

**MM55**

**6546 - ULM551\_3**

 **DANGER**

**To avoid shock hazard:**

- Do not remove the covers.
- Do not operate this product unless the stand is attached.
- Do not connect or disconnect this product during an electrical storm.
- The power cord plug must be connected to a properly wired and grounded power outlet.
- Any equipment to which this product will be attached must also be connected to properly wired and grounded power outlets.
- To isolate the monitor from the electrical supply, you must remove the plug from the power outlet. The power outlet should be easily accessible.

**Handling:**

- Your colour monitor is heavy, so handle it with care. If heavier than 18 Kg, IBM recommends that the monitor is moved or lifted by two people.

 **DANGER**

**Pour éviter les risques d'électrocution :**

- Ne retirez pas les capots du moniteur.
- N'utilisez pas ce produit si le socle n'est pas fixé.
- Ne connectez, ni ne déconnectez ce produit pendant un orage.
- Le câble d'alimentation doit être connecté à une prise électrique correctement mise à la terre et en bon état de marche.
- Tout équipement auquel ce produit est relié doit être également connecté à une prise correctement mise à la terre et en bon état de marche.
- Pour isoler le moniteur de la source d'alimentation électrique, vous devez le débrancher de la prise électrique. Cette prise doit être facile d'accès

**Manutention :**

- Votre moniteur couleurs est lourd et doit donc être manipulé avec soin. Si son poids dépasse 18 kg, IBM vous conseille de le déplacer ou de le porter à deux.

 **GEFAHRENHINWEIS**

**Um die Gefahr eines elektrischen Schlags zu vermeiden, folgendes beachten:**

- Unter keinen Umständen die Abdeckungen abnehmen.
- Das Produkt nicht in Betrieb nehmen, wenn der Sockel nicht montiert ist.
- Das Gerät nicht während eines Gewitters an eine Steckdose anschließen oder von ihr trennen.
- Das Netzkabel ist an eine ordnungsgemäß verdrahtete und geerdete Steckdose anzuschließen.



- Jedes Gerät, mit dem dieses Produkt verbunden wird, muß ebenfalls an eine ordnungsgemäß verdrahtete und geerdete Steckdose angeschlossen werden.
- Um den Monitor von der Stromversorgung zu trennen, muß der Stecker aus der Steckdose gezogen werden. Die Steckdose sollte leicht zugänglich sein.

**Handhabungshinweis:**

- Ihr Farbbildschirm ist schwer, gehen Sie vorsichtig damit um. Wenn er schwerer als 18 kg ist, empfiehlt IBM, daß der Bildschirm von zwei Personen getragen bzw. gehoben wird.

 **GEVAAR**

**Ga als volgt te werk om het gevaar van een elektrische schok te voorkomen:**

- Verwijder in geen enkel geval de kap.
- Stel dit produkt alleen in werking als de voet is bevestigd.
- Sluit dit apparaat niet aan op, of verbreek de aansluiting van dit apparaat niet van een contactdoos tijdens onweer.
- Het netsnoer moet worden aangesloten op een geaarde contactdoos met correcte bedrading.
- Ook alle apparatuur waarop dit produkt wordt aangesloten moet zijn aangesloten op een contactdoos met correcte bedrading.
- Om het beeldscherm te ontkoppelen van de netvoeding, dient u de stekker uit de contactdoos te trekken. De contactdoos dient goed toegankelijk te zijn.

**Verplaatsing:**

- De kleurenmonitor is zwaar. Doe dus voorzichtig. Indien de monitor zwaarder is dan 18 kilo, raadt IBM aan de monitor door twee mensen te laten tillen.

 **PELIGRO**

**Para evitar riesgos de descargas eléctricas:**

- No retire bajo ningún concepto las cubiertas.
- No maneje el monitor sin antes acoplar el soporte.
- No conecte ni desconecte el equipo de una toma de alimentación durante una tormenta eléctrica.
- El cable de alimentación debe estar conectado a un enchufe debidamente cableado y con toma de tierra.
- Cualquier equipo al que se vaya a conectar este producto también debe estar conectado a tomas de alimentación cableadas y conectadas a tierra correctamente.
- Para aislar el monitor del suministro eléctrico, debe retirar el enchufe de la toma de alimentación. Esta toma deberá ser de fácil acceso.



**Movimentazione del monitor:**

- Il monitor a colori è pesante, si consiglia quindi di maneggiarlo con attenzione. Se il monitor pesa oltre 18 kg, IBM raccomanda che il monitor venga mosso o sollevato da due persone.

 **PERICOLO**

**Per evitare il rischio di scariche elettriche:**

- Non rimuovere nessuna parte del telaio.
- Non accendere il prodotto se il piedistallo non è stato montato.
- Non collegare o scollegare il prodotto nel corso di un temporale.
- La spina del cavo di alimentazione deve essere collegata ad una presa di corrente con messa a terra, installata in maniera appropriata.
- Le apparecchiature a cui il prodotto viene attaccato devono essere collegate a prese di corrente con messa a terra, installate in maniera appropriata.
- Per isolare il monitor dalla corrente elettrica, staccare la spina dalla presa di alimentazione, che deve essere facilmente accessibile.

**Manipulación:**

- El monitor de color es pesado, por lo que debe manipularlo con cuidado. Si pesa más de 18 kg, IBM recomienda moverlo con la ayuda de dos personas.

 **PERIGO**

**Para evitar o perigo de choques eléctricos:**

- Não retire as coberturas.
- Não utilize este produto antes de montar a base.
- Não ligue nem desligue este produto durante uma tempestade eléctrica.
- O cabo de alimentação deve ser ligado a uma tomada eléctrica devidamente ligada à terra.
- Qualquer equipamento ligado a este produto deve estar ligado a tomadas eléctricas devidamente ligadas à terra.
- Para isolar o monitor da fonte de alimentação, retire a ficha do cabo de alimentação da tomada eléctrica. A tomada eléctrica deve ser de fácil acesso.

**Manuseio:**

- Seu monitor colorido é pesado, então manuseie-o com cuidado. Se o peso for superior a 18 (dezoito) Kg., a IBM recomenda que o monitor seja movido ou carregado por duas pessoas.

 **FARE**

**Sådan undgår du elektrisk stød:**

- Kabinettet må under ingen omstændigheder fjernes.



- Undgå at anvende dette produkt, uden at vippe/drejefoden er monteret.
- Undgå at tilslutte eller frakoble dette produkt i tordenvæjr.
- Netledningen skal være tilsluttet en korrekt jordet stikkontakt med korrekt ledningsføring.
- Alt udstyr, som tilsluttes dette produkt, skal også være tilsluttet korrekt jordede stikkontakter med korrekt ledningsføring.
- For at isolere skærmen fra strømforsyningen, skal stikket tages ud af stikkontakten. Stikkontakten bør være let tilgængelig.

#### **Håndtering:**

- Deres farveskærm er tung, så vær forsigtig, når De løfter den. Hvis skærmen vejer mere end 18 kg, anbefaler IBM, at den flyttes og løftes af to personer.

#### **FARE**

##### **Slik unngår du fare for elektrisk støt:**

- Ikke ta av dekslene.
- Ikke bruk produktet dersom sokkelen ikke er montert.
- Ikke koble produktet til eller fra under tordenvær.
- Pluggen på strømledningen må kobles til korrekt montert og jordet strømuttak.
- Utstyr som dette produktet eventuelt blir koblet til, må også kobles til korrekt montert og jordet strømuttak.
- For å isolere skjermen fra strømkilden må du ta ut pluggen fra strømuttaket. Strømuttaket bør være lett tilgjengelig.

##### **Käsittely:**

- Värinäyttö on painava, joten käsittelyä sitä varoen. Jos näyttö painaa enemmän kuin 18 kg, IBM suosittellee, että kaksi henkilöä siirtää tai nostaa sitä.

#### **Varning - livsfara**

##### **För att undvika risk för elektriska stötar måste du tänka på följande:**

- Ta inte bort några skyddskåpor.
- Använd inte den här produkten innan du har satt fast stativet.
- Anslut inte produkten till ett eluttag under åskväder. Koppla inte heller ur produkten från ett eluttag under åskväder.
- Strömkabeln måste anslutas till ett felfritt och jordat uttag.
- All utrustning som den här produkten kopplas till måste också anslutas till felfria och jordade uttag.
- För att bryta strömmen till bildskärmen måste du dra ut kontakten. Vägguttaget bör vara lätt att komma åt.



**Hantering:**

- Hantera din färgmonitor med försiktighet, den är tung. Ni bör vara två personer för att lyfta och flytta monitorn om den är tyngre än 18 kg.

 **VAARA**

**Sähköiskun vaaran välttämiseksi:**

- Älä avaa laitteen kansia missään tilanteessa.
- Älä käytä laitetta, ellei jalustaa ole kiinnitetty.
- Älä kytke laitetta pistorasiaan tai irrota sitä pistorasiasta ukonilman aikana.
- Virtajohto on kytkettävä asianmukaisesti johdotettuun ja maadoitettuun pistorasiaan.
- Kaikki muutkin laitteet, joihin tämä tuote on liitetty, on kytkettävä asianmukaisesti johdotettuihin pistorasioihin.
- Kun haluat erottaa näyttimen sähköverkosta, sinun pitää irrottaa sen verkkojohto pistorasiasta. Pistorasian pitäisi olla mahdollisimman lähellä näyttintä ja vaivattomasti käsillä.

**Håndtering:**

- Fargeskjermen din er tung, og må håndteres med varsomhet. Hvis den veier mer enn 18 kilo, anbefaler IBM at skjermen flyttes eller løftes av to personer.





**English**

ENGLISH



---

## Edition 1 (June 1997)

This publication may contain technical inaccuracies or typographical errors. Changes are made periodically to the information herein; these changes will be made in later editions. IBM may make improvements and/or changes in the product(s) and/or program(s) at any time.

It is possible that this publication may contain reference to, or information about, IBM products (machines and programs), programming, or services that are not announced in your country.

Requests for copies of this publication and for technical information about IBM products should be made to your IBM Authorised Dealer, IBM Retailer.

No part of this publication may be reproduced or distributed in any form or by any means without prior permission in writing from the International Business Machines Corporation.

© Copyright International Business Machines Corporation 1997. All rights reserved.

---

## Notices

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights or other legally protectable rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, programs, or services, except those expressly designated by IBM, are the responsibility of the user.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents.

---

## Trademarks

The following terms, used in this publication, are trademarks or service marks of the IBM Corporation in the United States or other countries:      IBM                      Aptiva                      HelpCenter

**ENERGY STAR is a U.S. registered mark**

**TrueSpace is a trademark of BOSE Corporation**







# Contents

ENGLISH

---

<b>Setup .....</b>	<b>2</b>
<b>User Controls .....</b>	<b>8</b>
<b>Audio Support .....</b>	<b>12</b>
<b>Further Information .....</b>	<b>13</b>
<b>Specifications .....</b>	<b>15</b>
<b>Troubleshooting .....</b>	<b>17</b>



# Setup

---

## Your MM55 Colour Monitor

The MM55 can only be attached to Aptiva S Series Personal Computers machine type 2142 and Aptiva L Series Personal Computers machine type 2140. These multimedia monitors are an integrated part of the Bose TrueSpace (TM) sound system and it is essential that these monitors and system units be used together.

---

## Workplace Preparation



*This section gives advice on points you should consider before setting up your monitor.*

### Positioning the Monitor

Choose a suitable place to position the monitor where it is not near fluorescent desk lighting or any equipment that produces magnetic fields that could cause interference. Ensure that the furniture or equipment can support the weight of the monitor. Allow at least 2 inches (50mm) ventilation space around the monitor.

### Height

The monitor should be positioned so that the top of the screen is slightly below your eye level when you sit at your workstation.

### Orientation

Choose a position that gives the least reflection from lights and windows, usually at a right angle to any windows. The monitor should be positioned directly in front of you so that you do not have to twist your body. Tilt the monitor to a comfortable viewing angle.



---

## Working Practices



*This section gives advice on how you can reduce fatigue and work comfortably.*

### Rest

Take regular breaks. Vary your posture, and stand up and stretch occasionally as prolonged use of computer workstations can be tiring.

### Back

You should sit back in the chair and use the backrest.

### Hands

Use a light touch on the keyboard, keeping your hands and fingers relaxed. Allow a space in front of the keyboard to rest your wrists when not typing. Consider using a wristpad.

### Eyesight

As with any with any prolonged close work, working with monitors can be visually demanding. Look away from the screen periodically and have your eyesight checked regularly.

### Screen settings

Set the screen brightness and contrast to a comfortable level. You may have to adjust this as the lighting changes during the day. Many application programs allow you select colour combinations to help you to view in comfort.



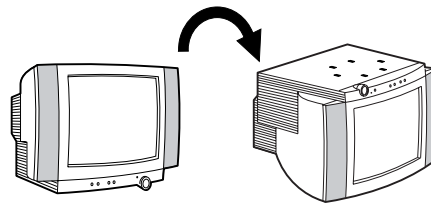
## Attaching the stand



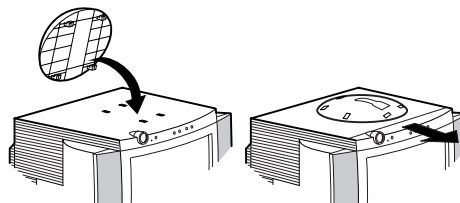
*Do not operate the monitor until the stand is fully assembled in accordance with the instructions contained in this section.*

### Fitting the base

- 1 Place monitor on a stable surface as shown below.



- 2 Insert the 6 hooks into the matching slots on the underside of the monitor.
- 3 Slide the base towards the front of the monitor until the latch clicks into the locked position.



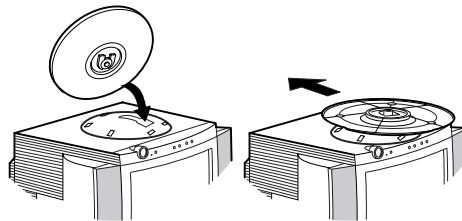


## Fitting the Aptiva L Series Tilt/Swivel Stand



*For Aptiva L series computers.*

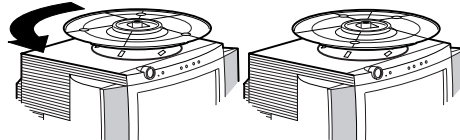
- 1 Align the stand interface with the monitor as shown in the diagram so that the horse shoe connector fits into the matching slot in the base.



- 2 Push the stand back until you hear a loud click which indicates that it has been locked in place.
- 3 Turn the stand 90° counter-clockwise until the notch points are positioned to the front of the monitor.



*The stand interface is not required for Aptiva L series computers.*

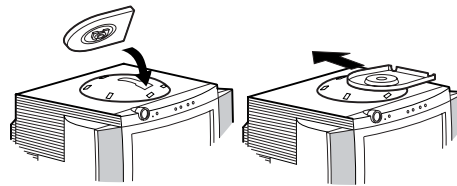




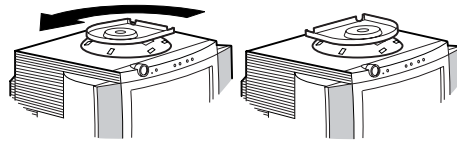
*For Aptiva S series computers.*

### Fitting the Aptiva S series stand

- 1 Align the stand with the monitor as shown in the diagram so that the horse shoe connector fits into the matching slot in the base.
- 2 Push the interface back until you hear a loud click which indicates that it has been locked in place.



- 3 Turn the interface 90° counter clockwise as shown in the next diagram.

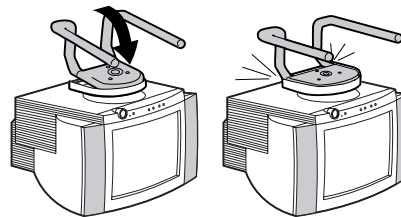


*Your monitor is designed to sit on a stand which is packed in the box containing your Aptiva S series computer. The interface for this stand is packed with the monitor.*

- 4 Unpack the tubular stand from the box containing your Aptiva S series computer.
- 5 Position the stand as shown in the diagram and push firmly until it clicks into place.



*The tilt/swivel stand is not required for Aptiva S series computers.*









## Connecting your monitor



*Before connecting the monitor, switch off the computer and attached devices.*



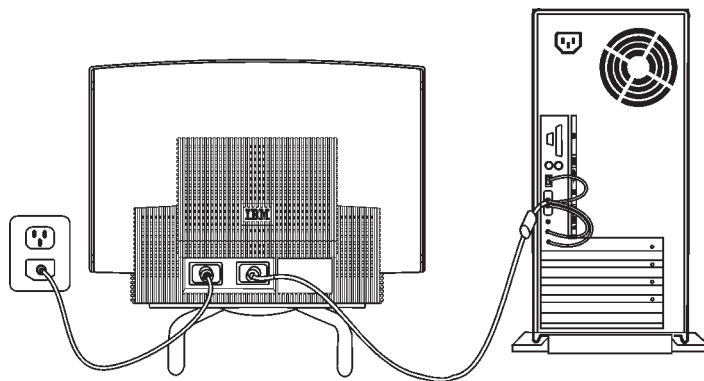
*Ensure the power at the electrical outlet matches the power requirements of the monitor. Refer to the **Specifications** section on page 15 for further details.*

- 1 Plug the video signal cable connector (blue) into the socket marked  on your computer.
- 2 Plug the USB connector (green) into the socket marked  on your computer.
- 3 Plug the speaker connector (violet) into the socket marked  on your computer.
- 4 Plug the microphone connector (orange) into the socket marked  on your computer.
- 5 Connect the power cord to the monitor first, then firmly insert the plug into a properly grounded electrical outlet.
- 6 Switch on the monitor, and then the computer.

If your monitor does not seem to be functioning correctly, refer to the **Troubleshooting** section on page 17.



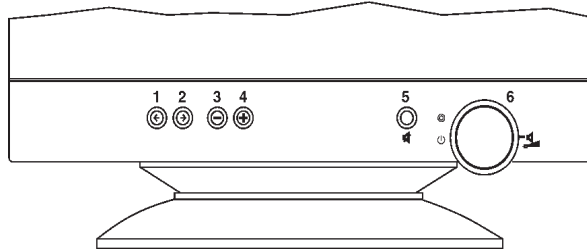
*For ease of installation, the sockets on the rear of your Aptiva 214X series computer are color coded to match the connectors on the monitor signal cable.*







# User Controls

## Location of controls

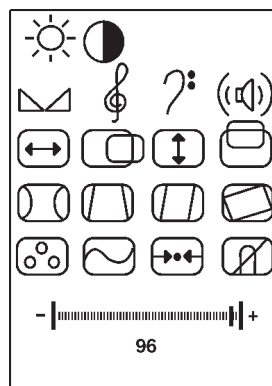


Button	Description	Function
1	Select	Scroll left through controls
2	Select	Scroll right through controls
3	Adjust ( - )	Decrease
4	Adjust ( + )	Increase
5	Audio Mute	Cuts the sound from all speakers and temporarily displays the mute symbol on the OSD. Press again to restore sound.
6	Volume and Power	Rotate to adjust sound level. Push to switch on and off.

 When sound is muted via the monitor mute button, it can be restored by increasing the volume using the rotary volume control.


 The image is already optimised for many display modes, however the user controls can be used to adjust the image to your liking.


## On Screen Display (OSD)


























 To display the OSD, press button 1, 2, 3, or 4. When the menu is displayed on the screen, you can then select a control using buttons 1 or 2. When the required control is highlighted, use buttons 3 and 4 to adjust the control.

 The audio symbols shown are dependent on your system hardware setup, Refer to the Audio Support section on page 12 for details.

Control		Adjust (-)	Adjust (+)
	Brightness		
	Contrast		
	Balance	More sound from the left speaker	More sound from the right speaker
	Treble	Decrease high frequency response	Increase high frequency response
	Bass	Decrease low frequency response	Increase low frequency response
	Fade	More sound from the monitor speakers	More sound from the separate rear speakers
	Horizontal Size		
	Horizontal Position		
	Vertical Size		





Control		Adjust (-)	Adjust (+)
	Vertical Position		
	Pincushion		
	Trapezoid		
	Parallelogram		
	Rotation		
	Colour Temperature	Select between 6500K, 7200K and 9300K to alter the colour point.	
	Current Frequency	Current Frequency displays the current horizontal and vertical signal frequency that the monitor is receiving. This is an informational screen only.	
	Recall	Push the + button f to recall the original factory settings, if these exist, for the current display mode.	


Recall operation resets all data in the user memory area for the current display mode.





 *Discoloration of the image can be caused by gradual magnetisation of the monitor components. This is particularly likely to occur when the monitor has been moved or rotated.*

 *Do not highlight the degauss symbol and then press the + button for longer than 5 seconds. If you do, this operation resets all of the data in the user memory area. If this occurs, you must remake your user adjustments.*

Control		Adjust (-)	Adjust (+)
	Degauss		Push the + button once to remove screen colour impurities caused by magnetic fields. The monitor may “buzz” momentarily and the image will change colour and wobble for a few seconds. These effects are normal. Do not use the degauss feature more than once within a 30 minute period.



# Audio Support

## Supported Audio Function



Your Multimedia monitor has two built-in speakers that are designed to complement the audio amplifier contained in the Aptiva L and S series computers.

If your Aptiva computer carton contains:	Available Functions
No Subwoofer	Balance.
Subwoofer	Balance, Bass, Treble.
Subwoofer and separate rear speakers	Balance, Bass, Treble and Fade.



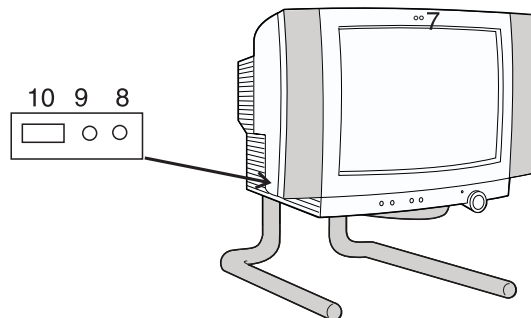
If you use this monitor with a system other than an Aptiva L or S series computer there is no supported audio function.

The most common Audio functions are described in **User Controls** section on page 8.

Other functions are available as shown below:



Monitor Audio Controls may not work in DOS modes, including games.



The built-in microphone offers the possibility of voice control of applications including telephony.



The audio functions can also be adjusted via software programs. Please see your computer documentation for further information.

Item	Description	Function
7	Built in microphone	Voice input.
8	External Microphone connection.	When an external microphone is connected, the internal microphone is disabled.
9	Headphone socket	When headphones are connected, all other speakers are disabled.
10	USB socket	Any Universal Serial Bus peripherals.





# Further Information

## Display Modes


The display mode the monitor uses is controlled by the computer. Therefore, you should refer to your computer documentation for details on how to change display modes.

The image size, position and shape may change when the display mode changes. This is normal and the image can be readjusted using the monitor controls.

To ensure flicker-free operation, select the highest (non-interlaced) refresh rate both the computer and the monitor can support, (generally 75 Hz or higher), for the addressability that your application requires.

For the display modes listed below, the screen image has been optimised during manufacture.

Addressability	Refresh Rate	Horizontal Frequency
720 x 400	70 Hz	31.5 kHz
640 x 480	60 Hz	31.5 kHz
800 x 600	60 Hz	37.9 kHz
720 x 400	85 Hz	37.9 kHz
640 x 480	85 Hz	43.3 kHz
1024 x 768	60 Hz	48.4 kHz
800 x 600	85 Hz	53.7 kHz
1024 x 768	75 Hz	60.0 kHz
1024 x 768	85 Hz	68.7 kHz

 *800 x 600 at 85 Hz is the recommended display mode.*



## Power Management



To benefit from power management, the monitor must be used in conjunction with a computer that implements the Video Electronics Standard Association (VESA) Display Power Management Signalling (DPMS) Standard.



After the monitor is switched off, audio may still be present from the speakers if your Aptiva computer is left switched on.

The power management feature is invoked when the computer recognizes that you have not used your mouse or keyboard for a user-definable period of time. There are several states as described in the table below.

As an ENERGY STAR Partner, IBM has determined that this product meets ENERGY STAR guidelines for energy efficiency.

State	Power Indicaton	Screen	Restoring Operation	Compliance
On	Steady green	Normal		
VESA Standby	Flashing orange / green	Blank	Press a key or move the mouse.	ENERGY STAR
VESA Suspend	Flashing orange / green	Blank	Press a key or move the mouse.	ENERGY STAR
VESA Off	Flashing orange	Blank	Press a key or move the mouse.	ENERGY STAR NUTEK

There may be a slight delay before the picture returns.





# Specifications

ENGLISH

*The MM55 colour monitor uses a 15 inch FST CRT with a viewable image size of 13.6 inches (347 mm).*

Machine Type		2116
Dimensions	Width: Depth: Height:	466 mm (18.3 inch) 410 mm (16.1 inch) 390 mm (15.4 inch)
Weight		14.5 Kg (32 lb)
Tilt Swivel	Forward tilt: Backward tilt: Swivel:	4.8° 12° ± 90°
Image	Maximum Height: Maximum Width: Dot Pitch:	213 mm (8.4 inch) 288 mm (11.3inch) 0.28 mm
Power	Supply Voltage:  Max Supply Current:	88 - 264 Vac 50 / 60 Hz 1.5A at 120 Vac
Power Consumption (Typical)	Normal Operation: VESA Standby: VESA Suspend: VESA Off:	84 W 8 W 8 W 4 W
Video input	Input Signal:  Horiz. Addressability: Vert. Addressability: Clock Rate:	Analogue Direct Drive, 75 ohm 0-0.7v 1024 pels (max.) 768 lines (max.) 110 Mpels/sec
Audio Input	Integrated Microphone:	Telex Clair embedded and external jack
Audio Output	Integrated stereo speakers:	BOSE and Headphone Jack



Communications	VESA DDC	1/2 B
Environment	Temperature: Operating: Storage: Shipping: Humidity: Operating: Storage: Shipping: Emissions	5 to 35°C -20 to 60°C -40 to 65°C 10 to 80% 5 to 95% 5 to 95% MPR-II







# Troubleshooting



If you have a problem setting up or using your monitor, you may be able to solve it yourself. Before calling your retailer or IBM try the suggested actions that are appropriate to your problem.

<i>Problem</i>	<i>Possible Cause</i>	<i>Suggested Action</i>	<i>Reference</i>
Screen is blank and power indicator is off.	No power to monitor.	Ensure the electrical outlet and the monitor are both switched on. Check power cord is firmly plugged into the monitor and the electrical outlet. If the power cord plug has a removable fuse, replace it. Try another power cord. Try another electrical outlet.	<b>Setup</b> on page 2
Screen is blank and power indicator is steady green.	Brightness and Contrast may be too low.	Adjust brightness and contrast.	<b>User controls</b> on page 8
	Display mode of the computer is outside the range of the monitor.	Reconfigure the computer to use a supported display mode.	<b>Further Information</b> on page 13
Screen is blank and power indicator is steady orange, flashing orange/green or flashing orange.	The monitor is in the Power Management Standby, Suspend or Off state.	Press any key on the keyboard or move the mouse to restore operation. Check the Power Management software on your computer. Ensure the computer is switched on.	<b>Further Information</b> on page 13
"NO SIGNAL" displays on the screen.	The monitor is working but there is a problem with the signal cable.	Check the signal cable is firmly connected to the computer. Check that the pins in the signal cable connector are not bent.	<b>Setup</b> on page 2





<b><i>Problem</i></b>	<b><i>Possible Cause</i></b>	<b><i>Suggested Action</i></b>	<b><i>Reference</i></b>
Image appears to be flickering.	The monitor is operating in an interlaced or low refresh rate display mode.	Reconfigure the computer to use a non-interlaced display mode with a refresh rate of at least 75 Hz 85 Hz is recommended.	See <b><i>Further Information</i></b> on page 13
	The monitor may be affected by interference from nearby equipment.	Move fluorescent desk lighting or any equipment that produces magnetic fields further away from the monitor.	
	The computer was switched on before the monitor.	Shut down your computer and restart it. Leave the monitor switched on.	
Image appears to be discoloured.	The monitor may be affected by interference from nearby equipment.	Move any equipment that produces magnetic fields (e.g. sub woofer loud speakers) further away from the monitor.	
		If another monitor is close by, a separation distance of at least 6 inches (150 mm) is recommended.	
	Magnetisation of monitor components has built up.	Degauss the monitor.	See <b><i>User Controls</i></b> on page 8
	Incorrect colour temperature selected	Select an alternative colour temperature.	See <b><i>User Controls</i></b> on page 8





<i>Problem</i>	<i>Possible Cause</i>	<i>Suggested Action</i>	<i>Reference</i>
No Sound	Current application does not use sound	None.	
	Volume set too low	Increase the volume using the rotary volume control or OSD.	
	The sound may be muted.	Press button 5 once or adjust the rotary volume control.	See <b>User Controls</b> on page 8
		If the sound was muted via a software program, you must use this software to restore sound.	
	No audio signal from the computer.	Check the audio cables have been properly connected to the computer.	See <b>Setup</b> on page 2
	Faulty audio system in the computer.	Have the computer audio system serviced	
Sound appears distorted.	Volume set too high	Decrease volume using the volume rotary control.	
Sound from only 1 speaker	Incorrect balance setting	Adjust using OSD balance control.	See <b>User Controls</b> on page 8
No sound symbols in the OSD.	The Aptiva sound system is not in use.	Activate the Aptiva sound system program	See your computer system documentation
	The monitor is not attached to an Aptiva 214X series computer.		
Sound Controls not working.	Computer is running an application which is not supported by the Aptiva Sound System. e.g. DOS application.		
Sound coming from speakers after monitor has been switched off.	An audio application is still running.		





## Monitor Self Diagnosis

The monitor continuously checks for the presence of a signal cable. If the cable is disconnected, the monitor displays a screen with a red, a green and a blue box with white characters suggesting "NO SIGNAL". The color boxes and white characters display on a cyan (sky blue) background. If you see this screen the monitor is working properly. If you do not see this screen and all troubleshooting remedies do not resolve the problem, further help will be required from an IBM authorized dealer/retailer or from an IBM HELPCENTER.

## Further Help

If you are unable to correct the problem yourself, you may need to seek further help:

Call IBM HELPCENTER.


In the US call 1-800-772-2227

In Canada call 1-800-565-3344

In other countries contact your dealer, retailer, or other IBM authorised Servicer.

Before calling, please have available as much of the following information as possible:

- 1 Model and part number from the label on the back of your monitor.
- 2 Proof of purchase
- 3 Description of problem.
- 4 Computer type and model.
- 5 System configuration (hardware fitted, etc.).
- 6 System BIOS version number.
- 7 Operating System and version number.
- 8 Display driver version number.

 *If possible, stay by your computer system, Your technical support representative might want to go through the problem with you during the call.*



# Compliances

---

## European Union (EU) Statement

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22 / European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

Properly shielded and grounded cables and connectors must be used in order to reduce the potential for causing interference to radio and TV communications and to other electrical or electronic equipment. Such cables and connectors are available from IBM authorised dealers.

In accordance with EN 50082-1 1992, Performance Criterion A:, it should be noted that in the presence of certain electromagnetic fields, some screen jitter may be observed.

---

## Power Cords

For your safety, IBM provides a power cord with a grounded attachment plug to use with this IBM product. To avoid electrical shock, always use the power cord and plug with a properly grounded power outlet.

IBM power cords used in the United States and Canada are listed by the Underwriters Laboratories (UL) and certified by the Canadian Standards Association (CSA).

For units intended to be operated at 115 volts: Use a UL listed and CSA certified cord set consisting of a minimum 18 AWG, type SVT or SJT, three conductor cord, a maximum of 4.5 metres (15 feet) in length and a parallel blade, grounding type attachment plug rated 15 amperes, 125 volts.

For units intended to be operated at 230 volts (U.S. use): Use a UL listed and CSA certified cord set consisting of a minimum 18 AWG, type SVT or SJT, three conductor cord, a maximum of 4.5 metres (15 feet) in length and a tandem blade, grounding type attachment plug rated 15 amperes 250 volts.

For units intended to be operated at 230 volts (outside the U.S.): Use a cord set with a grounding type attachment plug rated 13 amperes (minimum), 250 volts. The cord set should be marked <HAR> and have the appropriate safety approvals for the country in which the equipment will be installed.



---

## Federal Communications Commission (FCC) Statement

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:

- Reorientate or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an IBM authorized dealer or service representative for help.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:

International Business Machines Corporation

Old Orchard Road

Armonk, NY 10504

Telephone: 1-919-543-2193



# Warranty

ENGLISH

---

For European warranty terms and conditions refer to enclosed IBM warranty statement Part Number 72H9622.



---

## Service Information

The following parts are used by IBM service, or IBM authorized dealers, to support the customer warranty. Parts are for service use only.

Part Number	M/T-Model	Description
60H9560	6546-B2N	Monitor - UVNH
60H9595	6546-B2E	Monitor - UVEQ
60H9596	6546-B2S	Monitor - UVSH
60H9597	6546-D2N	Monitor - JPN
60H9598		60H9598
60H9598		Universal Stand Base
60H9562		Tubular Stand Interface
60H9564		Speaker Grills