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## **20-622 Steering Voltage Adjustment Procedure.**

### **Overview:**

The Condensor and Objective steering voltages in the 20-622 need to be adjusted periodically for optimal image stability. Following this procedure will ensure that the steering voltages are operating properly and also that they are properly balanced.

### **Summary Table:**

<b>J3 Pin</b>	<b>Description</b>	<b>Offset Pot</b>	<b>Gain Pot</b>	<b>Deflection Bd. Pin</b>	<b>Lens Bd. Pin</b>
<b>A</b>	COND X	<b>R 27</b>	<b>R 25</b>	Defl 1 pin 8	58
<b>C</b>	COND X	R 27	R 25	Defl 1 pin 10	58
<b>B</b>	COND Y	<b>R 23</b>	<b>R 22</b>	Defl 1 pin 62	50
<b>D</b>	COND Y	R 23	R 22	Defl 1 pin 64	50
<b>E</b>	OBJ X	<b>R 36</b>	<b>R 35</b>	Defl II pin 7	66
<b>G</b>	OBJ X	R36	R 35	Defl II pin 9	66
<b>F</b>	OBJ Y	<b>R 34</b>	<b>R 33</b>	Defl II pin 61	56
<b>H</b>	OBJ Y	R 34	R 33	Defl II pin 63	56

### **1. Procedure:**

#### **2. Turn OFF the 20-610 30kV High Voltage Supply.**

3. Remove the 20-622 from the electronic console and extend the Lens control card (second board from the top). Support the board so that it is level with a non-conductive object. Remove all cables going to the 20-622 except for the power and the 40 pin ribbon cable between the PC147.
4. Connect a DVM between pins A and C on the J3 COND & OBJ Steering connector on the back of the 20-622.
5. Turn on the 20-622 and in AugerMap **set the Beam voltage to 20kV** (10kV for a 20-620) and also set the COND X steering to 50% (mid-range).
6. Adjust R 27 on the lens control board for zero volts on the DVM.
7. Set the COND X steering to 100% and adjust R 25 for 250.0 volts DC.
8. Connect the DVM between pins B & D on J3.
9. Set the COND Y steering to 50% and adjust R 23 for zero volts.
10. Set the COND Y steering to 100% and adjust R 22 for 250.0 volts DC.
11. Connect the DVM between pins E & G on J3.

12. Set the OBJ X steering to 50% and adjust R 36 for zero volts.
13. Set the OBJ X steering to 100% and adjust R 35 for 250.0 volts DC.
14. Connect the DVM between pins F and H on J3.
15. Set the OBJ Y steering to 50% and adjust R 34 for zero volts.
16. Set the OBJ Y steering to 100% and adjust R33 for 250.0 volts DC.
17. Set the COND X, COND Y, OBJ X and OBJ Y steering to 50%.
18. Set the Beam Voltage to 3kV.
19. Check each pin again with respect to the chassis. They should all be zero volts with-in 50 mV DC and be stable. If they are not stable, the 7541 Dacs or 208H opamps on the error control board are usually the problem.

**Calibration Complete.**

### **J3 COND & OBJ STEERING CONNECTOR**

