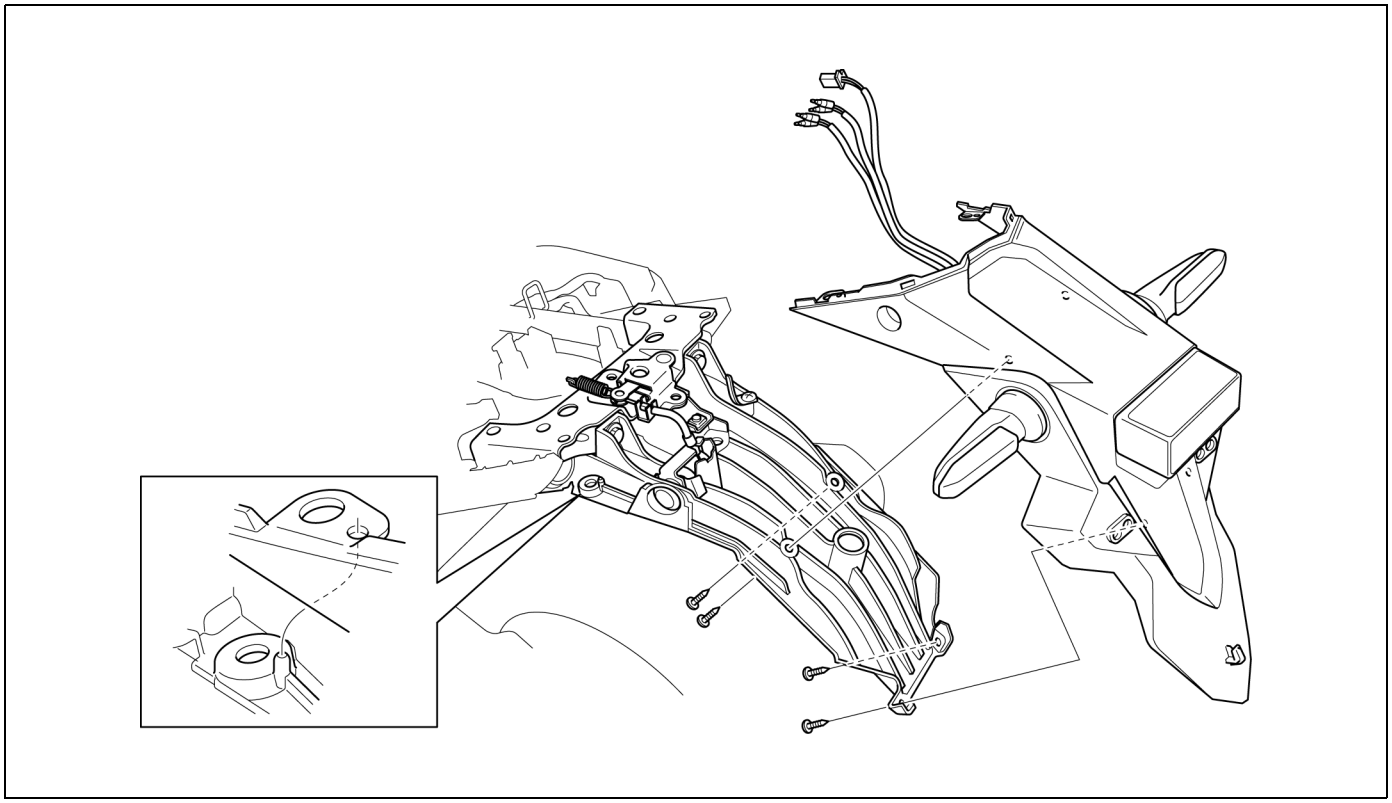
FRONT COWL



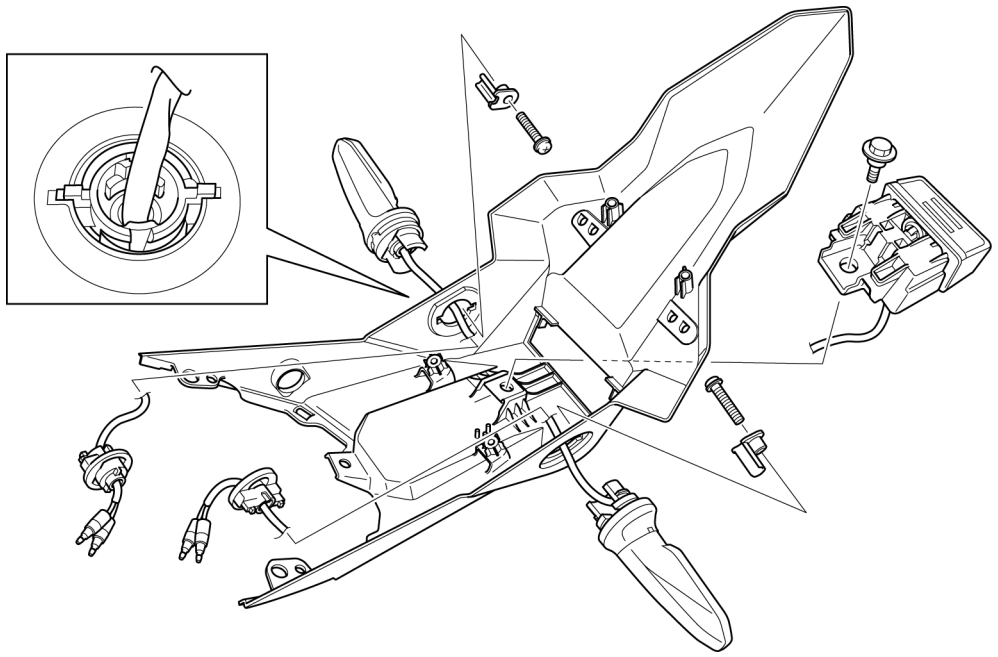


- Headlight ➔4-47

REAR FENDER A



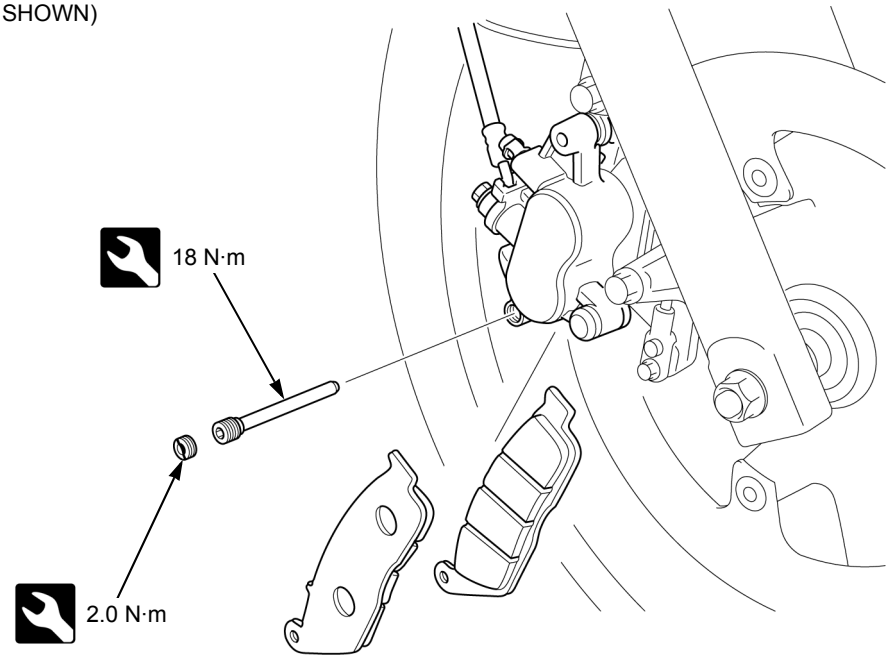
- Rear center cowl ➔3-7



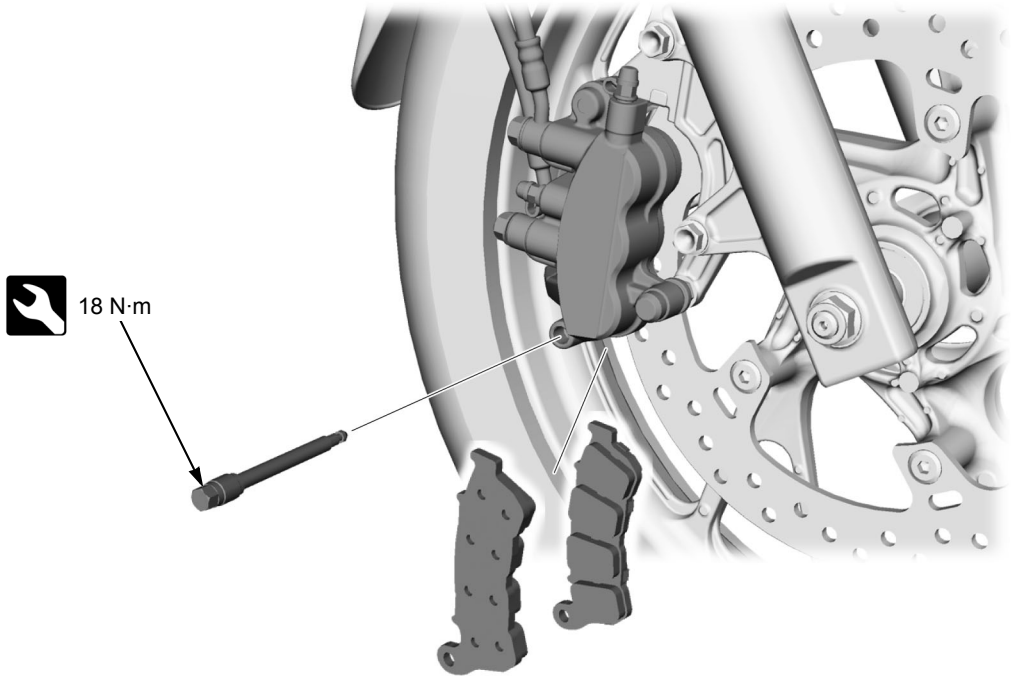
FRONT BRAKE

BRAKE CALIPER

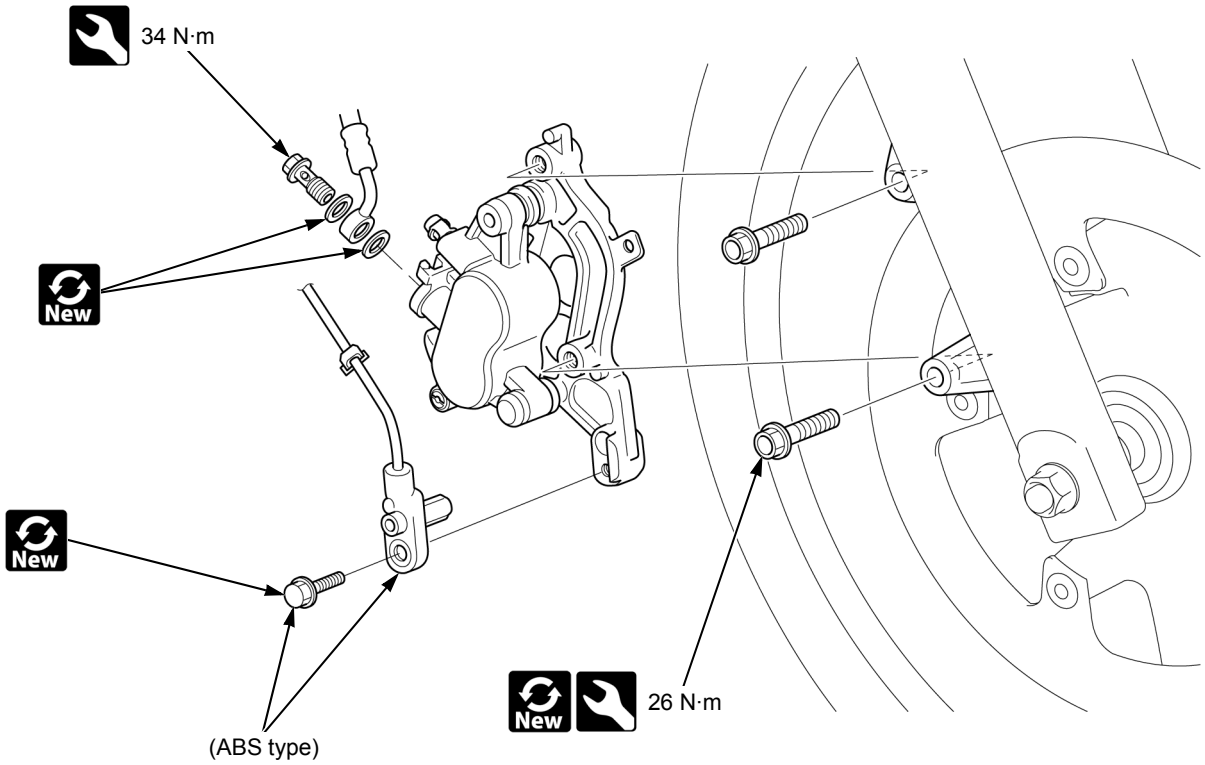
STD, ABS TYPE
(ABS TYPE SHOWN)



CBS TYPE

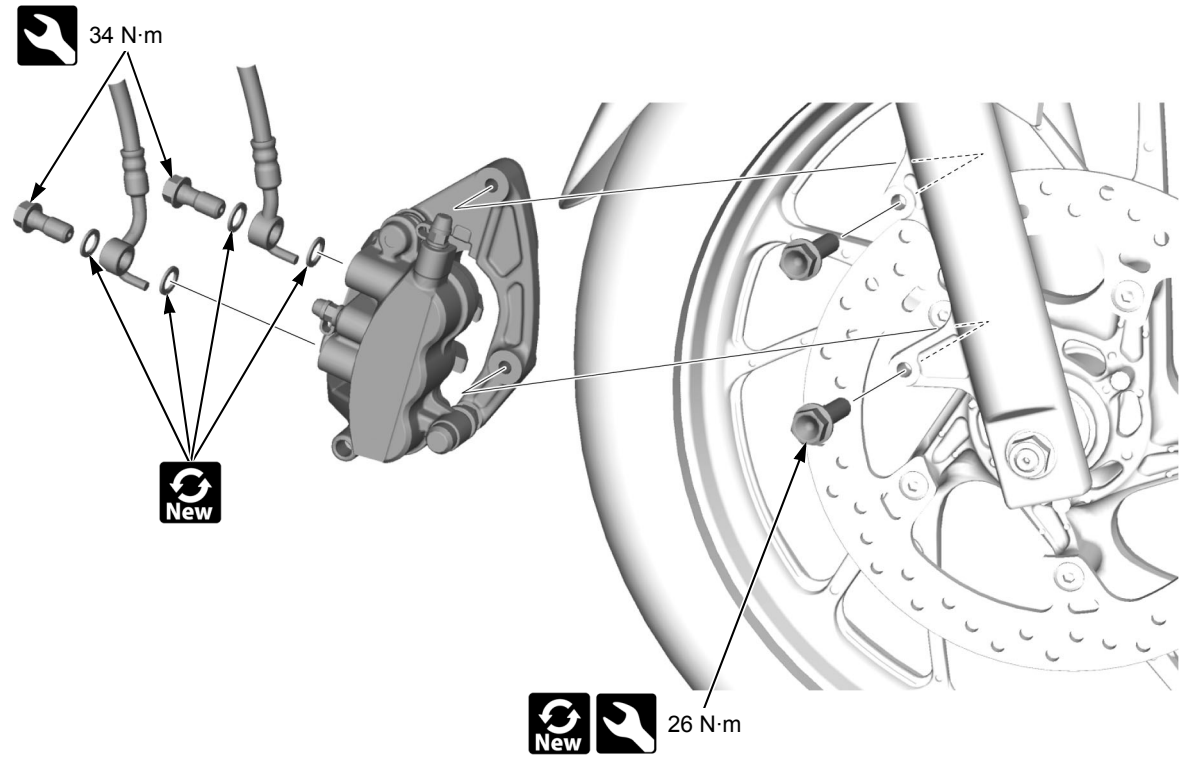


STD, ABS TYPE
(ABS TYPE SHOWN)



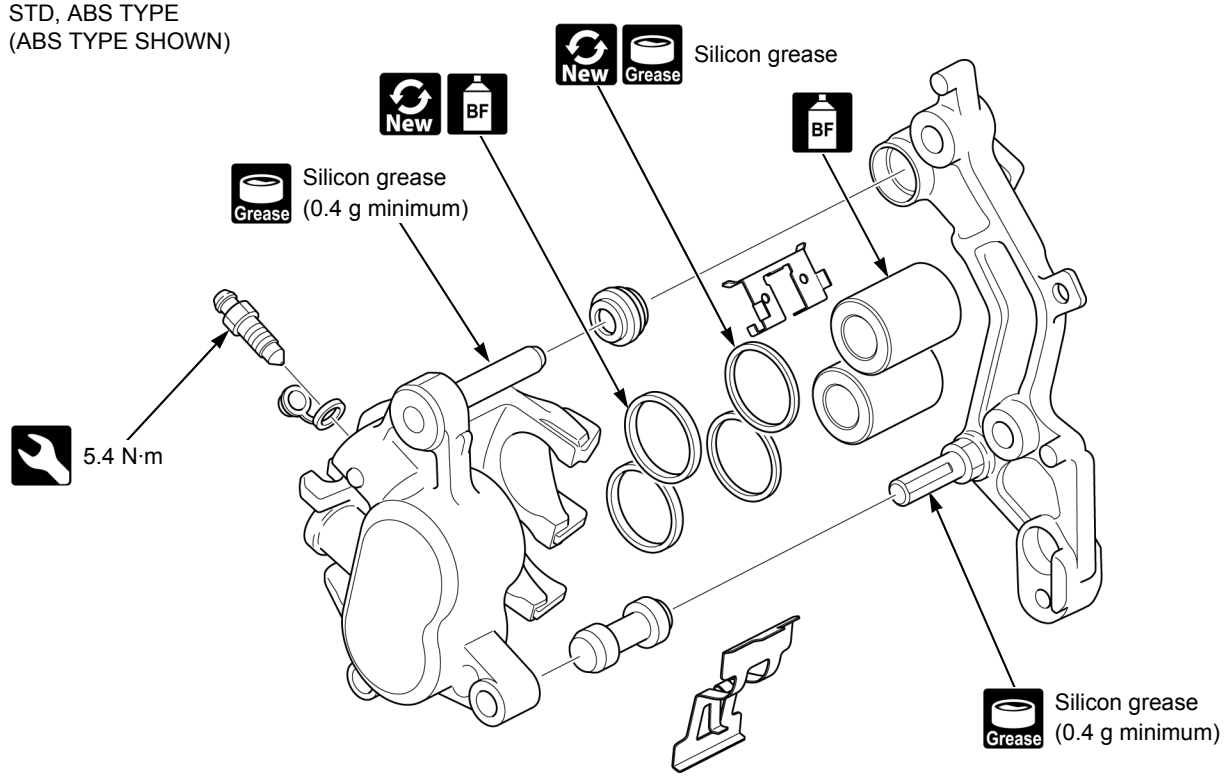
- Brake fluid ➔3-26

CBS TYPE

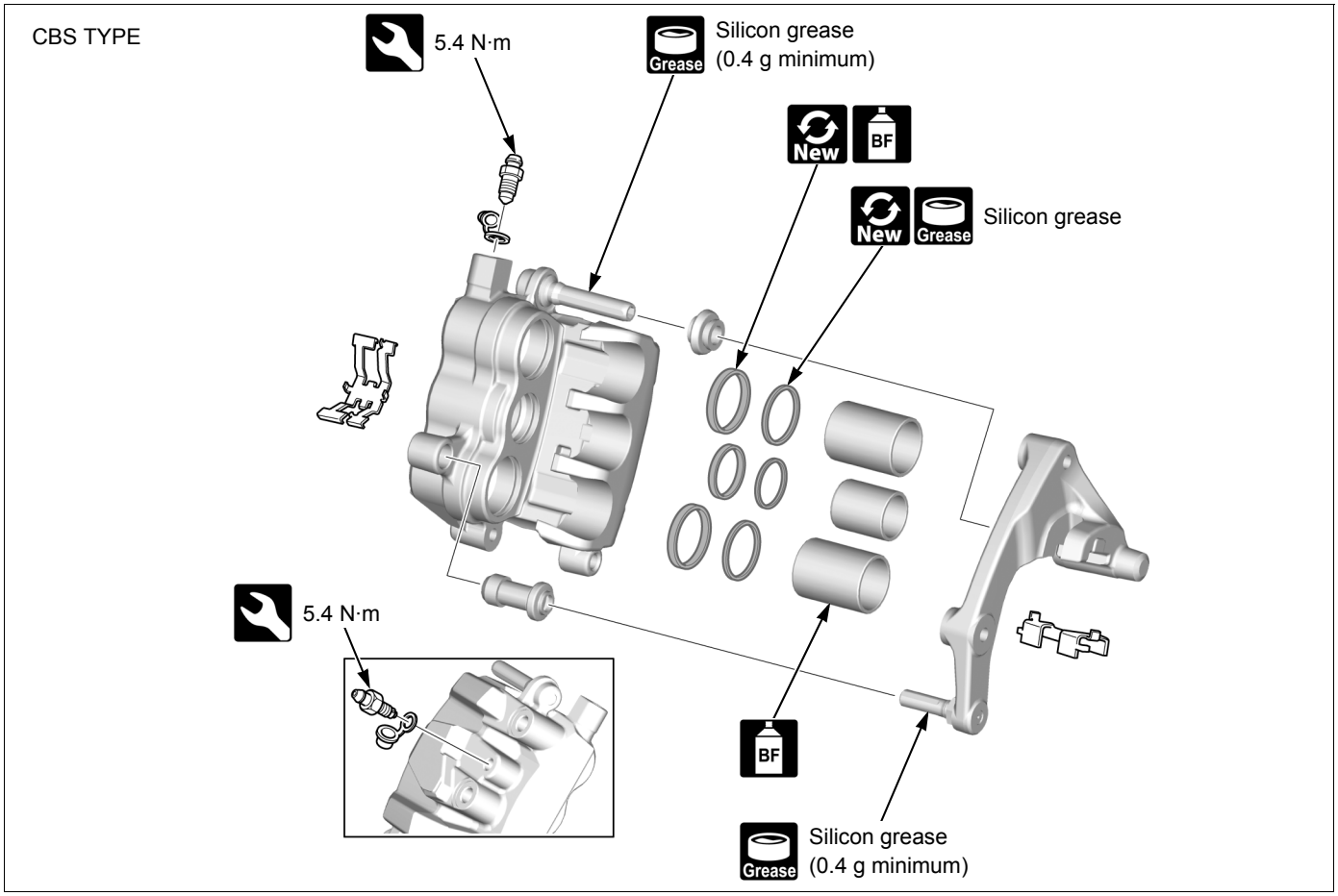


• Brake fluid ➔3-26

STD, ABS TYPE
(ABS TYPE SHOWN)

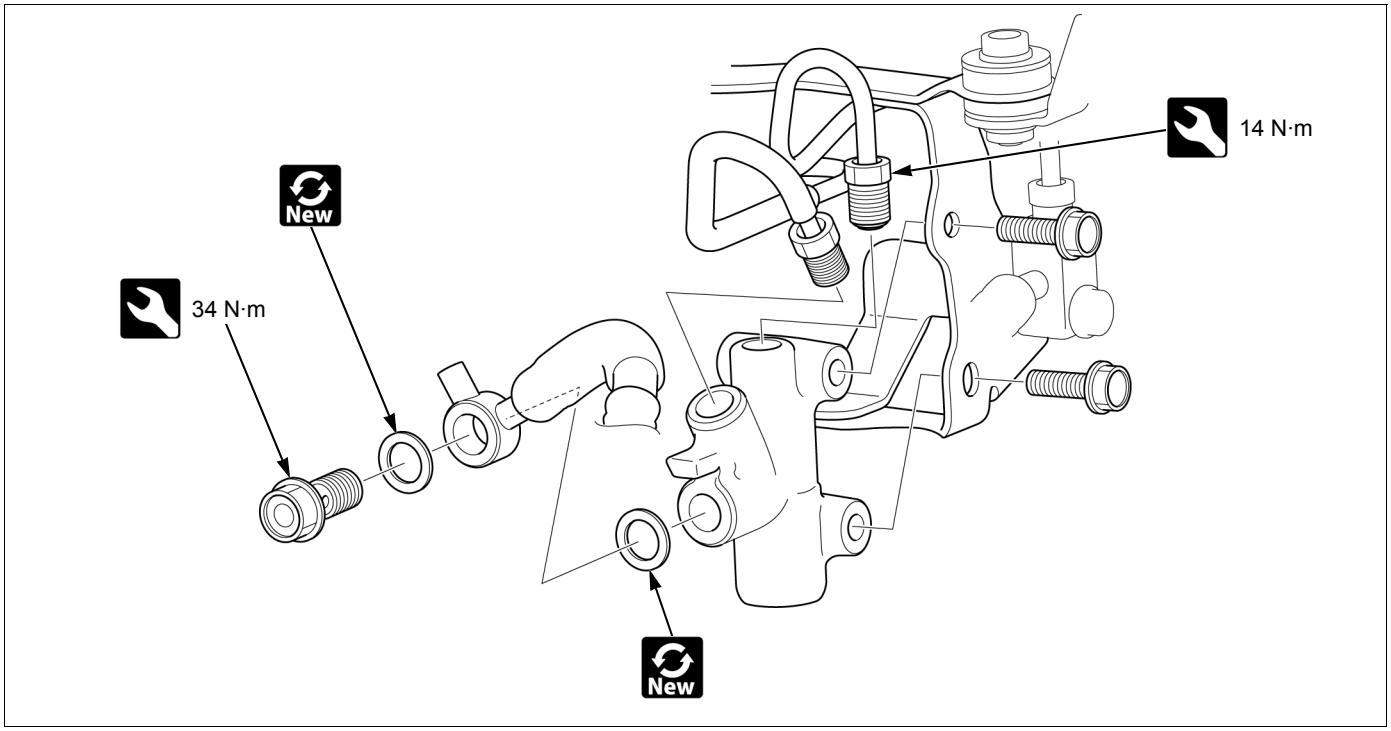


• Brake caliper inspection

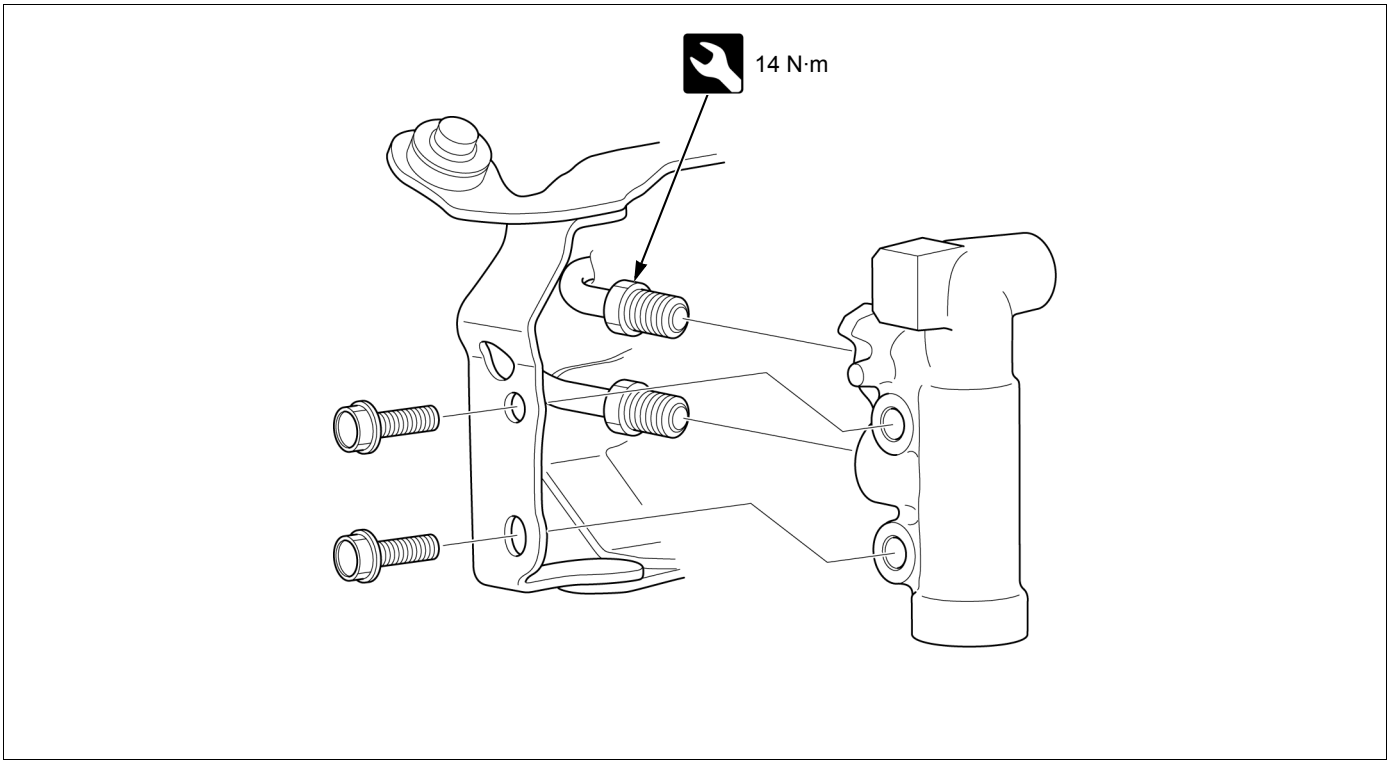


Basic • Brake caliper inspection

PCV VALVE (CBS TYPE ONLY)

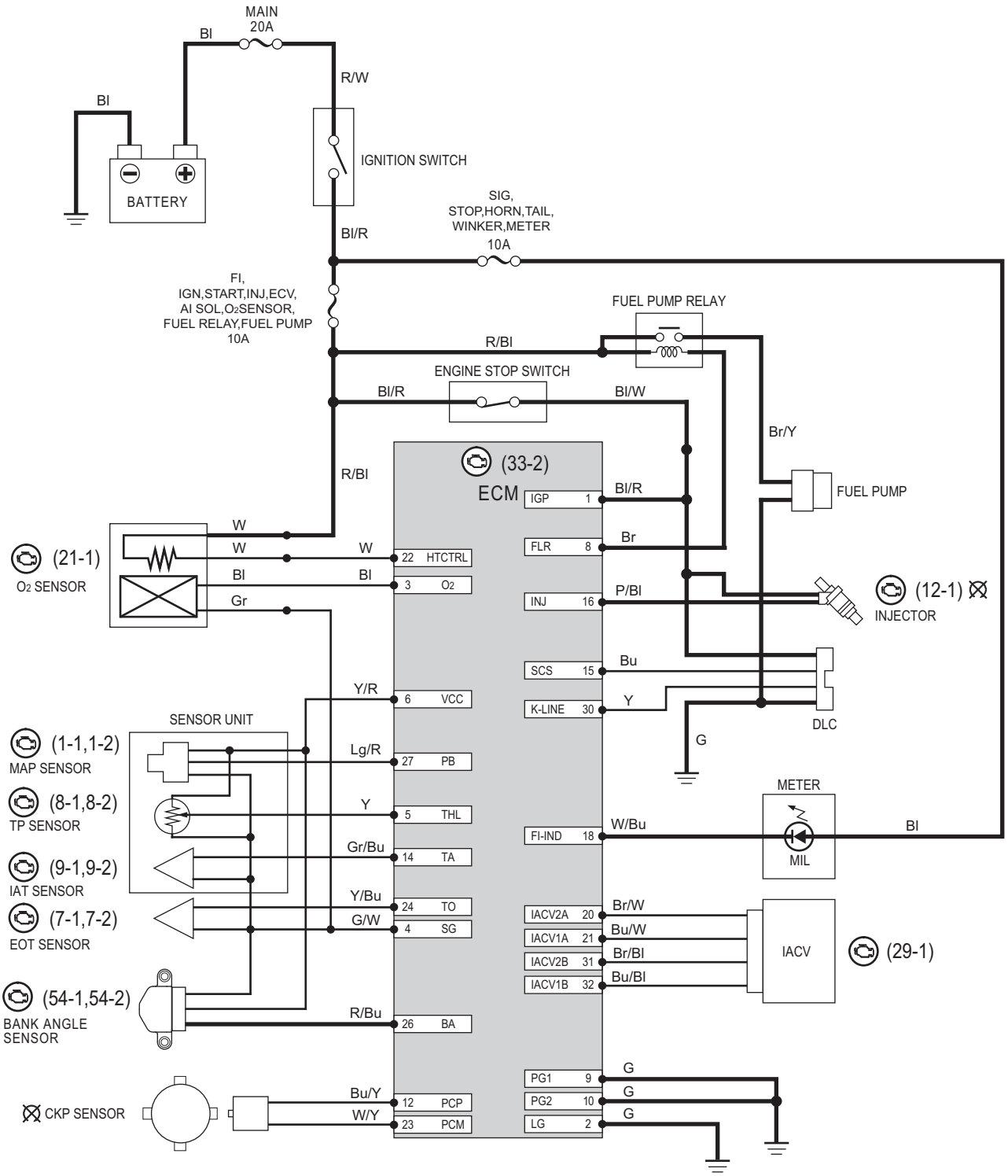


DELAY VALVE (CBS TYPE ONLY)



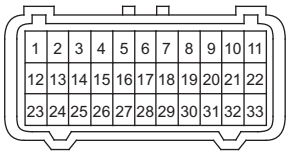
PGM-FI SYSTEM

PGM-FI SYSTEM DIAGRAM



( ) : DTC

: Engine does not start when detecting DTC



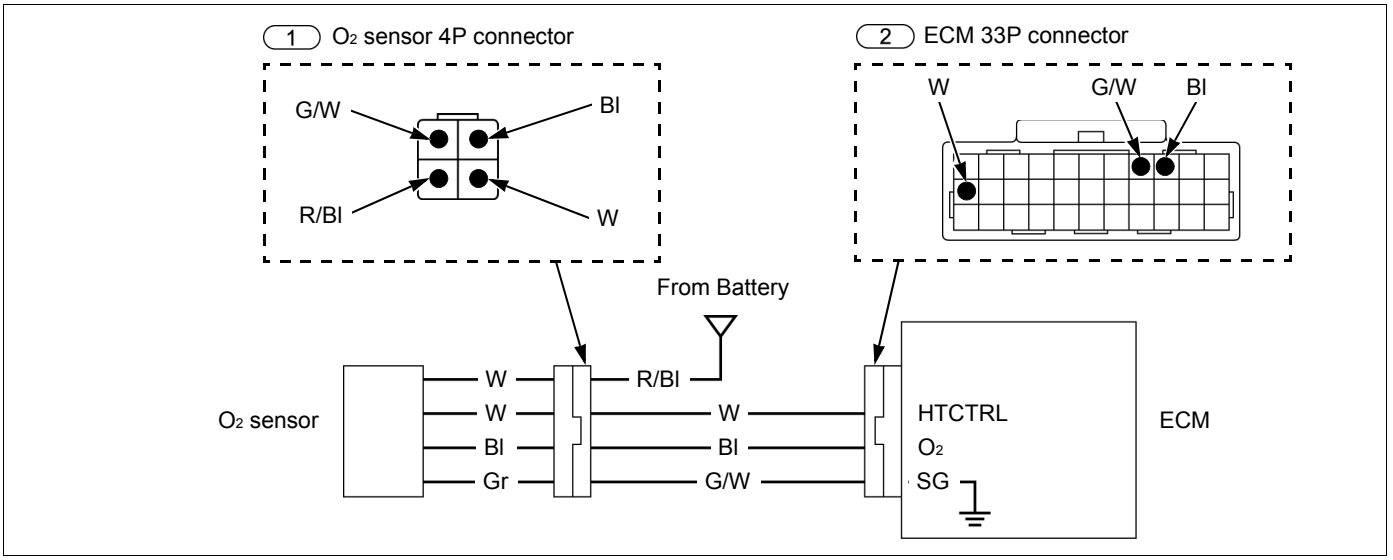
ECM 33P CONNECTOR
(ECM side of the male terminals)

DTC TROUBLESHOOTING

DTC 21-1 (O_2 SENSOR)

- Fuel tank ➔2-7

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 21-1 is indicated?	No ►	• Intermittent failure • Loose or poor contact at the connector

Yes ▼

2. O_2 Sensor Circuit Inspection

• Check an open or short circuit in Bl and G/W wire. • Is there open or short circuit?	Yes ►	• Faulty Bl or G/W 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 21-1 is indicated, replace the ECM with a new one ➔4-20, and recheck.

ABS

DTC CODE INDEX

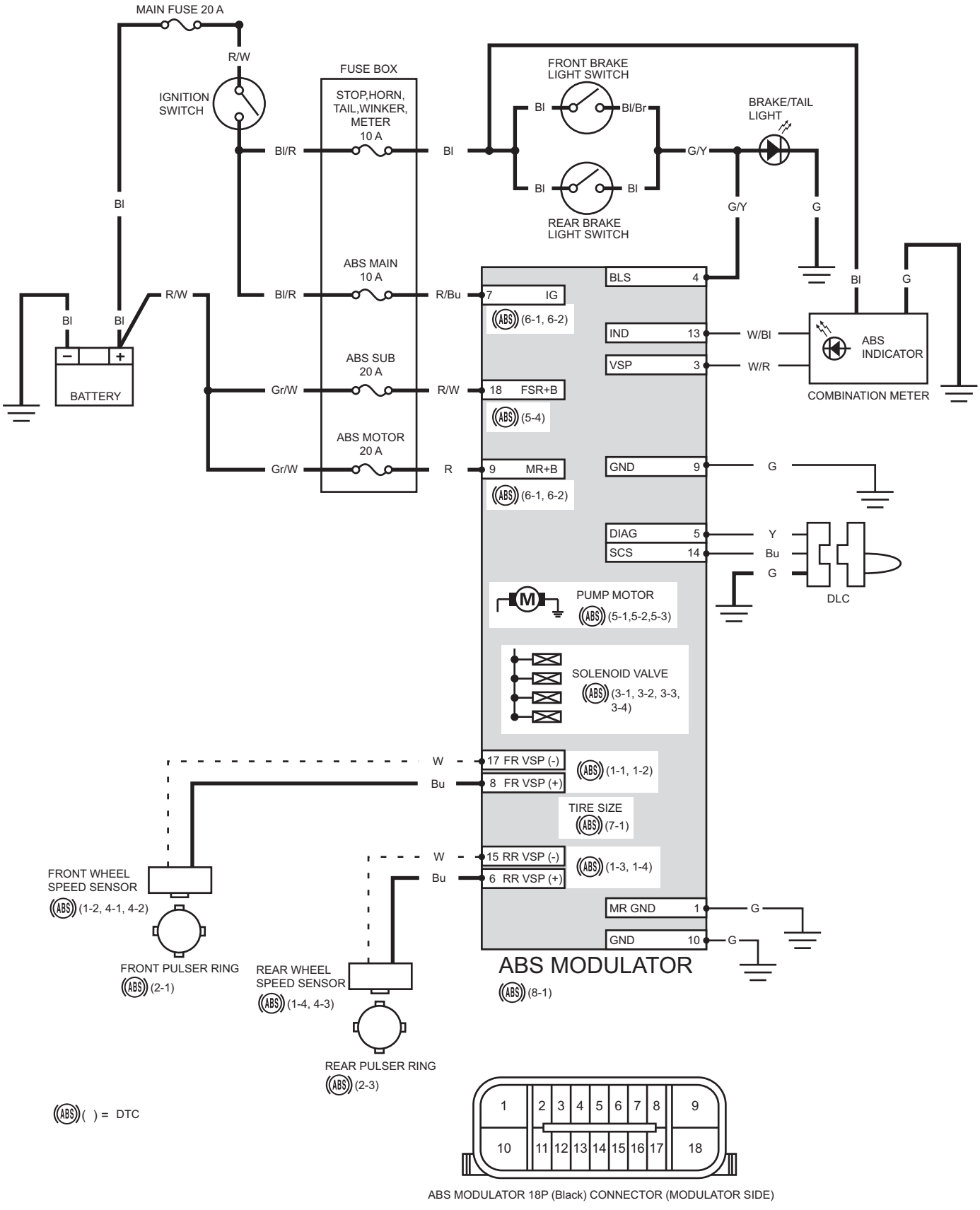
DTC	Function Failure	Detection		Symptom/Fail-safe function	Page
		*A	*B		
–	ABS indicator malfunction • ABS modulator voltage input line • Indicator related wires • Speedometer • ABS modulator • ABS fuses			• ABS indicator never come ON at all	➔4-36
				• ABS indicator stays ON	➔6-37
1-1	Front wheel speed sensor circuit inspection • Wheel speed sensor or related wires	○	○	• Stops ABS operation	➔6-38
1-2	Front wheel speed sensor malfunction • Wheel speed sensor, pulser ring or related wires • Electromagnetic interference		○	• Stops ABS operation	
1-3	Rear wheel speed sensor circuit malfunction • Wheel speed sensor or related wires	○	○	• Stops ABS operation	➔6-39
1-4	Rear wheel speed sensor malfunction • Wheel speed sensor, pulser ring or related wires • Electromagnetic interference		○	• Stops ABS operation	
2-1	Front pulser ring • Pulser ring or related wires		○	• Stops ABS operation	➔6-38
2-3	Rear pulser ring • Pulser ring or related wires		○	• Stops ABS operation	➔6-39
3-1 3-2 3-3 3-4	Solenoid valve malfunction (ABS modulator)	○	○	• Stops ABS operation	➔4-41
4-1	Front wheel lock • Riding condition		○	• Stops ABS operation	➔6-38
4-2	Front wheel lock (Wheelie) • Riding condition		○		
4-3	Rear wheel lock • Riding condition		○	• Stops ABS operation	➔6-39
5-1	Pump motor lock • Pump motor (ABS modulator) or related wires • ABS MOTOR 20 A fuse	○	○	• Stops ABS operation	➔6-40
5-2	Pump motor stuck off • Pump motor (ABS modulator) or related wires • ABS MOTOR 20 A fuse	○	○	• Stops ABS operation	
5-3	Pump motor stuck on • Pump motor (ABS modulator) or related wires • ABS MOTOR 20 A fuse	○	○	• Stops ABS operation	
5-4	Power supply relay malfunction • Power supply relay (ABS modulator) or related wires • ABS MOTOR 20 A fuse	○	○	• Stops ABS operation	➔6-41

DTC	Function Failure	Detection		Symptom/Fail-safe function	Page
		*A	*B		
6-1	Power circuit under voltage • Input footage (too low) • ABS MAIN 10 A fuse	○	○	• Stops ABS operation	➔4-43
6-2	Power circuit over voltage • Input voltage (too high)	○	○	• Stops ABS operation	
7-1	Tire malfunction • Tire size		○	• Stops ABS operation	➔4-44
8-1	ABS control unit • ABS control unit malfunction (ABS modulator)	○	○	• Stops ABS operation	➔4-44

*A: Pre-start self-diagnosis

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

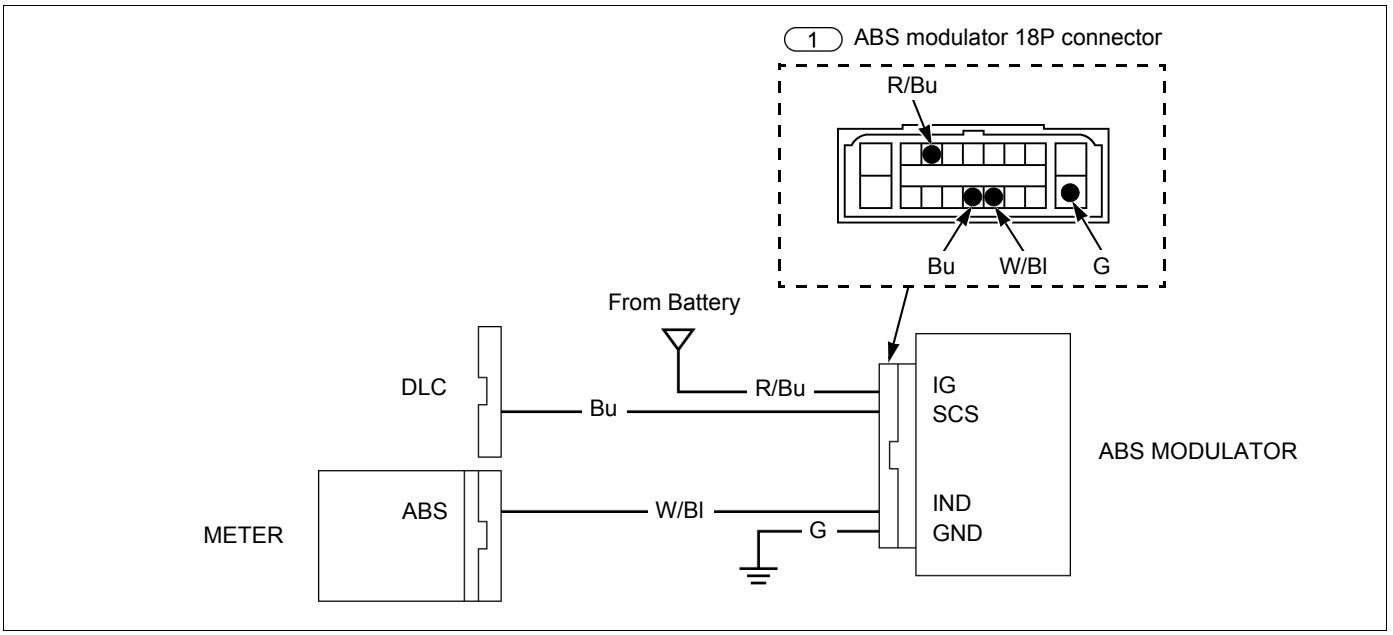
ABS DIAGRAM


MAIN FUSE 20 A
R/W
IGNITION SWITCH
FUSE BOX
STOP,HORN, TAIL,WINKER, METER 10 A
Bl/R
Bl
FRONT BRAKE LIGHT SWITCH
Bl
Bl/Br
BRAKE/TAIL LIGHT
G/Y
Bl
Bl
REAR BRAKE LIGHT SWITCH
G/Y
G
Bl
G
ABS MAIN 10 A
R/W
Bl/R
R/Bu
7 IG
(6-1, 6-2)
BLS 4
IND 13
W/Bl
ABS INDICATOR
VSP 3
W/R
COMBINATION METER
Bl
Bl
BATTERY
ABS SUB 20 A
Gr/W
R/W
18 FSR+B
(5-4)
ABS MOTOR 20 A
Gr/W
R
9 MR+B
(6-1, 6-2)
GND 9
G
DIAG 5
SCS 14
Y
Bu
G
DLC
PUMP MOTOR
(5-1,5-2,5-3)
SOLENOID VALVE
(3-1, 3-2, 3-3, 3-4)
W
Bu
17 FR VSP (-)
8 FR VSP (+)
(1-1, 1-2)
TIRE SIZE
(7-1)
W
Bu
15 RR VSP (-)
6 RR VSP (+)
(1-3, 1-4)
MR GND 1
G
GND 10
G
FRONT WHEEL SPEED SENSOR
(1-2, 4-1, 4-2)
FRONT PULSER RING
(2-1)
REAR WHEEL SPEED SENSOR
(1-4, 4-3)
REAR PULSER RING
(2-3)
ABS MODULATOR
(8-1)
( ) = DTC
1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16 17 18
ABS MODULATOR 18P (Black) CONNECTOR (MODULATOR SIDE)

DTC TROUBLESHOOTING

ABS INDICATION MALFUNCTION

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



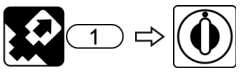
1. Service Check Line Inspection

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

No ► • Faulty Bu wire

Yes ▼

2. ABS Indicator Line Inspection



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

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

Yes ▼

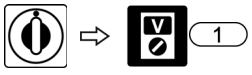
3. ABS Modulator Ground Line Inspection

- Check an open circuit in G wire.
- Is there no open circuit?

No ► • Faulty G wire

Yes ▼

4. ABS Modulator Power Line Inspection



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

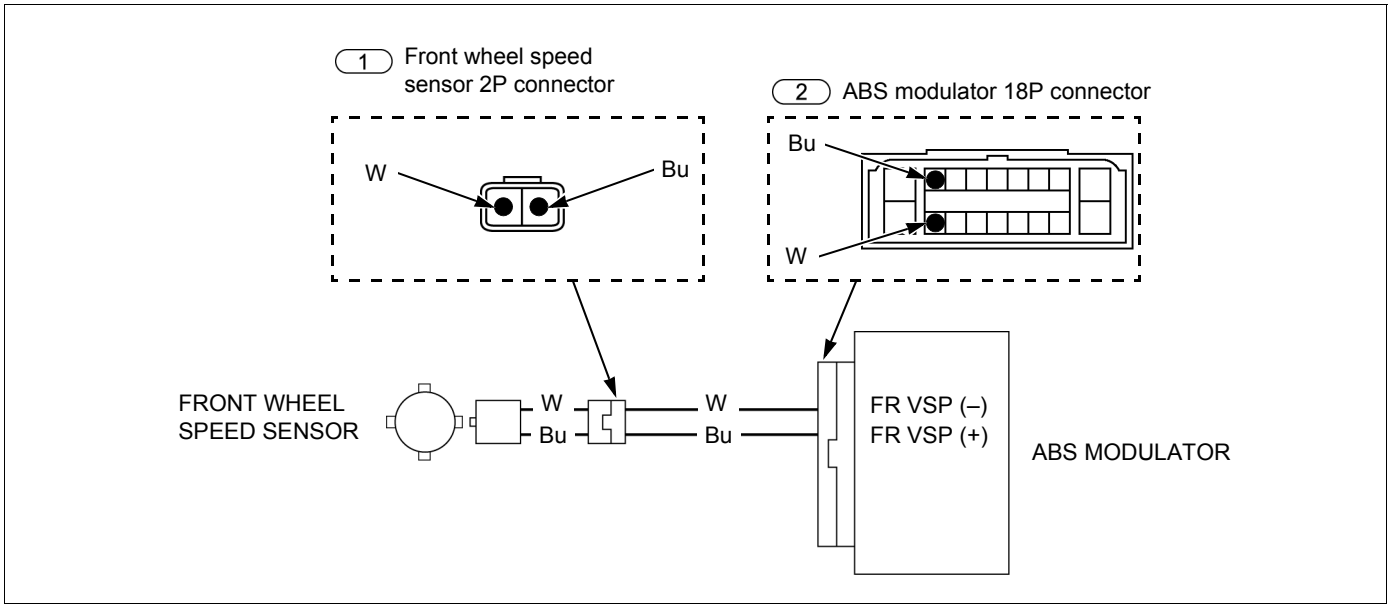
No ► • Faulty R/Bu wire

Yes ▼

- Faulty ABS modulator

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

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



1. Air Gap Inspection

- Measure the air gap.
- 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 proper installed?

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

Yes ▼

3. Speed Sensor Line Inspection

1 2

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

No ► • Faulty W and Bu wire

Yes ▼

4. Failure Reproduction

- Replace the speed sensor with a new one. ➔4-54
- 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

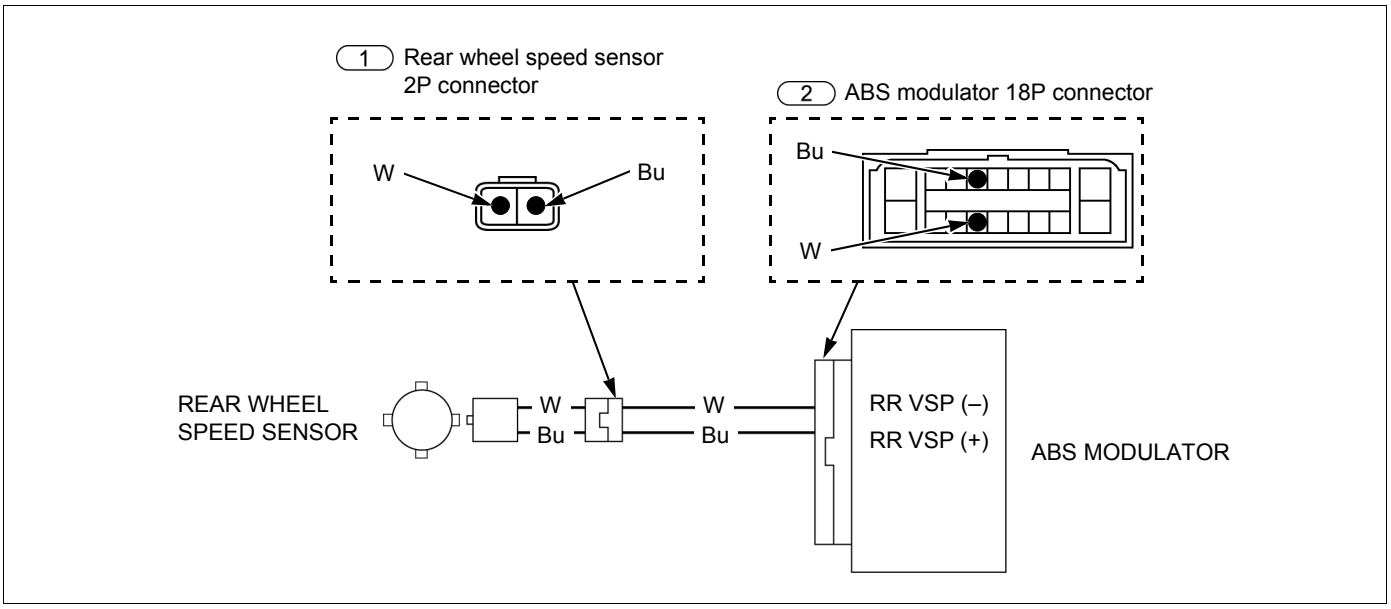
Yes ▼

- Faulty ABS modulator

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

- Drive chain case ➔3-12

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



1. Air Gap Inspection

- Measure the air gap.
- 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 proper installed?

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

Yes ▼

3. Speed Sensor Line Inspection

1 2

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

No ►
- Faulty W and Bu wire

Yes ▼

4. Failure Reproduction

- Replace the speed sensor with a new one. ➔4-54
- Erase the DTC and test-ride the vehicle above 30 km/h, then recheck the DTC.
- Is the DTC 1-3, 1-4, 2-3, 4-3 indicated?

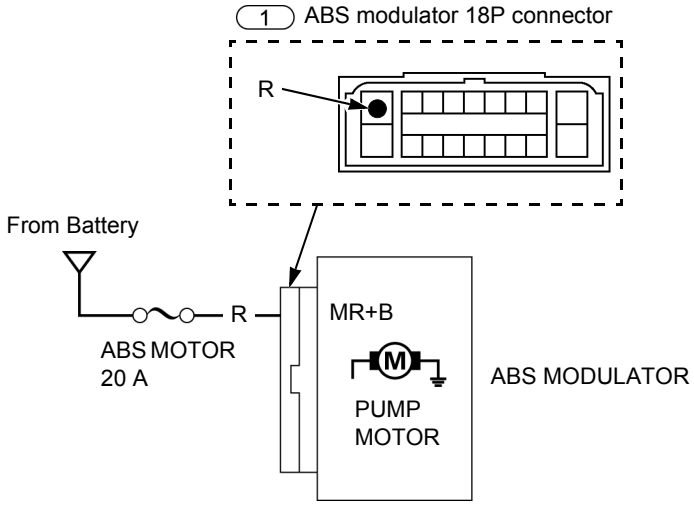
No ►
- Faulty original speed sensor

Yes ▼

- Faulty ABS modulator

DTC 5-1, 5-2 or 5-3

(Pump motor lock/Pump motor stuck off/Pump motor stuck on)



1. ABS Modulator Power Line Inspection

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

No ►

- Faulty R 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 or 5-3 indicated?

No ►

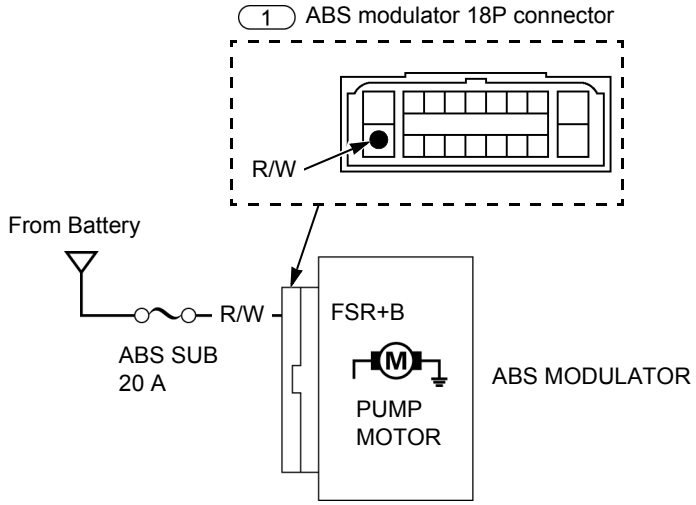
- Intermittent failure

Yes ▼

- Faulty ABS modulator

DTC 5-4

(Power supply relay)



1. ABS Modulator Power Line Inspection

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

No ►

- Faulty R/W wire

Yes ▼

2. Failure Reproduction

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

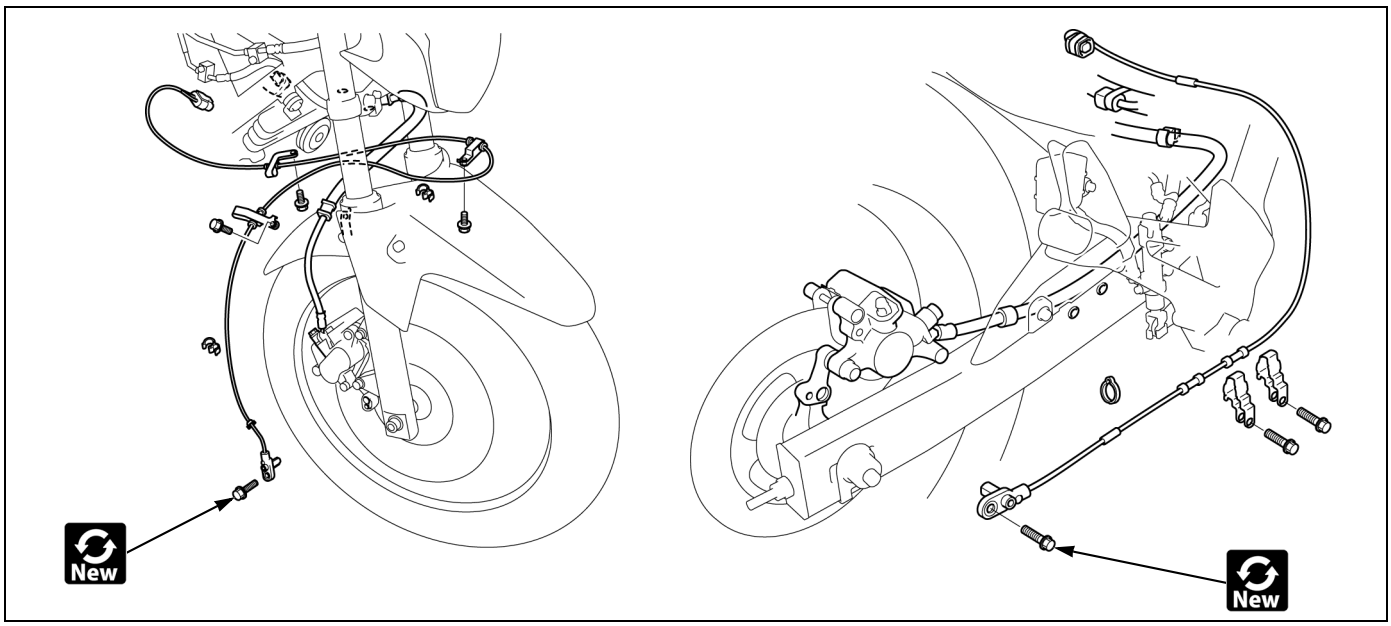
No ►

- Intermittent failure

Yes ▼

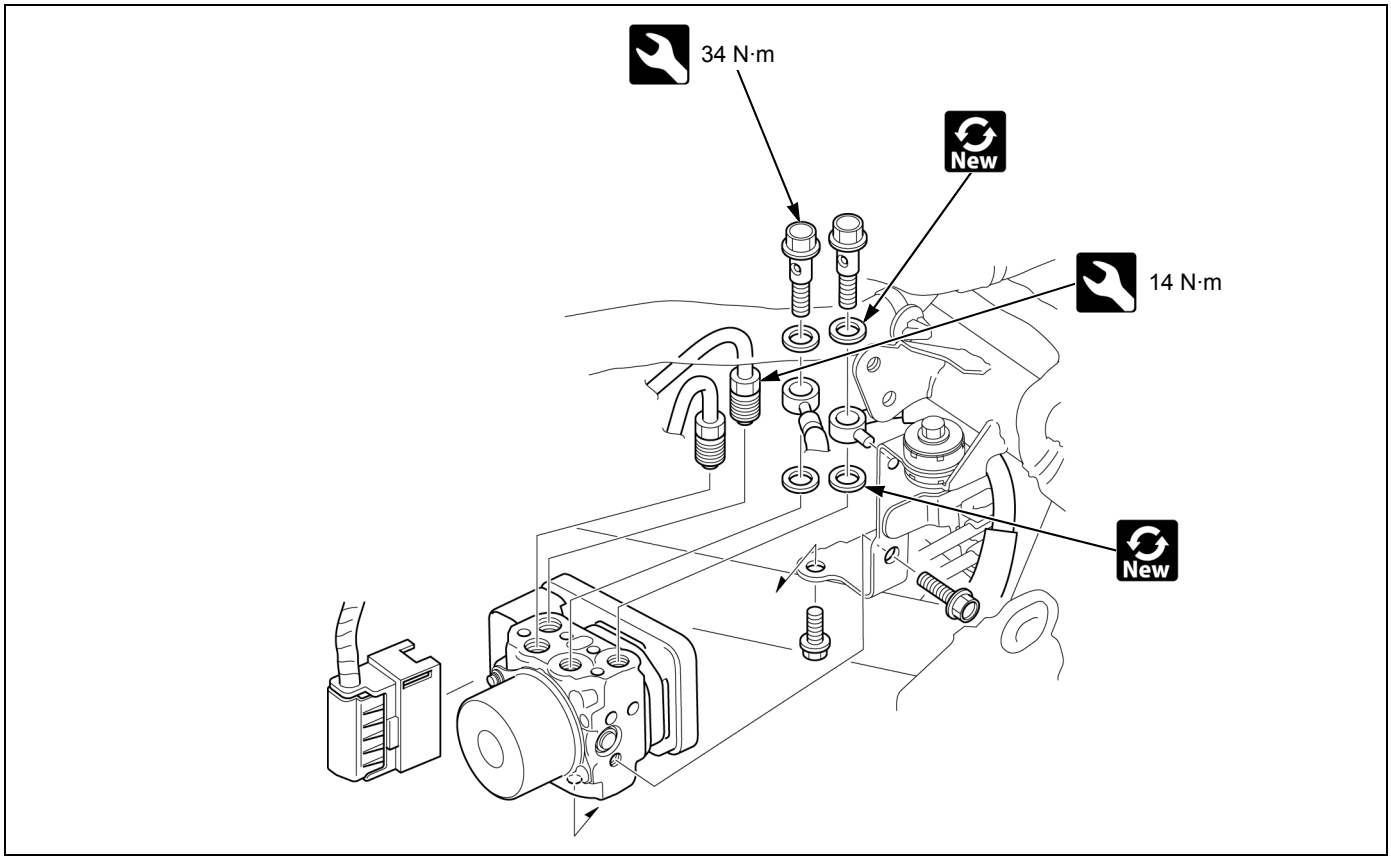
- Faulty ABS modulator

WHEEL SPEED SENSOR



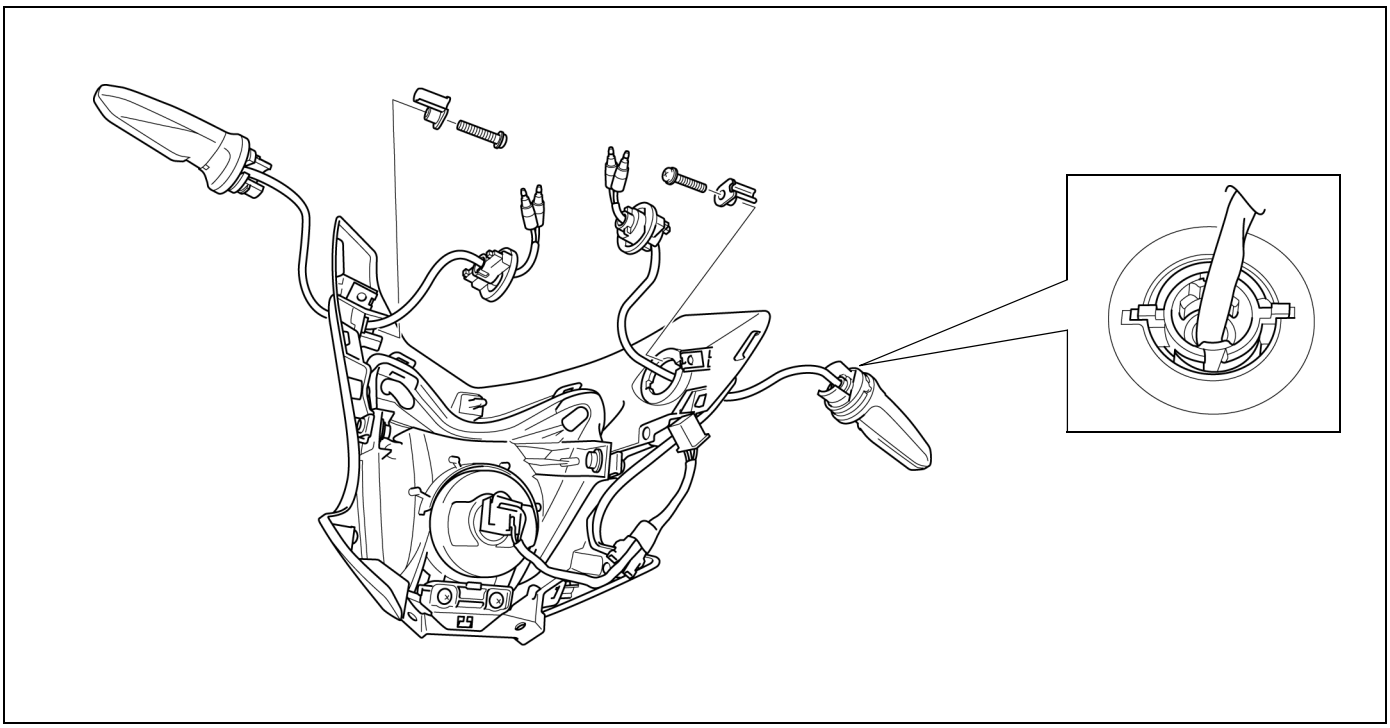
- Drive chain case ➔3-12
- Wheel speed sensor inspection

ABS MODULATOR

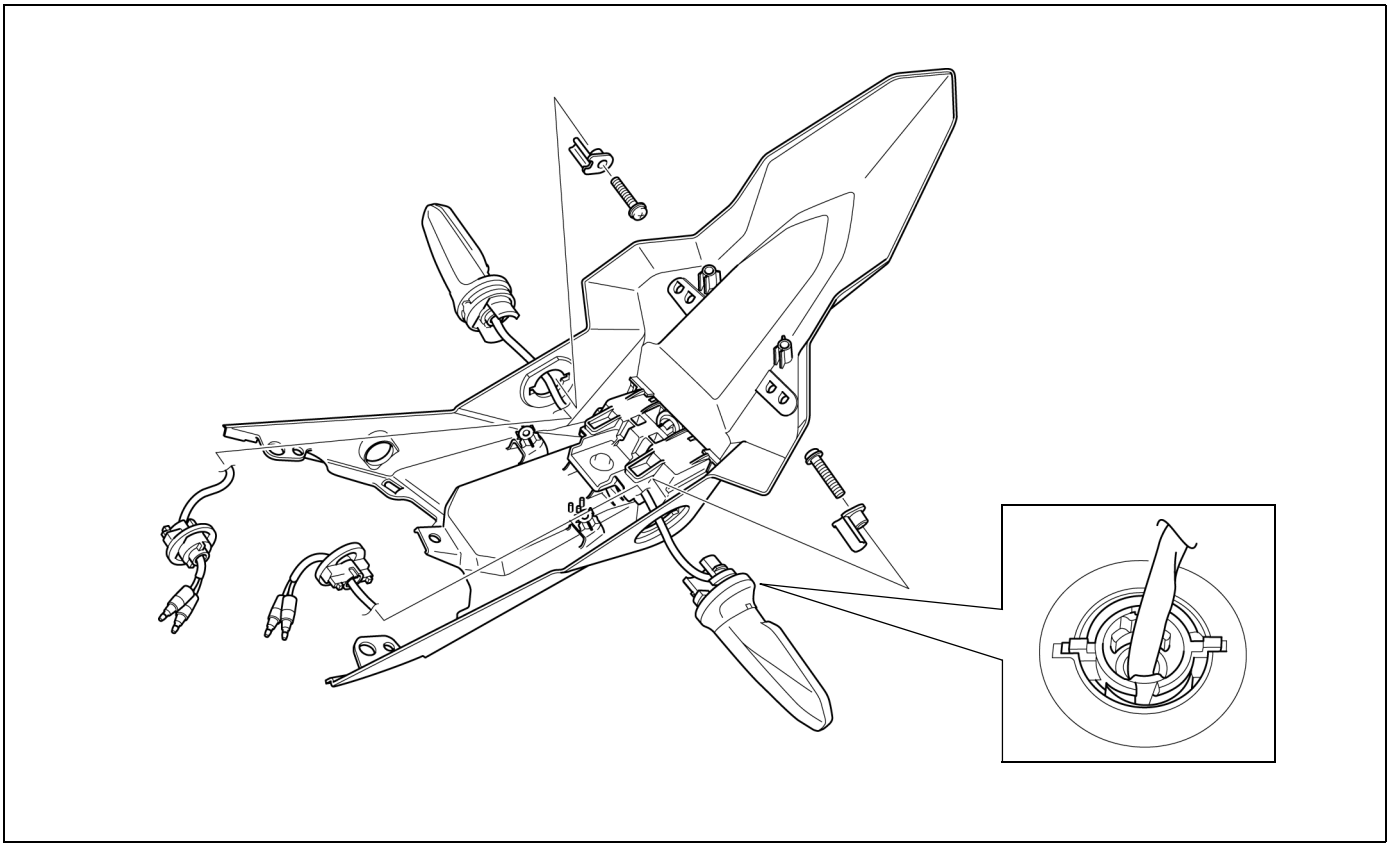


- Rear suspension ➔3-25
- Battery box ➔3-14

LIGHTING SYSTEM



- Front cowl ➔3-3



- Rear fender A ➔3-8

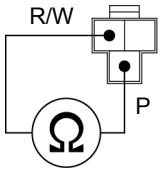
ELECTRICAL COMPONENT

IGNITION SWITCH

- Front cowl ➔6-25

Ignition switch circuit

(1) Ignition switch 3P connector

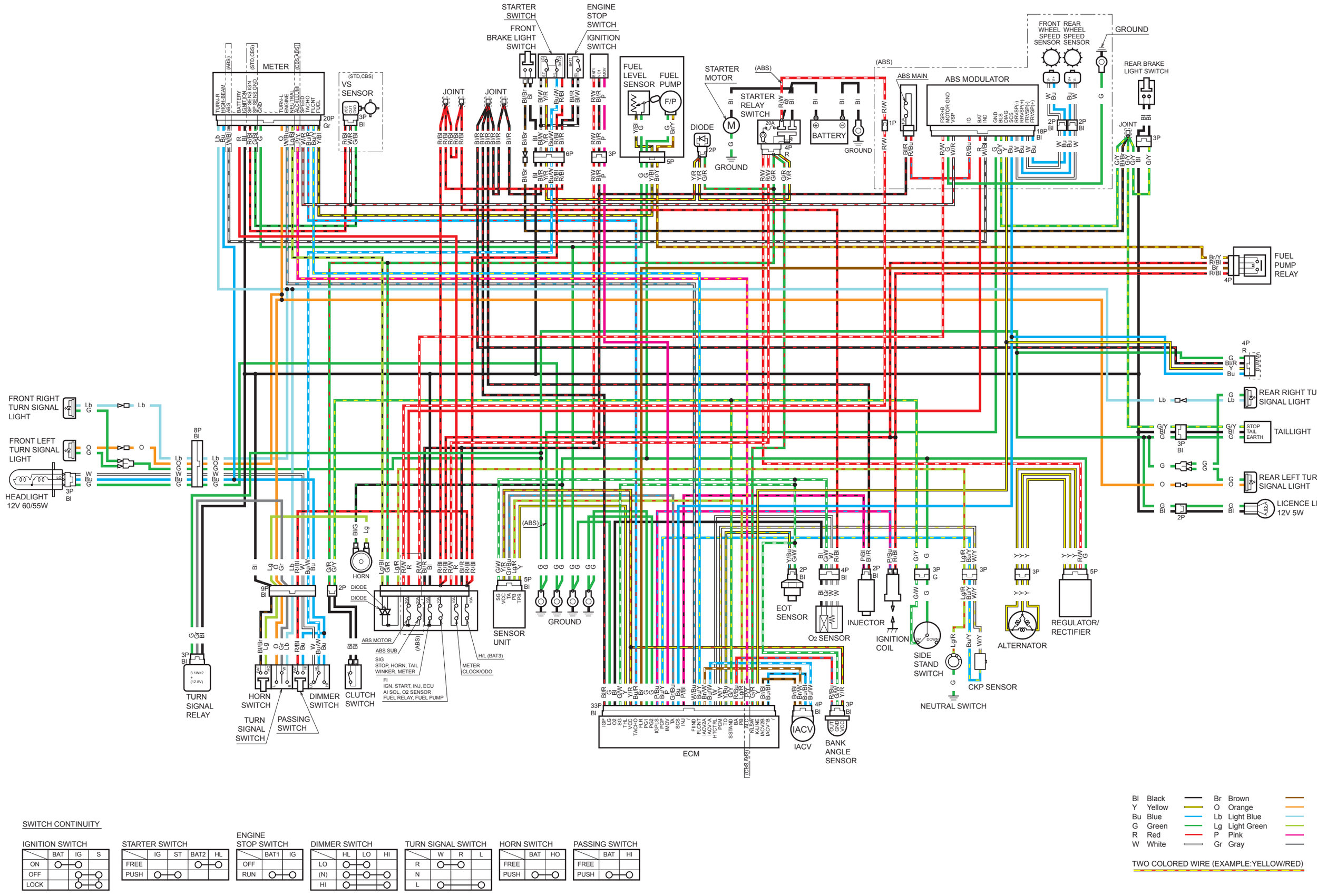


(1) ⇨

Check for continuity the ignition switch connector of the ignition switch side.
- Connection: R/W (+) – P (–) and R/W (–) – P (+)

It is normal if there is continuity in one direction.
- It is faulty of the ignition switch if there is continuity in both directions.

MC250/A/C/W-K (AG,LA,BR)



SWITCH CONTINUITY

IGNITION SWITCH

	BAT	IG	S
ON	○	○	
OFF		○	○
LOCK		○	○

STARTER SWITCH

	IG	ST	BAT2	HL
FREE			○	○
PUSH	○	○		

ENGINE STOP SWITCH

	BAT1	IG
OFF		
RUN	○	○

DIMMER SWITCH

	HL	LO	HI
LO	○	○	
(N)	○		○
HI	○		○

TURN SIGNAL SWITCH

	W	R	L
R	○	○	
N			
L	○		○

HORN SWITCH

	BAT	HO
FREE		
PUSH	○	○

PASSING SWITCH

	BAT	HI
FREE		
PUSH	○	○

Bl	Black	Br	Brown
Y	Yellow	O	Orange
Bu	Blue	Lb	Light Blue
G	Green	Lg	Light Green
R	Red	P	Pink
W	White	Gr	Gray

TWO COLORED WIRE (EXAMPLE:YELLOW/RED)

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