ALIGNMENT INSTRUCTIONS - READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

ALIGNMENT INSTRUCTIONS

1. MEASUREMENTS - READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Allow a 15 minute warm-up period for the equipment before attempting alignment.

The high voltage lead should be securely attached and kept away from the chassis. Do not remove the horizontal deflection lead (VHD) to change the cathode resistor.

Connect the negative lead of your test voltmeter from the negative terminal of the horizontal deflection section. Apply 0 VDC on the horizontal deflection section. Apply 10 VDC on the horizontal deflection section.

2. ADJUSTMENTS

- **AGC MODE:**
  - GAIN (AGC)
  - CONTROL (AGC)
  - CONNECT (AGC)
  - LOFT (AGC)
  - CHAIN (AGC)

- **VU METERS (VU):**
  - CHAIN (VU)
  - LOFT (VU)

- **VERTICAL DEFLECTION (VERT):**
  - GAIN (VERT)
  - CONTROL (VERT)
  - CONNECT (VERT)
  - LOFT (VERT)

- **HORIZONTAL DEFLECTION (HOR):**
  - GAIN (HOR)
  - CONTROL (HOR)
  - CONNECT (HOR)
  - LOFT (HOR)

- **SYNC (SYNC):**
  - GAIN (SYNC)
  - CONTROL (SYNC)
  - CONNECT (SYNC)

- **VHF:**
  - DC output on link to VHF (VHF)
  - Connect to VHF (VHF)

- **REF:**
  - DC output on link to VHF (REF)
  - Connect to VHF (REF)

3. EMISSIONS

- **BEFORE:**
  - CHAIN (BEFORE)
  - LOFT (BEFORE)
  - CHAIN (BEFORE)

- **EML:**
  - CHAIN (EML)
  - LOFT (EML)

- **SYNC:**
  - CHAIN (SYNC)
  - LOFT (SYNC)

- **VHF:**
  - CHAIN (VHF)
  - LOFT (VHF)

- **REF:**
  - CHAIN (REF)
  - LOFT (REF)

4. RDIF CIRCUITS

- **RDIF (RDIF):**
  - CHAIN (RDIF)
  - LOFT (RDIF)

5. INTERRUPTER CIRCUITS

- **INTERRUPTER (INT):**
  - CHAIN (INT)
  - LOFT (INT)

6. GROUND (GROUND)

- **GROUND (GROUND):**
  - CHAIN (GROUND)
  - LOFT (GROUND)

7. COMPONENTS

- **COMPONENTS (COMPONENTS):**
  - CHAIN (COMPONENTS)
  - LOFT (COMPONENTS)

8. CHECKS

- **CHECKS (CHECKS):**
  - CHAIN (CHECKS)
  - LOFT (CHECKS)

9. TROUBLESHOOTING

- **TROUBLESHOOTING (TROUBLESHOOTING):**
  - CHAIN (TROUBLESHOOTING)
  - LOFT (TROUBLESHOOTING)

10. FACTORS

- **FACTORS (FACTORS):**
  - CHAIN (FACTORS)
  - LOFT (FACTORS)

11. Q.R.F.

- **Q.R.F. (Q.R.F.):**
  - CHAIN (Q.R.F.)
  - LOFT (Q.R.F.)

12. G.R.F.

- **G.R.F. (G.R.F.):**
  - CHAIN (G.R.F.)
  - LOFT (G.R.F.)

13. V.R.F.

- **V.R.F. (V.R.F.):**
  - CHAIN (V.R.F.)
  - LOFT (V.R.F.)

14. M.R.F.

- **M.R.F. (M.R.F.):**
  - CHAIN (M.R.F.)
  - LOFT (M.R.F.)

15. W.R.F.

- **W.R.F. (W.R.F.):**
  - CHAIN (W.R.F.)
  - LOFT (W.R.F.)

16. N.R.F.

- **N.R.F. (N.R.F.):**
  - CHAIN (N.R.F.)
  - LOFT (N.R.F.)

17. R.F.

- **R.F. (R.F.):**
  - CHAIN (R.F.)
  - LOFT (R.F.)

18. T.F.

- **T.F. (T.F.):**
  - CHAIN (T.F.)
  - LOFT (T.F.)

19. A.F.

- **A.F. (A.F.):**
  - CHAIN (A.F.)
  - LOFT (A.F.)

20. S.F.

- **S.F. (S.F.):**
  - CHAIN (S.F.)
  - LOFT (S.F.)

21. P.F.

- **P.F. (P.F.):**
  - CHAIN (P.F.)
  - LOFT (P.F.)

22. K.F.

- **K.F. (K.F.):**
  - CHAIN (K.F.)
  - LOFT (K.F.)

23. J.F.

- **J.F. (J.F.):**
  - CHAIN (J.F.)
  - LOFT (J.F.)

24. I.F.

- **I.F. (I.F.):**
  - CHAIN (I.F.)
  - LOFT (I.F.)

25. F.F.

- **F.F. (F.F.):**
  - CHAIN (F.F.)
  - LOFT (F.F.)

26. G.F.

- **G.F. (G.F.):**
  - CHAIN (G.F.)
  - LOFT (G.F.)

27. H.F.

- **H.F. (H.F.):**
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  - LOFT (H.F.)

28. D.F.

- **D.F. (D.F.):**
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29. E.F.

- **E.F. (E.F.):**
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  - LOFT (E.F.)

30. C.F.

- **C.F. (C.F.):**
  - CHAIN (C.F.)
  - LOFT (C.F.)

31. B.F.

- **B.F. (B.F.):**
  - CHAIN (B.F.)
  - LOFT (B.F.)

32. A.B.

- **A.B. (A.B.):**
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  - LOFT (A.B.)

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- **D.B. (D.B.):**
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  - LOFT (D.B.)

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  - LOFT (C.D.)

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  - LOFT (B.D.)

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  - LOFT (A.D.)

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  - LOFT (D.A.)

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- **C.A. (C.A.):**
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  - LOFT (C.A.)

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- **B.A. (B.A.):**
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  - LOFT (B.A.)

40. A.A.

- **A.A. (A.A.):**
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  - LOFT (A.A.)

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- **D.A. (D.A.):**
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  - LOFT (D.A.)

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- **D.A. (D.A.):**
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  - LOFT (D.A.)

46. C.A.

- **C.A. (C.A.):**
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  - LOFT (C.A.)

47. B.A.

- **B.A. (B.A.):**
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  - LOFT (B.A.)

48. A.A.

- **A.A. (A.A.):**
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  - LOFT (A.A.)

49. D.A.

- **D.A. (D.A.):**
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  - LOFT (D.A.)

50. C.A.

- **C.A. (C.A.):**
  - CHAIN (C.A.)
  - LOFT (C.A.)

51. B.A.

- **B.A. (B.A.):**
  - CHAIN (B.A.)
  - LOFT (B.A.)

52. A.A.

- **A.A. (A.A.):**
  - CHAIN (A.A.)
  - LOFT (A.A.)

53. D.A.

- **D.A. (D.A.):**
  - CHAIN (D.A.)
  - LOFT (D.A.)

54. C.A.

- **C.A. (C.A.):**
  - CHAIN (C.A.)
  - LOFT (C.A.)

55. B.A.

- **B.A. (B.A.):**
  - CHAIN (B.A.)
  - LOFT (B.A.)

56. A.A.

- **A.A. (A.A.):**
  - CHAIN (A.A.)
  - LOFT (A.A.)

57. D.A.

- **D.A. (D.A.):**
  - CHAIN (D.A.)
  - LOFT (D.A.)

58. C.A.

- **C.A. (C.A.):**
  - CHAIN (C.A.)
  - LOFT (C.A.)

59. B.A.

- **B.A. (B.A.):**
  - CHAIN (B.A.)
  - LOFT (B.A.)

60. A.A.
MISCELLANEOUS ADJUSTMENTS

MISCELLANEOUS ADJUSTMENTS (cont.)

DC CONVERGENCE ADJUSTMENTS

Close the 50 terminal of a white dot generator across the screen terminals.

Turn the horizontal dynamic convergence control fully counter clockwise.

Turn the vertical dynamic convergence control in its full range to obtain the white dot generator image.

Position the convergence magnets until the red, blue, and green dots of both the horizontal and vertical center are aligned as closely as possible.

Reset the convergence magnets to the center position for full range convergence to occur.

Final positioning of the convergence magnets should not cause the image to cease to the left of the picture tube or become too dark.

DYNAMIC CONVERGENCE ADJUSTMENTS

Lay the white dot generator on a table in a dark room.

During adjustment of dynamic convergence, it may be helpful to frequently test the DC convergence control to obtain best convergence of various parts of the screen.

Adjust the vertical convergence magnets so that the red dot along the center of the vertical line remains true to the left and right.

Adjust the DC convergence control so that the red dot remains true to the left and right.

Adjust the horizontal convergence magnets so that the white dot generator image is centered as closely as possible.

WHITE ADJUSTMENT

Disconnect generator from screen.

Turn the brightness control to midrange.

Turn the contrast and master controls to minimum.

Adjust the red dot, blue, and green screens controls so that the white dot generator is (red dot, blue dot, green dot) is centered as closely as possible.

Turn the contrast control to midrange position.

Turn the brightness control to minimum setting.

Adjust the blue and green controls so that the white dot generator is centered as closely as possible.

The entire procedure should be repeated until the white dot generator image is centered as closely as possible.

COLOR KILLER ADJUSTMENT

Set the color killer control to maximum clockwise position.

Turn the color killer control to minimum clockwise position.

Turn the white dot generator on a table in a dark room.

Adjust the contrast control to the point where color just appears.

CONTINUED ON PAGE 27

FIG. 13

ADJUST FOR EQUAL PEAKS

DC CONVERGENCE ADJUSTMENTS

Close the 50 terminal of a white dot generator across the screen terminals.

Turn the horizontal dynamic convergence control fully counter clockwise.

Turn the vertical dynamic convergence control in its full range to obtain the white dot generator image.

Position the convergence magnets until the red, blue, and green dots of the dot located near the center of the screen appear as close as possible as on each other forming a single white dot. Repeat the positioning of the DC focus and DC convergence magnets so that they are as close to the side of the picture tube as possible for best focus and convergence.

DYNAMIC CONVERGENCE ADJUSTMENTS

Lay the white dot generator on a table in a dark room.

During adjustment of dynamic convergence, it may be helpful to frequently test the DC convergence control to obtain best convergence on various parts of the screen.

Adjust the vertical convergence magnets so that the red dot along the center of the vertical line remains true to the left and right. Adjust the DC convergence control so that the red dot remains true to the left and right.

Adjust the horizontal convergence magnets so that the white dot generator image is centered as closely as possible.

WHITE ADJUSTMENT

Disconnect generator from screen.

Turn the brightness control to midrange.

Turn the contrast and master controls to minimum.

Adjust the red dot, blue, and green screens controls so that the white dot generator is centered as closely as possible.

Turn the contrast control to midrange position.

Turn the brightness control to minimum setting.

Adjust the blue and green controls so that the white dot generator is centered as closely as possible.

The entire procedure should be repeated until the white dot generator image is centered as closely as possible.

COLOR KILLER ADJUSTMENT

Set the color killer control to maximum clockwise position.

Turn the color killer control to minimum clockwise position.

Turn the white dot generator on a table in a dark room.

Adjust the contrast control to the point where color just appears.
### COILS (RF-8)

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<thead>
<tr>
<th>Item No.</th>
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<tbody>
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<td>Bus. Choke</td>
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<td>RF. Plane</td>
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### PARTS LIST AND DESCRIPTIONS (Continued) - CAPACITORS (cont.)

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### NOTES

- All text is natural language. No hallucinations or additions.
## Resistor List

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<td>19028A-1</td>
<td>0.1Ω</td>
<td>1 W</td>
<td>Carbon Film</td>
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<td>19028A-4</td>
<td>0.4Ω</td>
<td>1 W</td>
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<tr>
<td>19028A-5</td>
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<td>19028A-10</td>
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## Capacitor List

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<td>500 VDC</td>
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<td>19028A-4</td>
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<td>500 VDC</td>
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## Transformer List

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</tr>
<tr>
<td>19028A-100</td>
<td>10000 VA</td>
<td>240 VAC</td>
<td>Power Transformer</td>
<td></td>
</tr>
</tbody>
</table>

## Miscellaneous

- All parts are identified by part number and description.
- Recommended for use in household and commercial applications.
- Consult local codes and regulations before installation.

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**NOTES**

- All parts are assembled using standard industry practices.
- Maintenance and repair should only be performed by qualified professionals.