

VOLTAGE REGULATOR AND EG2 INTERFACE DESCRIPTION

This document is to inform the service technician on the function and test procedures of the voltage regulator outputs to the EG-2 emergency unit and on testing the operation of the safety shutdown systems.



● Voltage Regulator



● EG-2 Emergency Unit

Testing Voltage Regulator Outputs to EG-2

1. Test Preparations:

- Disconnect the Yellow/White & White/Red wires; this is a bullet type connection, Fig. 1.
- Remove the White/Green wire from the CN1 plug by the following method:
 - Disconnect the CN1 plug from the voltage regulator plug, Fig. 2.
 - CN1 plug (Terminal end): Use a terminal tool pick to disengage and hold the wire terminal's lock tab disengaged while pulling the White/Green wire/terminal from the CN1 connector, Fig. 3.
 - Reconnect the CN1 and voltage regulator plugs.
- The engine should start and run normally with these wires disconnected.
- The charging system should be operational with these wires disconnected as well, engine running/high speed approx. 14V+ at battery terminals.

Note: Battery voltage condition at time of tests:

- Engine off, battery voltage at 12.5V
- Engine running/high speed, battery voltage 14.6V

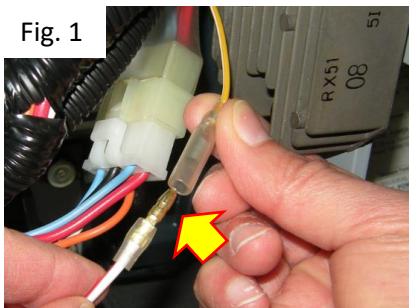
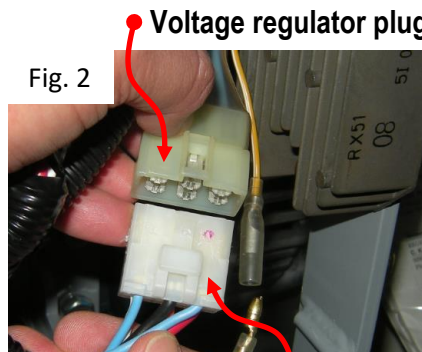


Fig. 1



● Voltage regulator plug

Fig. 2

● CN1 Plug

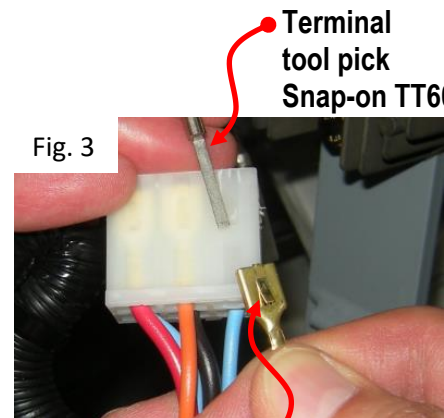


Fig. 3

● Terminal tool pick
Snap-on TT600-5

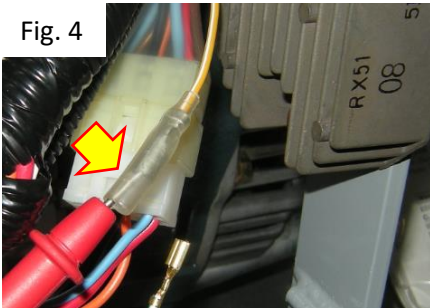
● Wire terminal & tab

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2. V-regulator voltage test (probe Yellow/White wire, + test lead), (- test lead to ground), Fig. 4:

- Key switch OFF = 0V
- Key switch RUN/Engine OFF = 11.6V... actual voltage may vary
- Pre heat = 10.6V... actual voltage may vary
- Key switch RUN/Engine running/high speed = 0V

Fig. 4



3. V-regulator voltage test (back probe Brown wire, + test lead), (- test lead to ground), Fig. 5:

- Key switch OFF = 0V
- Key switch RUN/Engine OFF = 11V... actual voltage may vary
- Pre heat = 10.3V... actual voltage may vary
- Key switch RUN/Engine running/high speed (12.5 ~ 14V+)
- After completing test, disconnect the CN1 & V-regulator plugs and reinstall the white/green wire, Fig.6
- Reconnect the CN1 & V-regulator plugs and proceed to step 4

Fig. 5

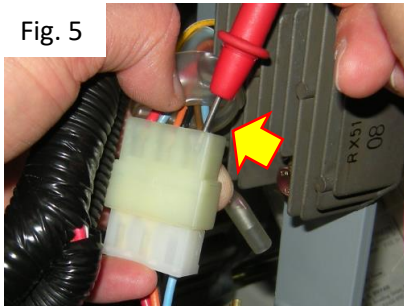
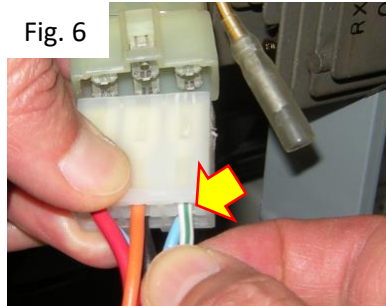


Fig. 6



4. V-regulator voltage test (back probe Brown wire, + test lead), (- test lead to ground), Fig. 5:

- Key switch OFF = 0V
- Key switch RUN/Engine OFF = .9V... actual voltage may vary
- Pre heat = .9V... actual voltage may vary
- Key switch RUN/Engine running/high speed (12.5~14V+)

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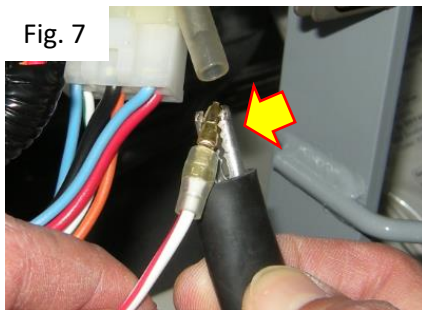
Safety Shutdown tests:

1. EG2 Safety shutdown test:

- Start the engine/high speed
- Apply jumper wire from batt + to White/Red wire of EG2, Fig. 7
- Engine should shut down in approx. 3 seconds

2. V-Regulator & EG2 Safety shutdown test:

- Reconnect Yellow/White & White/Red wires/bullet connection
- Monitor voltage at Yellow/White & White/Red bullet connection by (+ test lead), (- test lead to ground), Fig. 8
- Start the engine/high speed
- Disconnect one of the Light Blue charging generator wires/bullet connection, Fig. 8
- Engine should shut down in approx. 3 seconds
- Should see approx. 11.6V at Yellow/White & White/Red bullet connection during shutdown



DA & DAC7000SS, SSA, SSW, WGH, SSA2, SSA2GH

