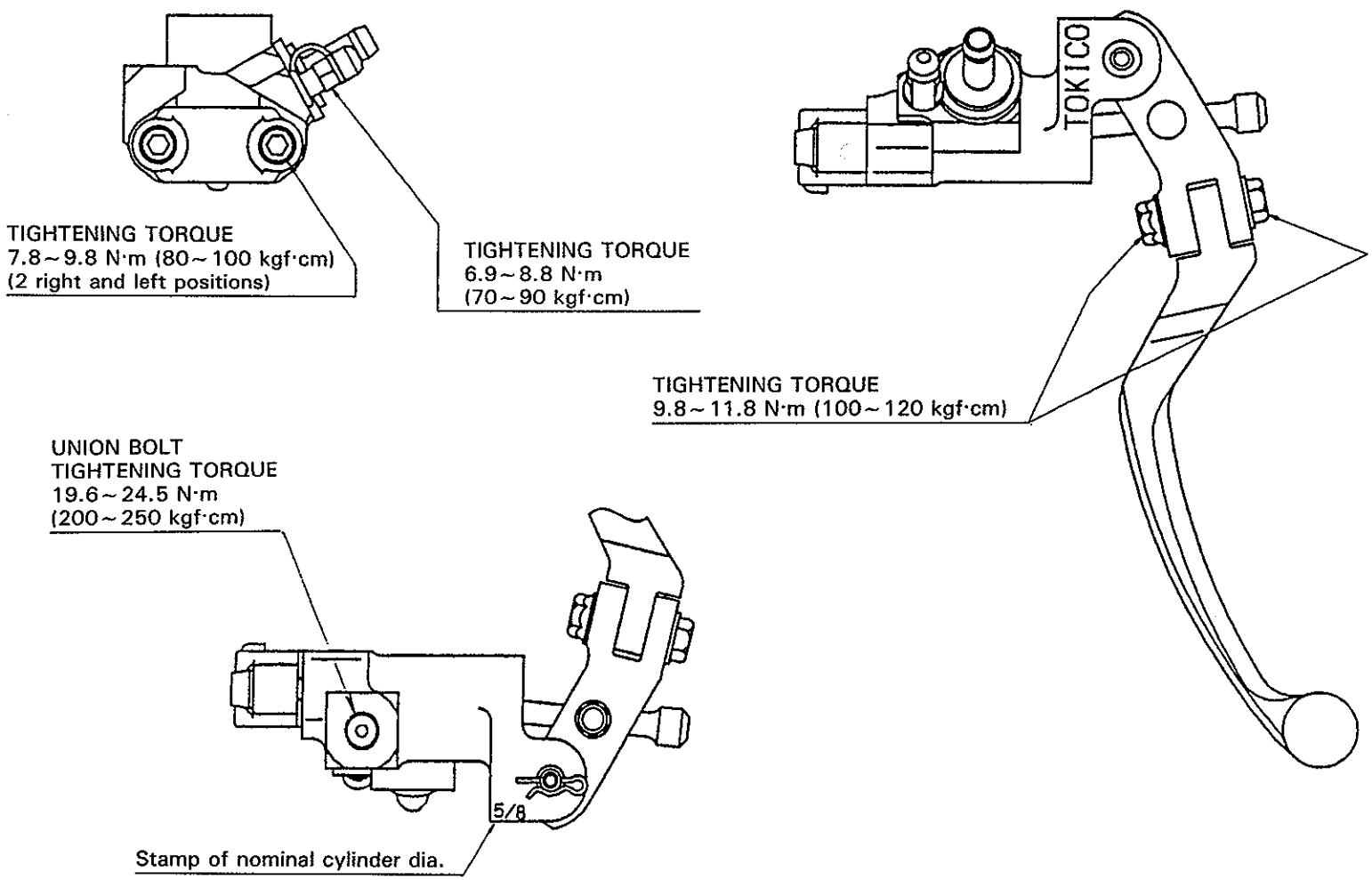
38-7. FRONT BRAKE LEVER TIGHTENING TORQUE DIAGRAM



39. REAR BRAKE SET

① Replace the rear master cylinder ass'y with the one in the racing kit.
② Replace the rear caliper ass'y with the one in the racing kit.
③ Replace the brake hose with the one in the racing kit.
④ Replace the brake disc with the one in the racing kit.
⑤ When replacing the rear master cylinder ass'y with the one in the racing kit, the foot rest bracket should be also changed with the one in the racing kit.
⑥ When replacing the rear caliper ass'y with the one in the racing kit, the rear swing arm should be also replaced with the one in the racing kit.
⑦ The brake disc in the racing kit can be installed only to the rear wheel of the racing kit.

CAUTIONS DURING REPLACEMENT

- Do not allow oil or grease to come in contact with the brake disc or pad, since the braking ability may be lost. If oil or grease contacts the brake disc or pad, replace the brake pad with a new one and degrease the brake disc.
- When assembling a new brake set or disassembling and reassembling one, discharge the air from the brake system. After the installation, check for leakage of the brake fluid.
- If the braking performance is spongy, discharge the air from the brake system.
- Be sure to check the braking performance.
- Refer to the Service Manual for the maintenance procedure.
- No pad is contained in the caliper in the kit.

CAUTIONS FOR USE

- Be sure to use the disc and pad in the kit as a set.
- Tighten the brake hose securely.
- Fix the brake hose to the rear swing arm so as not to touch the muffler.
- Adjust the length of the brake oil hose in the kit according to the master cylinder installation position.
- Install the brake pad pin securely and lock with a clip.

FAILURE DIAGNOSIS

① LOW BRAKING EFFICIENCY

- Air mixed in the brake system.
- Leakage of brake fluid.
- Stained brake pad or disc.
- Damaged caliper piston seal.
- Damaged master piston seal.
- Worn brake pad or disc.
- Stained caliper inside.
- Improper sliding of rear caliper sliding unit.
- Clogged brake system.
- Distortion or deformation of brake disc.
- Seized caliper piston.
- Frozen master cylinder piston.
- Master cylinder stained inside.
- Bent brake lever or brake pedal.

② DRAGGING BRAKE

- Stained brake pad or disc.
- Worn or damaged brake pad or disc.
- Distorted or deformed brake disc.
- Frozen caliper piston.

39-1. REAR CALIPER

CAUTIONS FOR REAR CALIPER

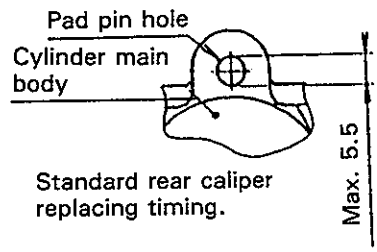
The rear caliper cylinder is made of magnesium alloy. Since the magnesium alloy is lower in material hardness than the aluminum alloy, which is usually used, attention should be paid to the following points.

① Strong impact should not be given from the outside.

② Wear of the cylinder pad pin hole due to vibration of the vehicle body should be controlled. (Be sure to install the clip to the inner side to prevent the pad pin from coming out.)

③ Do not use the [600 Racing] brake fluid of AP Racing Company.
(It is noted on the magnesium cylinder that this brake fluid cannot be used.)

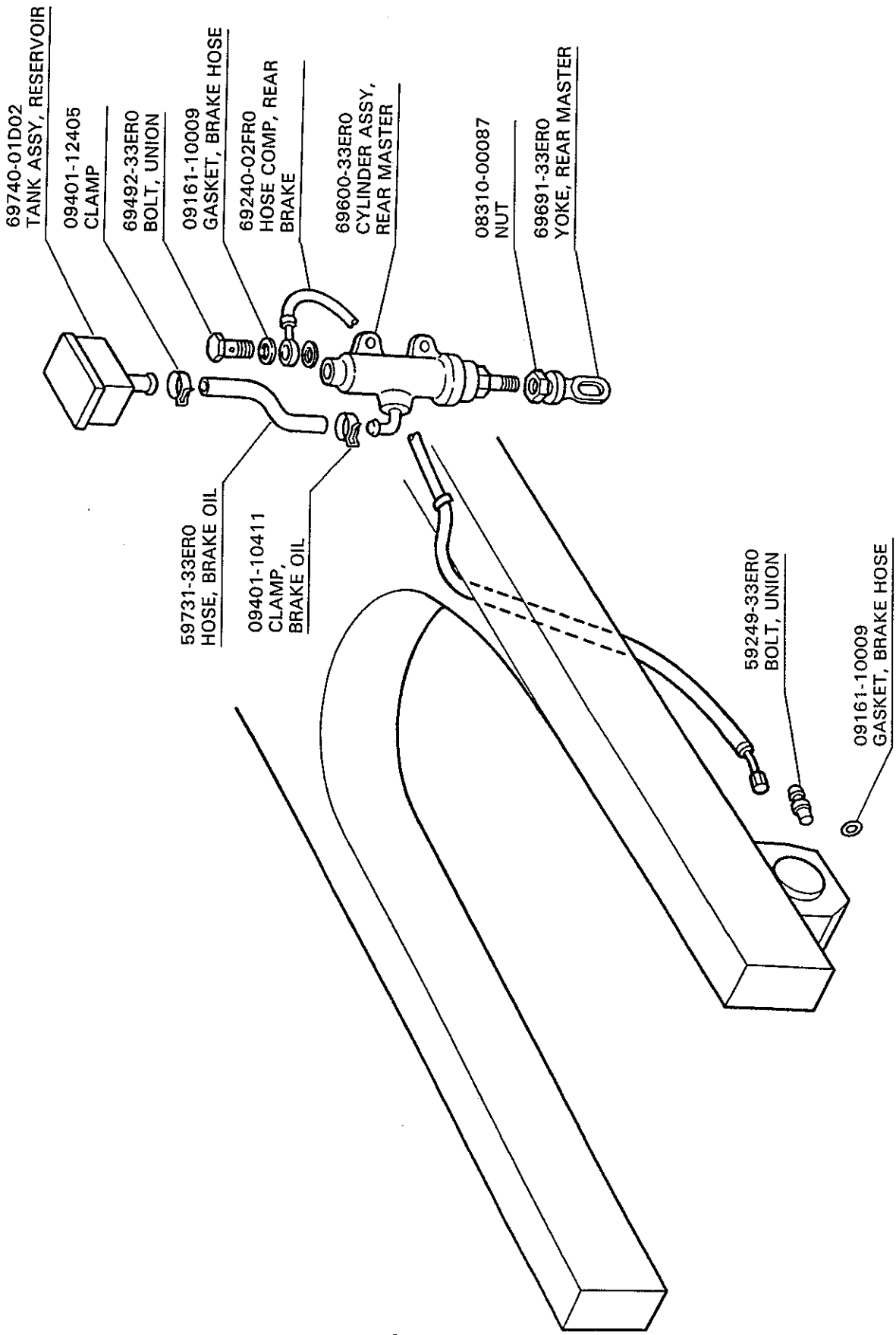
④ After driving in the rain, blow the air to remove moisture to prevent corrosion.



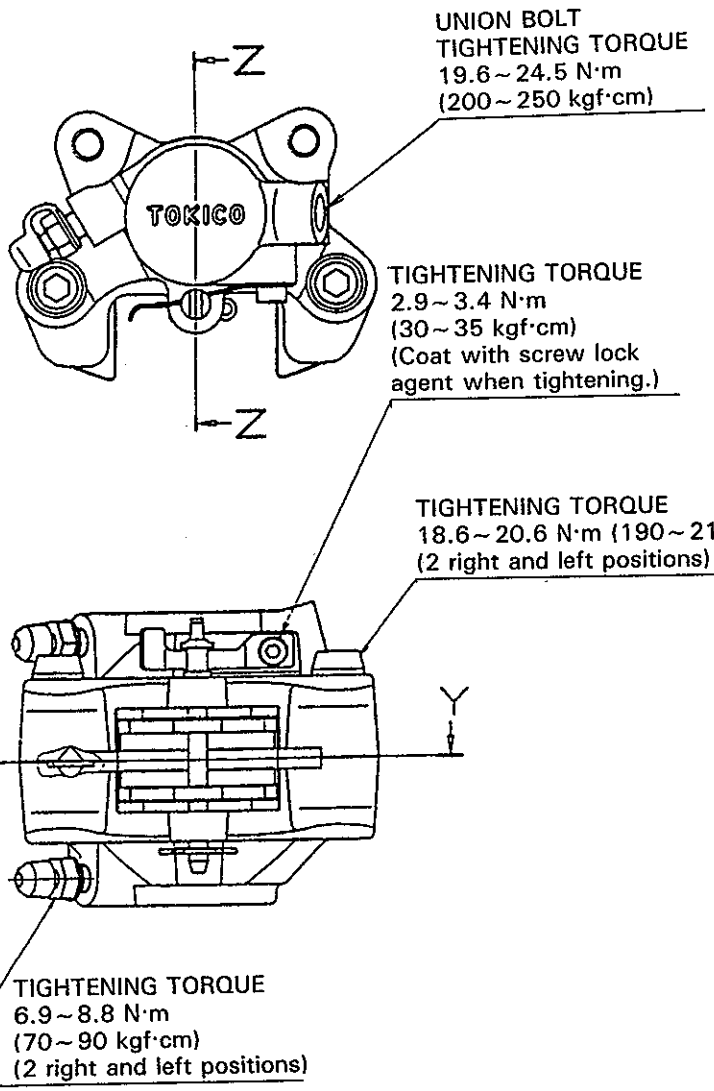
CAUTIONS FOR CALIPER CLEANING

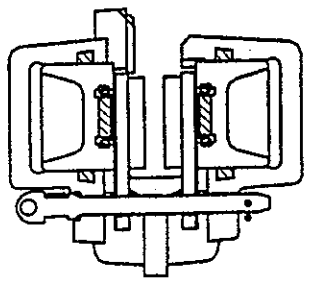
Refer to the cautions 1 and 2 for the front caliper cleaning.

39-2. REAR BRAKE SET ASSEMBLING DIAGRAM



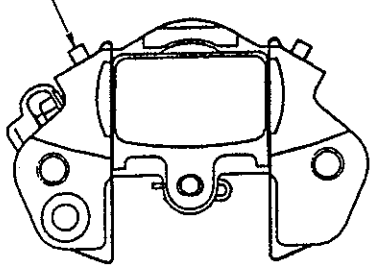
39-3. REAR CALIPER TIGHTENING TORQUE DIAGRAM





Z–Z

TIGHTENING TORQUE
2.0~2.5 N·m (20~25 kgf·cm)
(2 right and left positions)



Y–Y

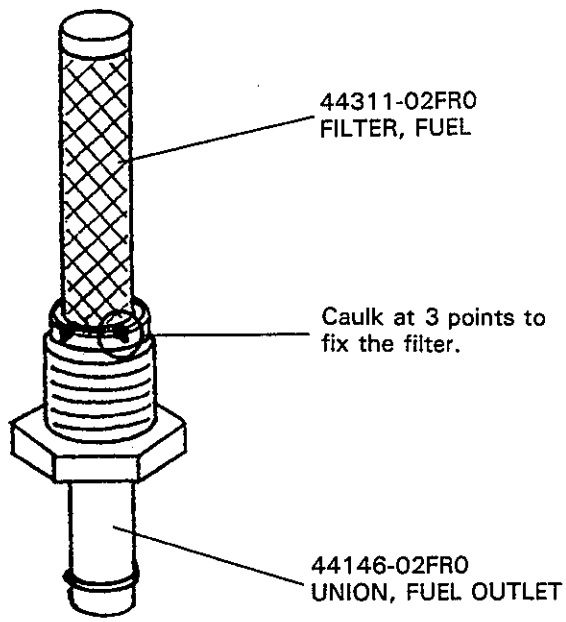
40. FUEL TANK

1. The fuel tank has been packaged after being washed.
   However, wash it again before installing it.
   Dust or other foreign matter remaining in the tank, if any may cause trouble in the fuel injection system, etc.
2. The fuel tank is for the sprint race.
3. Be sure to fill the fuel tank with explosion-proof sponge.

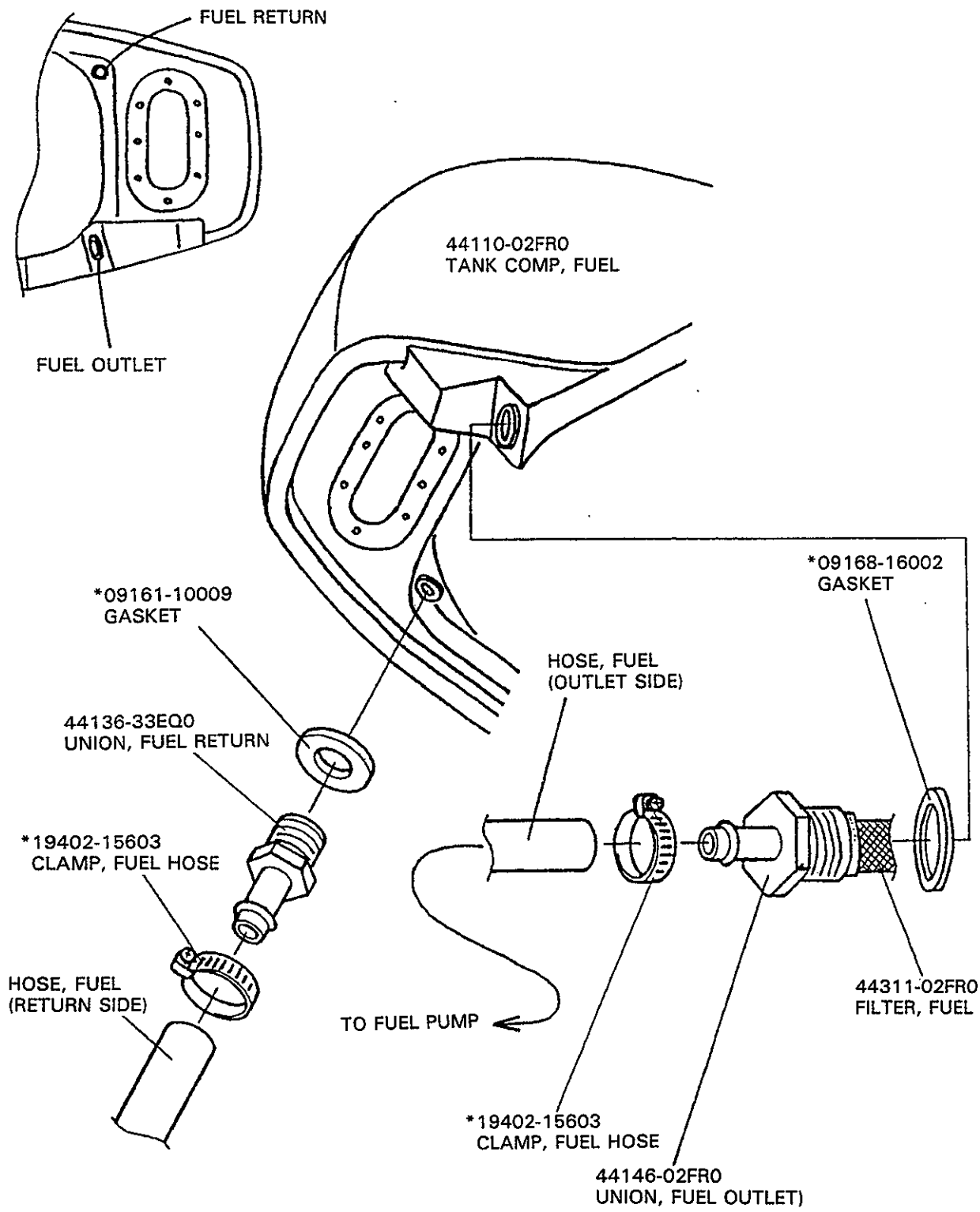
⚠DANGER

Wash the tank inside in gasoline or white gasoline.
Gasoline is high in volatility and easily evaporated and may explode. Therefore, it should be handled in a well-ventilated place, avoiding fire. Caution should be taken also to avoid electric spark or other sources of combustion.

4. No kit has been provided for the endurance race fuel tank.
5. Insert the filter and fuel pipe (44146-02FR0) into the union and fuel outlet (44311-02FR0), caulk at 3 points and install to the fuel tank.

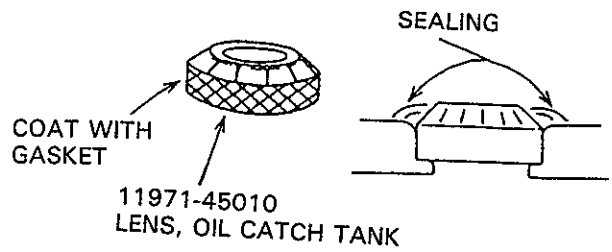


INSTALLATION OF FUEL TANK



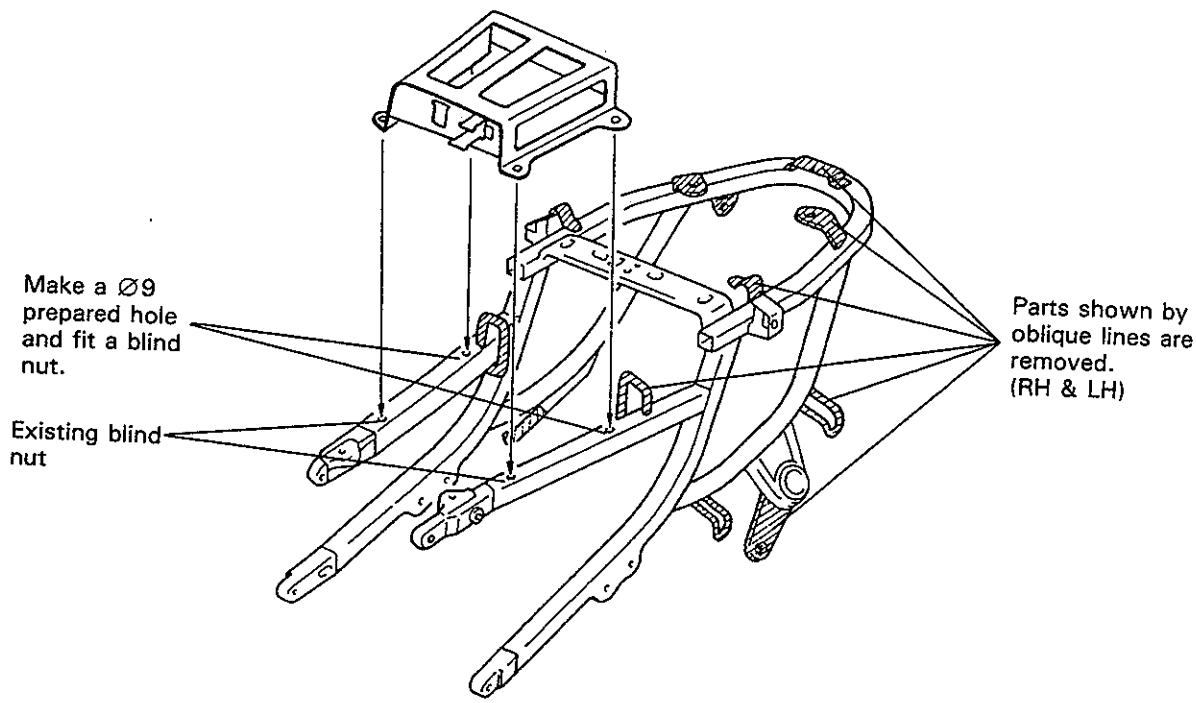
41. OIL CATCH TANK

Before press-fitting the oil check lens to the oil catch tank, coat around the lens with silicone rubber-type liquid gasket to seal the catch tank and lens.



42. COWLING, WINDOW SCREEN AND SEAT COWL

1. Make a hole of ∅6.5 for installing the cowling.
   The hole position is marked by recess.
2. After installing the cowling, position the front fork in the full bottom condition and check that the front tire is not in contact with the lower cowl.
3. Install the wind screen with rivets.
4. Align the seat rail with the seat support bracket (45130-02FR0) and fit the blind nuts (at 2 points).
   The blind nuts are *09159-06070 nut and blind rivet.
   Parts shown by oblique lines are not necessary and to be removed.



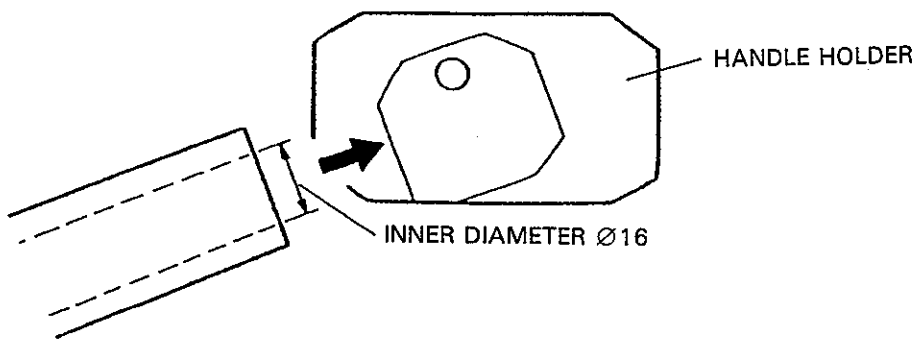
43. SEAT CUSHION

The seat cushion thickness is 10, 15 and 20 mm for the lower one and 10, 20 and 30 mm for the rear one. Attach to the seat cowl according to the desired riding position.

PART NUMBER	PART NAME	CUSHION THICKNESS
45171-33ER0	CUSHION, SEAT, LOWER, T10	10 mm
45171-33EQ0	CUSHION, SEAT, LOWER, T15	15 mm
45171-33EN0	CUSHION, SEAT, LOWER, T20	20 mm
45172-33ER0	CUSHION, SEAT, REAR, T10	10 mm
45172-33EQ0	CUSHION, SEAT, REAR, T20	20 mm
45172-33EN0	CUSHION, SEAT, REAR, T30	30 mm

44. HANDLE BAR

For mounting handle bar, fix the end having thicker bar to handle holder side.



45. KIT ELECTRICAL SYSTEM

45-1. TACHOMETER

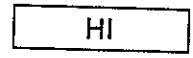
This tachometer is a self-diagnosis system incorporated tachometer.
The liquid crystal display (LCD) part of the tachometer indicates both water temperature and the result of self diagnosis.

1-1. WATER TEMPERATURE INDICATION

Lower than 20°C : "———" will be display in the LCD center. 

20°C to 120°C : Numerals showing each temperature will be lit.

120°C to 140°C : Numerals showing each temperature will flash in one-second cycles.

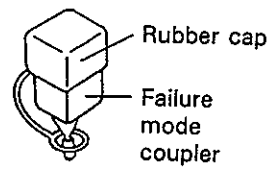
Higher than 140°C: "HI" will be displayed in one-second cycles. 

1-2. OIL TEMPERATURE INDICATOR

Tachometer holder is provided with a space to house a digital oil temperature indicator available in commercial market (Product of YOSHIMURA).

1-3. SELF DIAGNOSIS SYSTEM (DIAGNOSIS)

This FI system determines the fuel injection volume by computing the injection volume with the incorporated computer on the basis of data received from each sensor and injects fuel from the injector. When any failure occurs in this system, the status will be made known to the rider by indicating FI and water temperature alternately in the LCD of the tachometer.



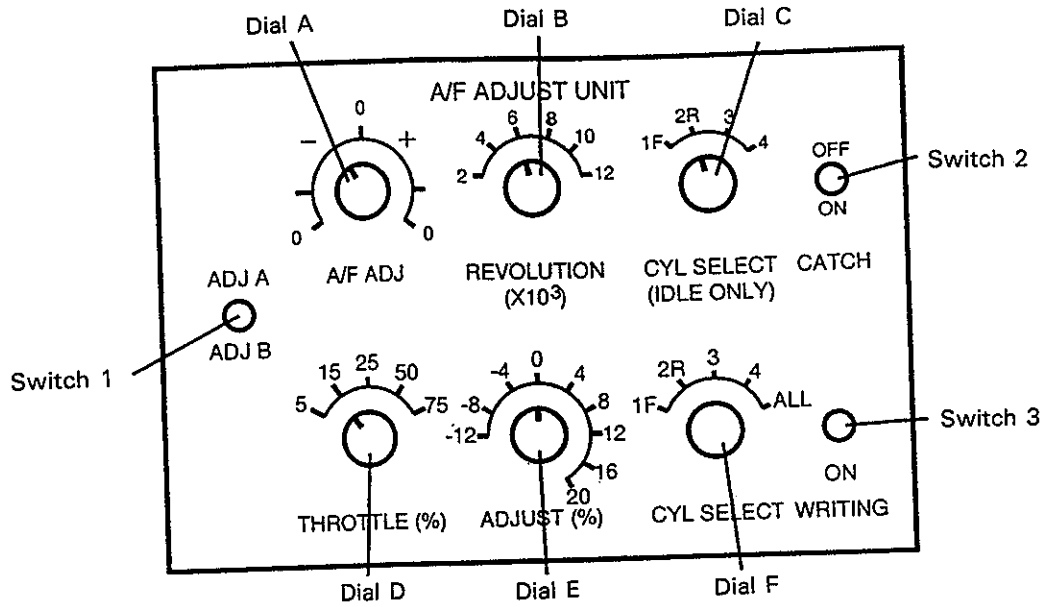
When a failure occurs and FI and water temperature are alternately indicated or FI only is indicated, locate the failure by taking up the following operations.

1) Remove the rubber cap from the coupler for Failure Diagnosis Mode located near the main harness seat rail, then short circuit each terminal, or insert a mode select switch which is provided as one of the special tools into the coupler and place SW to "ON" position. Then, the system comes to Failure Mode status.
2) In this state, crank the engine two or three times by turning on the ignition switch or by using the starter so that Failure Code should be displayed on the tachometer LCD.
3) Locate the failure by referring to Table given below:

Code	Sensor probably in failure	Code	Sensor probably in failure
C00	All sensors in good condition	C23	Fuel cut sensor
C11	Cam position sensor	C24	Ignition coil #1
C12	Signal generator	C25	Ignition coil #2
C13	Air intake pressure sensor	C31	Injector #1 (MAIN)
C14	Throttle position sensor	C32	Injector #1 (SUB)
C15	Water temperature sensor	C33	Injector #2 (MAIN)
C21	Air intake temperature sensor	C34	Injector #2 (SUB)
C22	Atmospheric pressure sensor	C35	Fuel pump, fuel pump relay

45-2. A/F ADJUST UNIT (CONTROL UNIT INJECTION)

This unit is used for connecting the exclusive-use connector for main harness of left side of the vehicle, and by adjusting the unit dial and by writing in the data, the set data for the injection volume of the injector located within ECU can be modified.



2-1. WHEN SWITCH 1 IS TURNED TO "ADJB" (DIAL B, DIAL D, DIAL E AND DIAL F BEING IN USE)

This system permits to modify throttle opening, number of engine turns and injection volume for each cylinder. The injection volume is either increased or decreased by choosing the following parameters.

Throttle opening (%) : 5, 15, 25, 50, 75
Engine number of turns: 2, 4, 6, 8, 10, 12 × 10^3
Cylinders : 1F, 2R, ALL
(ALL: Time of simultaneous switching of all cylinders)
Correction value (%) : +20, +16, +12, +8, +4, 0, −4, −8, −12

Example 1:
Throttle opening : 15%
Engine number of turns: 6 000 rpm
Cylinder selection : ALL
Correction value : +12%

When all cylinders are selected, throttle opening is 15%, and engine number of turns is 6 000 rpm, the injection volume will be increased by 12%.

Example 2:
Throttle opening : 50%
Engine number of turns: 10 000 rpm
Cylinder selection : 1
Correction value : −8%

When #1 cylinder only is selected, throttle opening is 50%, and engine number of turns is 10 000 rpm, the injection volume is decreased by −8%.

2-2. REGARDING SWITCH 2 (CATCH)

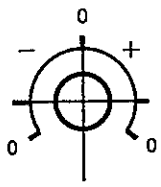
In case data should be re-written in this unit, Switch must be turned to ON side. After writing-in is accomplished, turn it to OFF side without fail for avoiding re-writing errors.

2-3. REGARDING SWITCH 3 (WRITING)

This switch is used for writing the set value of this Unit in ECU microcomputer. When Switch 3 is kept on ON side for about one second after determining each set value, the set value will be written in microcomputer in ECU.
(If this operation is not done, no data will be changed in ECU.)

2-4. IN CASE SWITCH 1 IS TURNED TO "ADJA" SIDE (DIAL A AND DIAL C IN USE)

Idle injection volume can be modified per each cylinder.
Basically no idle adjustment is required, but when it is necessary, adjust in the following manner:



- Idle adjustment is possible only by adjusting each cylinder, one by one. Simultaneous adjustment of all cylinders is not possible.
- Turning the dial to the right from the top position will increase the correction value, thus increasing the mixture richer. On the contrary, when it is turned to the left, the correction value will be decreased making the mixture leaner. As the practical measures, it is recommended to adjust in a range of ±30° from the top position.

When the set value is determined, repeat the operations of Paragraphs 3-2 and 3-3 several times.

2-5. RETURNING TO THE INITIAL STATE (STATE AT THE TIME OF PURCHASING ECU)

ADJ A (Idle adjustment)
Turn fully the dial mentioned in Paragraphs 3-4. to either direction, right or left (to 0 position), set Switch 3 to "ON" and leave it there ("ON" side) for about one second. Repeat this operation for each cylinder.
Then, correction value will become "0" and this puts the unit to initial state.

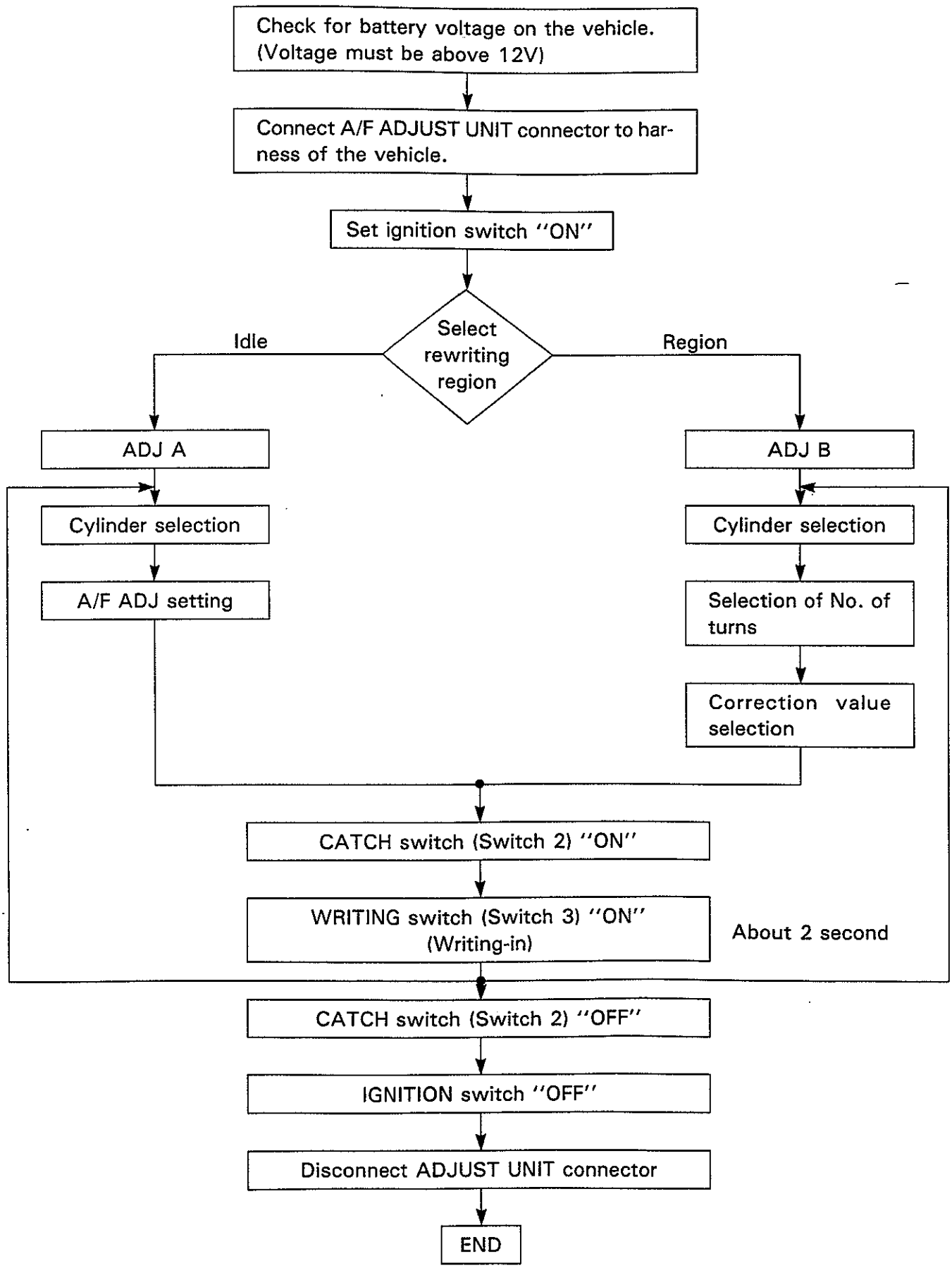
ADJ B
Set cylinder selection to ALL and make correction value "0", then set Switch 2 to ON and hold Switch 3 in "ON" position for one second in order to obtain the desired opening degree and number of turns. This puts the unit to initial state.

2-6. COMPLETION

After completing the above operation, set switch 2 to OFF side and disconnect the coupler of this unit.

NOTE:
When re-writing is made, set the vehicle ignition switch ON and check that the power is supplied and the battery voltage is above 12V.

2-7. DATA RE-WRITING PROCEDURE



46. SETTING PROCEDURE

GENERAL SYMPTOMS OF MIXTURE TOO THIN OR TOO THICK

TOO THICK

① Characteristics are flat, but no sharp clear cut feeling in acceleration and deceleration, and the top performance too easily attained.
② When the engine is warmed up, performance is deteriorated.
③ Engine sound is heavy and dull, and reaction to throttle operation is slow.
④ Ignition plug is stained black.
⑤ Blowing up is slow and lacks power.

TOO THIN

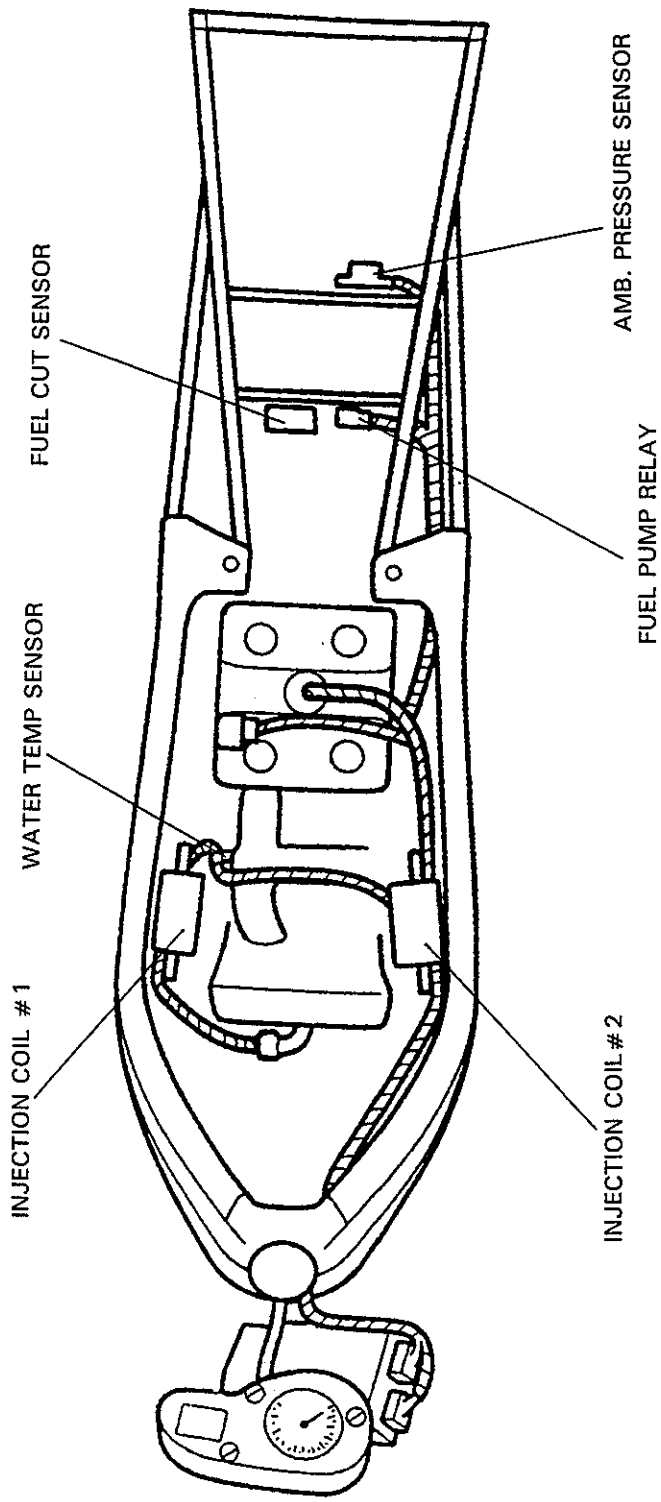
① Feeling of "spread" can be felt, but lacks power and surging occurs during low-speed running.
② Conditions improve when the engine is warmed up.
③ When engine brake is applied, after burning will be produced.
④ Backfiring is produced in the air box.
⑤ Ignition plug is burned white, and is susceptible to overheat.

Throttle opening	Symptoms	Thin or Thick	Setteing			
			SW 1	DIAL D	DIAL E	DIAL F
Full open	Thumping, knocking overheating	Thin	ADJ B	75	Swing to + side	ALL
	Top performance too soon attained, irregular movement, power not enough	Thick	ADJ B	75	Swing to − side	ALL
1/2 ~ 3/4	Thumping, knocking stalling	Thin	ADJ B	50, 75	Swing to + side	ALL
	Tardy, knocking, bad acceleration	Thick	ADJ B	50, 75	Swing to − side	ALL
1/4 ~ 1/2	Thumping, knocking stalling	Thin	ADJ B	25	Swing to + side	ALL
	Tardy, knocking, bad acceleration	Thick	ADJ B	25	Swing to − side	ALL
1/8 ~ 1/4	Thumping, knocking, stalling	Thin	ADJ B	15	Swing to + side	ALL
	Tardy, knocking, bad acceleration	Thick	ADJ B	15	Swing to − side	ALL
Idling	Revolution unstable	Thin	ADJ B	5	Swing to + side	ALL
	Black fume, dull noise	Thick	ADJ B	5	Swing to − side	ALL
Quick closing	Stalling occurs a moment later. After burn, bad returning.	Thin	ADJ B	5	Swing to + side	ALL

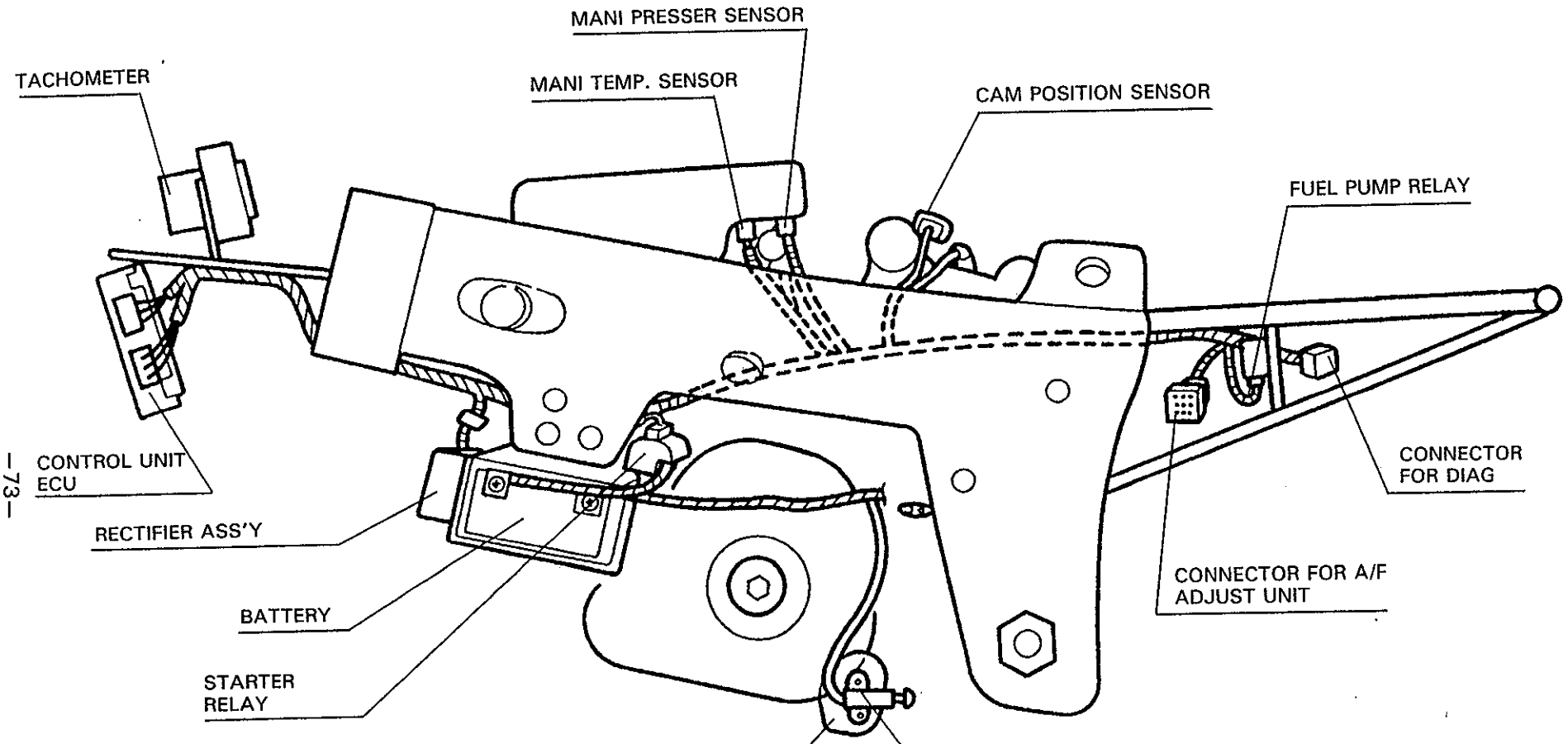
⚠CAUTION

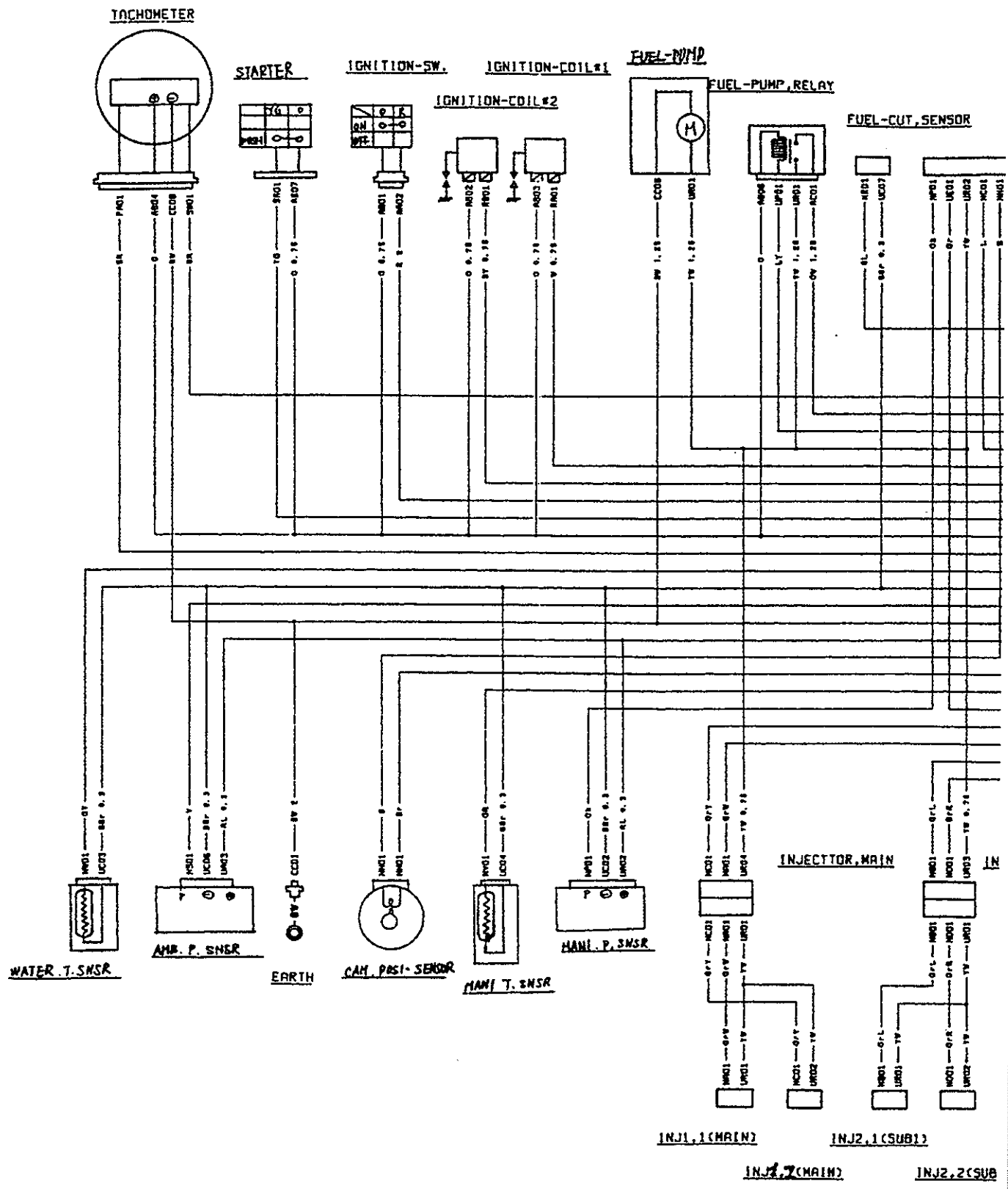
*** The above data are only typical examples, and care must be taken since the same symptoms may be presented with the mixture too thin or too thick.**

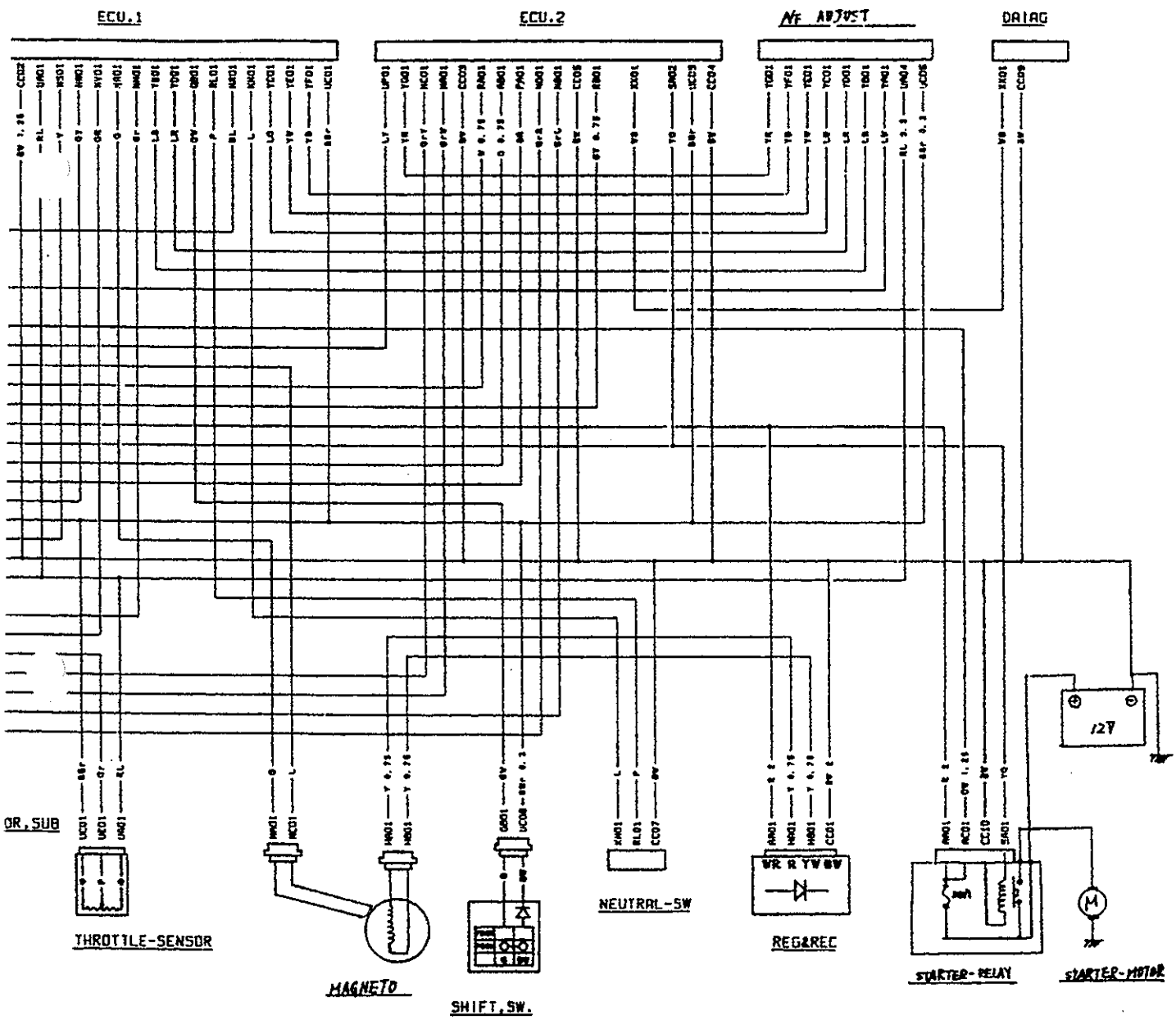
47. KIT HARNESS ASSEMBLING DIAGRAM

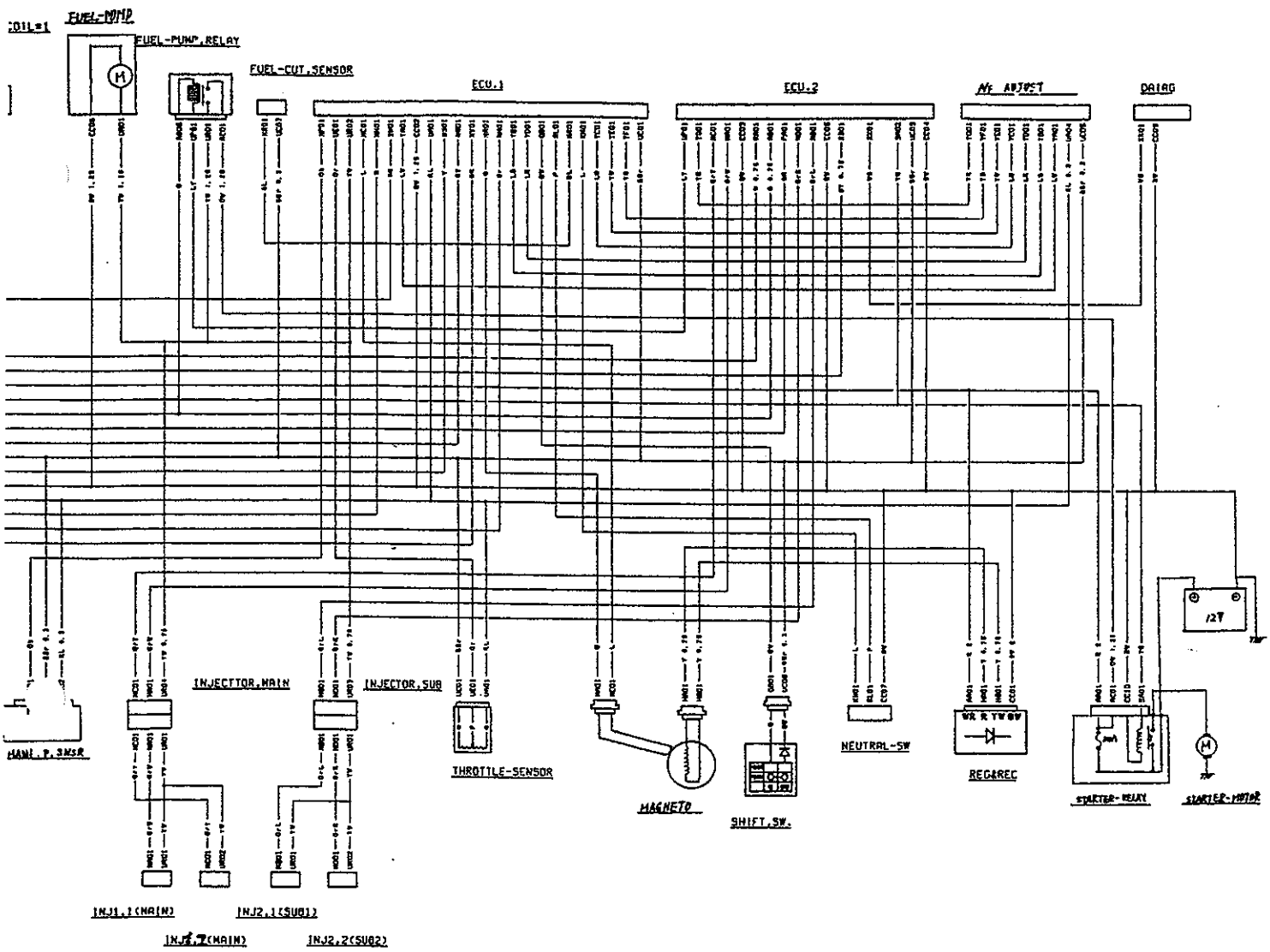


48. KIT ELECTRICAL PARTS LAYOUT SKETCH




TACHOMETER
STARTER
IGNITION-SW.
IGNITION-COIL#1
IGNITION-COIL#2
FUEL-PUMP
FUEL-PUMP,RELAY
FUEL-CUT,SENSOR
WATER T.SNSR
AMB. P. SNSR
EARTH
CAM. POSI-SENSOR
MANI T. SNSR
MANI P.SNSR
INJECTTOR,MAIN
INJ1,1(MAIN)
INJ2,1(SUB1)
INJ1,2(MAIN)
INJ2,2(SUB


ECU.1
ECU.2
Nf ADJUST
DIAG
OR, SUB
THROTTLE-SENSOR
MAGNETO
SHIFT. SW.
NEUTRAL-SW
REG&REC
STARTER-RELAY
STARTER-MOTOR
12V


FUEL-PUMP
FUEL-PUMP.RELAY
FUEL-CUT.SENSOR
ECU.1
ECU.2
A/F ADJUST
DIAG
INJECTOR.MAIN
INJECTOR.SUB
THROTTLE-SENSOR
MAGNETO
SHIFT.SW.
NEUTRAL-SW
REG&REC
STARTER-RELAY
STARTER-MOTOR
12V
INJ1.1(MAIN)
INJ2.1(SUB1)
INJ1.2(MAIN)
INJ2.2(SUB2)

Prepared by

SUZUKI MOTOR CORPORATION

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Spare Parts & Accessories Department
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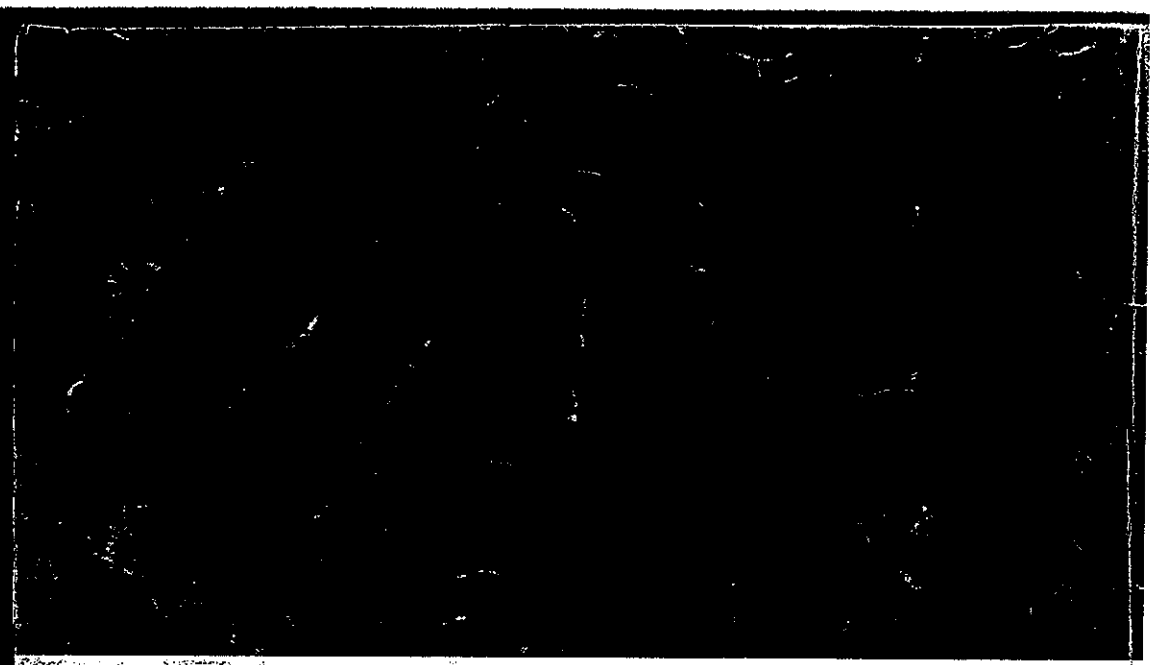

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