1. Description of work theory (refer to block diagram and instruction)

This LCD monitor is made up of three parts----AD board 、 inverter board and power board. Power board produce different voltage supply to the AD board and inverter board .AD board is used to produce different voltage, control inverter ON/OFF, ADC and modify circuit parameter while working on each frequency . And it also adjusts panel working state (brightness 、contrast 、horizontal amplitude 、horizontal phase 、vertical amplitude 、vertical center) in use and circuit initialized parameter. The inverter board is designed for the backlight of LCD Panel with the Cold Cathode Fluorescent Lamp . When panel data 、 panel voltage and lamp voltage are added to panel, the screen display picture from computer.

2. Precautions and warning

2.1 Safety check-out

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

2.1.1 Check the area of your repair of unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.

2.1.2 Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.

2.1.3 Check that all control knobs, shield, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

2.1.4 Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

2.1.5 Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

2.1.6 Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

2.1.7 Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described right.

2.2 The design of the monitor and the circuitry must not be modified.

If someone modifies or adds something to the original design, our company's pledge will be invalidation. Thereby, if someone is hurt or his properties are damaged, our company would not answer for it. There are many electric and mechanical parts in the monitor, which are associated with security feature. Eyes can not check out the security feature. Although using the higher rated voltage

or higher wattage parts to replace, it is unsure to have the same safety as original parts. The part which has the security feature is point out by using sign on the schematic circuit diagram. When the monitor needs to replace some elements ,if the security feature part type is different from the part type which is preferred on the safe elements table ,it may cause electric shock 、catch fire or other danger.

3、Maintenance instruction:

Before reparation, please read the manual, the block diagram 、circuit schematic diagram 、introduction of operating theory 、precautions and the connection chart theoretically carefully. You should be familiar with the monitor's working theory, function and the method of operation first. This will help increase the accuracy of malfunction judgment.

There are varieties of malfunctions for a machine that needs reparation. First of all, recheck the machines' malfunctions suggested by customer, including those mistakenly suggested malfunctions because of improper use. For the monitor having no any display, the first step is to check whether the plugs are connected firmly and the power is on. For a machine without picture, check if the signal cord is connected. For a machine with abnormal picture, check if the signal cord is connected securely, the multifunction of picture adjustment is in the proper position and machine is working under standard picture mode as instructed in the manual. Only after the above check could the judgment of the machine be made.

Reparation of the malfunctions machine:

3.1 No power: The malfunction is that the indicator light of power does not light, neither green nor red, the display screen does not light. The malfunction of no power can be classified into two kinds. The first kinds is that the power adapter is damaged, which cause AD board is no power . The second kind is that there are some elements inside of AD board damaged and it cause the power adapter stopping working.

Repaired method:

Check output voltage of power adapter, if its value is not 12V\+-0.5V, which means adapter is damaged, please change adapter. Then check every group power supply output of AD board, if it has short circuit, check the reason of the short , judge that it is load short or the short because of element damaged . If there is not short ,you should check whether the AE1501 、LM1117-3.3 、LM1117-1.8 、D24 is short or whether F1 and L6 are open circuit . Remove malfunction.

3.2 No display:

The malfunction is that the indicator light of power light but the screen does not light. The reasons is: the inverter is damaged, cause lamp of panel is not light.

Repaired method:

Check whether the fuse of inverter is open, if it is open, change fuse ; otherwise change inverter.

3.3 No image:

The malfunction is that the indicator light of power and the screen light but the screen is not image. The reasons are: the other is no LVDS signal and AD board is damaged.

Repaired method:

Check whether panel signal lines is connect , otherwise change it. And check whether panel power is right, otherwise change AD board.