

[Previous Screen](#)

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Troubleshooting

EMCP 3

Media Number -RENR7902-01

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i02464689

Generator Reverse Power Warning

SMCS - 4490

System Operation Description:

If the current rises above the Generator Reverse Power Percentage Threshold setpoint value, then the reverse power timer will begin timing. When the timer expires, the Generator Reverse Power event is made active (if the current has been above the threshold level continuously while timing). If the current drops below the Generator Reverse Power Percentage Threshold, then the Generator Reverse Power event will be made inactive and the timer will be reset.

If a reverse power condition is detected, "GEN REVERSE POWER SHUTDOWN" or "GEN REVERSE POWER WARNING" will be displayed on the EMCP 3 in order to inform the operator of a reverse power condition.

Note: The severity of the reverse power condition will determine if a warning or shutdown event occurs.

Conditions Which Generate This Code:

The code for generator reverse power is generated when the EMCP 3 determines that a generator reverse power condition has occurred.

Test Step 1. TALK TO THE OPERATOR

- A. Determine the conditions that caused the reverse power condition.

Expected Result:

A reverse power was caused by an occurrence known to the operator and the operator would like to put the genset back into service.

Results:

- **OK** - The operator can determine the cause for the reverse power condition, the condition has

been repaired and the operator wants to put the genset back into service.

Repair: Reset the genset. Resume normal operation and verify that the problem has been corrected.

STOP

- **NOT OK** - The reverse power condition was not caused by an occurrence known to the operator. Proceed to Test Step 2

Test Step 2. CHECK THE SETPOINTS.

- A. View the Generator Reverse Power setpoints. Make a note of the setpoints. See Testing and Adjusting, "Electronic Control Module (Generator Set) - Configure". Compare the setpoints against the default setpoints of the particular generator set.

Expected Result:

The setpoints are correct.

Results:

- **OK** - The setpoints are correct for your particular genset. Proceed to Test Step 3.
- **NOT OK** - The setpoints are NOT correct.

Repair: Reprogram the setpoints. Reset the genset. Resume normal operation and verify that the problem has been corrected.

STOP

Test Step 3. CHECK THE POLARITY OF THE CURRENT TRANSFORMERS

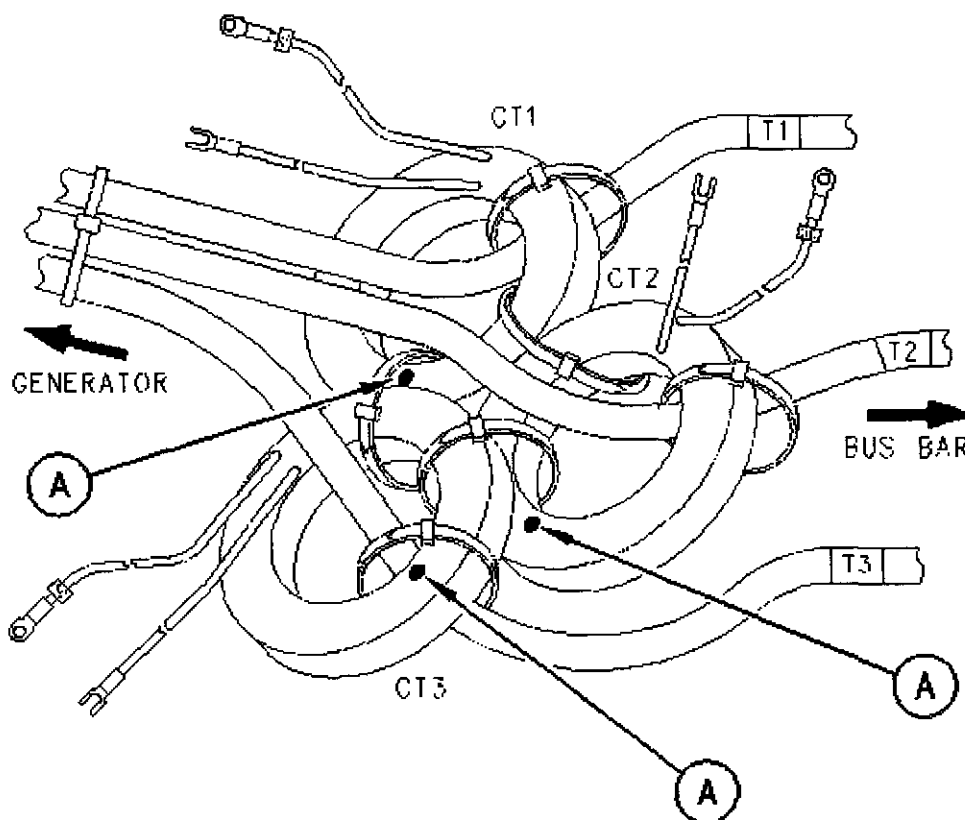


Illustration 1

g00607036

(A) Current Transformer Polarity Dot

- A. Press the STOP key in order to shut down the engine.
- B. Check the polarity of the current transformers. The polarity dots on all of the transformers should be towards the genset. Refer to Illustration 1.

Expected Result:

The polarity of the current transformers should be correct.

Results:

- **OK** - The polarity of the current transformers is correct.

Repair: It is unlikely that the EMCP 3 has failed. Exit this procedure and perform this procedure again. If the diagnostic code is still present, then replace the EMCP 3. Refer to Testing and Adjusting, "Electronic Control Module (Generator Set) - Replace".

STOP

- **NOT OK** - The polarity of the current transformers is NOT correct.

Repair: Install the current transformers as shown on the wiring diagram for your particular genset. Reset the genset. Resume normal operation and verify that the problem has been corrected.

STOP

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