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## Tech Note 080213\_01

**Date:** August 2, 2013  
**Subject:** 0-10VDC Ballast Test Procedure  
**Product:** Zone Control (ZC) and Satellite  
**Note:** Recommended 0-10VDC Ballast Test Procedure prior to controller termination.

Prior to the following tests, the installer should review product documentation from the 0-10VDC dimming ballast manufacturer.

### Part 1: At Each Ballast:

1. Verify that 10VDC is measured between the Violet and Grey control leads.  
A reading other than 10VDC (+ or – 1%) may indicate a defect in the ballast, an open control lead, or a shorted control lead. Resolve before continuing the test procedure.
2. If proper voltage is measured at the ballast control leads, short the Violet and Grey control leads together and confirm that the lamps dim to the minimum level for that ballast.  
Lamps that do not dim to the minimum level may indicate a defective lamp, a miswired lamp socket, defective ballast, or a miswired control lead. Resolve before continuing the test procedure.
3. Next, un-short the Violet and Grey control leads and confirm that the lamps achieve full light output.  
Lamps that do not achieve full light output may indicate a defective lamp, a miswired lamp socket, defective ballast, or a miswired control lead. Resolve before continuing the test procedure.
4. Finally, connect the control leads of all the ballasts that belong to the same channel making sure to maintain polarity throughout. All Violet colored control leads shall be connected together, and all Grey colored control leads shall be connected together. Stars and t-taps are allowed.

### Part 2: At the Blue Ridge Zone Control (ZC) or Satellite:

1. Verify that 10VDC is measured between the Violet and Grey control leads.  
A reading other than 10VDC (+ or – 1%) may indicate a defect in the ballast, an open control lead, or a shorted control lead. Resolve before continuing the test procedure.
2. If proper voltage is measured at the end of the control leads, short the Violet and Grey control leads together and confirm that the lamps dim to the minimum level for that ballast.  
Lamps that do not dim to the minimum level may indicate a defective lamp, a miswired lamp socket, defective ballast, or a miswired control lead. Resolve before continuing the test procedure.
3. Next, un-short the Violet and Grey control leads and confirm that the lamps achieve full light output.  
Lamps that do not achieve full light output may indicate a defective lamp, a miswired lamp socket, defective ballast, or a miswired control lead. Resolve before continuing the test procedure.
4. Finally, connect the end of the control leads to the ZC / Satellite making sure to maintain polarity at the terminals. The Violet colored control leads shall be connected to AO-1V, AO-2V, etc... and the Grey colored control leads shall be connected to AO-1G, AO2G, etc...

Test Procedure is Complete