11B2---11B2A Calibration Outline

Don't use test load in Vertical

1. Adjust Int. Trig. DC Level (R7) — Remove vert. plug-in. Horiz Display to Ext. Adj for min dot shift when moving "B" Coupling from AC to DC

2. Check "A" Trig — Free-run, Auto, Single sweep, check Trig Level knob in normal position

3. Check "B" Trig — Check Trig Level knob for dot under 0 with small signal

4. Adjust Delay Start (R150) and A Swp Cal (R160W)
Use 1ms marks---A swp 1ms/cm---B swp 10us/cm---Delay Time Mult at 1.00---Adjust R150---Delay Time Mult at 9.00---Adjust R160W---Interaction, Recheck---Check 5.00 for linearity ± 0.015

5. Check Delay Jitter — A swp 1ms/cm---B swp 1us/cm---1ms marks
Check at 1.00 & 9.00
11B2: Less than 5mm jitter
11B2A: Less than 3mm jitter

6. Adjust Norm Gain (R331) — Horiz. Display A---A swp 1ms---1ms marks---Adjust for 1 mark/cm

7. Adjust Mag Gain (R334) — Use 1ms and .1ms marks---Mag X10

8. Adjust Mag Regis (R339)

9. Check A swp length — 10.5-11.0 cm

10. Check A variable & uncal light

11. Adjust B Cal (R260W) — Horiz. Display B Dlyd by A---A swp 2ms---Bswp 1 ms/cm---1ms marks---Adjust for 1 mark/cm

12. Check B swp length — 10.2-11.0 cm

13. Check B variable & uncal light

14. Check A swp rates 10us to 5s

Range	Direct Accuracy	Delay Time Mult. Tolarance 11B2	11B2A
10us-50ms	1.5%	± 0.08	± 0.08 0.08
.1s-5s	3%	± 0.20	± 0.20 0.20

15. Adjust A swp rates.1 us-5us

Range	Adjust	Direct Accuracy	Delay Time Mult Tolarance 11B2	11B2A
1us-5us	C160C	1.5%	± 0.08	± 0.08
.1us-.5us	C160A	1.5%	----	----

16. Check A 10ns sweep rate (.1us X10 mag) 3.5%
In case of trouble here, check main frame Horizontal compensations.

17. Check B swp rates 10us-5s

Range	Accuracy
10us-50ms	1.5%
.1s-5s	3%

18. Adjust B swp rates .1us-5us

Range	Adjust	Accuracy
1us-5us	C260C	1.5%
.1us-.5us	C260A	1.5%

19. Check Ext. Horiz. B source to Ext.---Observe 4.5-5.5 cm deflection with 5v cal signal applied.

20. Check Alternate Trace operation

21. Front Panel Wave-forms

A Gate: Approx. 15v
B Gate: " 15v
A Sweep: " 10v
B Sweep: " 10v