DELUXSCAN® 5870/7770/S770

Multiscanning Color Monitor

ENGLISH

# USER'S GUIDE

DELUXSCAN®

U.S.A.

**U.S.FEDERAL COMMUNICATIONS COMMISSION**
**RADIO FREQUENCY INTERFERENCE STATEMENT**
**INFORMATION TO THE USER**

NOTE : This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet of a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Connecting of peripherals requires the use of grounded shielded signal cables.

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## Table of Contents

## Introduction

This manual describes the most suitable procedures for installing and setting up the monitor. It also indicates the main technical specifications and operating features. Read this guide carefully before installing and using the monitor, in order to avoid problems.



### Conventions Used in This Guide

Associated with particularly important information, or information that is useful under some circumstances.

Marks the start of a series of instructions to carry out in order to complete an operation.

## General Features

- HT-5870C : 15" (14" max. viewable area) colour, multifrequency, digital-controlled monitor.
- HT-7770C/S770 : 17" (16" max. viewable area) colour, multifrequency, digital-controlled monitor.
- Anti-glare and anti-static screen.
- Low electromagnetic emission, in compliance with the TCO recommendations.
- Removable tilt-and-swivel support which enables you to position the monitor according to your own needs.
- OSD (on-screen display) for regulating contrast, brightness, etc., via controls on the front of the monitor.
- Possibility of restoring the factory settings, power button and LED indicator.
- 22 memory locations (refer to the video mode table further on in the text).
- +/- synchronizing polarities, in any combination.
- Controlled power consumption.
- DDC Feature (Plug and Play).
- Universal 100-240 V AC power supply.

## Instructions for Use

This section provides a list of the precautions to be adopted and some tips to be followed when installing or using the monitor, to avoid electrical shocks and operating problems.

- The soft power key does not disconnect the monitor from the mains power. In order to disconnect from the mains power, unplug the power cord from the connector on the rear of the monitor.
- The power outlet must be located near the monitor and should be easily accessible.
- Never open the monitor cabinet. This is dangerous due to presence of high voltages. Any adjustment that involves opening the monitor must be carried out by specialized technical staff.

## Video Memory Modes

The monitor can recognise, and therefore automatically set itself to, one of the video modes indicated in the following table. It is also possible to display any other video mode with scanning frequencies within the following ranges:

- 30-70 KHz horizontal frequency
- 50-150 Hz vertical frequency

The system can recognize a total of 22 video modes. Of these 12 are supplied already preset by the factory as shown in the table. Other modes can be added as they are detected by the video card.

| Mode | Horizontal Resolution | Vertical Resolution | Horizontal Frequency (KHz) | Vertical Frequency (Hz) | Interlaced Mode (Yes/No) | Synch. Polarity. V/H(+/-) |
|---|---|---|---|---|---|---|
| 1 | 720 | 400 | 31.46 | 70.08 | No | +/- |
| 2 | 640 | 480 | 31.46 | 59.95 | No | -/- |
| 3 | 640 | 480 | 43.26 | 85.00 | No | -/- |
| 4 | 640 | 480 | 50.60 | 100.10 | No | -/- |
| 5 | 640 | 480 | 63.65 | 120.11 | No | -/- |
| 6 | 800 | 600 | 46.87 | 75.00 | No | +/+ |
| 7 | 800 | 600 | 53.67 | 85.06 | No | +/+ |
| 8 | 800 | 600 | 63.92 | 100.03 | No | +/+ |
| 9 | 1024 | 768 | 60.02 | 75.02 | No | +/+ |
| 10 | 1024 | 768 | 68.67 | 84.99 | No | +/+ |
| 11 | 1152 | 864 | 67.50 | 75.00 | No | +/+ |
| 12 | 1280 | 1024 | 63.98 | 60.02 | No | +/+ |

### User setting area

The user can add nonstandard modes. If you adjust display image, the image is saved automatically. Then the microcontroller always detects and displays the last mode stored in the user setting area when the monitor is turned on.
The user setting area maintains the last 10 display modes set by the user in its memory. When the user setting area is full (10 modes are registered), if new nonstandard timing is registered, the oldest timing settings will be deleted.

### Factory presetting area

There are 12 display modes stored in this area. These display modes are already preset by the factory and include most of the display modes currently available. You can also retrieve the factory preset mode by selecting the RECALL menu.

### Automatic save

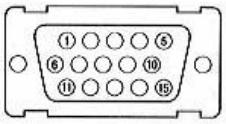
The monitor automatically saves the new setting after 1 second of inactivity.

## Power Management

This monitor complies with the EPA and NUTEK standards. The power saving is only effective if connected to a personal computer that supplies signals in accordance with the DPMS (Display Power Management Signalling) VESA standard. The monitor provides the following functions:

| States | Signal | | | Power Consumption | Recovery Time | LED Indicator |
|---|---|---|---|---|---|---|
| | H.S | V.S | Video | | | |
| ON | Pulses | Pulses | Active | • HT-5870C: 75W<br>• HT-7770C: 90W<br>• S770 : 90W | - | Green |
| Stand-by | No Pulses | Pulses | Blank | 60W | Within 1sec | Alternating Green (1sec)/ Orange (1sec) Selectable on OSD menu |
| | | | | 15W | Within 3sec | |
| Suspend | Pulses | No Pulses | Blank | Less than 15W | Within 3sec | Alternating Green (0.5sec)/ Orange (0.5sec) |
| OFF | No Pulses | No Pulses | Blank | Less than 5W | • HT-5870C/S770 Within 15sec<br>• HT-7770C Within 30sec | Orange |

## Signal Cable Connection




1. Red
2. Green
3. Blue
4. Logical ground
5. DDC return
6. Red ground
7. Green ground
8. Blue ground
9. N.C. without contact
10. Logical ground
11. Logical ground
12. SDA
13. Horizontal sync.
14. Vertical sync. (VCLK)
15. SCL

## Technical Specifications

| | |
|---|---|
| Cathode tube | HT-5870C : 15 inches (14" viewable area) Space between triads 0.28 mm |
| | HT-7770C/S770 : 17 inches (16" viewable area) Space between triads 0.27 mm |
| Resolution | Maximum resolution 1280x1024 non interlaced |
| Input signals | Analog RGB 0.7V p.p. 75 Ohm |
| Horizontal sync. | Frequency: from 30 to 70 KHz |
| Vertical sync. | Frequency from 50 to 150 Hz |
| Video bandwidth | • HT-5870C: 95MHz(-3dB) • HT-7770C/S770: 108MHz(-3dB) |
| Video mode recognition | Automatic |
| Signal connector | 15-pin D SUB, S770: Attached signal cable |

| | | |
|---|---|---|
| Operating temperature | 0° C - 40° C | |
| External controls | Zoom, Recall, Menu / Select, Adjust dial, Power Led and switch. Access to the On Screen Display (OSD). | |
| Power management | According to VESA DPMS protocol. In accordance with NUTEK A and EPA | |
| Radio frequency disturbance | FCC Class B, CE | |
| Safety | Approved by UL, CSA, DHHS, N, D, FI, S, CE. | |
| Ergonomics | TÜV-GS, ISO-9241-3 and TCO. | |
| Power supply unit | 100-240 V AC 50/60 Hz (universal) | |
| Typical absorption | • HT-5870C: 75W | • HT-7770C/S770: 90W |
| Size (H/W/D) mm | • HT-5870C: 386x375x401 | • HT-7770C/S770: 416x416x447 |
| Weight | • HT-5870C: 12 Kg | • HT-7770C/S770: 16 Kg |

## Problems and Solutions

Before calling technical servicing, it is advisable to check the following:

| Problem | Action |
|---|---|
| The power supply LED is off. | Check the power supply connection and the computer cable connection.<br>Set the power supply button to ON position. |
| There is no image but the power supply LED is on. | The power management system is enabled. Press any key and move the mouse.<br>Check the signals cable connection.<br>Adjust the brightness and contrast control. |
| The image is not centered. | Adjust the image position/size control. |
| The image is blurred or illegible. | Try setting a different video mode, using the video controller software. |
| The image is disturbed by distorted lines, flickering or rolling. | Remove all electromagnetic equipment, such as fans and electric motors, away from the monitor, or move the monitor. |

### Autodiagnostics and Frequency Detection

This monitor is capable of identifying the absence of an input signal and displays an OSD **Autodiagnostics** message indicating its nature. Furthermore it is capably of advising of the presence of a signal with frequency characteristics that exceed its limit. In these situations a message is displayed showing the horizontal and vertical frequencies (the wrong value blinks).