Philips
Business
Solutions

TYPE Nr. **190S6FGT**

PHILIPS

TABLE OF CONTENTS

1. IMPORTANT NOTES AND SAFETY INSTRUCTIONS

1.1 SAFETY INSTRUCTIONS

WARNING:
Use of controls, adjustments or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards and/or mechanical hazards.

Read and follow these instructions when connecting and using your touch screen monitor:

1.1.1 OPERATION:

■ To avoid risk of an electric shock, do not disassemble the touch screen monitor cabinet. The unit is not user serviceable. Remember to unplug the touch screen monitor from the power outlet before cleaning.

■ Keep the touch screen monitor out of direct sunlight and away from stoves or any other heat source.

■ Remove any object that could fall into ventilation holes or prevent proper cooling of the monitor's electronics.

■ Do not block the ventilation holes located on the top and bottom of the touch screen monitor cabinet. Do not insert anything inside the ventilation holes.

■ When positioning the touch screen monitor, make sure the power plug and outlet are easily accessible.

■ If turning off the touch screen monitor by detaching the power cable or DC power cord, wait for 6 seconds before attaching the power cable or DC power cord for normal operation.

■ Please use approved power cord provided by Philips all the time. If your power cord is missing, please contact with your local service center. (Please refer to Customer Care Consumer Information Center)

■ Do not subject the touch screen monitor to severe vibration or high impact conditions during operation.

■ Do not knock or drop the touch screen monitor during operation or transportation.

Precautions
Please pay attention to the following precautions when handling the touch screen:

■ When operating the touch screen do not use objects with a hardness factor higher than 3H. Any damage resulting from such misuse will not be covered by the product warranty.

■ When operating the touch screen do not apply a pressure greater than 15kg/cm2 on the touch panel surface. This could cause irreparable damage to the touch screen.

■ This product has already been treated for low static electricity buildup and radiation emission. However, since children do not have fully developed eyesight, to avoid damage to their eyesight we recommend young children rest their eyes after 30 minutes of use.

1.1.2 MAINTENANCE:

■ To protect your touch screen monitor from possible damage, do not put excessive pressure on the touch screen panel. When moving your monitor, grasp the frame to lift; do not lift the monitor by placing your hand or fingers on the touch screen panel.

■ Avoid getting liquids inside the touch screen monitor. If liquid does get inside, have a qualified service technician check it before you power it on again.

■ To avoid the risk of shock or permanent damage to the set, do not expose the touch screen monitor to dust, rain, water, or excessive moisture environment.

■ If your touch screen monitor gets wet, wipe it with dry cloth as soon as possible.

■ If foreign substance or water gets in your touch screen monitor, please turn the power off immediately and disconnect the power cord. Then, remove the foreign substance or water, and send it to the maintenance center. Do not attempt to repair it yourself.

■ Unplug the touch screen monitor if you are not going to use it for an extensive period of time.

■ Do not store or use the touch screen monitor in locations exposed to heat, direct sunlight or extreme cold.

■ In order to maintain the best performance of your touch screen monitor and use it for a longer lifetime, please use the monitor in a location that falls within the following temperature and humidity ranges.

● Temperature: 5-35°C or 41-95°F

● Humidity: 20-80% RH

1.1.3 SERVICE:

■ The casing cover should be opened only by qualified service personnel.

■ If there is any need for any document for repair or integration, please contact with your local service center. (please refer to the chapter of "Consumer Information Center".)

■ For transportation information, please refer to "Physical Specifications".

■ Do not leave your touch screen monitor in a car/trunk under direct sun light.

Consult a service technician if the touch screen monitor does not operate normally, or you are not sure what procedure to take when the operating instructions given in this manual have been followed.

1.2 WARNINGS AND PRECAUTIONS

KNOW THESE SAFETY SYMBOLS


```
        ┌─────────────────────────┐
  ⚡    │      C A U T I O N      │   !
  ▲     │  RISK OF ELECTRIC SHOCK │   ▲
        │       DO NOT OPEN       │
        └─────────────────────────┘
CAUTION: TO REDUCE THE RISK OF ELECTRIC
SHOCK, DO NOT REMOVE COVER (OR BACK). NO
USER SERVICEABLE PARTS INSIDE. REFER SER-
VICING TO QUALIFIED SERVICE PERSONEL.
```

■ This lightning flash with arrow-head within a triangle indicates uninsulated material within your unit, which can cause an electric shock. For the safety of everyone in your household, do not remove product cover.

■ For the safety of everyone in your household, do not remove product cover. The exclamation point within a triangle calls attention to features for which you must read the enclosed literature closely to prevent operating and maintenance problems.

WARNINGS
Use of controls adjustments or procedures other than those specified in this documentation, may result in exposure to shock electrical hazards and/or mechanical hazards.

To reduce the risk of fire or electric shock, this appliance must not be exposed to rain or moisture, and objects filled with liquids, such as vases, must not be placed upon this apparatus.

CAUTION
To prevent electric shock, match wide plug blade to wide slot, and fully insert.

ATTENTION
Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la bome correspondante de la prise et pousser jusqu'au fond.

1.3 CLEANING & CARE

■ To avoid possible shock hazard, please be sure that the touch screen monitor is unplugged from the electrical outlet before cleaning.

■ Never use thinners, insecticide sprays, or other chemicals on or near the touch screen cabinet, as they might cause permanent marring of the cabinet finish.

■ To clean the touch screen monitor cabinet, use a cloth lightly dampened with a mild detergent. Use a clean dry cloth to dry the wiped surfaces.
Do not use alcohol (methyl, ethyl or isopropyl), ammonia-based liquids or any strong dissolvent. Do not use thinner or benzene, abrasive cleansers or compressed air.

■ To clean the touch screen, use window or glass cleaner. Put the cleaner on the rag and wipe the touch screen. Never apply the cleaner directly on the touch screen.

■ Wipe the front of the screen with a clean cloth dampened with water. Use even, easy, vertical strokes when cleaning.

■ When cleaning the touch screen, take care not to scratch or damage the screen surface (avoid wearing jewellery or using anything abrasive).

■ Occasionally vacuum the ventilation holes in the touch screen cabinet.

1.4 END-OF-LIFE DISPOSAL

■ This Philips product and its packaging contain materials that can be recycled and re-used. Specialized companies can recycle your product to increase the amount of reusable materials and minimize the amounts which need to be properly disposed.

1.5   INFORMATION FOR USERS IN THE UK

WARNING: THIS APPLIANCE MUST BE EARTHED
This apparatus is supplied with an approved moulded 13A plug.
To change a fuse in this type of plug proceed as follows:
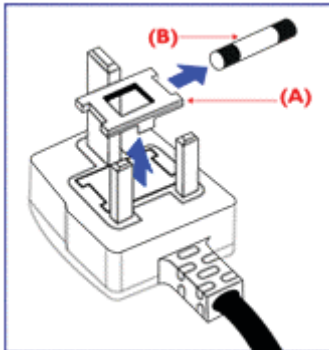
1   Remove fuse cover and fuse.

2   Fit new fuse which should be a BS 1362 5A,A.S.T.A. or BSI approved type.

3   Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate 3-pin plug fitted in its place.If the mains plug contains a fuse, this should have a value of 5A.
If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5A.

Note:
The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13A socket elsewhere.

How to connect a plug
The wires in the mains lead are coloured in accordance with the following code:

■   BLUE - "NEUTRAL" ("N")

■   BROWN - "LIVE" ("L")

■   GREEN & YELLOW - "EARTH" ("E")
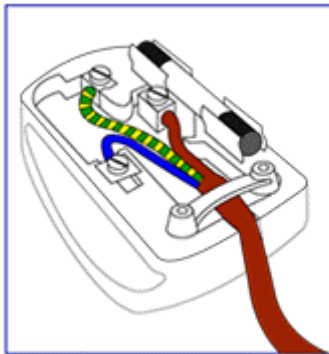
1   The GREEN AND YELLOW wire must be connected to the terminal in the plug which is marked with the letter "E" or by the Earth symbol ⏚ or coloured GREEN or GREEN AND YELLOW.

2   The BLUE wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.

3   The BROWN wire must be connected to the terminal which marked with the letter "L" or coloured RED.

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the three wires.

2. REGULATORY NOTICE

FCC Statement

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

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 receptions, 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:

■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

■ Consult the dealer or an experienced radio/TV technician for help.

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product. Provided with this display is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating. For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6015P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Cet appareil Numerique de classe B respecte toutes les exigences du Reglemont NMB-03 sur les equipements produisant des interferences au Canada.

Notice de Conformit IC

Cet appareil numerique de classe B respecte toutes les exigences du Reglement ICES-003 sur les equipements produisant des interferences au Canada.

3. PRODUCT FEATURES

Lower total cost of ownership
- SmartManage enabled
- Lower power consumption

Optimal Public Displayfront of screen experience
- SXGA, 1280 x 1024 resolution
- sRGB ready
- Fast response time

Convenient adaptability
- Built-in Touch screen
- Ultra robust metal housing
- Cable management supported
- VESA mounting holes

Product highlights
- SmartManage enabled
  SmartManage is a system for monitoring, managing and checking status of display devices as well as delivering remote support to users who experience difficulties - all accomplished over a LAN.

- Lower power consumption
  Reduction of the electrical power required to operate a device.

- Energy Star partner
  A manufacturer in compliance with power conservation requirements set forth by the Environmental Protection Agency of the U.S. government.

- TCO '03 compliance
  A TCO (Swedish confederation of Professional Employees) standard even more stringent than MPR-II for safety and ergonomics, especially concerning alternating electric fields (AEF).

- 8-ms Response time
  Response time is the period required for a liquid crystal cell to go from active (black) to inactive (white) and back to active (black) again. It is measured in milliseconds. Faster is better: Lower response time means faster transitions and, therefore, results in fewer visible image artifacts in the display of fast-moving images.

4. UNPACKING AND INSTALLATION

4.1 UNPACKING

■ The monitor is packed in a carton, together with the standard accessories. Any other optional accessories will be packed separately.

■ The touch screen is a plastic-coated glass plate placed on top of the 19" LCD-panel. Please be careful, the glass is very fragile.

■ After opening the carton, please check that the content is in good condition and complete.

Important:
Please keep the original box and package material in case you need to return the product.

4.2 PACKAGE CONTENTS

Please verify that you received the following items with your package content:

■ 19" Touch screen monitor

■ CD-ROM with User Manual + drivers

■ Power cable

■ VGA signal cable

■ Touch screen cable

> **Note:**
> The serial cable is fixed to the monitor and can not be removed.

■ Speaker cable
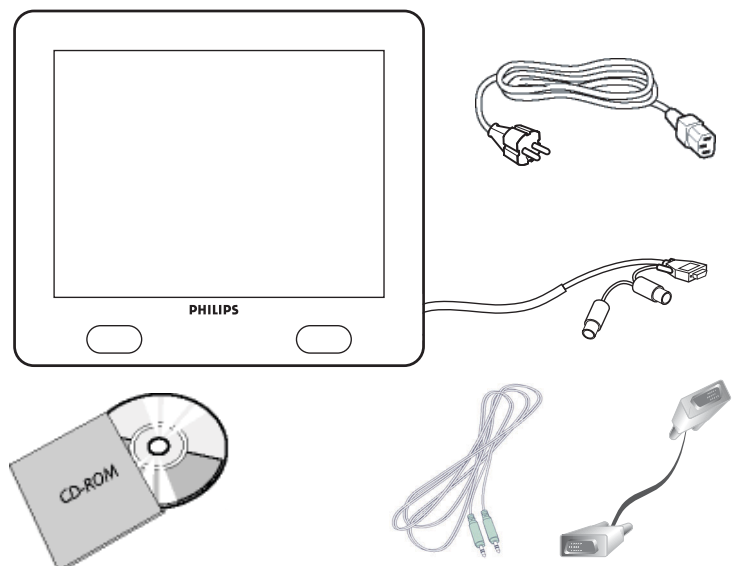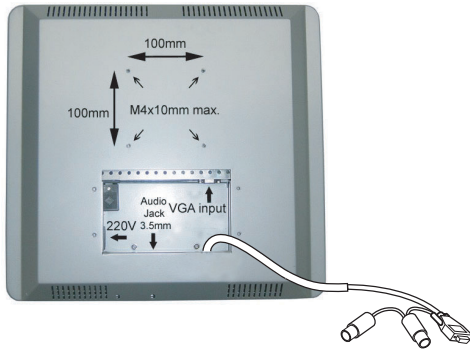
4.3 INSTALLATION NOTES

The touch screen monitor meets the Vesa Flat Panel Monitor Physical Mounting Interface standard. The VESA mounting interface is located at the back of the touch screen monitor.
Use M4 screws with a length of 10 mm to install mounting devices, such as wall and table arms.

Note:
Use the original screws.

5. PARTS & FUNCTIONS

5.1   FRONT VIEW
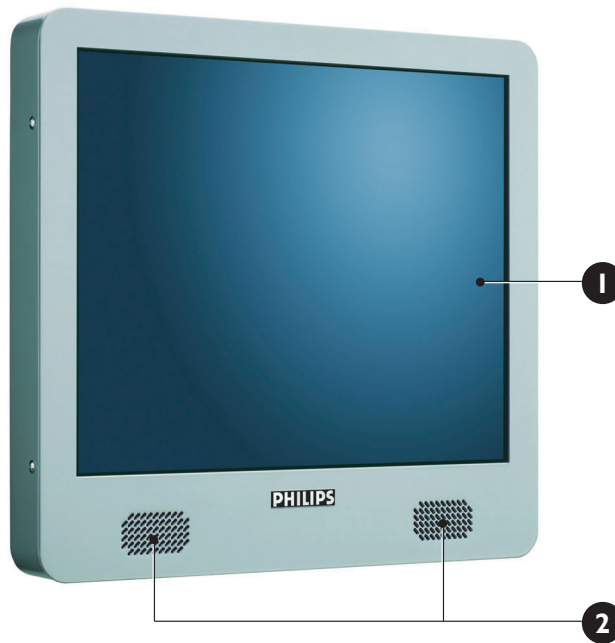
1. **Touch screen**

2. **Speakers left and right**

5.2   REAR VIEW

1. **STATUS LED**
    Indicates the status of the monitor.

2. **POWER switch**
    Turns power on/off from stand-by mode. There is a wait period between on/off cycles.

3. **OSD Menu button**
    Use this button to enter the OSD controls.

4. **Arrow Up /Down buttons**
    Use these buttons to navigate through the On Screen Display menu.

5. **Brightness hotkey**
    When the Up and Down arrow buttons are pressed, the adjustment control for the BRIGHTNESS will be shown.

6. **Arrow Left/Right buttons**
    Use these buttons to navigate through the On Screen Display menu.

7. **Auto adjust**
    Use this button to adjust the
    ● Horizontal position
    ● Vertical position
    ● Phase and clock settings

8. **Volume L/R controls**
    Use a small screwdriver with slot tip to set the required volume level. Turn the controls clockwise to increase the volume level, or counter-clockwise to decrease the volume level.

6. CONNECTION TO EXTERNAL EQUIPMENT

6.1 CONNECTING A PC

Caution:
Before connecting the cables to the touch screen monitor and PC, be sure the computer is turned off and the power cable of the touch screen monitor is not plugged in.

6.1.1 THE TOUCH SCREEN CONNECTIONS

The following cables need to be connected to the touch screen monitor:

- Power cable

- VGA signal cable

- Speaker cable

Note:
The serial interface cable is pre-connected to the monitor. Length of the serial cable is 1.3 meter.

To connect the cables to the touch screen monitor:
1   Remove the cover plate at the back of the touch screen monitor; 4x screws.

2   Connect the female end of the power cable to the power port on the touch screen monitor (**1**).

3   Connect the VGA signal cable to the VGA-Connector on the touch screen monitor (**2**). Secure the cable by turning the screws on the connector clockwise.

4   To use the built in speakers, you need to connect the speaker cable. Connect the speaker cable to the speaker port inside the back of the touch screen monitor (**3**).

5   Remount the cover plate at the back of the touch screen monitor using the 4x screws.

   Note:
   The cover plate can be positioned with the cable conduct up or down. Select the required position.
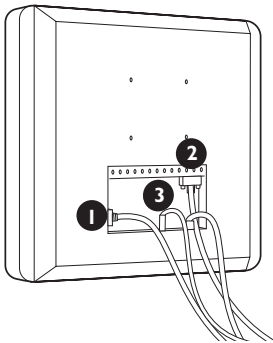
6.1.2   PC CONNECTIONS

1   Turn off your computer and unplug its power cable (**1**).

2   Connect the VGA signal cable to the video connector (**2**) on the
    back of your computer. Secure the cable by turning the screws on
    the connector clockwise.

3   Connect the serial (female RS-232) cable to the serial port on the
    back of your PC (**3**). Secure the cable by turning the screws on the
    connector clockwise.

4   Disconnect the male PS/2 connector from the keyboard port of the
    PC and connect it to the female PS/2 connector of the flying lead
    from the serial (female RS-232) cable (**4**).

5   Plug the male PS/2 connector of the flying lead from the serial
    (female RS-232) cable in the keyboard port of the PC (**5**).

6   Connect the speaker connector to your PC audio output (**6**).

7   Plug the power cord of the touch screen monitor and your
    computer into an outlet (**7**).

8   Turn on your computer and touch screen monitor. If the monitor
    displays an image, the installation is complete.

9   If the image is not centered within the screen area, use the monitor
    controls to adjust the image.
    See chapter Basic Functions for more information.
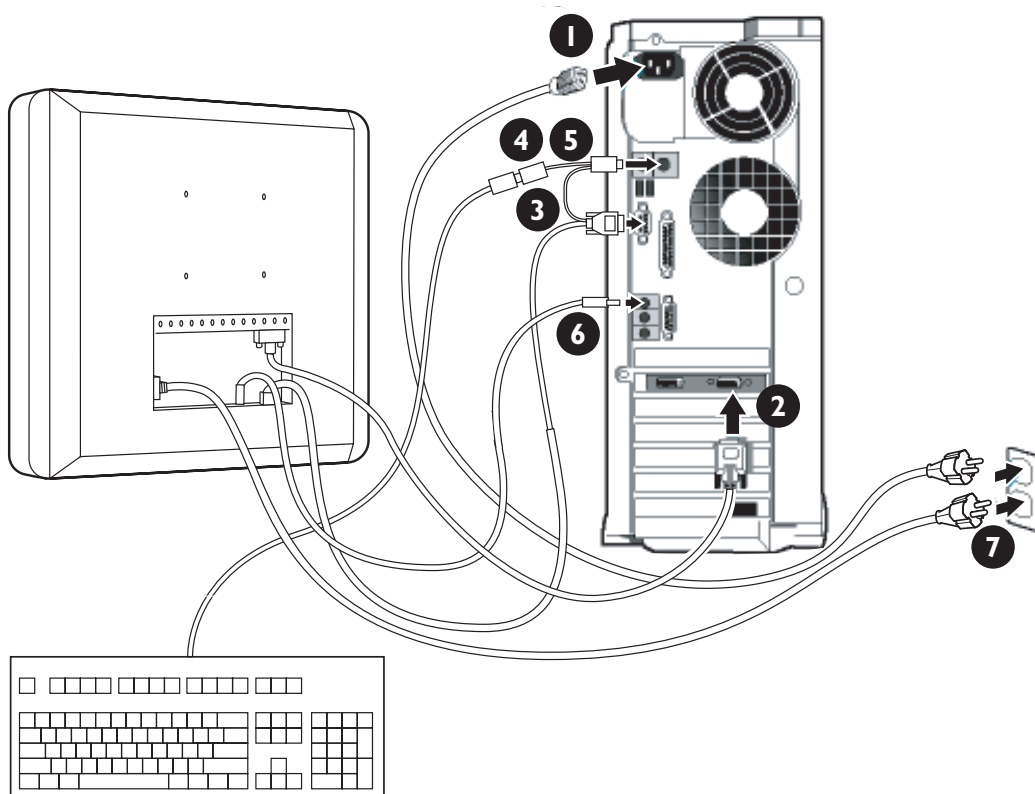
6.2   START UP

6.2.1   INSTALLING THE MONITOR DRIVER

The built-in VESA DDC2B feature in Philips Monitors supports Plug &
Play requirements for Windows® 95/98/2000/Me/XP. This information
file (.inf) should be installed in order that your Philips monitor can be
enabled from the 'Monitor' dialog box in Windows® 95/98/2000/Me/XP
and the Plug & Play application can be activated. The installation
procedure based on Windows® '95 OEM Release 2, 98, Me, XP and
2000 is specified as follows.

For Windows® 95
1   Start Windows® '95.

2   Click on the 'Start' button.

3   Select 'Settings', then click on 'Control Panel'.

4   Double click on the 'Display' icon.

5   Select the 'Settings' tab, then click on 'Advanced...'.

6   Select the 'Monitor' button.

7   Select 'Change...', then click on 'Have Disk...'.

8   Click on the 'Browse...' button, select the appropriate drive F:
     (CD-ROM Drive).

9   Click on the 'OK' button.

10 Click on the 'OK' button, then select your monitor model.

11 Click on the 'OK' button.

12 Click on the 'Close' button.

For Windows® 98
1   Start Windows® 98.

2   Click on the 'Start' button.

3   Select 'Settings', then click on 'Control Panel'.

4   Double click on the 'Display' icon.

5   Select the 'Settings' tab, then click on 'Advanced...'.

6   Select the 'Monitor' button,

7   Select 'Change...', then click on 'Next'.

8   Select 'Display a list of all the drivers in a specific location, so you can
     choose the driver you want.'

9   Click on 'Next', then click on 'Have Disk...'.

10 Click on the 'Browse...' button, select the appropriate drive F:
     (CD-ROM Drive).

11   Click on the 'OK' button.

12 Click on the 'OK' button, then select your monitor model.

13 Click on the 'Next' button.

14 Click on the 'Finish' button, then the 'Close' button.

For Windows® Me

1   Start Windows® Me.

2   Click on the 'Start' button.

3   Select 'Settings', then click on 'Control Panel'.

4   Double click on the 'Display' icon.

5   Select the 'Settings' tab, then click on 'Advanced...'.

6   Select the 'Monitor' button, then click on 'Change...' button.

7   Select 'Specify the location of the driver(Advanced)' and click on the 'Next' button.

8   Select 'Display a list of all the drivers in a specific location, so you can choose the driver you want', then click on 'Next'.

9   Click on 'Have Disk...'.

10 Click on the 'Browse...' button, select the appropriate drive F: (CD-ROM Drive).

11 Click on the 'OK' button.

12 Click on the 'OK' button, select your monitor model.

13 Click on the 'Next' button.

14 Click on 'Finish' button, then the 'Close' button.

For Windows® 2000

1   Start Windows® 2000.

2   Click on the 'Start' button.

3   Select 'Settings', then click on 'Control Panel'.

4   Double click on the 'Display' icon.

5   Select the 'Settings' tab, then click on 'Advanced...'.

6   Select 'Monitor'

- If the 'Properties' button is inactive, it means your monitor is properly configured. Please stop installation.

- If the 'Properties' button is active. Click on 'Properties' button. Please follow the steps given below.

7   Click on 'Driver', then click on 'Update Driver...'.

8   Click on the 'Next' button.

9   Select 'Display a list of the known drivers for this device so that I can choose a specific driver', then click on 'Next'.

10 Click on 'Have disk...'.

11 Click on the 'Browse...' button, then select the appropriate drive F: (CD-ROM Drive).

12 Click on the 'Open' button, then click on the 'OK' button.

13 Select your monitor model, then click on the 'Next' button.

14 Click on the 'Finish' button, then the 'Close' button.
    If you can see the 'Digital Signature Not Found' window, click on the 'Yes' button.

For Windows® XP

1   Start Windows® XP.

2   Click on the 'Start' button, then click on 'Control Panel'.

3   Select and click on the category 'Printers and Other Hardware'

4   Click on the 'Display' Item.

5   Select the 'Settings' tab, then click on the 'Advanced' button.

6   Select 'Monitor' tab

   ● If the 'Properties' button is inactive, it means your monitor is properly configured. Please stop installation.

   ● If the 'Properties' button is active, click on 'Properties' button. Please follow the steps below.

7   Click on the 'Driver' tab, then click on 'Update Driver...' button.

8   Select the 'Install from a list or specific location [advanced]' radio button and then click on the 'Next' button.

9   Select the 'Don't Search. I will choose the driver to install' radio button. Then click on the 'Next' button.

10 Click on the 'Have disk...' button, then click on the 'Browse...' button

11 Select the appropriate drive F: (CD-ROM Drive).

12 Click on the 'Open' button, then click the 'OK' button.

13 Select your monitor model, then click on the 'Next' button.

   ● If you can see the 'has not passed Windows® Logo testing to verify its compatibility with Windows® XP' message, please click on the 'Continue Anyway' button.

14 Click on the 'Finish' button, then the 'Close' button.

15 Click on the 'OK' button, then click the 'OK' button again to close the Display Properties dialog box.

Note:
If your Windows® 95/98/2000/Me/XP version is different or you need more detailed installation information, please refer to Windows® 95/98/2000/Me/XP user's manual.

6.2.2   INSTALLING THE SERIAL TOUCH DRIVER FOR WINDOWS

Note:
For Windows 2000 and NT 4.0 you must have administrator access rights in order to install the driver.

1   Insert the CD containing the serial touch drivers into the CD-ROM drive of your computer.

2   Select the CD-ROM drive containing the serial touch drivers CD.

3   Browse to the folder that contains the setup.exe file to install the driver files for the operating system you are using.

4   Double-click 'setup.exe' to start the installation.

5   Follow the installation instructions on your computer screen.

    Note:
    See next page for an installation example for Windows 2000.

6   Restart your computer after the software is installed to activate the touch screen driver.

7   Calibrate the touch screen to set the active area of the screen and to align the touch screen with the underlaying video image.
=> After reboot the callibration server appears.

8   Press the hotspots on the display to callibrate the touch screen.

Note:
Once the driver is installed the touch screen will act as a standard mouse function in Windows.

Installation example for Windows 2000

1 On the installation CD, browse to the files in the figure.
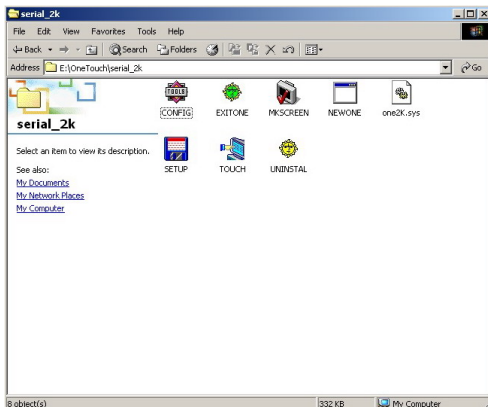
2 Double-click 'setup.exe' to start the installation.
=> The Welcome screen appears.

3 Click NEXT to continue.

4 Select the COM (serial) port where the touch screen is plugged into.

5 Leave baud rate at 9600.

6 Click NEXT to continue.
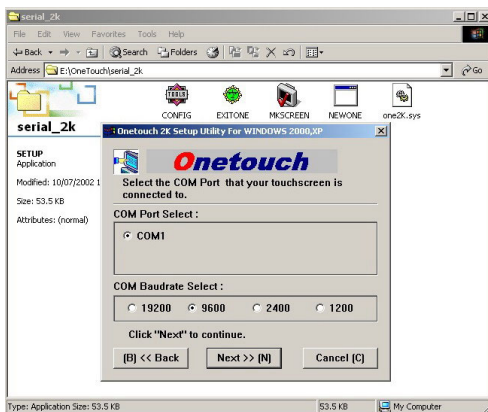
7   This is an optional feature, mostly not selected.

8   Click NEXT to continue.
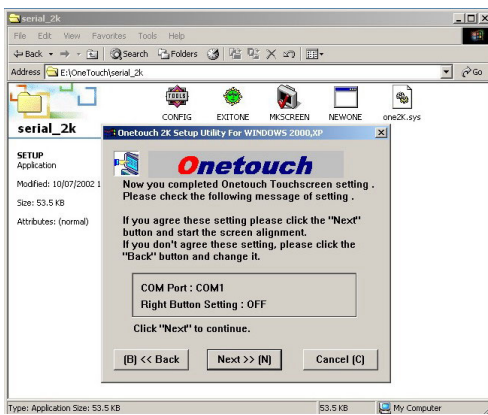
9   The Onetouch installation wizard asks you to confirm if the selected settings are correct.

10 Click NEXT to continue.
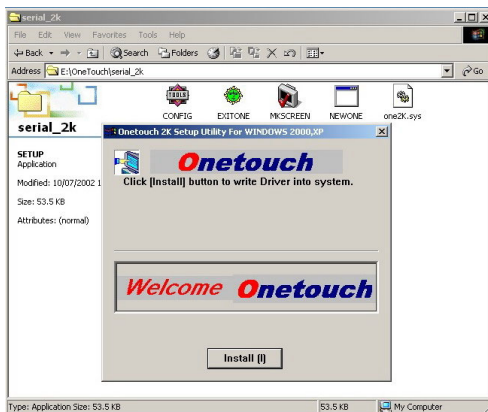
11 Click INSTALL to start the installation.
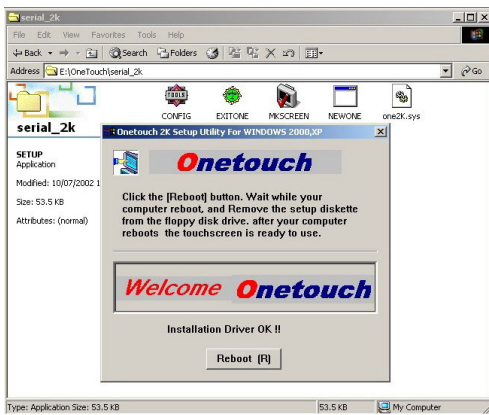
12 Click REBOOT to re-start your system.
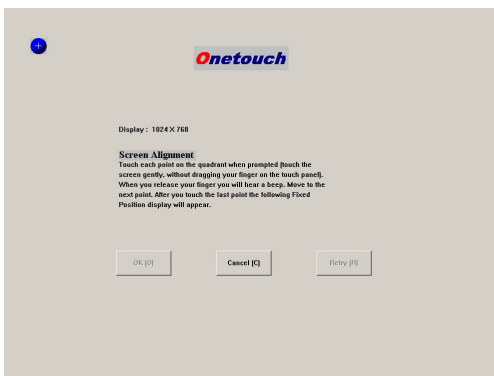
13 After restart the Alignment screen shows up automatically.

14 Press the dot as precise as possible with your finger.

15 After this, three other marker dots will show up in the corners to touch exactly as possible.

16 When your done click or press OK.

17 You will return to the desktop. The system is now touch enabled! You can configure settings by selecting:

START => Programs => ONE2K (XP) =>:

● **CONFIG**
For setting a different communication port.

● **MKSCREEN**
For re-calibrating the screen.

● **TOUCH**
For restarting the touch driver if you manually stopped the Onetouch driver.

● **UNINSTAL**
For removing the driver.
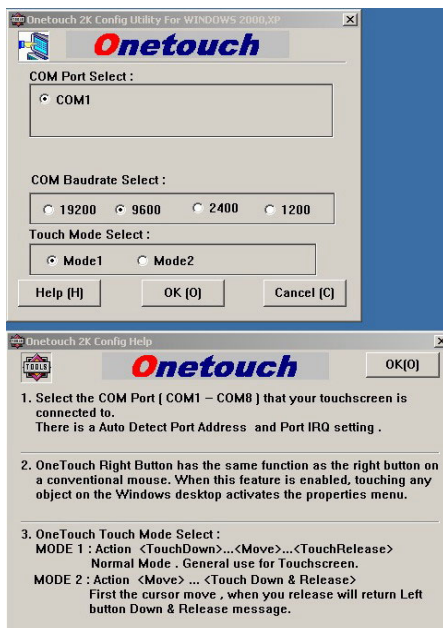
The upper figure shows the CONFIG screen.

■ In the 'COM Port Select:' box you can select a different Serial communication port (COM / RS232), if available.

■ In the 'Touch Mode Select:' box you can select between two modes. Mode 1 is default.

The lower figure shows the helpfile, explaining the differences between Mode 1 and Mode 2.

7. BASIC FUNCTIONS
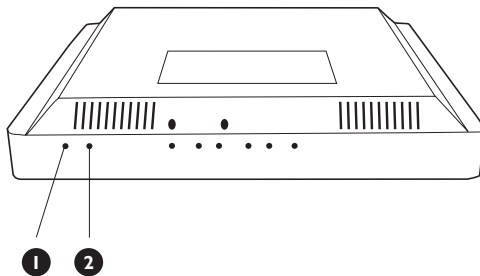
7.1 POWERING ON/OFF

Push the power switch (**2**) at the bottom of the monitor, to switch the monitor on/off.

Status LED (1):

■ **Not Illumated = No AC Power detected**
If the main power switch (rear of panel) is turned off, this LED will not illuminate.

■ **Orange = Stand-by (Power OFF) with AC power detected**
The LED will illuminate in orange color if the monitor is in stand-by mode.

■ **Solid Green = Power ON**

7.2 TOUCH SCREEN FUNCTION

The built-in touch screen basically acts as a standard PC mouse function. For this purpose a CD-rom with drivers and manual has been included in the package.

For application support:

■ See the FAQ list in the Appendix of this manual.

■ Contact the application support helpdesk, by calling one of the telephone numbers of the Philips service organisation in the Warranty's chapter of this manual.

7.3 ON-SCREEN DISPLAY MENU

What is the On-Screen Display?
On-Screen Display (OSD) is a feature in all Philips LCD monitors. It allows an end user to adjust screen performance or select functions of the monitors directly through an on-screen instruction window.

Accessing OSD Menu via Remote Control or Front Panel
The On-Screen Display (OSD) menu allows access to setup various parameters equipped with this display.

1 To access the OSD menu, press the arrow up/down buttons on the monitor panel.

2 To navigate through the OSD Menu use the arrow left/right buttons on the monitor panel.

3 To confirm the selection or change press the OK button.

Main Menu   **Sub Menu**

- Exit
- Brightness & Contrast
  - Brightness
  - Contrast
  - Back
- Color
  - Original Color
  - 9300K
  - 6500K
  - sRGB
  - User Define
    - Red
    - Green
    - Blue
  - Back
- Position
  - Horizontal
  - Vertical
  - Back
- More Settings
  - Language
    - ENGLISH
    - ESPAÑOL
    - FRANÇAIS
    - DEUTSCH
    - ITALIANO
    - 中文
    - Back
  - Phase/Clock
    - Phase
    - Clock
    - Back
  - OSD Settings
    - Horizontal
    - Vertical
    - Back
  - Back
- Reset
  - No
  - Yes
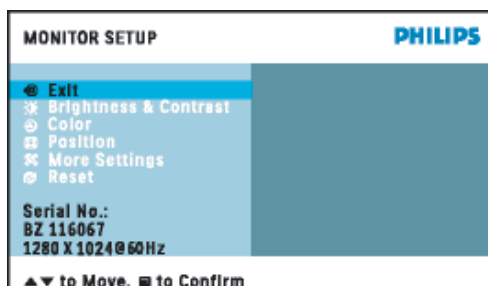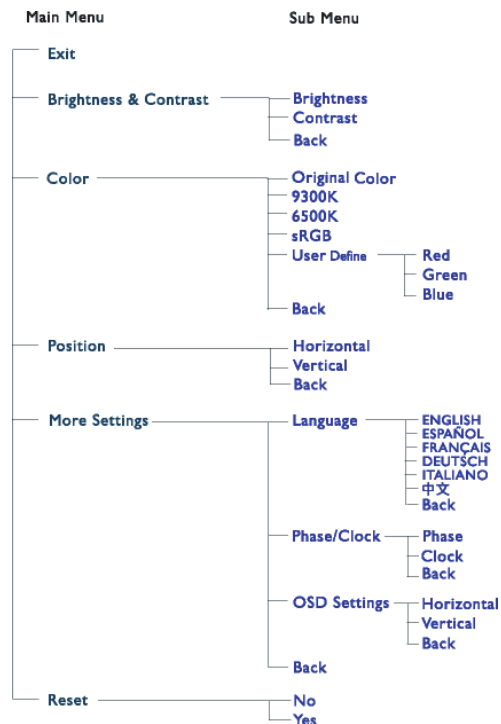
7.4   THE OSD TREE

An overall view of the structure of the On-Screen Display is shown. You can use this as a reference when you want to work your way around the different adjustments.

Notes:
Note: sRGB is a standard for ensuring correct exchange of colors between different devices (e.g. digital cameras, monitors, printers, scanners, etc.)

Using a standard unified color space, sRGB will help represent pictures taken by an sRGB compatible device correctly on your sRGB enabled Philips monitors.
In that way, the colors are calibrated and you can rely on the correctness of the colors shown on your screen.

Important with the use of sRGB is that the brightness and contrast of your monitor is fixed to a redefined setting as well as the color gamut. Therefore it is important to select the sRGB setting in the monitor's OSD.

1   Press the OK button on the front of your monitor.

2   Move the down button to go to Color.

3   Press the OK button again.

4   Use the right button to go to sRGB.

5   Move the down button.

6   Press OK again to exit the OSD.

After this, please do not change the brightness or contrast setting of your monitor.

If you change either of these, the monitor will exit the sRGB mode and go to a color temperature setting of 6500K.

8. ADVANCED FUNCTIONS

8.1 SMART MANAGE

8.1.1 INTRODUCTION

Philips SmartManage is an advanced solution for users, corporate/ institution IT administrator in particular, to manage their Philips monitors as part of the asset management environment. The solution includes three essential components, Philips SmartManage Administrator, and Philips SmartControl and Agent.

Philips SmartManage is a solution joint developed by Philips and Altiris Inc.

8.1.2 SMARTMANAGE FEATURES AND BENEFITS

The Philips SmartManage is a working console for IT management to gather monitors assets information, run asset report, control assets security, monitor assets security, and issue instant messages to monitor users.

Philips SmartManage includes the following major features:

■ Provides an additional security measure that helps corporate users safeguard their investment.

■ Power saving feature that reduces utility costs and manpower required to turn monitors on or off.

■ SmartControl provides an efficient means for adjusting monitor performance and settings.

■ Built-in asset reports reduce audit/maintenance manpower, cycle time and costs.

Notes:
● A trial version of SmartManage can be downloaded from http://www.altiris.com/philips

● For more information of Philips SmartManage, please contact with Philips sales representatives in your country.

● SmartManage is a software dedicated to business environments. Personal users normally do not need to use SmartManage.

Philips Smart Control

The SmartControl and SmartManage Agent are deployed and installed in computers using Philips monitors. With SmartControl and SmartManage Agent, monitors and PCs can interact with the administrator's inquiries. Because SmartControl operates on individual PC, end users can also use SmartControl to adjust monitor's performance settings.

■ **Requirement**
- Graphic cards with nVIDIA (TNT2, GeForce, Quadro, or newer) and ATI (Radeon or newer) graphic chipsets that support the DDC/CI interface.
- I Microsoft Windows 2000 and XP operation systems.
- Philips monitors supporting DDC/CI interface

■ **Installation**
How to download "SmartControl Installation" file:
1   Visit http:// www.philips.com
2   Select "Your Country".
3   Click on "Support Center".
4   Click in the "Monitors and PC Products" field.
5   Enter your model number.
6   Select the "Software" page.
7   Select "SmartControl Installation". Now you can download SmartControl and its driver for installation.

Note:
Please follow the instructions in the SmartControl installation program.

■ **Accessing SmartControl**
- Right click on the desktop of your PC, and select Properties from the short-cut menu pops up.
- Click on Settings tab, and click on Advanced button.
- Click Philips SmartControl tab.

■ **SmartControl Options**

Display and Sound
By moving the sliding bar toward left or right, you can adjust brightness, contrast, audio volume (if applicable), video noise (not applicable when using DVI-D input), and color temperatures.
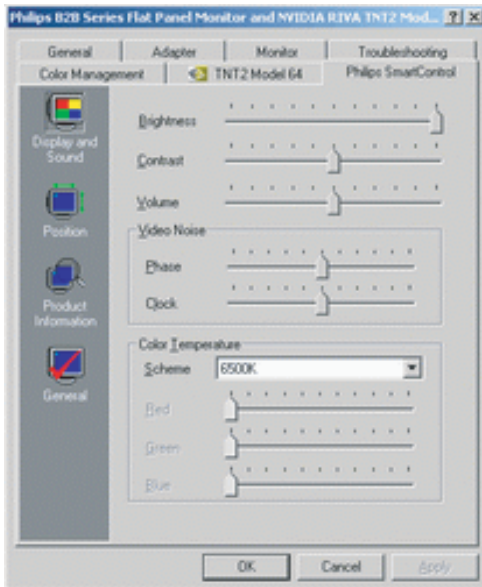
Position
Users can adjust the horizontal and vertical position of the screen by moving the sliding bar left and right.

This function is disabled when using DVI-D (digit) input
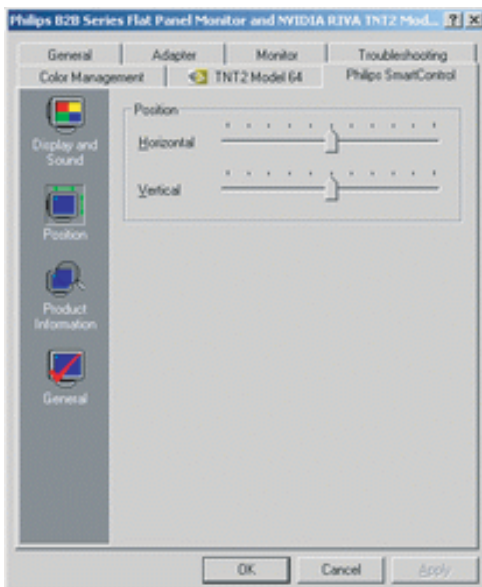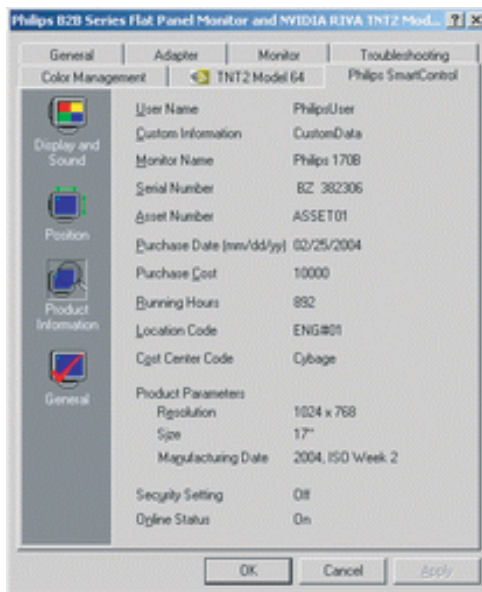
Product Information
Click Product Information in the left pane to view the product information stored in the monitor's memory.

General
Click on General for general information including driver information, device information, and monitor control.

9. TECHNICAL SPECIFICATIONS

Display Panel

Type	TFT LCD
Screen Size	19"/48 cm diagonal
Pixel Pitch	0.294 x 0.294 mm
Number of Pixels	1280 (Horizontal) x 1024 (Vertical)
Effective viewing area	376.32 x 301.06 mm
LCD Panel type	1280 x 1024 pixels
	R.G.B. vertical stripe
	Anti-glare polarizer, hard coated
Display Colors	16.2 M colors
Response time	12 ms

Power Source

Input Voltage	100 ~ 240 Vac; 50/60 Hz
Power Consumption *	34 Watts (typ.)excl. touchstone electronics
Off mode	1 Watt
Power supply	90-264V AC Built in

Dimensions & Weight

Width *	432 mm
Height *	419 mm
Depth *	235 mm
Weight	10.0 kg

Operating Conditions

Temperature	5°C ~ 35°C
Relative Humidity	20 ~ 80%

Non-Operating Conditions

Temperature	-20 ~ 60°C
Relative Humidity	20 ~ 80%

Reliability Requirement

The MTBF is 50,000 hrs. (excluding CCFL 40.000 hours)

Scanning

Vertical refresh rate	56 Hz ~ 76 Hz
Horizontal Frequency	30 kHz ~ 83 kHz

Video/S-Video Signal

Video dot rate	140 MHz
Input Impedance	Video 75 Ohms
	Sync 2.2 kOhms
Input signal levels	0.7 Vpp
Sync input signal	Separate sync
	Composite sync
	Sync on green
Sync polarities	Positive and negative
Video interface	D-Sub (analog)

Optical characteristics

Contrast Ratio   500:1(typ)
Brightness   250 Nit
Peak contrast angle   6 o'clock
White Chromaticity   x: 0.283 y: 0.297 (at 9300°K)
                       x: 0.313 y: 0.329 (at 6500°K)
                       x: 0.313 y: 0.329 (at sRGB)
Viewing Angle (C/R>5) Upper >80° (typ.)
                       Lower >80° (typ.)
                       Left   >80° (typ.)
                       Right   >80° (typ.)
Response time   8 ms (typ.)

Resolutions & Preset Modes

■ Maximum 1280 X 1024 at 75 Hz

■ Recommended 1280 X 1024 at 60 Hz

This monitor has 15 factory preset modes and 50 User definable modes.:

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640 x 350	31.5	70
720 x 400	31.5	70
640 x 480	31.5	60
640 x 480	35.0	67
640 x 480	37.5	75
800 x 600	35.2	56
800 x 600	37.9	60
800 x 600	46.9	75
832 x 624	49.7	75
1024 x 768	48.4	60
1024 x 768	60.0	75
1125 x 870	69.0	75
1125 x 900	71.8	76
1280 x 1024	63.9	60
1280 x 1024	80.0	75

Pin Assignments

1. The 15-pin D-sub connector (male) of the signal cable:

Pin.No.

1	RED video input
2	GREEN video input
3	BLUE video input
4	GND
5	GND Cable detect
6	RED Video ground
7	GREEN Video ground
8	BLUE GND Video ground
9	NC
10	GND
11	GND
12	SDA
13	H-SYNC
14	V-SYNC
15	SCL

2. Fixed touch screen cable with 9-pin D-sub connector and 5-pin mini DIN for (PS2) keyboard input.

3. Power cable

4. Audio cable with 3.5 mm plug/jack

Power Management

If you have VESA DPMS compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use.

If an input from an input device is detected, the monitor will 'wake up' automatically.

The following table shows the power consumption and signaling of this automatic power saving feature:

VESA Mode	H-sync	V-sync	Video	Power Used	Status Led Color
Active	Yes	Yes	On	<34W(typ.)	Green
Sleep	No	No	Off	Power off	Amber
Power Off	-	-	Off	< 1 W	Off

10. TROUBLESHOOTING

10.1   COMMON PROBLEMS

Symptom	Possible Cause	Remedy
No picture is displayed.	1 The power cord is disconnected. 2 The selected input has no connection. 3 The monitor is in stand-by mode in RGB mode.	1 Plug in the power cord. 2 Connect a signal connection to the monitor. 3 Press any key on your keyboard.
Interference displayed on the monitor or audible noise is heard.	Caused by surrounding electrical appliances, cars/motorcycles or fluorescent lights.	Move the monitor to another location to see if the interference is reduced.
Color is abnormal.	The signal cable is not connected properly.	Make sure that the signal cable is attached firmly to the back of the monitor.
Picture is distorted with abnormal patterns.	1 The signal cable is not connected properly. 2 The input signal is beyond the capabilities of the monitor.	1 Make sure that the signal cable is attached firmly. 2 Check the video signal source to see if it is beyond the range of the monitor. Please verify its specifications with this monitor's specification section
Display image doesn't fill up the full size of the screen.	If under RGB mode, the H-Size and V-Size is incorrectly set.	Use H-Size and V-Size to adjust the size of the video.
Can hear sound, but no picture is displayed.	Improperly connected source signal cable.	Make sure that both video inputs and sound inputs are correctly connected.
Some picture elements do not light up.	Some pixels of the display may not turn on.	This monitor is manufactured using an extremely high level of precision technology; however, sometimes some pixels of the monitor may not display. This is not a malfunction. Please see the enclosed warranty card for more information.
After-Images can still be seen on the monitor after the monitor is powered off. (Examples of still pictures include logos, video games, computer images, and images displayed in 4:3 normal mode.)	A still picture is displayed for an over extended period of time.	Do not allow a still image to be displayed for an extended period of time as this can cause a permanent after-image to remain on the monitor.
Touch screen does not respond to touch.	Problems with software installation.	Review the installation procedure. Check all cable connections.
Touch screen is not accurate.	Cursor does not follow the finger movement or does not reach the edges of the screen.	Recalibrate the screen.

Symptom	Possible Cause	Remedy
You touch the touch screen but the cursor appears in a different place.	The touch panel is not correctly aligned to your monitor.	1 From DOS re-run the MKSCR.EXE (from Windows re-run the WMKSCR.EXE) program. Realign the touch screen to your monitor. Run the application file. If the problem persists go to 2. 2 You may have stored the source files in different directories or folders when you ran the INTCMS and RTOUCH (display mode parameter). Another possibility is that there may be a conflict between the application mode and MKSCR display modes. 3 If you have access to functioning models of the touch screen and the controller box try the following! Remove the touch screen and replace it with the functioning model. Re-run the MKSCR.EXE program. If the problem is solved then your original touch screen is broken. Contact your dealer for help. If the problem persists, replace the controller box with a functioning model. Re-run the MKSCR.EXE program. If the problem is solved then your original controller box is broken. Contact your dealer for help.
Cursor is extremely jittery or erratic.	Wrong setting of the operating frequency.	Adjust the operating frequency at the touch screen control panel.
Cursor lags finger.	Incorrect baud rate.	Lower the baud rate of the touch screen driver.

For further assistance, refer to the Consumer Information Centers list and contact your local Philips distributor.

11. LIMITED WARRANTY (USA)

One Year Free Labor

One Year Free Parts

Who is covered?
You must have proof of the date purchased to receive warranty service. A sales receipt or other document showing the date that you purchased the product is considered proof of purchase.

Important: Keep the original box and package material in case you need to return the product.

What is covered?
Warranty coverage begins the day you buy your product. For one year thereafter, all defective parts will be repaired or replaced of charge free (including labor). After one year from the day of purchase, you pay for the replacement or the repairs of all parts, and for all labor charges. All parts, including repaired and replaced parts, are covered only for the original warranty period.
When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

What is excluded?
Your warranty does not cover:

■ Labor charges for installation or setup of the product, adjustment of customer controls on the product.

■ Product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Philips Consumer Electronics North America.

■ A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.

■ Incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted).

■ Modifications or adaptations to enable the product to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or the repair of products damaged by these modifications.

■ Normal wear and tear over the product's lifetime.

■ Limited quantity of cells (fine pixel elements) that do not produce light, or that remain lit after they should have turned off.

Where is service available?

Warranty service is available in all countries where the product is officially distributed by Philips Consumers Electronics North America. In countries where Philips Consumers Electronics North America does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

Make sure you keep ...

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return the product.

Before requesting service ...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

To obtain warranty service in the USA, Puerto Rico or US Virgin Islands ...

Please contact Philips Customer Care Center at:

1-888-PHILIPS (1-888-744-5477) (English or Spanish Speaking)

or an authorized service center to arrange repair.

(In U.S.A., Puerto Rico and U.S.Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this express warranty. But, because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

To obtain warranty service in Canada ...

Please contact Philips Customer Care Center at:

1-800-661-6162 (French Speaking) (within Canada only)

1-888-PHILIPS (1-888-744-5477) - (English Speaking)

(In Canada, this warranty is given in lieu of all other warranties. No other warranties are expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. Philips is not liable under any circumstances for any direct, indirect, special, incidental or consequential damages, howsoever incurred, even if notified of the possibility of such damages.)

Remember ...

Please record the model and serial numbers found on the product below. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

MODEL # _

SERIAL # _ _ _ _ _ _ _ _ _ _ _ _ _ _ _wo_ _ _ _ _

12. WARRANTY (WESTERN EUROPE)

3 years carry in

All Philips monitors are designed and manufactured to high standards and deliver high-quality performance, ease of use and ease of installation. Should you encounter any difficulties while installing or using this product, please contact the Philips helpdesk directly to benefit from your Philips Warranty. This three-year service warranty entitles you to a carry in repair if your monitor turns out to be faulty or defective. **Important: Keep the original box and packing material in case you need to return the product.**

What is covered?

The Philips Warranty applies within Andorra, Austria, Belgium, Cyprus, Denmark, France, Germany, Greece, Finland, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, the Netherlands, Norway, Portugal, Sweden, Switzerland, Spain and the United Kingdom and only for monitors originally designed, manufactured, approved and/or authorized for usage within these countries.

Warranty coverage begins as from the day you buy your monitor. For three years thereafter, your monitor will be repaired under warranty in case of defects provided for under the warranty coverage.
When shipping the monitor, use the original packing material. If you do not have the original packaging, use equivalent materials and place plenty of cushioning around the monitor.

What is excluded?

The Philips Warranty applies provided the product is handled properly for its intended use, in accordance with its operating instructions and upon presentation of the original invoice or cash receipt, indicating the date of purchase, dealer's name and model and production number of the product.

The Philips Warranty may not apply if:

- The documents have been altered in any way or made illegible;

- The model or production number on the product has been altered, deleted, removed or made illegible;

- Repairs or product modifications and alterations have been executed by unauthorized service organizations or persons;

- Damage is caused by accidents including but not limited to lightning, water or fire, misuse or neglect;

- Defects caused by abuse or misuse of the monitor;

- Product requires modification or adaptation to enable it to comply with local or national technical standards, which apply in countries for which the product was not originally designed, manufactured, approved and/or authorized. Therefore always check whether a product can be used in a specific country.

Just a phone call away

In order to avoid unnecessary inconvenience, we advise you to read the operating instructions carefully or go to the www.philips.com/support website for additional support before contacting the Philips help desk. To solve your problem quickly, please prepare the following details before contacting the Philips helpdesk:

■ Philips type number

■ Philips serial number

■ Purchase date (copy of purchase may be required)

■ PC environment Processor:

- 286/386/486/Pentium Pro/Internal memory

- Operating system (Windows, DOS, OS/2, MAC)

- Fax/Modem/Internet program?

- Other cards installed

Having the following information available will also help speed up the process:

■ Your proof of purchase indicating: date of purchase, dealer name, model and product serial number.

Where is service available?

Warranty service is available in all countries where the product is officially distributed by Philips Consumers Electronics Europe. In countries where Philips Consumer Electronics Europe does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

Make sure you keep ...

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return the product.

Before requesting service ...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

To obtain warranty service or if you have questions ...

Please contact Philips Customer Service Center at one of the telephone numbers below:

Austria 0820 901115

Belgium 070 253 010

Denmark 3525 8761

Finland 09 2290 1908

France 08 9165 0006

Germany 0180 5 007 532

Greece 0 0800 3122 1223

Ireland 1 601 1161

Italy 199 404 042

Luxembourg 26 84 30 00

Netherlands 0900 0400 063

Norway 2270 8250

Portugal 2 1359 1440

Spain 902 888 785

Sweden 08 632 0016

Switzerland 02 2310 2116

United Kingdom 0906 1010 017

Or you can reach us via: Website: ***http://www.philips.com***

Remember ...

Please record the model and serial numbers found on the product below. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

MODEL # _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

SERIAL # _ _ _ _ _ _ _ _ _ _ _ _ _ _ _wo_ _ _

13. APPENDIX

## 13.1   PHILIPS' FLAT PANEL MONITORS PIXEL DEFECT POLICY

Philips strives to deliver the highest quality products. We use some of the industry's most advanced manufacturing processes and practice stringent quality control. However, pixel or sub pixel defects on the TFT LCD panels used in flat panel monitors are sometimes unavoidable. No manufacturer can guarantee that all panels will be free from pixel defects, but Philips guarantees that any monitor with an unacceptable number of defects will be repaired or replaced under warranty. This notice explains the different types of pixel defects and defines acceptable defect levels for each type. In order to qualify for repair or replacement under warranty, the number of pixel defects on a TFT LCD panel must exceed these acceptable levels. For example, no more than 0.0004% of the sub pixels on a 15" XGA monitor may be defective. Furthermore, Philips sets even higher quality standards for certain types or combinations of pixel defects that are more noticeable than others. This policy is valid worldwide.

13.1.1   PIXELS AND SUB PIXELS

A pixel, or picture element, is composed of three sub pixels in the primary colors of red, green and blue. Many pixels together form an image. When all sub pixels of a pixel are lit, the three colored sub pixels together appear as a single white pixel. When all are dark, the three colored sub pixels together appear as a single black pixel. Other combinations of lit and dark sub pixels appear as single pixels of other colors.

13.1.2   TYPES OF PIXEL DEFECTS

Pixel and sub pixel defects appear on the screen in different ways. There are two categories of pixel defects and several types of sub pixel defects within each category.
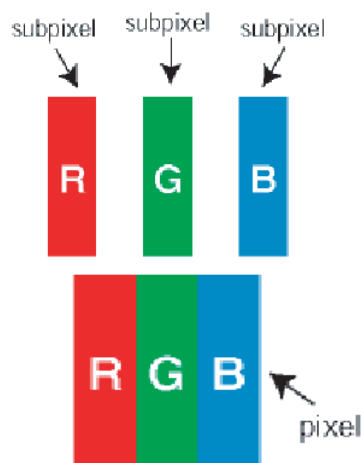
13.1.3 BRIGHT DOT DEFECTS

Bright dot defects appear as pixels or sub pixels that are always lit or 'on'. That is, a *bright dot* is a sub-pixel that stands out on the screen when the monitor displays a dark pattern.

There are the types of bright dot defects:
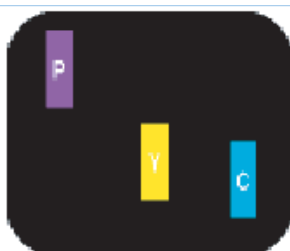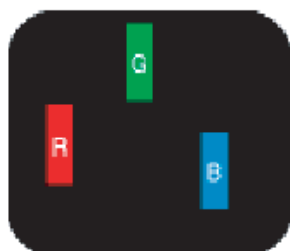
1 One lit red, green or blue sub pixel.

2 Two adjacent lit sub pixels:
   - Red + Blue = Purple
   - Red + Green = Yellow
   - Green + Blue = Cyan (Light Blue)

3 Three adjacent lit sub pixels (one white pixel).

Note:
A red or blue *bright dot* while a green bright dot is 30 percent brighter than neighboring dots.

13.1.4 BLACK DOT DEFECTS

Black dot defects appear as pixels or sub pixels that are always dark or 'off'. That is, a *dark dot* is a sub-pixel that stands out on the screen when the monitor displays a light pattern.

These are the types of black dot defects:

1 One dark sub pixel.

2 Two or three adjacent dark sub pixels.

One dark sub pixel

Two or three adjacent dark sub pixels

13.1.5 PROXIMITY OF PIXEL DEFECTS

Because pixel and sub pixels defects of the same type that are near to one another may be more.

noticeable, Philips also specifies tolerances for the proximity of pixel defects.

13.1.6 PIXEL DEFECT TOLERANCES

In order to qualify for repair or replacement due to pixel defects during the warranty period, a TFT LCD panel in a Philips flat panel monitor must have pixel or sub pixel defects exceeding the tolerances listed in the following tables.

BRIGHT DOT DEFECTS	ACCEPTABLE LEVEL
MODEL	**190S6**
1 lit subpixel	3 or fewer
2 adjacent lit subpixels	1 or fewer
3 adjacent lit subpixels	0
Distance between two bright dot defects*	25mm or more
Total bright dot defects of all types	3 or fewer

BLACK DOT DEFECTS	ACCEPTABLE LEVEL
MODEL	**190S6**
1 lit subpixel	5 or fewer
2 adjacent lit subpixels	2 or fewer
3 adjacent lit subpixels	0
Distance between two bright dot defects*	15mm or more
Total bright dot defects of all types	5 or fewer

TOTAL DOT DEFECTS	ACCEPTABLE LEVEL
MODEL	**190S6**
Total bright dot defects of all types	5 or fewer

Notes:
- ● * 1 or 2 adjacent sub pixel defects = 1 dot defect.
- ● All Philips monitors are ISO13406-2 Compliant.

ITO Conductive Coating

Hard Coating

Glass Substrate

PET Film   Insulating Dot Spacer
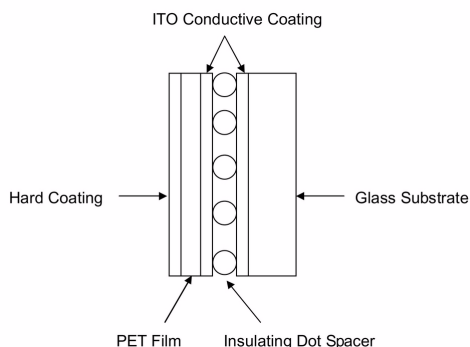
13.2 THE WORKING PRINCIPLE OF 5 WIRE RESISTIVE TOUCH SCREEN

The Structure of Touch screen The 5 wire resistive touch screen uses a glass panel with a uniform conductive ITO (indium tin oxide) coating on the one-side surface. A PET film is tightly suspended over the ITO coating surface of a glass panel. The glass substrate and the PET film are separated by tiny, transparent insulating dot spacers. The PET film has a hard coating on the outer side and a conductive ITO coating on the inner side.

Working Principle

1 When the screen is touched, it pushes the conductive ITO coating on the PET film against the ITO coating on the glass. That results in an electrical contact, producing the voltages. It presents the position touched.

2 When the controller is waiting for a touch, the resistive layer of the touch screen is biased at +5V through the four drive lines, and the PET film is grounded through a high resistance. When the touch screen is not touched, the voltage on the PET film is zero.
   The voltage of the PET film is continuously converted by the A/D (analog-to-digital) converter and monitored by the microprocessor on the controller.

3 When the touch screen is touched, the microprocessor detects the voltage of the PET film and begins generating the (X,Y) coordinates.

   ● The microprocessor applies +5V to pins X and H on the X drive of the touch screen ,and grounds pins Y and L. A voltage proportional to the X (horizontal) position of the touch appears on the PET film at pin S of the touch screen connector.
   This voltage is digitized by the A/D Converter and subjected to an averaging algorithm. Then it is stored and transferred to the host. Hence, the X position is produced.

   ● Secondly, the microprocessor applies +5V to pins Y and L on the Y drive of the touch screen, and ground pins X and H. A voltage proportional to the Y (vertical) position of the touch appears on the PET film at pin S of the touch screen connector. This signal is converted, and the Y position is produced.

Pin Assignments

```
5        1

9        6
```
Front view
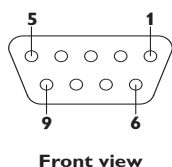
Control board		RS 232 port
1	Clear To Send (CTS)	7
2	Receive Data (RXD)	2
3	Transmit Data (TXD)	3
4	VCC	4
5	Signal Ground (GND)	5
6	Data Set Ready (DSR)	6
7	Data Carrier Detect (DCD)	1
8	NC	8
9	NC	9

13.3   FREQUENTLY ASKED QUESTIONS (FAQ)

13.3.1 FAQ'S FOR MONITOR

General

Q: When I install my monitor what should I do if the screen shows 'Cannot display this video mode'?

A: Recommended video mode for Philips 19": 1280x1024 @60Hz.

1   Unplug all cables, then connect your PC to the monitor that you used previously.

2   In the Windows Start Menu, select Settings/Control Panel. In the Control Panel Window, select the Display icon. Inside the Display Control Panel, select the 'Settings' tab. Under the setting tab, in box labeled 'desktop area', move the slidebar to 1280x1024 pixels (19").

3   Open 'Advanced Properties' and set the Refresh Rate to 60Hz, then click OK.

4   Restart your computer and repeat step 2 and 3 to verify that your PC is set at 1280x1024@60Hz (19").

5   Shut down your computer, disconnect your old monitor and reconnect your Philips LCD monitor.

6   Turn on your monitor and then turn on your PC.

Q: What should I do when screen shows: THIS IS 85HZ OVERDRIVE, CHANGE COMPUTER DISPLAY INPUT TO 1280 x 1024 @60HZ?

A: It means the signal input from your PC is 85Hz -- outside the range that the monitor can display. New Generation LCD intelligent monitor capabilities temporarily override the overscan, providing you with 10 minutes to reset timing to recommended settings. Here's how:

1   Go to your Windows Start menu.

2   Select Settings

3   Select Control Panel.

4   Select Display.

5   Move to Settings and click on the Advanced button.

6   Under Adaptor, change the refresh rate to 56~75.

Note:
You have 10 minutes to complete the operation; if you do not complete within 10 minutes, power off and re-power on monitor to enter changes.

Q: What does 'refresh rate' mean in connection with an LCD monitor?

A: The refresh rate is of much less relevance for LCD monitors. LCD monitors a stable, flicker-free image at 60Hz. There is no visible difference between 60Hz.

Q: What are the .inf and .icm files on the CD-ROM?
How do I install the drivers

A: These are the monitor driver files for your touch screen monitor. Follow the instructions in your manual to install the drivers. Your computer may ask you for monitor drivers icm files) or a driver disk when you first install your monitor. Follow the instructions to insert the (companion CD-ROM) included in this package. Monitor drivers (.ifn and .icm files) will be installed automatically.

Q: How do I adjust the resolution?

A: Your video card/graphic driver and monitor together determine the available resolutions.
You can select the desired resolution under Windows® Control panel with the "Display properties".

Q: What if I get lost when I am making monitor adjustments?

A: Simply press the OK button, then select 'Reset' to recall all of the original settings.

Q: What is the Auto function?

A: The AUTO adjustment key restores the optimal screen position, phase settings at the press of a single button – without the need to navigate through menus and control keys.

Note:
Auto function is available in selected models only.

Q: My Monitor has no power (Power LED does not light up). What should I do?

A: Make sure the AC power cord is connected to the Monitor.

Q: Will the LCD monitor accept an interlaced signal under PC models?

A: No. If an Interlace signal is used, the screen displays both odd and even horizontal scanning lines at the same time, thus distorting the picture.

Q: What does the Refresh Rate mean for LCD?

A: Unlike CRT display technology, in which the speed of the electron beam is swept from the top to the bottom of the screen determines flicker, an active matrix display uses an active element (TFT) to control each individual pixel and the refresh rate is therefore not really applicable to LCD technology.

Q: How should I clean the LCD surface?

A: For normal cleaning, use a clean, soft cloth. For extensive cleaning, please use isopropyl alcohol. Do not use other solvents such as ethyl alcohol, ethanol, acetone, hexane, etc.

Screen Adjustments

Q: What is the FPadjust program on the CD-ROM?

A: The FPadjust program generates alignment patterns that help you adjust monitor settings such as Contrast, Brightness, Horizontal Position, Vertical Position, Phase and Clock for optimal performance.

Q: When I install my monitor, how do I get the best performance from the monitor?

1 For best performance, make sure your display settings are set at

   1280x1024@60Hz for 19". Note: You can check the current display settings by pressing the OSD OK button once. The current display mode is shown in product information in OSD main controls.

2 To install the Flat Panel Adjust (FPadjust) program located on the monitor setup CD-ROM, open the CD-ROM and double-click the FP_setup04.exe icon. This will install FP Adjust automatically and place a shortcut on your desktop.

3 Run FPadjust by double clicking the shortcut. Follow the instructions step by step to optimize image performance with your system's video controller.

Q: How do LCDs compare to CRTs in terms of radiation?

A: Because LCDs do not use an electron gun, they do not generate the same amount of radiation at the screen surface.

Compatability with other Peripherals

Q: Can I connect my LCD monitor to any PC, workstation or Mac?

A: No. All Philips LCD monitors are only compatible with standard (Windows) PCs. You may need a cable adapter to connect the monitor to your Mac system. Please contact your dealer/retailer for more information.

Q: Are Philips LCD monitors Plug-and-Play?

A: Yes, the monitors are Plug-and-Play compatible with Windows® 95, 98, 2000 and XP.

LCD Panel Technology

Q: What is a Liquid Crystal Display?

A: A Liquid Crystal Display (LCD) is an optical device that is commonly used to display ASCII characters and images on digital items such as watches, calculators, portable game consoles, etc. LCD is the technology used for displays in notebooks and other small computers. Like light-emitting diode and gas-plasma technologies, LCD allows displays to be much thinner than cathode ray tube (CRT) technology.
LCD consumes much less power than LED and gas-displays because it works on the principle of blocking light rather than emitting it.

Q: How are LCDs made?

A: LCDs are created from two glass plates separated from each other at a distance of a few microns. The plates are filled with liquid crystal and then sealed together. The top plate is colored with an RGB pattern to make the color filter. Polarizers are then glued to both plates. This combination is sometimes called 'glass' or 'cell.' The LCD cell is assembled into a 'module' by adding the backlight, driver electronics and frame.

Q: What is polarization ?

A: Polarization is basically directing light to shine in one direction. Light is electromagnetic waves. Electric and magnetic fields oscillate in a direction perpendicular to the propagation of the light beam. The direction of these fields is called the 'polarization direction'. Normal or non-polarized light has fields in several directions; polarized light has a field in only one direction.

Q: What differentiates passive matrix LCDs from active matrix LCDs?

A: An LCD is made with either a passive matrix or an active matrix display grid. An active matrix has a transistor located at each pixel intersection, requiring less current to control the luminance of a pixel. For this reason, the current in an active matrix display can be switched on and off more frequently, improving the screen refresh time (your mouse pointer will appear to move more smoothly across the screen, for example). The passive matrix LCD has a grid of conductors with pixels located at each intersection in the grid.

Q: How does a TFT LCD Panel work?

A: On each column and row of the TFT LCD panel, a data source drive and a gate drive are attached, respectively. The TFT drain of each cell is connected to the electrode. The molecular arrangement of liquid crystal elements differ according to whether it is impressed with voltage or not. It varies the direction of polarized light and the amount of light by letting it through different arrays of liquid crystal elements. When two polarized filters are arranged vertically on a polarized light pole, the light that passes through the upper polarized panel is turned 90 degrees along with the spiral structure of the liquid crystal molecules and goes through the polarized filter at the

bottom. When impressed with voltage, liquid crystal molecules are arranged vertically from the original spiral structure and the direction of the light is not turned through 90 degrees. In this case, light that comes through the top polarized panel may not go through the polarized panel at the bottom.

Q: What are the advantages of TFT LCD compared with CRT?

A: In a CRT monitor, a gun shoots electrons and general light by colliding polarized electrons on fluorescent glass. Therefore, CRT monitors basically operate with an analog RGB signal. A TFT LCD monitor is a device that displays an input image by operating a liquid crystal panel. The TFT has a fundamentally different structure than a CRT: Each cell has an active matrix structure and independent active elements. A TFT LCD has two glass panels and the space between them is filled with liquid crystal. When each cell is connected with electrodes and impressed with voltage, the molecular structure of the liquid crystal is altered and controls the amount of inlet lighting to display images. A TFT LCD has several advantages over a CRT, since it can be very thin and no flickering occurs because it does not use the scanning method.

Q: Why is vertical frequency of 60Hz optimal for an LCD monitor?

A: Unlike a CDT monitor, the TFT LCD panel has a fixed resolution. For example, an XGA monitor has 1024x3 (R, G, B) x 768 pixels and a higher resolution may not be available without additional software processing. The panel is designed to optimize the display for a 65MHz dot clock, one of the standards for XGA displays. Since the vertical/horizontal frequency for this dot clock is 60Hz/48kHz, the optimum frequency for this monitor is 60Hz.

Q: What kind of wide-angle technology is available? How does it work?

A: The TFT LCD panel is an element that controls/displays the inlet of a backlight using the dual-refraction of a liquid crystal. Using the property that the projection of inlet light refracts toward the major axis of the liquid element, it controls the direction of inlet light and displays it. Since the refraction ratio of inlet light on liquid crystal varies with the inlet angle of the light, the viewing angle of a TFT is much narrower than that of a CDT. Usually, the viewing angle refers to the point where the contrast ration is 10. Many ways to widen the viewing angle are currently being developed and the most common approach is to use a wide viewing angle film, which widens the viewing angle by varying the refraction ratio. IPS (In Plane Switching) or MVA (Multi Vertical Aligned) is also used to give a wider viewing angle.

Q: Why is there no flicker on an LCD Monitor?

A: Technically speaking, LCDs do flicker, but the cause of the phenomenon is different from that of a CRT monitor -- and it has no impact of the ease of viewing. Flickering in an LCD monitor relates to usually undetectable luminance caused by the difference between positive and negative voltage. On the other hand, CRT flickering that can irritate the human eye occurs when the on/off action of the fluorescent object becomes visible. Since the reaction speed of liquid crystal in an LCD panel is much slower, this troublesome form of flickering is not present in an LCD display.

Q: Why is an LCD monitor virtually free of Electro Magnetic Interference?

A: Unlike a CRT, an LCD monitor does not have key parts that generate Electro Magnetic Interference, especially magnetic fields. Also, since an LCD display utilizes relatively low power, its power supply is extremely quiet.

Ergonomics, Ecology and Safety Standards

Q: What is the CE mark?

A: The CE (Conformité Européenne) mark is required to be displayed on all regulated products offered for sale on the European market. This 'CE' mark means that a product complies with the relevant European Directive. A European Directive is a European 'Law' that relates to health, safety, environment and consumer protection, much the same as the U.S. National Electrical Code and UL Standards.

13.3.7   FAQ'S FOR TOUCH SCREEN

Q: I can not install the driver for my operating system:

A: Do you have the right driver for your operating system. Drivers available at one touch, category 5 wire resistive for serial connectors:
http://www.onetouch.com.tw/en/driver/rs232.htm

Q: After installation I can not calibrate the screen. The touch does not respond.

A: Check the cables: 9 pin serial connector plugged and the PS2 plug connected to your keyboard PS2 socket on your computer (for 5 volts power supply).
A: Check if you connected to the right COM port if you have more then one (you can change the communication port as shown above)
A: Is there any software that uses the COM - (serial) port such as other touch screen drivers / analog modem / previous drivers that used the port / software that polls or controls the port.

Q: The installation was successful, but when I touch the screen, the cursor jumps to all directions or not aligned to my finger

A: Re-calibrate the touch screen.