

[6] TROUBLESHOOTING

(1) Emergency unit

To clarify the cause of trouble of the emergency unit, which is composed of sheathed elements (diode, thyristor, etc.), it is better to follow the steps shown in the troubleshooting chart below than to measure the resistance values between the lead wires of the unit using a circuit tester because measured values may vary depending on the type of the tester (digital, analog, etc.).

■ NOTE

- Before starting the fault finding, do not fail to make sure the grounding cable is properly connected.

Problem	Check Item	Remedy
(Silent type) Monitor informs of a rise in water temperature, but the engine does not stop.	Check the lead wire (Br) (of the 8-pin connector) for breakage or bad contact.	Normal → Replace the emergency unit.
(Silent type) Monitor informs of a fall in oil pressure, but the engine does not stop.	Check the lead wire (W) (of the 8-pin connector) for breakage or bad contact.	Normal → Replace the emergency unit.
(Silent type) Turning on the idle switch with no load applied to the engine does not work. (Engine keeps running at the rated speed.)	Check the idle control switch for defect. Check the lead wire (R) (Br) (of the 2-pin connector) for breakage or bad contact.	Normal → Replace the emergency unit.
(Silent type) Application of load does not allow the engine to run at the rated speed.	Check that the AC sensor works properly when load is applied to it. (Verify that application of load generates slight voltage between the lead wires Or and Gr. If not, check the AC sensor and its peripheral circuits.) Check the lead wire (Or) (Gr) (of the 2-pin connector x 2) for breakage or bad contact.	Normal → Replace the emergency unit.
(Silent type) Turning off the idle switch does not allow the engine to run at the rated speed.	Check the lead wire (R) (Br) (of the 2-pin connector) for breakage or bad contact. Check that the idle switch works properly. Check the lead wire (W/R) (of the 8-pin connector) for breakage (including blown-out fuse) or bad contact. Check that nothing is wrong with the idle and accelerator solenoids themselves. (See page S-34.)	Normal → Replace the emergency unit.
(Silent type) Starter works, but idle and accelerator solenoids don't; engine does not start.	Check the lead wire (R) (of the 8-pin connector) for breakage or bad contact. Check the idle and accelerator solenoid circuits (R/W, W/R) for breakage (including blown-out fuse) or bad contact. Check that nothing is wrong with the idle and accelerator solenoids themselves. (See page S-34.)	Normal → Replace the emergency unit.
(Heavy duty and Silent type) Engine starts, but stops in 15 seconds. (Same results with restarts)	Check that voltage is present in the motor outlet 2-pin connector lead wire (L/W-L/W) when the motor is running. If not, the starter (DC coil) is defective. Check the lead wire connected to the emergency unit (L/W-L/W) for breakage or bad contact. Check that nothing is wrong with the idle and accelerator solenoids themselves. (See page S-34.) Check to see if the monitor informs of a fall in oil pressure or a rise in water temperature.	Normal → Replace the emergency unit.
(Heavy duty type) Engine does not stop by pressing the stop switch.	Check that the stop switch works properly. Check the lead wire between the stop switch and the emergency unit (B/Y) for breakage or bad contact. Check that the stop solenoid works properly. (See page S-34.) Check the lead wire of the stop solenoid (L/W) for breakage (including blown-out fuse) or bad contact.	Normal → Replace the emergency unit.
(Heavy duty type) Monitor informs of a rise in water temperature, but the engine does not stop.	Check the lead wire (Br) (of the 8-pin connector) for breakage or bad contact. Check that the stop solenoid works properly. (See page S-34.) Check the lead wire of the stop solenoid (L/W) for breakage (including blown-out fuse) or bad contact.	Normal → Replace the emergency unit.
(Heavy duty type) Monitor informs of a fall in oil pressure, but the engine does not stop.	Check the lead wire (W) (of the 8-pin connector) for breakage or bad contact. Check that the stop solenoid works properly. (See page S-34.) Check the lead wire of the stop solenoid (L/W) for breakage (including blown-out fuse) or bad contact.	Normal → Replace the emergency unit.