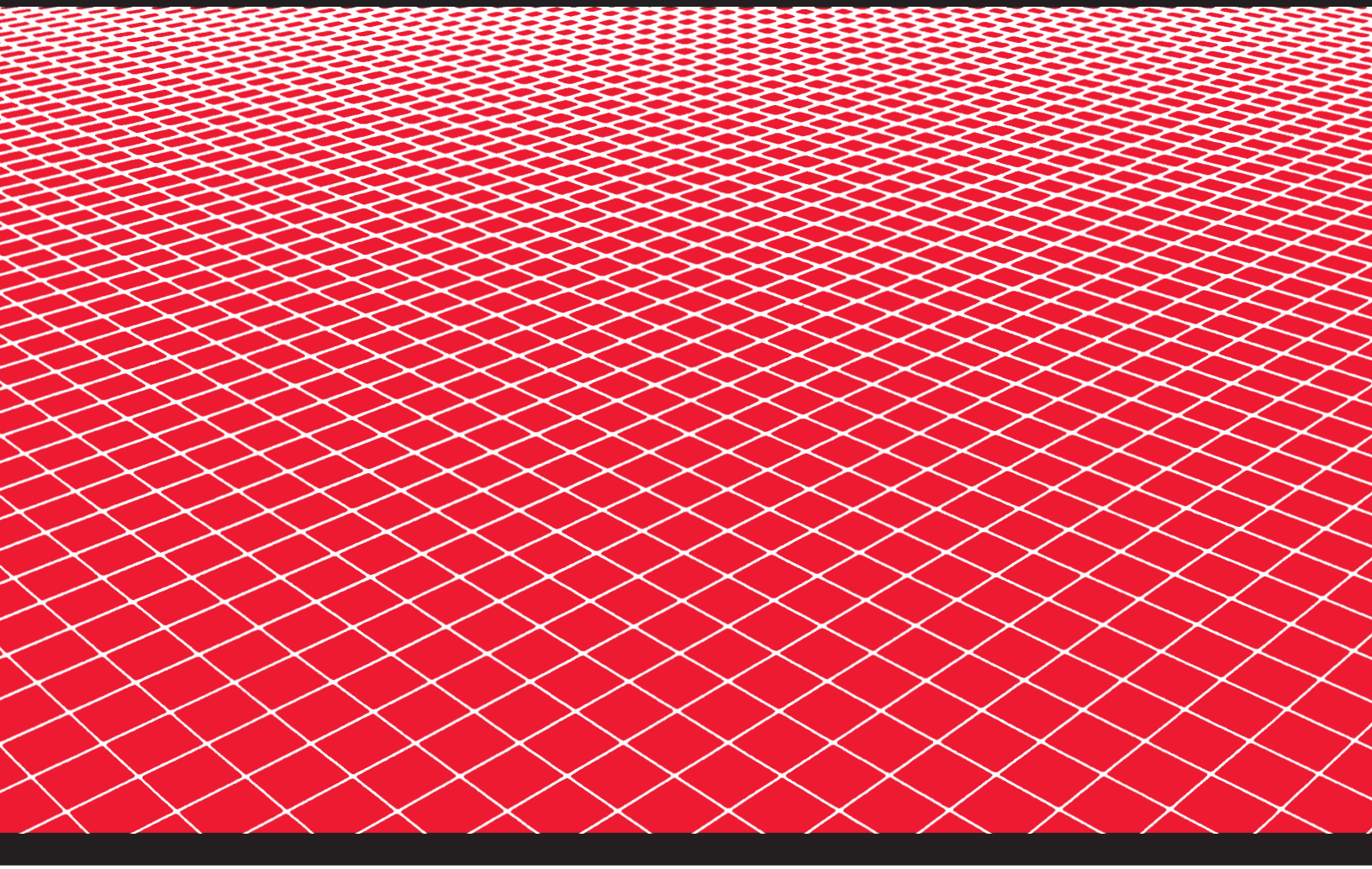
HONDA

SHOP MANUAL ADDENDUM CBR500R/RA CB500F/FA/X/XA CB400X/XA



CBR500R/RA$_{H}$
CB500F/FA/X/XA$_{H}$
CB400X/XA$_{H}$

25. CBR500R/RA, CB500F/FA/X/XA, CB400X/XA-H ADDENDUM

A Few Words About Safety ····· 25-2

How To Use This Manual ····· 25-3

SERVICE RULES····· 25-4

MODEL IDENTIFICATION ····· 25-4

SPECIFICATIONS····· 25-7

TORQUE VALUES ·····25-12

CABLE & HARNESS ROUTING ·····25-13

EMISSION CONTROL SYSTEMS
(ED, III ED, KO, II KO types)·····25-40

BODY PANEL LOCATIONS/
REMOVAL CHART ·····25-41

FRONT FENDER
(ED, III ED, MA, II MA types)·····25-42

MUFFLER (CB400X/XA, CB500X/XA) ····25-43

MAINTENANCE SCHEDULE
(ED, III ED, KO, II KO types)·····25-44

FUEL LINE
(ED, III ED, KO, II KO types)·····25-45

EVAPORATIVE EMISSION CONTROL
SYSTEM (ED, III ED, KO, II KO types)····25-45

PGM-FI SYSTEM DIAGRAM
(ED, III ED, KO, II KO types)·····25-46

PGM-FI SYMPTOM TROUBLESHOOTING
(ED, III ED, KO, II KO types)·····25-47

PGM-FI SYSTEM DTC INDEX ·····25-48

PGM-FI SYSTEM DTC
TROUBLESHOOTING ·····25-49

FUEL SYSTEM COMPONENT LOCATION
(ED, III ED, KO, II KO types)·····25-53

THROTTLE BODY/AIR CLEANER
HOUSING (ED, III ED, KO, II KO types)··25-54

EVAP PURGE CONTROL SOLENOID
VALVE (ED, III ED, KO, II KO types) ·····25-56

EVAP CANISTER
(ED, III ED, KO, II KO types)·····25-57

WIRING DIAGRAM (CBR500R/RA)·····25-59

WIRING DIAGRAM (CBR500F/FA) ·····25-60

WIRING DIAGRAM (CBR500X/XA) ·····25-61

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 CBR500R/RA, CB500F/FA, CB500X/XA and CB400X/XA-H.

Refer to CBR500R/RA, CB500F/FA and CB500X/XA (No.62MGZ00) and CBR500R/RA, CB500F/FA, CB500X/XA and CB400X/XA (62MGZ00Z) 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.

SERVICE PUBLICATION OFFICE

Date of Issue: September, 2016

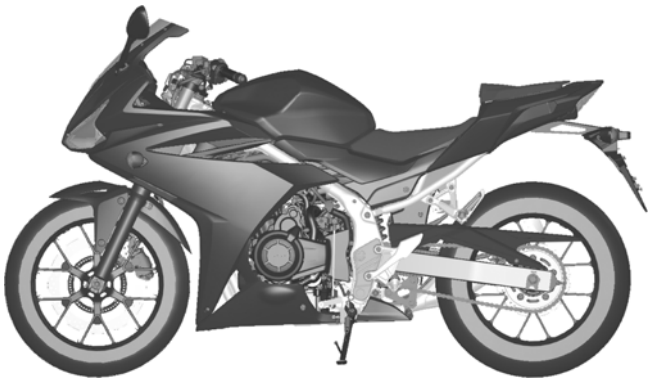
SERVICE RULES

DESTINATION CODE

DESTINATION CODE	REGION
ED	European direct sales
III ED	European direct sales: Type III
KO	Korea
II KO	Korea: Type II
MA	Malaysia
II MA	Malaysia: Type II
IN	Indonesia
II IN	Indonesia: Type II
II SI	Singapore: Type II
U	Australia, New Zealand
II U	Australia, New Zealand: Type II

MODEL IDENTIFICATION

CBR500R/RA



CB500F/FA

CB400X/XA, CB500X/XA

(ABS model shown)

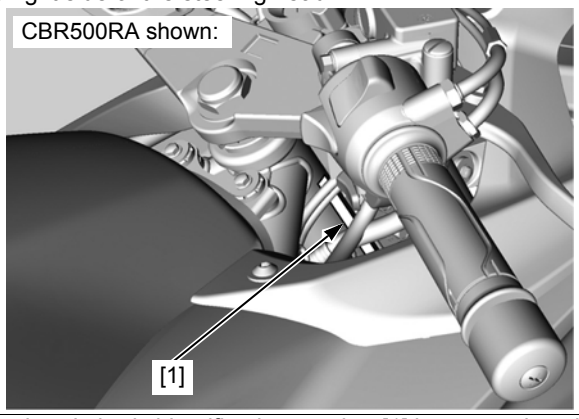
This manual covers following models:

– CBR500R (Conventional Brake)
– CBR500RA (ABS)
– CB500F (Conventional Brake)
– CB500FA (ABS)
– CB500X (Conventional Brake)
– CB500XA (ABS)
– CB400X (Conventional Brake)
– CB400XA (ABS)

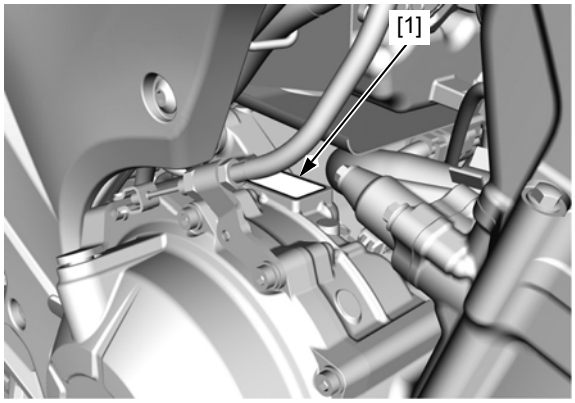
Be sure to refer to the procedure for the appropriate model.

SERIAL NUMBERS/LABELS

The Vehicle Identification Number (V.I.N.) [1] is stamped on the right side of the steering head.

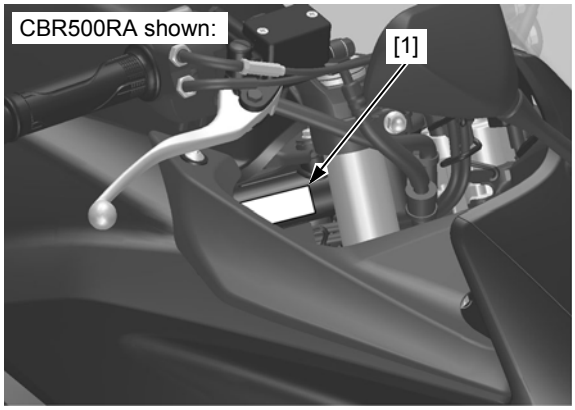


The engine serial number [1] is stamped on the upper right side of the crankcase.

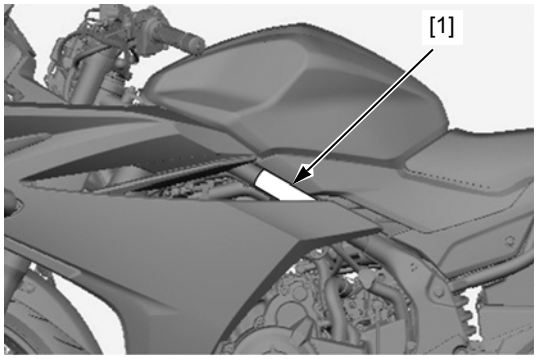


The throttle body identification number [1] is stamped on the lower right side of the throttle body.

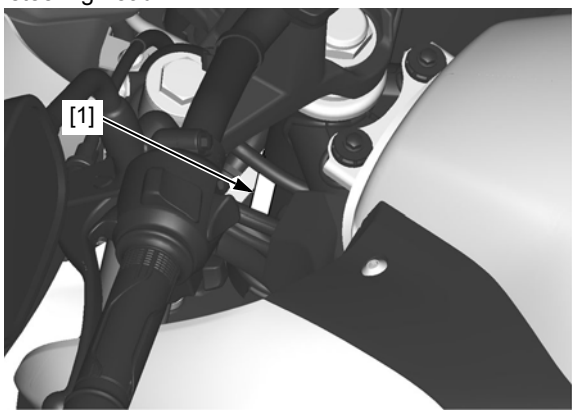
CBR500R/RA MA, II MA types, CB500X/XA: The registered number plate (ED, III ED, MA and II MA types) or compliance plate (U, II U types) [1] is attached on the right front side of the frame.



CBR500R/RA: The registered number plate (ED and III ED types) or compliance plate (U and II U) [1] is attached on the right front side of the frame.

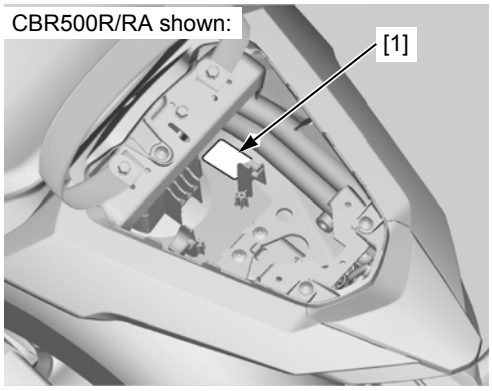


CB500F/FA: The registered number plate (ED and MA types) or compliance plate (U type) [1] is attached on the left side of the steering head.

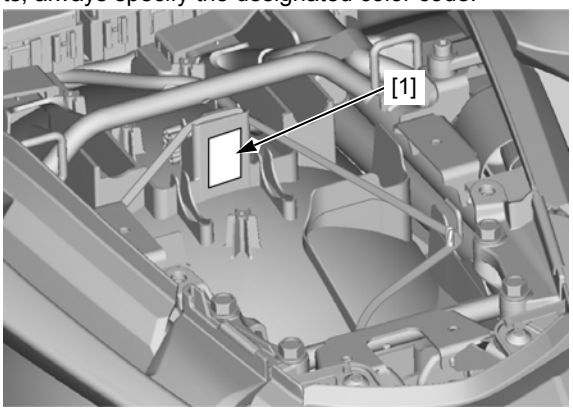


CBR500R/RA, CB500F/FA: The color label [1] is attached on the rear fender B under the seat. When ordering color-coded parts, always specify the designated color code.

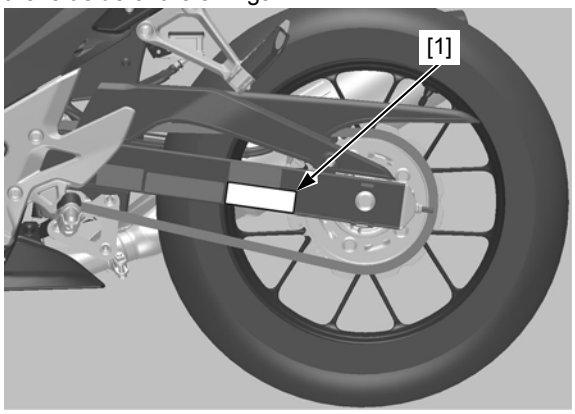
CBR500R/RA shown:



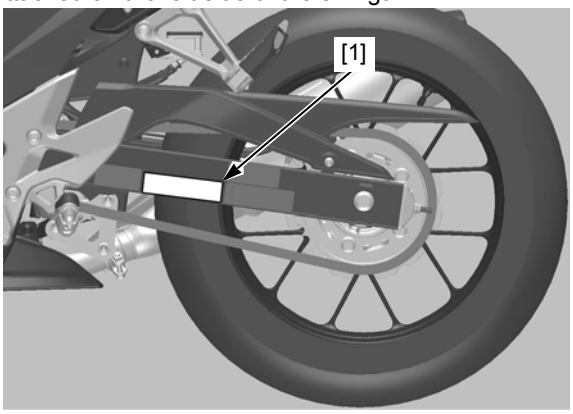
CB500X/XA, CB400X/XA: The color label [1] is attached on the rear fender B under the seat. When ordering color-coded parts, always specify the designated color code.



The Safety Certification Label (KO, II KO types) [1] is located on the left side of the swingarm.



The Emission Control Information Label (KO, II KO types) [1] is attached on the left side of the swingarm.



SPECIFICATIONS

GENERAL SPECIFICATIONS

CBR500R/RA

ITEM				SPECIFICATION
DIMENSIONS	Overall length		Except IN, II IN types	2,080 mm (81.9 in)
			IN, II IN types	2,081 mm (81.9 in)
	Overall width		Except IN, II IN types	750 mm (29.5 in)
			IN, II IN types	756 mm (29.8 in)
	Overall height		Except IN, II IN types	1,145 mm (45.1 in)
			IN, II IN types	1,150 mm (45.3 in)
	Wheelbase		Except IN, II IN types	1,410 mm (55.5 in)
			IN, II IN types	1,409 mm (55.5 in)
	Seat height		Except IN, II IN types	785 mm (30.9 in)
			IN, II IN types	789 mm (31.1 in)
	Footpeg height			313 mm (12.3 in)
	Ground clearance			140 mm (5.5 in)
	Curb weight	CBR500R	MA, II MA types	192 kg (423 lbs)
			KO, II KO types	194 kg (428 lbs)
		CBR500RA	ED, III ED types	195 kg (430 lbs)
			Except ED, III ED types	194 kg (428 lbs)
	Maximum weight capacity		Except ED, III ED, IN, II IN, KO, II KO types	182 kg (401 lbs)
			ED, III ED types	172 kg (379 lbs)
			IN, II IN types	142 kg (313 lbs)
			KO, II KO types	162 kg (357 lbs)
FRAME	Frame type			Diamond
	Front suspension			Telescopic fork
	Front axle travel			108 mm (4.3 in)
	Rear suspension			Swingarm
	Rear axle travel			119 mm (4.7 in)
	Front tire size			120/70ZR17M/C (58W)
	Rear tire size			160/60ZR17M/C (69W)
	Front tire brand		Except IN, II IN types	D222F (DUNLOP)
				ROADTEC Z8 INTERACT E (METZELER)
			IN, II IN types	D222 F (DUNLOP)
	Rear tire brand		Except IN, II IN types	D222 P (DUNLOP)
				ROADTEC Z8 INTERACT M (METZELER)
			IN, II IN types	D222 P (DUNLOP)
	Front brake			Hydraulic single disc
	Rear brake			Hydraulic single disc
	Caster angle			25° 30’
	Trail length		Except IN, II IN types	102 mm (4.0 in)
			IN, II IN types	101 mm (4.0 in)
	Fuel tank capacity			16.7 liters (4.41 US gal, 3.67 Imp gal)

ITEM				SPECIFICATION
ENGINE	Cylinder arrangement			2 cylinders in-line, inclined 20° from vertical
	Bore and stroke			67.0 x 66.8 mm (2.64 x 2.63 in)
	Displacement			471 cm^3 (28.7 cu-in)
	Compression ratio			10.7 : 1
	Valve train			Chain driven DOHC with rocker arm
	Intake valve	opens	at 1 mm (0.04 in) lift	– 5° BTDC
		closes	at 1 mm (0.04 in) lift	35° ABDC
	Exhaust valve	opens	at 1 mm (0.04 in) lift	33° BBDC
		closes	at 1 mm (0.04 in) lift	– 13° ATDC
	Lubrication system			Forced pressure and wet sump
	Oil pump type			Trochoid
	Cooling system			Liquid cooled
	Air filtration			Viscous paper element
	Engine dry weight			52.7 kg (116.2 lbs)
	Firing order			1 – 2
	Cylinder number			Left: 1, Right: 2
FUEL DELIVERY SYSTEM	Type			PGM-FI (Programmed Fuel Injection)
	Throttle bore			34 mm (1.3 in)
DRIVE TRAIN	Clutch system			Multi-plate, wet
	Clutch operation system			Cable operating
	Transmission			Constant mesh, 6 speeds
	Primary reduction			2.029 (69/34)
	Final reduction			2.733 (41/15)
	Gear ratio		1st	3.285 (46/14)
			2nd	2.105 (40/19)
			3rd	1.600 (32/20)
			4th	1.300 (26/20)
			5th	1.150 (23/20)
			6th	1.043 (24/23)
	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			FET shorted/triple phase full wave rectification
	Lighting system			Battery

CB500F/FA

ITEM				SPECIFICATION
DIMENSIONS	Overall length		Except IN type	2,080 mm (81.9 in)
			IN type	2,081 mm (81.9 in)
	Overall width		Except IN type	790 mm (31.1 in)
			IN type	791 mm (31.1 in)
	Overall height		Except IN type	1,060 mm (41.7 in)
			IN type	1,056 mm (41.6 in)
	Wheelbase		Except IN type	1,410 mm (55.5 in)
			IN type	1,409 mm (55.5 in)
	Seat height		Except IN type	785 mm (30.9 in)
			IN type	789 mm (31.1 in)
	Footpeg height			313 mm (12.3 in)
	Ground clearance		Except IN type	160 mm (6.3 in)
			IN type	156 mm (6.1 in)
	Curb weight	CB500F	MA type	188 kg (414 lbs)
			IN type	188 kg (414 lbs)
		CB500FA	IN type	190 kg (419 lbs)
			ED type	191 kg (421 lbs)
			MA, U types	190 kg (419 lbs)
	Maximum weight capacity		Except ED, IN types	182 kg (401 lbs)
			ED type	172 kg (379 lbs)
			IN type	142 kg (313 lbs)
FRAME	Frame type			Diamond
	Front suspension			Telescopic fork
	Front axle travel			108 mm (4.3 in)
	Rear suspension			Swingarm
	Rear axle travel			119 mm (4.7 in)
	Front tire size			120/70ZR17M/C (58W)
	Rear tire size			160/60ZR17M/C (69W)
	Front tire brand		Except IN types	D222F (DUNLOP)
				ROADTEC Z8 INTERACT E (METZELER)
			IN type	D222 F (DUNLOP)
	Rear tire brand		Except IN types	D222 P (DUNLOP)
				ROADTEC Z8 INTERACT M (METZELER)
			IN type	D222 P (DUNLOP)
	Front brake			Hydraulic single disc
	Rear brake			Hydraulic single disc
	Caster angle			25° 30’
	Trail length		Except IN type	102 mm (4.0 in)
			IN type	101 mm (4.0 in)
	Fuel tank capacity			16.7 liters (4.41 US gal, 3.67 Imp gal)

ITEM				SPECIFICATION
ENGINE	Cylinder arrangement			2 cylinders in-line, inclined 20° from vertical
	Bore and stroke			67.0 x 66.8 mm (2.64 x 2.63 in)
	Displacement			471 cm^3 (28.7 cu-in)
	Compression ratio			10.7 : 1
	Valve train			Chain driven DOHC with rocker arm
	Intake valve	opens	at 1 mm (0.04 in) lift	– 5° BTDC
		closes	at 1 mm (0.04 in) lift	35° ABDC
	Exhaust valve	opens	at 1 mm (0.04 in) lift	33° BBDC
		closes	at 1 mm (0.04 in) lift	– 13° ATDC
	Lubrication system			Forced pressure and wet sump
	Oil pump type			Trochoid
	Cooling system			Liquid cooled
	Air filtration			Viscous paper element
	Engine dry weight			52.7 kg (116.2 lbs)
	Firing order			1 – 2
	Cylinder number			Left: 1, Right: 2
FUEL DELIVERY SYSTEM	Type			PGM-FI (Programmed Fuel Injection)
	Throttle bore			34 mm (1.3 in)
DRIVE TRAIN	Clutch system			Multi-plate, wet
	Clutch operation system			Cable operating
	Transmission			Constant mesh, 6 speeds
	Primary reduction			2.029 (69/34)
	Final reduction			2.733 (41/15)
	Gear ratio		1st	3.285 (46/14)
			2nd	2.105 (40/19)
			3rd	1.600 (32/20)
			4th	1.300 (26/20)
			5th	1.150 (23/20)
			6th	1.043 (24/23)
	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			FET shorted/triple phase full wave rectification
	Lighting system			Battery

CB400X/XA, CB500X/XA

ITEM				SPECIFICATION
DIMENSIONS	Overall length		Except II SI, II IN types	2,095 mm (82.5 in)
			II SI type	2,085 mm (82.1 in)
			II IN type	2,098 mm (82.6 in)
	Overall width		Except II IN type	830 mm (32.7 in)
			II IN type	826 mm (32.5 in)
	Overall height		Except II SI, II IN types	1,390 mm (54.7 in) (Wind screen Hi position)
				1,360 mm (53.5 in) (Wind screen Low position)
			II SI type	1,365 mm (53.7 in) (Wind screen Hi position)
				1,335 mm (52.6 in) (Wind screen Low position)
			II IN type	***** mm (***** in) (Wind screen Hi position)
				1,358 mm (53.5 in) (Wind screen Low position)
	Wheelbase		Except II SI, II IN types	1,420 mm (55.9 in)
			II SI type	1,410 mm (55.5 in)
			II IN type	1,421 mm (55.9 in)
	Seat height		Except II SI, II IN types	810 mm (31.9 in)
			II SI type	798 mm (31.4 in)
			II IN type	812 mm (32.0 in)
	Footpeg height		Except II SI type	320 mm (12.6 in)
			II SI type	305 mm (12.0 in)
	Ground clearance		Except II SI type	170 mm (6.7 in)
			II SI type	152 mm (6.0 in)
	Curb weight	CB500X	II KO type	195 kg (430 lbs)
			II MA type	192 kg (423 lbs)
		CB400X	II SI type	194 kg (428 lbs)
		CB500XA	ED, III ED types	196 kg (432 lbs)
			II MA, II U type	194 kg (428 lbs)
			II IN type	195 kg (430 lbs)
		CB400XA	II SI type	195 kg (430 lbs)
	Maximum weight capacity		ED, III ED types	175 kg (386 lbs)
			II U, II MA types	185 kg (408 lbs)
			II KO type	165 kg (364 lbs)
			II IN, II SI types	145 kg (320 lbs)
FRAME	Frame type			Diamond
	Front suspension			Telescopic fork
	Front axle travel		Except II SI type	125 mm (4.9 in)
			II SI type	108 mm (4.3 in)
	Rear suspension			Swingarm
	Rear axle travel		Except II SI type	118 mm (4.6 in)
			II SI type	108 mm (4.3 in)
	Front tire size			120/70ZR17M/C (58W)
	Rear tire size			160/60ZR17M/C (69W)
	Front tire brand			D609 F K
	Rear tire brand			D609 K
	Front brake			Hydraulic single disc
	Rear brake			Hydraulic single disc
	Caster angle		Except II SI type	26° 30’
			II SI type	25° 55’
	Trail length		Except II SI, II IN types	108 mm (4.3 in)
			II SI type	105 mm (4.1 in)
			II IN type	109 mm (4.3 in)
	Fuel tank capacity		Except II SI, II IN types	17.5 liters (4.62 US gal, 3.85 Imp gal)
			II SI, II IN types	17.7 liters (4.68 US gal, 3.89 Imp gal)

ITEM				SPECIFICATION
ENGINE	Cylinder arrangement			2 cylinders in-line, inclined 19° from vertical
	Bore and stroke		Except II SI type	67.0 x 66.8 mm (2.64 x 2.63 in)
			II SI type	67.0 x 56.6 mm (2.64 x 2.23 in)
	Displacement		Except II SI type	471 cm^3 (28.7 cu-in)
			II SI type	399 cm^3 (24.3 cu-in)
	Compression ratio		Except II SI type	10.7 : 1
			II SI type	11.0 : 1
	Valve train			Chain driven DOHC with rocker arm
	Intake valve	opens	at 1 mm (0.04 in) lift	– 5° BTDC
		closes	at 1 mm (0.04 in) lift	35° ABDC
	Exhaust valve	opens	at 1 mm (0.04 in) lift	33° BBDC
		closes	at 1 mm (0.04 in) lift	– 13° ATDC
	Lubrication system			Forced pressure and wet sump
	Oil pump type			Trochoid
	Cooling system			Liquid cooled
	Air filtration			Viscous paper element
	Engine dry weight			52.7 kg (116.2 lbs)
	Firing order			1 – 2
	Cylinder number			Left: 1, Right: 2
FUEL DELIVERY SYSTEM	Type			PGM-FI (Programmed Fuel Injection)
	Throttle bore			34 mm (1.3 in)
DRIVE TRAIN	Clutch system			Multi-plate, wet
	Clutch operation system			Cable operating
	Transmission			Constant mesh, 6 speeds
	Primary reduction			2.029 (69/34)
	Final reduction		Except II SI type	2.733 (41/15)
			II SI type	3.000 (45/15)
	Gear ratio		1st	3.285 (46/14)
			2nd	2.105 (40/19)
			3rd	1.600 (32/20)
			4th	1.300 (26/20)
			5th	1.150 (23/20)
			6th	1.043 (24/23)
	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			FET shorted/triple phase full wave rectification
	Lighting system			Battery

FUEL SYSTEM SPECIFICATIONS

ITEM		SPECIFICATIONS
Throttle body identification number	ED, III ED types	GQBTA
	KO, II KO types	GQBSA
	Except ED, III ED, KO, II KO types	GQBSB
EVAP purge control solenoid valve resistance (20°C/68°F)		30 – 34 Ω

TORQUE VALUES

ENGINE & FRAME TORQUE VALUES

OTHERS

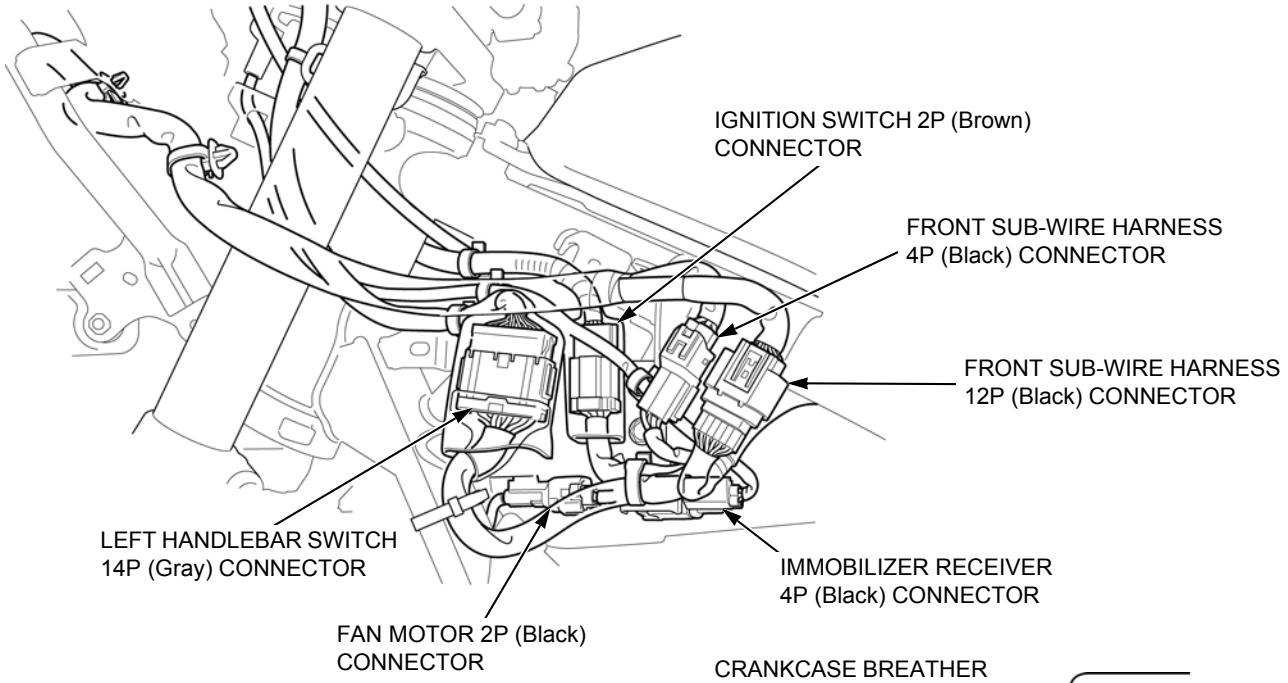
ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Lateral reflex reflector nut (ED, III ED, MA, II MA types)	2	6	1.5 (0.2, 1.1)	U-nut

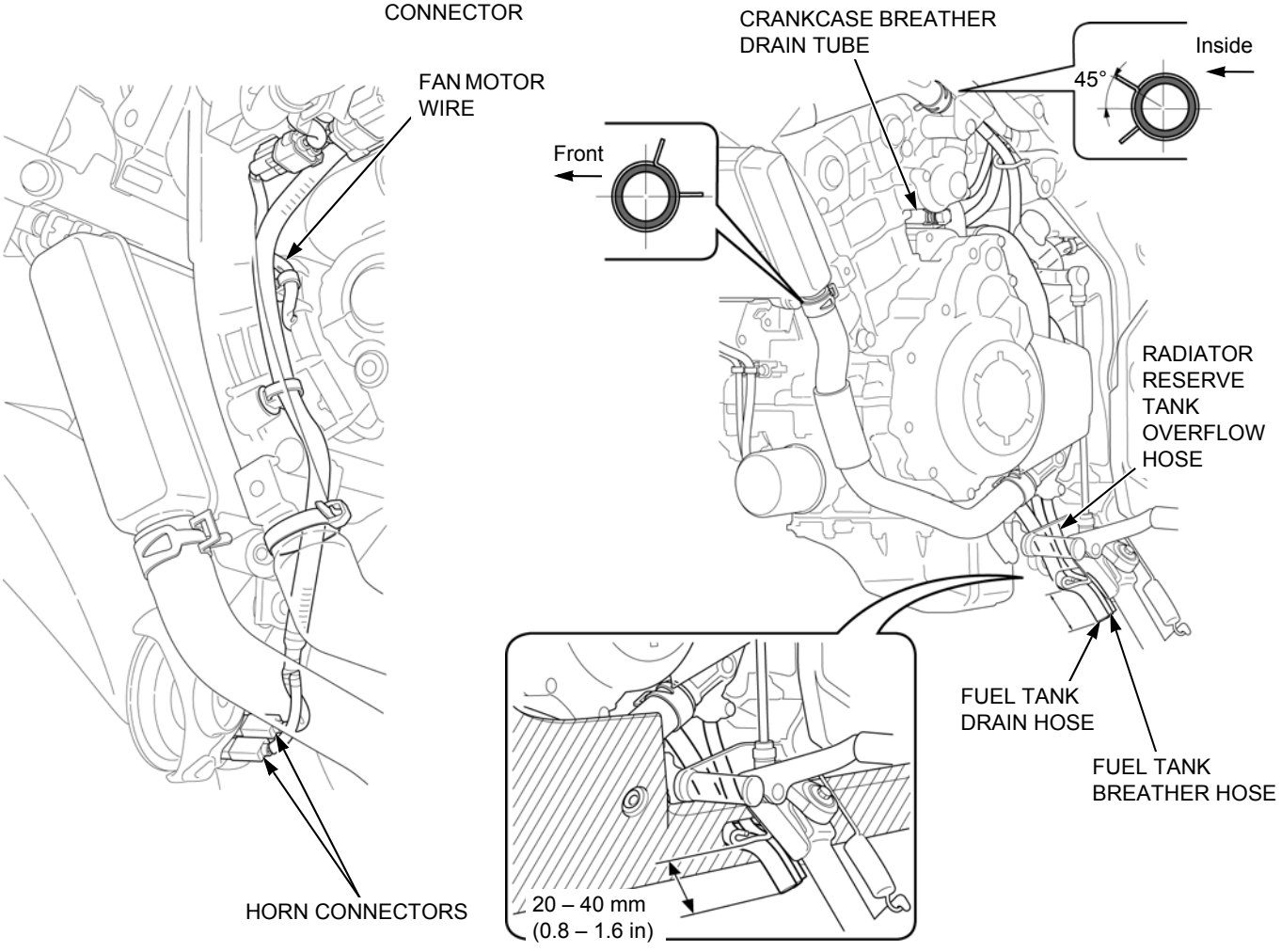
CABLE & HARNESS ROUTING

CBR500R/RA

CBR500R/RA

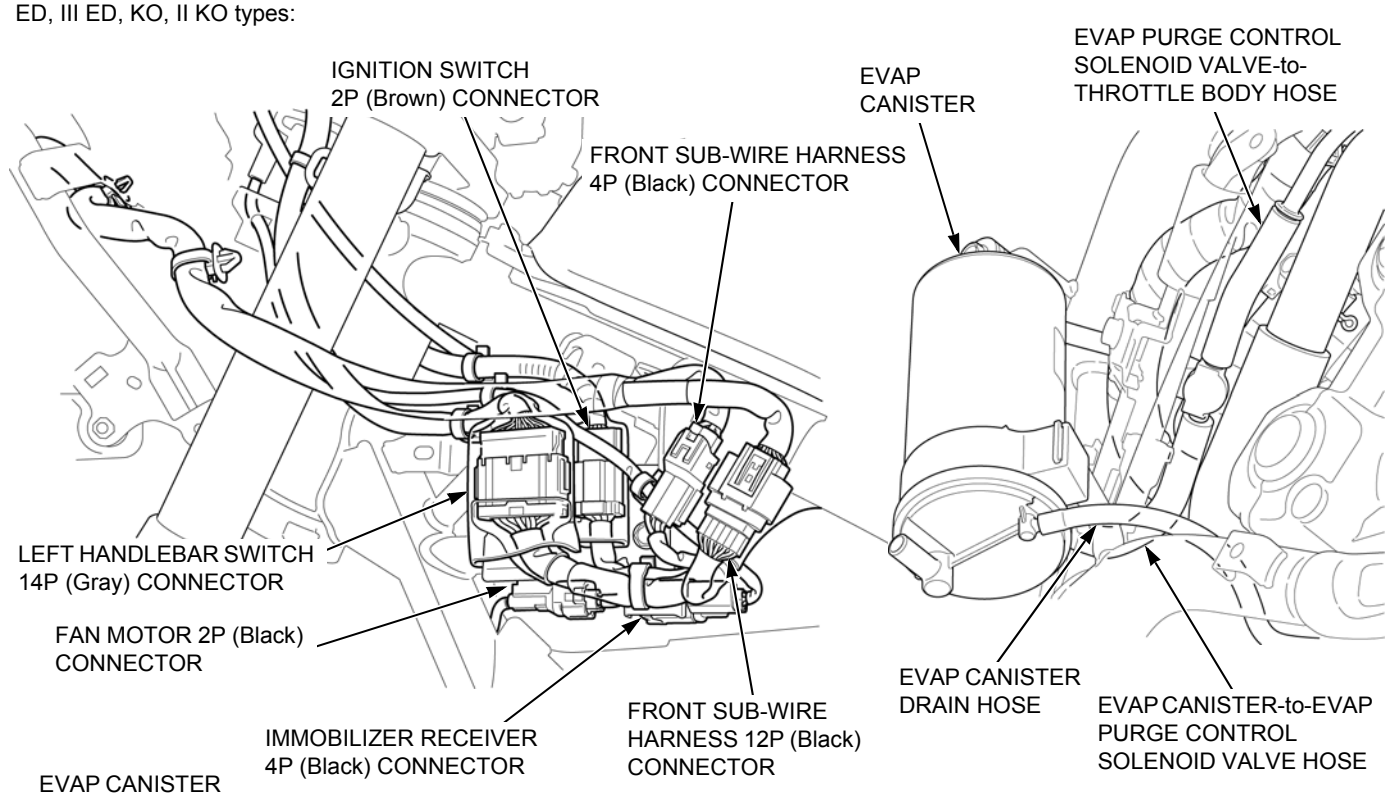
Except ED, III ED, KO, II KO types:

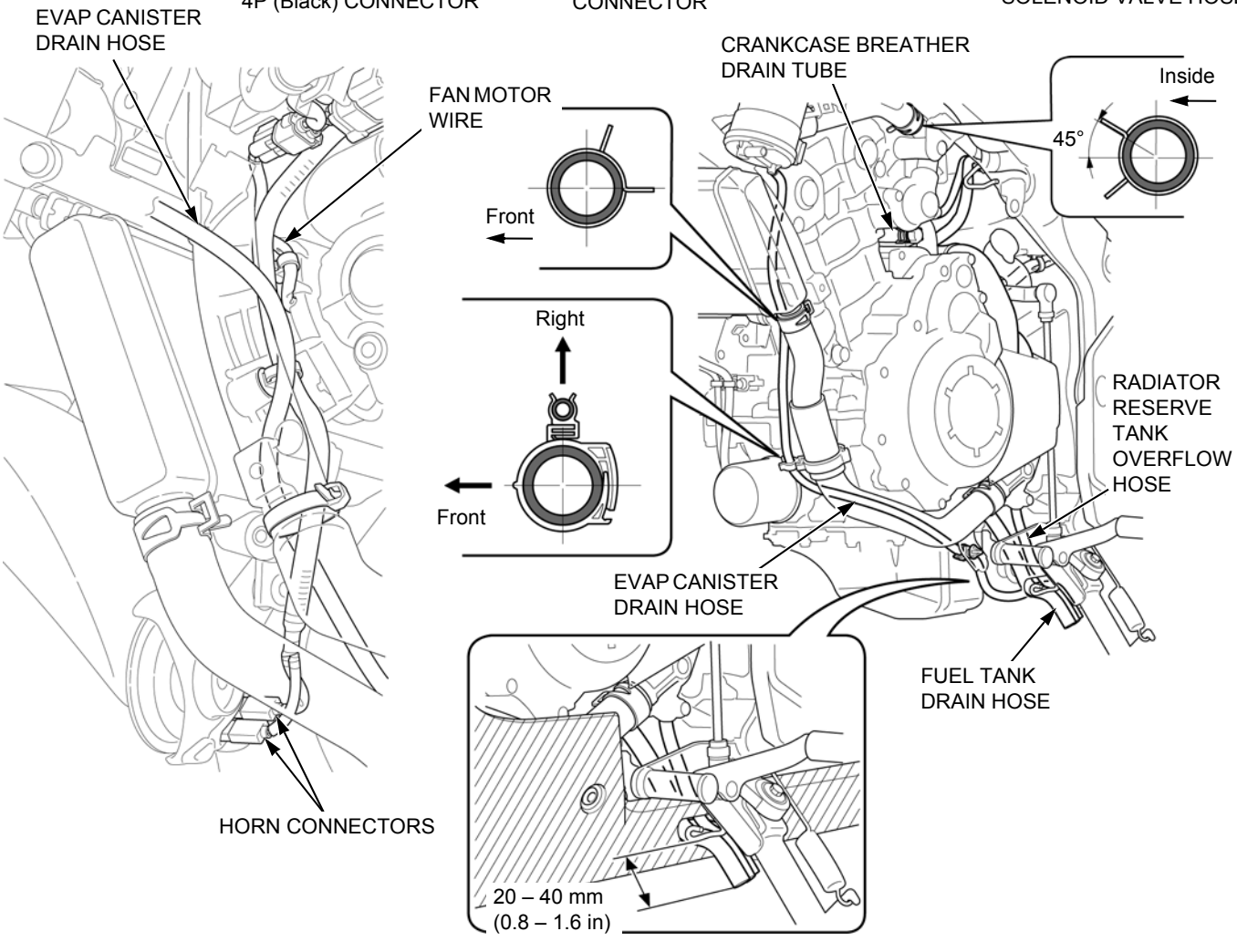




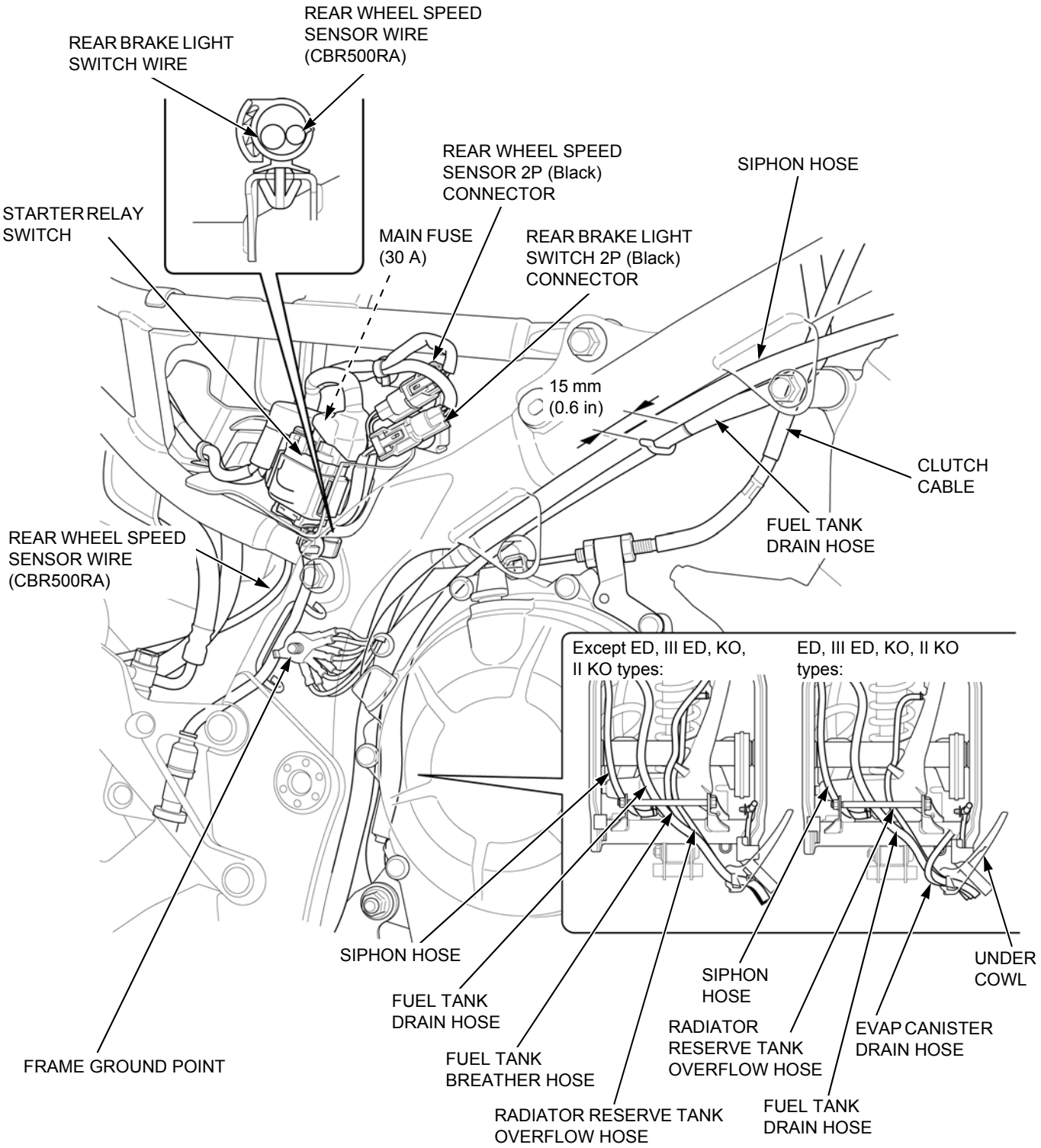
CBR500R/RA

ED, III ED, KO, II KO types:



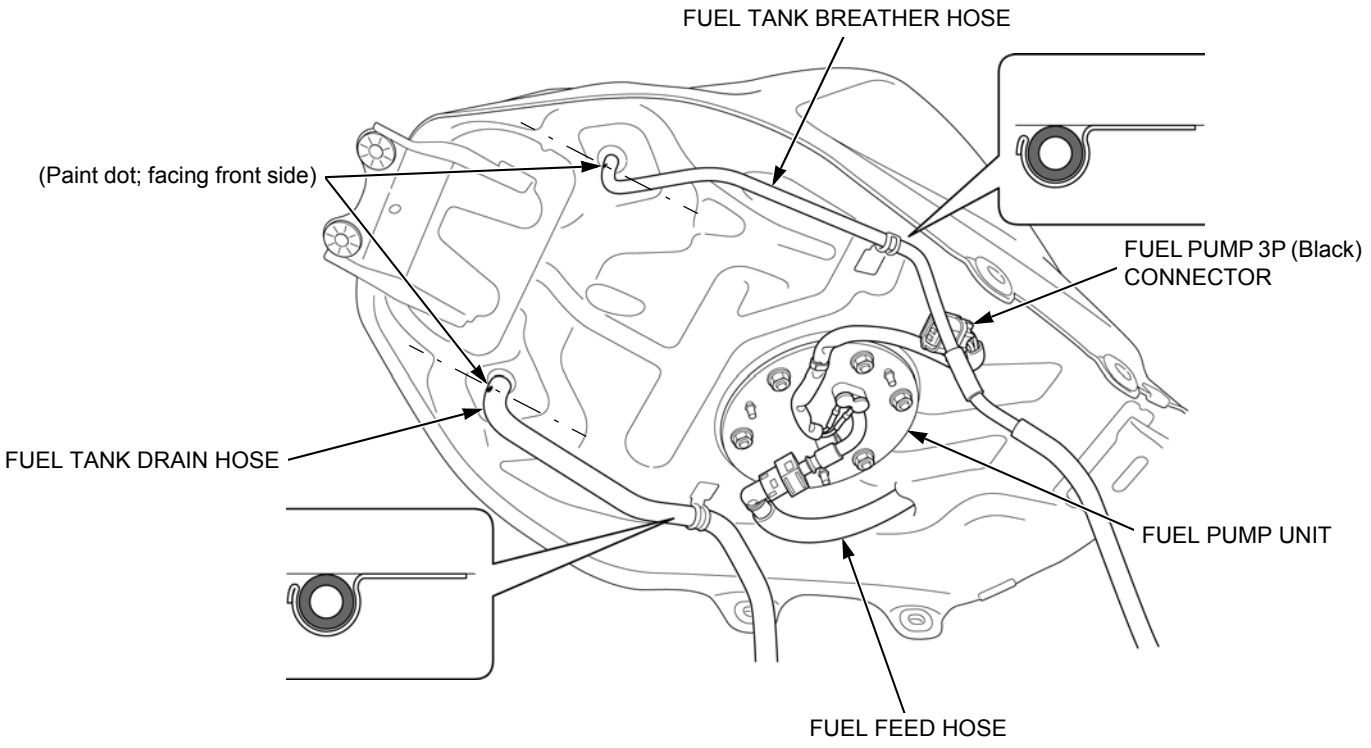


CBR500R/RA


REAR WHEEL SPEED SENSOR WIRE (CBR500RA)
REAR BRAKE LIGHT SWITCH WIRE
REAR WHEEL SPEED SENSOR 2P (Black) CONNECTOR
SIPHON HOSE
STARTER RELAY SWITCH
MAIN FUSE (30 A)
REAR BRAKE LIGHT SWITCH 2P (Black) CONNECTOR
15 mm (0.6 in)
CLUTCH CABLE
FUEL TANK DRAIN HOSE
REAR WHEEL SPEED SENSOR WIRE (CBR500RA)
Except ED, III ED, KO, II KO types:
ED, III ED, KO, II KO types:
SIPHON HOSE
FUEL TANK DRAIN HOSE
SIPHON HOSE
UNDER COWL
RADIATOR RESERVE TANK OVERFLOW HOSE
EVAP CANISTER DRAIN HOSE
FUEL TANK BREATHER HOSE
FRAME GROUND POINT
RADIATOR RESERVE TANK OVERFLOW HOSE
FUEL TANK DRAIN HOSE

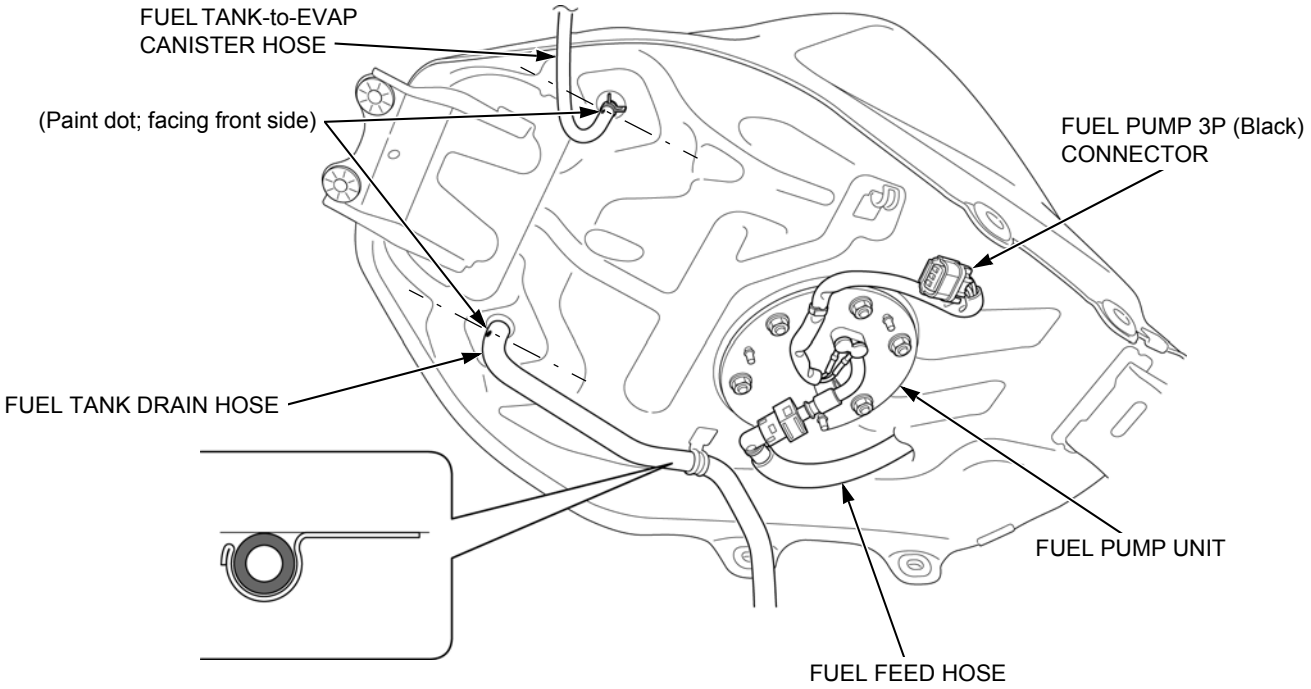
CBR500R/RA

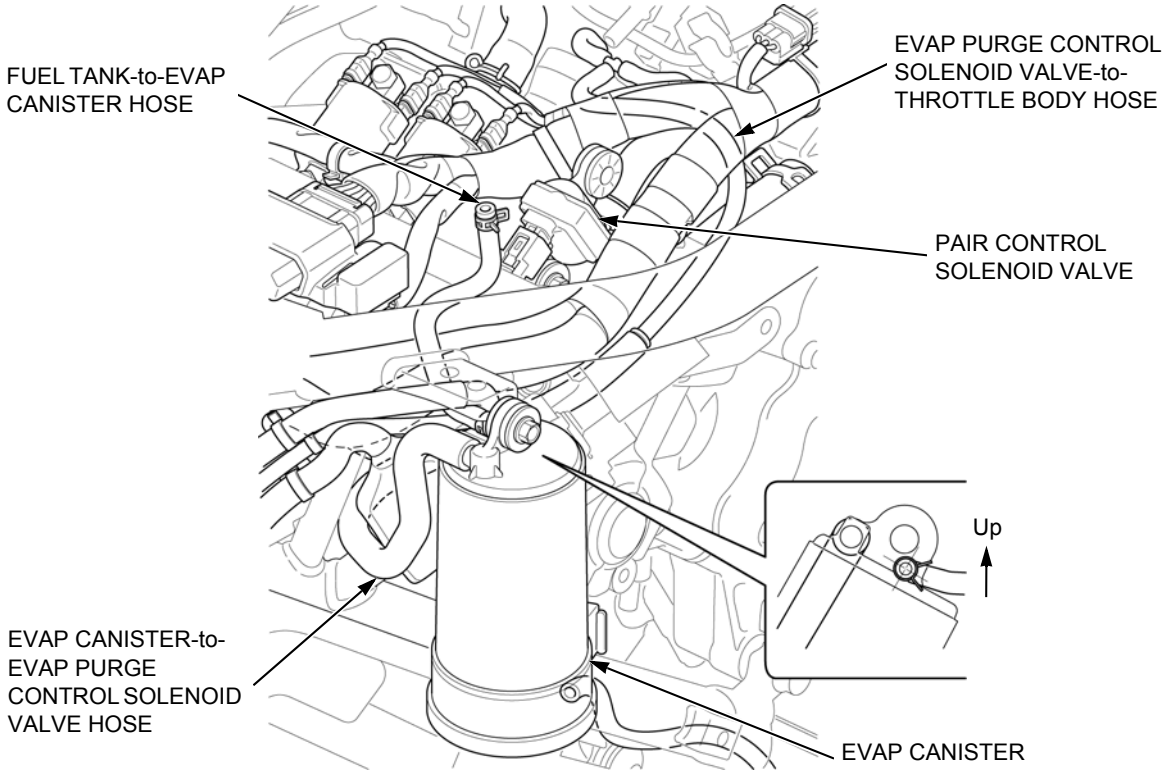
Except ED, III ED, KO, II KO types:

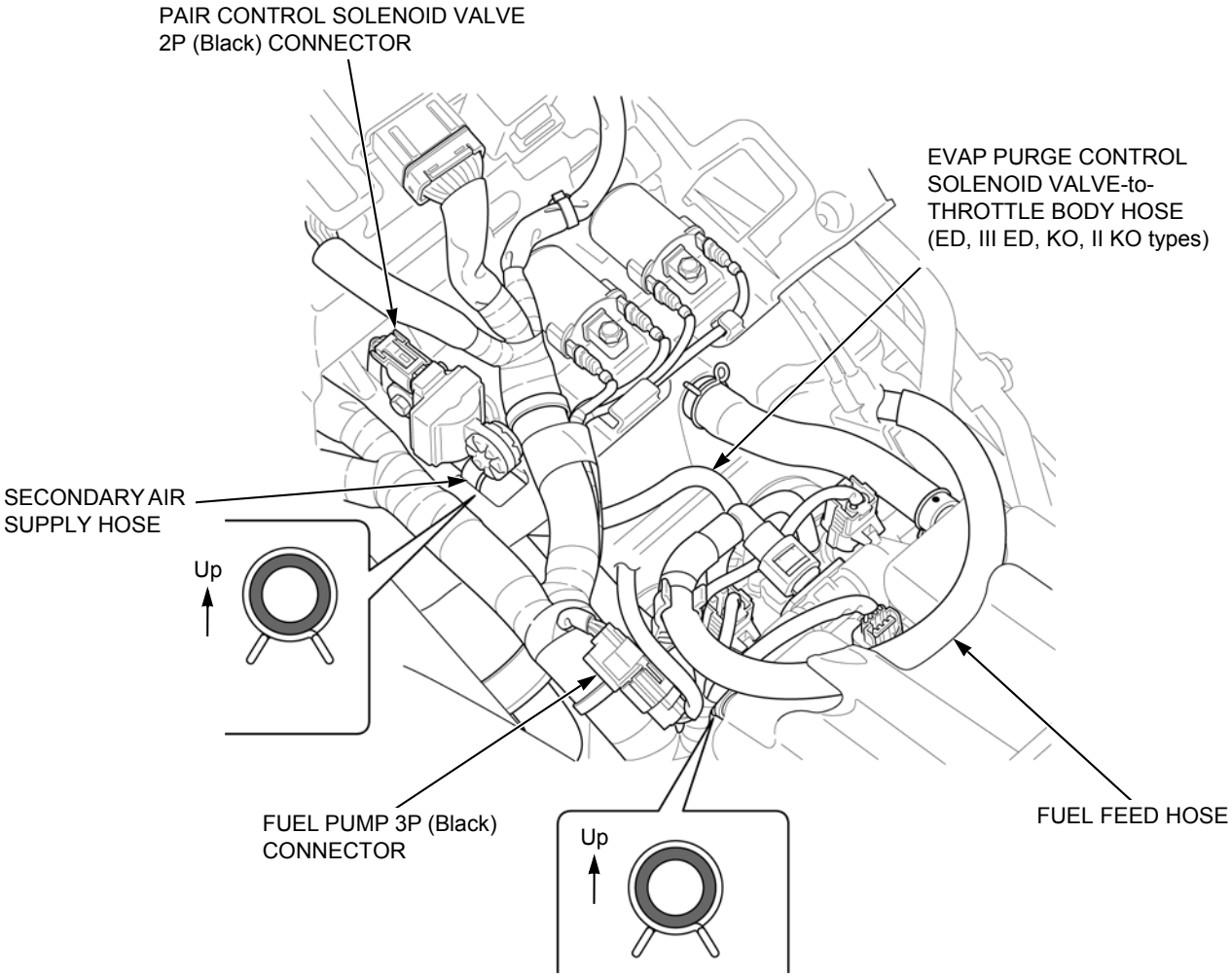


CBR500R/RA

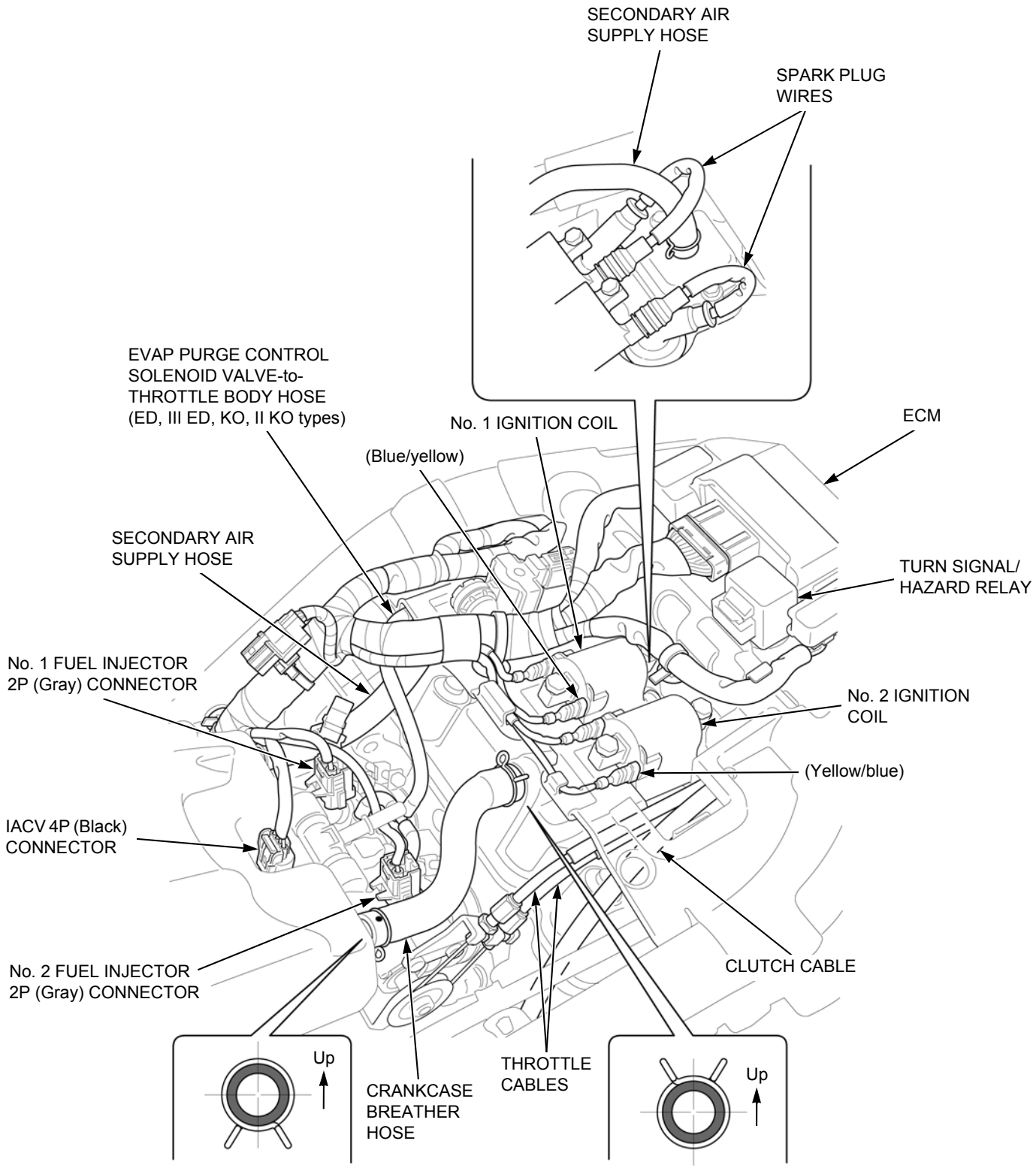
ED, III ED, KO, II KO types:



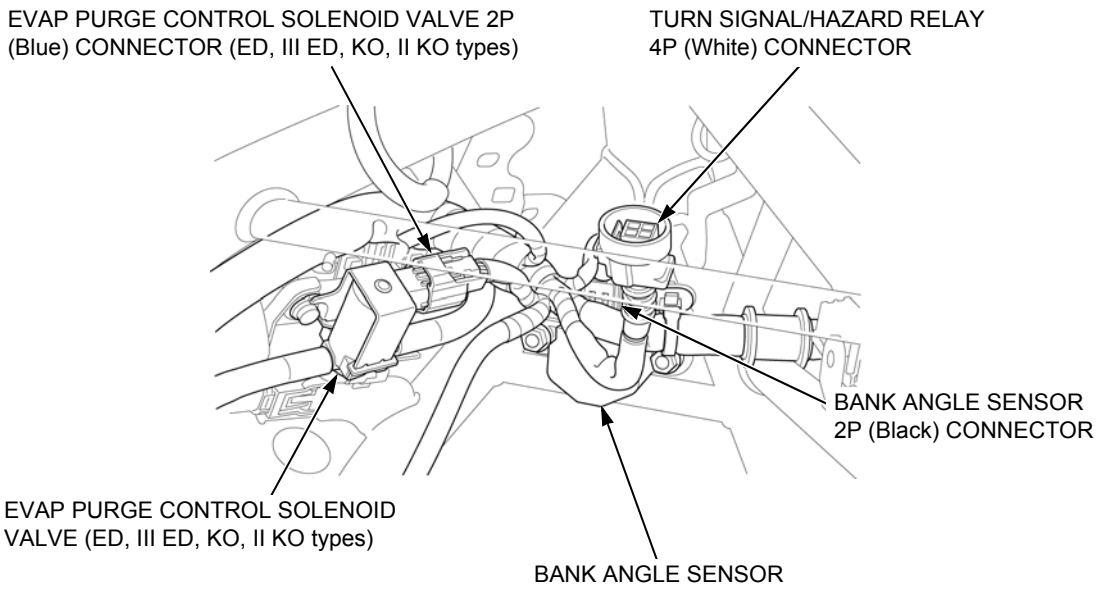



PAIR CONTROL SOLENOID VALVE
2P (Black) CONNECTOR
EVAP PURGE CONTROL
SOLENOID VALVE-to-
THROTTLE BODY HOSE
(ED, III ED, KO, II KO types)
SECONDARY AIR
SUPPLY HOSE
Up
FUEL PUMP 3P (Black)
CONNECTOR
Up
FUEL FEED HOSE

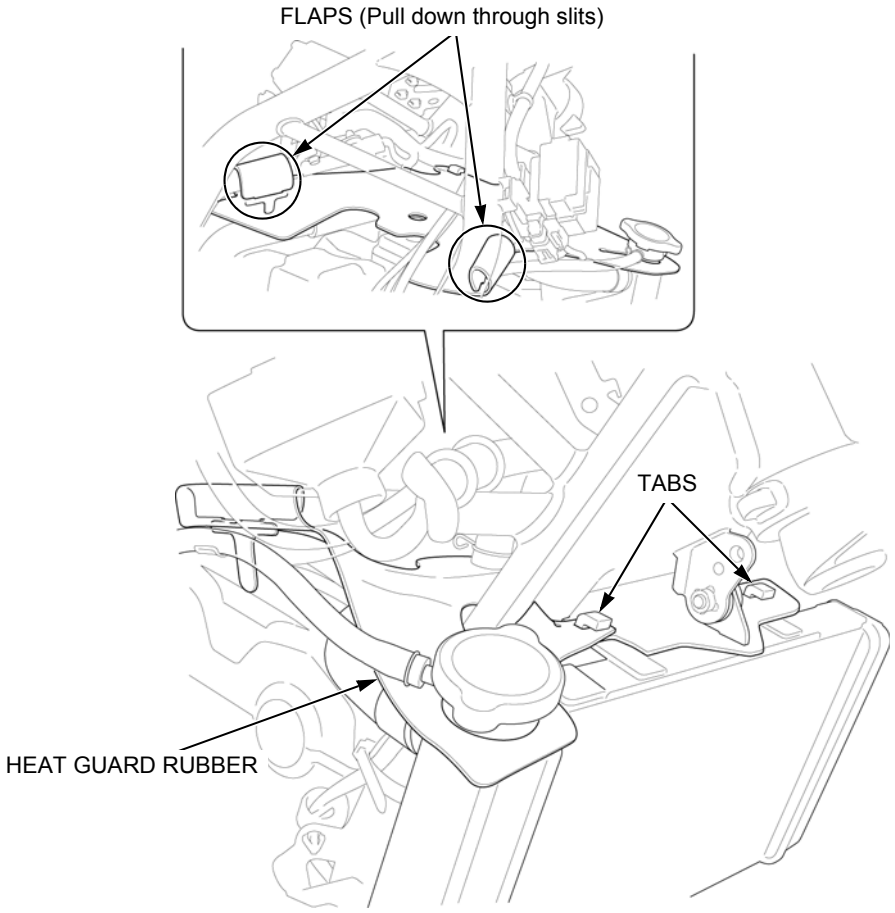
CBR500R/RA


SECONDARY AIR SUPPLY HOSE
SPARK PLUG WIRES
EVAP PURGE CONTROL SOLENOID VALVE-to-THROTTLE BODY HOSE (ED, III ED, KO, II KO types)
No. 1 IGNITION COIL (Blue/yellow)
ECM
SECONDARY AIR SUPPLY HOSE
TURN SIGNAL/ HAZARD RELAY
No. 1 FUEL INJECTOR 2P (Gray) CONNECTOR
No. 2 IGNITION COIL
(Yellow/blue)
IACV 4P (Black) CONNECTOR
No. 2 FUEL INJECTOR 2P (Gray) CONNECTOR
CLUTCH CABLE
Up
CRANKCASE BREATHER HOSE
THROTTLE CABLES
Up

Behind steering head pipe (viewed from rear side):



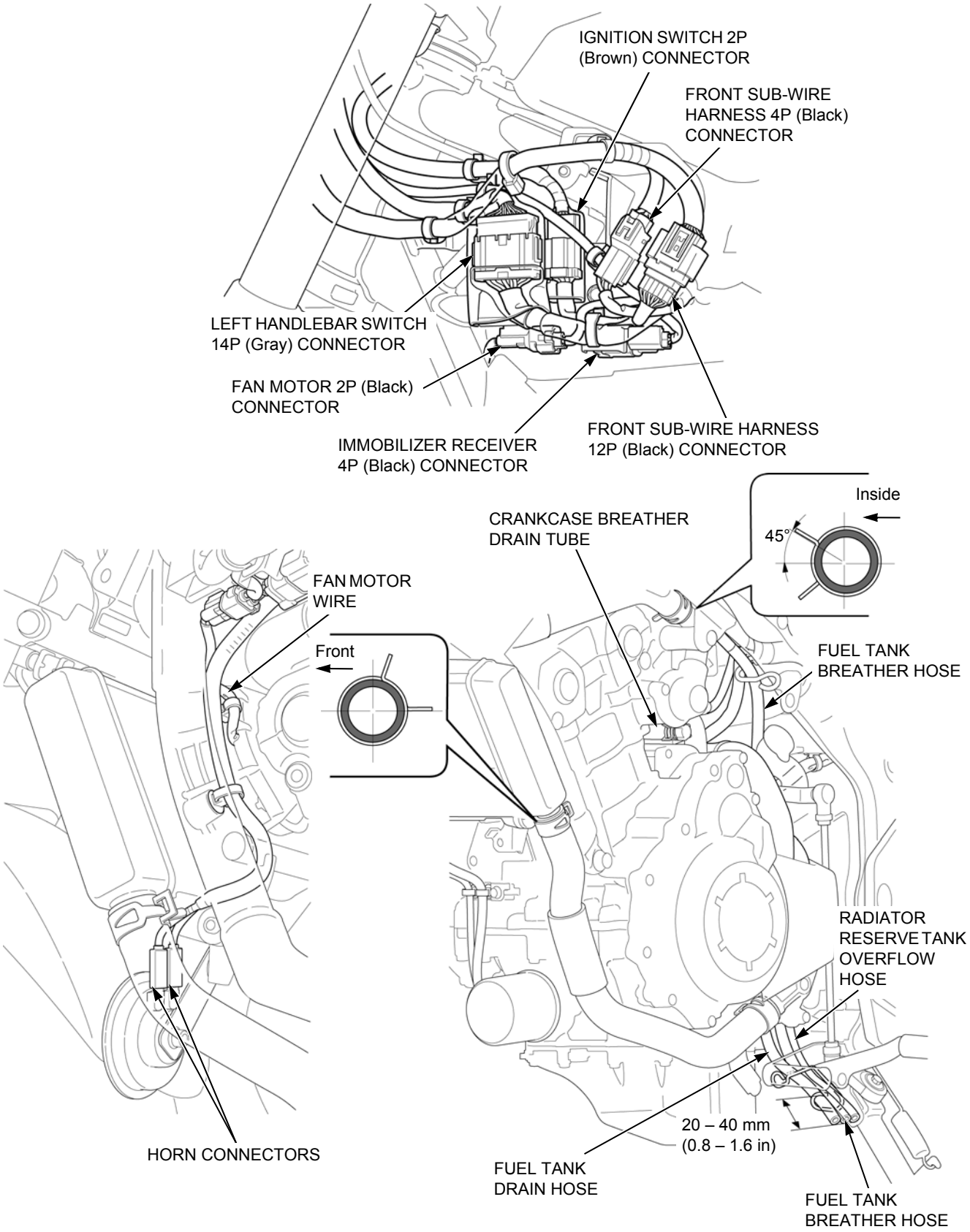
Front heat guard rubber setting points:



CB500F/FA

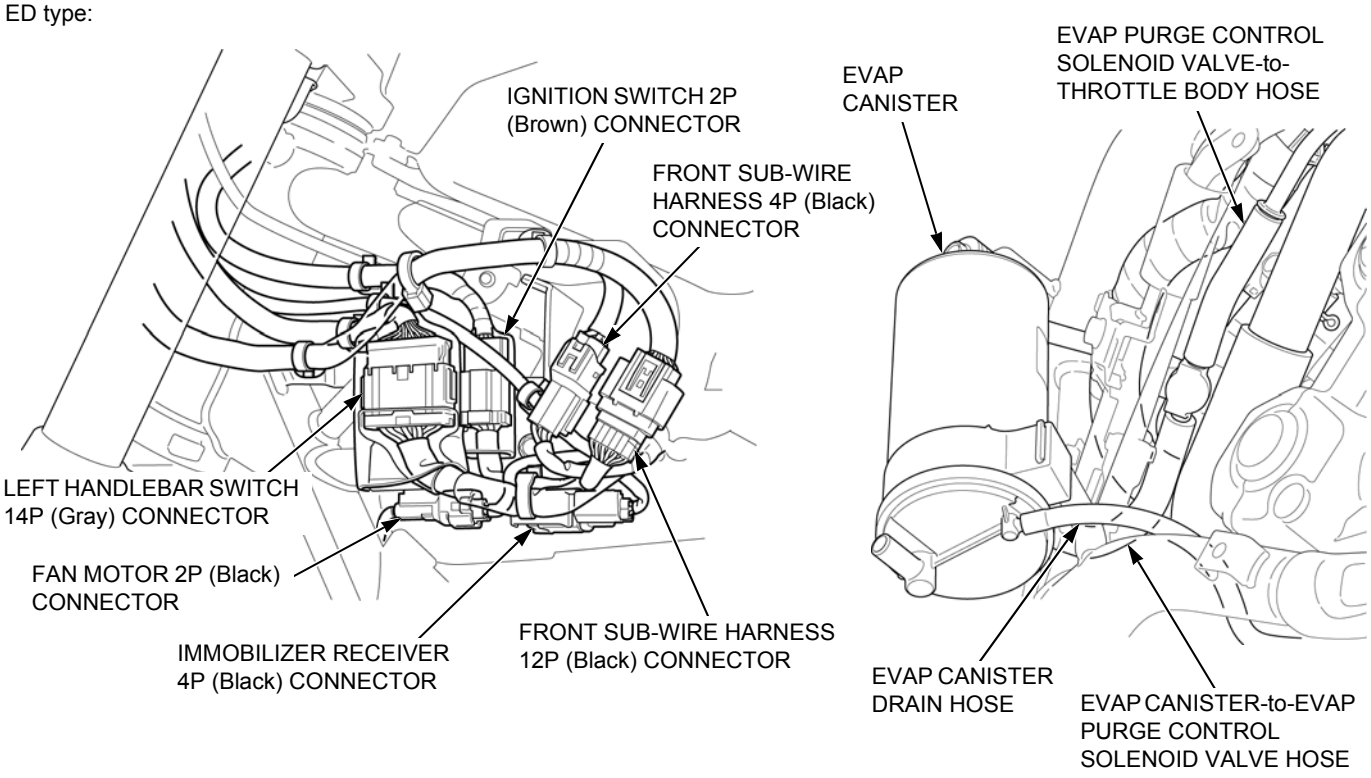
CB500F/FA

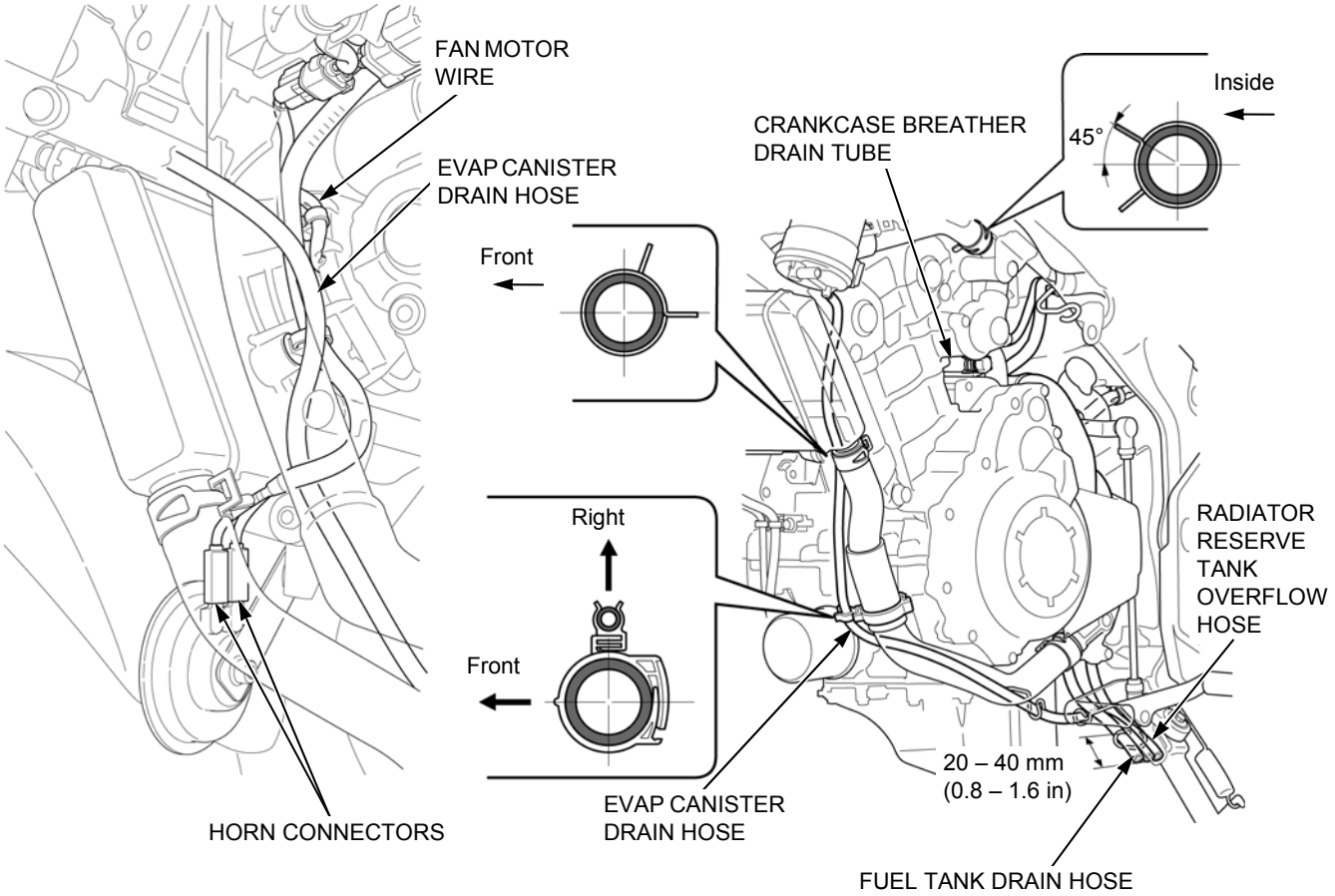
Except ED type:



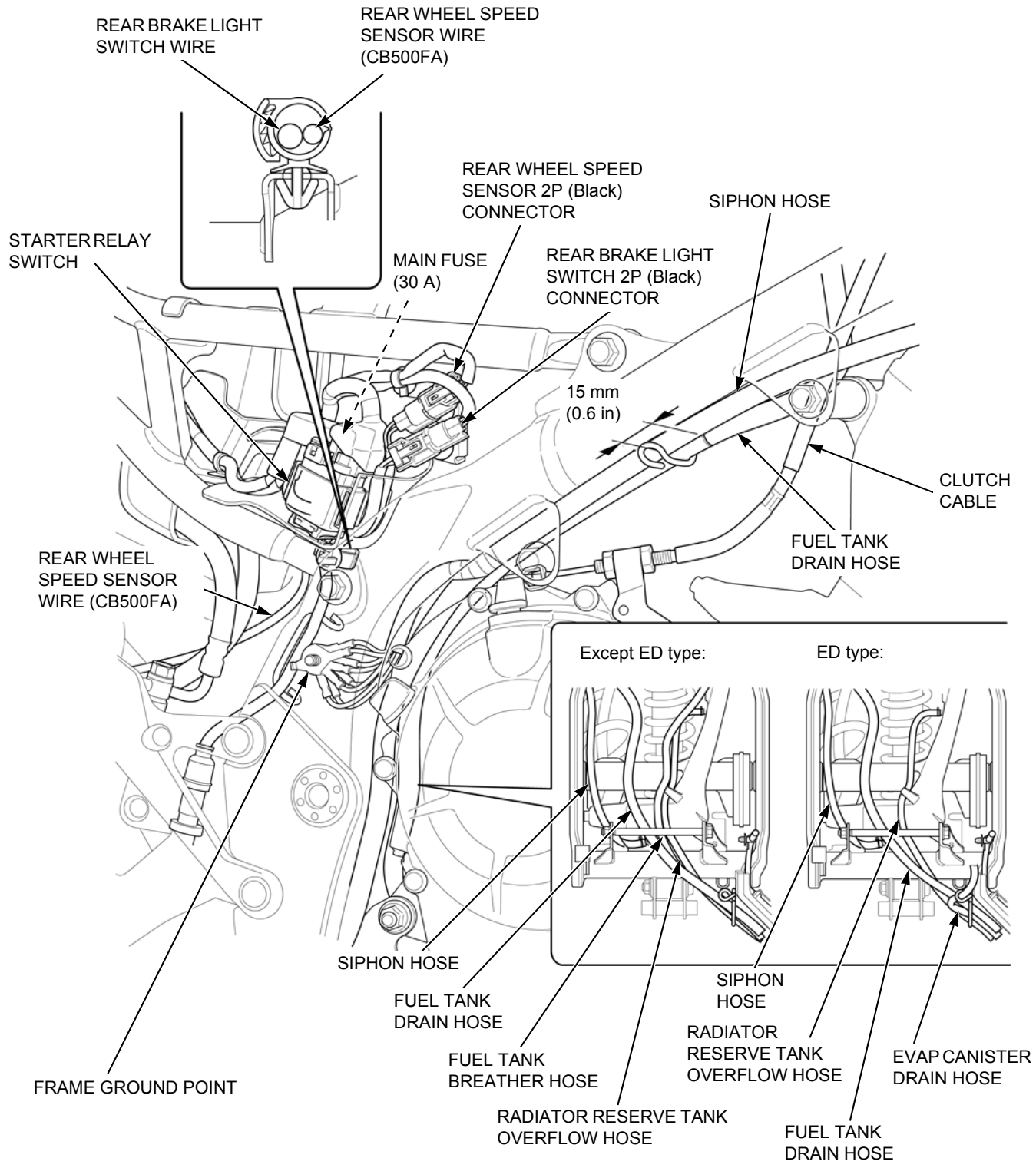
CB500FA

ED type:



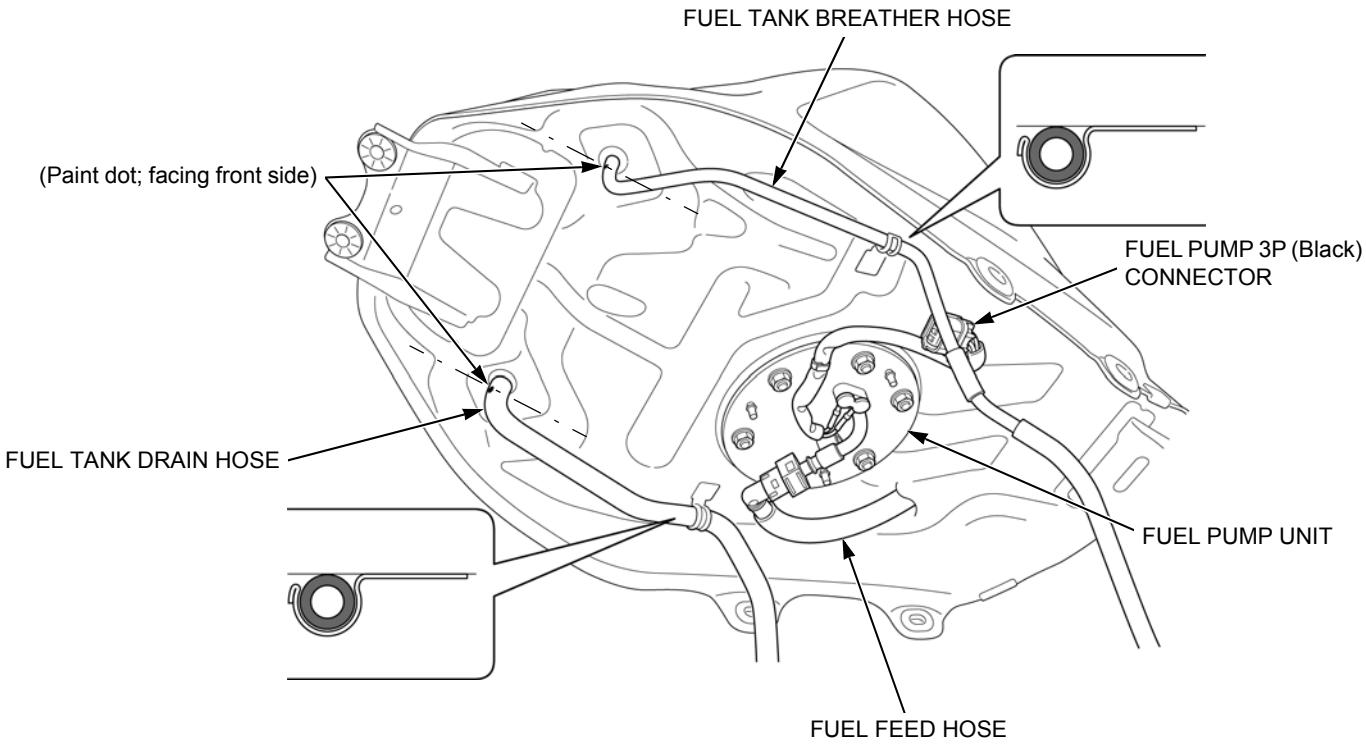


CB500F/FA


REAR BRAKE LIGHT SWITCH WIRE
REAR WHEEL SPEED SENSOR WIRE (CB500FA)
REAR WHEEL SPEED SENSOR 2P (Black) CONNECTOR
SIPHON HOSE
STARTER RELAY SWITCH
MAIN FUSE (30 A)
REAR BRAKE LIGHT SWITCH 2P (Black) CONNECTOR
15 mm (0.6 in)
CLUTCH CABLE
FUEL TANK DRAIN HOSE
REAR WHEEL SPEED SENSOR WIRE (CB500FA)
Except ED type:
ED type:
SIPHON HOSE
FUEL TANK DRAIN HOSE
SIPHON HOSE
RADIATOR RESERVE TANK OVERFLOW HOSE
EVAP CANISTER DRAIN HOSE
FUEL TANK BREATHER HOSE
RADIATOR RESERVE TANK OVERFLOW HOSE
FUEL TANK DRAIN HOSE
FRAME GROUND POINT

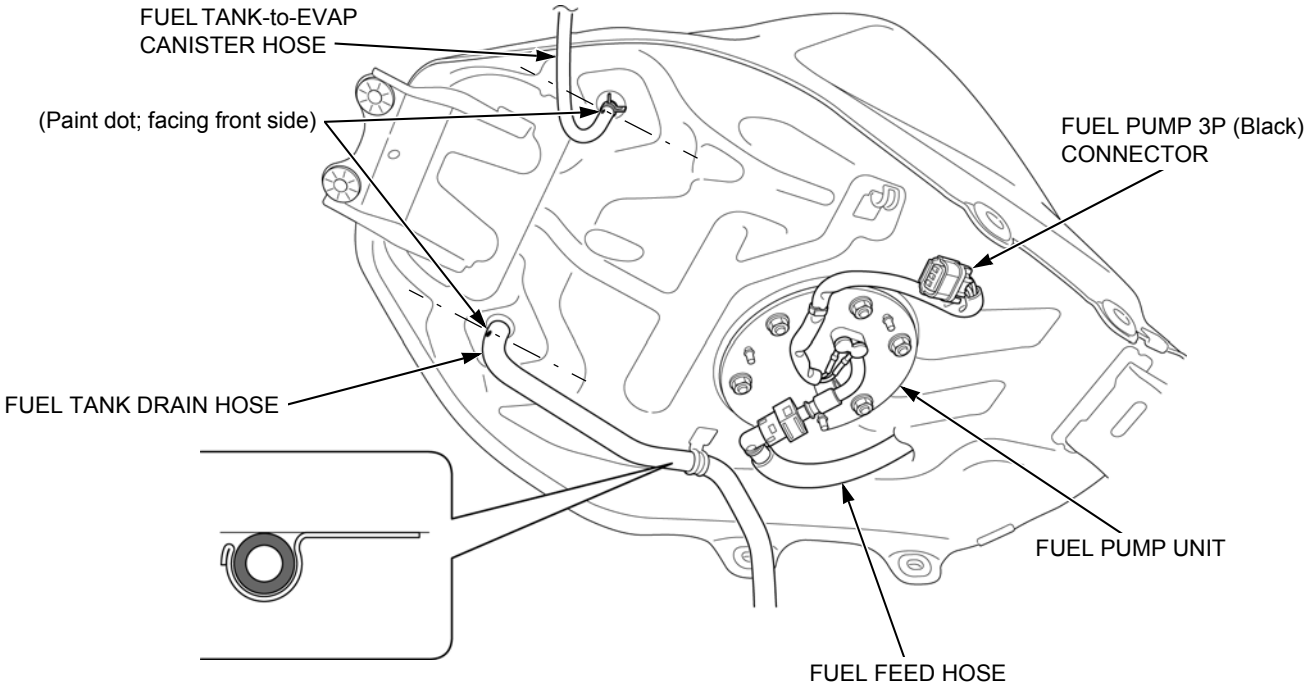
CB500F/FA

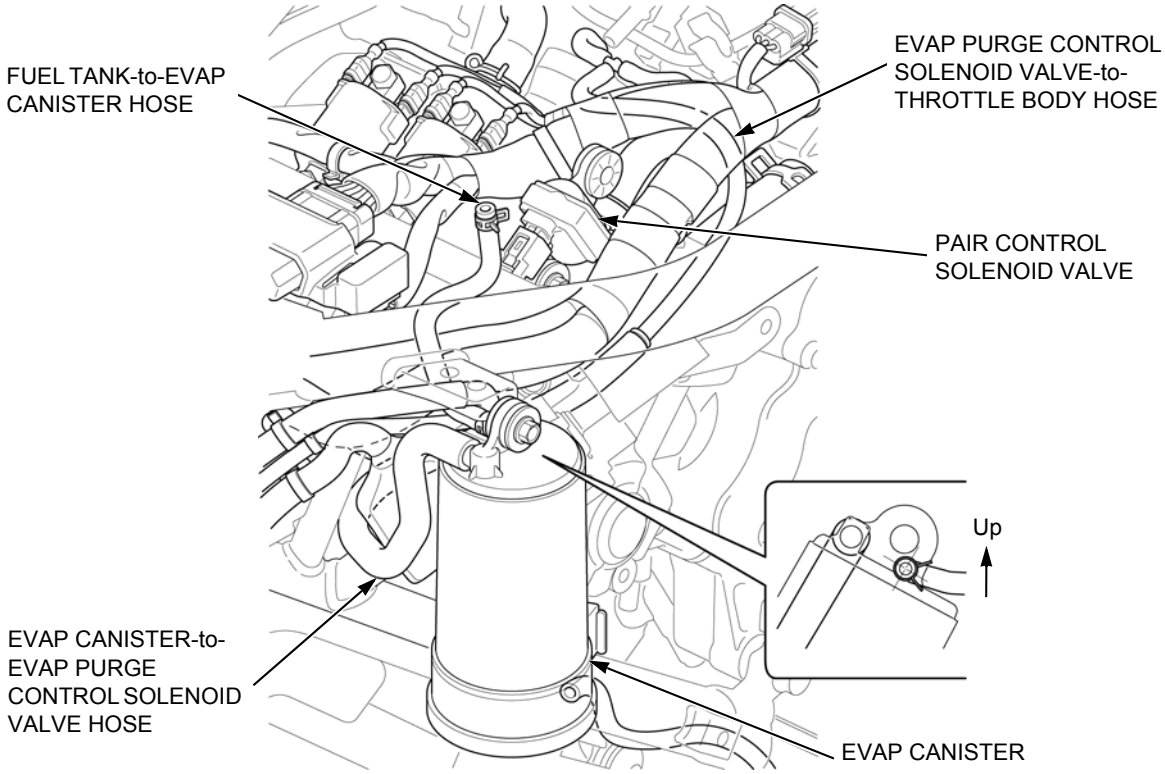
Except ED type:

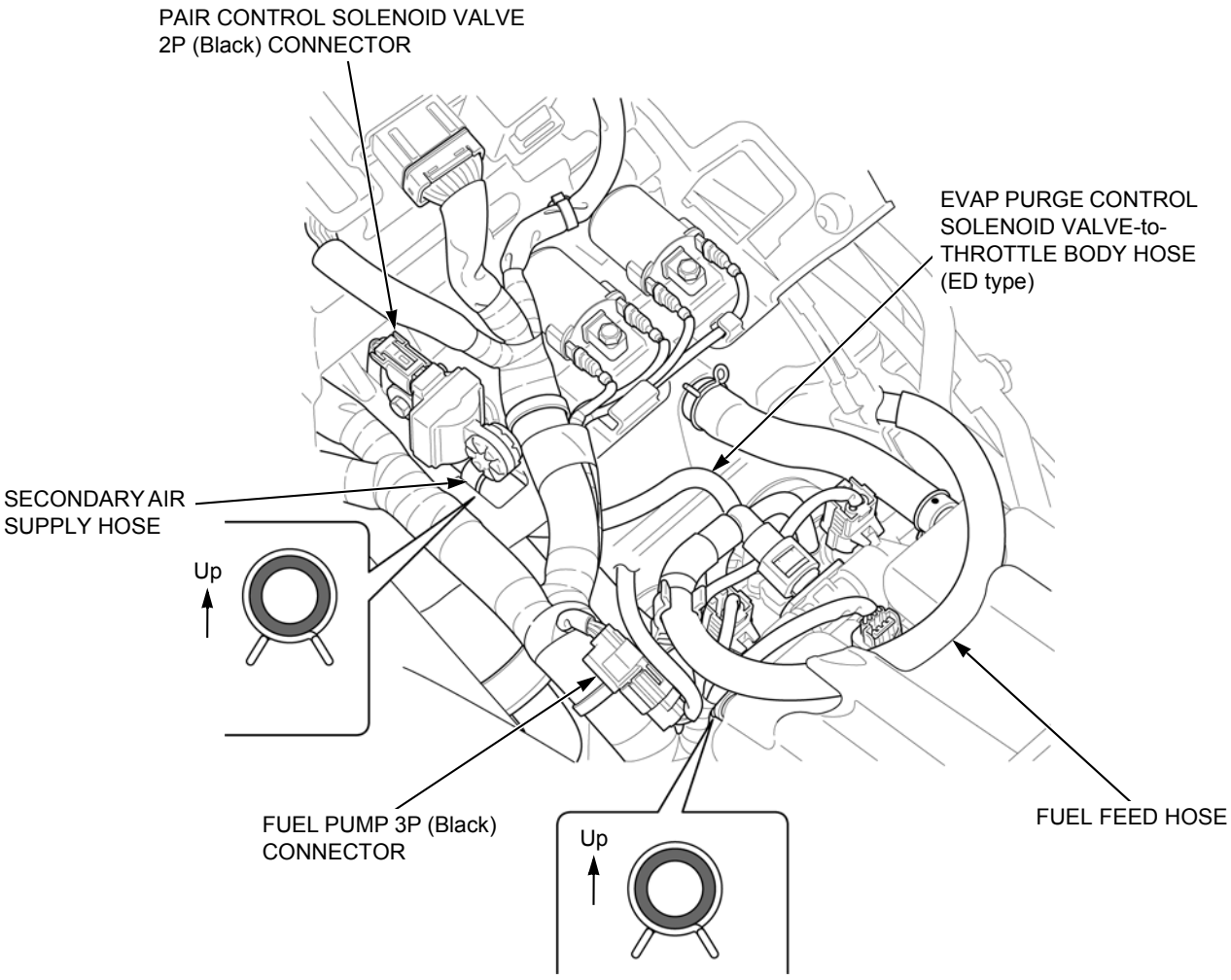


CB500FA

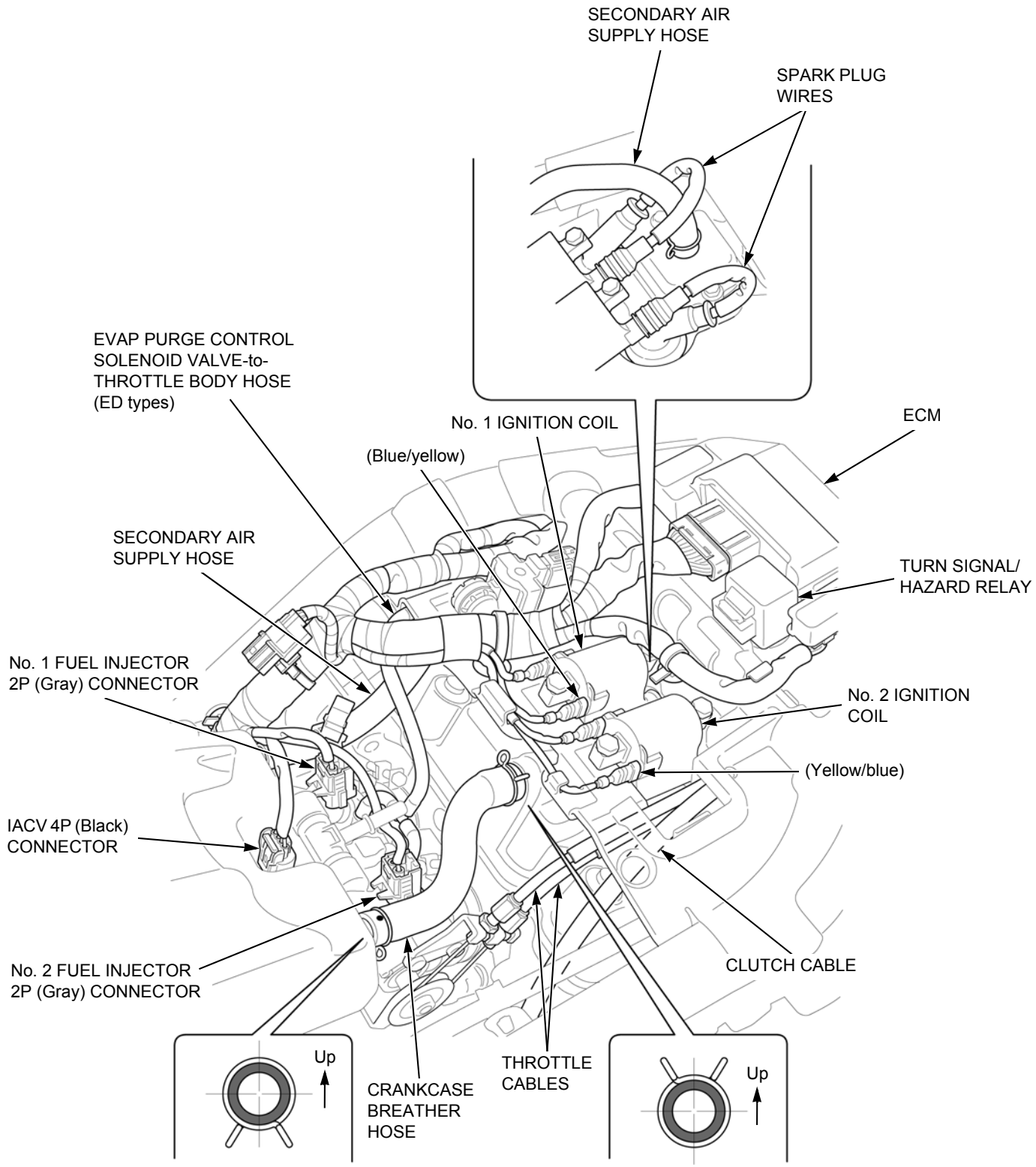
ED type:



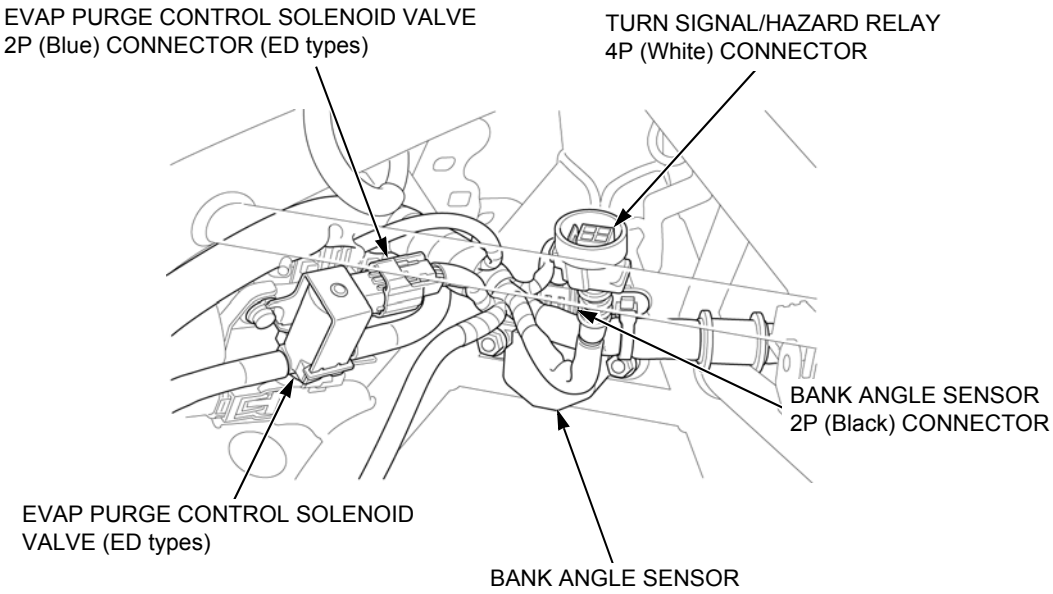



PAIR CONTROL SOLENOID VALVE
2P (Black) CONNECTOR
EVAP PURGE CONTROL
SOLENOID VALVE-to-
THROTTLE BODY HOSE
(ED type)
SECONDARY AIR
SUPPLY HOSE
Up
FUEL PUMP 3P (Black)
CONNECTOR
Up
FUEL FEED HOSE

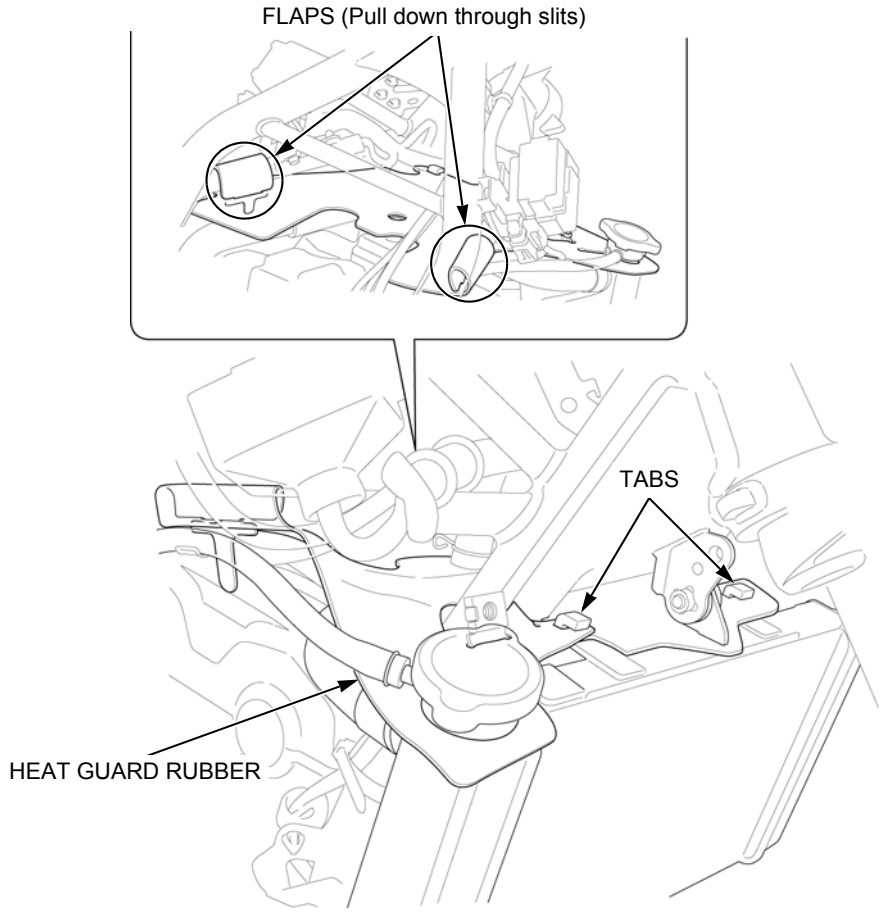
CB500F/FA


SECONDARY AIR SUPPLY HOSE
SPARK PLUG WIRES
EVAP PURGE CONTROL SOLENOID VALVE-to-THROTTLE BODY HOSE (ED types)
No. 1 IGNITION COIL
(Blue/yellow)
ECM
SECONDARY AIR SUPPLY HOSE
TURN SIGNAL/ HAZARD RELAY
No. 1 FUEL INJECTOR 2P (Gray) CONNECTOR
No. 2 IGNITION COIL
(Yellow/blue)
IACV 4P (Black) CONNECTOR
CLUTCH CABLE
No. 2 FUEL INJECTOR 2P (Gray) CONNECTOR
Up
CRANKCASE BREATHER HOSE
THROTTLE CABLES
Up

Behind steering head pipe (viewed from rear side):

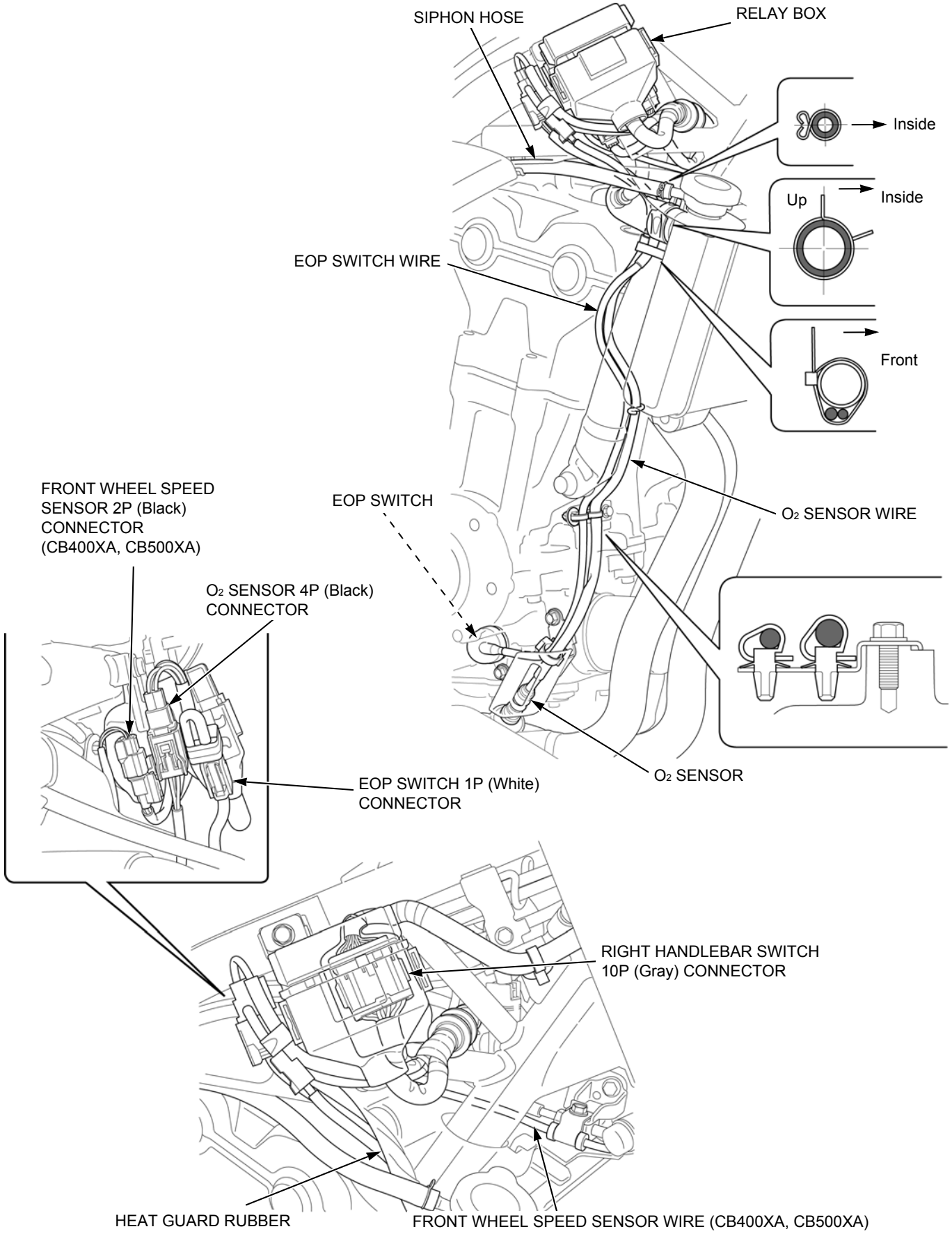


Front heat guard rubber setting points:



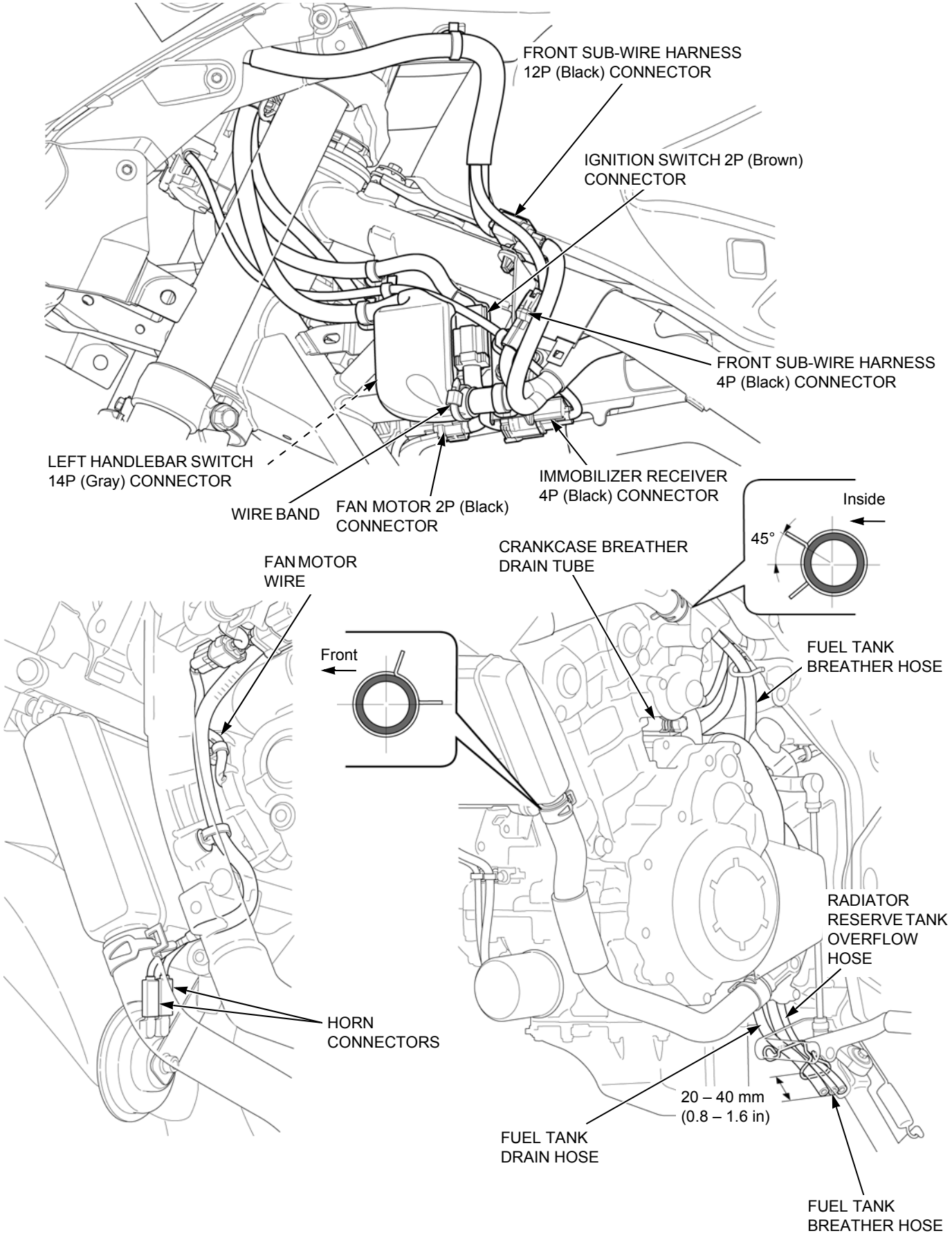
CB500X/XA, CB400X/XA

CB400X/XA, CB500X/XA



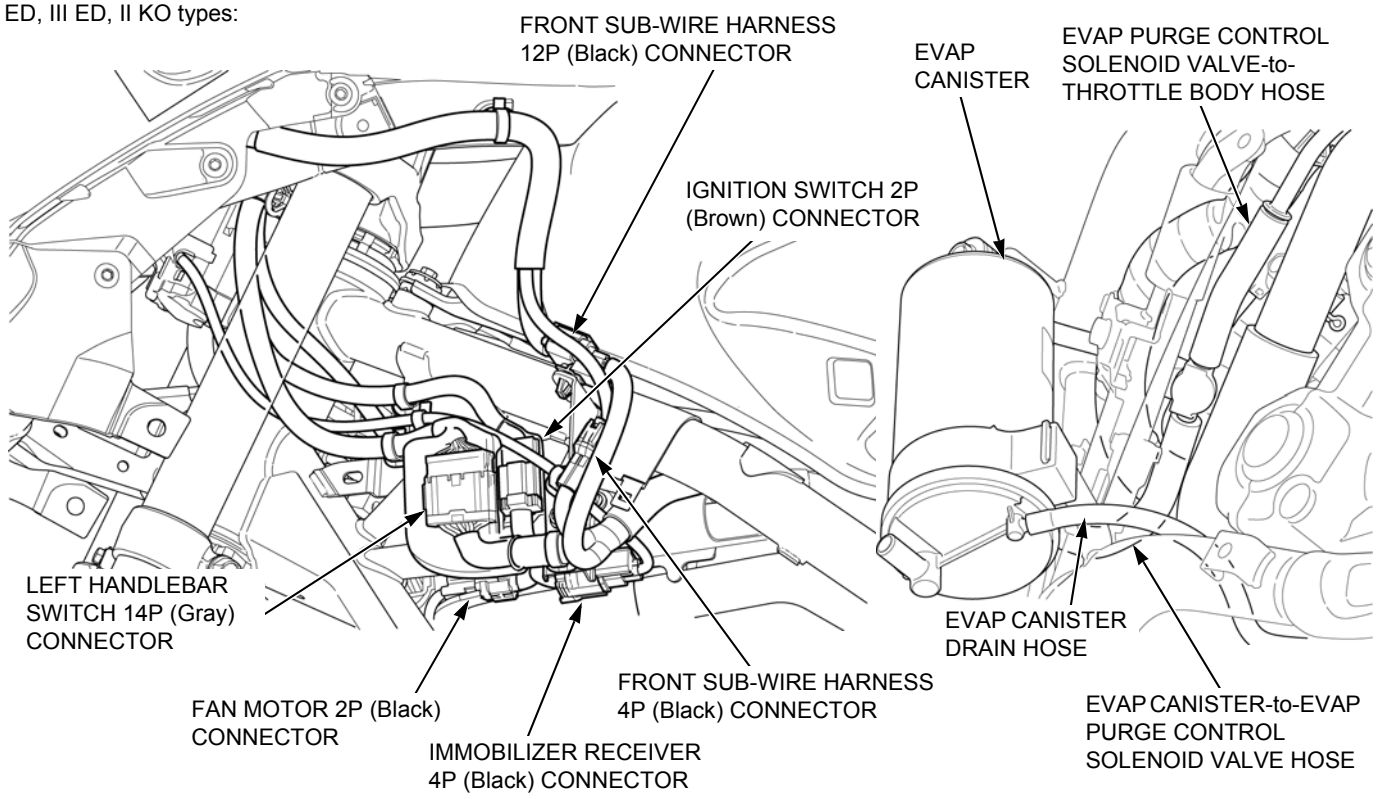
CB500X/XA

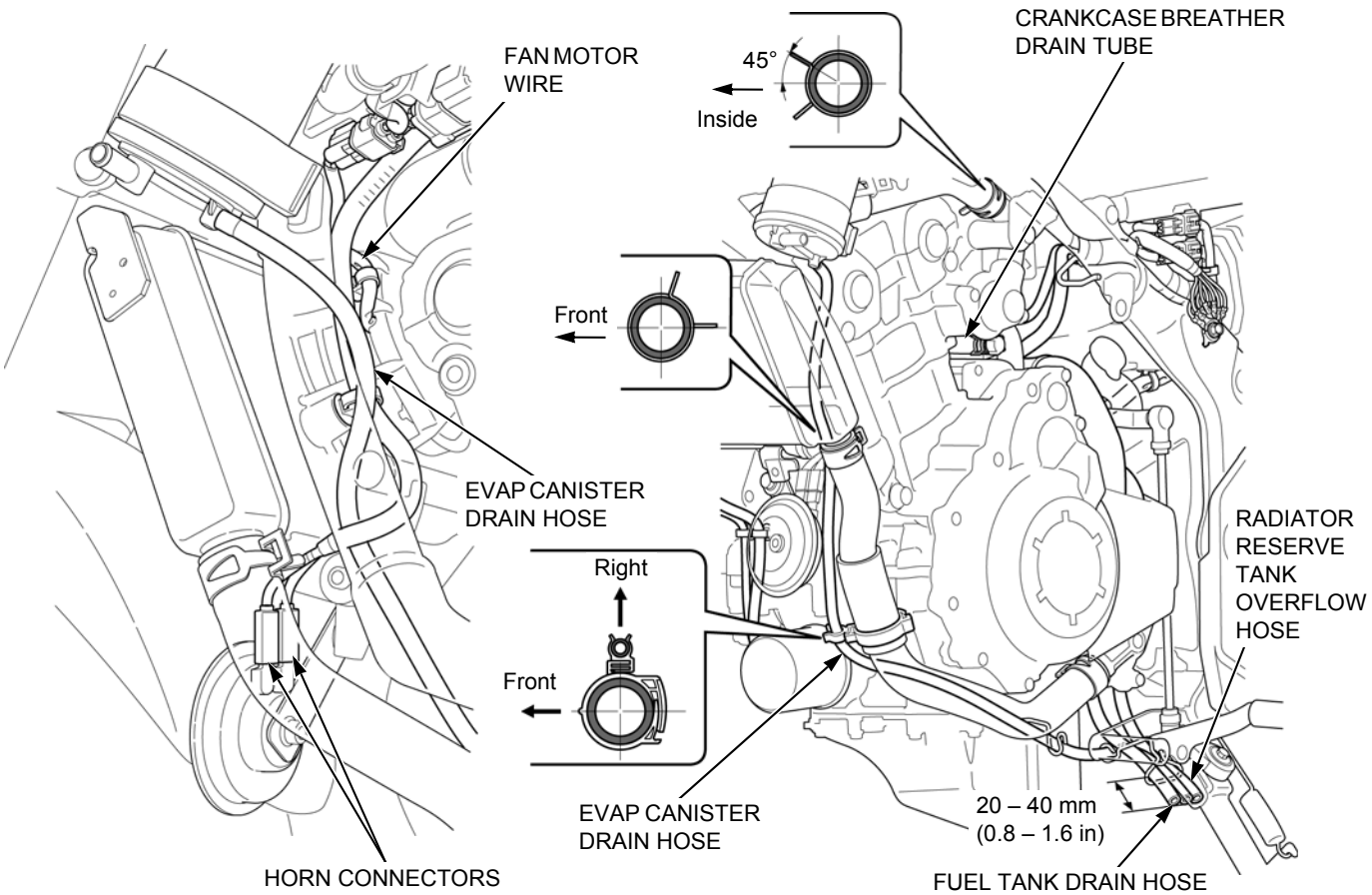
Except ED, III ED, II KO types:



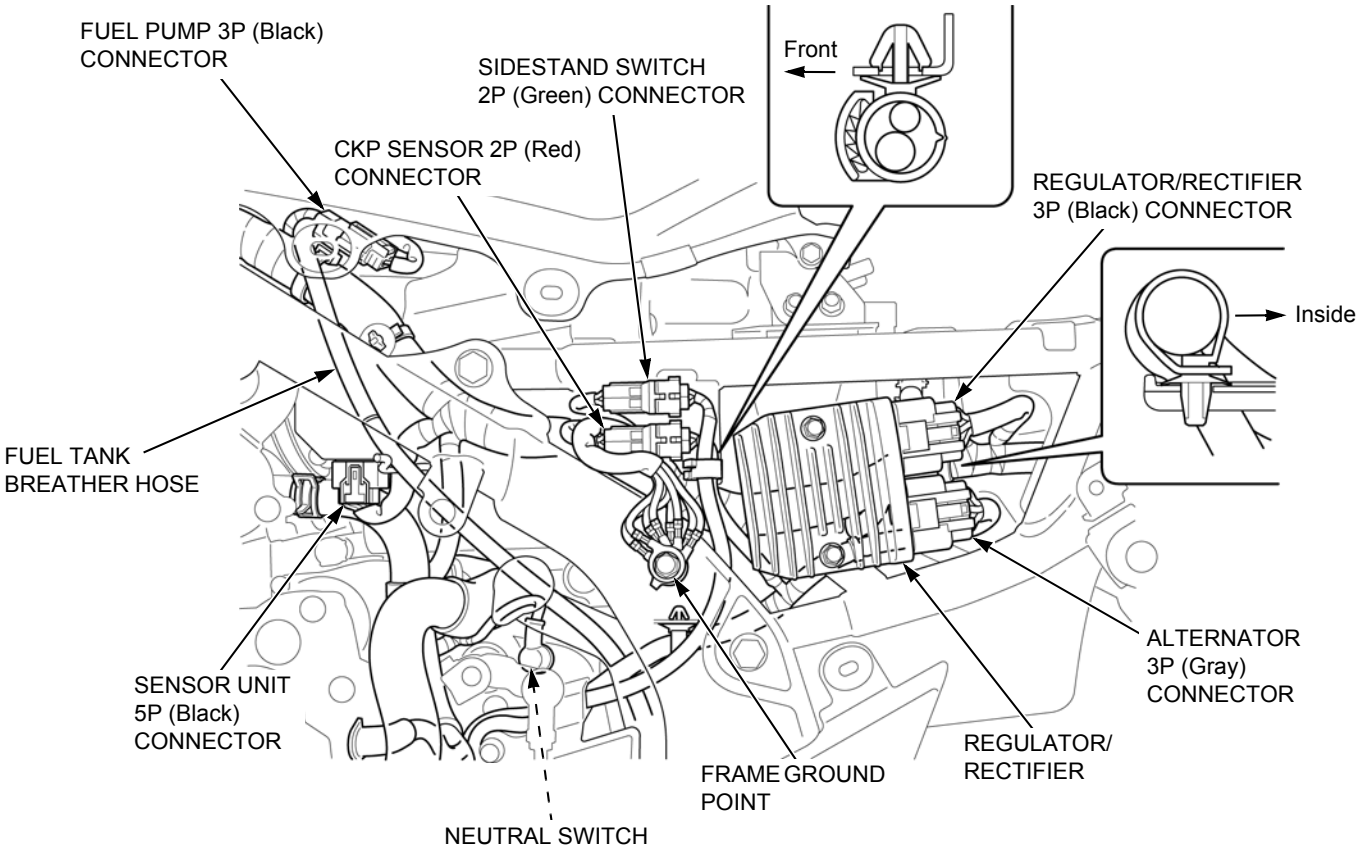
CB500X/XA

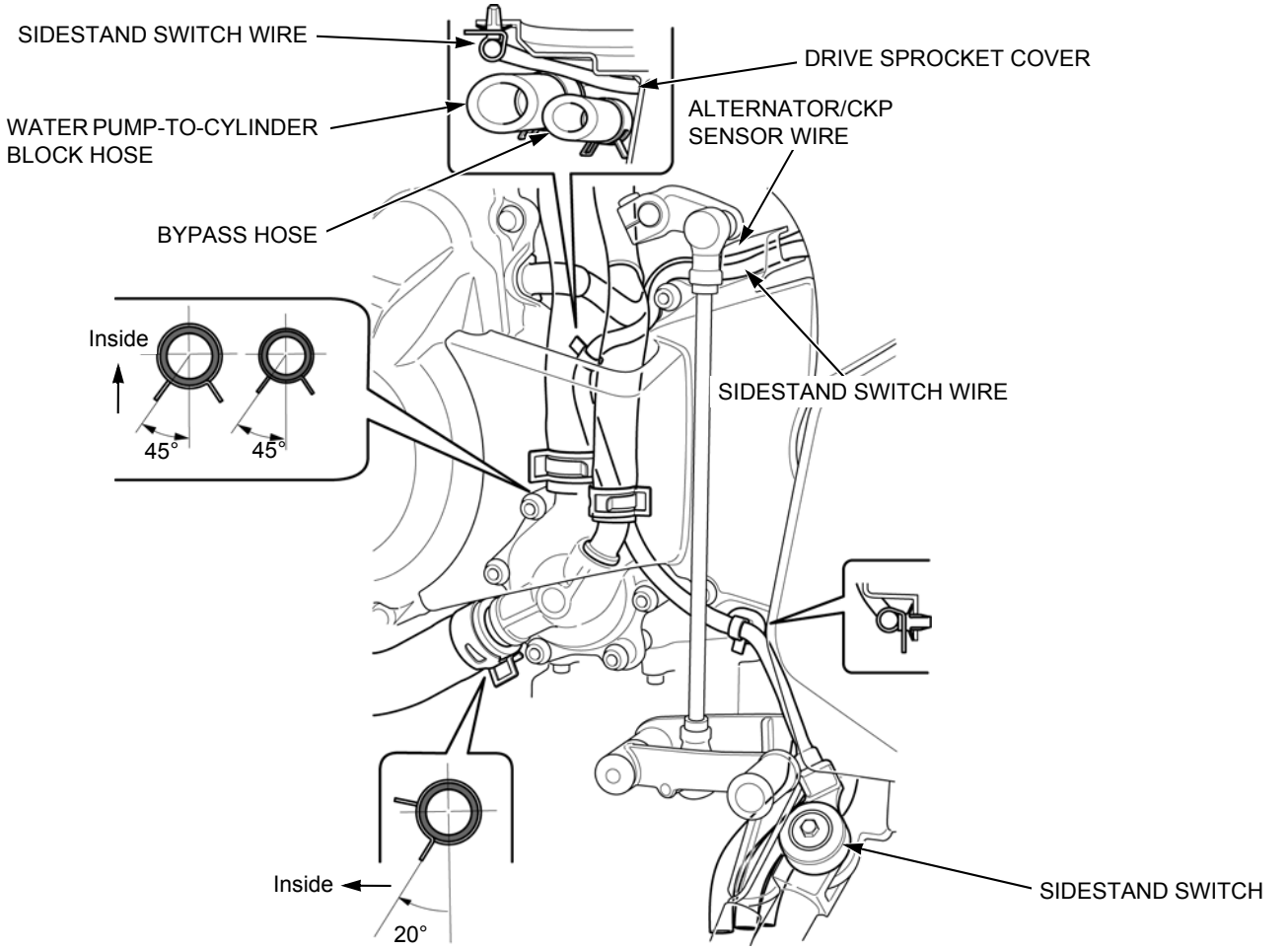
ED, III ED, II KO types:



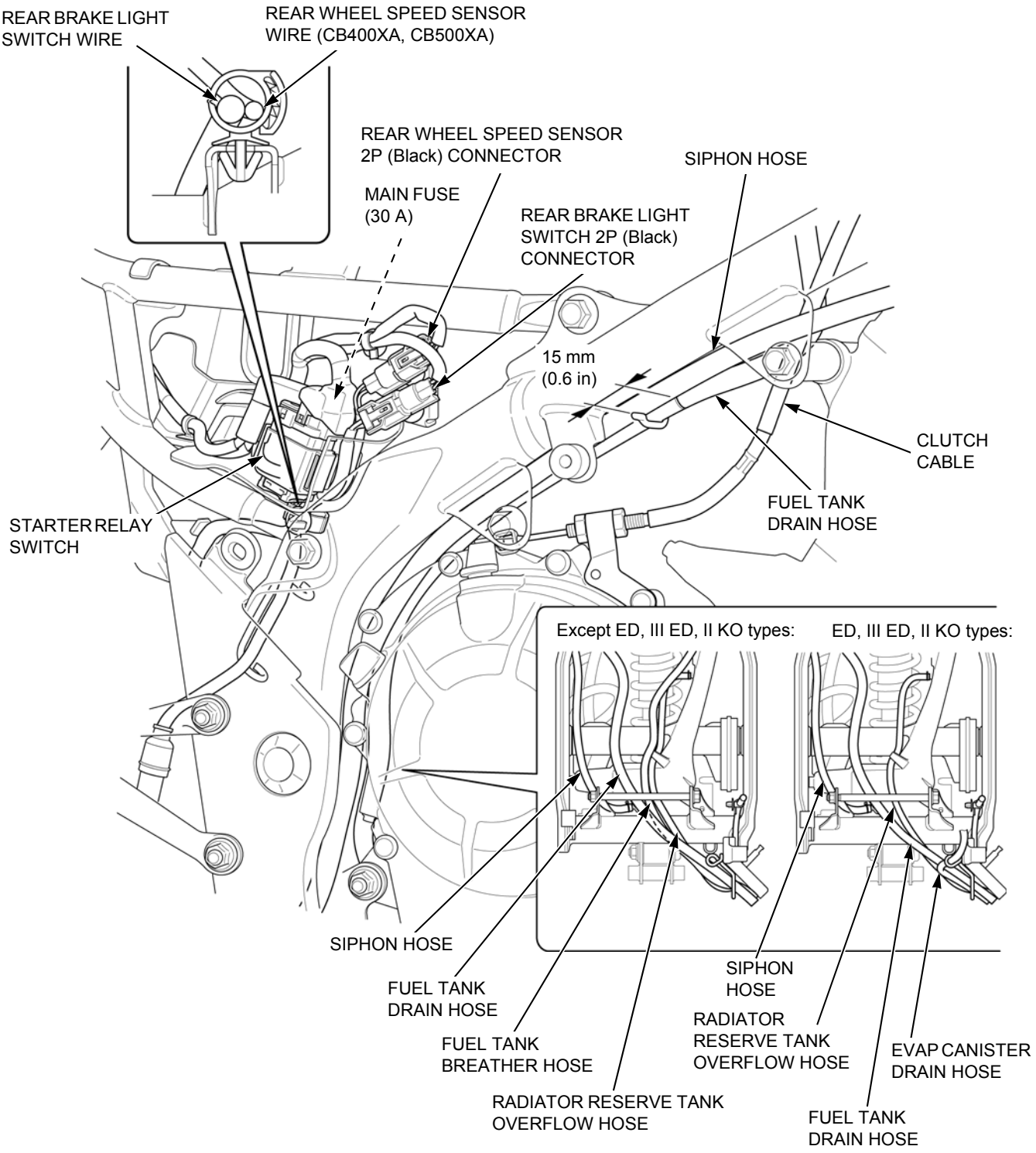


CB400X/XA, CB500X/XA



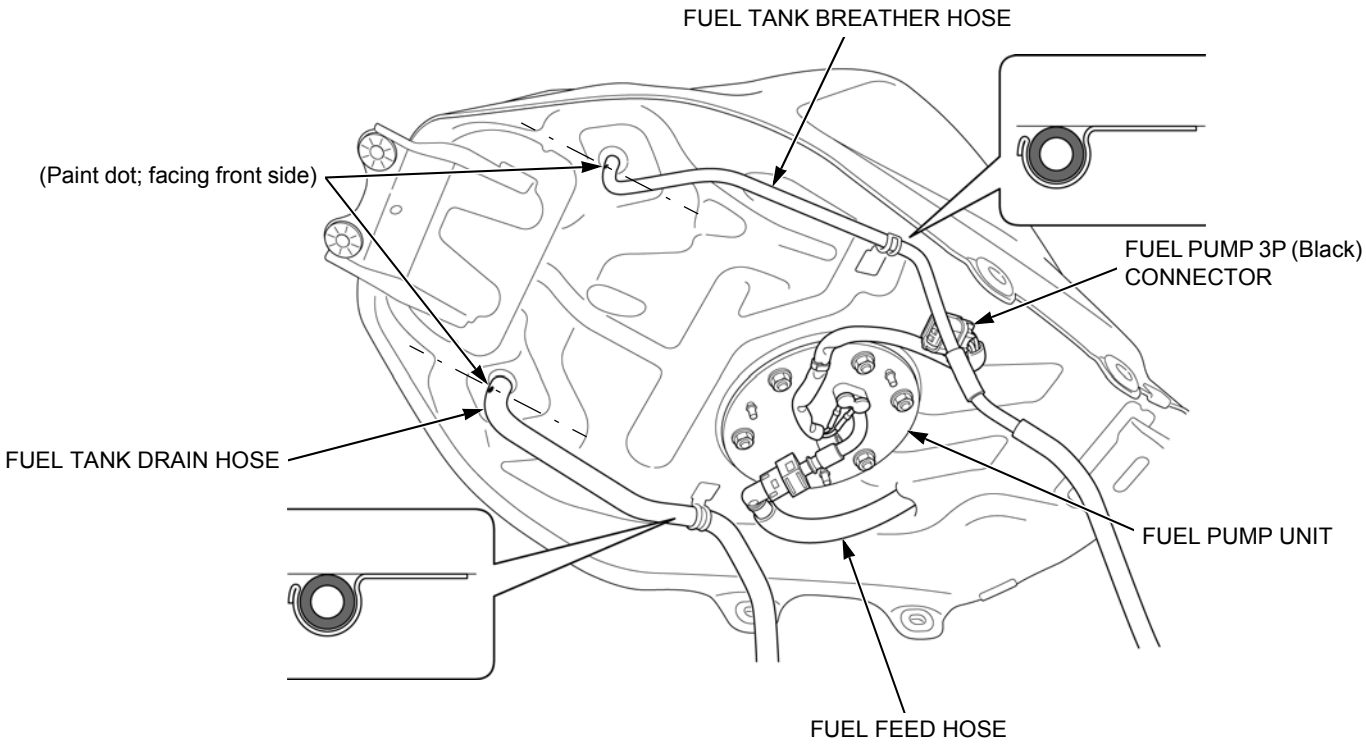


CB400X/XA, CB500X/XA



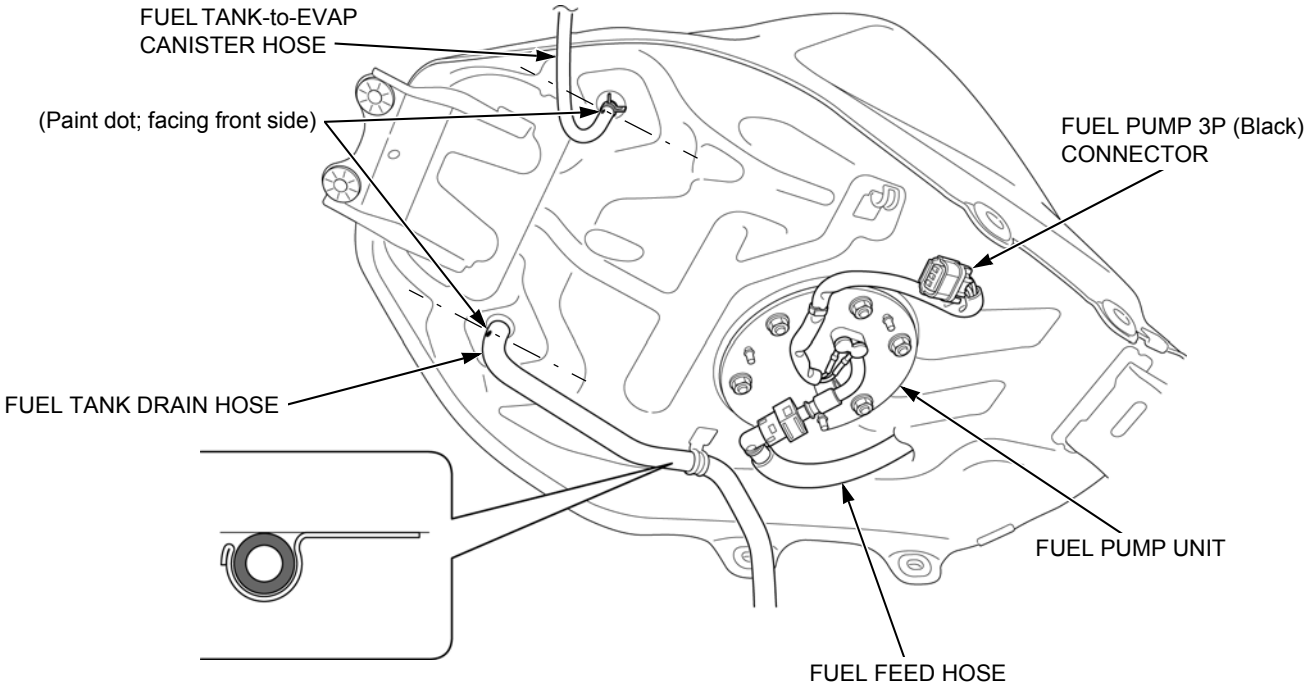
CB400X/XA, CB500X/XA

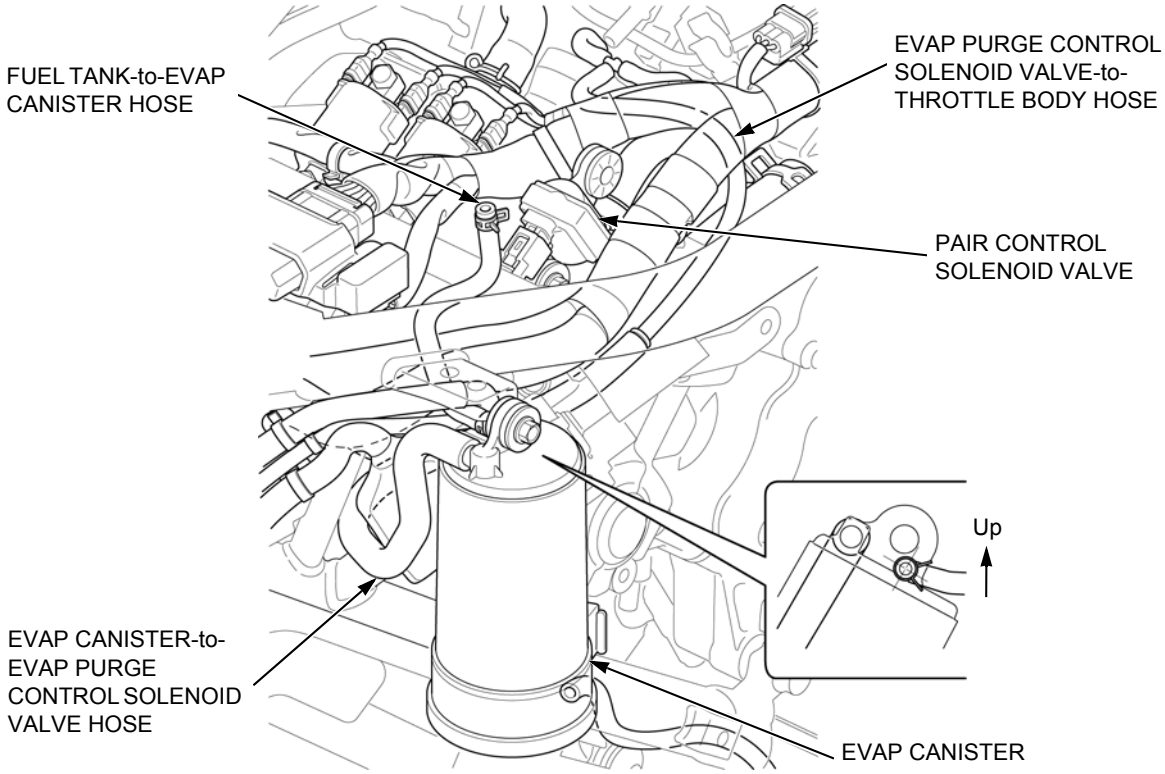
Except ED, III ED, II KO types:

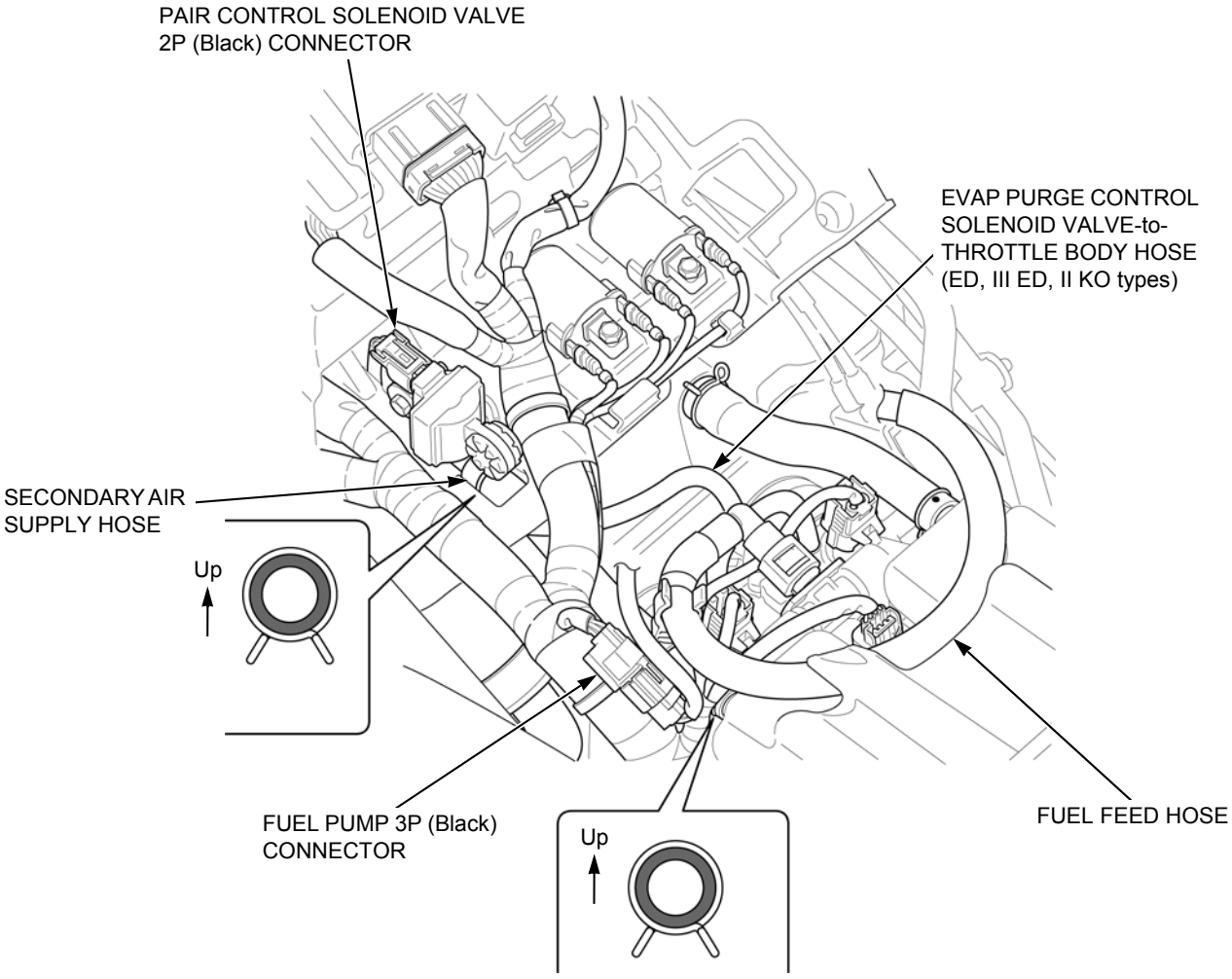


CB500X/XA

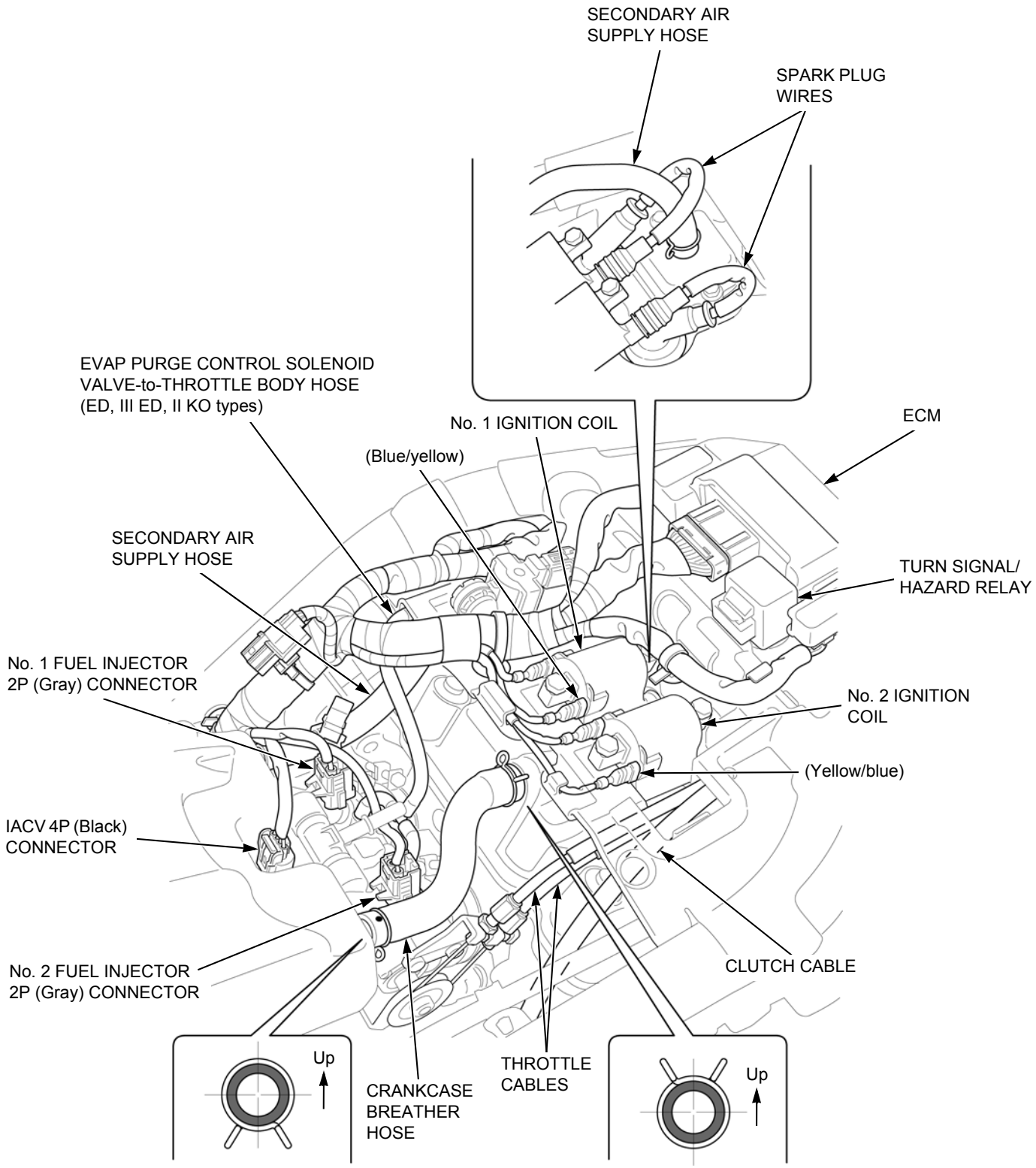
ED, III ED, II KO types:



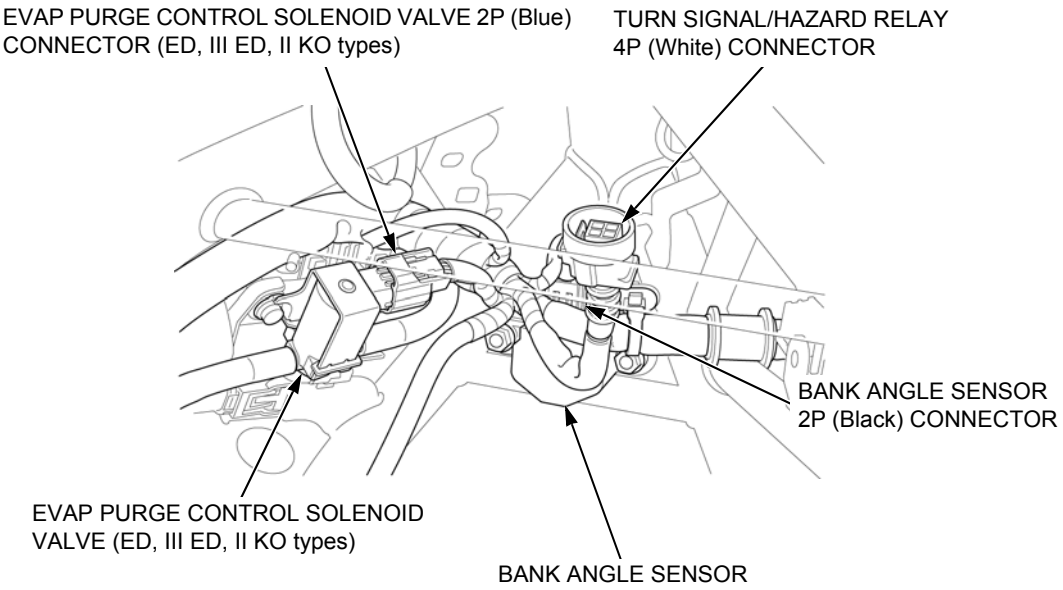



PAIR CONTROL SOLENOID VALVE
2P (Black) CONNECTOR
EVAP PURGE CONTROL
SOLENOID VALVE-to-
THROTTLE BODY HOSE
(ED, III ED, II KO types)
SECONDARY AIR
SUPPLY HOSE
Up
FUEL PUMP 3P (Black)
CONNECTOR
Up
FUEL FEED HOSE

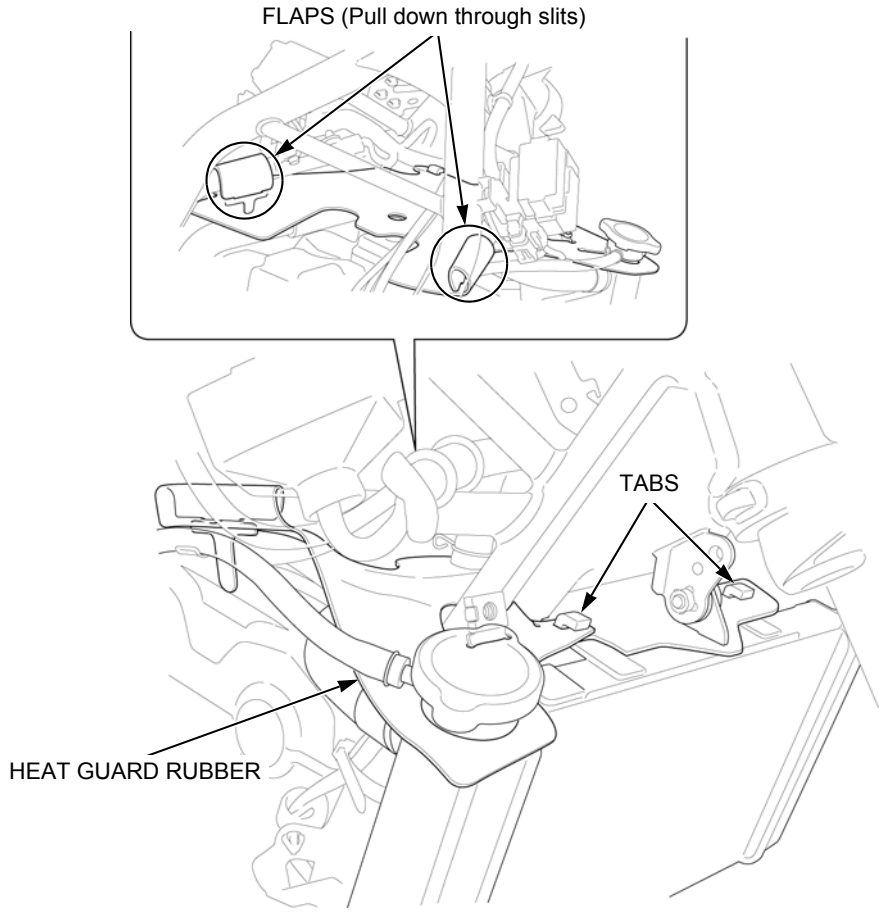
CB400X/XA, CB500X/XA



Behind steering head pipe (viewed from rear side):

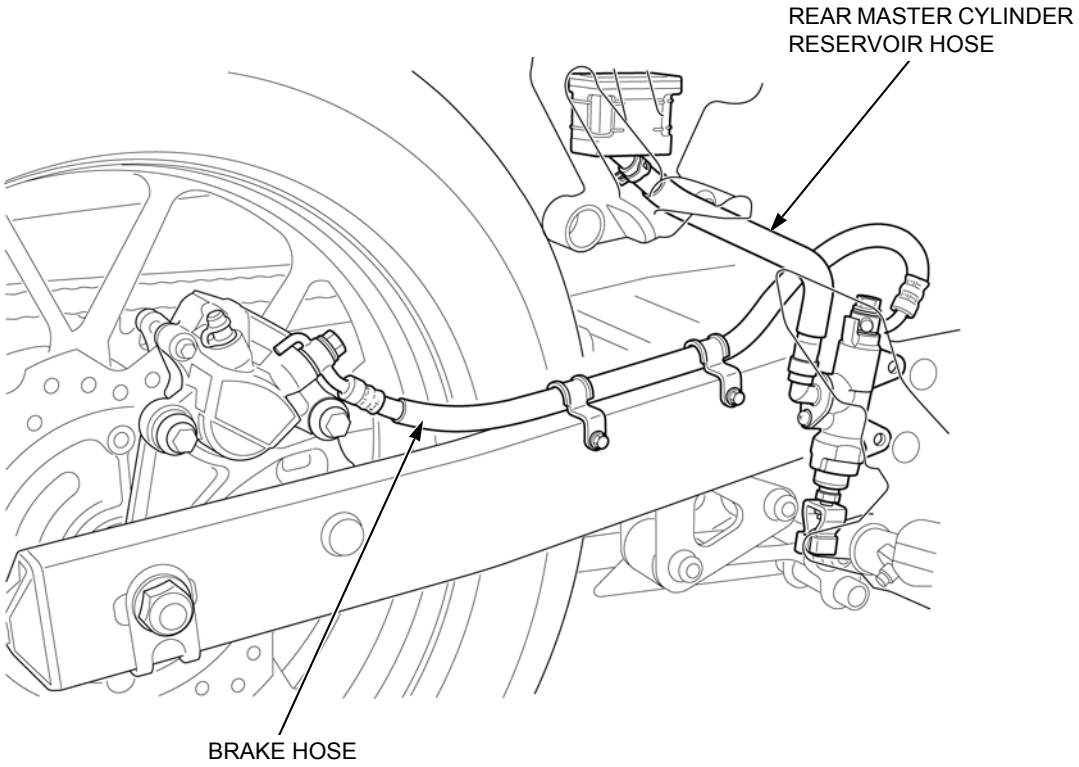


Front heat guard rubber setting points:

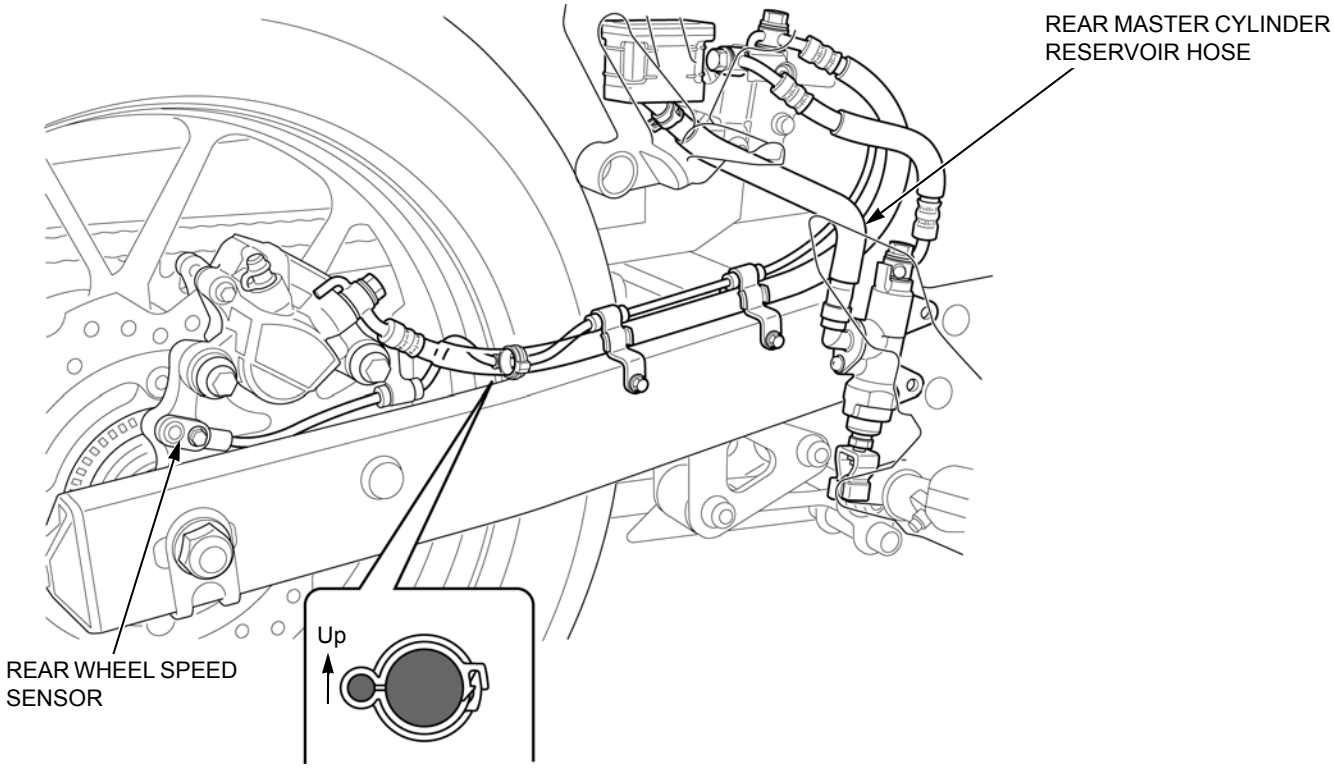


CB400X/XA, CB500X/XA

CB400X, CB500X:



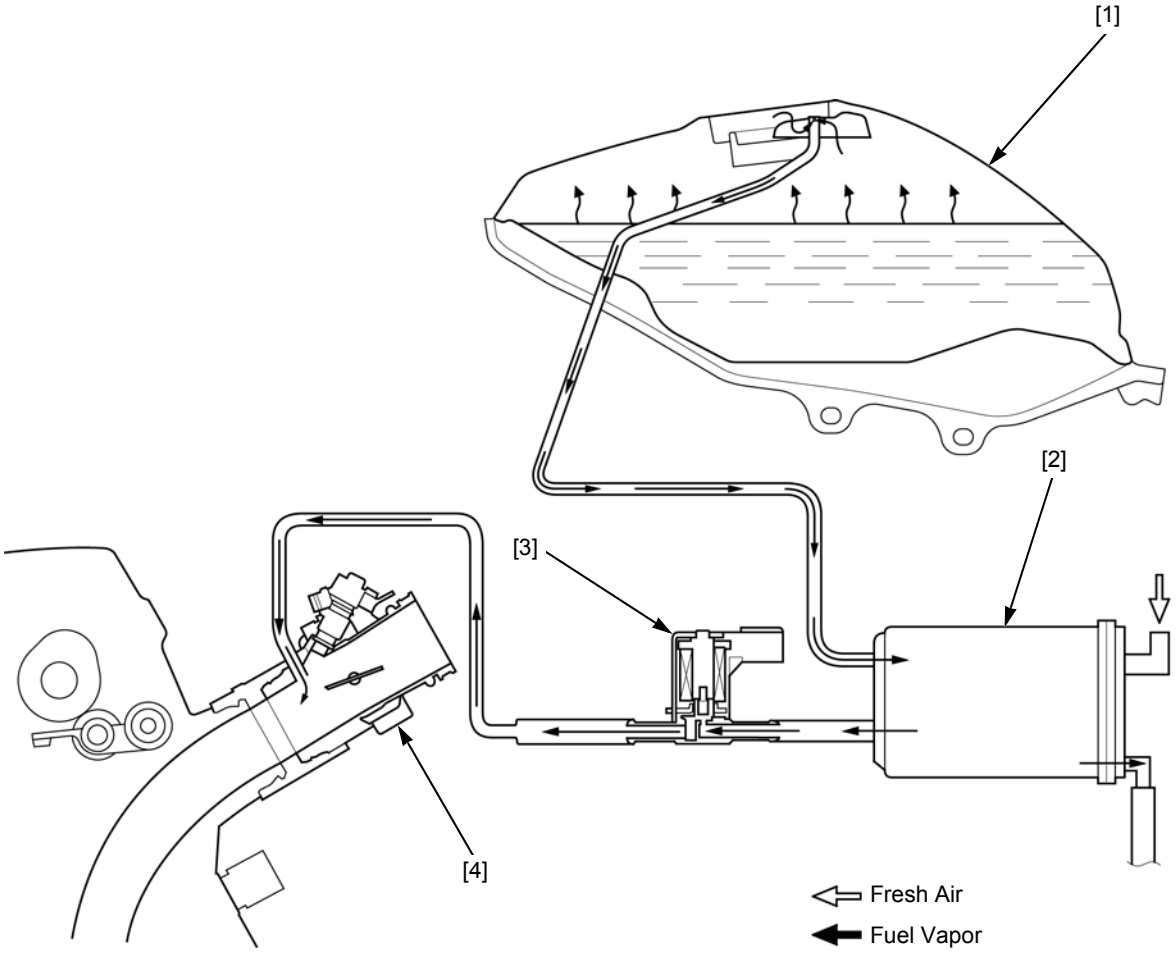
CB400XA, CB500XA:



EMISSION CONTROL SYSTEMS (ED, III ED, KO, II KO types)

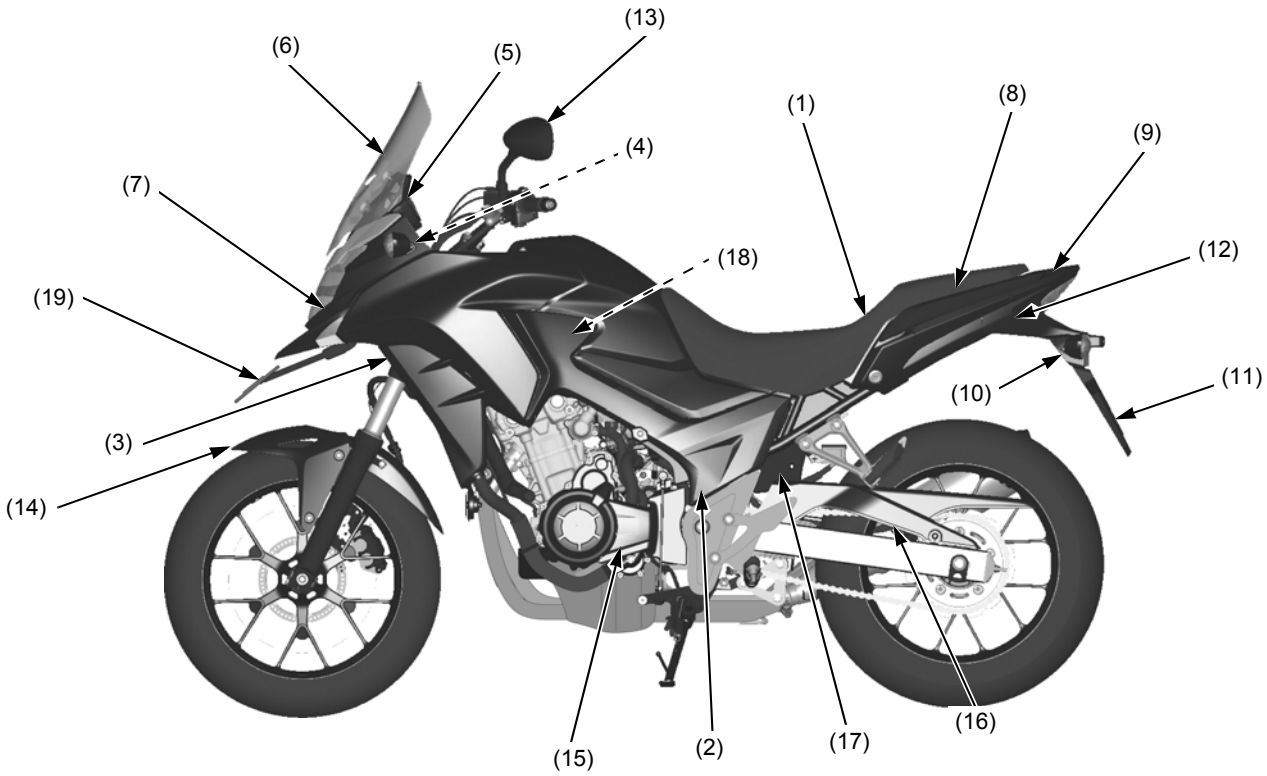
EVAPORATIVE EMISSION CONTROL SYSTEM

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 through the throttle body [4].



BODY PANEL LOCATIONS/REMOVAL CHART

CB400X/XA, CB500X/XA



(1) Seat (page 2-6)
(2) Side Cover (page 24-62)
(3) Middle Cowl (page 24-64)
(4) Bulb Maintenance Lid (page 2-10)
(5) Meter Panel (page 24-66)
(6) Windscreen (page 24-69)
(7) Front Cowl (page 24-67)
(8) Grab Rail (page 2-17)
(9) Rear Cowl (page 24-70)
(10) Rear Fender Cover (page 2-20)
(11) Rear Fender A (page 24-72)
(12) Rear Fender B (page 24-74)
(13) Rearview Mirror (page 2-11)
(14) Front Fender (page 2-22)
(15) Drive Sprocket Cover (page 2-24)
(16) Drive Chain Cover (page 2-24)
(17) * ABS Modulator Cover (page 2-25)
(18) Fuel Tank Under Tray (page 2-25)
(19) Licence plate holder (page 24-78)

* CB400XA, CB500XA only

FRONT FENDER
(ED, III ED, MA, II MA types)

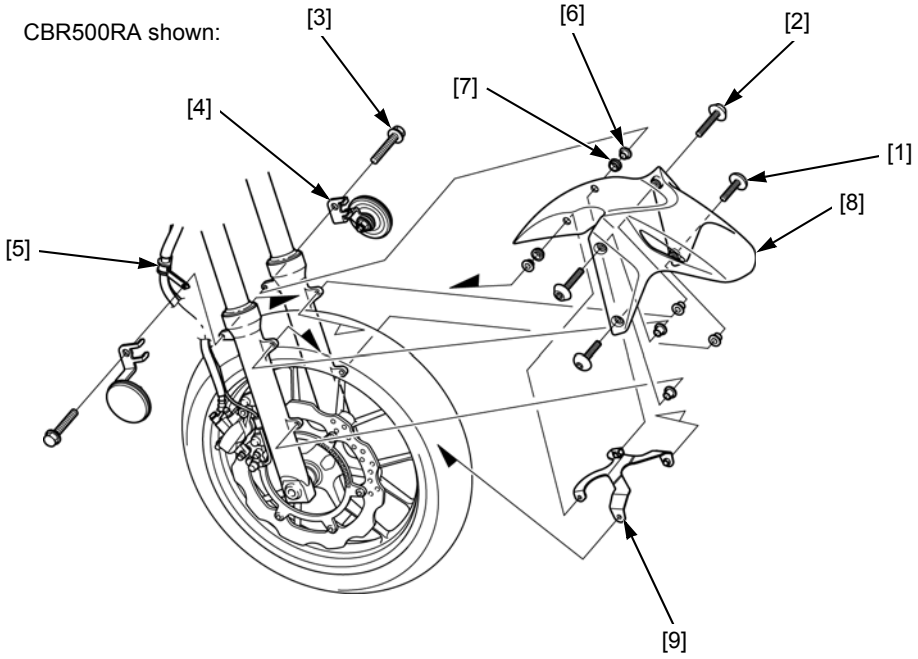
REMOVAL/INSTALLATION

Remove the following:

– two 6 x 22 mm socket bolts [1]
– two 6 x 30 mm socket bolts [2]
– two 6 x 28 mm bolts [3]
– two reflex reflectors [4]
– brake hose clamp [5]
– two collars [6] and grommets [7]
– front fender [8]
– fender bracket [9]

Installation is in the reverse order of removal.

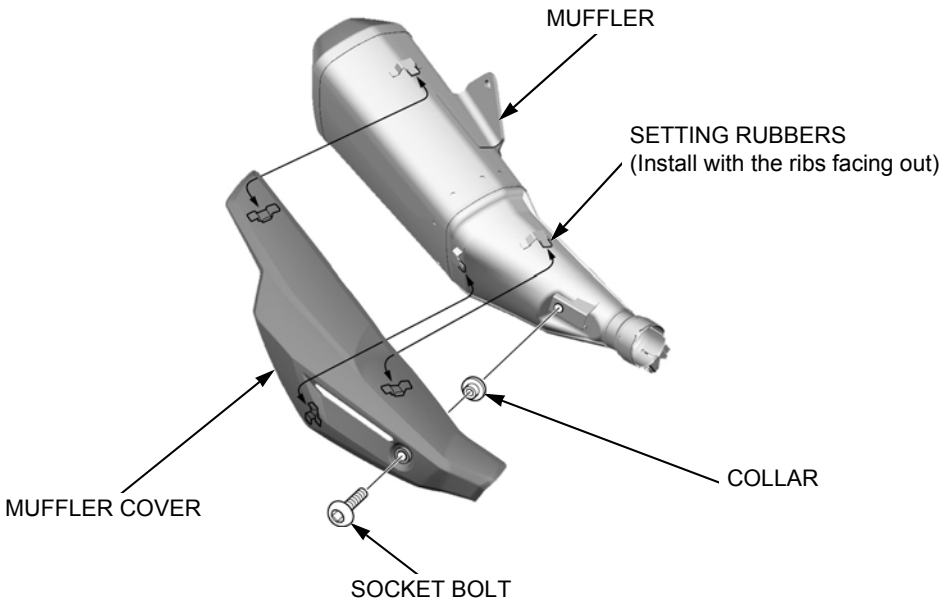
CBR500RA shown:



MUFFLER (CB400X/XA, CB500X/XA)

DISASSEMBLY/ASSEMBLY

Disassemble and assemble the muffler components as following illustration.



MAINTENANCE SCHEDULE (ED, III ED, KO, II KO types)

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.

	ITEMS	NOTE	FREQUENCY (NOTE 1)						ANNUAL CHECK	REGULAR REPLACE	REFER TO PAGE
			x 1,000 km	1	12	24	36	48			
			x 1,000 mi	0.6	8	16	24	32			
*	FUEL LINE				I	I	I	I	I		25-45
*	THROTTLE OPERATION				I	I	I	I	I		3-4
*	AIR CLEANER	NOTE 2				R		R			3-5
	CRANKCASE BREATHER	NOTE 3			C	C	C	C			3-6
**	SPARK PLUG					R		R			3-6
**	VALVE CLEARANCE					I		I			3-7
	ENGINE OIL			R	R	R	R	R	R		3-10
	ENGINE OIL FILTER			R		R		R			3-10
*	ENGINE IDLE SPEED				I	I	I	I	I		3-12
	RADIATOR COOLANT	NOTE 4			I	I	I	I	I	3 years	3-12
*	COOLING SYSTEM				I	I	I	I	I		3-13
*	SECONDARY AIR SUPPLY SYSTEM					I		I			3-14
*	EVAPORATIVE EMISSION CONTROL SYSTEM					I		I			25-45
	DRIVE CHAIN			Every 1,000 km (600 mi) I, L							3-14
	DRIVE CHAIN SLIDER				I	I	I	I			3-16
	BRAKE FLUID	NOTE 4			I	I	I	I	I	2 years	3-17
	BRAKE PAD WEAR				I	I	I	I	I		3-18
	BRAKE SYSTEM				I	I	I	I	I		3-19
	BRAKE LIGHT SWITCH				I	I	I	I	I		3-19
	HEADLIGHT AIM				I	I	I	I	I		24-81
	CLUTCH SYSTEM				I	I	I	I	I		3-20
	SIDESTAND				I	I	I	I	I		3-21
*	SUSPENSION				I	I	I	I	I		3-21
*	NUTS, BOLTS, FASTENERS				I	I	I	I	I		3-22
**	WHEELS/TIRES				I	I	I	I	I		3-22
**	STEERING HEAD BEARINGS				I	I	I	I	I		3-22

* 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 your motorcycle 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.

FUEL LINE (ED, III ED, KO, II KO types)

FUEL TANK LIFTING/LOWERING

Remove the middle cowls (page 24-63).

Remove the two bolts [1] and collars [2].

Disconnect the fuel pump 3P (Black) connector [3].

CBR500R/RA; Move the meter panel ends aside to avoid interference with the tank.

Lift the front side of the fuel tank slightly and disconnect the following:

– fuel tank-to-EVAP canister hose [4]
– fuel tank drain hose [5] (at the hose joint)

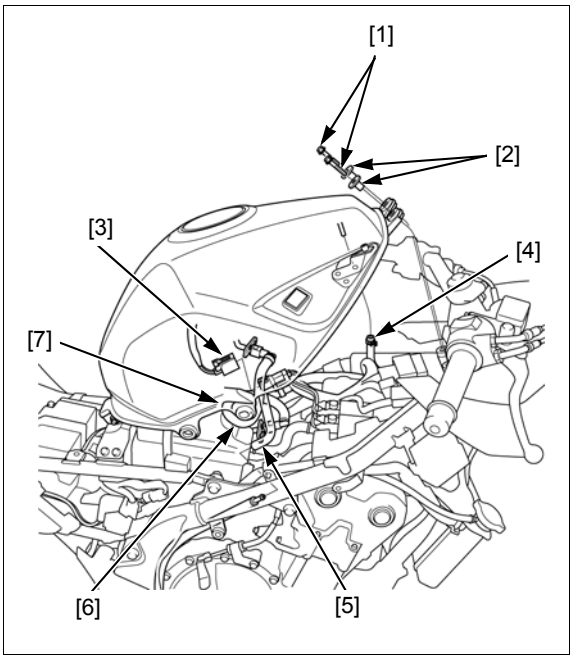
Support the fuel tank by placing a suitable support block between the air cleaner housing (flat surface area) and tank.

Installation is in the reverse order of removal.

NOTE:

- Be sure to route the fuel feed hose [6] into the guide [7] in the air cleaner housing.
- Check that the fuel tank drain hoses are not bent or pinched.

TORQUE:
Fuel tank mounting bolt: 10 N·m (1.0 kgf·m, 7 lbf·ft)



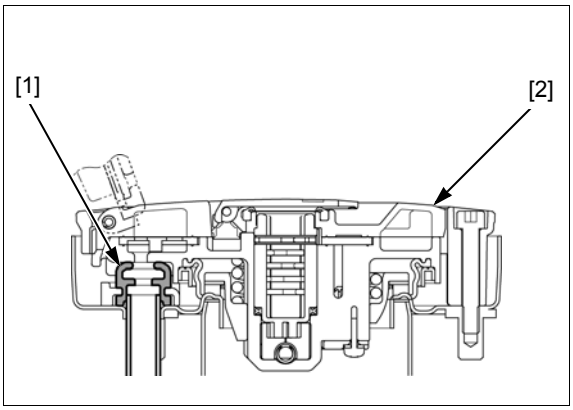
EVAPORATIVE EMISSION CONTROL SYSTEM (ED, III ED, KO, II KO types)

Open the fuel filler cap.

Check the breather seal [1] in the fuel filler cap [2] for deterioration, cracks or damage. Replace it if necessary.

NOTE:

- Always replace the breather seal with a new one when the fuel filler cap is removed for service.



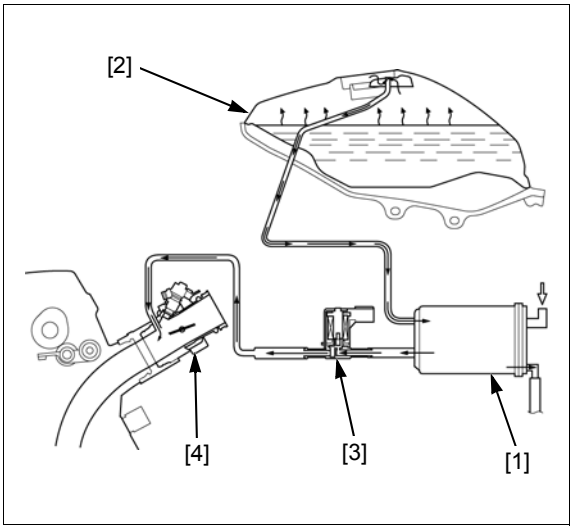
Remove the fuel tank under tray (page 2-25).

Check the EVAP canister [1] for clacks or damage.

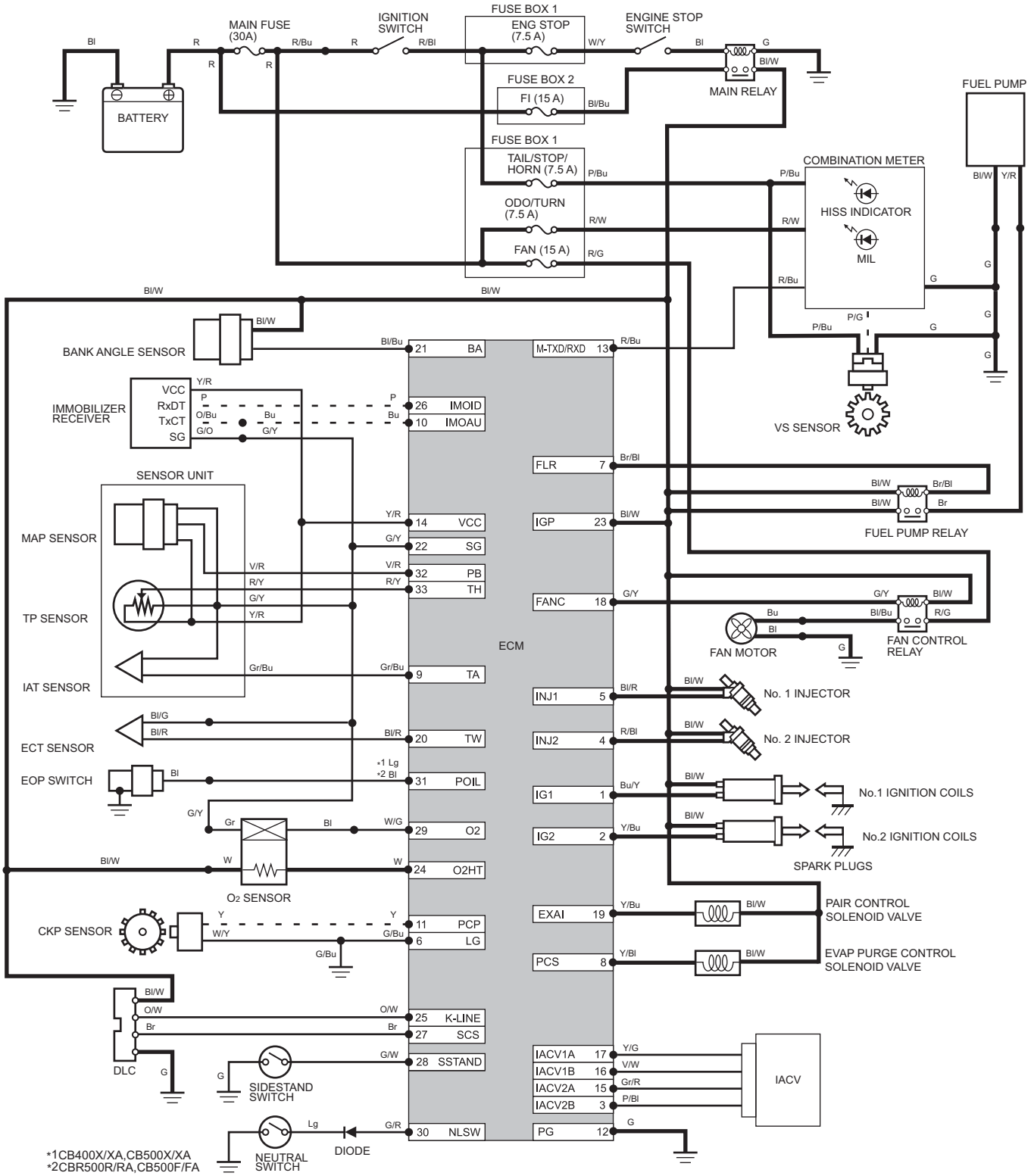
Check the hoses between the fuel tank [2], EVAP canister, EVAP purge control solenoid valve [3] and throttle body [4] for deterioration, damage or loose connections.

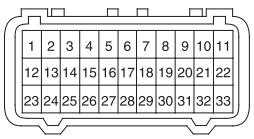
Also, check that the hoses are not kinked or pinched.

Refer to the Cable & Harness Routing for hose connections and routing (page 25-13).



PGM-FI SYSTEM DIAGRAM (ED, III ED, KO, II KO types)





ECM 33P (Black) CONNECTOR (ECM side)

Bl : Black
Br : Brown
Bu : Blue
G : Green
Gr : Gray
Lg : Light green
O : Orange
P : PINK
R : Red
V : Violet
W : White
Y : Yellow

PGM-FI SYMPTOM TROUBLESHOOTING (ED, III ED, KO, II KO types)

When the motorcycle has one of these symptoms, check the MIL lighting, refer to the DTC index (page 25-48) and begin the appropriate troubleshooting procedure. If there are no DTC stored in the ECM memory, do the diagnostic procedure for the symptom, in sequence listed below, until you find cause.

Symptom	Diagnosis procedure	Also check for
Engine cranks but won't start (MIL not lighting)	1. Crank the engine for more than ten seconds and check the MIL (page 4-36) and execute the troubleshooting according to the DTC. 2. Inspect the ignition system (page 5-5). 3. Inspect the fuel supply system (page 7-5). 4. Check the spark plug condition (page 3-6). 5. Check the cylinder compression (page 10-4).	• No fuel to fuel injector – Clogged fuel filter – Pinched or clogged fuel tank-to-EVAP canister hose – Pinched or clogged fuel feed hose – Faulty fuel pump – Faulty fuel pump circuits • Intake air leak • Contaminated/deteriorated fuel • Faulty fuel injector • IACV stuck
Engine cranks but won't start (No fuel pump operation sound when turning the ignition ON)	1. ECM power/ground circuits malfunction (page 4-36). 2. Inspect the fuel pump system (page 7-5).	• Open circuit in the power input and/or ground line of the ECM • Short circuit in sensor unit line • Faulty main relay and related circuit
Engine stalls, hard to start, rough idling	1. Check the idle speed (page 3-12). 2. Check the IACV (page 7-16). 3. Inspect the fuel supply system (page 7-5).	• Restricted fuel feed hose • Contaminated/deteriorated fuel • Restricted fuel tank-to-EVAP canister hose • Intake air leak • Faulty ignition system
Afterburn when engine braking is used	1. Inspect the secondary air supply system (page 7-17). 2. Inspect the ignition system (page 5-5).	
Backfiring or misfiring during acceleration	Inspect the ignition system (page 5-5).	
Poor performance (driveability) and poor fuel economy	Inspect the fuel supply system (page 7-5).	• Air cleaner element contaminated • Pinched or clogged fuel feed hose • Faulty pressure regulator (fuel pump) • Faulty fuel injector • Faulty ignition system
Idle speed is below specifications or fast idle too low (MIL not lighting)	1. Check the idle speed (page 3-12). 2. Check the IACV (page 7-16).	• Faulty fuel supply system • Faulty ignition system
Idle speed is above specifications or fast idle too high (MIL not lighting)	1. Check the idle speed (page 3-12). 2. Check the throttle operation and freeplay (page 3-4). 3. Check the IACV (page 7-16).	• Faulty ignition system • Intake air leak • Engine top-end problem • Air cleaner condition
MIL stays ON but no DTCs set, or MIL never comes ON at all	Inspect the MIL circuit (page 4-36).	

PGM-FI SYSTEM DTC INDEX

NOTE:
- If the MCS is not used, perform all of the inspection on the corresponding main code (digits in front of hyphen) of the DTC.
- The main code of Honda code (the number in front of hyphen) can be indicated as MIL blinking.

DTC (Honda code)	Function Failure	Symptom/Fail-safe function	Refer to
P0107 (1-1)	MAP sensor circuit low voltage (less than 0.029 V) • MAP sensor or its circuit malfunction	• Engine operates normally • Pre-program value: 60 kPa (450 mmHg)	24-88
P0108 (1-2)	MAP sensor circuit high voltage (more than 3.809 V) • Loose or poor contact of the sensor unit connector • MAP sensor or its circuit malfunction	• Engine operates normally • Pre-program value: 60 kPa (450 mmHg)	24-89
P0117 (7-1)	ECT sensor circuit low voltage (less than 0.049 V) • ECT sensor or its circuit malfunction	• Hard start at a low temperature • Pre-program value: 110°C (230°F)	24-91
P0118 (7-2)	ECT sensor circuit high voltage (more than 4.946 V) • Loose or poor contact of the ECT sensor connector • ECT sensor or its circuit malfunction	• Hard start at a low temperature • Pre-program value: 110°C (230°F)	24-91
P0122 (8-1)	TP sensor circuit low voltage (less than 0.122 V) • Loose or poor contact of the sensor unit connector • TP sensor or its circuit malfunction	• Poor engine acceleration • Pre-program value: 0°	24-93
P0123 (8-2)	TP sensor circuit high voltage (more than 4.966 V) • TP sensor or its circuit malfunction	• Poor engine acceleration • Pre-program value: 0°	24-95
P0112 (9-1)	IAT sensor circuit low voltage (less than 0.049 V) • IAT sensor or its circuit malfunction	• Engine operates normally • Pre-program value: 35°C (95°F)	24-96
P0113 (9-2)	IAT sensor circuit high voltage (more than 4.946 V) • Loose or poor contact of the sensor unit connector • IAT sensor or its circuit malfunction	• Engine operates normally • Pre-program value: 35°C (95°F)	24-97
P0500 (11-1)	VS sensor malfunction • Loose or poor contact of the VS sensor connector • VS sensor or its circuit malfunction	• Engine operates normally	24-98
P0201 (12-1)	No. 1 (left) fuel injector malfunction • Loose or poor contact of the fuel injector connector • Fuel injector or its circuit malfunction	• Engine does not start • Fuel injector, fuel pump and ignition coil shut down	24-100
P0202 (13-1)	No. 2 (right) fuel injector malfunction • Loose or poor contact of the fuel injector connector • Fuel injector or its circuit malfunction	• Engine does not start • Fuel injector, fuel pump and ignition coil shut down	24-100
P0131 (21-1)	O_2 sensor circuit low voltage • O_2 sensor or its circuit malfunction	• Engine operates normally	24-102
P0132 (21-2)	O_2 sensor circuit high voltage • Loose or poor contact of the O_2 sensor connector • O_2 sensor or its circuit malfunction	• Engine operates normally	24-103
P0135 (23-1)	O_2 sensor heater malfunction • Loose or poor contact of the O_2 sensor connector • O_2 sensor or its circuit malfunction	• Engine operates normally	24-104
P0511 (29-1)	IACV malfunction • Loose or poor contact of the IACV connector • IACV or its circuit malfunction	• Engine stalls, hard to start, rough idling	24-105
P062F (33-2)	ECM EEPROM malfunction	• Engine operates normally • Does not hold the self-diagnosis data	24-107
P1000 (54-1)	Bank angle sensor circuit low voltage (less than 0.020 V) • Loose or poor contact of the bank angle sensor connector • Bank angle sensor or its circuit malfunction	• Engine operates normally • Engine stop function does not operate	24-107
P1001 (54-2)	Bank angle sensor circuit high voltage (less than 4.986 V) • Bank angle sensor or its circuit malfunction	• Engine operates normally • Engine stop function does not operate	24-108
P0600 (86-1)	Serial communication malfunction • Loose or poor contact of the related connector • Faulty combination meter or its circuit malfunction • Faulty ECM	• Engine operates normally	24-109

DTC (Honda code)	Function Failure	Symptom/Fail-safe function	Refer to
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	25-49
P0412 (89-1)	PAIR control solenoid valve malfunction • Loose or poor contact of the PAIR control solenoid valve connector • PAIR control solenoid valve or its circuit malfunction	• Engine operates normally	25-51
P0351 (91-1)	No.1 ignition coil primary circuit malfunction • Loose or poor contact of the ignition coil connector • Ignition coil or its circuit malfunction	• Engine stalls, hard to start, rough idling • No.1 Injector, and No.1 ignition shut down	24-111
P0352 (92-1)	No.2 ignition coil primary circuit malfunction • Loose or poor contact of the ignition coil connector • Ignition coil or its circuit malfunction	• Engine stalls, hard to start, rough idling • No.2 Injector, and No.2 ignition shut down	24-111

PGM-FI SYSTEM DTC TROUBLESHOOTING

P0443 (EVAP PURGE CONTROL SOLENOID VALVE)

NOTE:

- Before starting the inspection, check for loose or poor contact on the EVAP purge control solenoid valve 2P (Blue) connector and ECM 33P (Black) connector, then recheck the DTC.

1. EVAP Purge Control Solenoid Valve System Inspection

Erase the DTCs (page 24-85).

Start the engine and check the EVAP purge control solenoid valve with the MCS or GST.

Is the P0443 indicated?

YES – GO TO STEP 2.

NO – Intermittent failure

2. EVAP Purge Control Solenoid Valve Input Voltage Inspection

Turn the ignition switch OFF.

Disconnect the EVAP purge control solenoid valve 2P (Blue) connector [1] (page 25-56).

Turn the ignition switch ON and engine stop switch "".

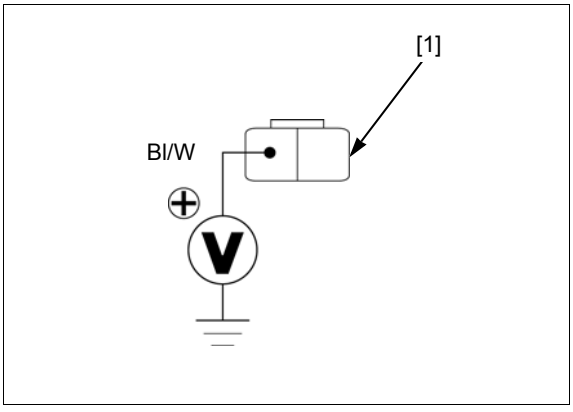
Measure the voltage between the EVAP purge control solenoid valve 2P (Blue) connector of the wire harness side and ground.

CONNECTION: Black/white (+) – Ground (–)

Does the battery voltage exist?

YES – GO TO STEP 3.

NO – Open circuit in Black/white wire



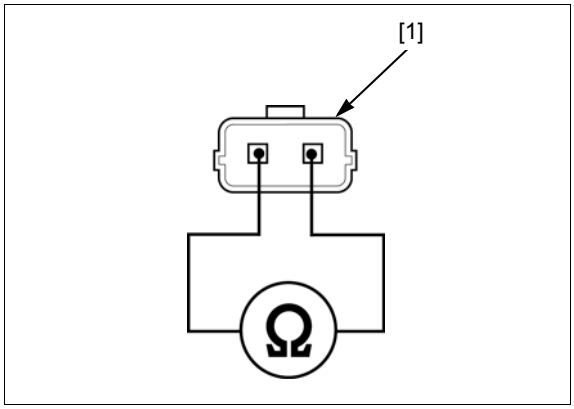
3. EVAP Purge Control Solenoid Valve Resistance Inspection

Turn the ignition switch OFF.
Measure the resistance at the EVAP purge control solenoid valve side of the EVAP purge control solenoid valve 2P (Blue) connector [1] terminals.

Is the resistance within 30 – 34 Ω (20°C/68°C)?

YES – GO TO STEP 4.

NO – Faulty EVAP purge control solenoid valve



4. EVAP Purge Control Solenoid Valve Signal Line Open Circuit Inspection

Disconnect the ECM 33P (Black) connector [1] (page 4-36).
Check the continuity between the EVAP purge control solenoid valve 2P (Blue) connector [2] and ECM 33P (Black) connector of the wire harness side.

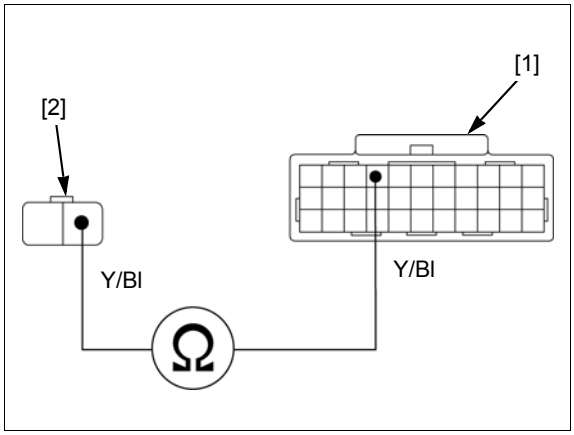
CONNECTION: Yellow/black – Yellow/black

TOOL:
Test probe **07ZAJ-RDJA110**

Is there continuity?

YES – GO TO STEP 5.

NO – Open circuit in Yellow/black wire



5. EVAP Purge Control Solenoid Valve Signal Line Short Circuit Inspection

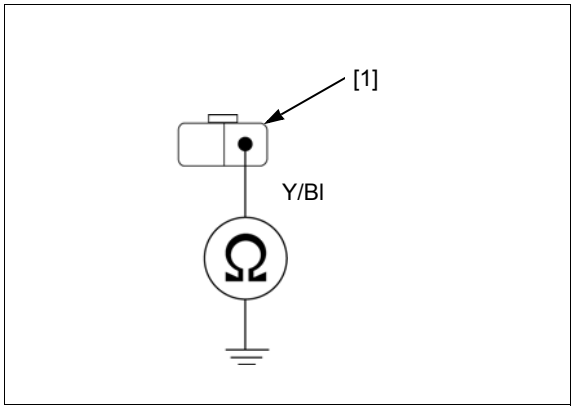
Check for continuity between the EVAP purge control solenoid valve 2P (Blue) connector [1] and ground with the ECM 33P (Black) connector disconnected.

CONNECTION: Yellow/black – Ground

Is there continuity?

YES – Short circuit in Yellow/black wire

NO – Replace the ECM with a known good one, and recheck.



P0412 (PAIR CONTROL SOLENOID VALVE)

NOTE:

- Before starting the inspection, check for loose or poor contact on the PAIR control solenoid valve 2P (Black) connector and ECM 33P (Black) connector, then recheck the DTC.

1. PAIR Control Solenoid Valve System Inspection

Erase the DTCs (page 24-85).

Start the engine and check the PAIR control solenoid valve with the MCS or GST.

Is the P0412 indicated?

YES – GO TO STEP 2.

NO – Intermittent failure

2. PAIR Control Solenoid Valve Input Voltage Inspection

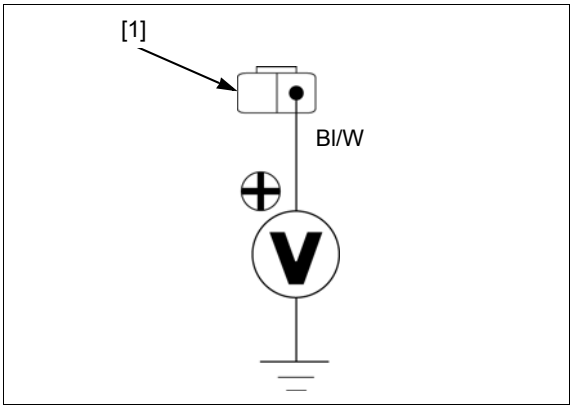
Turn the ignition switch OFF.

Disconnect the PAIR control solenoid valve 2P (Black) connector [1] (page 7-18).

Turn the ignition switch ON and engine stop switch "".

Measure the voltage between the PAIR control solenoid valve 2P (Black) connector of the wire harness side and ground.

CONNECTION: Black/white (+) – Ground (–)



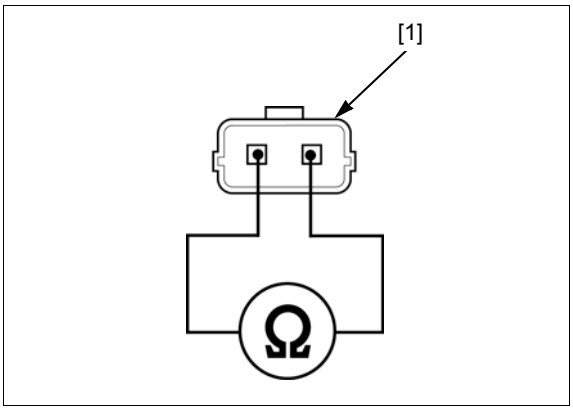
Does the battery voltage exist?

YES – GO TO STEP 3.

NO – Open circuit in Black/white wire

3. PAIR Control Solenoid Valve Resistance Inspection

Turn the ignition switch OFF.
Measure the resistance at the PAIR control solenoid valve side of the PAIR control solenoid valve 2P (Black) connector [1] terminals.



Is the resistance within 24 – 28 Ω (20°C)?

YES – GO TO STEP 4.

NO – Faulty PAIR control solenoid valve

4. PAIR Control Solenoid Valve Signal Line Open Circuit Inspection

Disconnect the ECM 33P (Black) connector [1] (page 4-36).
Check the continuity between the PAIR control solenoid valve 2P (Black) connector [2] and ECM 33P (Black) connector of the wire harness side.

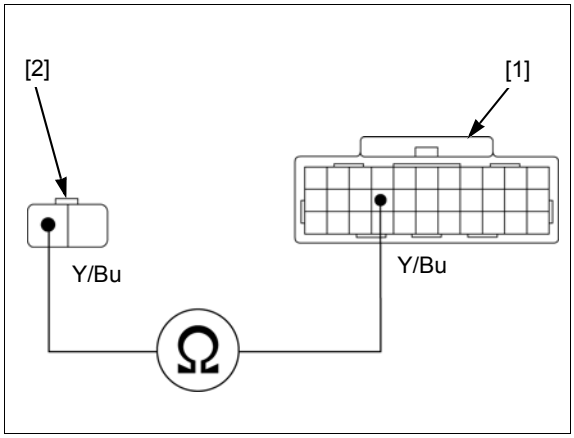
CONNECTION: Yellow/blue – Yellow/blue

TOOL:
Test probe 07ZAJ-RDJA110

Is there continuity?

YES – GO TO STEP 5.

NO – Open circuit in Yellow/blue wire



5. PAIR Control Solenoid Valve Signal Line Short Circuit Inspection

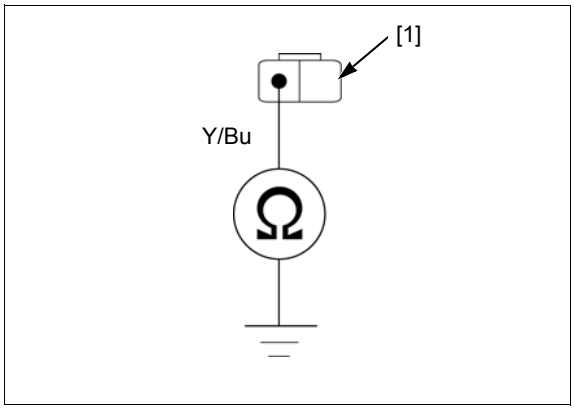
Check for continuity between the PAIR control solenoid valve 2P (Black) connector [1] and ground with the ECM 33P (Black) connector disconnected.

CONNECTION: Yellow/blue – Ground

Is there continuity?

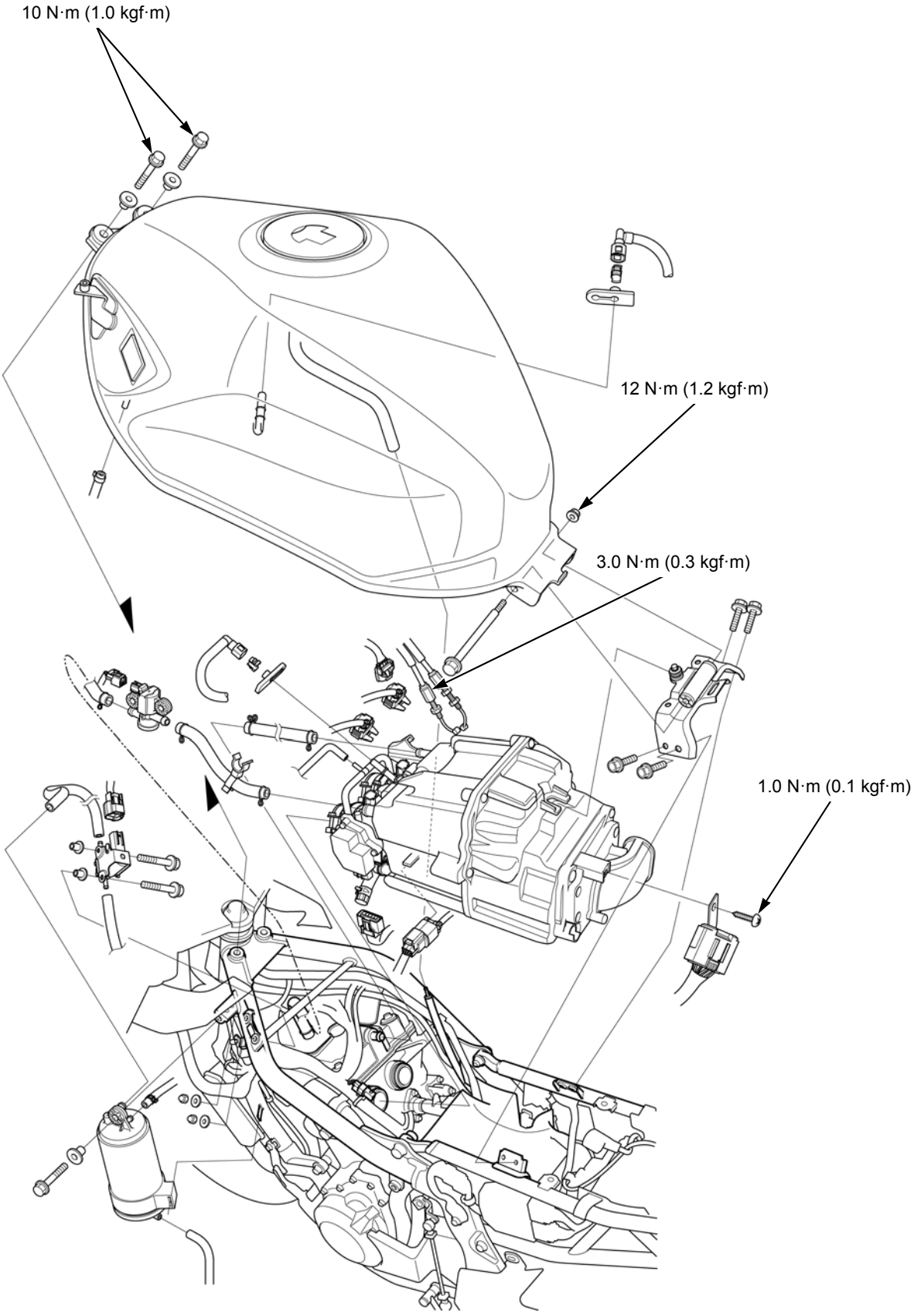
YES – Short circuit in Yellow/blue wire

NO – Replace the ECM with a known good one, and recheck.



FUEL SYSTEM COMPONENT LOCATION (ED, III ED, KO, II KO types)

CBR500RA shown:



THROTTLE BODY/AIR CLEANER HOUSING (ED, III ED, KO, II KO types)

REMOVAL/INSTALLATION

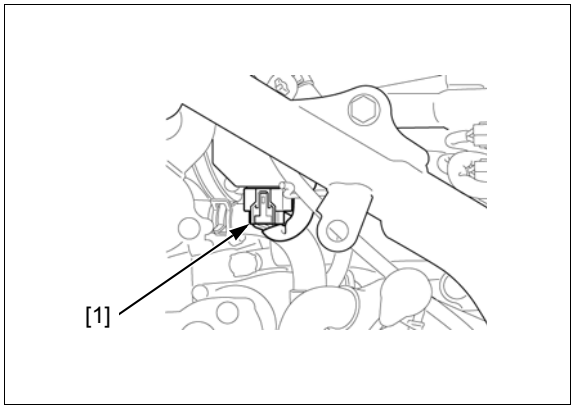
NOTE:

- Always clean around the fuel system parts with compressed air before removing to prevent dirt and debris from entering the air passages in the throttle body.

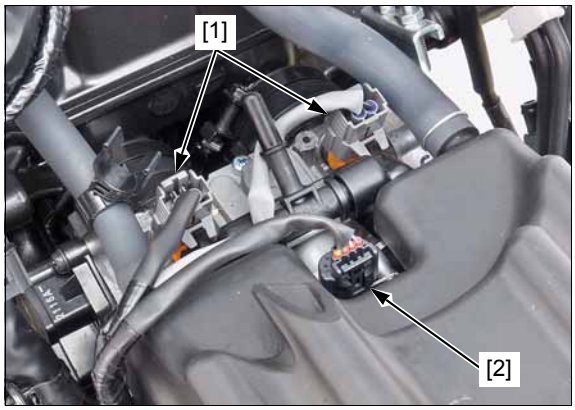
Remove the fuel tank (page 7-8).

Disconnect the following:

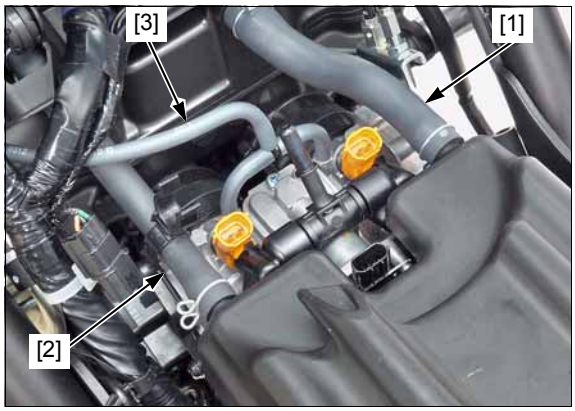
– sensor unit 5P (Black) connector [1]



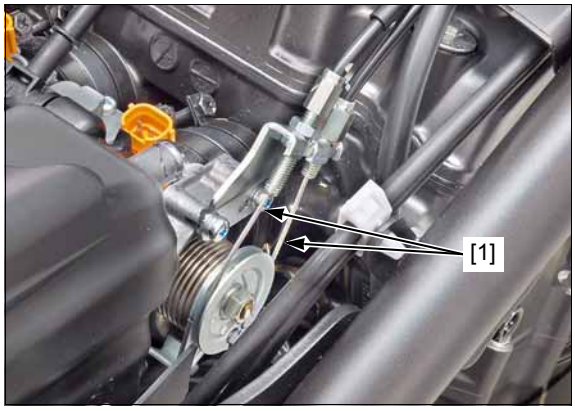
– fuel injector 2P (Gray) connectors [1]
– IACV 4P (Black) connector [2]



– crankcase breather hose [1]
– secondary air supply hose [2]
– EVAP canister-to-throttle body hose [3] (from the 3-way joint)

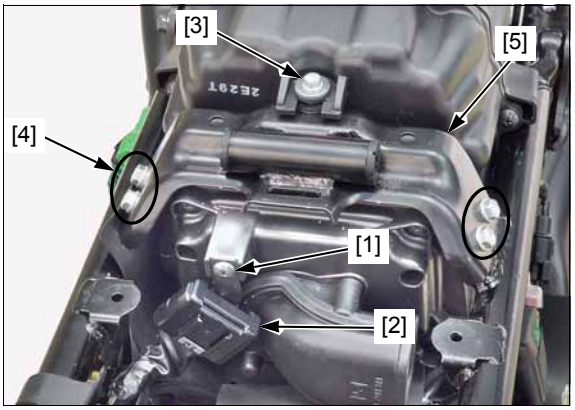


– throttle cables [1] (remove from the cable holder and disconnect from the throttle drum)

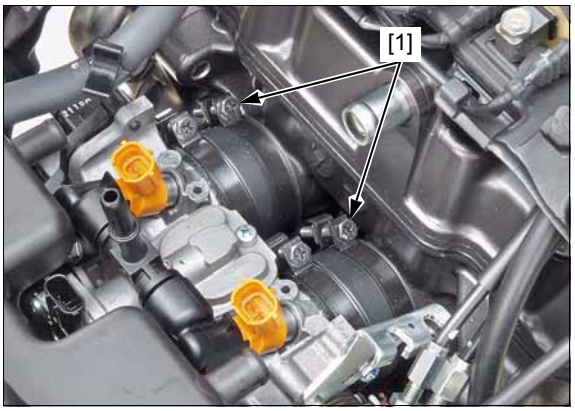


Remove the following:

– tapping screw [1]
– wire junction [2]
– 6 mm bolt [3] (loosen)
– four 8 mm bolts [4]
– fuel tank bracket [5]



Loosen the two insulator band screws (cylinder head side) [1].



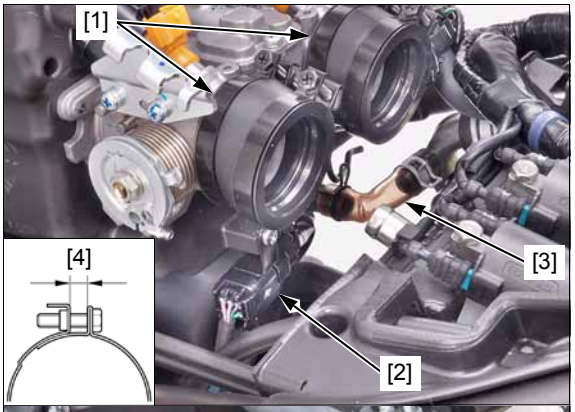
Do not apply force to the sensor unit and injectors.

Slide the throttle body/air cleaner housing assembly rearward and release the insulators [1] off of the cylinder head.

Raise the front of the assembly and remove the engine sub-wire harness 6P (Black) connector [2] from the stay on the air cleaner housing.

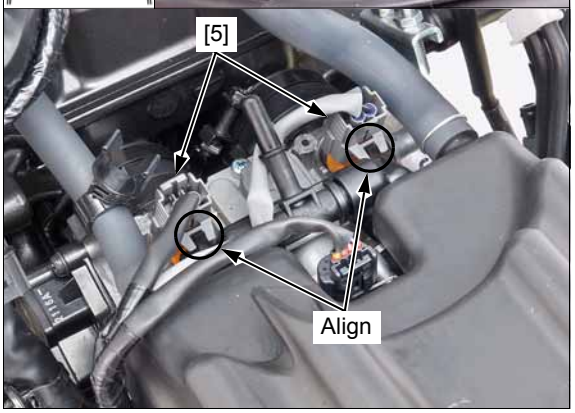
Remove the throttle body/air cleaner housing assembly out of the frame.

Installation is in the reverse order of removal.



NOTE:

- When setting the assembly into the frame, position the crankcase breather tube [3] under the water hose and be sure it is not kinked or deformed.
- Tighten the insulator band screw so the distance [4] between the band ends is 10 ± 1.0 mm (0.4 ± 0.04 in).
- When connecting the injector 2P (Gray) connectors [5], align the groove with the tab of the injector joint.



TORQUE:

Wire junction stay tapping screw:
1.0 N·m (0.1 kgf·m, 0.7 lbf·ft)

Throttle cable joint bolt (at throttle body):
3.0 N·m (0.3 kgf·m, 2.2 lbf·ft)

Adjust the throttle grip freeplay (page 3-4).

If the sensor unit has been removed, perform the TP sensor reset procedure (page 4-38).

EVAP PURGE CONTROL SOLENOID VALVE (ED, III ED, KO, II KO types)

REMOVAL/INSTALLATION

Remove the fuel tank under tray (page 2-25).

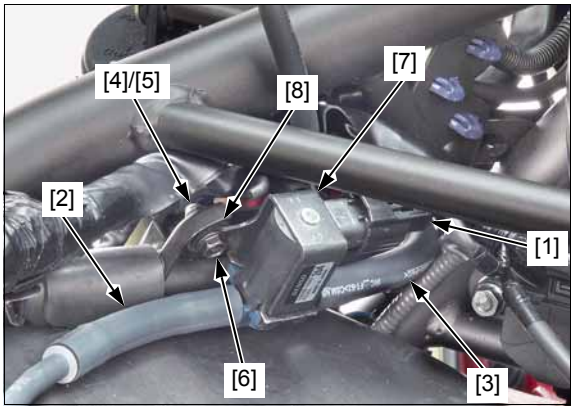
Disconnect the following:

– 2P (Blue) connector [1]
– EVAP purge control solenoid valve-to-throttle body hose [2]
– EVAP canister-to-EVAP purge control solenoid valve hose [3]

Remove the following:

– two cap nuts [4] and washers [5] (outside)
– two bolts [6] and EVAP purge control solenoid valve [7]
– two collars [8] (inside)

Installation is in the reverse order of removal.



INSPECTION

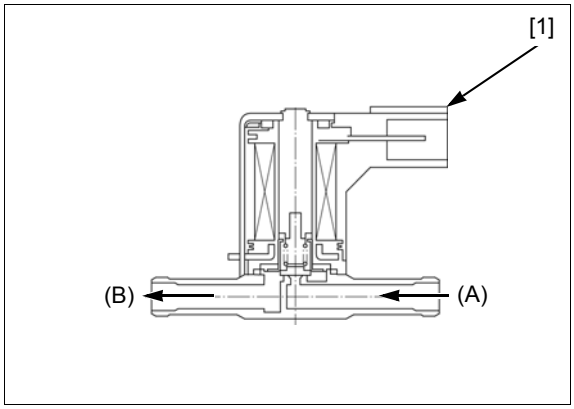
Remove the EVAP purge control solenoid valve (page 25-56).

Check the air flow through the solenoid valve.

Air should not flow from input hose fitting (A) to output hose fitting (B).

Connect a 12 V battery to the EVAP purge control solenoid valve 2P connector [1] terminals.

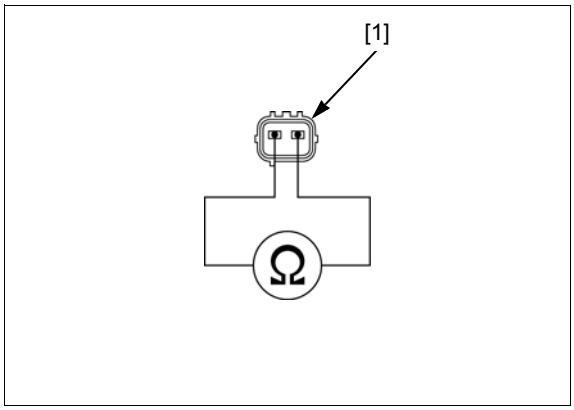
Air should flow when the battery is connected.



Measure the resistance between the 2P connector [1] terminals of the EVAP purge control solenoid valve.

STANDARD: 30 – 34 Ω (20°C/68°F)

If the resistance is out specification, replace the EVAP purge control solenoid valve.



EVAP CANISTER (ED, III ED, KO, II KO types)

REMOVAL/INSTALLATION

Remove the left middle cowl (page 24-63).

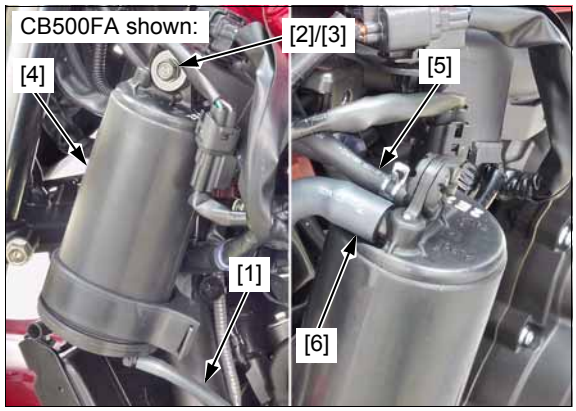
Disconnect the EVAP canister drain hose [1].

Remove the mounting bolt [2] and collar [3], and the EVAP canister [4] from the stay.

Disconnect the following and remove the EVAP canister:

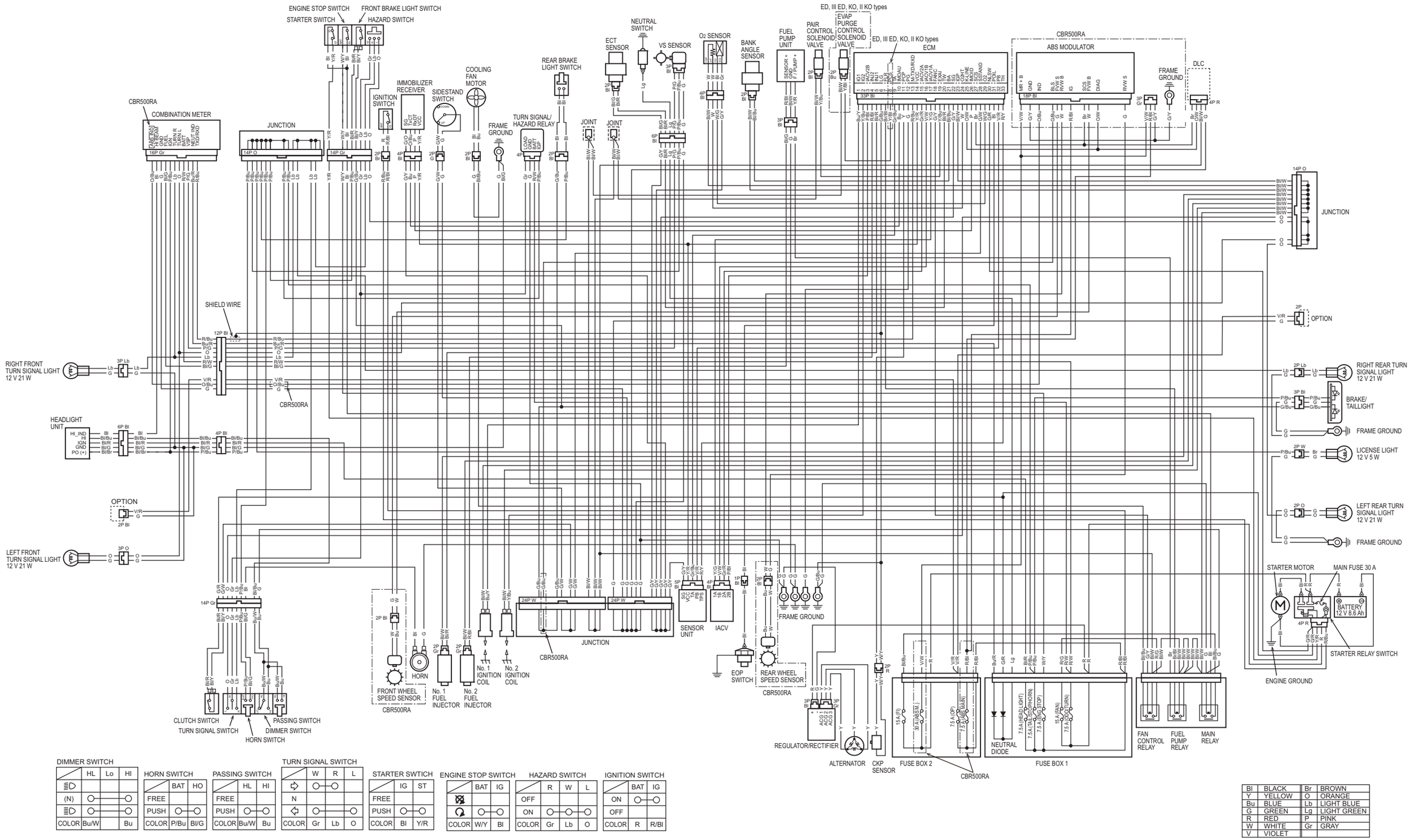
– fuel tank-to-EVAP canister hose [5]
– EVAP canister-to-EVAP purge control solenoid valve hose [6]

Installation is in the reverse order of removal.



MEMO

CBR500R/RA



DIMMER SWITCH

	HL	Lo	HI
(N)	○		○
	○		○
COLOR	Bu/W		Bu

HORN SWITCH

	BAT	HO
FREE		
PUSH	○	○
COLOR	P/Bu	Bl/G

PASSING SWITCH

	HL	HI
FREE		
PUSH	○	○
COLOR	Bu/W	Bu

TURN SIGNAL SWITCH

	W	R	L
	○	○	
N			
	○		○
COLOR	Gr	Lb	O

STARTER SWTICH

	IG	ST
FREE		
PUSH	○	○
COLOR	Bl	Y/R

ENGINE STOP SWITCH

	BAT	IG
	○	○
COLOR	W/Y	Bl

HAZARD SWITCH

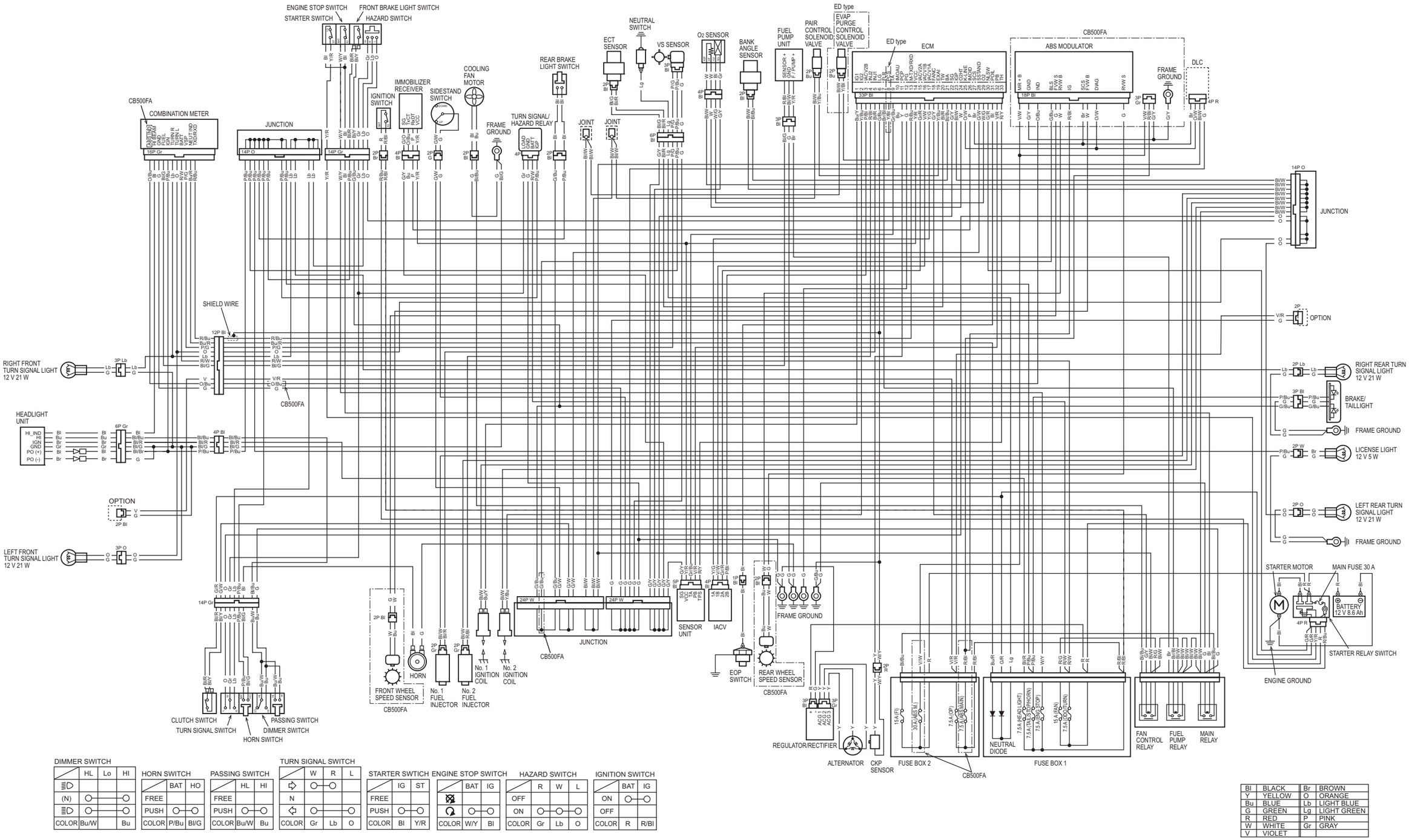
	R	W	L
OFF			
ON	○	○	○
COLOR	Gr	Lb	O

IGNITION SWITCH

	BAT	IG
ON	○	○
OFF		
COLOR	R	R/Bl

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
V	VIOLET		

CB500F/FA



DIMMER SWITCH	HL	Lo	HI
(N)	○		○
COLOR	Bu/W		Bu

HORN SWITCH	BAT	HO
FREE		
PUSH	○	○
COLOR	P/Bu	Bl/G

PASSING SWITCH	HL	HI
FREE		
PUSH	○	○
COLOR	Bu/W	Bu

TURN SIGNAL SWITCH	W	R	L
⇨	○		
N			
⇦	○		○
COLOR	Gr	Lb	O

STARTER SWTICH	IG	ST
FREE		
PUSH	○	○
COLOR	Bl	Y/R

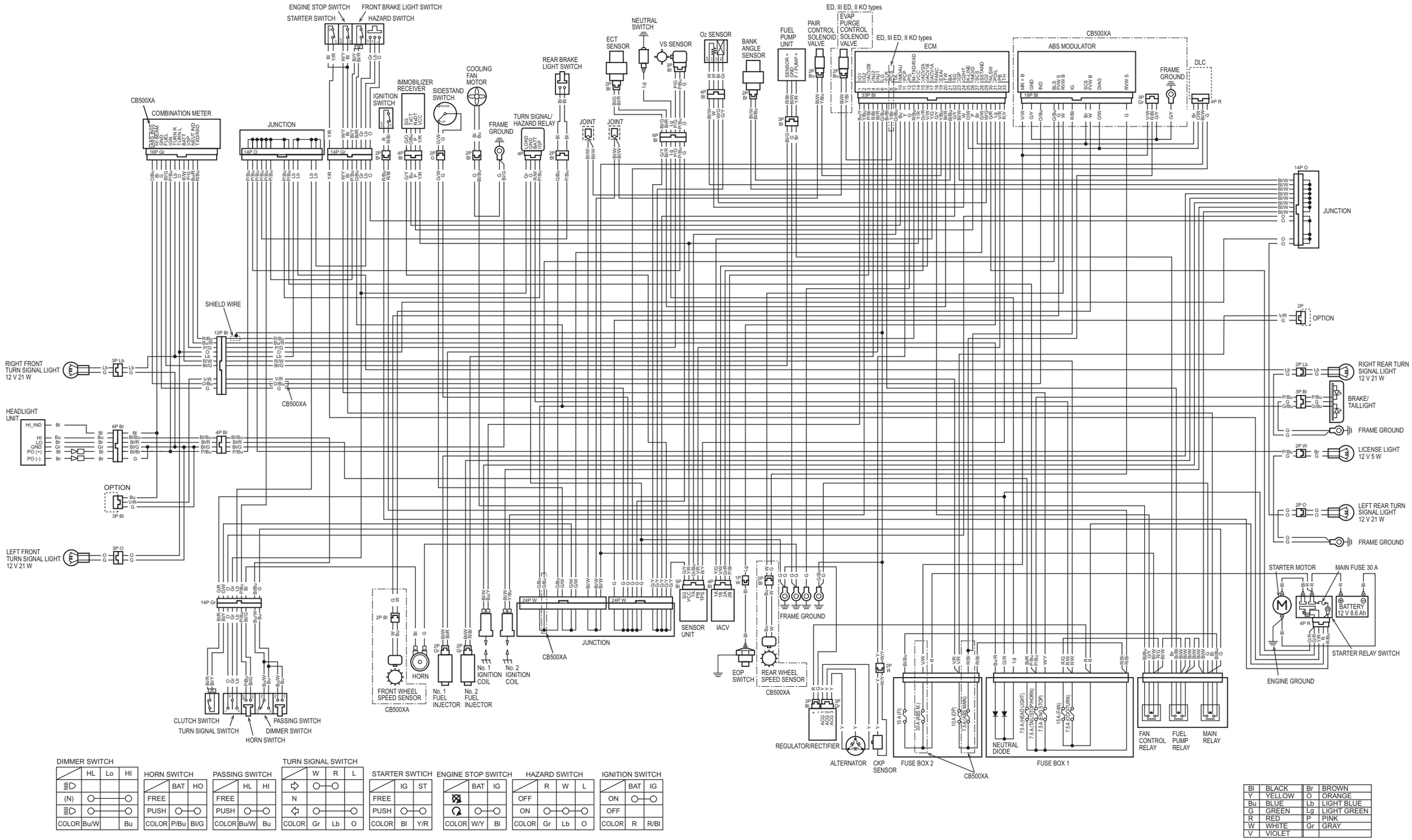
ENGINE STOP SWITCH	BAT	IG
⊗		
	○	○
COLOR	W/Y	Bl

HAZARD SWITCH	R	W	L
OFF			
ON	○	○	○
COLOR	Gr	Lb	O

IGNITION SWITCH	BAT	IG
ON	○	○
OFF		
COLOR	R	R/Bl

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
V	VIOLET		

CB500X/XA



DIMMER SWITCH				
	HL	Lo	HI	
≡D				
(N)	○	———	○	
≡D	○	———	○	
COLOR	Bu/W			Bu

HORN SWITCH			
	BAT	HO	
FREE			
PUSH	○	———	○
COLOR	P/Bu		Bl/G

PASSING SWITCH			
	HL	HI	
FREE			
PUSH	○	———	○
COLOR	Bu/W		Bu

TURN SIGNAL SWITCH				
	W	R	L	
⇨	○	———		
N				
⇦	○	———	○	
COLOR	Gr		Lb	O

STARTER SWTICH			
	IG	ST	
FREE			
PUSH	○	———	○
COLOR	Bl		Y/R

ENGINE STOP SWITCH			
	BAT		IG
⊠			
⟳	○	———	○
COLOR	W/Y		Bl

HAZARD SWITCH				
	R	W	L	
OFF				
ON	○	———	○	——— ○
COLOR	Gr		Lb	O

IGNITION SWITCH			
	BAT		IG
ON	○	———	○
OFF			
COLOR	R		R/Bl

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
V	VIOLET		

MEMO

HONDA

The Power of Dreams

Published by Honda Motor Co., Ltd.
Printed in Japan

Book number : 62MGZ00Y
A 2016.09.H