

Operational Description

1. Equipment Description

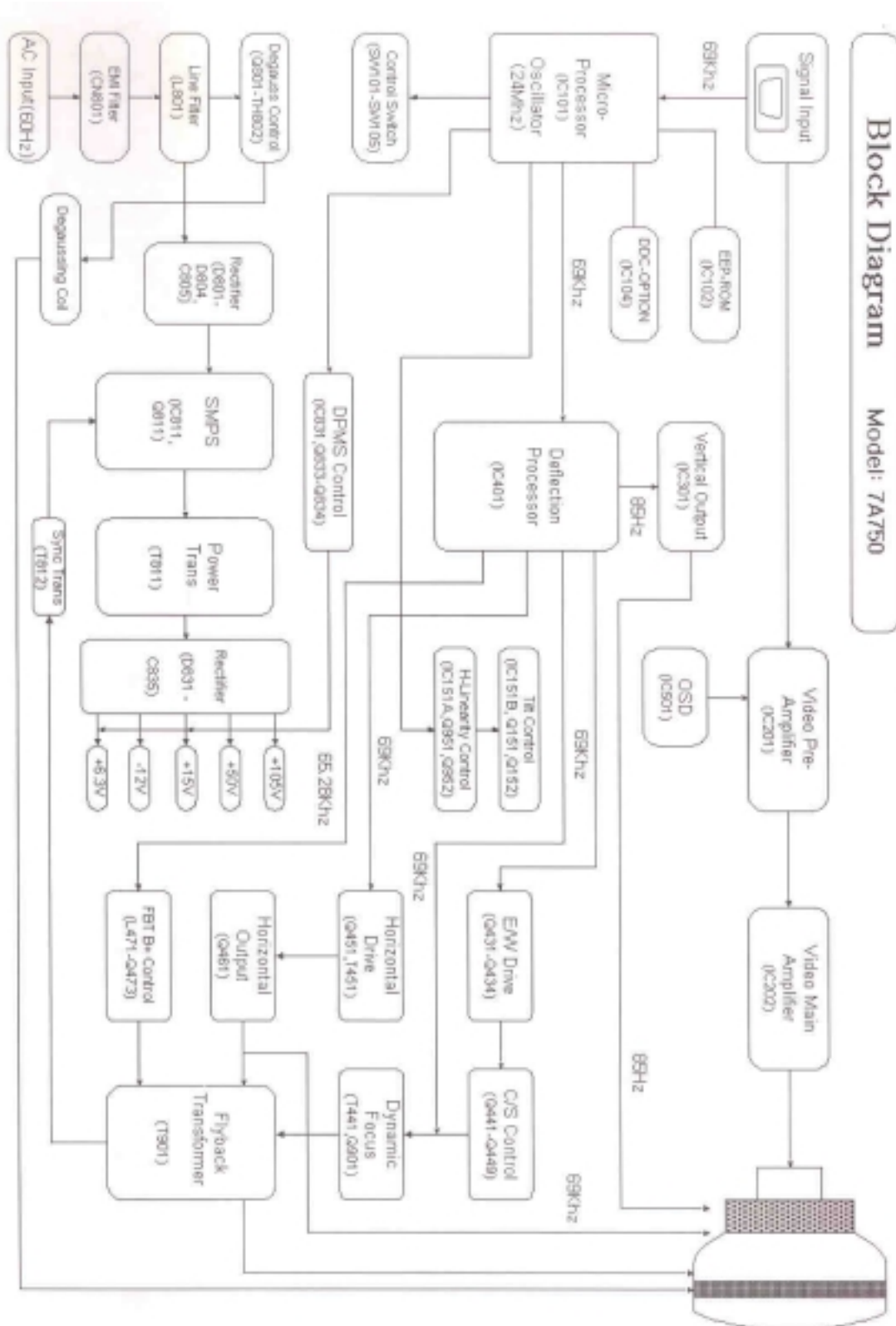
This Equipment Under Test (EUT) is the Orion Electric Co.,Ltd (Model: 7A750)
17" Color Monitor (FCC ID: EWB7A750).

Maximum Resolution:	1280 X 1024 Non-interlaced H-Sync: 64kHz / V-Sync: 60Hz
Frequency Range:	H-Sync: 30kHz – 70kHz V-Sync: 50Hz-150Hz
CRT Picture Tube:	17" diagonal (Orion M41KXU110XX021)
Face Treatment:	Anti-reflection, Anti-Glare, Anti-static, Darkface, High-contrast, Invar Shadow Mask
Dot Pitch:	0.27mm Pitch Black Matrix Screen
Power Supply Input:	100-240 Vac, 50/60Hz
Power Consumption:	100W (Max)
Power Code:	Unshielded
Port(s)/Input Connector(s):	15-pin D-sub type signal connector
Cable(s):	Shielded D-sub (with ferrite on both ends)
Dimensions (W x H x D):	560 x 520 x 495 mm
Weight (net):	16.5 kg

2. Trouble shooting Guide

Problem	Check these item
No Picture (Not in power saving mode)	The video card should be completely seated in its slot. Power switch and computer power switch should be in the ON position The signal cable should be completely connected to the video card/computer. Check connector for bent or pushed-in pins.
LED on the monitor is not lit	Power switch should be in the ON position an the power cord should be connected.
Display image is not centered, too smaller or too large	Adjust size and position controls to adjust the image.
Display size and position were not saved	Wait approximately ten seconds after making adjustments before changing or disconnection the signal or power OFF the monitor.
Image is scrolling or unstable	Signal cable should be completely attached to the computer Check the pin assignments and signal timings of the monitor and your video card.
Picture bounces or a wave pattern is present in the picture	Move electrical that may be causing electrical interference away from the monitor.
Edges of the display image are curved either inward or outward	Adjust the side pin-cushion control.

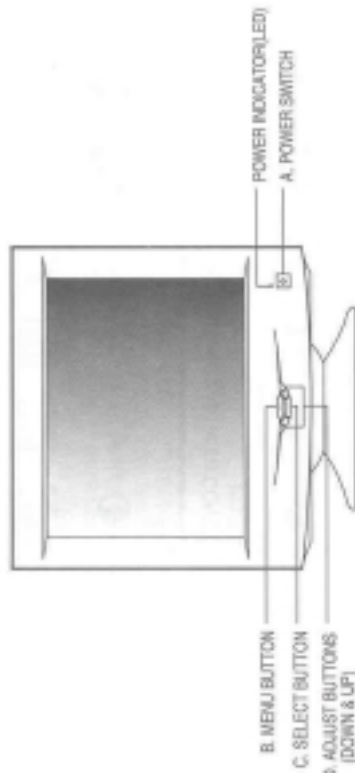
3. Block Diagram (shows frequencies path)



4. Description Of Circuit Operation

5. Installation and Operation

CONTROLS AND FUNCTIONS



A. POWER ON/OFF ()

Turns the power ON or OFF. There will be a few seconds delay before the display appears.

The power LED (next to the power switch) lights when the power is turned ON.

The power is turned off by pressing the power switch again and the power LED goes out.

B. MENU

Activates and exits the On Screen Display. This button can also be used to move previous menu or status.

There are two OSD menu or status.

They are MAIN MENU1 (H.POSITION, H.SIZE, V.POSITION, V.SIZE, PINCUSHION, TRAPEZOID, PARALLELOGRAM, PINGBALANCE, CORNER CORRECTION, COLOR-TEMP, BRIGHTNESS, CONTRAST)

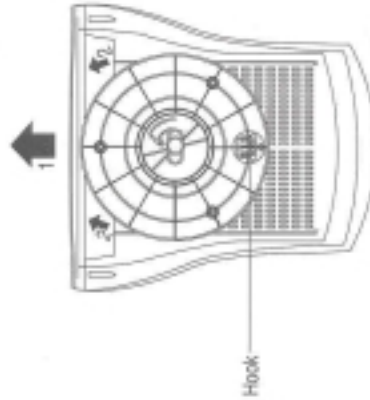
MAIN MENU2 (RECALL, ROTATION, LANGUAGE, DEGAUSS, OSD H.POSITION, OSD V.POSITION, OSD ON TIME, VIDEO LEVEL, MOIRE, INFORMATION, EXIT)

INSTALLATION

NO TOOLS ARE REQUIRED TO INSTALL THE MONITOR. SIMPLY FOLLOW THE INSTRUCTIONS OUTLINED IN THE FOLLOWING PAGE.

1. INSTALLING THE TILT/SWIVEL STAND

- 1) Align the stand with the front slots in the bottom of the monitor and insert the Tilt/Swivel Stand into the slots.
- 2) Push the Tilt/Swivel Stand firmly toward the front of the monitor until the latches click into the locked position.



2. CONNECT THE SIGNAL CABLE

- 1) Connect the end into the graphic card on back of the computer.
- 2) Secure the connection with the screws on the plug.

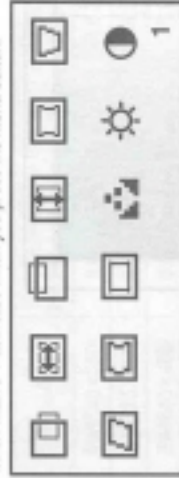
3. CONNECT THE POWER CORD

Connect the female end of the power cord to the power input receptacle on the back panel of the monitor.
Then, plug the male end of the power cord to an AC outlet or computer.

4. TURN THIS MONITOR ON AND START YOUR SYSTEM

CONTROLS AND FUNCTIONS

MAIN MENU 1 activates when you press the Menu button.



MAIN MENU 2 activates when you press \blacktriangledown (\blacktriangle) at the CONTRAST[EXT] icon in the menu.



C. SELECT

The select button allows user to activate the desired adjustment with blinking icon.

D. ADJUST (\blacktriangledown , \blacktriangle)

The Adjust button allows user to choose the icons (controls) in the menu. Pressing the adjust button \blacktriangledown or \blacktriangle will step through all available adjustment icons (controls). In addition this adjust button can be used to adjust the icons (dot controls) that is selected and activated (blinking) via the select button. When the adjust button is pressed, The adjustment bar in the window will be increased or decreased. After completing all the desired adjustments, the On Screen Display will disappear with pressing the menu button.

1. SELF-TEST DISPLAY

When there is no connection, the On Screen Display will show.

NO SIGNAL
CHECK SIGNAL CABLE

CONTROLS AND FUNCTIONS

2. AUTO REGISTRATION

This monitor has 10 preset modes. If the current video is one of the preset modes, the monitor keeps storing the custom display settings into the permanent memory.

There are also 10 user modes that allow you to save the custom display settings made to any video mode that is not one of the preset modes. Adjustments are automatically registered without pressing any buttons. Up to 10 user modes are stored automatically on a "First-In-First-Out" basis.

3. OSD MENU DESCRIPTION

MAIN MENU 1

- H. POSITION (Horizontal Position)**
Moves images horizontally on screen left(\blacktriangledown) or right(\blacktriangle).
- H. SIZE (Horizontal Size)**
Increases(\blacktriangle) or decreases(\blacktriangledown) Size of image horizontally.
- V. POSITION (Vertical Position)**
Moves images vertically on screen up(\blacktriangle) or down(\blacktriangledown).
- V. SIZE (Vertical Size)**
Increases(\blacktriangle) or decreases(\blacktriangledown) Size of image vertically.
- PINCUSHION**
Adjusts the side Pin cushion or barreling.
- TRAPEZOID**
Adjusts the display sides to be parallel.
- PARALLELOGRAM**
Adjusts the tilt of the display sides.
- PINBALANCE**
Adjusts the curvature of the left and right sides of the screen image.

Operational Description

- Main Power Supply

This product generate the DC power from AC input using IC811 and Q811 (Power MOSFET). IC 811 control Q 811 which can be operated as the chopper switch.

This circuit adopted 1 order feedback method.

Oscillation frequency of IC 801 is determined by RC time constant which is connected to #4.

In order to reduce switching noise, Trigger transformer is used to be synchronized with Horizontal deflection frequency.

Main power supply is operated by that rectified voltage through D801 and C 805 (Flat circuit) is input to Power Transformer T811 #1 and then IC 811 start operation through D813 and C813 ,this make main power operated.

Output of power supply are the following;

+6.3 V, -12V, +15 V, + 50 V, +105 V.

- Vedio signal processing

Vedio card always basically supplied 108 MHz vedio signal as a standard.

This product don't use this frequency during processing for cost down.

All vedio signal input to the signal cable are divided as two parts, one is signal

Which is composed of R, G, B, the other is relating with resolution (H and V frequency).

RGB signal are amplified by pre vedio amp.(IC201) whose cut-off frequency is 100 MHz, and

Main vedio amp (IC 202) whose cut-off frequency is 50 MHz.

Even if 108 MHz vedio signal is input to these two amplifier, these IC cut more than 100 MHz frequency.

Horizontal frequency is generated from 30 kHz to 70 kHz for proper display.

Vertical frequency is generated from 50 Hz to 150 Hz as saw tooth wave.

All signal connected to each grid of CRT for displaying.

Orion Electric Co., Ltd.