

4. ADJUSTMENT

4-1 ADJUSTMENT CONDITIONS AND PRECAUTIONS

1. Approximately 30 minutes should be allowed for warm up before proceeding.
2. Adjustments should be undertaken only on those necessary elements since most of them have been carefully preset at the factory.

4-2 MAIN ADJUSTMENTS

NO.	FUNCTION	LOCATION	DESIGNATION
1.	14.5V ADJ	PCB - MAIN	VR901
2.	B + ADJ	PCB - MAIN	VR902
3.	R.B. DRIVE	CRT - BOARD	VR801,802
4.	R.G.B. CUT-OFF	CRT - BOARD	VR803,804,805
5.	ABL ADJ	PCB - MAIN	VR701
6.	UP KEY	PCB - MAIN	SW101
7.	DOWN KEY	PCB - MAIN	SW102
8.	FUNCTION KEY	PCB - MAIN	SW103

4-3 ADJUSTMENT METHOD

1. 14.5V, B + & HV protection voltage adjustment:
 - A. Chroma-2000 Signal generator or PC equivalent, set mode 1(VGA 640×480) pattern 1.0 .
 - B. Connect a DC voltage meter between TP 901 and ground, then adjust VR901 to be 14.5VDC.
 - C. Connect a DC voltage meter between TP 902 and ground, then adjust VR902 to be 92 VDC.
2. Factory preset timings adjustment:
 - A. When you turn on the monitor, the function LEDS will light up simultaneously for a while, then extinguish.
 - B. You can press the up/func two keys simultaneously, the most left four LEDS will light up for a while then extinguish.
 - C. Then you can select one of the eight functions including Contrast, Brightness, H-SIZE, H-CENTER, V-SIZE, V-CENTER, Pincushion and Trapezoid Simply press the function key and the LED will be light up corresponding to the one selected, then press the up/down keys to get the factory presetting parameter value to your satisfaction.
 - D. Then you will press the up/function two keys simultaneously again, the most right four LEDS will light up for a while then extinguish, the factory preset timings adjustment is finished.

3. White balance and luminance adjustment:

A. Bias (low light) adjustment:

- (a) Set mode 5 (800×600 Fh: 46.8KHz) full white pattern.
- (b) Adjust VR801, 802, 803, 804, 805, to make VR in the center position.
- (c) Warm up more than 20 minute.
- (d) Brightness set to max. Contrast set to min. full white pattern, then adjust FBT screen VR to make $Y = 1.0FL \pm 0.2FL$
- (e) Brightness set to raster just cutoff, contrast set to 4FL, then adjust CRT board VR805 (B-Bias) VR803 (R-Bias) to make $Y = 4 \pm 0.2 FL$, $x = 281 \pm 10$, $y = 311 \pm 10$

B. Gain (High light) adjustment:

- (a) Set mode 5 (800×600 Fh: 46.8KHz) full white pattern.
- (b) Brightness set to raster just cutoff and set the contrast to max.
- (c) Adjust VR801, 802 to make color code $x = 281 \pm 10$, $y = 311 \pm 10$.

C. Recheck item A&B to make sure both of them in spec.

D. Full white luminance:

- (a) Set mode 5 (800×600 Fh: 46.8K) full white pattern.
- (b) Image size : H:250±4mm, V:187±4mm.
- (c) Brightness set to raster just cut off and set the contrast to max.
- (d) Adjust VR701 to make sure white luminance at 25 FL.

4. Focus adjustment:

A. Set mode 2 (640×480 Fh: 31.5KHz) with character full page.

- B. Adjust external brightness to raster cutoff and external contrast to max. , then adjust focus VR to make the display be focused very well.

5. Purity adjustment

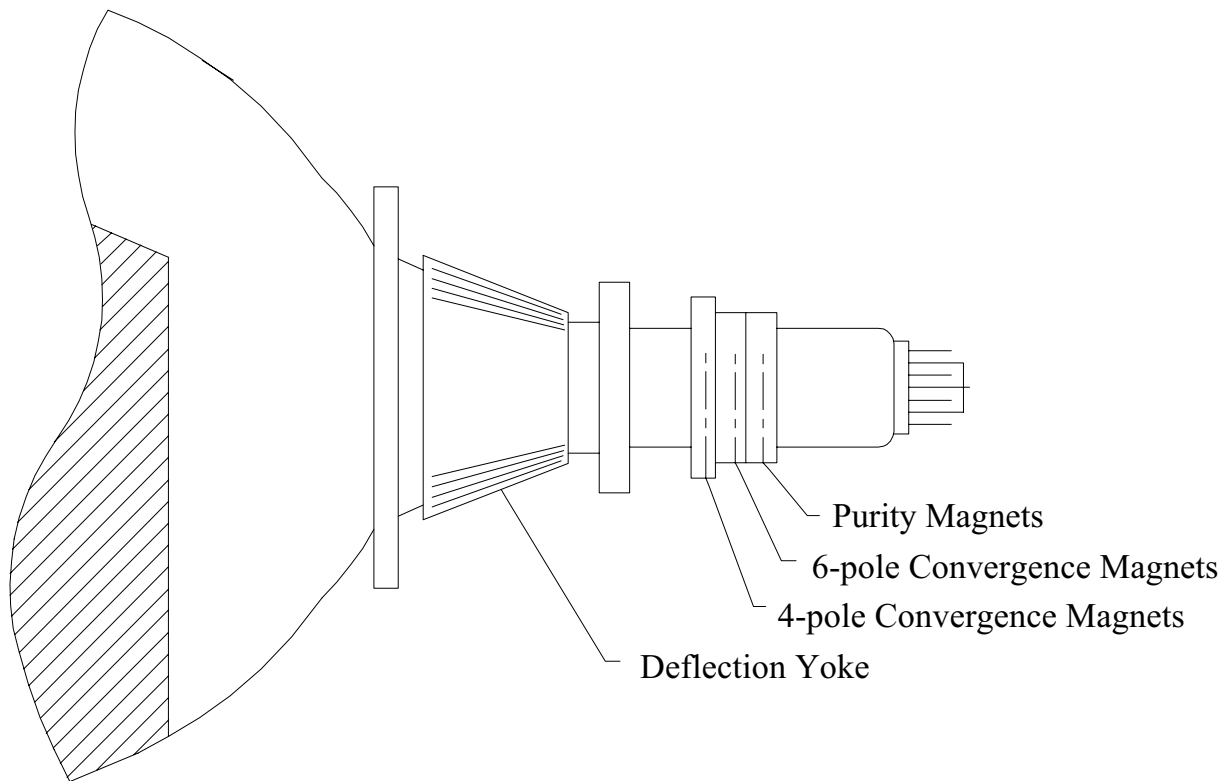
A. Be sure that the display is not being exposed to any external magnetic fields.

- B. Ensure that the spacing between the Purity, Convergence, Magnet, (PCM), assembly and the CRT stem is 29mm .(See below diagram)

C. Produce a complete, red pattern on the display. Adjust the purity magnet rings on the PCM assembly to obtain a complete field of the color red. This is done by moving the two tabs in such a manner that they advance in an opposite direction but at the same time to obtain the same angle between the two tabs, which should be approximately 180'.

- D. Check the complete blue and complete green patterns to observe their respective color purity. make minor adjustments if needed.

RELATIVE PLACEMENT OF TYPICAL COMPONENTS



6. Convergence adjustment

- A. Produce a magenta crosshatch on the display.
- B. Adjust the focus for the best overall focus on the display.
Also adjust the brightness to the desired condition.
- C. Vertical red and blue lines are converged by varying the angle between the two tabs of the 4 pole magnets on the PCM assembly. (See above diagrams)
- D. Horizontal red and blue lines are converged by varying the two tabs together, keeping the angle between them constant.
- E. Produce a white crosshatch pattern on the display.
- F. Vertical green and magenta lines are converged by varying the angle between the two tabs of the 6-pole magnets.
- G. Horizontal green and magenta lines are converged by varying the two tabs together, keeping the angle between them constant.