


ADJUSTMENT

GENERAL INFORMATION

All adjustment are thoroughly checked and corrected when the monitor leaves the factory, but sometimes several minor adjustment may be required. Adjustment should be following procedure and after warming up for a minimum of 30 minutes.

- Alignment appliances and tools.
 - IBM compatible PC.
 - Programmable Signal Generator.
(eg. VG-819 made by Astrodesign Co.)
 - E(E)PROM with each mode data saved.
 - Alignment Adaptor and Software.
 - Digital Voltmeter.
 - White Balance Meter.
 - Luminance Meter.
 - High-voltage Meter.

AUTOMATIC AND MANUAL DEGAUSSING

The degaussing coil is mounted around the CRT so that automatic degaussing when turn on the monitor. But a monitor is moved or faced in a different direction, become poor color purity cause of CRT magnetized, then press  (DEGAUSSING) on the OSD menu.

ADJUSTMENT PROCEDURE & METHOD

● TIMING CHART FOR ADJUSTMENT

Item \ Mode	Horizontal		Vertical	
	Mode 19	Mode 20	Mode 19	Mode 20
Sync Polarity	+	+	+	+
Frequency	29.99kHz	96.06kHz	49.99Hz	160.10Hz
Total Period	33.34μs	10.416μs	20.004ms	6.246ms
Video Active Time	29.27μs	7.00μs	18.337ms	5.830ms
Blanking Time	4.07μs	3.41μs	1.667ms	0.416ms
Front Porch	0.08μs	1.27μs	0.266ms	0.031ms
Back Porch	1.14μs	1.18μs	1.334ms	0.354ms
Sync Duration	2.85μs	0.96μs	0.067ms	0.031ms
Resolution	720	640	550	560

- Install the cable for adjustment such as Figure 1 and run the alignment program on the DOS for IBM compatible PC.
- Set external Brightness and Contrast volume to max position.

1. Adjustment for B⁺ Voltage

- ① Display cross hatch pattern at Mode 10.
- ② Adjust D925 cathode voltage to $175 \pm 0.5V$ with VR955.

2. Adjustment for High-Voltage

- ① Display cross hatch pattern at Mode 10.
- ② Adjust CDT Anode voltage to $26kV \pm 0.5kV$ with VR548.

3. Check for Horizontal & Vertical OSC Frequency

- ① Display cross hatch pattern at Mode 19.
- ② Check whether screen is synchronized or not.
- ③ Display cross hatch pattern at Mode 20.
- ④ Check whether screen is synchronized or not.

4. Adjustment for Horizontal Raster Center

- ① Display color 0,0 pattern at Mode 10.
- ② Adjust the raster should be center of the screen with SW501.

5. Check for Video Level

- ① Display color 15,0 full white pattern at Mode 10.
- ② Check video level to 0.7V on the OSD menu.


6. Check for Moiré Reduction Function

- ① Display color 7,0 full green pattern at Mode 12.
- ② The Moiré Reduction on the OSD menu select ON.
- ③ Check status of the moiré from 0% to 100% with contrast level.

7. Adjustment for Factory Mode (Preset Mode)

- ① Display cross hatch pattern at Mode 1.
- ② Run alignment program for Studio Works 99T or CF900 on the IBM compatible PC.
- ③ COMMAND → START → FCT ON command.
- ④ FOS ADJ command.
- ⑤ Adjust H-SIZE as arrow keys to $350 \pm 1mm$.
- ⑥ Adjust H-POSI as arrow keys to center of the screen.
- ⑦ Adjust V-SIZE as arrow keys to $262 \pm 1mm$.
- ⑧ Adjust V-POSI as arrow keys to center of the screen.
- ⑨ Adjust S-PCC as arrow keys to be the best condition.
- ⑩ Adjust TRAPEZOID as arrow keys to be the best condition.
- ⑪ Adjust TILT as arrow keys to be the best condition.
- ⑫ Adjust PARALLELOGRAM as arrow keys to be the best condition.
- ⑬ Display from Mode 2 to Mode 12 and repeat above adjustment.
- ⑭ EXIT command.

8. Adjustment for White Balance and Luminance

- ① Set the White Balance Meter.
- ② Press the  (DEGAUSSING) on the OSD menu for demagnetization of the CRT.
- ③ Display color 0,0 pattern at Mode 10.
- ④ Set external Bright and Contrast to max position.
- ⑤ START → LUMINANCE → BRIGHT/CONTRAST command.

- ⑥ Set CONTRAST-SLOPE to center position.
- ⑦ BIAS ADJ → No 1. → SUB-BRIGHT command.
- ⑧ Set SUB-BRIGHT to max position.
- ⑨ Check whether blue color or not at R-BIAS and G-BIAS to min position. If it's not blue color, the monitor must repair.
- ⑩ Adjust Screen control on the FBT to $0.2 \pm 0.05\text{FL}$ of the raster luminance.
- ⑪ Adjust R-BIAS and G-BIAS command to $x=0.281 \pm 0.01$ and $y=0.311 \pm 0.01$ with the White Balance Meter.
- ⑫ Adjust SUB-BRIGHT command to $0.5 \pm 0.05\text{FL}$ of the raster luminance.
- ⑬ Display color 15,0 box pattern ($70 \times 70\text{mm}$) at Mode 10.
- ⑭ DRIVE ADJ → No 1. command.
- ⑮ Adjust G-DRIVE and B-DRIVE command to $x=0.281 \pm 0.003$ and $y=0.311 \pm 0.003$ with the White Balance Meter.
- ⑯ Adjust CONTRAST-SLOPE command to 50FL of the raster luminance and save in COLOR 1.
- ⑰ BIAS ADJ → No 2. Command.

- ⑩ Adjust R-BIAS and G-BIAS command to $x=0.313 \pm 0.01$ and $y=0.329 \pm 0.01$ with the White Balance Meter.
- ⑪ Adjust SUB-BRIGHT command to $0.5 \pm 0.05\text{FL}$ of the raster luminance.
- ⑫ Display color 15,0 box pattern ($70 \times 70\text{mm}$) at Mode 10.
- ⑬ DRIVE ADJ \rightarrow No 2. Command.
- ⑭ Adjust G-DRIVE and B-DRIVE command to $x=0.313 \pm 0.003$ and $y=0.329 \pm 0.003$ with the White Balance Meter.
- ⑮ Adjust CONTRAST-SLOPE command to 45FL of the raster luminance and save in COLOR 2.
- ⑯ COLOR TEMP command and save in COLOR MODE 1.
- ⑰ Display color 15,0 full white pattern at Mode 10.
- ⑱ Adjust ABL to $32 \pm 0.4\text{FL}$ with VR517.
- ⑲ Quit command to exit the program.

8. Adjustment for Focus

- ① Set the Brightness and Contrast to max position.
- ② Display H character in the full screen at Mode 10.
- ③ Adjust two Focus control on the FBT that focus should be the best condition.

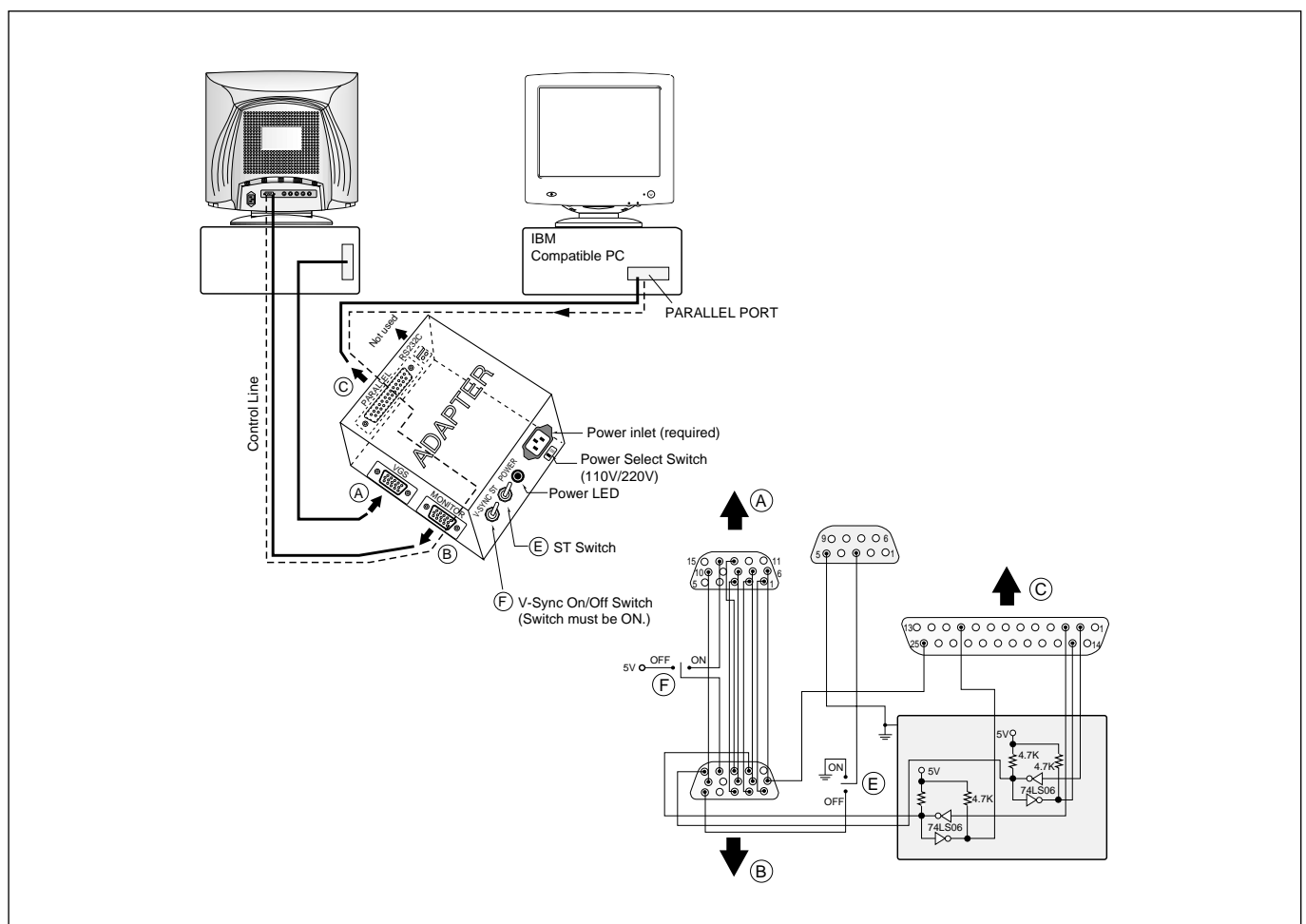


Figure 1. Cable Connection