Kawasaki

Ninja ZX-10R
Ninja ZX-10R ABS

2011 Ninja ZX-10R Racing Kit Manual

This manual contains only the information of the racing kit parts. Refer to the base manual listed below for information of the original model.

Base Manual	Part Number
Ninja ZX-10R Ninja ZX-10R ABS Motorcycle Service Manual	99924-1443-01

First Edition (0): Dec. 28, 2010

How to Use This Manual

Whenever you see symbols, heed their instructions! Always follow safe operating and maintenance practices.

⚠DANGER
DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING
WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION
CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE
NOTICE is used to address practices not related to personal injury.

This manual contains four more symbols which will help you distinguish different types of information.

NOTE

○ *This note symbol indicates points of particular interest for more efficient and convenient operation.*

● Indicates a procedural step or work to be done.

○ Indicates a procedural sub-step or how to do the work of the procedural step it follows. It also precedes the text of a NOTE.

★ Indicates a conditional step or what action to take based on the results of the test or inspection in the procedural step or sub-step it follows.

Congratulation on your purchase of racing kit parts for the 2011 Ninja ZX-10R.

IMPORTANT

This manual provides how to install racing kit parts for the 2011 Ninja ZX-10R and how to tune up basically.

As for the basic knowledge, refer to the base Service Manual for the Ninja ZX-10R (P/No. 99924-1443-01).

When you participate in a race, it is necessary to modify the machine for the regulation. So we want you to ask for the tuning up shop.

After any modification to tune the vehicle to a competition machine, it should not be used on public streets, roads or highways. The use of this vehicle should be limited to participation in sanctioned competition events upon a closed course.

NOTE

○ *When operating the engine, be careful not to trouble persons with noise. Do not turn the engine with loud engine and exhaust noise.*

DISCLAIMER OF WARRANTY

ON OPTIONAL TUNING PARTS FOR RACING ARE NO WARRANTIES EXPRESSED OR IMPLIED.

BASIC WORKS IN INSTALLING KIT PARTS

We are going to make up the original Ninja ZX-10R for the racing machine. We recommend that the rider himself should do the basic works, removing parts or installing parts etc., given advices by the tuning shop. In a race, although trouble will be apt to happen, if you participate in basic works, you can discriminate cause of trouble, so you can return the race soon.

But concerning difficult technical works, you should ask to tuning shop.

Table of Contents

General Specifications

Item	2011 Ninja ZX-10R Racing
Engine:	
Ignition timing	10°BTDC @1 100 r/min (rpm)
Fuel (Recommended)	Racing gasoline
Engine oil (Recommended):	Racing oil
Oil Level	Between upper and lower levels of oil level gauge.
Drive Train:	
Primary drive reduction ratio	1.681 (79/47)

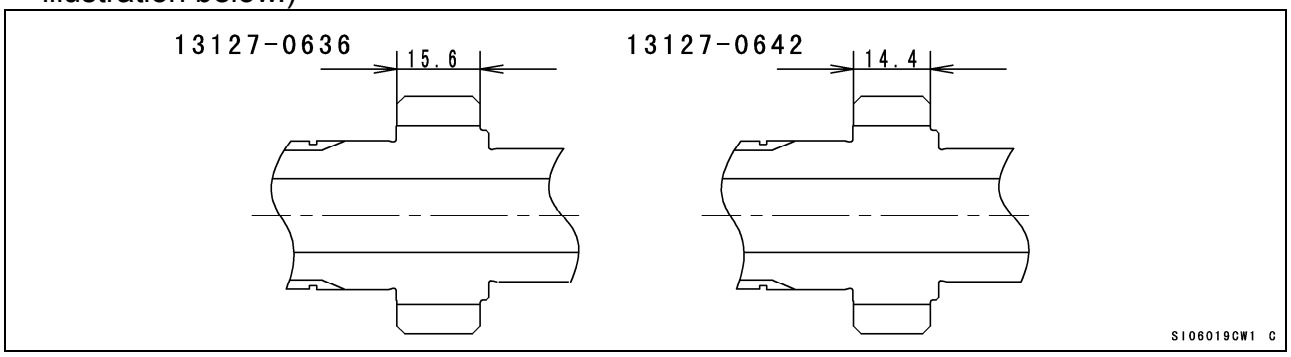
Transmission Gear Table

		Type A	Type B	Type C	Type D	Type E	Type F	Type G
1st	In	13127-0638	13127-0639	13127-0640	13127-0641	*13127-0642 13127-0636 [STD]	—	—
	Out	13262-0664	13262-0624	13262-0625	13262-0626	13262-0615 [STD]	—	—
	Teeth (Out/In)	38/15	31/13	34/14	37/16	39/15	—	—
	Gear Ratio	2.533	2.385	2.429	2.313	2.600	—	—
2nd	In	13262-0856 [STD]	13262-0895	13262-0896	13262-0279	—	—	—
	Out	13262-0880 [STD]	13262-0898	13262-0899	13262-0900	—	—	—
	Teeth (Out/In)	39/19	37/19	38/18	36/18	—	—	—
	Gear Ratio	2.053	1.947	2.111	2.000	—	—	—
3rd	In	See Gear Selection	See Gear Selection	See Gear Selection	See Gear Selection	—	—	—
	Out	*13262-0618 (13262-0803) [STD]	13262-0642	13262-0643	13262-0644	—	—	—
	Teeth (Out/In)	33/19	34/19	28/16	36/21	—	—	—
	Gear Ratio	1.737	1.789	1.750	1.714	—	—	—
4th	In	See Gear Selection	See Gear Selection	See Gear Selection	—	—	—	—
	Out	13262-0645	13262-0619	*13262-0646 (13262-0804) [STD]	—	—	—	—
	Teeth (Out/In)	32/21	31/20	33/21	—	—	—	—
	Gear Ratio	1.524	1.550	1.571	—	—	—	—
5th	In	13262-0648	13262-0881 [STD]	13262-0620	(13262-0648)	—	—	—
	Out	13262-0901	*13262-0902 (13262-0805) [STD]	13262-0903	13262-0904	—	—	—
	Teeth (Out/In)	29/21	29/20	28/20	30/21	—	—	—
	Gear Ratio	1.381	1.450	1.400	1.429	—	—	—

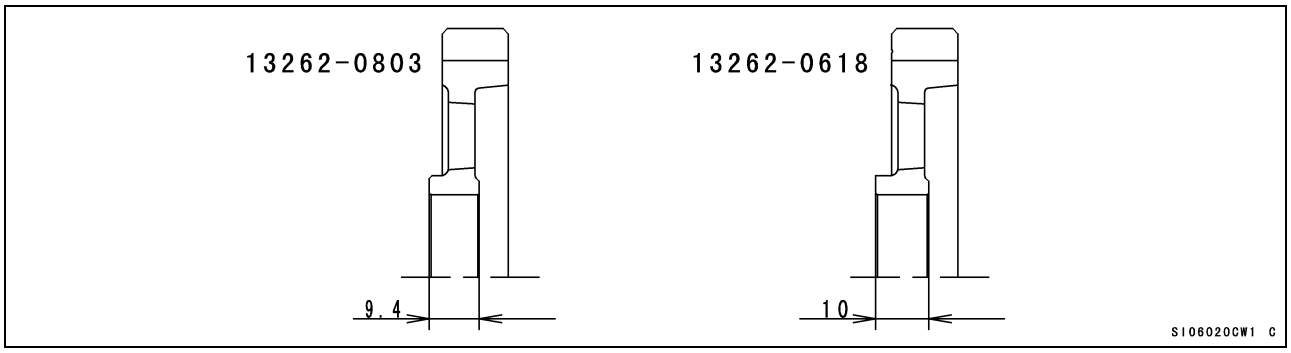
		Type A	Type B	Type C	Type D	Type E	Type F	Type G
6th	In	13262-0622	13262-0652	13262-0869 [STD]	13262-0654	13262-0655	13262-0656	13262-0657
	Out	13262-0905	13262-0906	13262-0907 (13262-0806) [STD]	13262-0908	13262-0909	(13262-0905)	(13262-0906)
	Teeth (Out/In)	30/23	29/21	31/23	28/22	26/21	30/24	29/22
	Gear Ratio	1.304	1.381	1.348	1.273	1.238	1.250	1.318

★ (*) in the above table means you need to take care of gear identification etc.

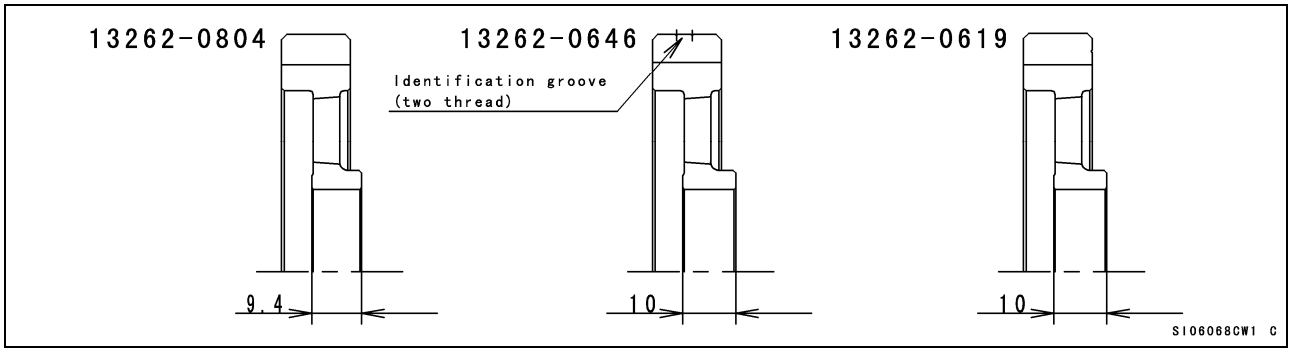
○ The difference between the 1st input shaft type E (13127-0636: Standard), and 13127-0642 is that 13127-0642 is based on the shim adjustment against 13127-0636 (Standard) (Refer to the Transmission Shimming in the Transmission section.). Both types are different in tooth width, so identify the type by the tooth width. (See the illustration below.)



○ The difference between the 3rd output gear type A (13262-0803: Standard), and 13262-0618 is that 13262-0618 is based on the shim adjustment against 13262-0803 (Standard) (Refer to the Transmission Shimming in the Transmission section.). Both types are different in boss width, so identify the type by the boss width. (See the illustration below.)



○ The difference between the 4th output gear type C (13262-0804:Standard), and 13262-0646 is that 13262-0646 is based on the shim adjustment against 13262-0804 (Standard) (Refer to the Transmission Shimming in the Transmission section.). Also, the 4th output gear type B (13262-0619) has no gear identification slit like 13262-0804 (Standard). 13262-0804 (Standard) and racing kit gear are different in boss width, so identify the type by the boss width. (See the illustration below.)



○ The 5th/6th output gears for the racing kit (13262-0902/13262-0907) have machined dogs, so that reliability of shifting is improved compared to the standard gears (13262-0805/13262-0806). By using the 5th/6th output gears with the machined dogs, reliability of shifting to the 1st to 4th is improved. The 5th/6th output gears have interchangeability with other standard gears. However, the racing kit gear is recommended for use in the shifting reliability point of view. Other 5th/6th output gear types for the racing kit gear have also adopted the machined dogs.

Input 3rd/4th Gear Selection Table, Gear Identification Sulit Number (3rd/4th)

		4th Gear		
		A	B	C
3rd Gear	A	13262-0630 (1/1)	13262-0665 (1/0)	13262-0891(0/0) [STD]
	B	13262-0633 (2/1)	13262-0632 (2/0)	13262-0634 (2/2)
	C	13262-0638 (0/1)	13262-0637 (0/0)	13262-0639 (0/2)
	D	13262-0641 (3/1)	13262-0640 (3/0)	—

Both the 3rd/4th input gear type A/C (13262-0891:Standard) and the type C/B (13262-0637) have no gear Identification slits, so identify the type by the number of teeth.

13262-0891: 19T/21T

13262-0637: 16T/20T

Gear Identification Slit Number Table

		Type A	Type B	Type C	Type D	Type E	Type F	Type G
1st	Input	1	2	3	4	0	—	—
	Output	1	2	3	4	0 (STD)	—	—
2nd	Input	0 (STD)	1	2	3	—	—	—
	Output	0 (STD)	1	2	3	—	—	—
3rd	Input	See Gear Selection	See Gear Selection	See Gear Selection	See Gear Selection	—	—	—
	Output	0	1	2	3	—	—	—
4th	Input	See Gear Selection	See Gear Selection	See Gear Selection	—	—	—	—
	Output	1	0	2	—	—	—	—
5th	Input	*2	*2 (STD)	1	2	—	—	—
	Output	2	1	0	3	—	—	—
6th	Input	0	1	2 (STD)	3	4	5	6
	Output	2	1	0	3	4	2	1

Both the 5th input gear type A (13262-0648) and the 5th input gear type B (13262-0891:Standard) have two gear Identification slits, so identify the type by the number of teeth.

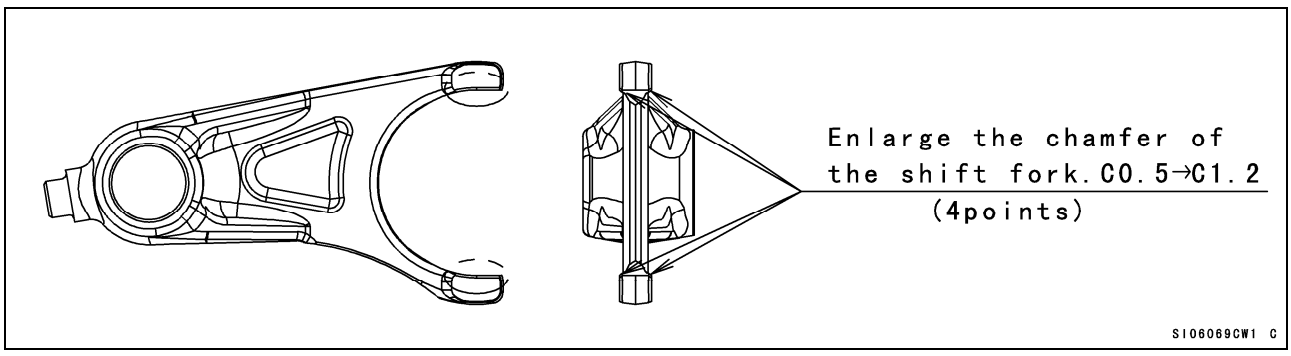
13262-0648: 21T

13262-0881: 18T

Shift Forks

13140-0625

When combining the 3rd/4th input racing kit gear with the standard shift fork (13140-0063), the shift fork interferes with the gear's corner because the chamfer of the shift fork is small. When using the 3rd/4th input racing kit gear, enlarge the chamfer of the shift fork, or use the racing kit shift fork (13140-0625). 13140-0625 has enlarged chamfer compared to 13140-0063 (Standard). See the illustration below.



Output Shaft

13128-0671

When using the 3rd/4th output gear for the racing kit, use the output shaft (13128-0671) for the racing kit. If the standard output shaft (13128-0670) is used, the shim between the 3rd/4th output gears may fall in the groove of the circlip, resulting in a serious failure.

Engine Sprocket

13144-0021 #520-16T
13144-0022 #520-17T

Racing Kit Service Data

Item	Standard
Cylinder Head, Valves:	
Valve timing:	
Duration:	
Intake	296°
Exhaust	293°
Camshaft timing (cam lift center):	
Intake	112° (ATDC)
Exhaust	104° (BTDC)
Valve clearance:	
Intake	0.15 ~ 0.22 mm (0.20 mm recommended)
Exhaust	0.17 ~ 0.22 mm (0.20 mm recommended)
Squish	0.85 mm
Valve to piston clearance:	
Intake	1.65 mm @10°ATDC
Exhaust	1.65 mm @10°BTDC
Ignition System:	
Spark plugs	NGK CR9EIA-9 (STD), R0045Q-10 or R0373A-10
Spark plug tightening torque	13 N·m (1.3 kgf·m, 113 in·lb)

These values show the specifications when standard cylinder head and gasket are used.

Periodic Maintenance Chart

The scheduled maintenance must be done in accordance with this chart to keep the motorcycle in good running condition.

FREQENCY OPERATION	Each Race	Every 2races	Every 3races	Every 5races	Every 10races	As Required
Engine						
Clutch plate - - check*	●					
Throttle grip play - - check*	●					
Spark plug - - clean/gap*	●					
Engine oil - - change	●					
Oil filter - - replace	●					
Cylinder head/valve - - decarbonization				●		
Cylinder - - check*				●		
Piston/cylinder clearance - - check*				●		
Piston ring, piston, and piston pin - - replace				●		
Crankshaft main bearing - - check*					●	
Connecting rod big end bearing - - check*					●	
Transmission gear, bearing - - check*					●	
Engine sprocket - - check*	●					
Coolant - - change						●
Radiator hoses, connections - - check*	●					
Frame						
Brake operation - - check*	●					
Brake pad wear - - check*	●					
Brake fluid level - - check*	●					
Brake fluid - - change*						year
Brake master cylinder cup and dust seal - - replace						year
Brake caliper piston seal and dust seal - - replace						year
Brake hose - - replace						2 years
Drive chain - - adjust	●					
Drive chain - - lubricate	●					
Drive chain wear - - check*	●					
Drive chain guide - - replace	If damaged					
Front fork - - clean/check*	●					
Front fork oil - - change	First change after 2 races, then every 5 races					
Nut, bolt, and fastener tightness - - check*	●					
Fuel system - - clean	●					
Fuel hose, fuel filter - - replace						●
Steering play - - check*	●					
Steering stem bearing - - grease				●		
Rear sprocket - - replace						●

FREQENCY OPERATION	Each Race	Every 2races	Every 3races	Every 5races	Every 10races	As Required
General lubrication of chassis - - perform	●					
Wheel bearing (rear) - - grease					●	
Swingarm pivot, uni-track linkage - - grease				●		
Swingarm pivot, uni-track linkage - - check*				●		

★ (*) in the above table means you need to replace, add, adjust, clean, or torque if necessary.

Preparation

Before Installing

- Modify the parts based on your race regulation.
- To avoid misuse keep the parts replaced with the kit parts separate.
- When reusing parts, clean them and check them for damage or deterioration.
- Main Removal Parts:
  - Lights
  - Rear View Mirrors
  - Side Stand
  - Starter Lockout Switch
- Remove the side stand switch. When the optional main harness is not used, connect removing Black/Yellow and Green/White Leads directly.

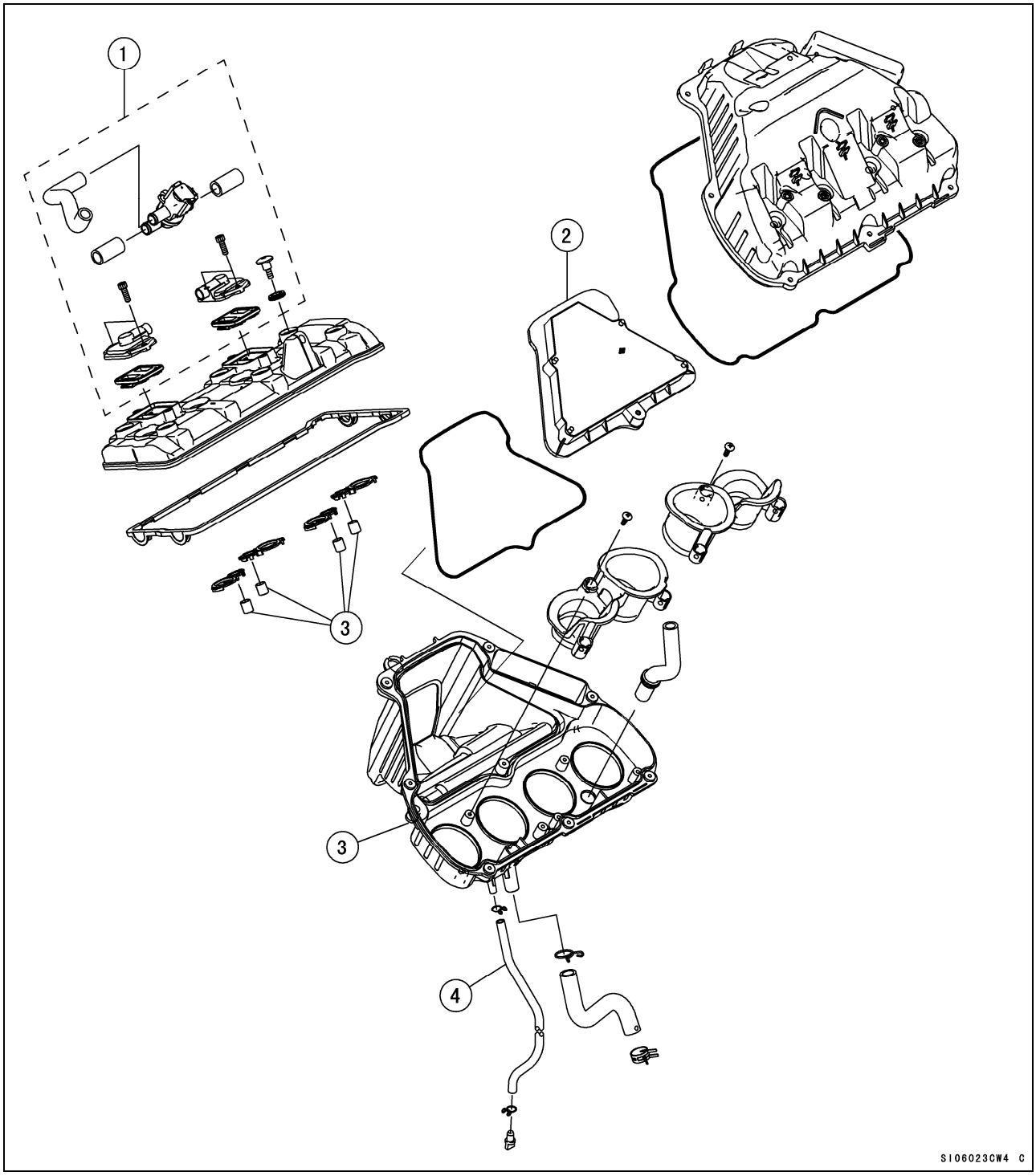
Racing Kit Parts

Also, we have provided the spare parts, and other optional parts (engine, frame, and electric parts) for racing. So please order each parts referring to the “Racing Kit Parts List” in the back of this manual.

Engine Parts Installation

Air Intake Parts

- Remove the air cleaner element or cut the cleaner element off remaining the air cleaner element plate to reduce the air flow resistance.



1. Relational Parts of Secondary Air: Remove the Parts.
2. Remove the parts or cut the cleaner element off remaining the air cleaner element plate.
3. Secondary Air Passages on Cylinder Head: Plug the holes, or press-fit the plugs (92066-1005) instead of the original pins.
   Output of Secondary Air on Air Cleaner: Plug the hole
4. Air Cleaner Drain Tube: Use it cutting it in suitable length.

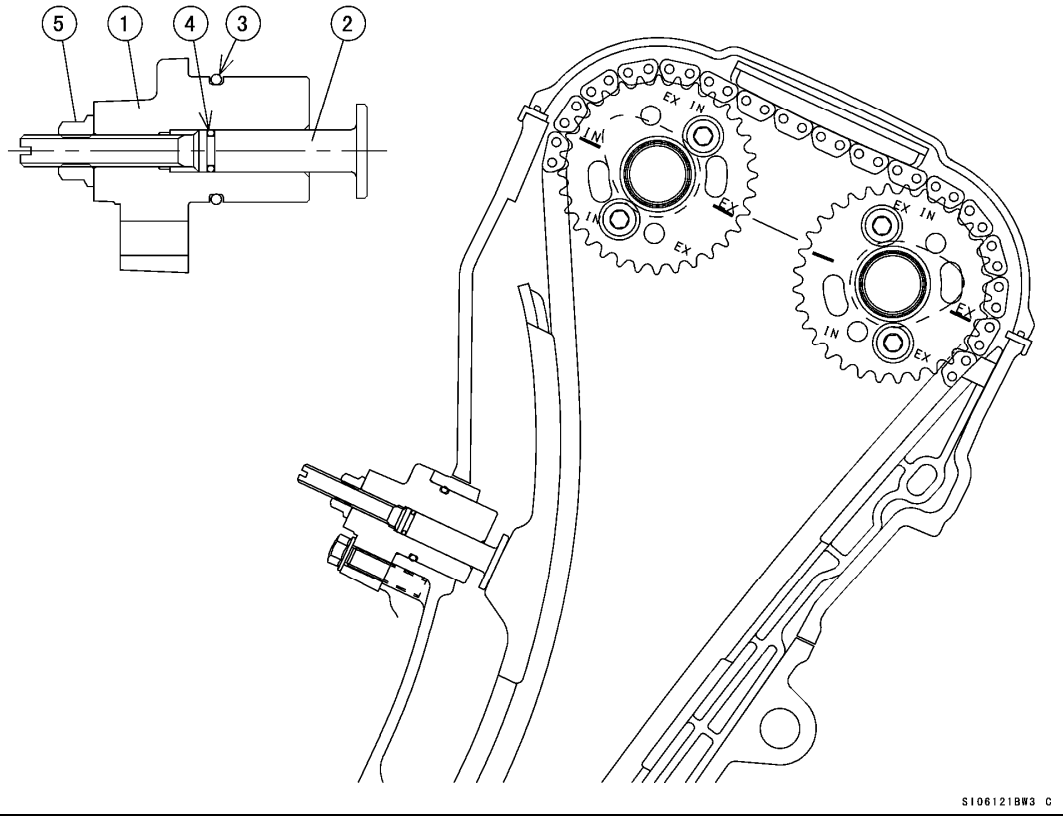
Camshaft Chain Tensioner

- Replace the cam chain tensioner with the kit to decrease the flutter of tensioner.
- Apply the engine oil to the tensioner rod, O-ring and tensioner body, insert them into the tensioner body.

○ Check to see that the tensioner rod turns freely in the body, if not, polish the tensioner rod or fine the female threads in the body with a tap (Diameter × Pitch = 6 mm × 1.0 mm).

- Install the tensioner on the cylinder block with the tensioner rod is fully pushed back.
- Turn the tensioner rod in with a screwdriver until it becomes hard to turn.
- Turn the crankshaft clockwise forcing lightly to the tensioner rod with twisting force to take up any gap and tighten the locknut.

NOTICE
Never forward the tensioner rod forcibly, this will increase mechanical loss of the tensioner and may damage to the chain guide. **The cam chain tensioner must be adjusted at every race.**



1. Tensioner Body
2. Tensioner Rod
3. O-ring
4. O-ring
5. Locknut

Camshafts, Sprockets, Valve

Camshafts, Sprockets:

Camshaft	Duration	Lift
49118-0718 (STD) (Intake)	296°	10.3 mm
49118-0719 (STD) (Exhaust)	293°	9.1 mm
49118-0728 (Kit) (Intake)	301°	10.5 mm
49118-0729 (Kit) (Exhaust)	306°	9.1 mm

Valve:

Valve
12004-0044 (STD) (Intake)
12005-0059 (STD) (Exhaust)

- In case of using kit camshaft (IN: 49118-0728, EX: 49118-0729), be sure to use kit camshaft sprocket (IN/EX: 12046-0034) as a set.
- Adjust the valve clearance within the specified value. Intake: 0.15 ~ 0.22 mm, Exhaust: 0.17 ~ 0.22 mm

○ More performance is expected when adjusted from middle value to upper limit between adjustable range.

- If you can not adjust the valve timing for racing, install the camshaft sprocket to the camshaft using the round bolt holes and adjust the cam chain timing according to the attached “ZX1000JBF/KBF Motorcycle Service Manual: 99924-1443”. If you adjust the valve timing, install the sprocket to the camshaft between the adjustable range of the long bolt holes.
- Tighten the camshaft sprocket bolts to 15 N·m (1.5 kgf·m, 11 ft·lb) of torque.

Valve Timing

Timing (cam lift center)	Intake	Exhaust
When the round bolt holes are used (Original)	112° (Original camshaft)	104° (Original camshaft)
When the long bolt holes are used	113° (Kit camshaft)	108° (Kit camshaft)

NOTE

○ *When grinding the cylinder head bottom surface, grinding the cylinder top surface or using thinner gaskets, be sure the valve to piston clearance especially.*

○ *When using the sprocket long bolt holes and adjusting the valve timing to be different from the standard timing, check the valve to piston clearance of all cylinders after adjusting the valve clearance correctly.*

Valve to Piston Clearance (Min.)

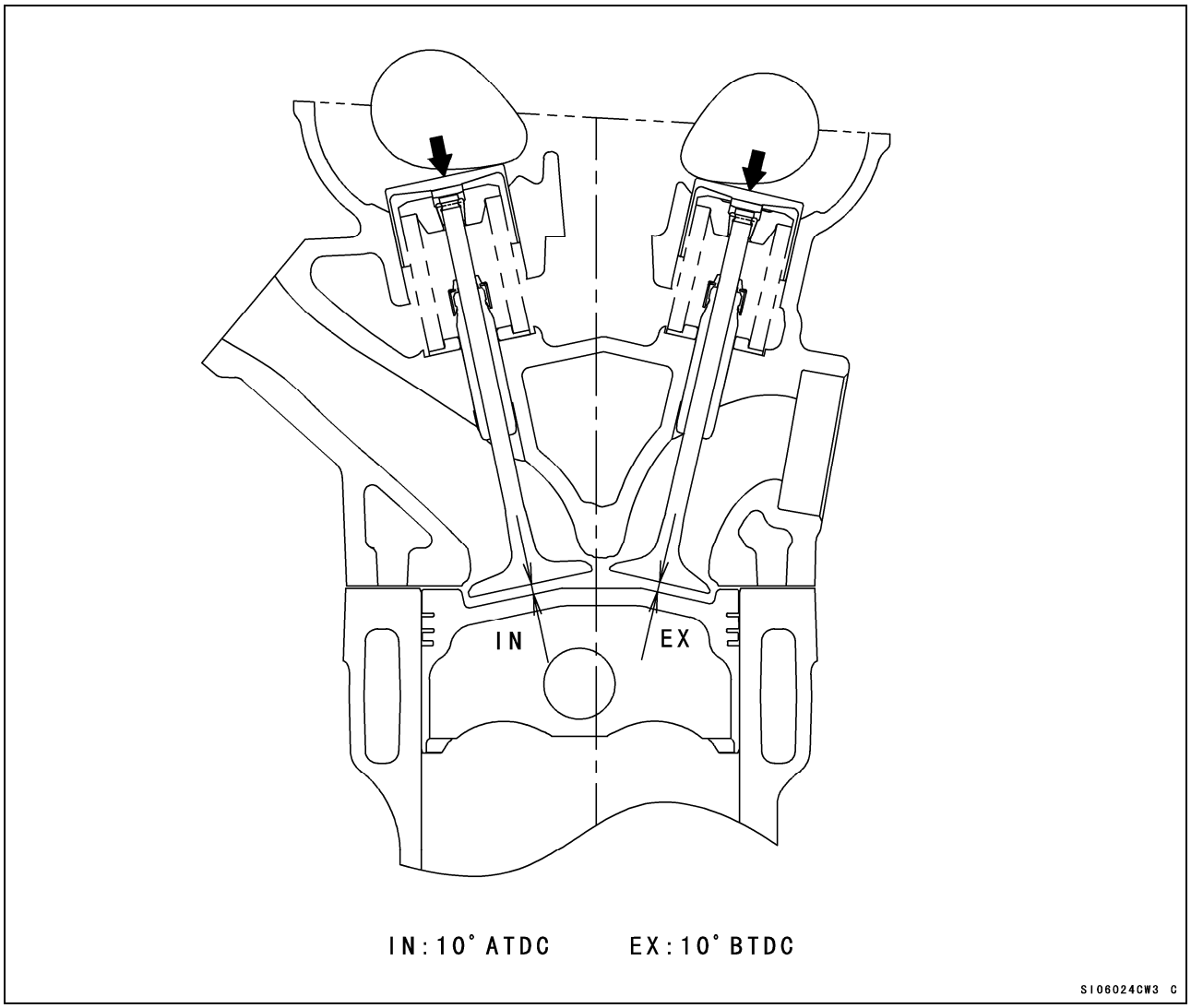
Intake	0.7 mm
Exhaust	1.2 mm

If the valve to piston clearance is less than the minimum value, do not start the engine because the valves will touch the piston and the engine may be damaged.

Adjust the valve timing again to keep the valve to piston clearance more than the minimum value.

Method of measuring clearance of valve and piston –1

- Holding the crankshaft at 10°ATDC (intake) and 10°BTDC (exhaust) of crankshaft timing, measure the amount of the tappet movement until the valve comes in contact with the piston pushing the tappet.

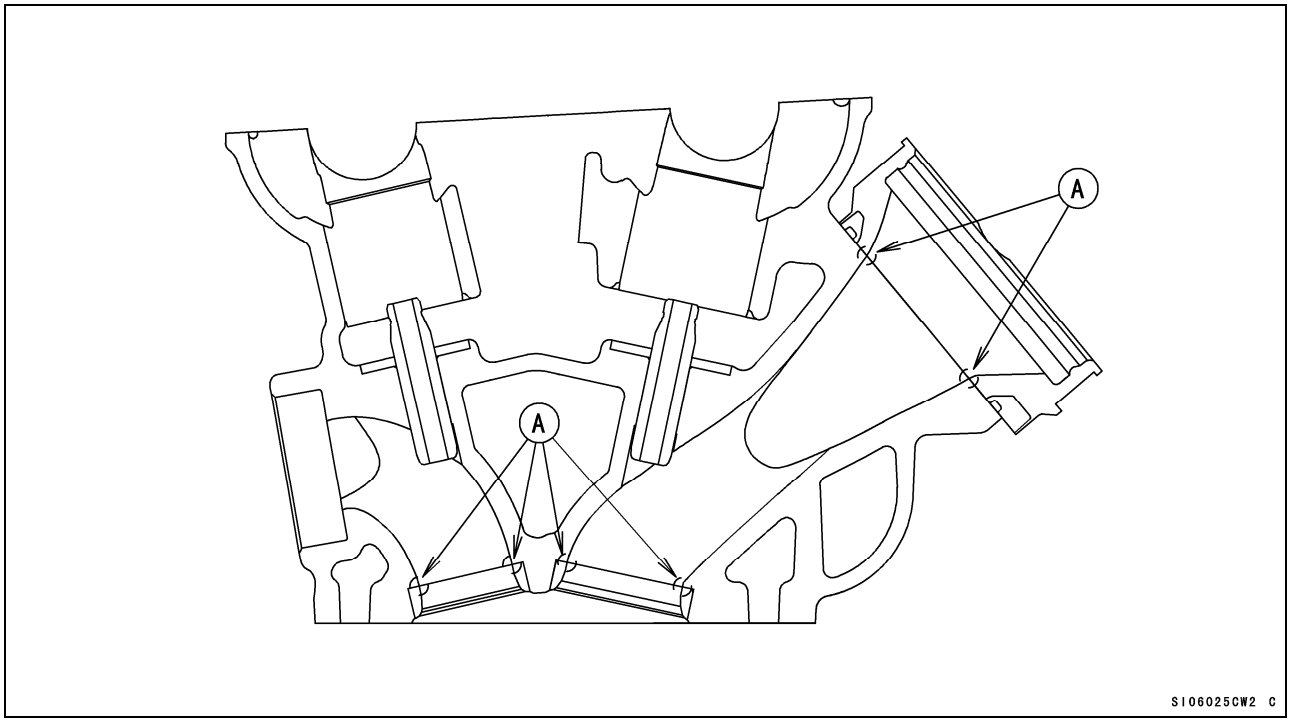


Method of measuring clearance of valve and piston –2

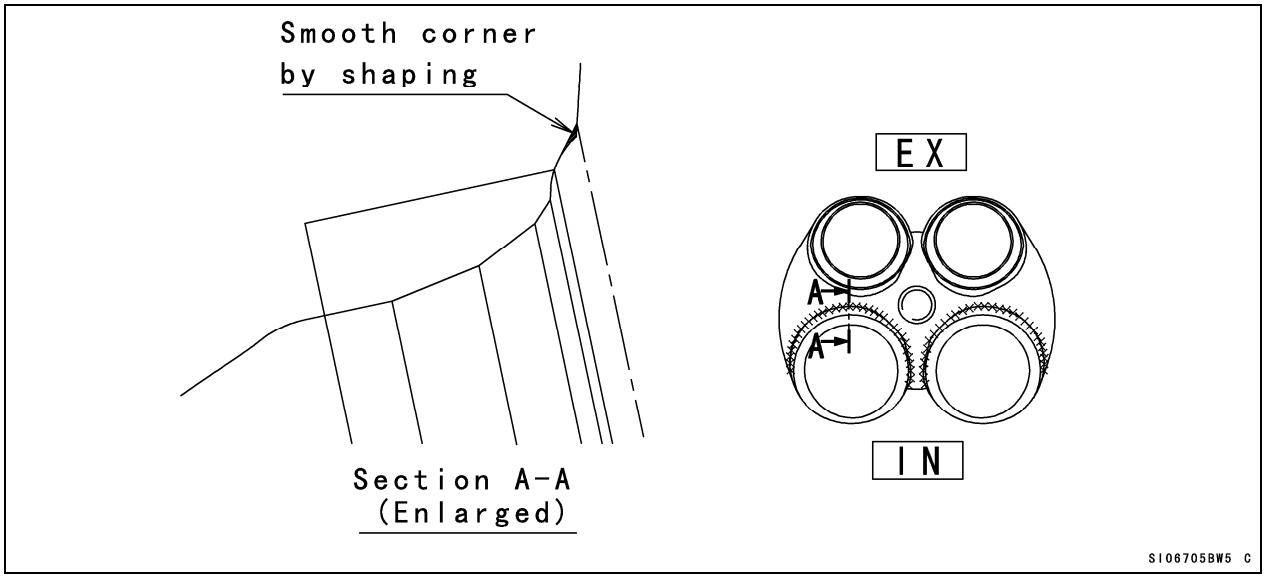
- Adjust the valve clearance and valve timing.
- Remove the cylinder head, and put a small piece of modeling clay on the hollow of piston to prevent valve from coming in contact.
- Install the cylinder head and adjust the camshaft chain timing.
- Turn the crankshaft by two rotations or more.
- Remove the cylinder head and measure the thickness of the clay. The thickness of the collapsed clay is a clearance of the valve and the piston.

Cylinder Head

- ● Before reassemble the cylinder head grind off the stepped portions of the port and smooth the inside of ports to make intake/exhaust gas flow smooth.
- ○ Grind off the stepped portions only at the mating surface between the throttle body holder and the intake port.
- ○ Mark the throttle body holders so that they can be installed in their original positions.
- ○ Grind off and smooth the stepped portions at the mating surface between the valve seat and the port.
- ○ Smooth the inside of the intake port and exhaust port.
- ● Chamfer the machining edge of the cylinder head where the valve seat installed, also smooth the dome of the combustion chamber with the valves installed. Excessive smoothing may reduce the cylinder compression.
- ○ Use the hand grinder. Use #200 oil stone for eliminating any stepped portion and #300 oil stone for finishing.



A: Stepped Portions



NOTE

○ *These procedures make air resistance less and intake/exhaust gas flow more smooth. However, much more effect cannot be expected by excessive grinding and smoothing. It may be done to the extent of getting rid of uneven surfaces.*

Cylinder Compression

To adjust the cylinder compression, adjust the thickness of the cylinder head gasket or smooth the cylinder head under surface or cylinder top surface to make the piston squish 0.65 mm. Keep the piston squish more than 0.65 mm.

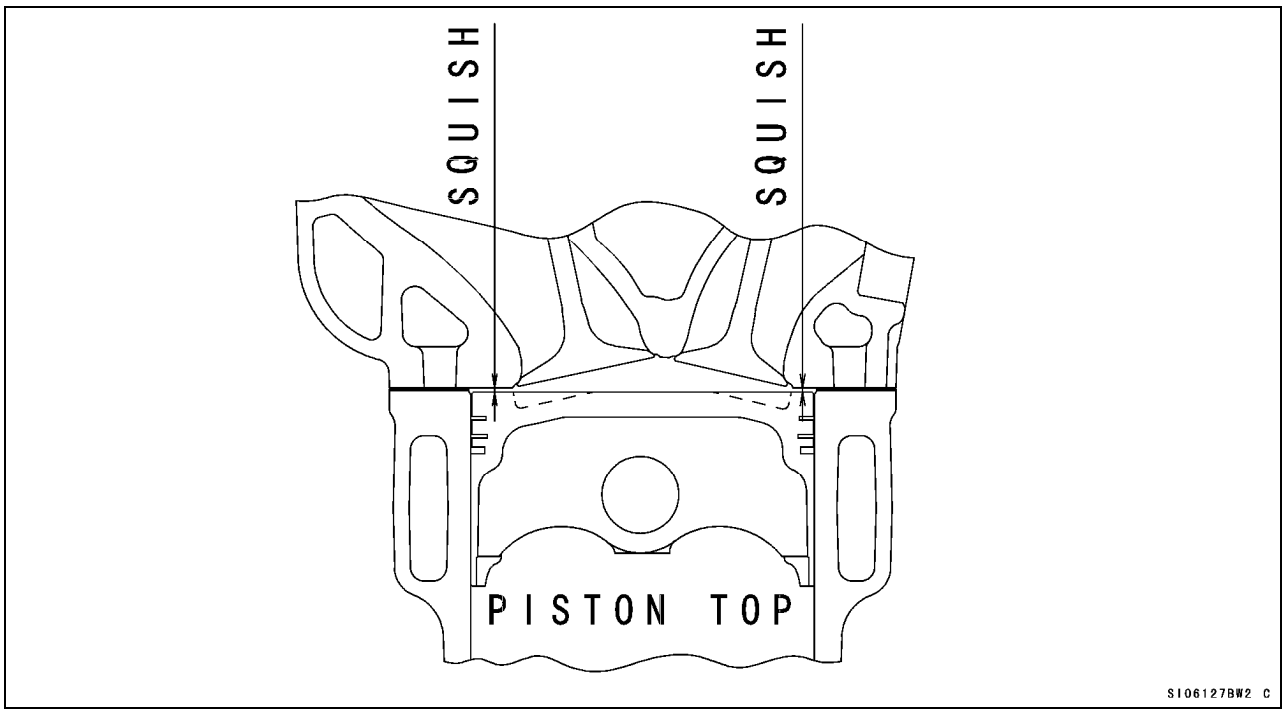
○ Grind off the cylinder head under surface to 0.1 ~ 0.4 mm. Do not grind the cylinder upper surface. This can raise the compression ratio while keeping the clearance of the piston and valve, and one of the squish. Although, as the engine machining is uneven, determine the cutting dimension after confirmation the recess and the squish before machining. With the compression ratio rise, the maximum horsepower increases while handling of the throttle in the slight opening range tends to become harder. It is recommended to drive with only squish adjustment by the gasket without grinding the cylinder head at first.

- Position the piston at Top Dead Center, and put a small piece of modeling clay on the shoulder of the piston. Install the cylinder head gasket and cylinder head, and tighten the head bolts to the specified torque.
- Remove the cylinder head and measure the thickness of the clay. The thickness of the collapsed clay is the size of the squish.
- The most preferable squish measurement is 0.65 mm.
- Select proper cylinder head gasket.

Cylinder Head Gasket

Part No.	Tightening thickness	Remarks	ID Number
11004-0719	0.65 mm (STD)	KIT	65
11004-0720	0.60 mm	KIT	60
11004-0721	0.55 mm	KIT	55
11004-0722	0.50 mm	KIT	50

○ As for the cylinder head casket of the racing kit, oil supply hole to the cam is smaller than the standard one to change the fuel distribution in the engine. For circuit riding, it is recommended to use the cylinder head gasket for the racing kit even when using the standard thickness cylinder head gasket.



NOTE

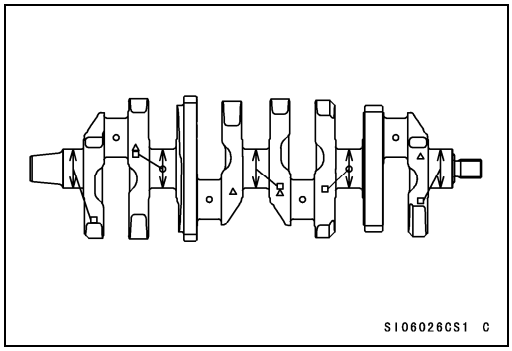
○ *When grinding the cylinder head lower surface or using thinner gasket, adjust the valve timing to keep that the valve to piston clearance is not less than the minimum value (IN: 0.7 mm, EX: 1.2 mm).*

Crankshaft Main Journal Bushings

The kit bushings are improved in anti-seizuring characteristics as well as in wear-resistance as compared with the standard bushings.

Crankshaft Main Journal Clearance

When adjust the clearance by measurement in case aiming the clearance 0.035 mm.



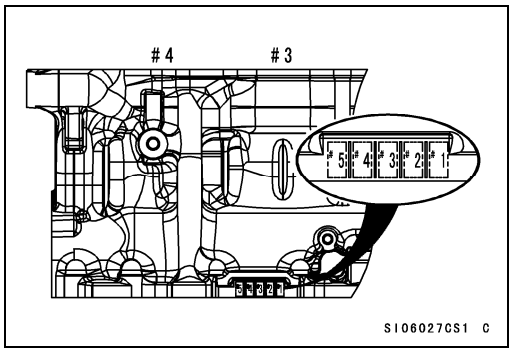
Crankshaft Main Journal Diameter Marks

None:	34.984 ~ 34.992 mm
1:	34.993 ~ 35.000 mm

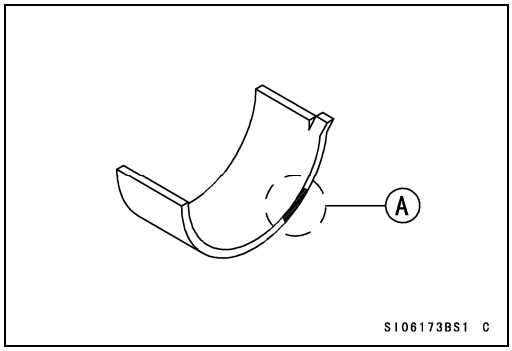
Crankcase Main Bearing Inside Diameter Marks

○:	38.000 ~ 38.008 mm
None:	38.009 ~ 38.016 mm

Mark portion: #1 ~ 5



[A]: Size Color



Crankshaft Main Journal Bushings

Color	Kit Bushing #1, 3, 5	Kit Bushing #2, 4	Standard Bushing #1, 3, 5	Standard Bushing #2, 4	Thickness
Blue	92139-0746	92139-0750	92139-0298	92139-0301	1.499 ~ 1.503 mm
Black	92139-0747	92139-0751	92139-0299	92139-0302	1.495 ~ 1.499 mm
Brown	92139-0748	92139-0752	92139-0300	92139-0303	1.491 ~ 1.495 mm
Pink	92139-0749	92139-0753	—	—	1.487 ~ 1.491 mm

Crankshaft Main Journal Bushing Selection

Crankshaft	1	1	None	None
Crankcase	○	None	○	None
Crankshaft Main Journal Bushing	Brown	Black		Blue
Clearance (recommend)	10 ~ 34 μm	10 ~ 34 μm		10 ~ 34 μm

★ Use the pink bushings when the clearances cannot adjusted within the prescribed allowances even if the brown bushings are used.

NOTICE
Make the clearances between the crankshaft main journals within the prescribed allowances. Excessive clearances will cause the oil pressure at the crankshaft main journals to drop and lead to the damage of the bearing.

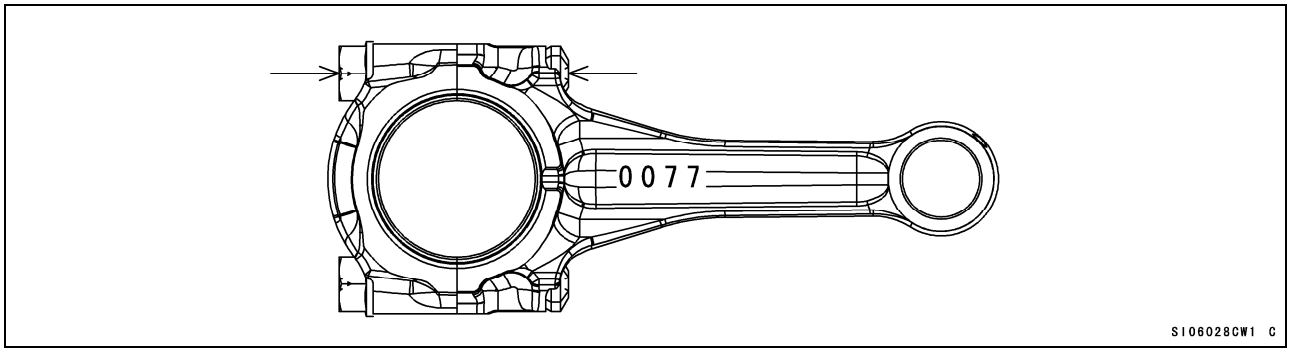
Connecting Rod Bolts

Use the original connecting bolts and nuts.

Make recesses at both ends of the original connecting rod bolt to measure its length and determine the bolt stretch.

Make recesses at both ends of the original connecting rod bolt to measure its length and determine the bolt stretch or replace the original with the connecting rod bolt (92513-0809) with recesses.

Connecting Rod :13251-0031
Bolt : 92153-0809 (Spare Part: Attached Recess)
Nut : 92015-1311



- Install the bolts into the connecting rod.
- Before every tightening, use a point micrometer to measure the length of the bolts and record the values to find the bolt stretch.
- Apply a small amount of molybdenum disulfide grease to the threads and seating surfaces of nuts and bolts.
- Tighten the big end nuts at the torque (reference torque) of 20 N·m (2.0 kgf·m, 14.5 ft·lb).
- Check the length of the bolts and find the bolt stretch.

  Bolt Length after tightening – Bolt Length before tightening = Stretch

  Bolt Stretch

  Usable Range: 0.32 mm (0.0126 in.) target
- Turn the big end nuts more until the bolt stretch reaches the usable range.

NOTE

○ *Replace the original bolts with new ones if they have already been tightened up to usable range 2 times.*

○ *Replace the bolts with new ones if they are used for the engine with a not clear feature.*

Connecting Rod Big End Bushings

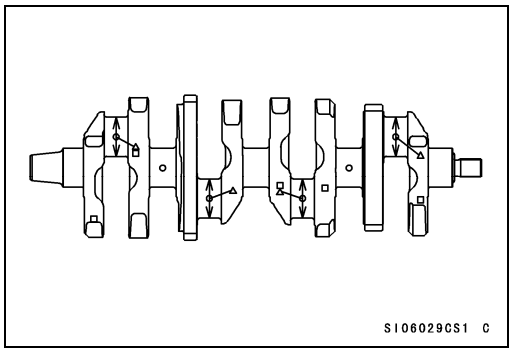
The connecting rod bushing in the kit has improved its anti-seizure feature than standard one.

Connecting Rod Big End Bushing/Crankpin Clearance

○ When adjust the clearance by measurement in case aiming the clearance 0.050 mm.

Crankpin Diameter Marks

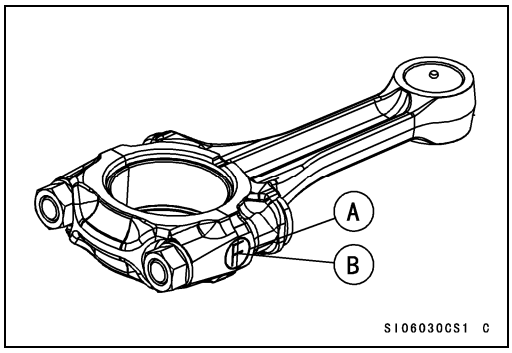
○:	34.493 ~ 34.500 mm
None:	34.484 ~ 34.492 mm



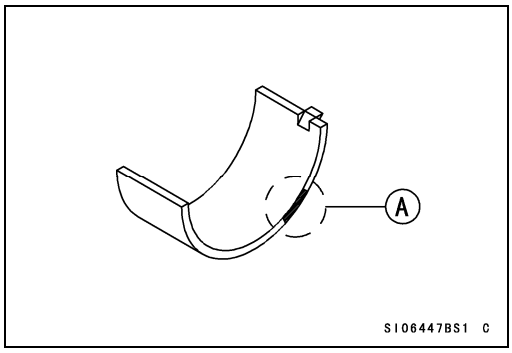
Connecting Rod Big End Bore Diameter Marks

○:	37.509 ~ 37.516 mm
None:	37.500 ~ 37.508 mm

[A]. Diameter Mark (○ or no mark)
[B]. Weight Mark (Alphabet, E, F etc)



[A]. Size Color



Connecting Rod Big End Bushings

Color	Kit Bushing Part Number	Original Bushing Part Number	Thickness
Blue	92139-0754	92139-0719	1.488 ~ 1.493 mm
Black	92139-0755	92139-0720	1.483 ~ 1.488 mm
Brown	92139-0756	92139-0721	1.478 ~ 1.483 mm
Pink	92139-0757	—	1.473 ~ 1.478 mm

Big End Bushing Selection

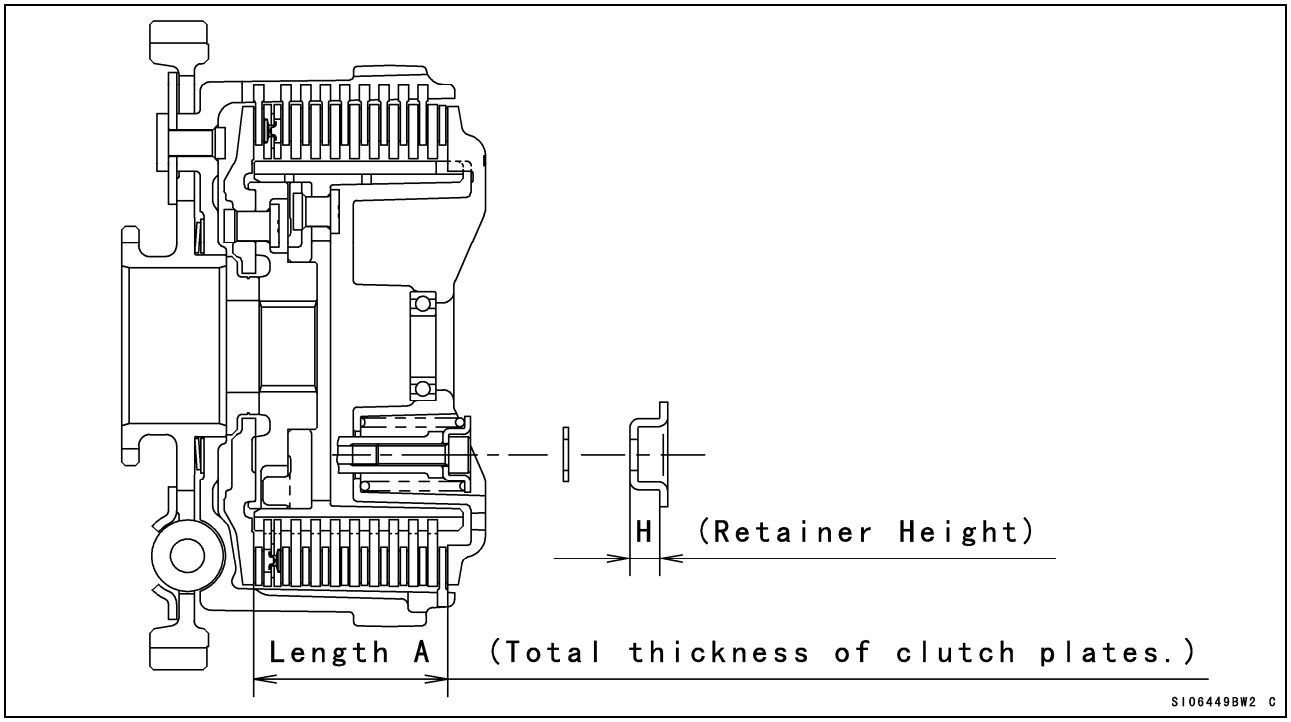
Crankshaft	○	○	None	None
Connecting Rod	None	○	None	○
Bushing	Brown	Black		Blue
Clearance (recommend)	30 ~ 60 μm	30 ~ 60 μm		30 ~ 60 μm

○ Use the pink bushings when the clearances cannot adjusted within the prescribed allowances even if the brown bushings are used.

NOTICE
Make the clearances between the connecting rod big ends within the prescribed allowances. Excessive clearances will cause the oil pressure at the connecting rod big end to drop and lead to the damage of the bearing.

Clutch Adjustment (Back-Torque Limiter Setting)

The Ninja ZX-10R engine is equipped with the Kawasaki back-torque limiter mechanism in the clutch. The back-torque limiter works to reduce the chance of rear wheel hop caused by heavy engine braking and down shifting. The back-torque limiter operating condition can be changed by changing the total thickness of clutch plates and changing the number of leaf springs. Try different settings and select the best.



The standard setting of length [A], total thickness of clutch plates shown below, becomes about 53.5 mm (t 2.9 × 7 pcs. + t 2.6 × 2 pcs.). For this setting the effective stroke of clutch spring plate during the back-torque limiter operation is adjusted between 0.45 and 0.75 mm.

By increasing the effective stroke the back-torque limiter causes more slip. The effective stroke increases by decreasing the length [A]. The length [A] between 51.9 and 53.5 mm is available by changing the combination of the steel plates. Replace one steel plate with a thinner one and try the setting. If the operation of the back-torque limiter is not enough replace other steel plates one by one.

Thickness (mm)	Part Number
2.3	13089-0008 (STD)
2.6	13089-0009 (STD)
2.9	13089-1093 (STD)

- When decreasing the length [A], total thickness of clutch plates, use the kit spring retainers (provided as optional production parts) to keep the preload of clutch springs according to the table below.

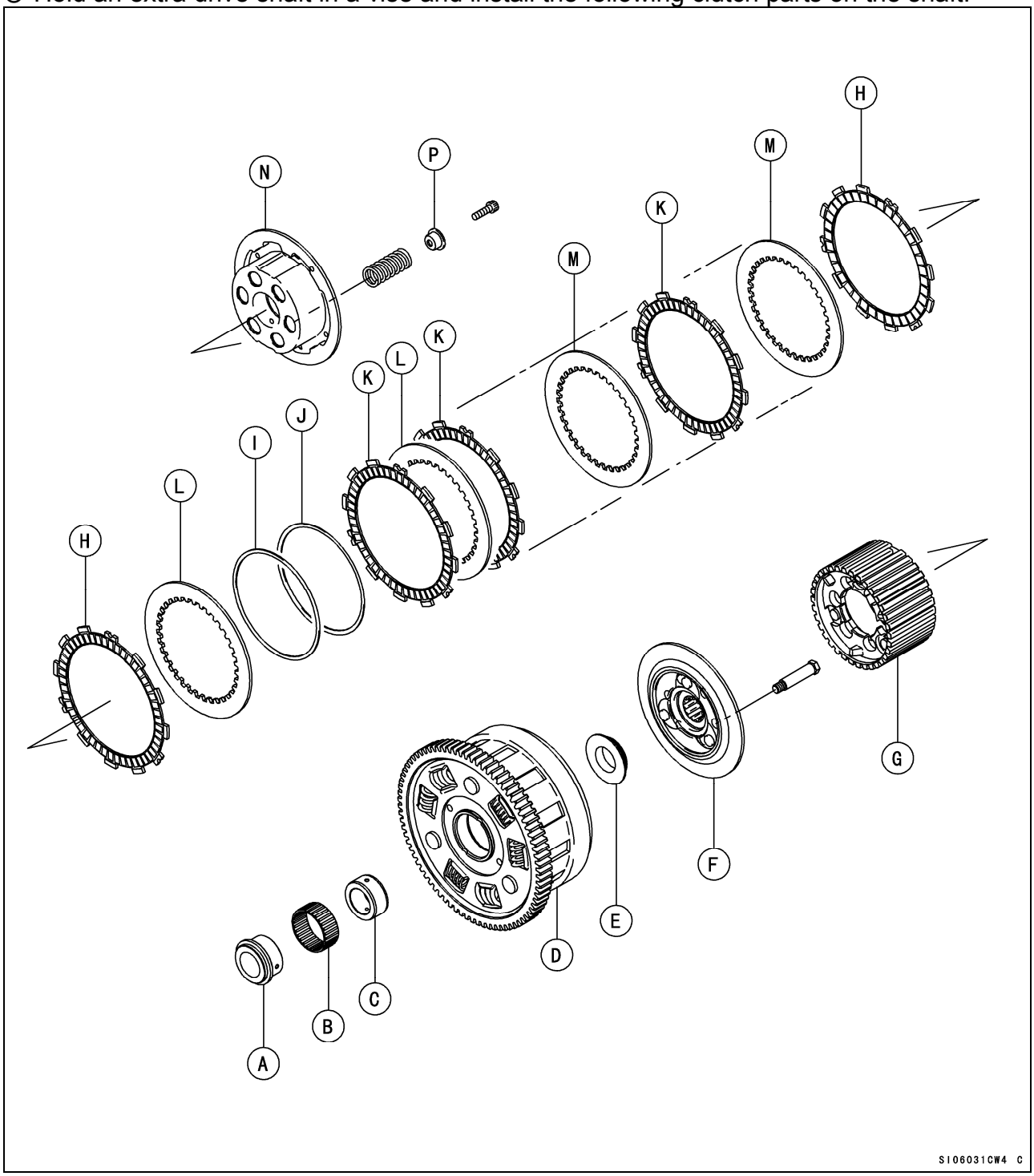
Length [A]	Part Number	Height [H]
53.0 ~ 53.5 mm	13091-1840 (STD)	8 mm
52.5 ~ 52.9 mm	13091-1041 + Washer (92022-304)	7 mm (6 mm + 1 mm)
	39108-0005	7 mm
51.9 ~ 52.4 mm	13091-1041	6 mm

★ If you have clutch slip during acceleration use shorter spring retainers by one size to increase preload of clutch springs.

- For precise setting the measurement of the effective stroke of clutch spring plate is recommended.

○ Remove oil from clutch plates.

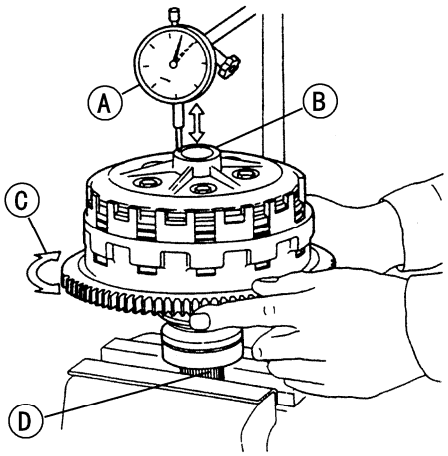
○ Hold an extra drive shaft in a vise and install the following clutch parts on the shaft.



[A] Collar
[B] Needle Bearing
[C] Bushing
[D] Clutch Housing
[E] Spacer
[F] Clutch Hub
[G] Sub Clutch Hub
[H] Friction Plates (48 Slots): 2 Plates
[I] Washer
[J] Judder Spring
[K] Friction Plates (36 Slots): 8 Plates
[L] Steel Plates (t 2.9 mm): 7 Plates
[M] Steel Plates (t 2.6 mm): 2 Plates
[N] Spring Retainer
[P] Spring Retainer

- Engage the cam followers (Clutch Hub) with the cams (Sub Clutch Hub).
- To measure the effective stroke of clutch spring plate, set a dial gauge [A] against the center [B] of the clutch spring plate.
- Move the clutch housing gear back and forth [C]. The difference between the highest and lowest gauge readings is the amount of the effective stroke of clutch spring plate.

[D] Drive Shaft



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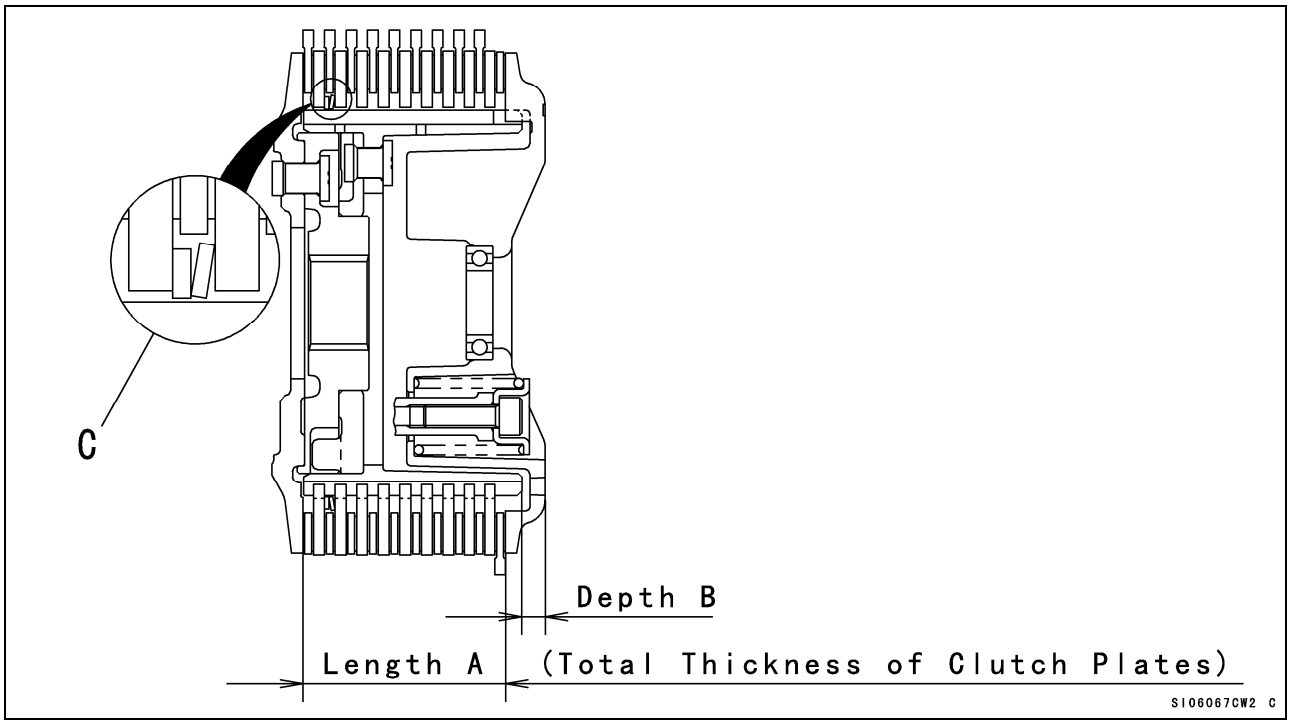
- After installing the clutch to the engine, measure and record the depth [B] shown below, the length from the clutch spring plate to the top surface of the sub clutch hub, using a caliper or a depth gauge. Manage the depth [B] to adjust the effective stroke after that, because the friction disks would be worn and the length [A] would change. The decrease of the depth [B] from the initial setting shows the increase of the effective stroke of clutch spring plate from the value initially measured.



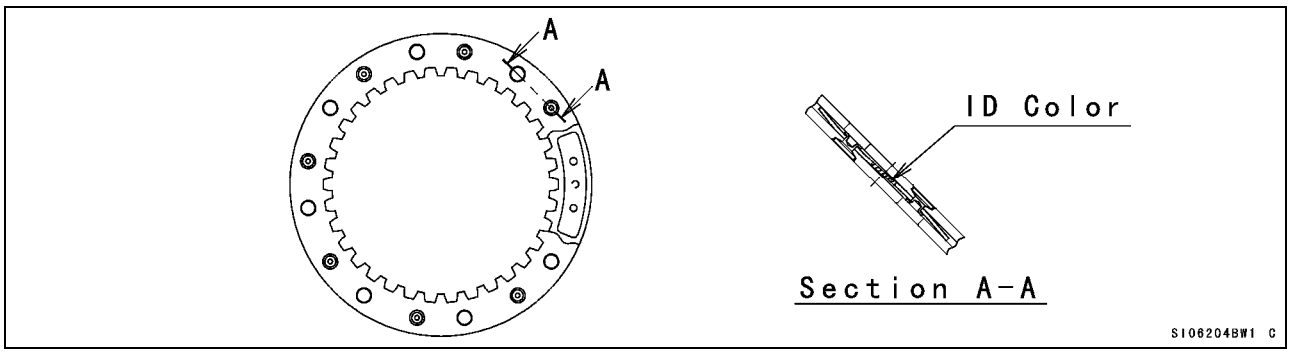
Spring Plate Assembly

The racing kit includes the spring plate assembly to cope with a judder at startup.
Remove the judder spring, washer, and innermost steel plate [refer to [C] (above figure)] installed in '11ZX-10R, and replace them with the spring plate assembly.
There are three types of the spring plate assembly with different spring load.
Decide which one to be used depending on the condition of a judder at startup.
When adjusting, be careful of the length [A] (above figure) because the plate thickness is different by the type.
Measure the length of the spring plate assembly with the spring stuck together by using a vice.
The standard thickness and number of the spring plate are as follows. Adjust as necessary.

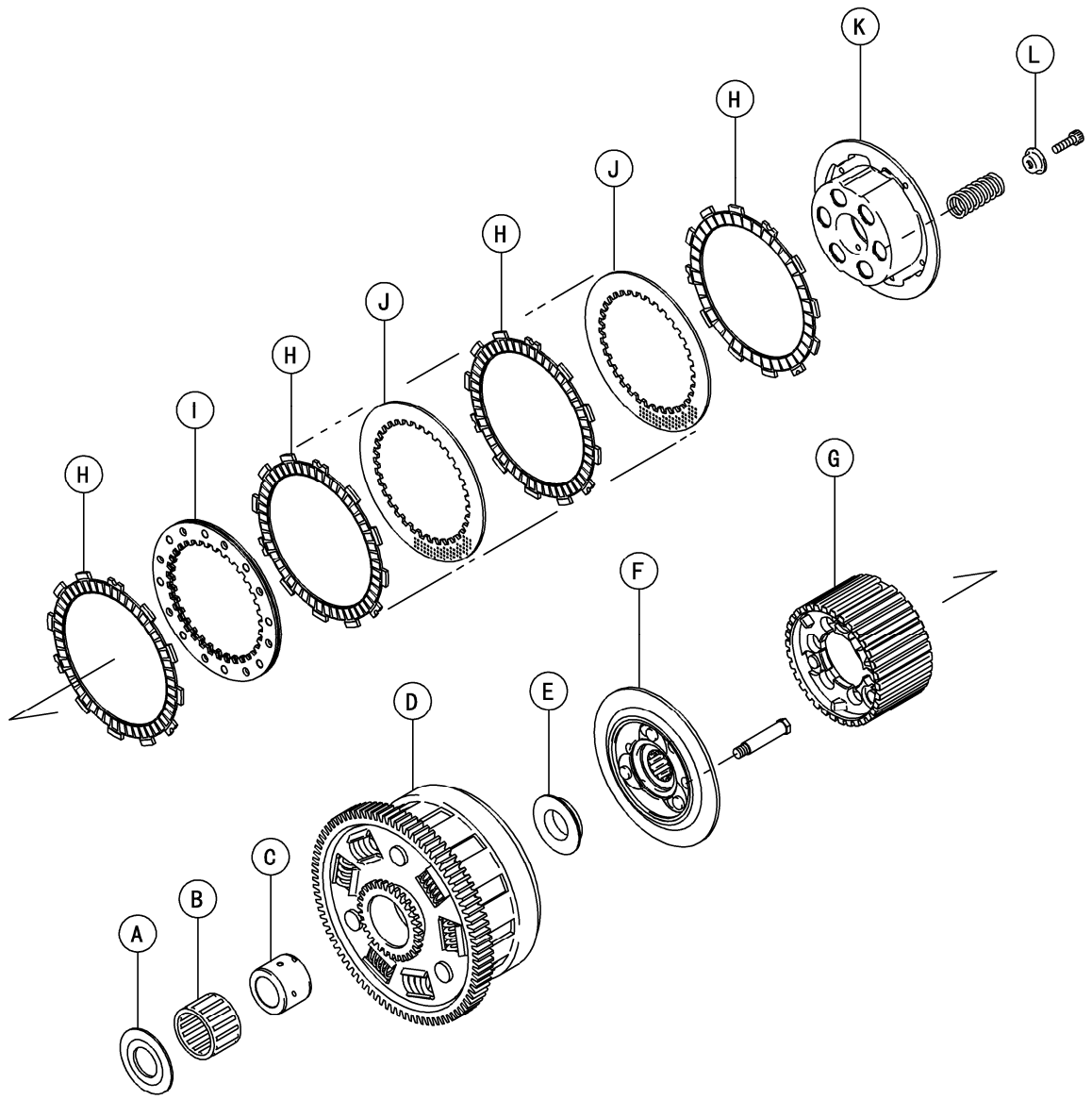
Spring plate 2.6mm : 8pcs …13089-0003

Part Number	Spring Constant	ID Color
13089-0003	Standard	None
13089-0011	40% up comparison standard	White
13089-0012	60% up comparison standard	Blue

Identification Color: The ID marks are on the springs between the steel plates.



When using the spring plate assembly.



[A] Collar
[B] Needle Bearing
[C] Bushing
[D] Clutch Housing
[E] Spacer
[F] Clutch Hub
[G] Sub Clutch Hub
[H] Friction Plates
[I] Spring Plate Assembly
[J] Steel Plates
[K] Spring Plate
[L] Spring Retainer

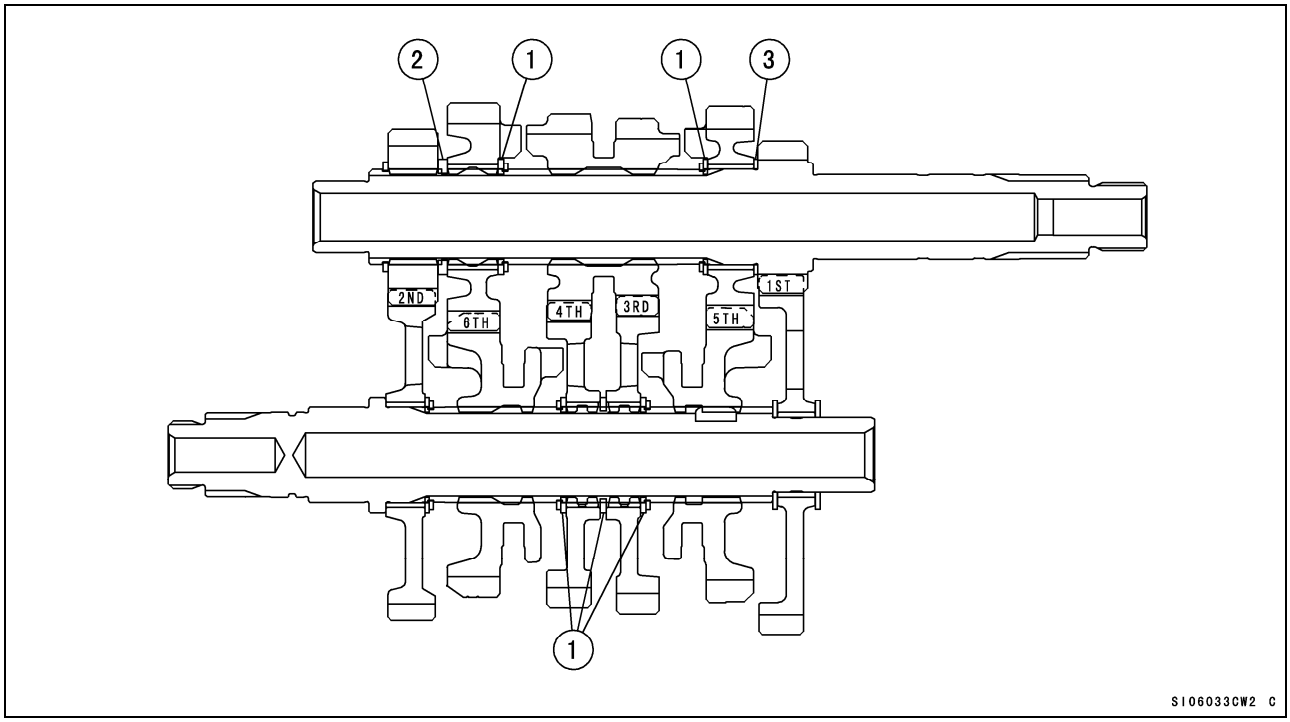
Transmission

The 2011 model ZX-10R adopts the cassette transmission and the gears can be changed with the engine equipped. For the engine assembly and disassembly, refer to the attached "ZX1000JBF/KBF Motorcycle Service Manual：99924-1443".

- Type A ~ G of the kit gears are available of the racing kit. To change the gear ratios with combination the gears. The output shaft and 5th output gear for the racing kit have no space to install of the steel balls.
- Remove the three steel balls (600A0500) from the output shaft assembly. This is done to start easily the engine with the second gear. The output shaft and 5th output gear for the racing kit have no space to install of the steel balls.
- Replace the circlips with new ones if they were removed.

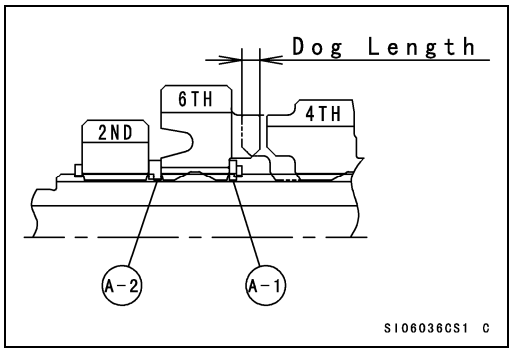
Transmission Shimming

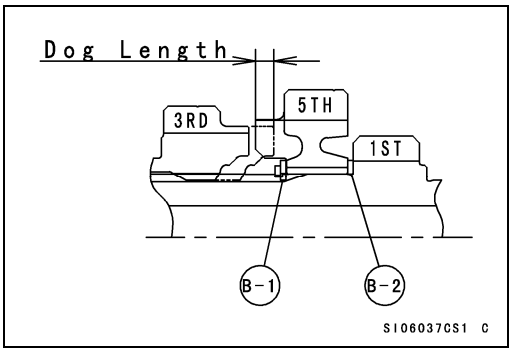
By using washers with various thickness, keep the axial clearance between 0.3 mm and 0.4 mm, to prevent the inclination of gears and to keep smooth gear-shifting.



	Thickness (mm)	Part No.	Remarks
① Spline washer 1	1.2	92200-0229	Kit
	1.4	92200-0230	Kit
	1.6	92200-0050	Original
	1.8	92200-0231	Kit
	2.0	92200-0232	Kit
② Spline washer 2	2.6	92200-0748	Kit
	2.8	92200-0749	Kit (STD)
	3.0	92200-0750	Kit
③ Plane washer	0.8	92200-0225	Kit
	1.0	92200-0226	Kit
	1.2	92200-0051	Kit (STD)
	1.4	92200-0227	Kit
	1.6	92200-0228	Kit

Use the kit input shafts of the racing kit with the washer adjustment since their sizes are, different from the standard shaft, designed taking the washer adjustment into account in order to make the dog lengths of the 3rd-5th & 2nd-6th input gear dogs equal. Adjust the dog length of each gears to smooth gear-shifting to the 5th and 6th gear.

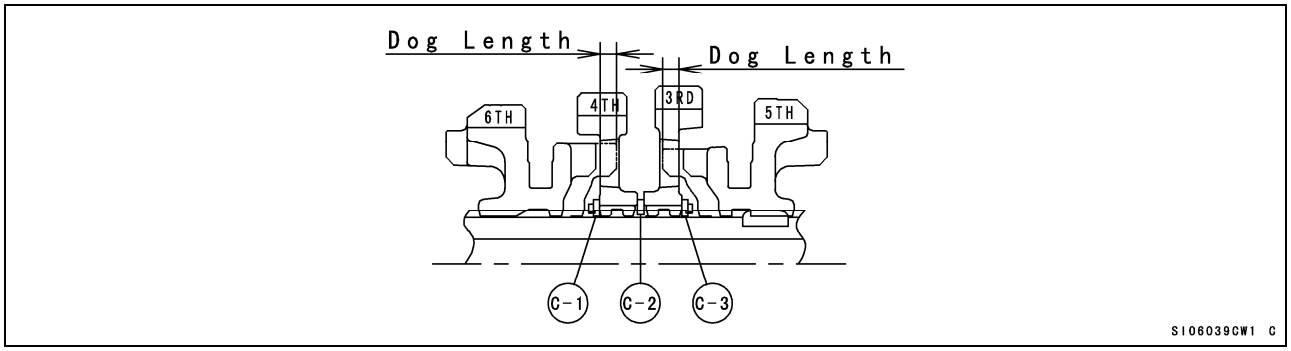




Standard Adjusting
A-2 Use the standard spline washer t 2.8 mm (92200-0749)
B-2 Use the standard spline washer t 1.2 mm (92200-0051)

When thin the washer of A-1 (B-1) from the standard washer and thickly the washer of A-2 (B-2) from the standard washer to increase the dog length of gears.

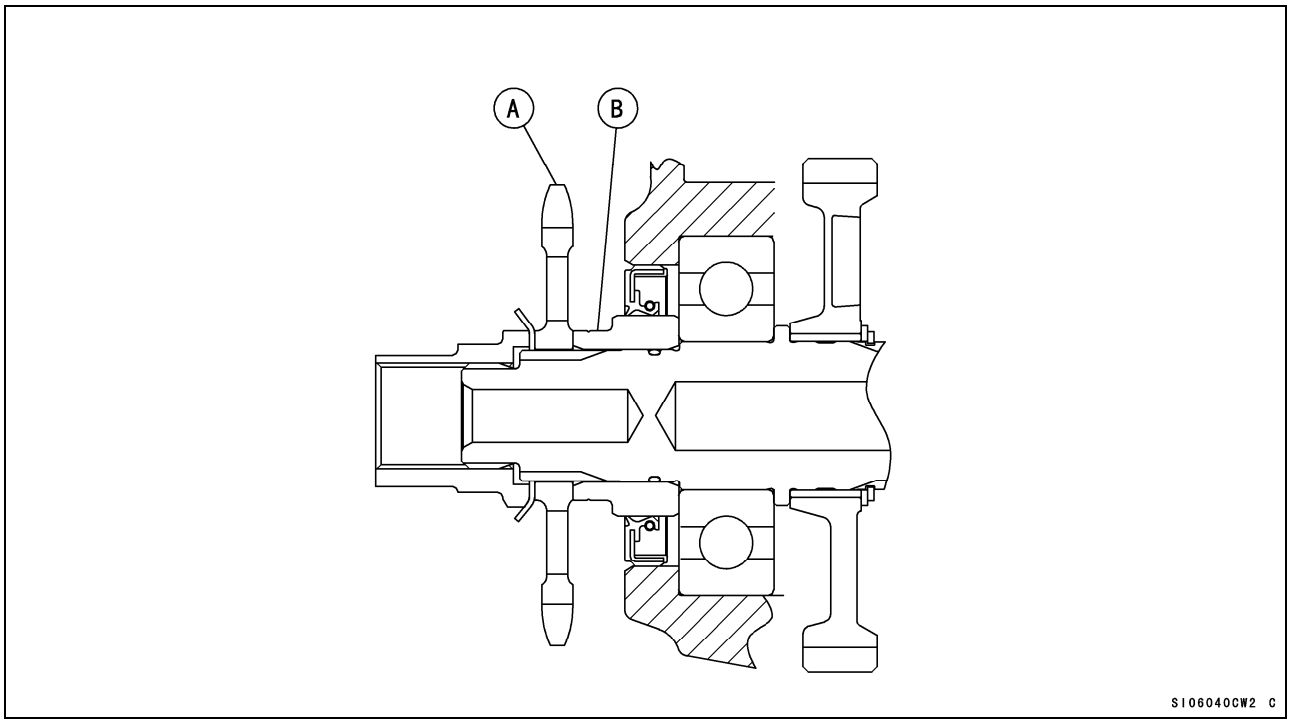
Use the kit input shafts of the racing kit with the washer adjustment since their sizes are, different from the standard shaft, designed taking the washer adjustment into account in order to make the dog lengths of the 3rd – 5th & 2nd – 6th input gear dogs equal. Adjust the dog length of each gears to smooth gear-shifting to the 3rd and 4th gear.



Standard Adjusting C-1·C-3 Use the standard spline washer t 1.6 mm (92200-0050).
Thinner washer for C-1·C-3 increases the dog length. Adjust the axial clearance at C-2.

Engine Sprocket

When using the engine sprocket for the racing kit, combine it with the dedicated collar and be careful of the direction of the sprocket. Install the sprocket so that the teeth number mark ("16" or "17") faces to the outside of the body.



A: Engine Sprocket 13144-0021(16T) or 13144-0022(17T)
Install the sprocket so that the teeth number mark ("16" or "17") faces to the outside of the body.

B: Dedicated Collar 92152-1522
with identification groove

Muffler

With recommended muffler engine performance can be improved.

Recommended muffler: LeoVince
Home Page : http://www.leovince.com (LeoVince)

○ For further information contact the manufacture of muffler directly.

Radiator

2011 model ZX-10R racing kit provides the recommended radiator to improved the cooling function.

Recommended radiator: Taleo Tecnoracing-made
Home Page : http://www.taleotecnoracing.com

○ For further information about the radiator, contact the manufacturer directly.

Water Temperature Sensor

The original water temperature sensor installed in the cylinder head must be remain and connected to the main harness because the electronic control unit (E.C.U.) needs the output signal from the original water temperature sensor. Be sure to connect the water temperature sensor to the main harness (either race kit main harness for race kit E.C.U or original main harness for original E.C.U).

Cover Gaskets (Kit)

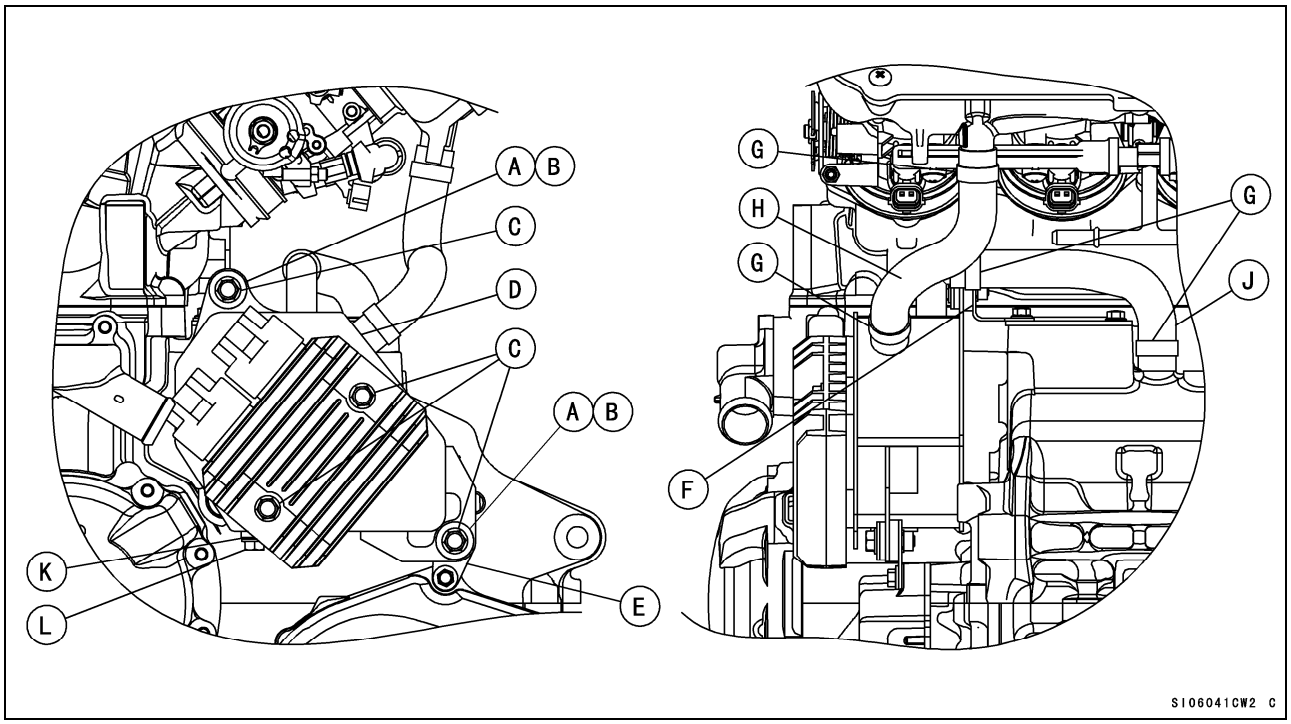
The kit cover gasket are available of the 2011 model ZX-10R.
They are made from “metal-foam” and made easy to separate.

Alternator Cover: 11061-0755
Clutch Cover: 11061-0754
Crankshaft Sensor Cover: 11061-0756
Oil Pan: 11061-0757

Oil Catch Tank (Kit)

Use the oil catch tank for the engine blowby gas.

Oil Catch Tank: 52001-0553
Tank Capacity: Approximately 650 cc



A. Dampers (92075-277)
B. Collars (92027-194)
C. Bolts (130BA0620)
D. Oil Catch Tank (52001-0553)
E. Bracket (11056-1233)
F. Bracket (11056-1232)
G. Clamps (92171-0338)
H. Hose (92192-1025)
J. Hose (92192-1026)
K. Washer (92022-304)
L. Bolt (130BD0610)

Oil Catch Tank Installation

- Temporarily tighten the mounting bracket [E] together with the chain cover.
- Tighten the mounting bracket [F] together with the starter cove.
- Install the damper [A] and collar [B] on the bracket of the tank [D] and fix them to the bracket [E] and [F] with the bolt [C].
- Tighten the mounting bracket [E].
- Cap the draining boss of the oil catch tank with the M6 bolt [L] and washer [K] and wire to prevent them from falling out.

Hose Installation

- Remove the original breather hose (92192-0889).
- Install the hose [J] between the air cleaner and oil catch tank by using the clamp [G].
- Install the hose [H] between the crankcase and the oil catch tank by using the clamp [G].
- Run the hoses as shown in the illustration above.

Regulator Installation

- Install the standard regulator (21066-0028) on the tank [D] with the bolt [C].

NOTE

- *Protect the hose and check the no blockade at the its curved part when the hose is afraid of interfering with edge part on the way of the hose routing. Specially, about the hose toward the crankcase, check the no blockage by the fuel pump.*
- *For the oil catch tank installation, it is necessary for the ABS(KIBS) equipped motorcycle to remove the ABS unit so that the brake hose routing is the same as the ABS(KIBS) non-equipped motorcycle. Be fully aware that the ABS does not work in this case.*

Idle Adjusting Screw (Kit)

The 2011 model ZX-10R provides the idle adjusting screw as the racing kit.

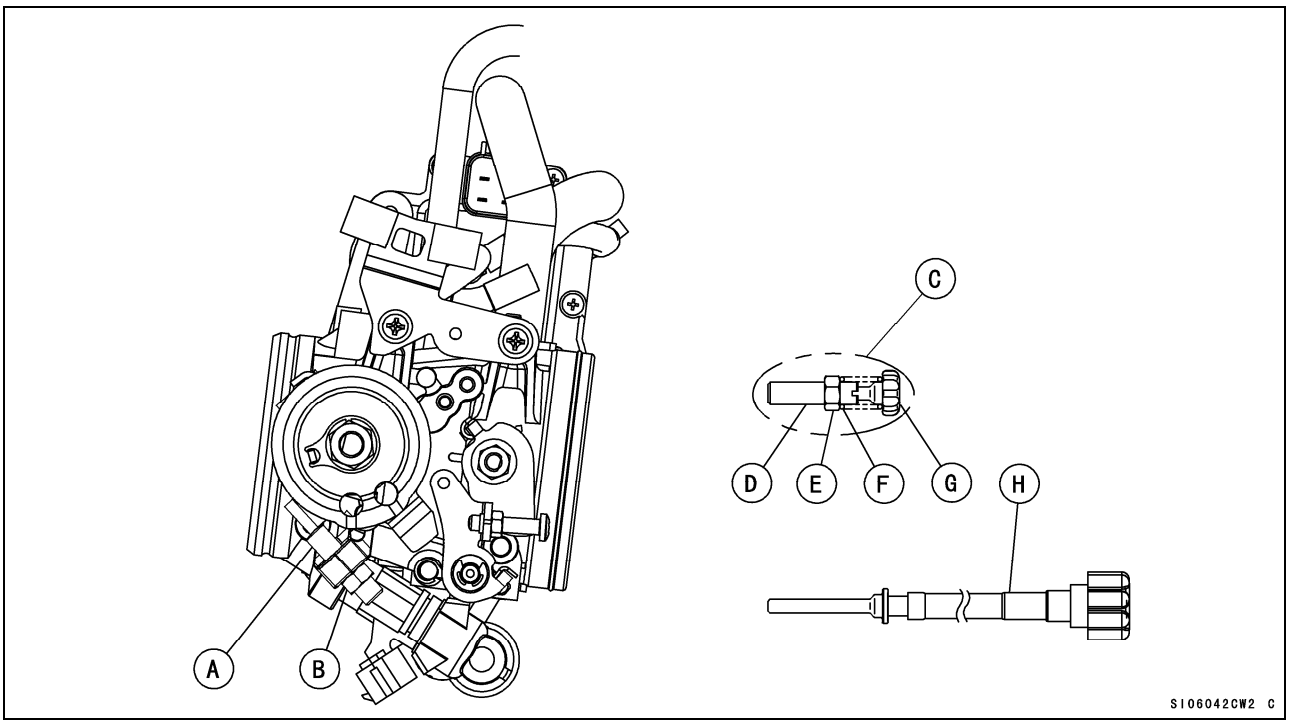
⚠WARNING

This idle adjusting screw works properly only when it is used together with the racing kit ECU (21175-0737).

This idle adjusting screw cannot work properly with the standard ECU because the idle control program and fuel-cut program in deceleration etc are incorporated in the ECU. Moreover, unexpected failure may happen, which leads to a serious accident. Never use this idle adjusting screw together with the standard ECU.

Idling engine speed and engine characteristics in full-closing throttle can be changed by changing the racing kit ECU setting without using this idle adjusting screw. Use the idle adjusting screw supplementarily only when the racing kit ECU cannot adjust enough. For the deatils, refer to the racing kit ECU instruction manual.

Be careful when adjusting to increase engine speed. If the engine speed does not decrease enough, excessive speed may lead to a serious accident.



A. Stopper (Original)
B. Locknut (Original)
C. Idle Adjust Screw Set (16021-0055)
D. Stopper (Kit)
E. Locknut (Kit)
F. Spring
G. Adjust Screw (92172-0745)
H. Remote Adjusting Screw (92172-0746)

Idle Adjusting Screw (Kit) Installation

- Before the installation, check if the input/output voltage is within the proper range. For the confirmation, refer to the attached "ZX1000JBF/KBF Motorcycle Service Manual：99924-1443".
- Put a cloth between the throttle valve and body to prevent the throttle valve from interfering with the body.
- Remove the standard stopper [A] and lock nut [B].
- Install the stopper of the kit [D]. Tighten enough the stopper so that the throttle valve does not interfere with the body when removing the cloth.
- Remove the cloth and adjust the stopper [D] position so that the output voltage is within the proper range (DC 0.645～0.675 V). Fix it with the lock nut [E].
- Install the spring [F] and adjusting screw [G]. The adjusting screw [G] can be replaced with the remote adjusting screw [H] if necessary.
- When decreasing the idling engine speed, always use the adjusting screw in contact with the throttle pulley. (The stopper does not contact throttle pulley.)

ECU (Kit)

The 2011 model ZX-10R kit ECU has following functions. Refer to the "**Kawasaki FI Calibration Tool Instruction Manual: 99929-0549-01"** for the ECU function set up method.

1. Auto Shift Functions

Be sure use the point type sensor.
Recommended: **Dynojet** made or **Battle Factory** made

2. Pit lane Engine Revolution Limit Functions

The speed control function is activated by pushing the turn signal switch.

3. Shift Indicator Functions

The standard meter can be used as the shift up indicator. The shift up indicator light can be used together with it or whichever can be used

4. Launch Control Functions

The engine revolution limit can be set at start up

5. Engine Brake Control Functions

By setting the ISC opening angle, the engine characteristics can be adjusted when the engine brake is applied

6. Traction Control Setting Functions

The traction control S-KTRC setting can be changed. Any three modes can be selected from the preset 33 modes and can be switched during riding (3 modes + OFF).

7. Power Mode Setting Functions

In addition to the engine brake control mentioned above, the fuel injection compensation, fuel compensation in acceleration, ignition timing correction, and subthrottle opening correction etc can be set in three modes independently. Any three preset modes can be switched during riding.

NOTE

- *The racing kit ECU does not operate excluding the combination with the racing kit harness (26031-1219). For the kit harness installation, refer to "Electric Parts Installation" in this manual.*
- *The kit ECU can be installed on both ABS(KIBS) equipped/non-equipped motorcycles by using the kit harness. However, the ABS stops functioning. There is no ABS-compliant kit ECU. Be fully aware that the ABS does not work and drive carefully when the kit ECU is installed on the ABS(KIBS) equipped motorcycle.*
  In circuit racing on ABS(KIBS) equipped motorcycle without the racing ECU, be fully aware as follows:
- *The ABS is designed to prevent wheel lock when the brakes are suddenly applied in straight running.*
- *The ABS is not designed to shorten the braking distance. The braking distance can be longer in the ABS equipped motorcycle than in non-equipped motorcycle on slipperly , rough, or downhill road surface. Drive carefully on such road conditions.*

⚠WARNING
ABS(KIBS) cannot protect the rider from all possible hazards and is not a substitute for safe riding practices. Be aware of how the ABS(KIBS) system operates and its limitations. It is the rider's responsibility to ride at appropriate speeds and manner for weather, road surface and traffic conditions.

Frame Parts Installation

Throttle Parts (Kit)

The following throttle cases, grip and reels are available as optional parts. These optional parts quicken throttle response to the throttle grip.

1) Throttle Case

Parts Name	P/No.
Throttle Case, Upper	32099-0046
Throttle Case, Lower	92099-0047
Bolts (2)	120CA0518
Grip	31064-0187

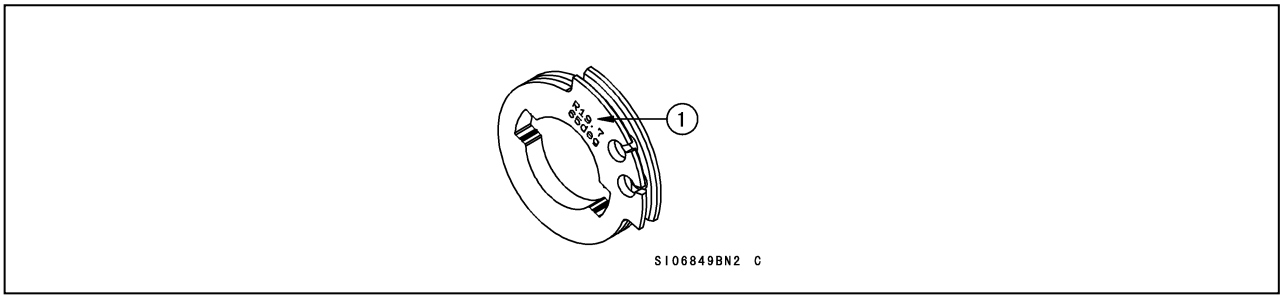
2) Throttle Reels

Tow types are available.

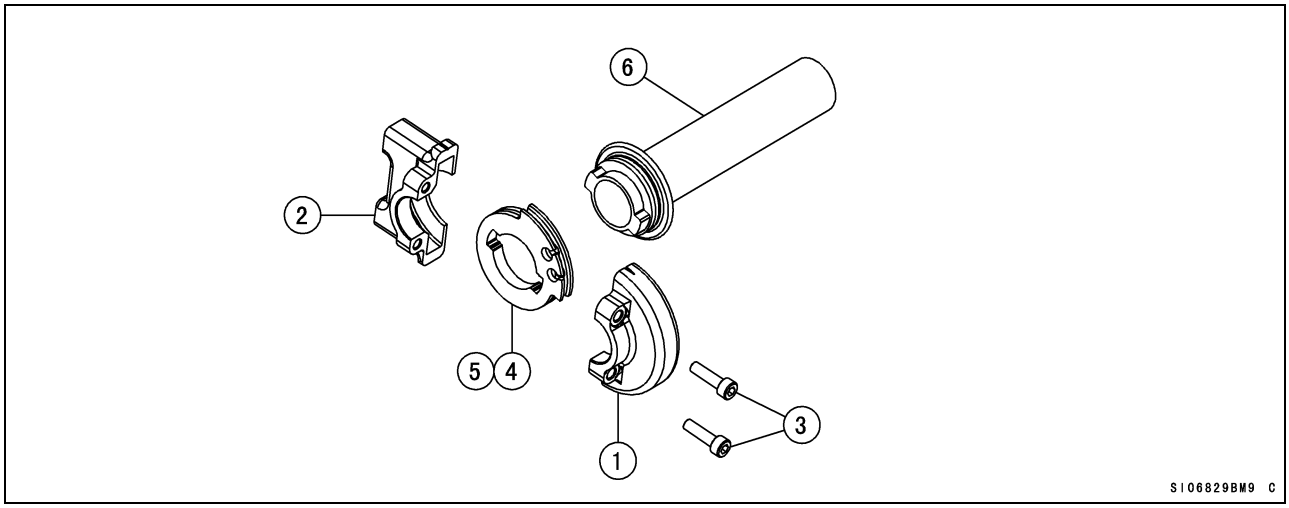
Throttle Reel Travel Angle·····Effective angle excluding throttle cable free play.

P/No.	I.D. Mark	Throttle Grip Turn Angle to Full Throttle
59101-0008	R19.7/65deg	65°
59101-0009	R21.4/60deg	60°

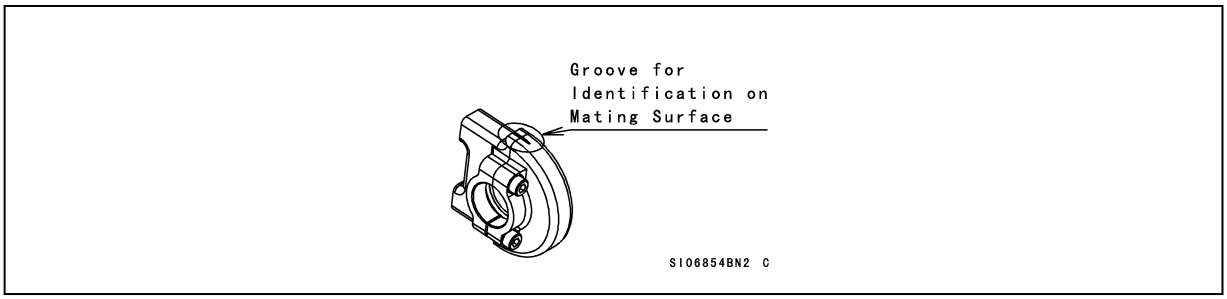
○ The throttle cases, throttle pipe and reels are interchangeable with those of ’10 model.



1. Identification Mark



1. Upper Case: 32099-0046
2. Lower Case: 32099-0047
3. Bolts: 120CA0518
4. Reel (65°): 59101-0008
5. Reel (60°): 59101-0009
6. Grip: 31064-0187



- Assemble the throttle cases so that the identification groove faces upwards (see above).

○ It is correct to assemble the throttle cases so that the groove side have no clearance and the opposite (lower) side have clearance.

3) Throttle Cable

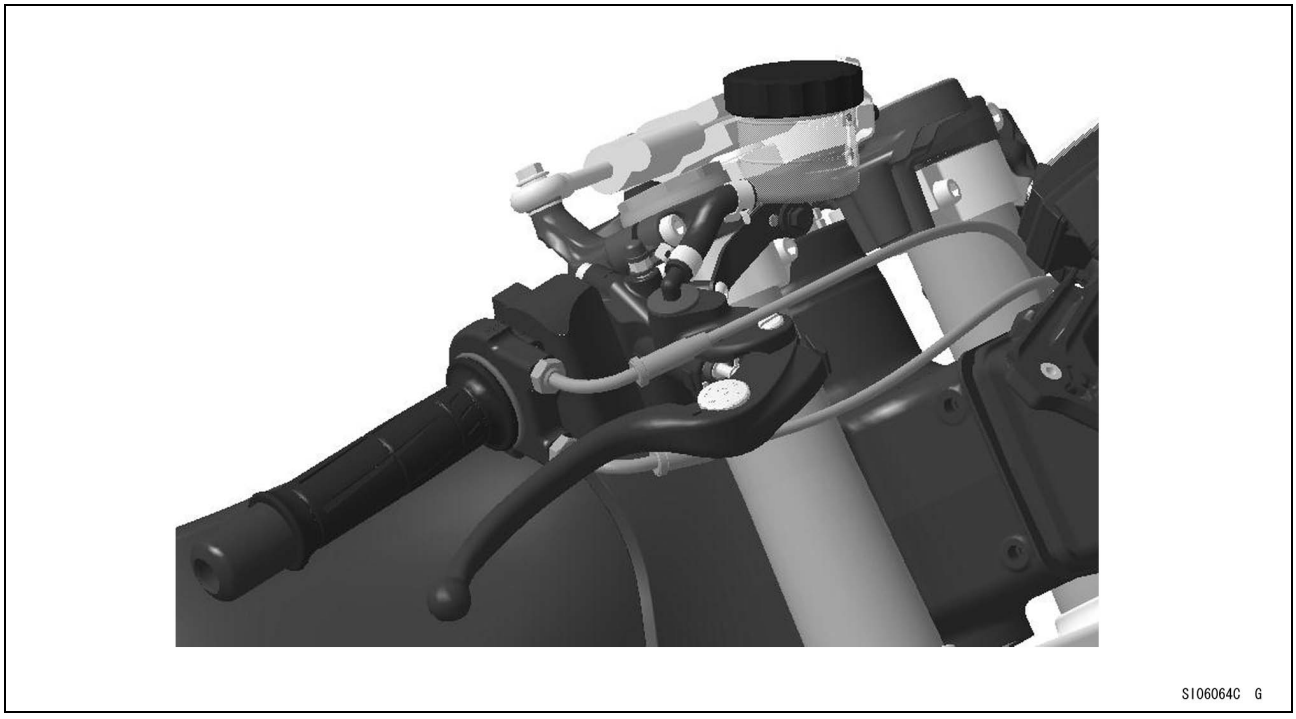
Accelerator and decelator cables are the same. It is possible to use the cable even if the cable is installed on either the accelerator side or decelator side because the cable of the same length is used.

Part Name	P/No.	I.D. Mark
Throttle Cable	54012-0276	12-0276-xxxx

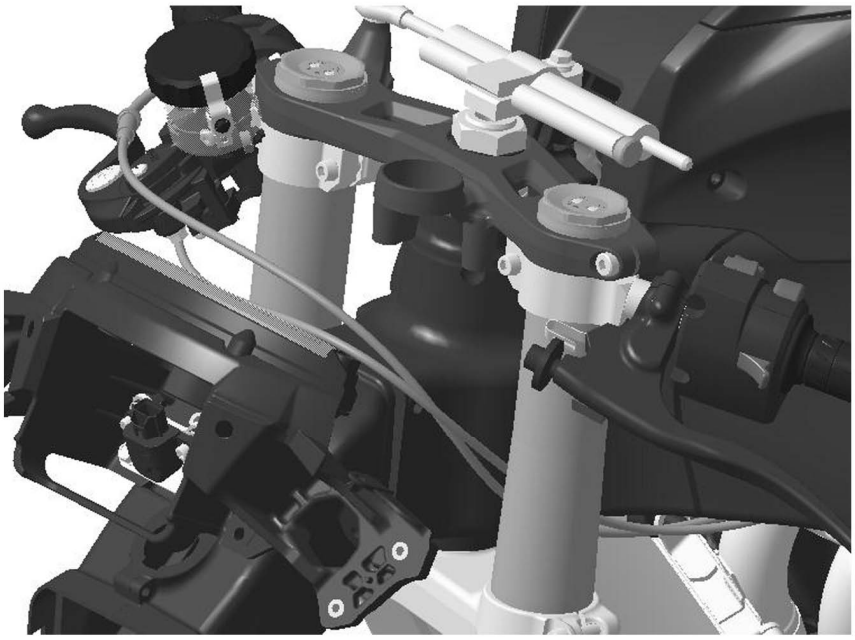
○ The throttle cable is newly designed for ’11 model and incompatible with the kit parts for ’10 model.

See the illustration below for installation.

- Run the accelerator cable over the master cylinder and run the decelator cable under the master cylinder.

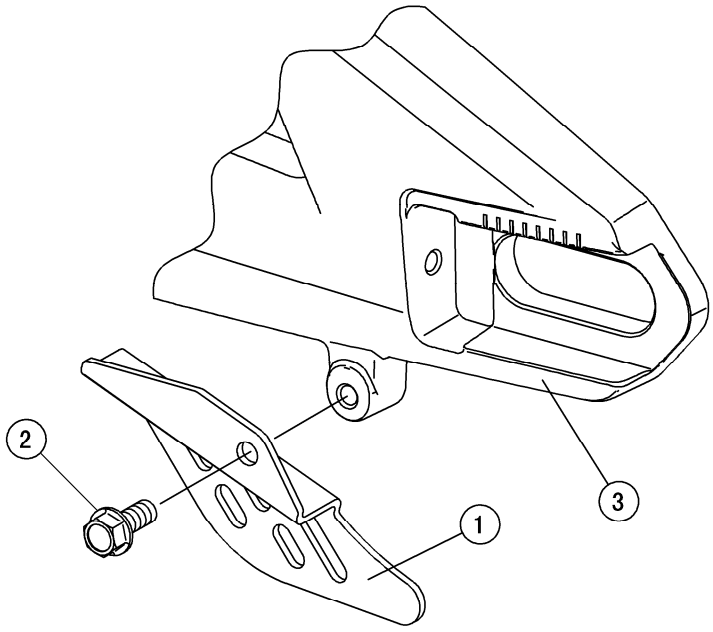


- Run the both cables between the left side of the head pipe and the front fork and connect it to the throttle body from the left of the frame.



Drive Chain Parts (Kit)

1) Chain Guard



1. Guard: 55020-0795
2. Bolt: 130BA0820
3. Swingarm (Left Side)

Brake Pads (Kit)

The front and rear brake pads for racing use are available. The front pads are for higher braking force.

Front Brake Pads

P/No.	Stamp	Braking Force
43082-0088 Original	F9633 C93YW	High ↕ Low

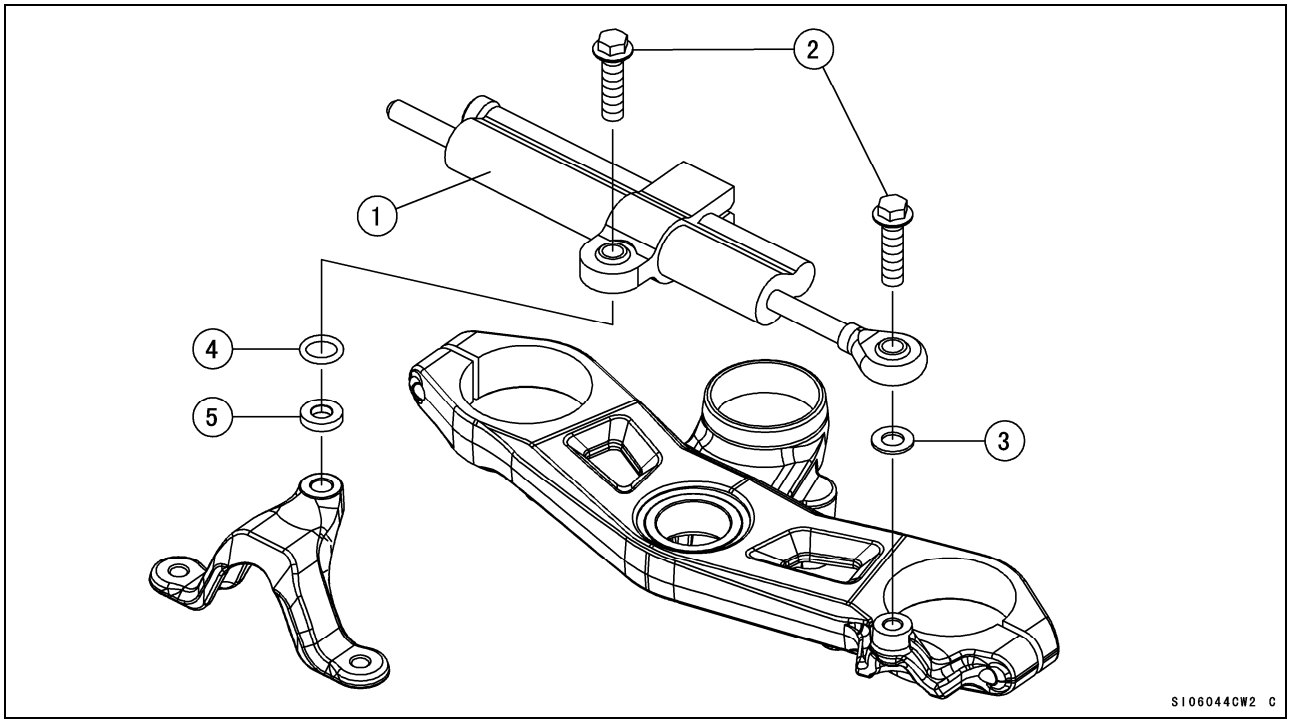
Steering Damper (Kit)

For race usage it is recommended to use racing type steering damper (see next page), since the original damper is mainly designed for street riding or at most sport riding.
When install the racing type steering damper, please make sure that the damper shall not limit the steering angle, as normally stipulated by the race regulations.

1) Recommended Steering Damper

OHLINS SD001 (Stroke: 68 mm)

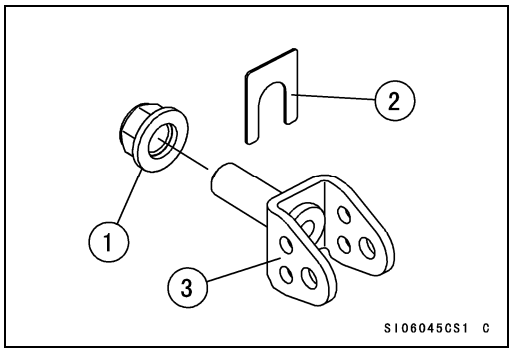
- Install the steering damper as shown in the figure below.



1. Steering Damper : OHLINS SD001
2. Bolts : 130BA0830
3. Washer : 410AA0800
4. O-ring : 670B2012
5. Collar: 92152-0798

Height Adjustment

- Remove the nut [1] and replace the nut with a new one.
- Insert the spacer [2] as required.
- Tighten the new nut [1] to 59 N·m (6.0 kgf·m, 43 ft·lb) of torque.



1. Nut : 92015-1316 (Standard)
2. Spacer Set : 92026-0724
3. Bracket : 32037-0149 (Standard)

Spacer Set: 92026-0724

P/No.	Quantity	Thickness
92026-0721	3	1.0 mm
92026-0722	3	2.0 mm
92026-0723	3	3.0 mm

Front Fork Springs (Kit)

The optional front fork springs are available for racing.

1) Front Fork Spring

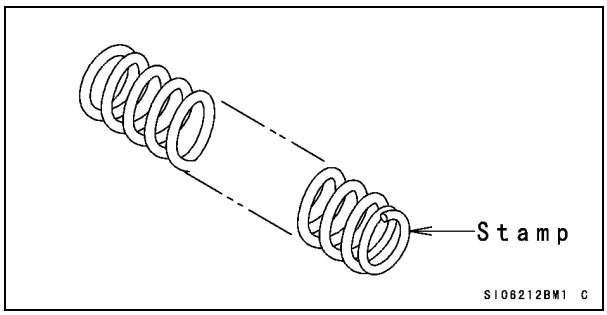
P/No.	Spring Constant
Original	K = 10.25 N/mm
44026-0163	K = 9.75 N/mm
44026-0164	K = 10.75 N/mm

2) Front Fork Spring Replacement

Replace the main spring referring to the Fork Oil Change section of the base Service Manual “ZX1000JBF/KBF Motorcycle Service Manual: 99924-1443”.

Identification Mark

The identification slit for a spring constant valve is stamped on the one end face of the spring.



Electric Parts Installation

Battery

Use the original battery or a battery with 12 V 6 Ah or more capacity.

Main Harness

Main harness (26031-1219) is available for racing use as a kit.

The kit ECU does not operate excluding the combination with the kit main harness.

The relay assy (27002-1062) is needed to use the kit harness. (See the upper illustration of page 48.)

The ABS (KIBS) does not work with the kit ECU and kit harness.

To install the oil catch tank mentioned in another section, the ABS (KIBS) unit must be removed.

Shift Up Indicator Light

Use the original shift up indicator light functions of the meter.

The kit light (23016-0006) can be connected as a rider's option.

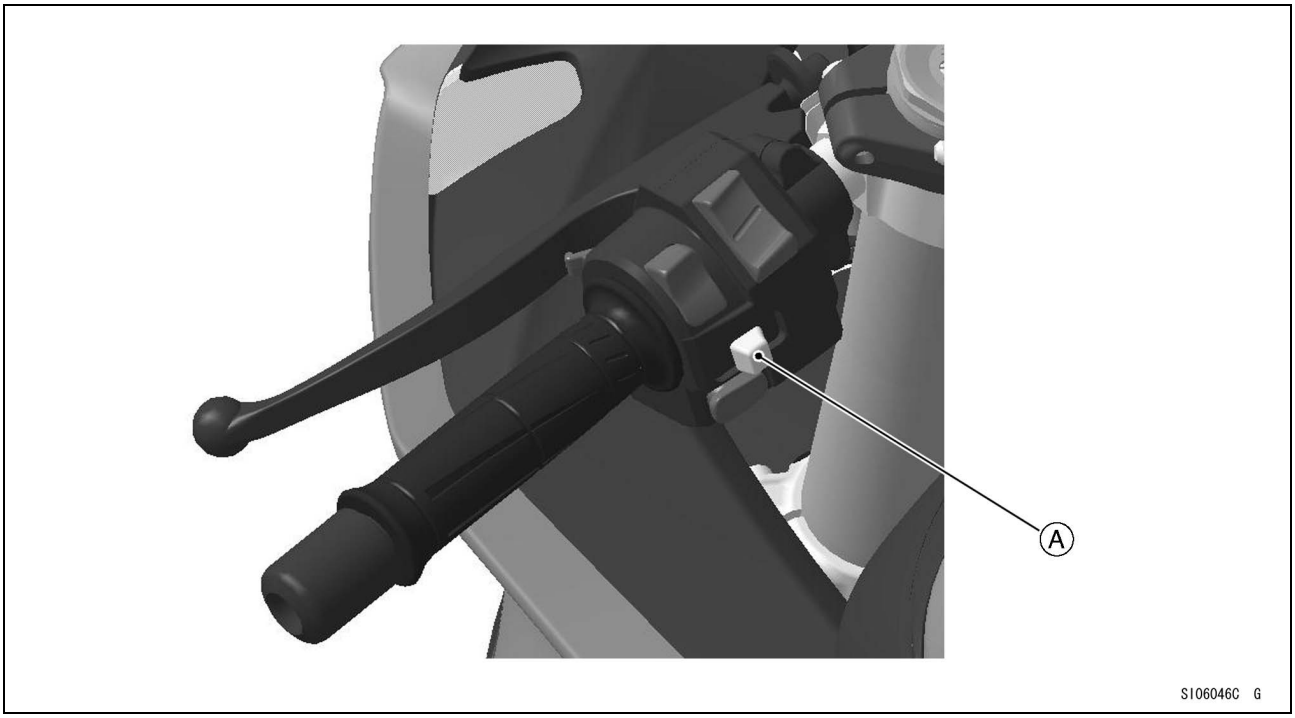
When using the kit shift up indicator light, fix it near the meter.

Handle Switch

Use the original handlebar switch housing.

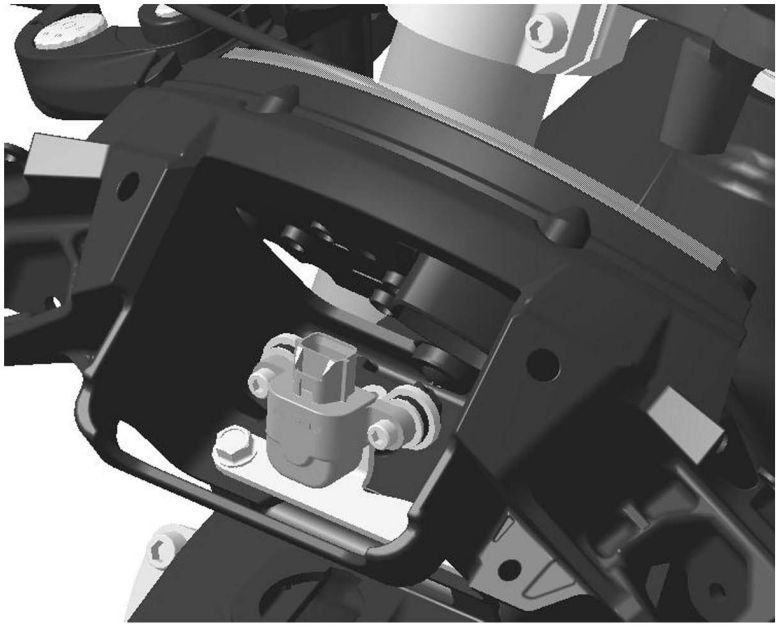
Push the turn signal switch on the left handlebar switch housing to the right or left to activate the speed limiting function on a pit lane.

Push the turn signal switch in the center position to deactivate the speed limit function.

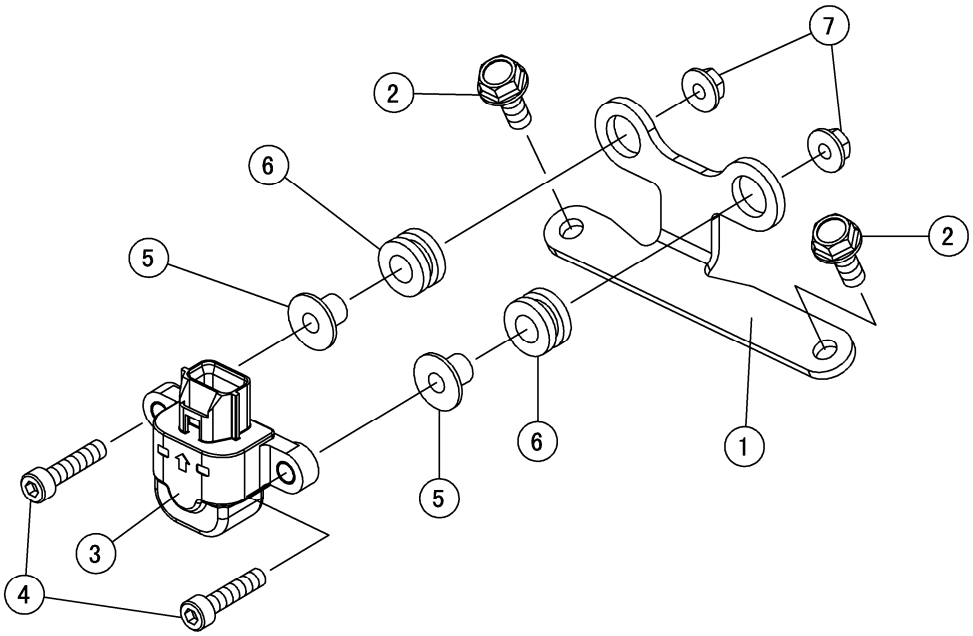


Vehicle-down Sensor Installation

When using the kit main harness, move the vehicle-down sensor to the back of the meter.



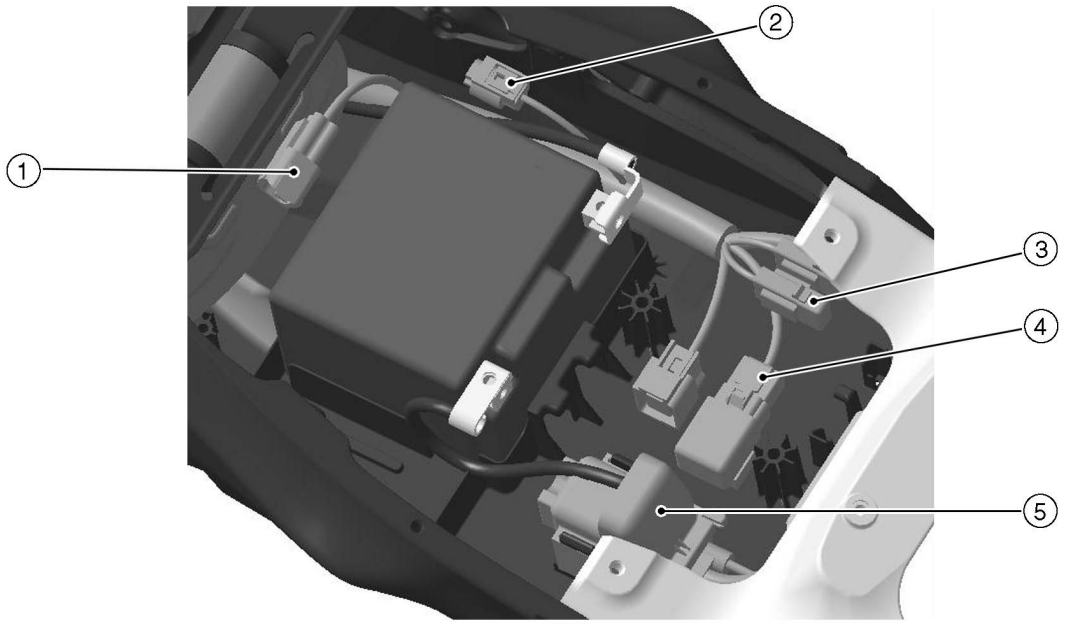
SI06047C G



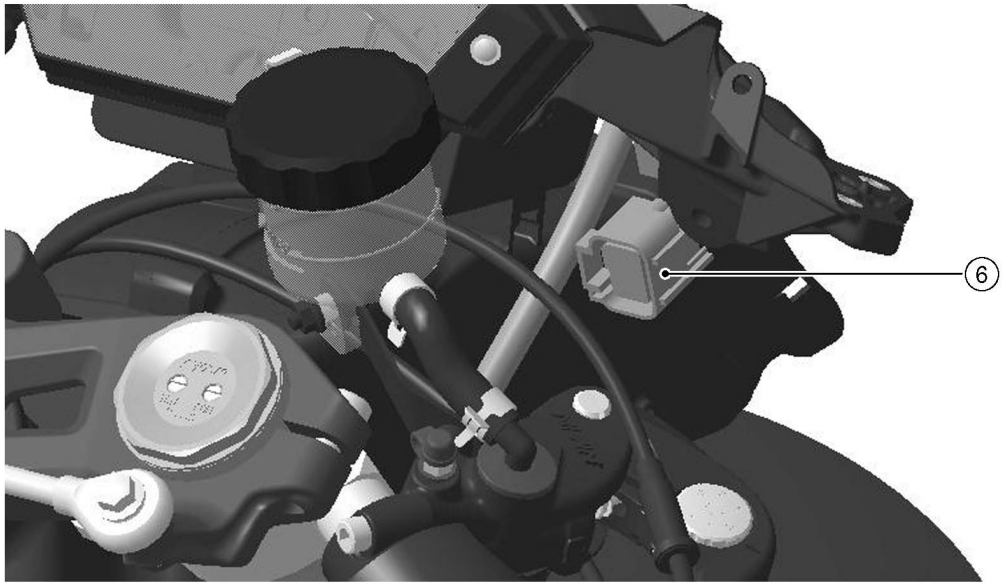
SI06048CW2 C

1. Bracket：11056-1243
2. Bolts：130BA0616
3. Vehicle-down Sensor：21176-0026
4. Bolts：120CA0522
5. Collars：92152-0134
6. Dampers：92075-1912
7. Nuts：92210-0007

Main Harness Installation



1. Connect to the fuel pump. (Black)
2. Connect to the rear speed sensor. (Black)
3. Fuse (Natural)
4. Connect to the relay assy. (Black)
5. Connect to the starter relay. (Black)



6. Connect to the interface harness. (Black)

For use of the setting tools, refer to the attached "Kawasaki FI Calibration Tool （Kawasaki Racing Tool Instruction Manual：99929-0549-01）

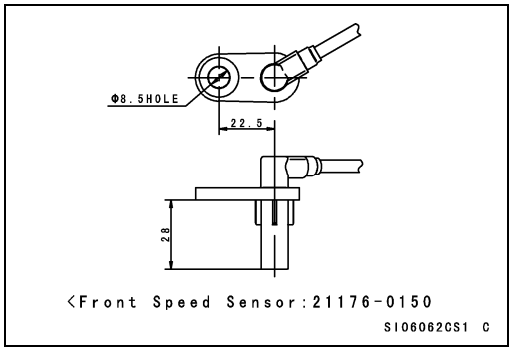
Front/Rear Speed Sensor

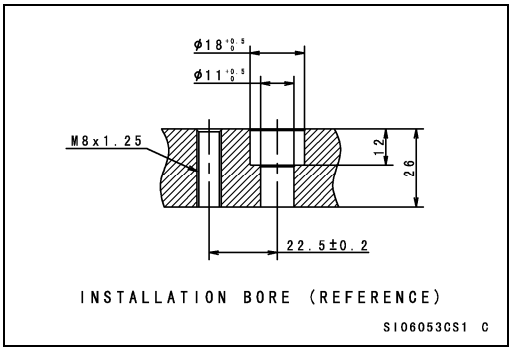
The sensors attached on the side of the front/rear wheel are related to the control functions such as the traction control (S-KTRC) and pit lane speed limit, so they are removable in both the ABS (KIBS) equipped or non-equipped motorcycles.

Refer to the dimensions illustrated below to change the components around the front/rear wheels.
Even if a replacement is installed properly, the speed sensor may malfunction due to noise etc.

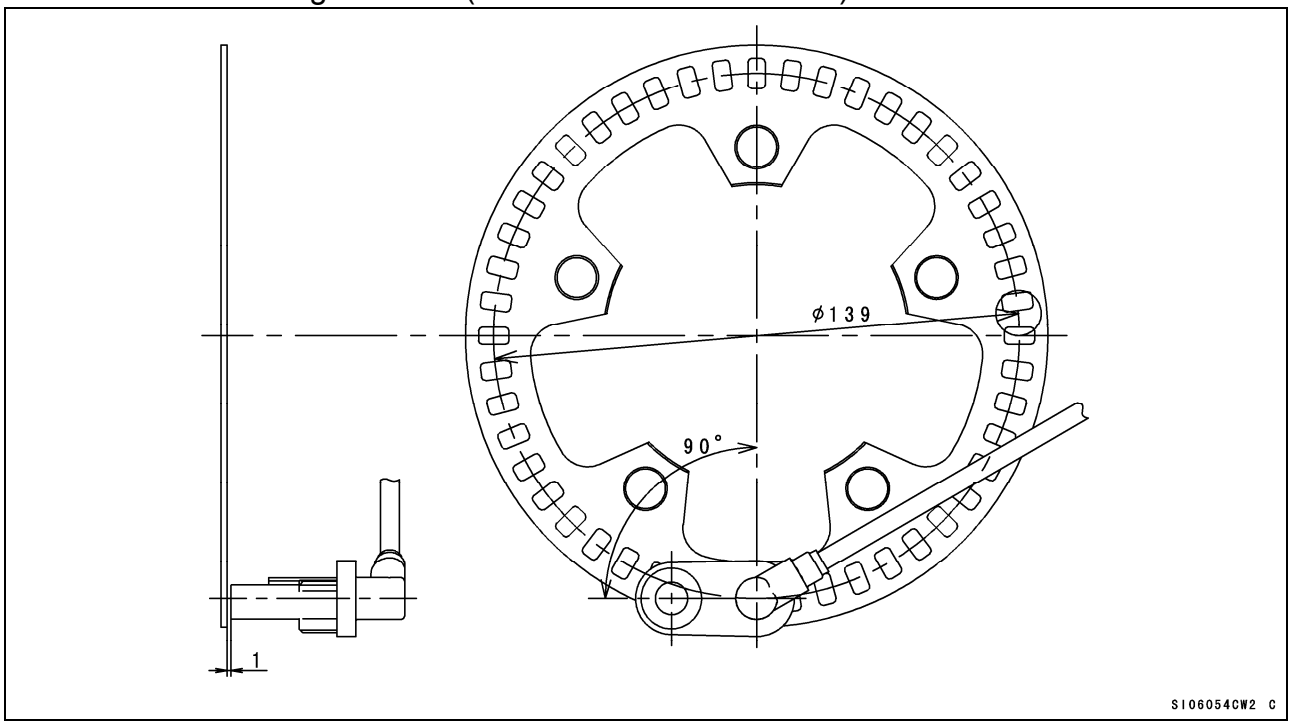
Ask a tuning shop to make parts.

Front Speed Sensor

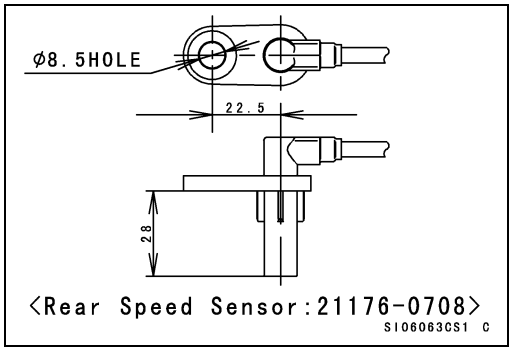


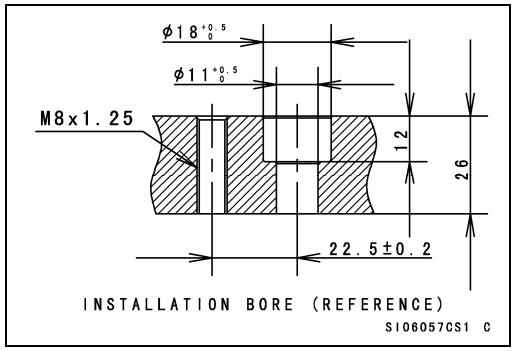


Sensor detecting point ：φ138.8 ~ 139.2 from the center of the axle
The number of the rotor teeth for speed detection : 48
The distance from the sensor end to the rotor : 0.4 ~ 1.6 mm (0.02 ~ 0.06 in.)
Sensor installation angle ： 90°(See the illustration below.)

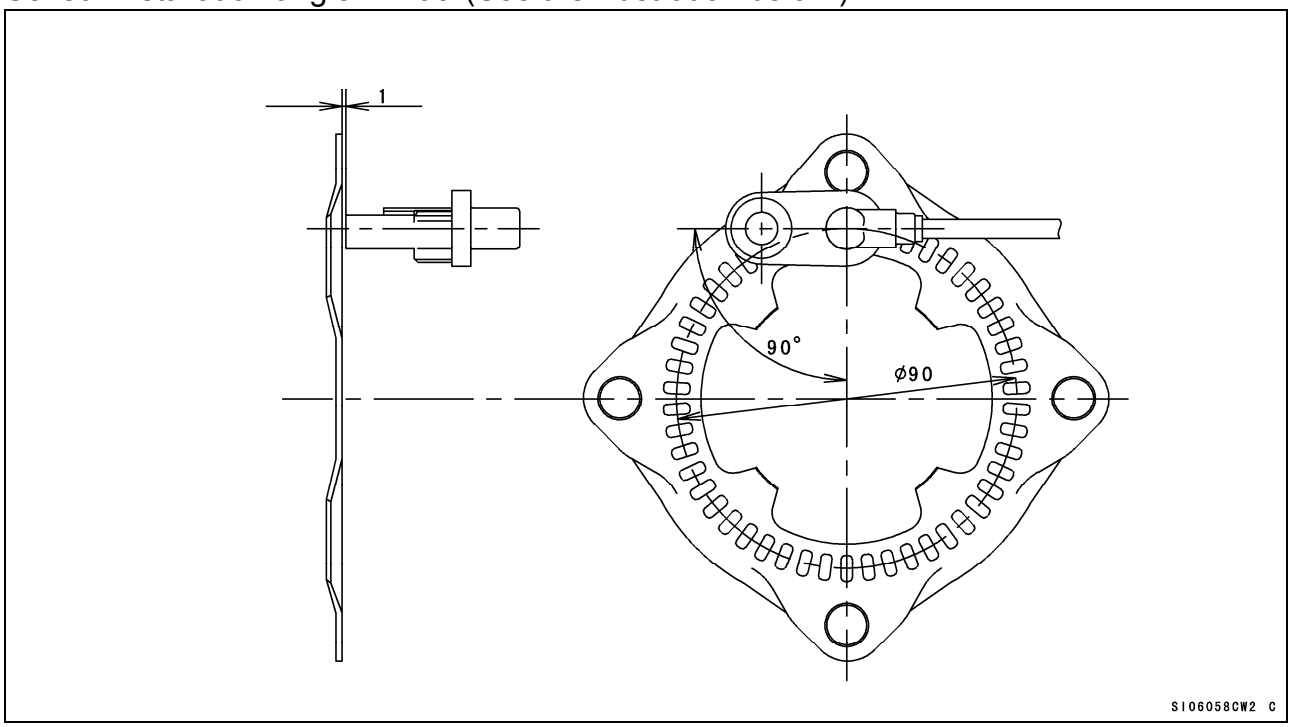


Rear Wheel Speed Sensor





Sensor detecting point ： φ89.8 ~ 90.2 from the center of the axle
The number of the rotor teeth for speed detection : 50
The distance from the sensor end to the rotor : 0.4 ~ 1.6 mm (0.02 ~ 0.06 in.)
Sensor installation angle ： 90°(See the illustration below.)



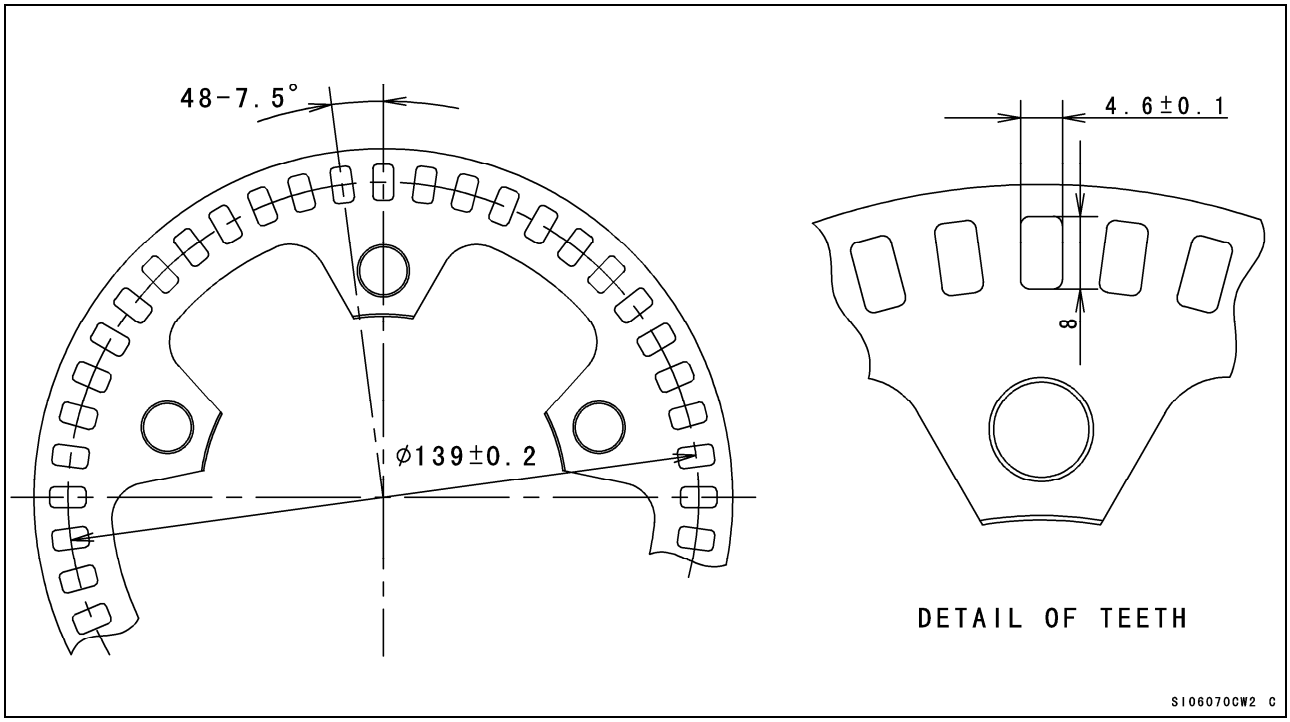
Front/Rear Speed Detection Rotor

The standard rotor is recommended for the front/rear speed detection.

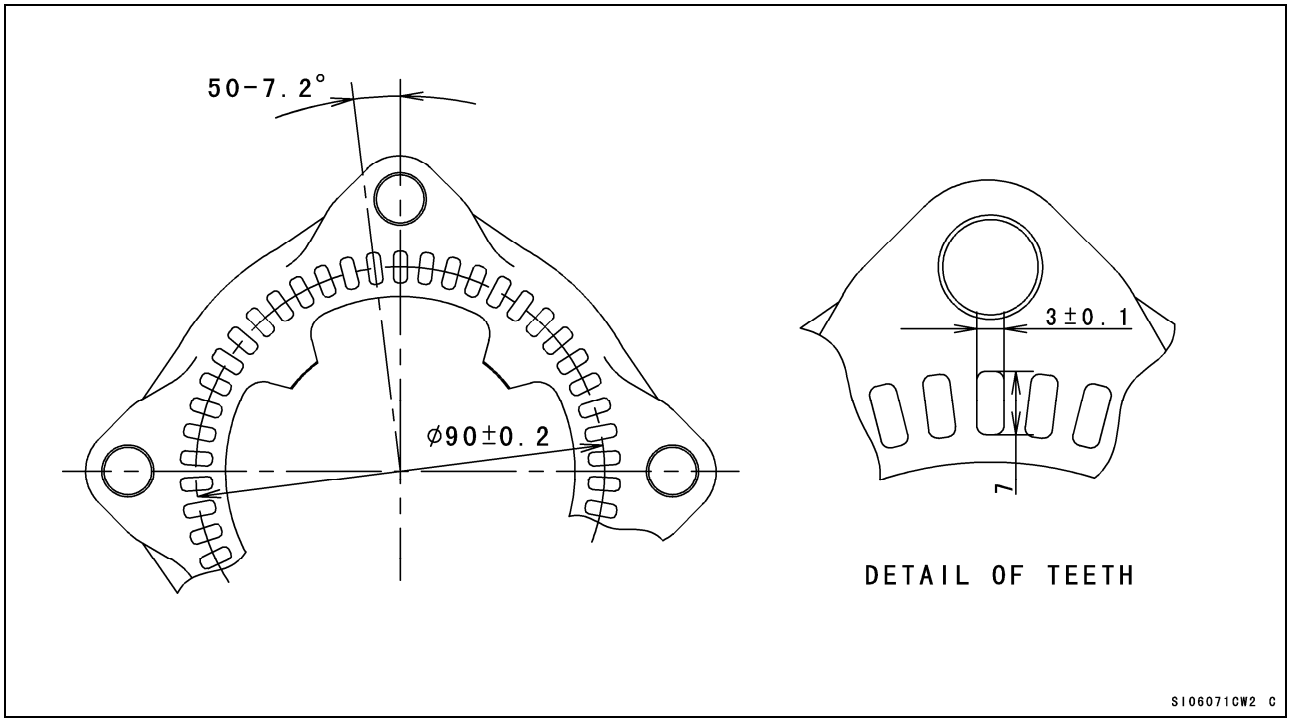
NOTE

○ *Because the front/rear wheel speed sensors are magnetic type, use magnetic iron material and conform the number and shape of the teeth to those of the standard rotor.*

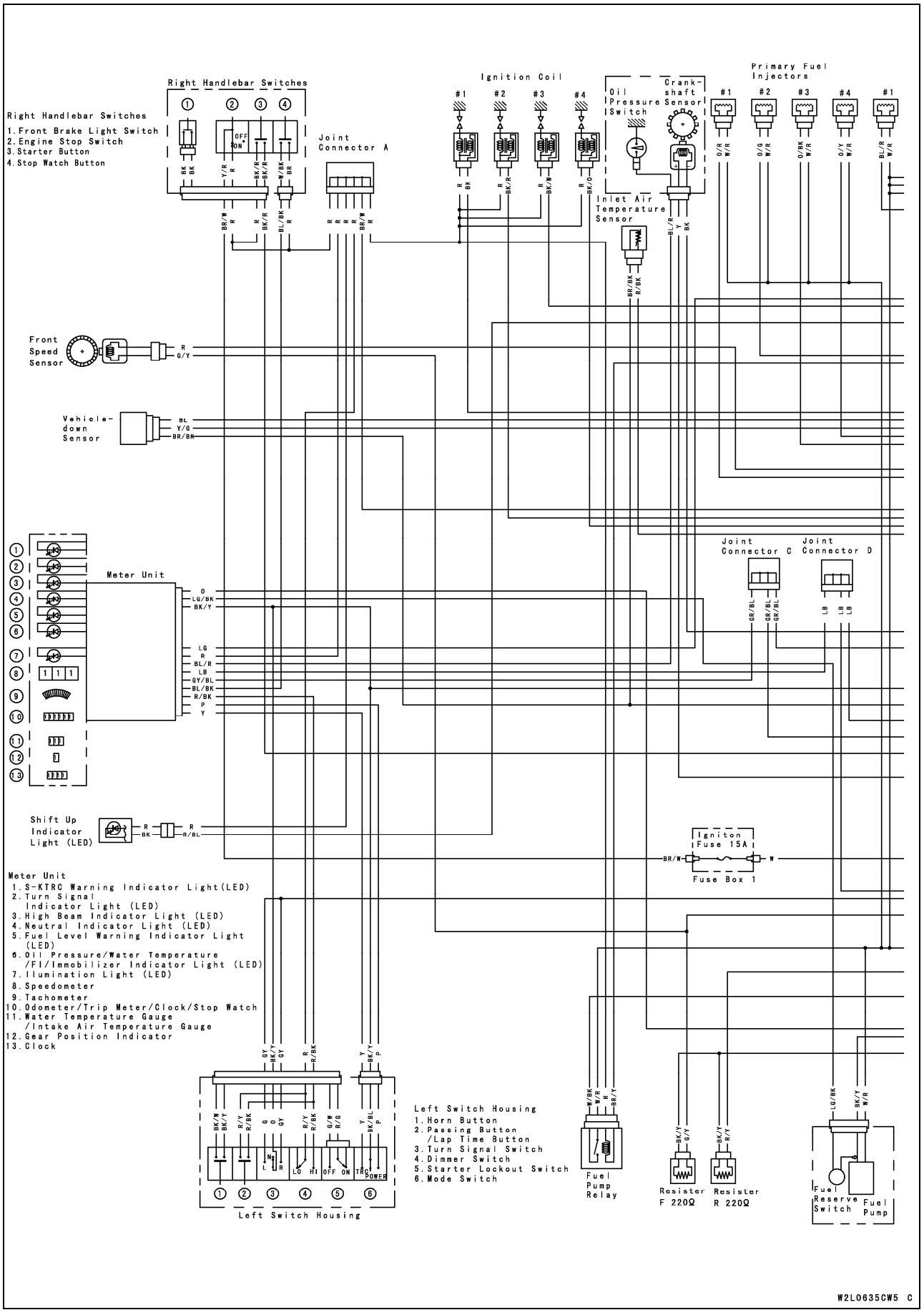
Front Wheel Rotor: 21007-0166

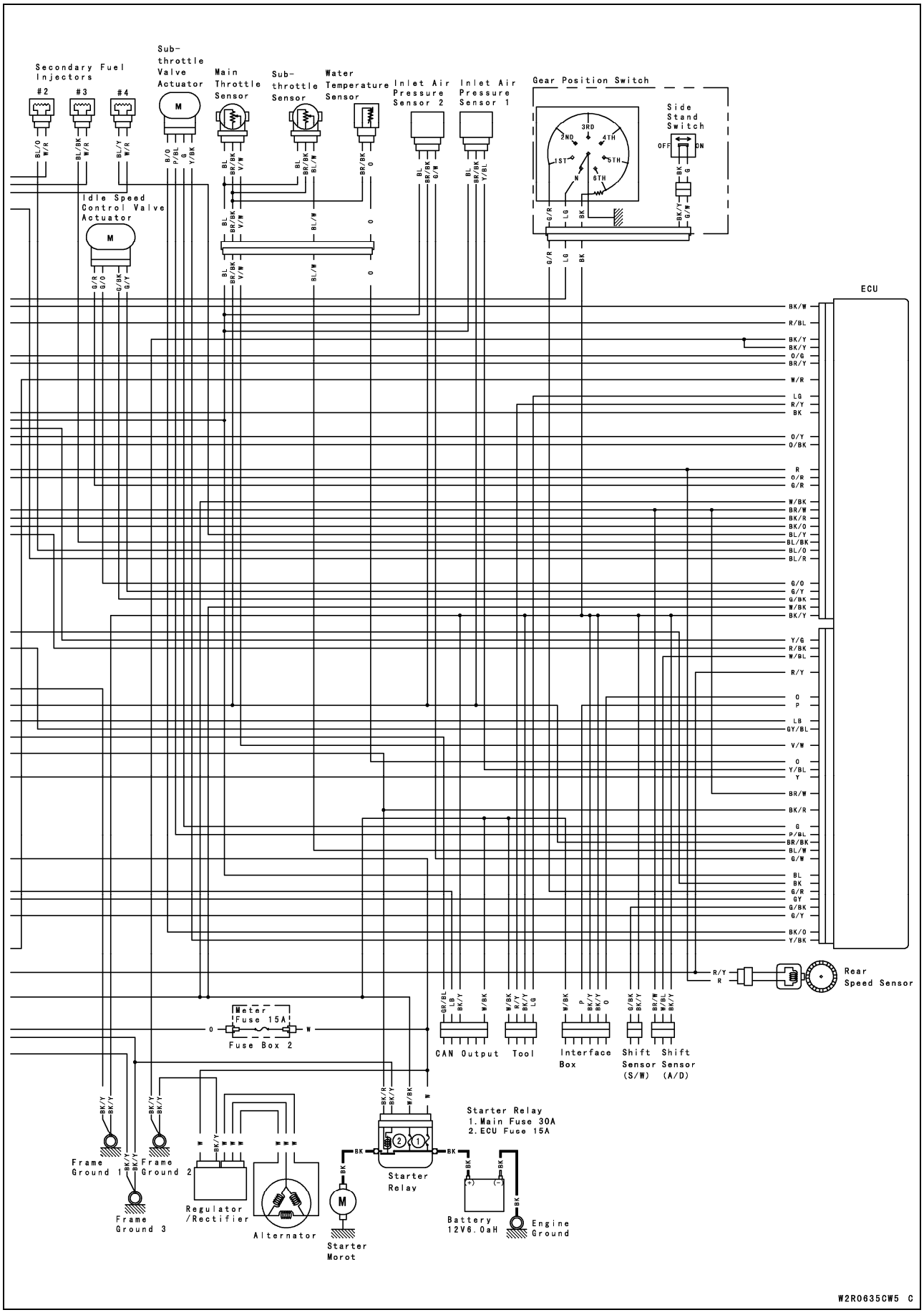


Rear Wheel Rotor: 21007-0167



Wiring Diagram




Secondary Fuel Injectors
#2
#3
#4
Sub-throttle Valve Actuator
Main Throttle Sensor
Sub-throttle Sensor
Water Temperature Sensor
Inlet Air Pressure Sensor 2
Inlet Air Pressure Sensor 1
Gear Position Switch
Side Stand Switch
Idle Speed Control Valve Actuator
ECU
Meter Fuse 15A
Fuse Box 2
CAN
Output
Tool
Interface Box
Shift Sensor (S/W)
Shift Sensor (A/D)
Rear Speed Sensor
Starter Relay
1. Main Fuse 30A
2. ECU Fuse 15A
Frame Ground 1
Frame Ground 2
Frame Ground 3
Regulator /Rectifier
Alternator
Starter Morot
Battery 12V6.0aH
Engine Ground
W2R0635CW5 C

Dummy page

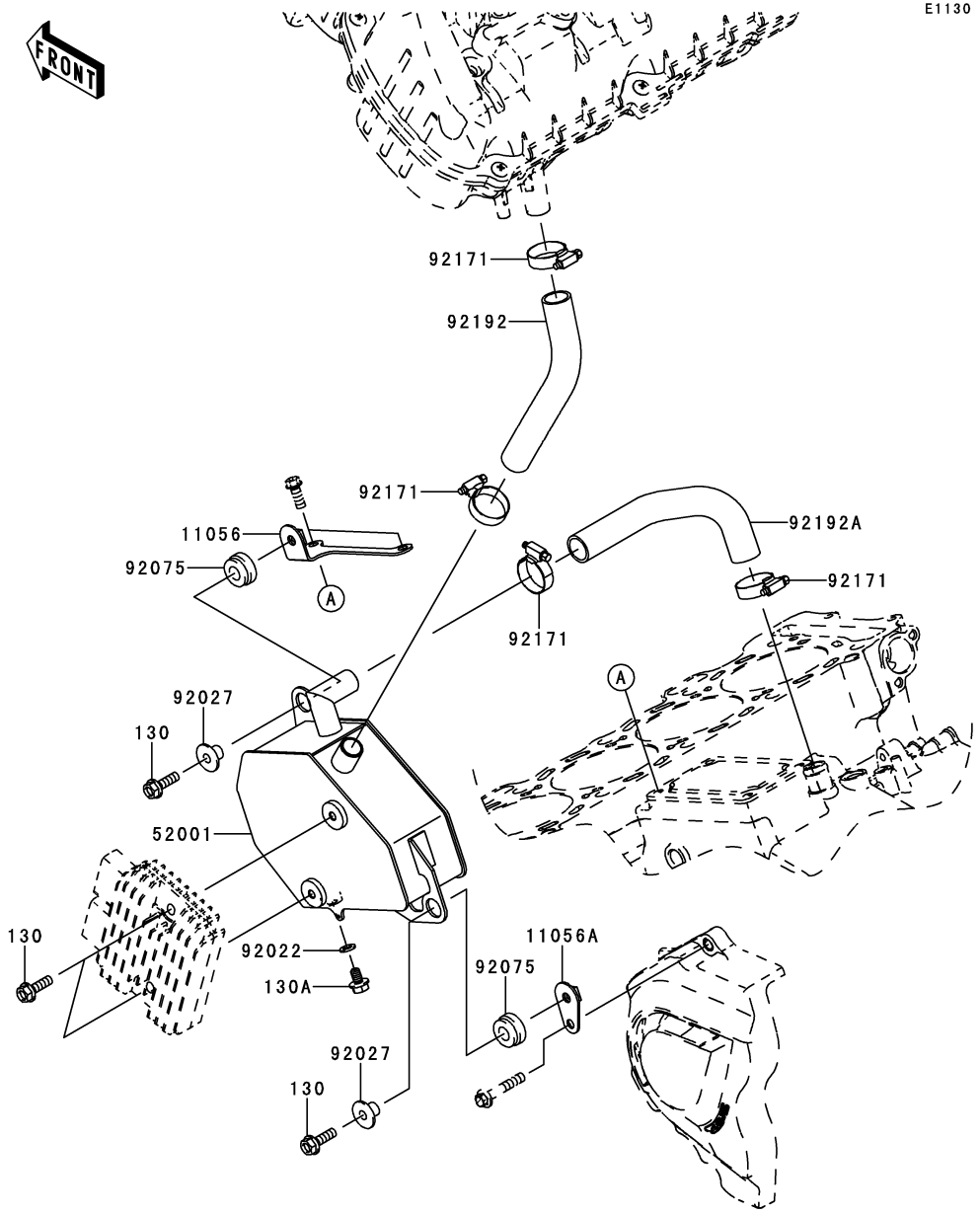
Racing Kit Parts List

This catalog covers:

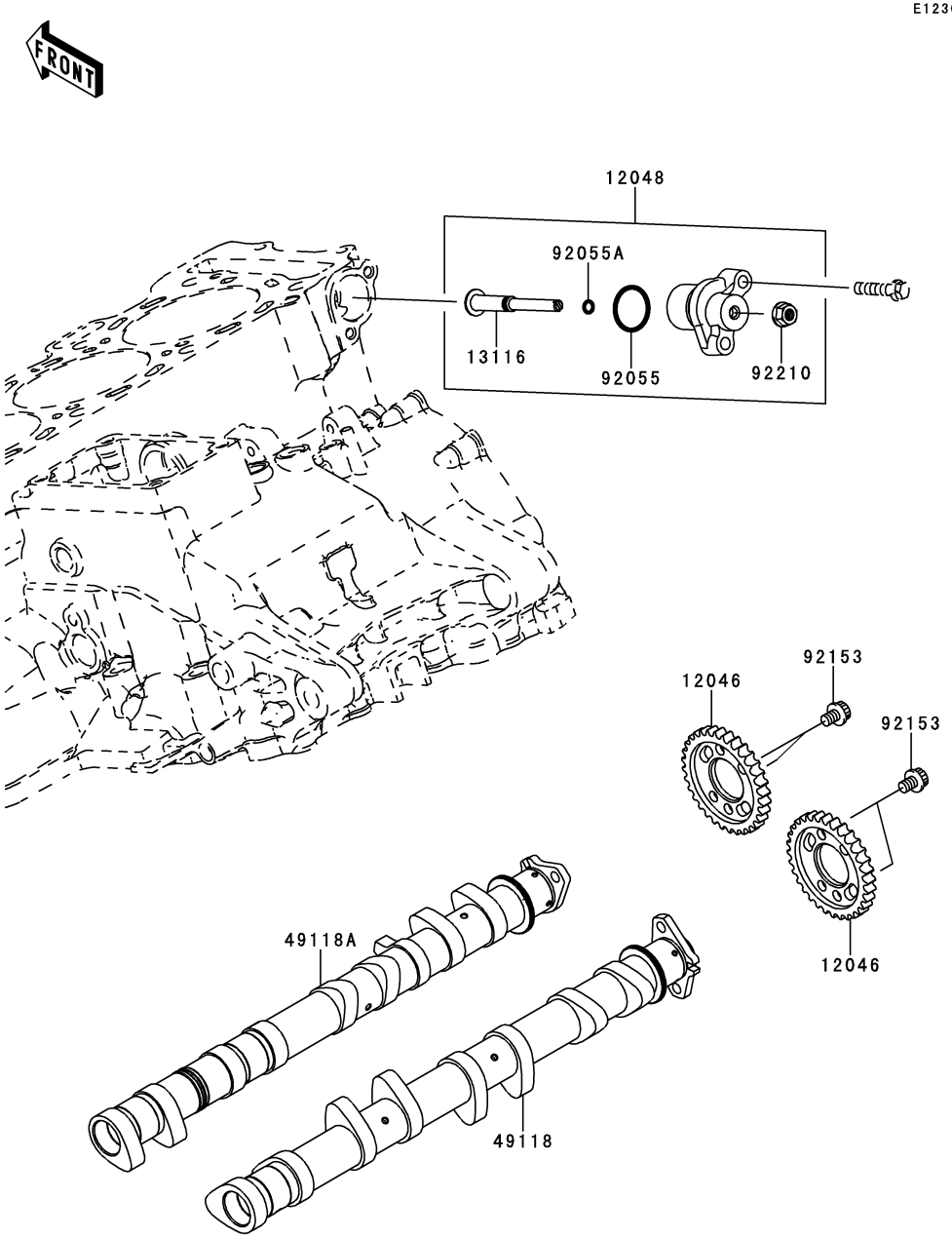
’11 ZX1000JBFR Engine

GRID NO. **B-3** *This grid covers:*

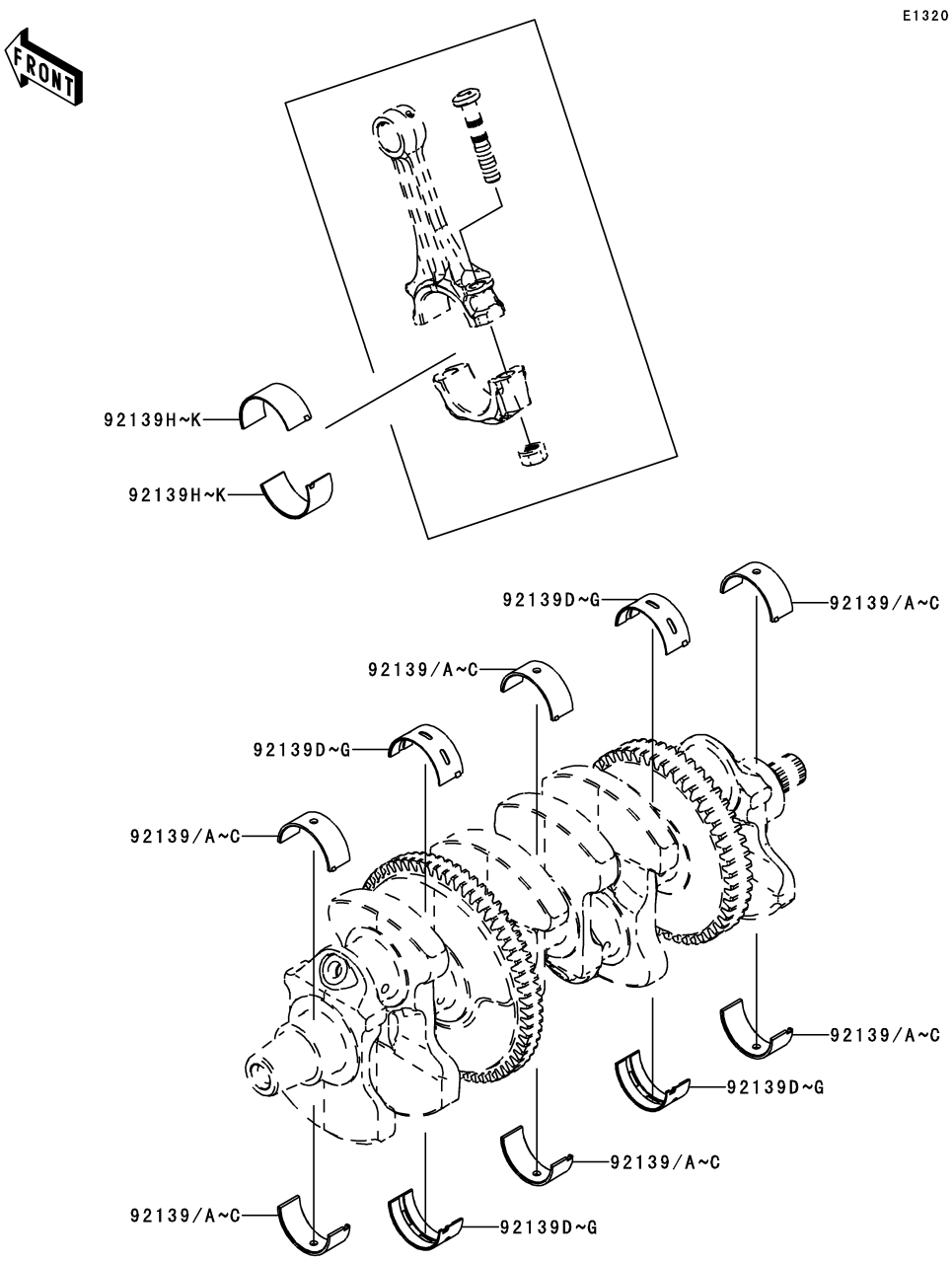
Oil Catch Tank



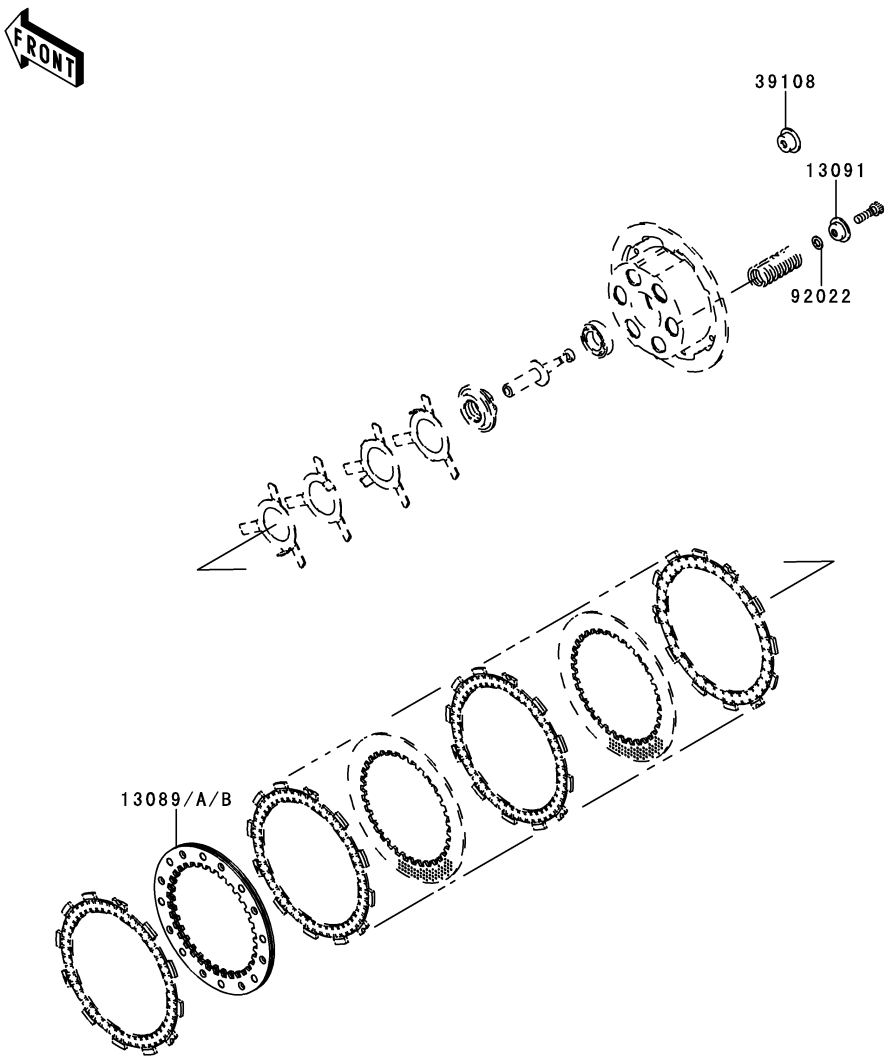
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 ’11	JBFR
11056	11056-1232 (OPTION)	BRACKET,OIL TANK,UPP		1	
11056A	11056-1233 (OPTION)	BRACKET,OIL TANK,LWR		1	
52001	52001-0553 (OPTION)	TANK-OIL		1	
92022	92022-304 (OPTION)	WASHER,6.2X11X1		1	
92027	92027-194 (OPTION)	COLLAR,L=11.1		2	
92075	92075-277 (OPTION)	DAMPER		2	
92171	92171-0338 (OPTION)	CLAMP		4	
92192	92192-1025 (OPTION)	TUBE,TANK-A/C		1	
92192A	92192-1026 (OPTION)	TUBE,CASE-TANK		1	
130	130BA0620 (OPTION)	BOLT-FLANGED,6X20		4	
130A	130BD0610 (OPTION)	BOLT-FLANGED,6X10		1	



Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
12046	12046-0034 (OPTION)	SPROCKET,32T		2
12048	12048-0082 (OPTION)	TENSIONER-ASSY		1
13116	13116-1166 (OPTION)	ROD-PUSH		1
49118	49118-0728 (OPTION)	CAMSHAFT-COMP,INTAKE		1
49118A	49118-0729 (OPTION)	CAMSHAFT-COMP,EXHAUST		1
92055	92055-0053 (OPTION)	RING-O,20.8X1.9		1
92055A	92055-011 (OPTION)	RING-O,5MM		1
92153	92153-0455 (OPTION)	BOLT,FLANGED,6X8		4
92210	92210-0630 (OPTION)	NUT,FLANGED,6MM		1

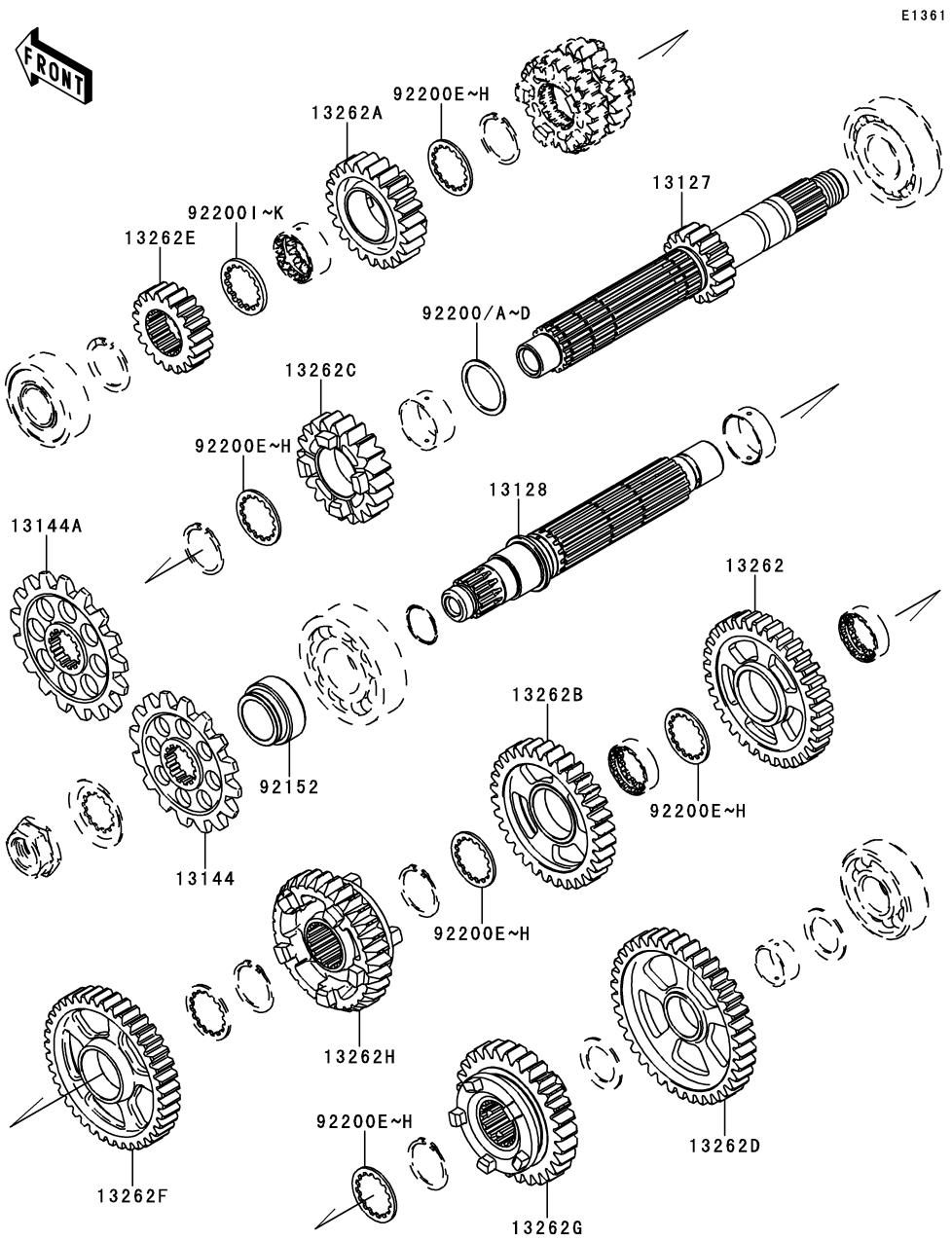


Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
92139	92139-0746 (OPTION)	BUSHING,#1&#3&#5,BLUE		AR
92139A	92139-0747 (OPTION)	BUSHING,#1&#3&#5,BLACK		6
92139B	92139-0748 (OPTION)	BUSHING,#1&#3&#5,BROWN		AR
92139C	92139-0749 (OPTION)	BUSHING,#1&#3&#5,PINK		AR
92139D	92139-0750 (OPTION)	BUSHING,#2&#4,BLUE		AR
92139E	92139-0751 (OPTION)	BUSHING,#2&#4,BLACK		4
92139F	92139-0752 (OPTION)	BUSHING,#2&#4,BROWN		AR
92139G	92139-0753 (OPTION)	BUSHING,#2&#4,PINK		AR
92139H	92139-0754 (OPTION)	BUSHING,CONROD,BLUE		AR
92139I	92139-0755 (OPTION)	BUSHING,CONROD,BLACK		AR
92139J	92139-0756 (OPTION)	BUSHING,CONROD,BROWN		8
92139K	92139-0757 (OPTION)	BUSHING,CONROD,PINK		AR

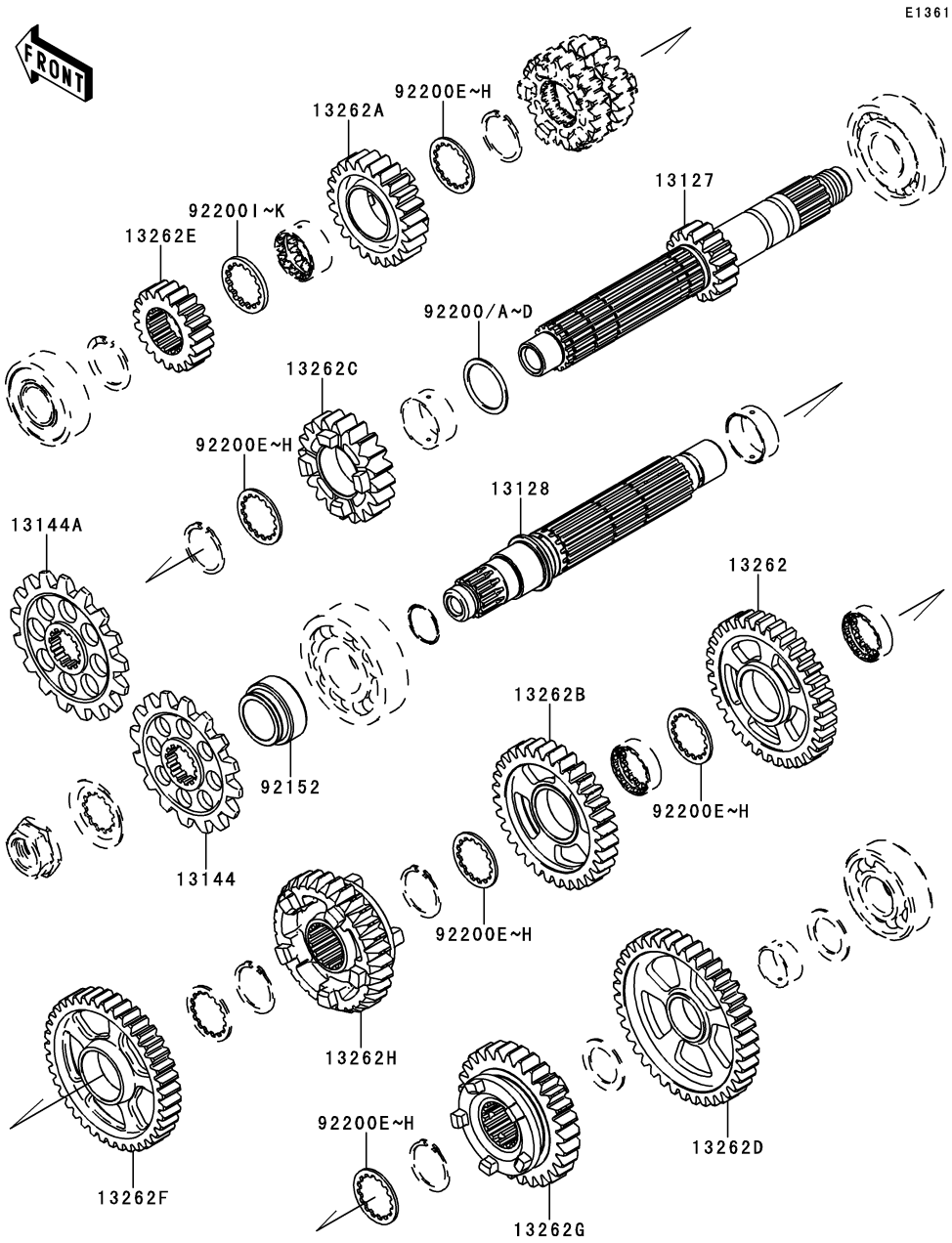


E1350

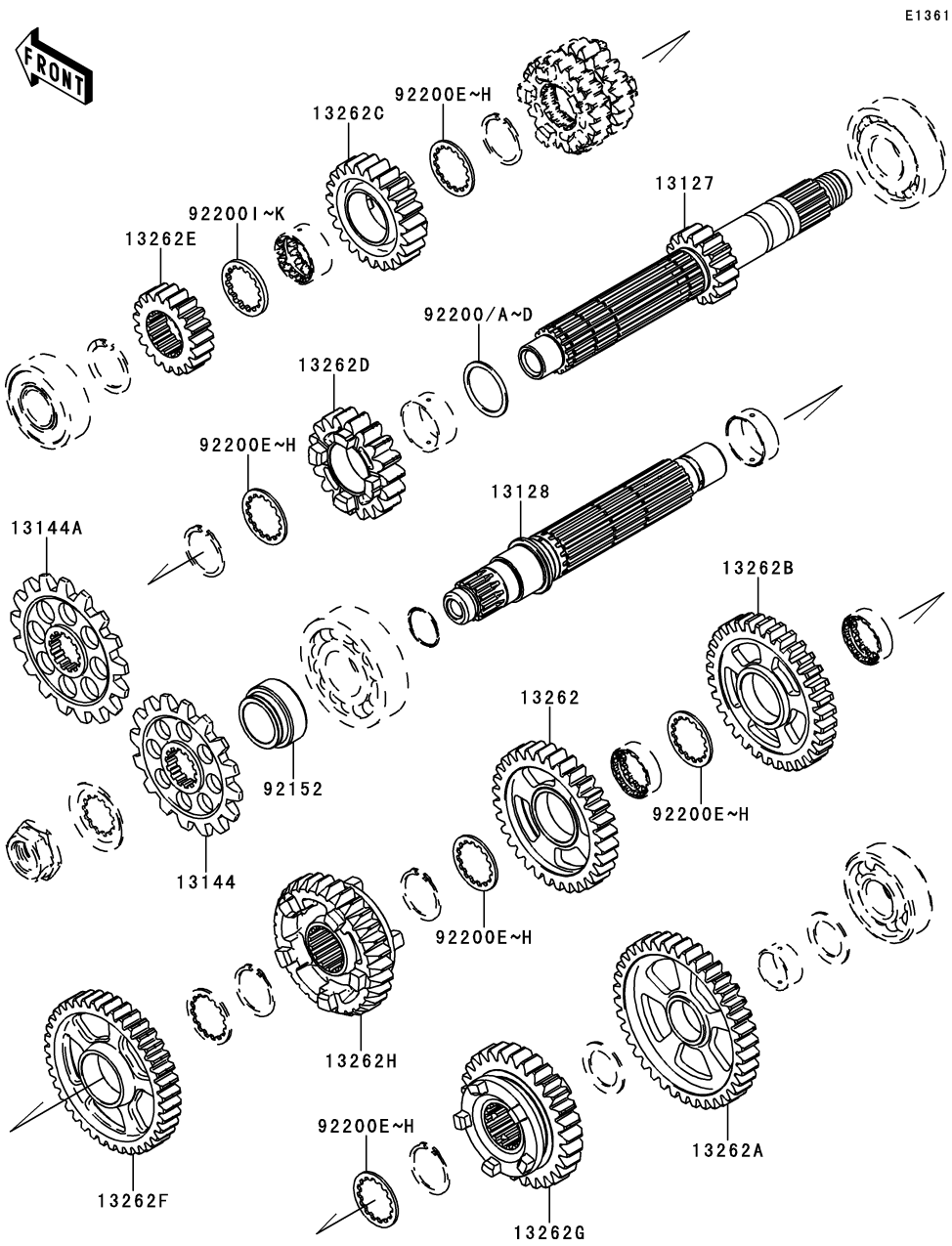
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
13089	13089-0003 (OPTION)	PLATE-CLUTCH,STD		1
13089A	13089-0011 (OPTION)	PLATE-CLUTCH,STD +40%		1
13089B	13089-0012 (OPTION)	PLATE-CLUTCH,STD +60%		1
13091	13091-1041 (OPTION)	HOLDER,CLUTCH SPRING		6
39108	39108-0005 (OPTION)	RETAINER-SPRING,STD+1MM		6
92022	92022-304 (OPTION)	WASHER,6.2X11X1		6



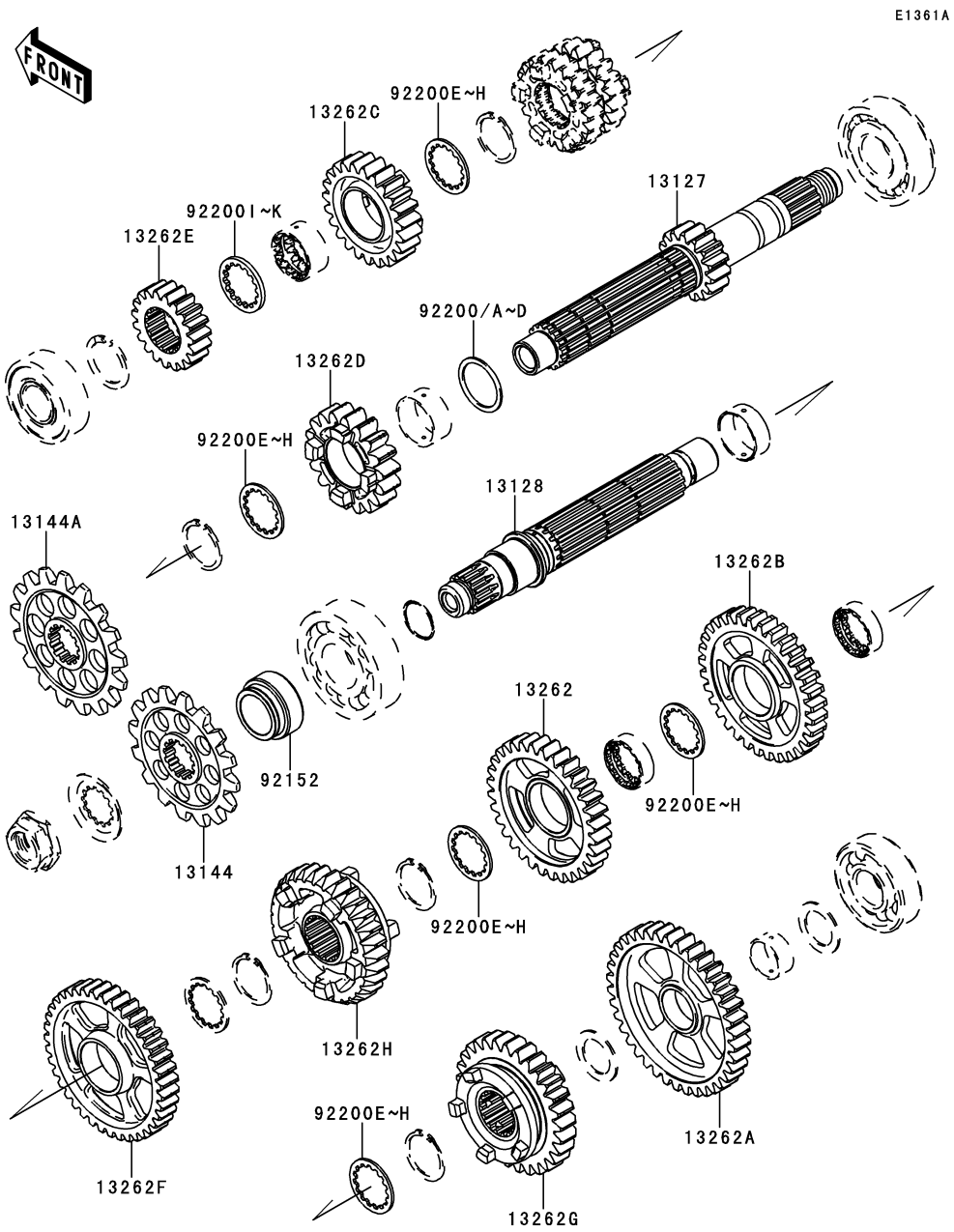
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
13127	13127-0638 (OPTION)	SHAFT-TRANSMISSION INPUT,15T		1
13128	13128-0671 (OPTION)	SHAFT-TRANSMISSION OUTPUT		1
13144	13144-0021 (OPTION)	SPROCKET-OUTPUT,16T,#520		1
13144A	13144-0022 (OPTION)	SPROCKET-OUTPUT,17T,#520		1
13262	13262-0618 (OPTION)	GEAR,OUTPUT 3RD,33T		1
13262A	13262-0622 (OPTION)	GEAR,INPUT 6TH,23T		1
13262B	13262-0645 (OPTION)	GEAR,OUTPUT 4TH,32T		1
13262C	13262-0648 (OPTION)	GEAR,INPUT 5TH,21T		1
13262D	13262-0664 (OPTION)	GEAR,OUTPUT LOW,38T		1
13262E	13262-0856 (OPTION)	GEAR,INPUT 2ND,19T		1
13262F	13262-0880 (OPTION)	GEAR,OUTPUT 2ND,39T		1
13262G	13262-0901 (OPTION)	GEAR,OUTPUT 5TH,29T		1
13262H	13262-0905 (OPTION)	GEAR,OUTPUT 6TH,30T		1
92152	92152-1522 (OPTION)	COLLAR,SPROCKET		1
92200	92200-0051 (OPTION)	WASHER,28.1X34.0X1.2		AR
92200A	92200-0225 (OPTION)	WASHER,28.1X34.0X0.8		AR
92200B	92200-0226 (OPTION)	WASHER,28.1X34.0X1.0		AR
92200C	92200-0227 (OPTION)	WASHER,28.1X34.0X1.4		AR
92200D	92200-0228 (OPTION)	WASHER,28.1X34.0X1.6		AR
92200E	92200-0229 (OPTION)	WASHER,28.3X34.0X1.2		AR
92200F	92200-0230 (OPTION)	WASHER,28.3X34.0X1.4		AR



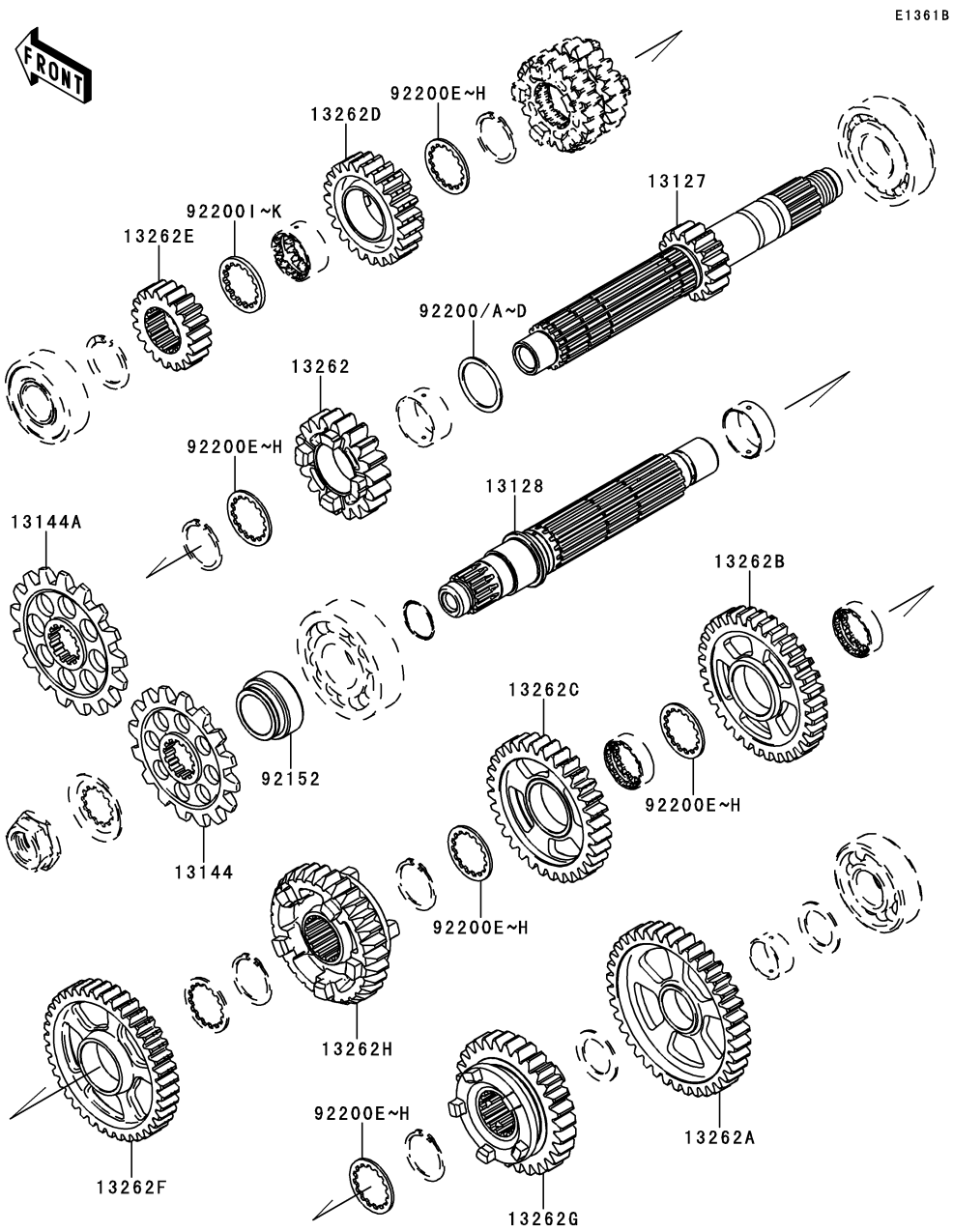
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
92200G	92200-0231 (OPTION)	WASHER,28.3X34.0X1.8		AR
92200H	92200-0232 (OPTION)	WASHER,28.3X34.0X2.0		AR
92200I	92200-0748 (OPTION)	WASHER,28.3X34.0X2.6		AR
92200J	92200-0749 (OPTION)	WASHER,28.3X34.0X2.8		AR
92200K	92200-0750 (OPTION)	WASHER,28.3X34.0X3.0		AR



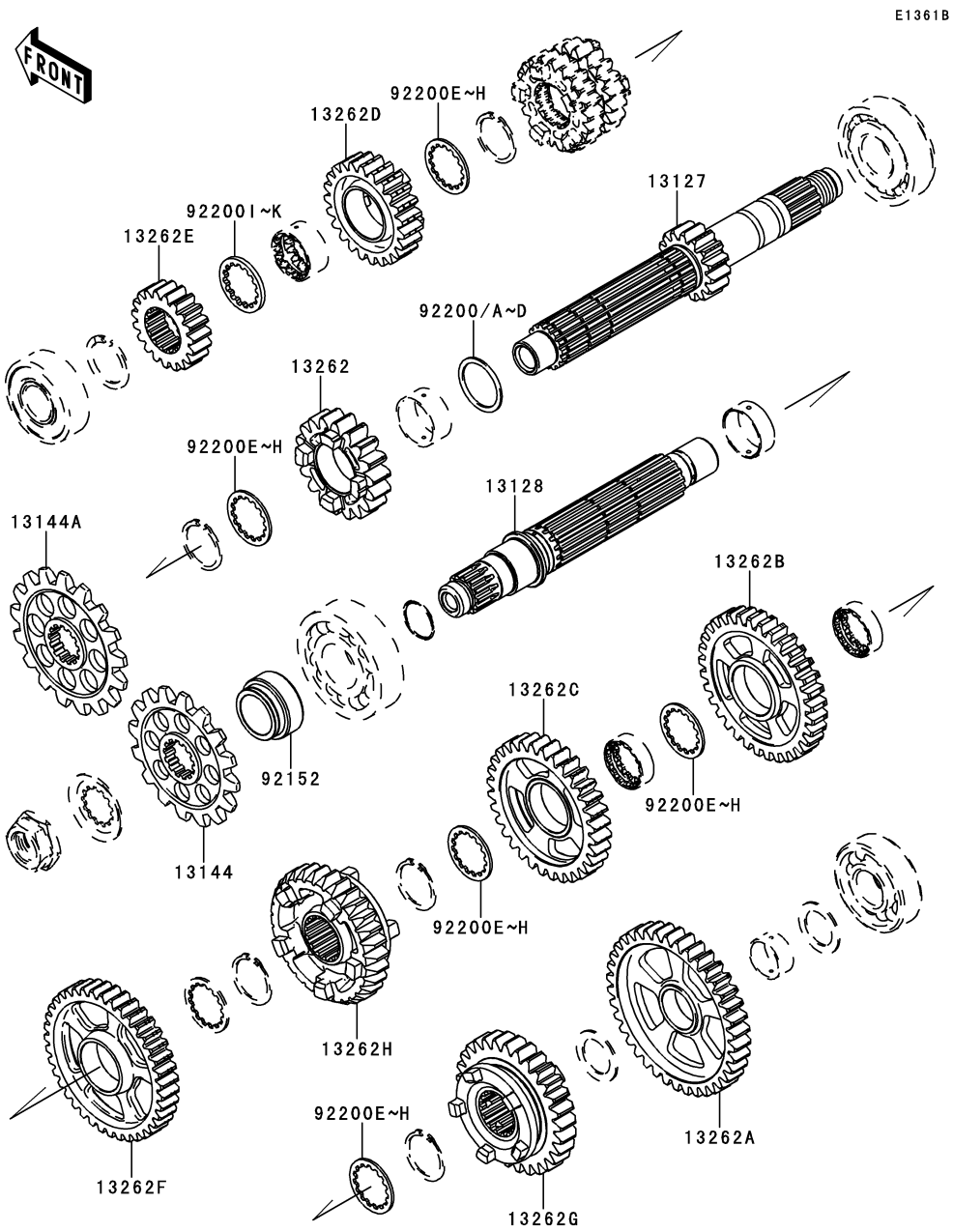
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
13127	13127-0639 (OPTION)	SHAFT-TRANSMISSION INPUT,13T		1
13128	13128-0671 (OPTION)	SHAFT-TRANSMISSION OUTPUT		1
13144	13144-0021 (OPTION)	SPROCKET-OUTPUT,16T,#520		1
13144A	13144-0022 (OPTION)	SPROCKET-OUTPUT,17T,#520		1
13262	13262-0619 (OPTION)	GEAR,OUTPUT 4TH,31T		1
13262A	13262-0624 (OPTION)	GEAR,OUTPUT LOW,31T		1
13262B	13262-0642 (OPTION)	GEAR,OUTPUT 3RD,34T		1
13262C	13262-0652 (OPTION)	GEAR,INPUT 6TH,21T		1
13262D	13262-0881 (OPTION)	GEAR,INPUT 5TH,18T		1
13262E	13262-0895 (OPTION)	GEAR,INPUT 2ND,19T		1
13262F	13262-0898 (OPTION)	GEAR,OUTPUT 2ND,37T		1
13262G	13262-0902 (OPTION)	GEAR,OUTPUT 5TH,26T		1
13262H	13262-0906 (OPTION)	GEAR,OUTPUT 6TH,29T		1
92152	92152-1522 (OPTION)	COLLAR,SPROCKET		1
92200	92200-0051 (OPTION)	WASHER,28.1X34.0X1.2		AR
92200A	92200-0225 (OPTION)	WASHER,28.1X34.0X0.8		AR
92200B	92200-0226 (OPTION)	WASHER,28.1X34.0X1.0		AR
92200C	92200-0227 (OPTION)	WASHER,28.1X34.0X1.4		AR
92200D	92200-0228 (OPTION)	WASHER,28.1X34.0X1.6		AR
92200E	92200-0229 (OPTION)	WASHER,28.3X34.0X1.2		AR
92200F	92200-0230 (OPTION)	WASHER,28.3X34.0X1.4		AR



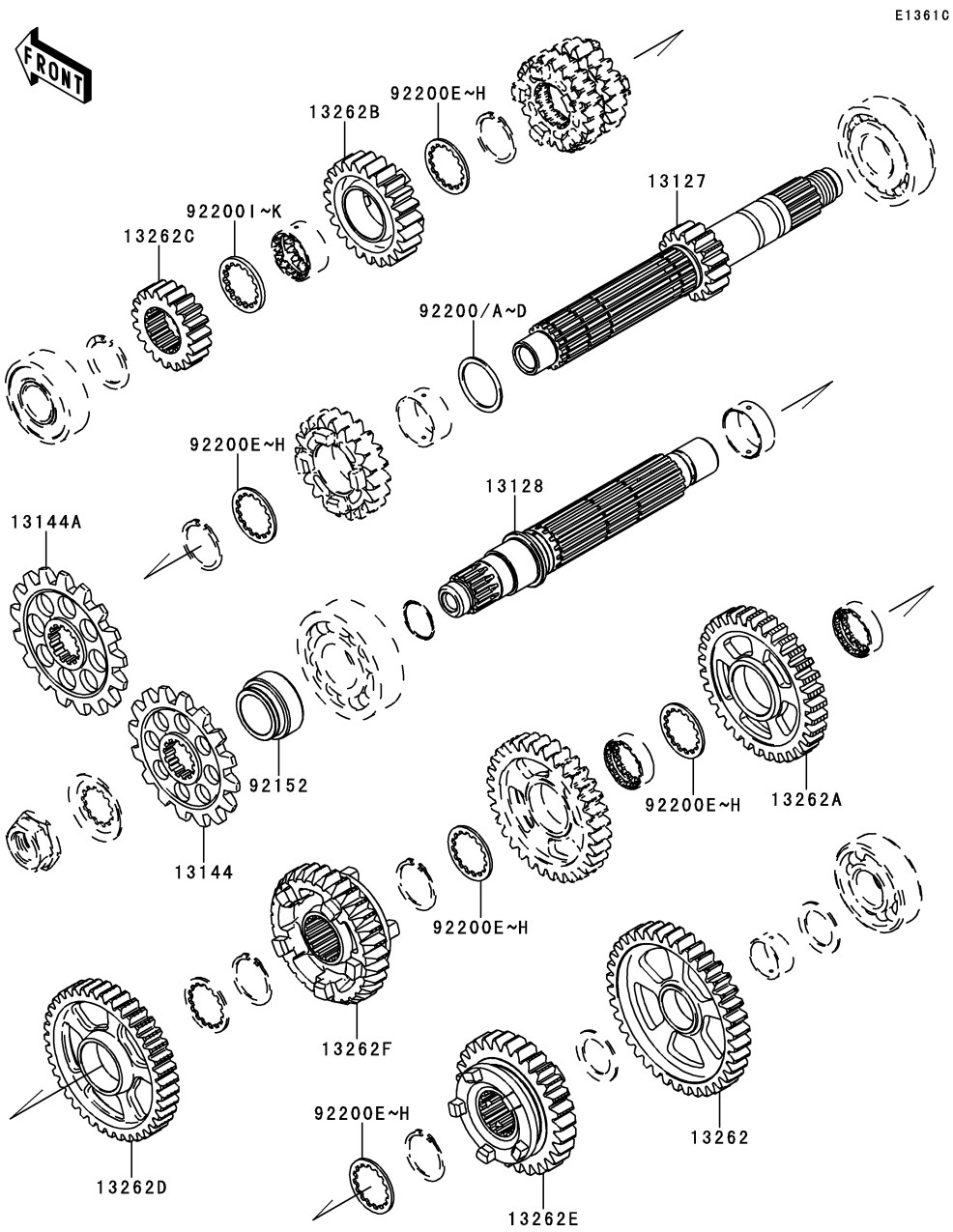
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
92200G	92200-0231 (OPTION)	WASHER,28.3X34.0X1.8		AR
92200H	92200-0232 (OPTION)	WASHER,28.3X34.0X2.0		AR
92200I	92200-0748 (OPTION)	WASHER,28.3X34.0X2.6		AR
92200J	92200-0749 (OPTION)	WASHER,28.3X34.0X2.8		AR
92200K	92200-0750 (OPTION)	WASHER,28.3X34.0X3.0		AR



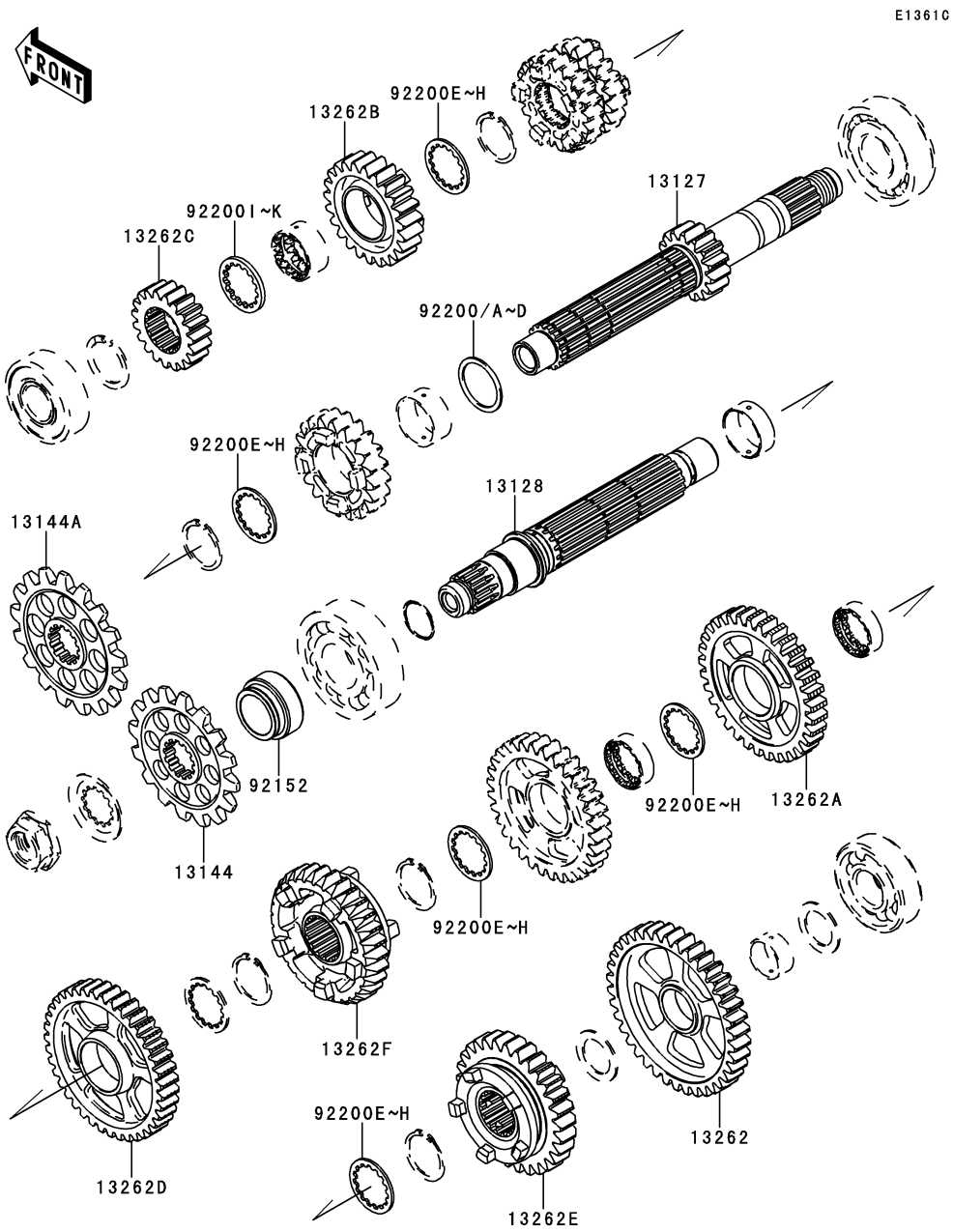
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
13127	13127-0640 (OPTION)	SHAFT-TRANSMISSION INPUT,14T		1
13128	13128-0671 (OPTION)	SHAFT-TRANSMISSION OUTPUT		1
13144	13144-0021 (OPTION)	SPROCKET-OUTPUT,16T,#520		1
13144A	13144-0022 (OPTION)	SPROCKET-OUTPUT,17T,#520		1
13262	13262-0620 (OPTION)	GEAR,INPUT 5TH,20T		1
13262A	13262-0625 (OPTION)	GEAR,OUTPUT LOW,34T		1
13262B	13262-0643 (OPTION)	GEAR,OUTPUT 3RD,28T		1
13262C	13262-0646 (OPTION)	GEAR,OUTPUT 4TH,33T		1
13262D	13262-0869 (OPTION)	GEAR,INPUT TOP,23T		1
13262E	13262-0896 (OPTION)	GEAR,INPUT 2ND,18T		1
13262F	13262-0899 (OPTION)	GEAR,OUTPUT 2ND,38T		1
13262G	13262-0903 (OPTION)	GEAR,OUTPUT 5TH,28T		1
13262H	13262-0907 (OPTION)	GEAR,OUTPUT 6TH,31T		1
92152	92152-1522 (OPTION)	COLLAR,SPROCKET		1
92200	92200-0051 (OPTION)	WASHER,28.1X34.0X1.2		AR
92200A	92200-0225 (OPTION)	WASHER,28.1X34.0X0.8		AR
92200B	92200-0226 (OPTION)	WASHER,28.1X34.0X1.0		AR
92200C	92200-0227 (OPTION)	WASHER,28.1X34.0X1.4		AR
92200D	92200-0228 (OPTION)	WASHER,28.1X34.0X1.6		AR
92200E	92200-0229 (OPTION)	WASHER,28.3X34.0X1.2		AR
92200F	92200-0230 (OPTION)	WASHER,28.3X34.0X1.4		AR



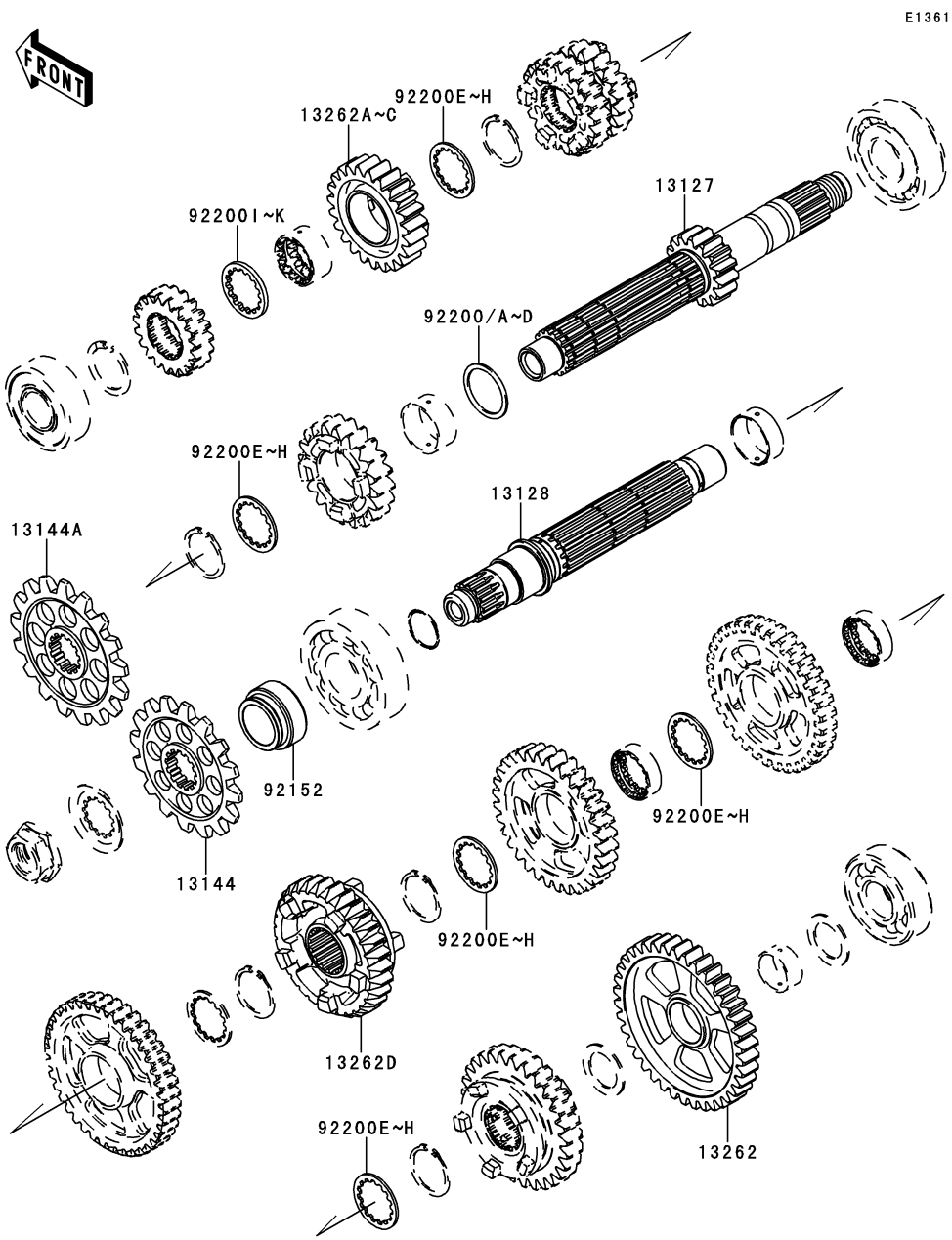
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
92200G	92200-0231 (OPTION)	WASHER,28.3X34.0X1.8		AR
92200H	92200-0232 (OPTION)	WASHER,28.3X34.0X2.0		AR
92200I	92200-0748 (OPTION)	WASHER,28.3X34.0X2.6		AR
92200J	92200-0749 (OPTION)	WASHER,28.3X34.0X2.8		AR
92200K	92200-0750 (OPTION)	WASHER,28.3X34.0X3.0		AR



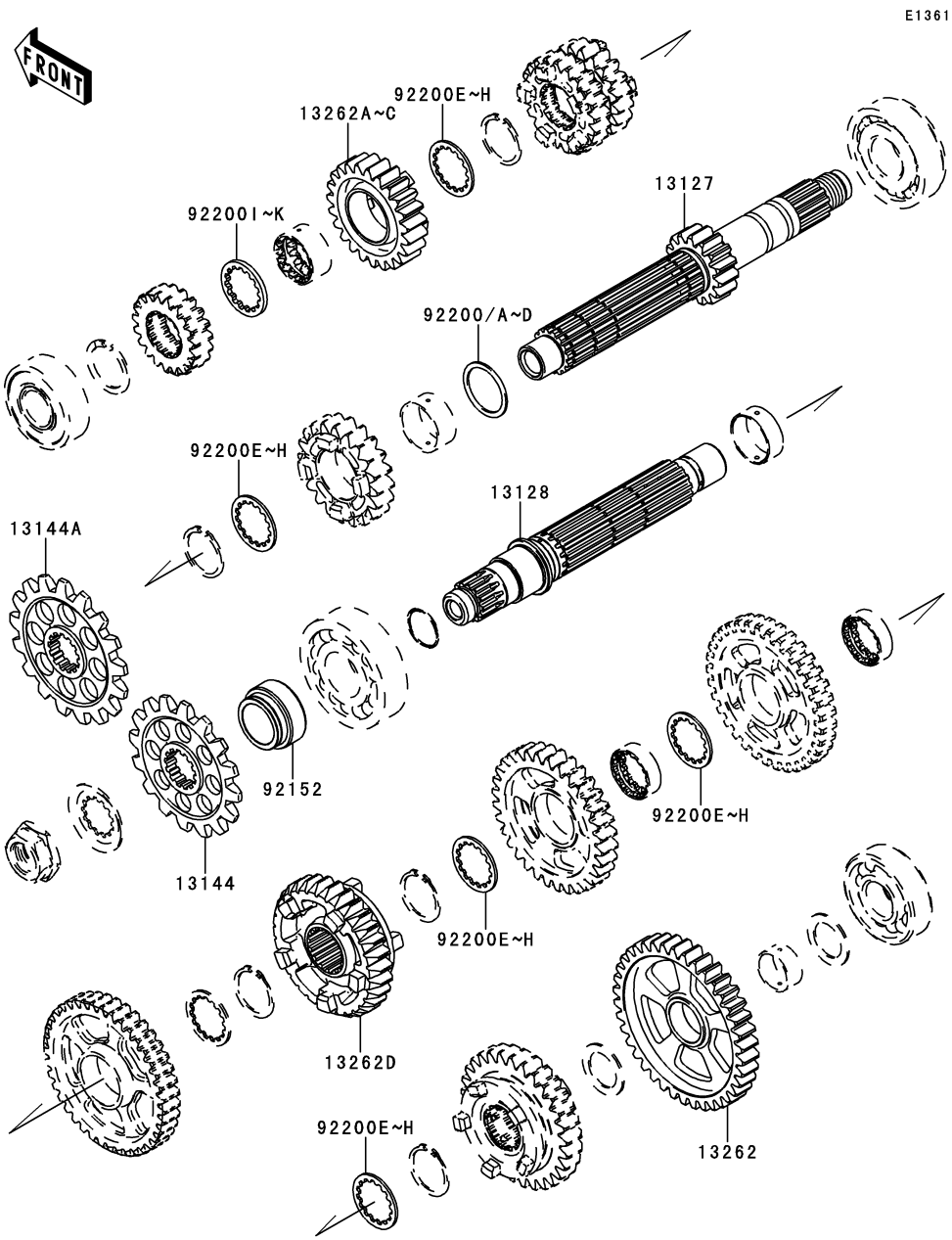
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
13127	13127-0641 (OPTION)	SHAFT-TRANSMISSION INPUT,16T		1
13128	13128-0671 (OPTION)	SHAFT-TRANSMISSION OUTPUT		1
13144	13144-0021 (OPTION)	SPROCKET-OUTPUT,16T,#520		1
13144A	13144-0022 (OPTION)	SPROCKET-OUTPUT,17T,#520		1
13262	13262-0626 (OPTION)	GEAR,OUTPUT LOW,37T		1
13262A	13262-0644 (OPTION)	GEAR,OUTPUT 3RD,36T		1
13262B	13262-0654 (OPTION)	GEAR,INPUT 6TH,22T		1
13262C	13262-0897 (OPTION)	GEAR,INPUT 2ND,18T		1
13262D	13262-0900 (OPTION)	GEAR,OUTPUT 2ND,36T		1
13262E	13262-0904 (OPTION)	GEAR,OUTPUT 5TH,30T		1
13262F	13262-0908 (OPTION)	GEAR,OUTPUT 6TH,28T		1
92152	92152-1522 (OPTION)	COLLAR,SPROCKET		1
92200	92200-0051 (OPTION)	WASHER,28.1X34.0X1.2		AR
92200A	92200-0225 (OPTION)	WASHER,28.1X34.0X0.8		AR
92200B	92200-0226 (OPTION)	WASHER,28.1X34.0X1.0		AR
92200C	92200-0227 (OPTION)	WASHER,28.1X34.0X1.4		AR
92200D	92200-0228 (OPTION)	WASHER,28.1X34.0X1.6		AR
92200E	92200-0229 (OPTION)	WASHER,28.3X34.0X1.2		AR
92200F	92200-0230 (OPTION)	WASHER,28.3X34.0X1.4		AR
92200G	92200-0231 (OPTION)	WASHER,28.3X34.0X1.8		AR
92200H	92200-0232 (OPTION)	WASHER,28.3X34.0X2.0		AR



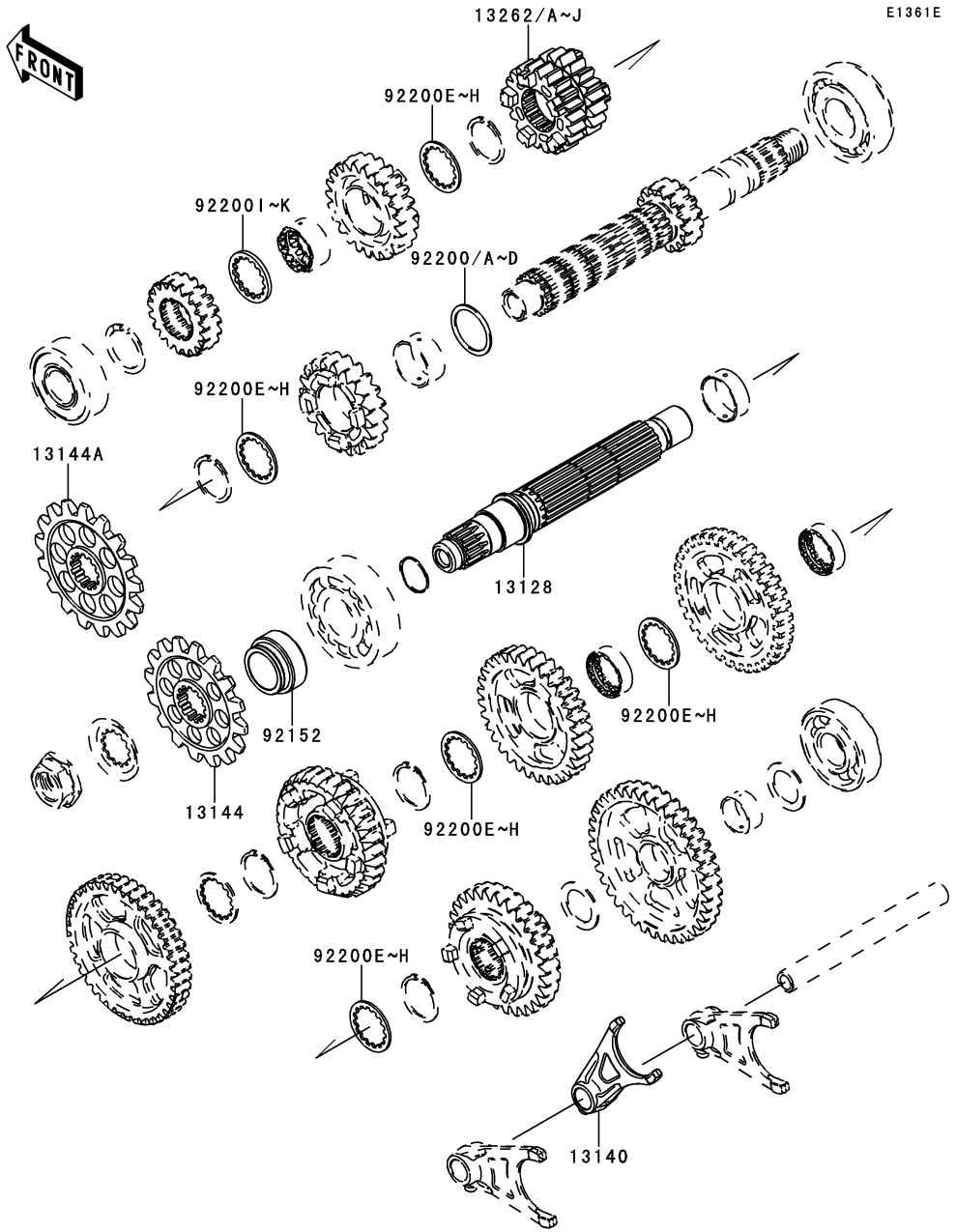
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11	JBFR
92200I	92200-0748 (OPTION)	WASHER,28.3X34.0X2.6		AR	
92200J	92200-0749 (OPTION)	WASHER,28.3X34.0X2.8		AR	
92200K	92200-0750 (OPTION)	WASHER,28.3X34.0X3.0		AR	



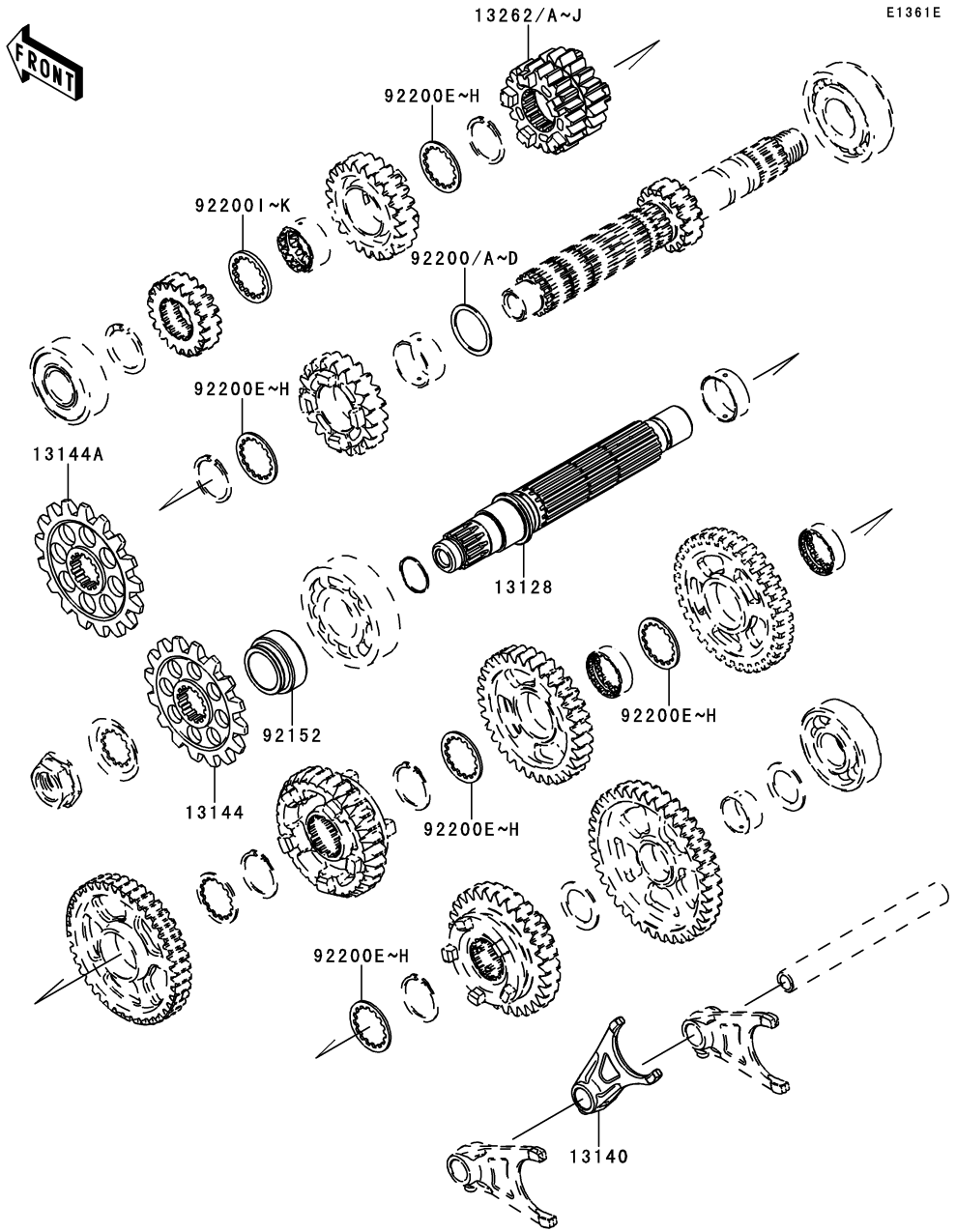
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
13127	13127-0642 (OPTION)	SHAFT-TRANSMISSION INPUT,15T		1
13128	13128-0671 (OPTION)	SHAFT-TRANSMISSION OUTPUT		1
13144	13144-0021 (OPTION)	SPROCKET-OUTPUT,16T,#520		1
13144A	13144-0022 (OPTION)	SPROCKET-OUTPUT,17T,#520		1
13262	13262-0615 (OPTION)	GEAR,OUTPUT LOW,39T		1
13262A	13262-0655 (OPTION)	GEAR,INPUT 6TH,21T		1
13262B	13262-0656 (OPTION)	GEAR,INPUT 6TH,24T		1
13262C	13262-0657 (OPTION)	GEAR,INPUT 6TH,22T		1
13262D	13262-0909 (OPTION)	GEAR,OUTPUT 6TH,26T		1
92152	92152-1522 (OPTION)	COLLAR,SPROCKET		1
92200	92200-0051 (OPTION)	WASHER,28.1X34.0X1.2		AR
92200A	92200-0225 (OPTION)	WASHER,28.1X34.0X0.8		AR
92200B	92200-0226 (OPTION)	WASHER,28.1X34.0X1.0		AR
92200C	92200-0227 (OPTION)	WASHER,28.1X34.0X1.4		AR
92200D	92200-0228 (OPTION)	WASHER,28.1X34.0X1.6		AR
92200E	92200-0229 (OPTION)	WASHER,28.3X34.0X1.2		AR
92200F	92200-0230 (OPTION)	WASHER,28.3X34.0X1.4		AR
92200G	92200-0231 (OPTION)	WASHER,28.3X34.0X1.8		AR
92200H	92200-0232 (OPTION)	WASHER,28.3X34.0X2.0		AR
92200I	92200-0748 (OPTION)	WASHER,28.3X34.0X2.6		AR
92200J	92200-0749 (OPTION)	WASHER,28.3X34.0X2.8		AR



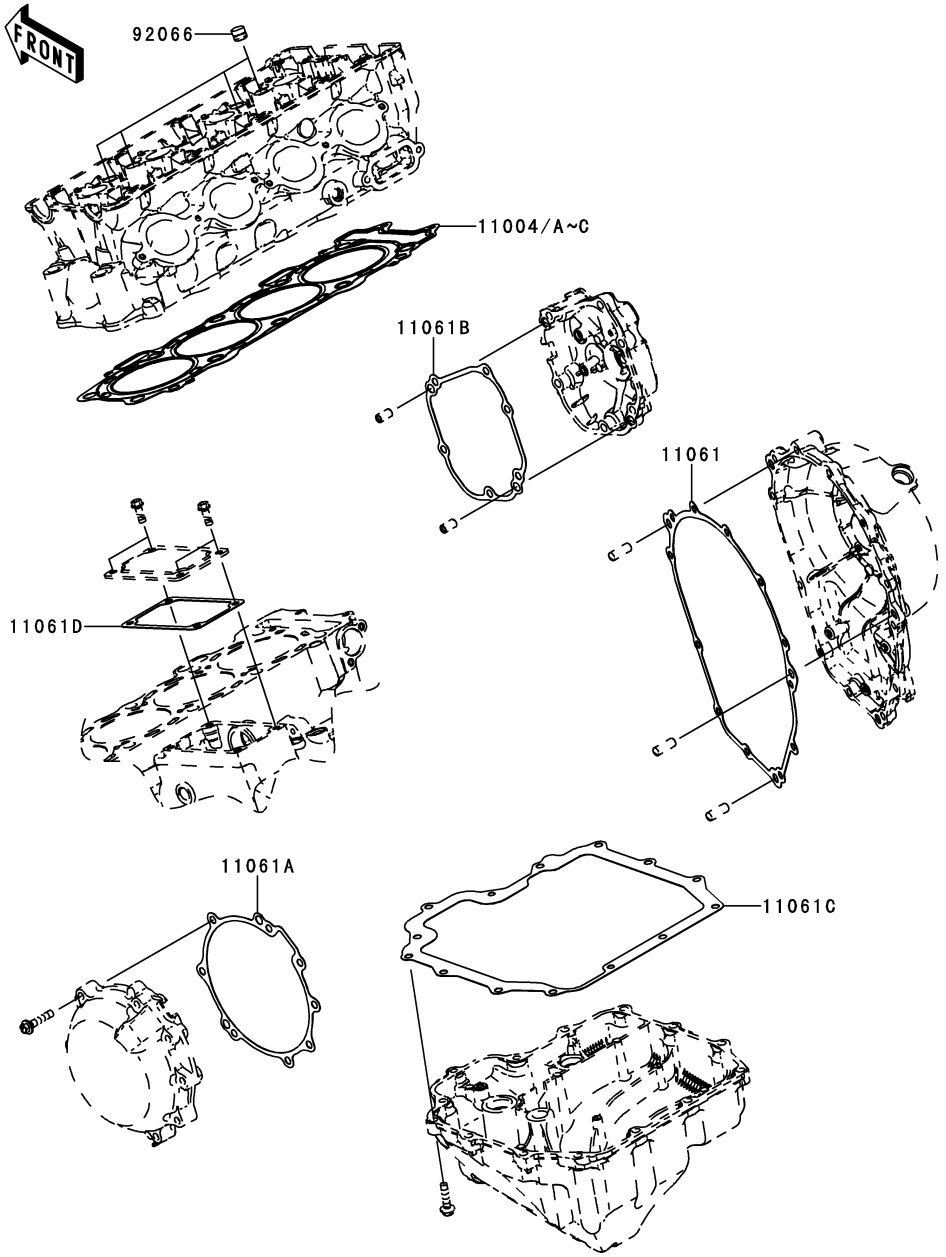
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11	JBFR
92200K	92200-0750 (OPTION)	WASHER,28.3X34.0X3.0		AR	



Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
13128	13128-0671 (OPTION)	SHAFT-TRANSMISSION OUTPUT		1
13140	13140-0625 (OPTION)	FORK-SHIFT		1
13144	13144-0021 (OPTION)	SPROCKET-OUTPUT,16T,#520		1
13144A	13144-0022 (OPTION)	SPROCKET-OUTPUT,17T,#520		1
13262	13262-0630 (OPTION)	GEAR,INPUT 3RD&4TH,19T&21T,A/A		1
13262A	13262-0632 (OPTION)	GEAR,INPUT 3RD&4TH,19T&20T,B/B		1
13262B	13262-0633 (OPTION)	GEAR,INPUT 3RD&4TH,19T&21T,B/A		1
13262C	13262-0634 (OPTION)	GEAR,INPUT 3RD&4TH,19T&21T,B/C		1
13262D	13262-0637 (OPTION)	GEAR,INPUT 3RD&4TH,16T&20T,C/B		1
13262E	13262-0638 (OPTION)	GEAR,INPUT 3RD&4TH,16T&21T,C/A		1
13262F	13262-0639 (OPTION)	GEAR,INPUT 3RD&4TH,16T&21T,C/C		1
13262G	13262-0640 (OPTION)	GEAR,INPUT 3RD&4TH,21T&20T,D/B		1
13262H	13262-0641 (OPTION)	GEAR,INPUT 3RD&4TH,21T&21T,D/A		1
13262I	13262-0665 (OPTION)	GEAR,INPUT 3RD&4TH,19T&20T		1
13262J	13262-0891 (OPTION)	GEAR,INPUT 3RD&4TH,19T&21T		1
92152	92152-1522 (OPTION)	COLLAR,SPROCKET		1
92200	92200-0051 (OPTION)	WASHER,28.1X34.0X1.2		AR
92200A	92200-0225 (OPTION)	WASHER,28.1X34.0X0.8		AR
92200B	92200-0226 (OPTION)	WASHER,28.1X34.0X1.0		AR
92200C	92200-0227 (OPTION)	WASHER,28.1X34.0X1.4		AR
92200D	92200-0228 (OPTION)	WASHER,28.1X34.0X1.6		AR

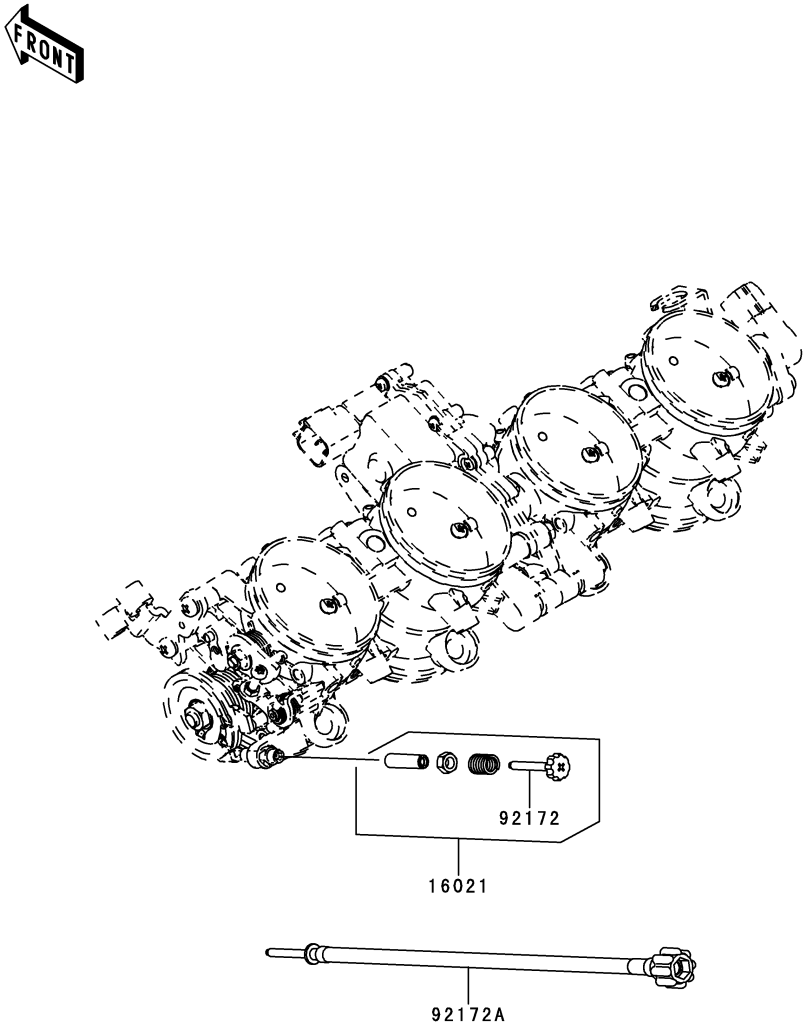


Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
92200E	92200-0229 (OPTION)	WASHER,28.3X34.0X1.2		AR
92200F	92200-0230 (OPTION)	WASHER,28.3X34.0X1.4		AR
92200G	92200-0231 (OPTION)	WASHER,28.3X34.0X1.8		AR
92200H	92200-0232 (OPTION)	WASHER,28.3X34.0X2.0		AR
92200I	92200-0748 (OPTION)	WASHER,28.3X34.0X2.6		AR
92200J	92200-0749 (OPTION)	WASHER,28.3X34.0X2.8		AR
92200K	92200-0750 (OPTION)	WASHER,28.3X34.0X3.0		AR

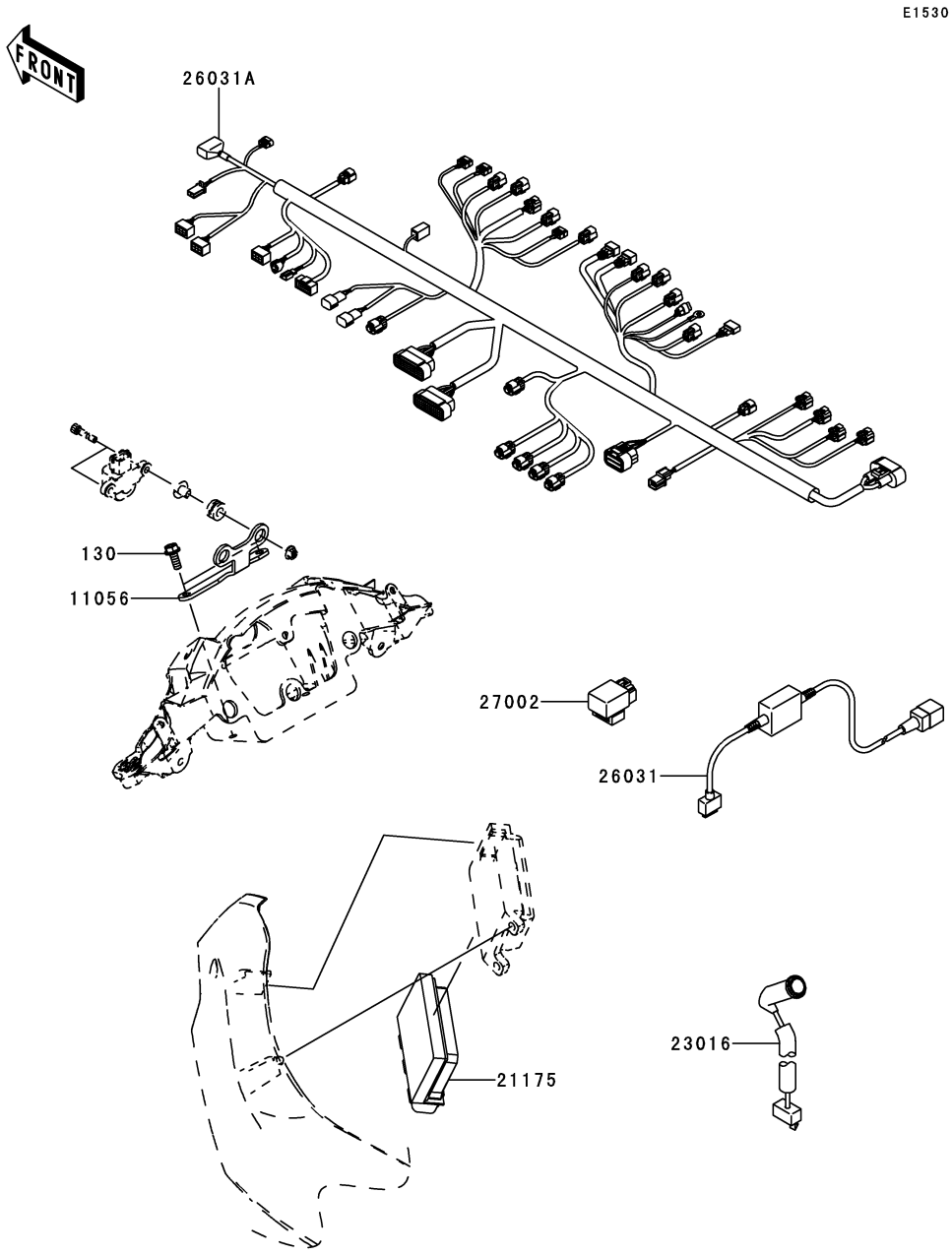


Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11	JBFR
11004	11004-0719 (OPTION)	GASKET-HEAD,T=0.65		1	
11004A	11004-0720 (OPTION)	GASKET-HEAD,T=0.60		1	
11004B	11004-0721 (OPTION)	GASKET-HEAD,T=0.55		1	
11004C	11004-0722 (OPTION)	GASKET-HEAD,T=0.50		1	
11061	11061-0754 (OPTION)	GASKET,CLUTCH COVER		1	
11061A	11061-0755 (OPTION)	GASKET,GENERATOR COVER		1	
11061B	11061-0756 (OPTION)	GASKET,PULSER COVER		1	
11061C	11061-0757 (OPTION)	GASKET,OIL PAN		1	
11061D	11061-0758 (OPTION)	GASKET,STARTER COVER		1	
92066	92066-1005 (OPTION)	PLUG		4	

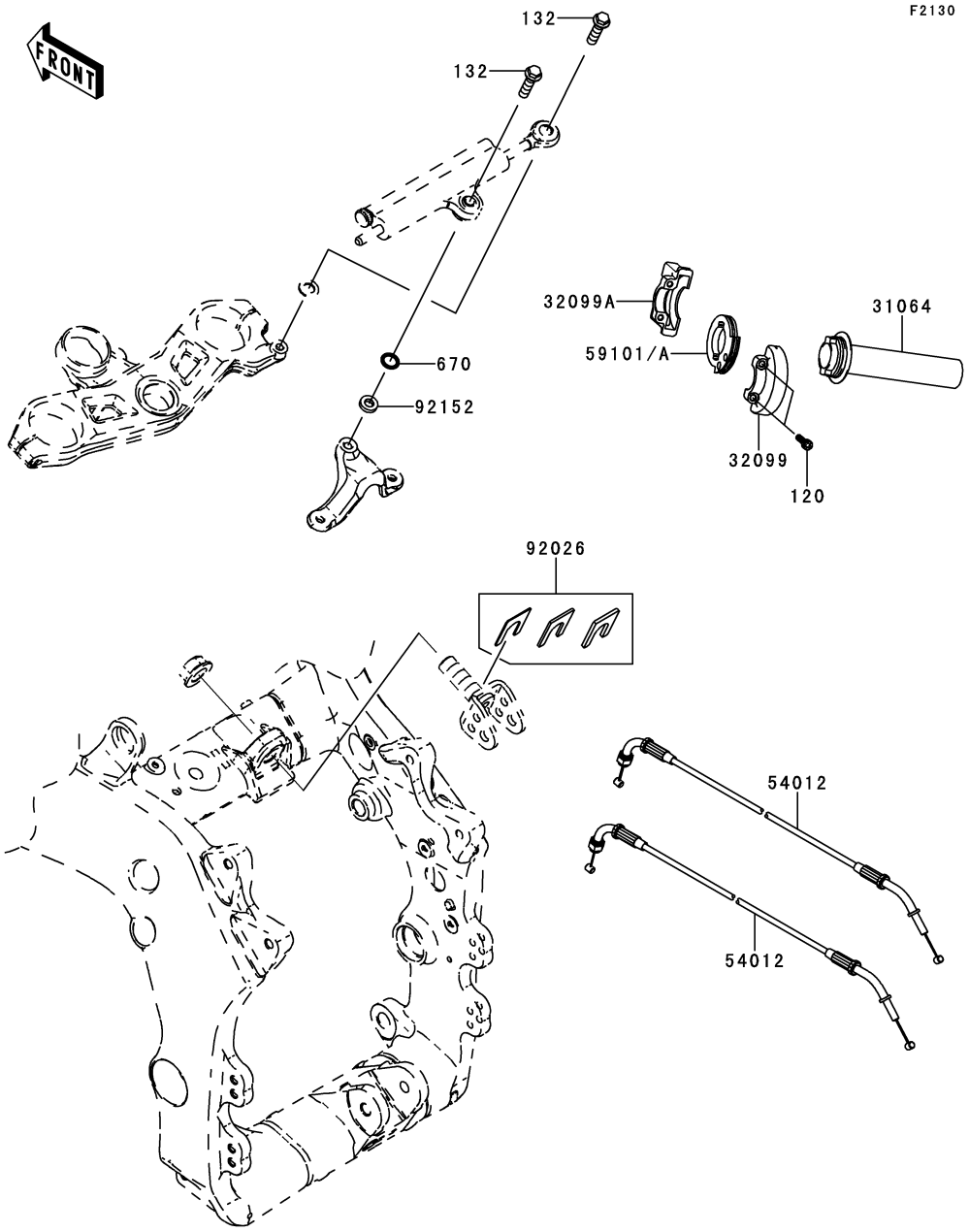
E1510



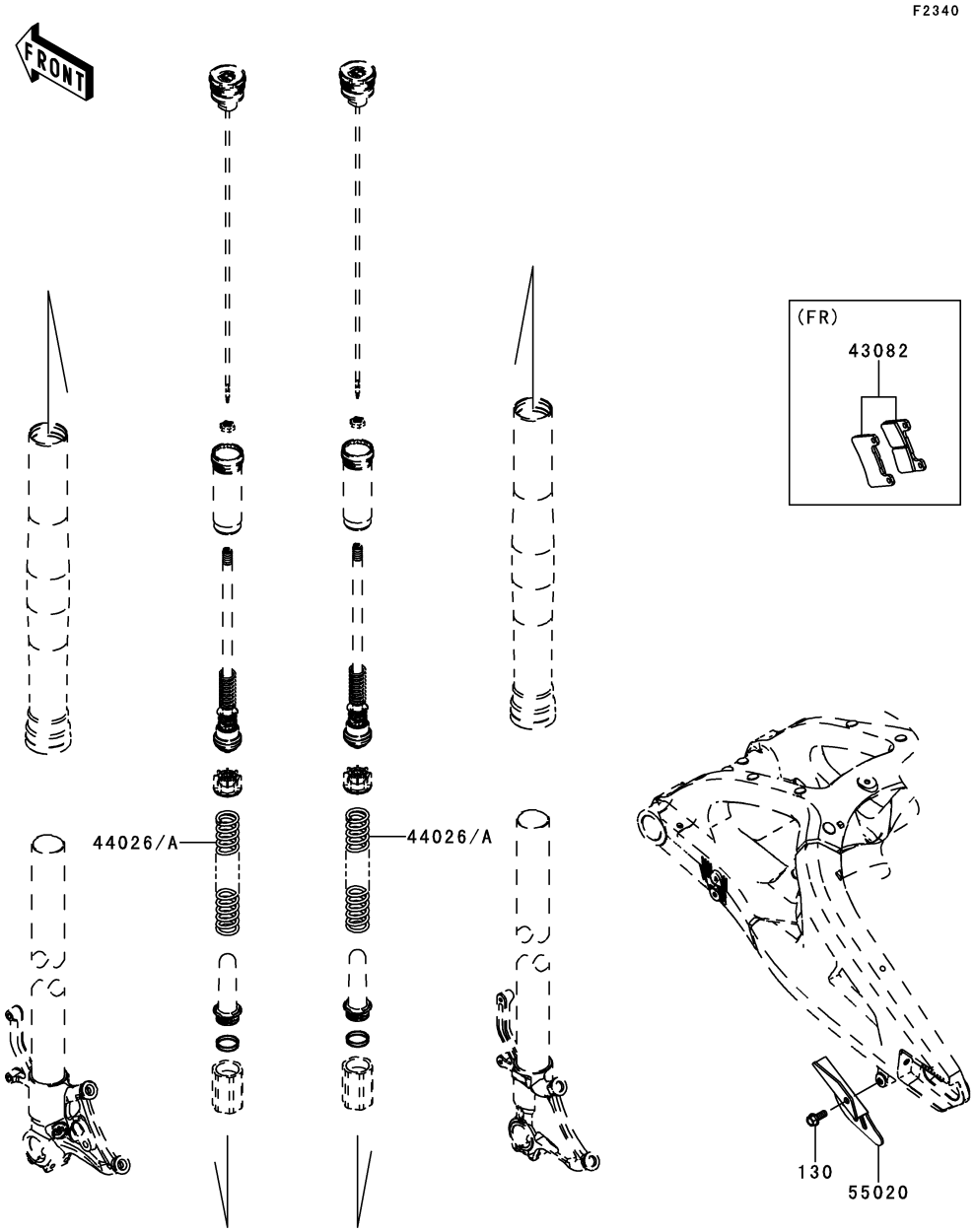
Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
16021	16021-0055 (OPTION)	SCREW-THROTTLE STOP		1
92172	92172-0745 (OPTION)	SCREW		1
92172A	92172-0746 (OPTION)	SCREW,REMOTE TYPE		1



Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
11056	11056-1243 (OPTION)	BRACKET,TIP OVER SENSOR		1
21175	21175-0756 (OPTION)	CONTROL UNIT-ELECTRONIC		1
23016	23016-0006 (OPTION)	LAMP-ASSY,INDICATOR		1
26031	26031-0999 (OPTION)	HARNESS,INTERFACE		1
26031A	26031-1219 (OPTION)	HARNESS,KIT		1
27002	27002-1062 (OPTION)	RELAY-ASSY		1
130	130BA0616 (OPTION)	BOLT-FLANGED,6X16		2



Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11	JBFR
31064	31064-0187 (OPTION)	PIPE-COMP,GRIP		1	
32099	32099-0046 (OPTION)	CASE,UPP		1	
32099A	32099-0047 (OPTION)	CASE,LWR		1	
54012	54012-0570 (OPTION)	CABLE-THROTTLE,HI		2	
59101	59101-0008 (OPTION)	REEL,R19.7,65DEG		1	
59101A	59101-0009 (OPTION)	REEL,R21.4,60DEG		1	
92026	92026-0724 (OPTION)	SPACER,REAR HEIGHT ADJ.,SET		1	
92152	92152-0798 (OPTION)	COLLAR,8X16X3.5		1	
120	120CA0518 (OPTION)	BOLT-SOCKET,5X18		2	
132	132BA0830 (OPTION)	BOLT-FLANGED-SMALL,8X30		2	
670	670B2012 (OPTION)	O RING,12MM		1	



F2340

Ref. No.	Part No.	Description	Spec Code	Quantity-ZX1000 '11 JBFR
43082	43082-0088 (OPTION)	PAD-ASSY-BRAKE,FR,F9633		2
44026	44026-0163 (OPTION)	SPRING-FRONT FORK,K=9.75N/MM		2
44026A	44026-0164 (OPTION)	SPRING-FRONT FORK,K=10.75N/MM		2
55020	55020-0795 (OPTION)	GUARD,CHAIN		1
130	130BA0820 (OPTION)	BOLT-FLANGED,8X20		1

Kawasaki
KAWASAKI HEAVY INDUSTRIES, LTD.
Motorcycle & Engine Company
Doc No. 99929-0547-01