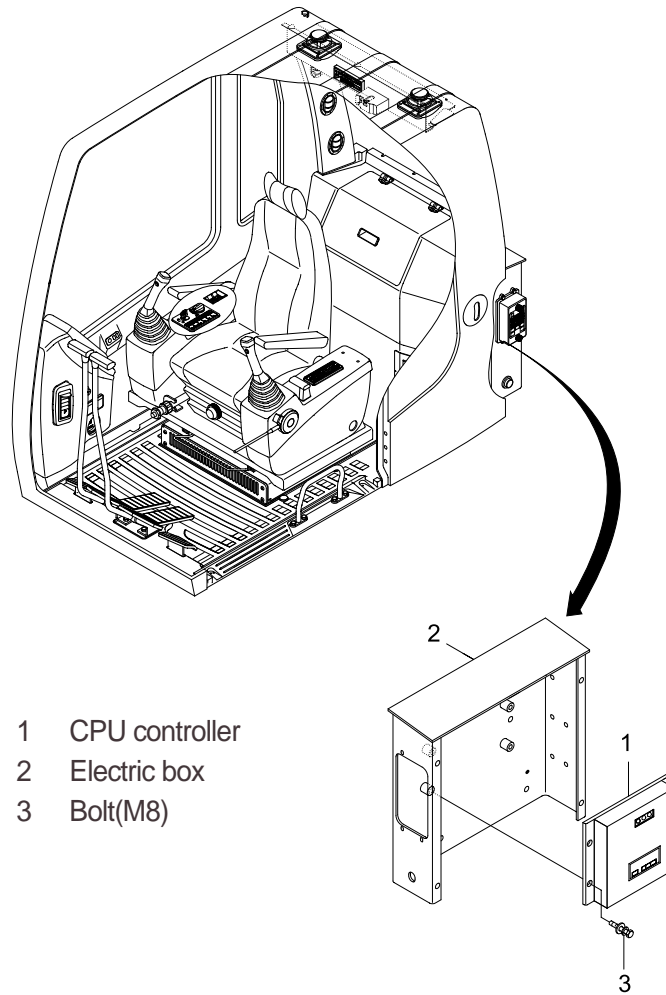


GROUP 10 ENGINE CONTROL SYSTEM

1. CPU CONTROLLER MOUNTING

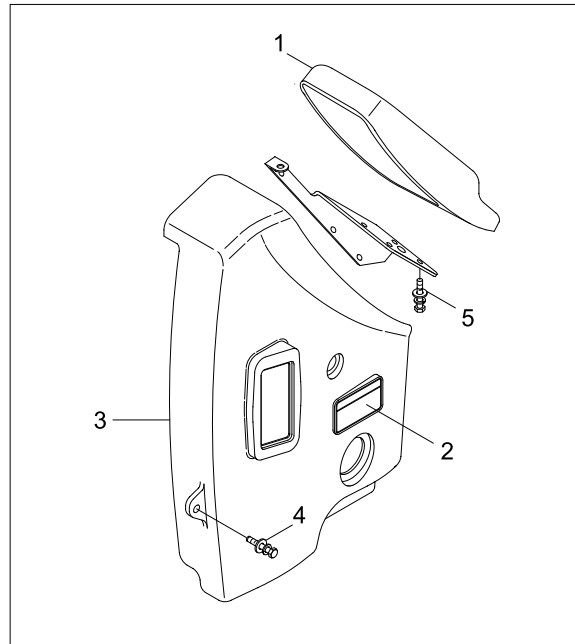


2. CPU CONTROLLER ASSEMBLY

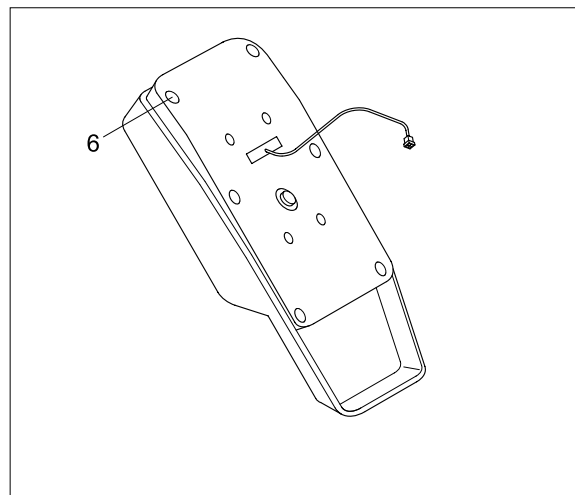
- 1) Remove four pieces of bolt(3) of electric box(2).
- 2) Disconnect 2 connectors from CPU controller.
- 3) Remove 6 pieces of screw and open the cover of CPU controller.
- 4) Inspection : Check PCB(Printed Circuit Board)
 - (1) If any damage is found, replace CPU controller assembly.
 - (2) If not, but CAPO system does not work please report it to HHI dealer or A/S department.

3. EXCHANGE METHOD OF THE ROM

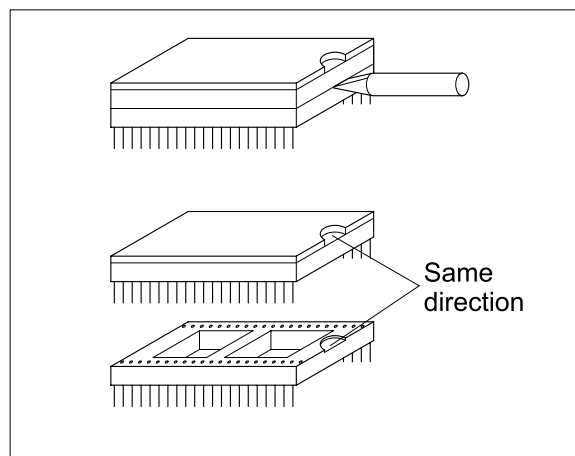
- 1) Disassemble the ash tray(2).
- 2) Disassemble the wiper motor cover(3).
- 3) Disassemble the cluster(1).



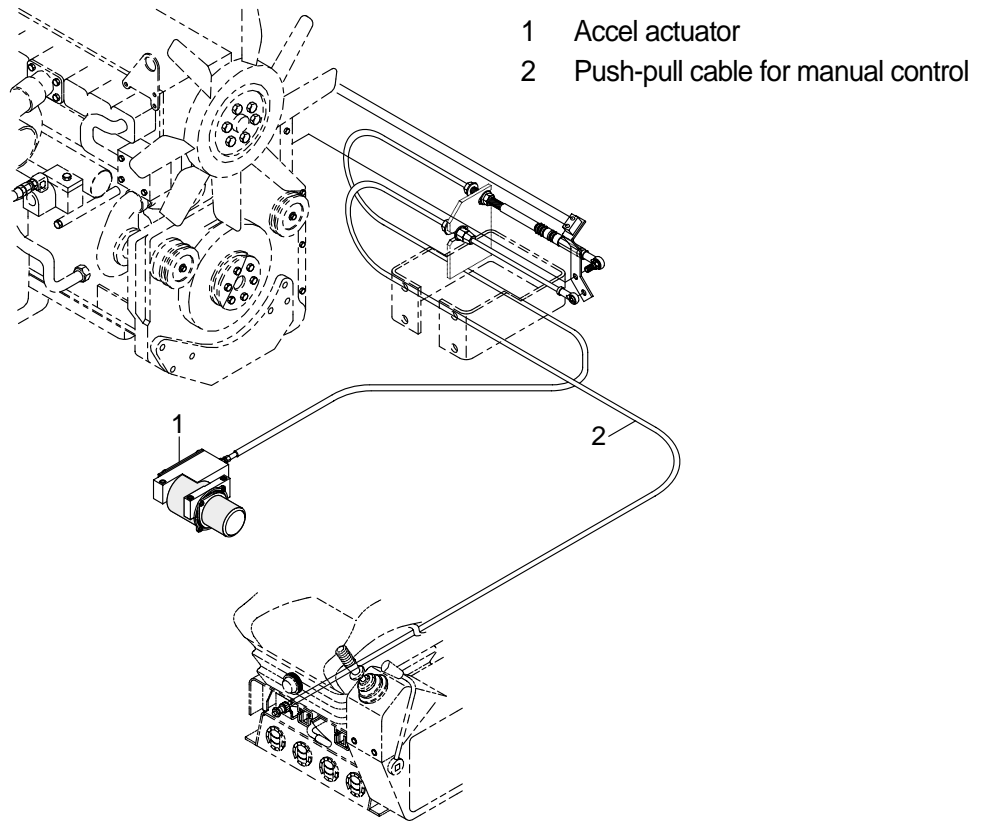
- 4) Loosen the screws(6EA) located back of the cluster.
- 5) Then you can open the upper case of the cluster easily.



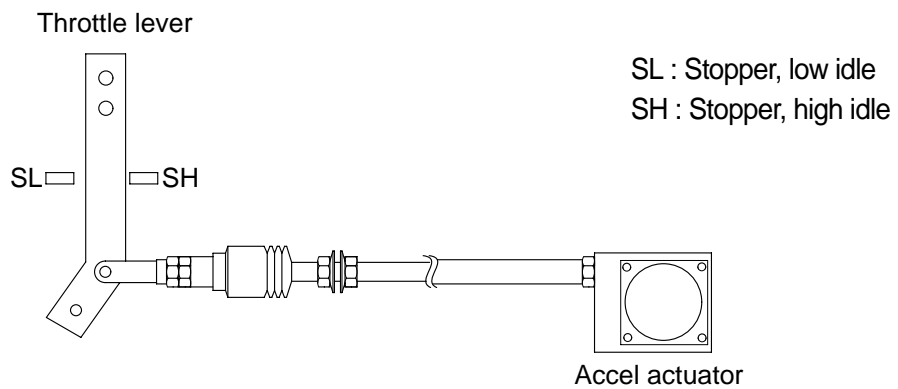
- 6) Install the new ROM.(Be careful of direction and assmelbe the cluster in the reverse order to removal).



4. ENGINE ACCEL ACTUATOR



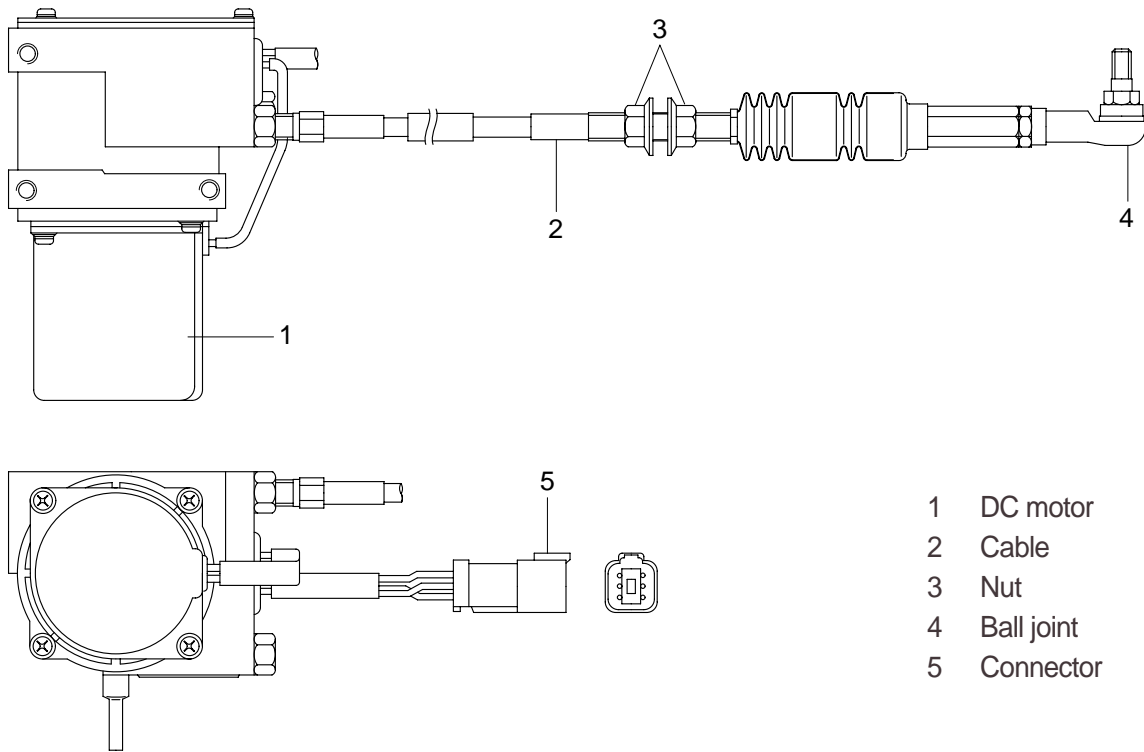
1) ENGINE THROTTLE LEVER



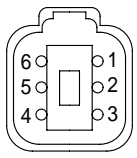
2) EMERGENCY CABLE (Push-pull cable)

It controls engine speed by connecting onto the lever of the injection pump when the malfunction of the CPU controller or the accel actuator happen.

3) ACCEL ACTUATOR



- 1 DC motor
- 2 Cable
- 3 Nut
- 4 Ball joint
- 5 Connector

Connector		
Type	6P, female	
Line color & description	1	White(Potentiometer 5V)
	2	Blue(Potentiometer SIG)
	3	Black(Potentiometer GND)
	4	-
	5	Green(Motor+)
	6	Yellow(Motor -)
Inspection	Check resistance Spec : 1~2 (Between No.5-6) 0.8~1.2k (Between No.1-3)	

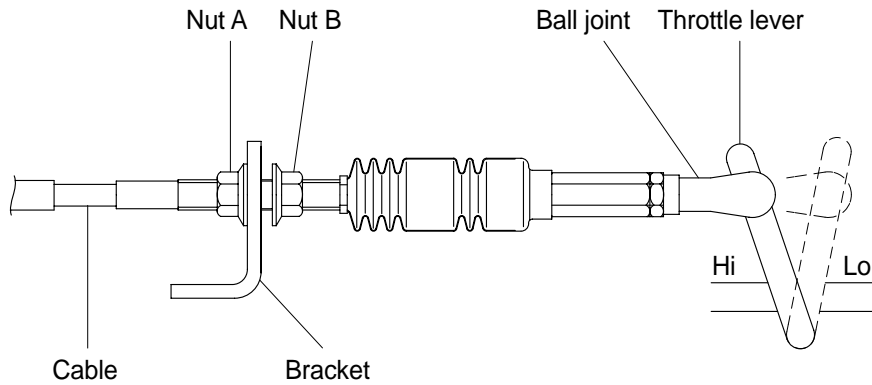
4) ACCEL ACTUATOR CABLE SETTING PROCEDURE

(1) **Key OFF**

- Connect the ball joint of cable to engine throttle lever.
- Pull the cable to high stopper and put nut **A** edge to yoke of the bracket.
- Make throttle lever not contact to the edge of high stopper.
- Turn nut **A** to clockwise until touching to the edge of high stopper.
- Make 1 turn more to clockwise in condition of the nut **A** contact to the edge of high stopper.

(2) **Key START**

- Confirm if the engine speed on cluster is same as each mode specification.
- If the engine speed displayed on cluster is higher than each mode specification, then turn the nut **A** to counter clockwise and make the engine speed same to each mode specification.
- If the engine speed displayed on cluster is lower than each mode specification, then turn the nut **A** to clockwise and make the engine speed same to each mode specification.
- Turn nut **B** to clockwise and fix the cable to bracket.

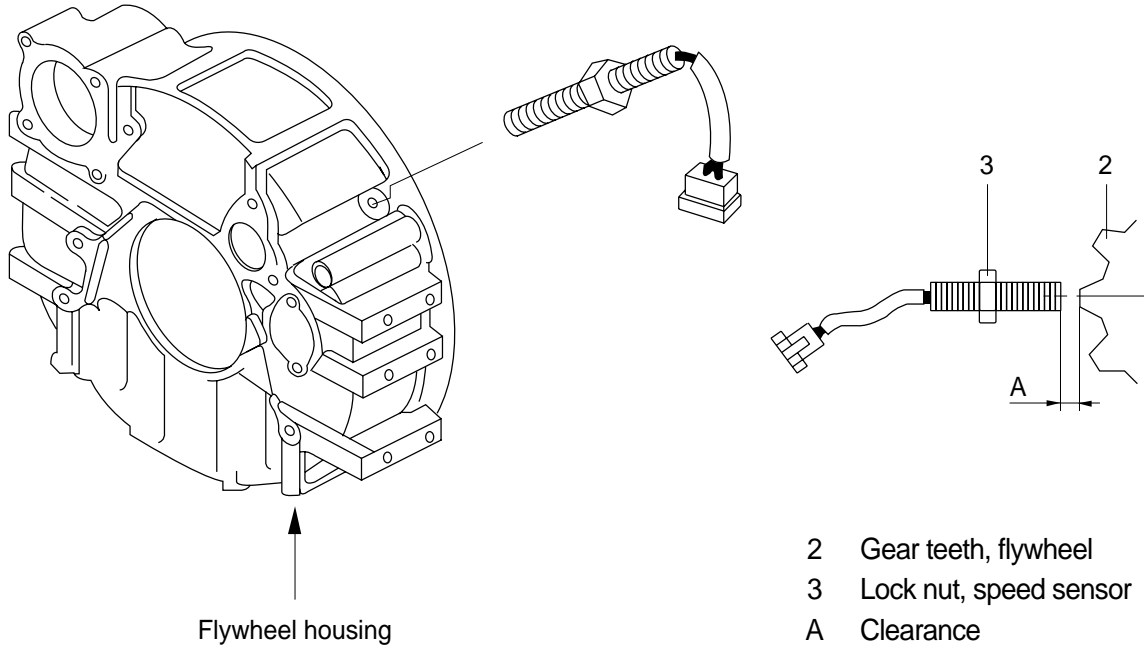


Mode	RPM	
H	2350 ± 50	*2250 ± 50
S	2200 ± 50	*2100 ± 50
Auto decel	1200 ± 100	
Key start	950 ± 100	*850 ± 50

* : TIER-II (#1001-)

5. ENGINE SPEED SENSOR

1) DETECT ACTUAL ENGINE RPM AND SEND SIGNAL TO TACHOMETER



2) INSTALLATION

- (1) Clean contacting point of sensor.
- (2) Loosen lock nut.
- (3) Screw speed sensor into flywheel housing.
- (4) Turn it back 135°, when it contacts with gear teeth.
- (5) Tight lock nut and connect wiring.

3) INSPECTION

- (1) Check resistance
 - SPEC : 300
- (2) Check voltage while engine run.
 - SPEC : 2~28Vac, dependent on the engine speed(rpm)