

# GE ZENITH Controls

<b>Replace the Rectifier</b>	
<b>Purpose:</b>	To replace a defective Rectifier.
<b>When:</b>	When directed by a service order.

<b>Required Tools &amp; Equipment:</b>	
Basic electricians hand tools	PPE
Multimeter Digital or Analog	Rubber insulating gloves class 0
Rectifier	Safety glasses
	Electrical hazard safety shoes


 <b>Danger</b>
<b>HAZARDOUS VOLTAGE</b> <b>Can Cause Severe Injury or Death</b> Ensure before the enclosure is opened, you must lockout all energy sources to the ATS.

<b>Do These Steps:</b>
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1. *Obtain* the proper documentation.
2. *Open* the front Enclosure.
3. *Place* the disconnect switch to “Inhibit”.

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4. *Disable* the generator start-up circuit.

 **Danger**

**HAZARDOUS VOLTAGE  
Can Cause Severe Injury or Death**

On systems with multiple ATS's connected to a single generator, you must lockout all energy sources to the ATS, before continuing on.

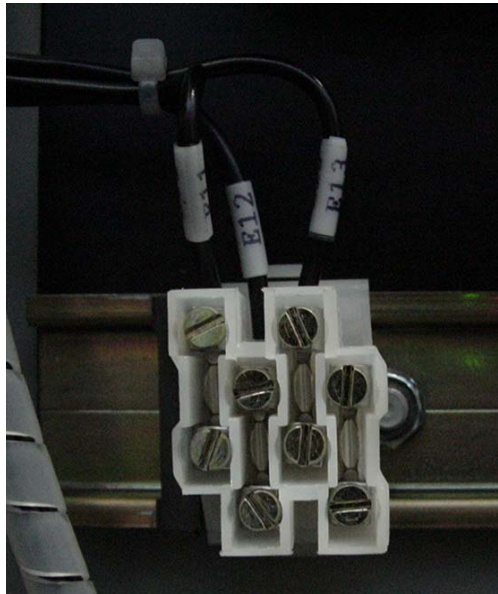


Figure 1.

5. *Disconnect* Main Power
6. *Verify* zero volts across each phase.

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7. Remove the DC "Fast on" connections from the rectifier terminals.

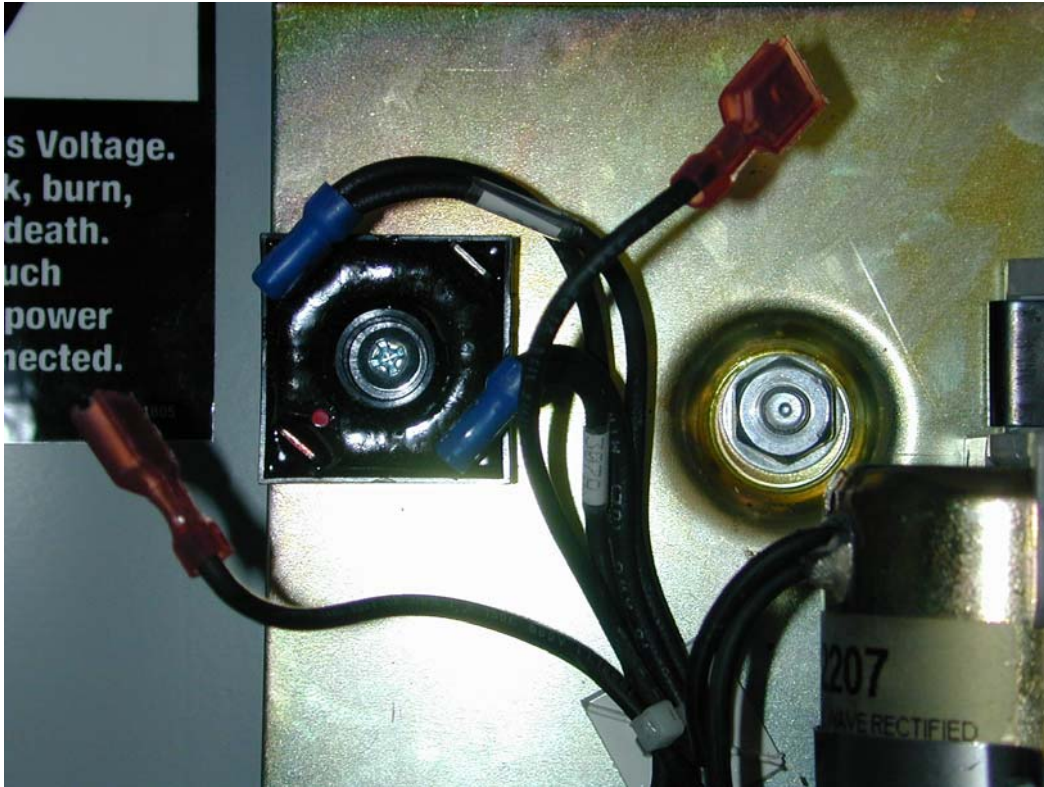


Figure 2.

8. Remove the AC "Fast on" connections from the AC terminals of the rectifier.

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9. Check the diode operation of the rectifier.



Figure 2.

If the rectifier is:	Then
Good	Go to step 29.
Bad	Continue on.

10. Remove the rectifier.

11. Install the rectifier

**Note:** the red dot should be in the upper right corner.

12. Connect the AC “fast on” connections to the AC terminals.

**Note:** the AC terminals are in the upper left and lower right hand corners.

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13. Connect the DC “Fast on” connections to the DC terminals of the rectifier.

**Note:** the DC terminals are in the lower left and upper right hand corners.

14. Clean the inside of the ATS

15. *Energize* the ATS.

16. *Enable* the generator start-up.

17. *Place* the disconnect switch to “Auto”.

18. *Close* the enclosure.

19. *Push and hold* the test pushbutton.

**Note:** After the time delay switch should automatically transfer to the emergency position.



Figure 3.

20. Release the test pushbutton.

**Note:** Once you release the test pushbutton and after the time delay, the ATS should return to the normal position.

21. *Clean-up* the area.

22. *Complete* the Service Report.

23. *Send* Reports to GE Zenith Controls.

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You know you are completed when:

- The transfer switch is secured and operating properly.
- The tools are stored.
- The reports are completed.