

IBM

G54 G74

Users Guide



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 Farbdisplay 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 tordenvejr.
- 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 jordat strømuttak.
- Utstyr som dette produktet eventuelt blir koblet til, må også kobles til korrekt montert og jordat strømuttak.
- For å isolere skjermen fra strømkilden må du ta ut pluggen fra strømuttaket. Strømuttaket bør være lett tilgjengelig.

Kåsettely:

- Vårinåyttö on painava, joten käsittelyä sitä varoen. Jos näyttö painaa enemmän kuin 18 kg, IBM suosittelee, 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. Väggtaget 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

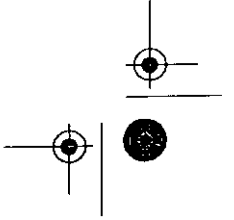
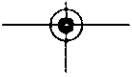
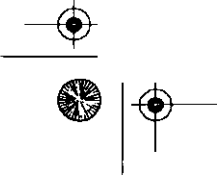
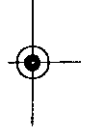
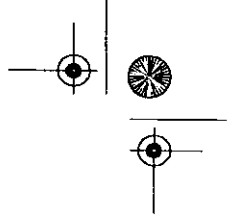
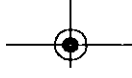
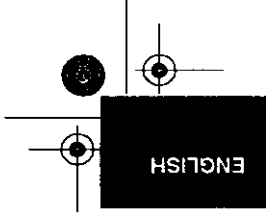
Sähköiskun vaaran välttämiseksi:

- Älä avaa laitteen kansia missään tilanteessa.
- Älä käytä laitetta, ellei jalustaa ole kiinnitetty.
- Älä kytkä 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 näyttimeen sähköverkosta, sinun pitää irrottaa sen verkkojohto pistorasiasta. Pistorasian pitäisi olla mahdollisimman lähellä näytintä 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



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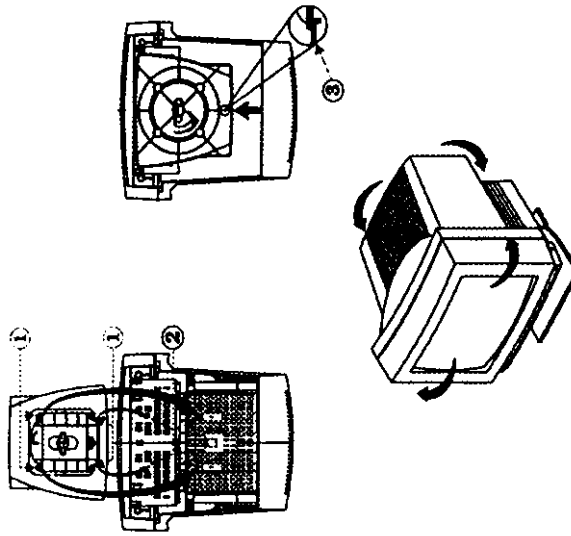
Setup

Important: Before connecting the monitor, turn off the computer and attached devices. Also, ensure the power at the electrical outlet matches the power requirements of the monitor. Refer to the *Specifications* section on page 12 for more details.

Attaching the tilt swivel stand (G54 only)

The tilt swivel stand is fitted as follows:

- Step 1. Place the monitor upside down on a sturdy, smooth, level surface.
- Step 2. Insert the hooks (1) on the top side of the stand into the matching slots on the underside of the monitor (2).
- Step 3. Slide the stand towards the front of the monitor until the latch (3) clicks into the locked position.
- Step 4. Place the monitor right side up on a sturdy, level surface and make sure the tilt swivel stand works properly.



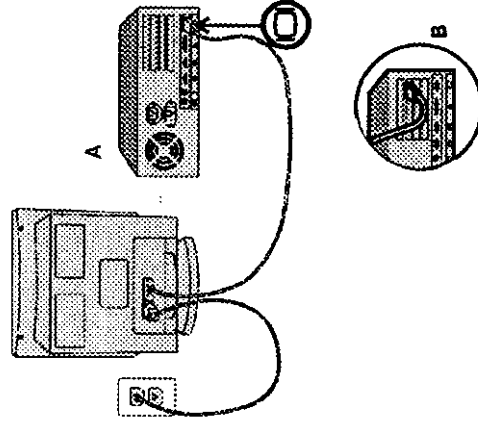
Connecting your monitor

Step 1. Connect the signal cable to the video port on the back of your computer. This port might be directly attached to your computer (figure A), or it might be part of a video adapter card (figure B).

Step 2. Connect the power cord to the monitor first, then firmly insert the plug into a properly grounded electrical outlet.

Step 3. Turn on the monitor, and then the computer.

If your monitor does not seem to be working correctly, refer to the *Troubleshooting* section starting on page 14 for help.



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.

Workplace Preparation

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

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

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

Working with monitors, in common with any prolonged close work, 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 let you select colour combinations which can help you to view in comfort.

User controls

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

OS4



Button		Description
	Power switch	Turns the monitor on and off.
	Adjustment buttons	Allow you to move around the on-screen display (OSD) menu and to make adjustments.
	Opens the OSD, selects a control, and Locks or Unlocks the OSD	Turns on the OSD. Move to the control you want to adjust using the Adjustment buttons, then activate that control by pressing the button again. After making adjustments you can lock the OSD to prevent changes. See page 9.
	EXIT button	Closes an active menu window and takes you to the previous level. If you are in the main level of the menu, pushing this button will turn off the menu. Important: Holding in this button for longer than 5 seconds erases all data in the User Settings memory.

Brightness and contrast can be adjusted as follows, without the need to display the OSD:

Control	Effect of Button - +		Description
⚙ Brightness			Adjusts the background brightness of the image. ■ With the menu off, push the - button to activate the brightness control. ■ Use the - and + buttons to adjust the brightness.
ⓘ Contrast			Adjusts the contrast between the foreground and background of the image. ■ With the menu off, push the + button to activate the contrast control. ■ Use the - and + buttons to adjust the contrast.

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On-Screen Display (OSD)

To display the OSD, press the  button. While the menu displays on the screen, you can select a control using the  or  button. When the required control is highlighted, push the  button to activate the control and then use the  and  buttons to make adjustments.

Control		Adjust (-)	Adjust (+)	Control		Adjust (-)	Adjust (+)
	Brightness				Contrast		
	Horizontal position				Vertical position		

Control		Adjust (-)	Adjust (+)	Control		Adjust (-)	Adjust (+)
	Width				Height		
		Color	9300K	6500K		Degauss (Demagnetize)	YES
Switches the "warmth" of the image colours. 9300K gives whites a bluish cast, while 6500K is more like natural sunlight.			Select YES and push the  button 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.				
	Recall	Recalls factory settings, if any, for the current display mode.		?	Information	Information displays a list of available modes and the current user setting. This is an informational screen only.	

Control	Adjust (-)	Adjust (+)	Control	Adjust (-)	Adjust (+)
Advanced	Select this icon to access a group of controls that affect the shape of the viewing area.		Pincushion		
 Trapezoid			Parallelogram		
Pin-balance			Vertical linearity		
 Rotation			Vertical moiré		
 Language	Changes to display the OSD data in any of the five languages listed. Use the - or + button to select between English, Deutsch, Français, Español, and Italiano.		OSD Lock/Unlock		Allows you to secure the current control settings so that they cannot be inadvertently changed. You can unlock the OSD controls at any time by using the same procedure. ■ Push and hold in the button for 10 seconds or more to Lock or to Unlock.

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 optimized during manufacture.

Addressability	Refresh Rate	Horizontal Frequency
640 x 480	60 Hz	31.5 kHz
640 x 480	75 Hz	37.5 kHz
640 x 480	85 Hz	43.3kHz
720 x 400	70 Hz	31.5 kHz
720 x 400	85 Hz	37.9 kHz
800 x 600	75 Hz	46.9 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
MFI2	75 Hz	41.8 kHz

† Recommended for G54; ‡ Recommended for G74

Table 1: Factory Set Display Modes.

Power Management

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

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 the ENERGY STAR® guidelines for energy efficiency.

IBM recommends that you switch off your monitor at the end of each working day, or whenever you expect to leave it unused for long periods during the day.

State	Power Indicator	Screen	Restoring Operation	Compliance
On	Steady green	Normal		
DPMS Standby	Flashing green (0.5 sec. interval)	Blank	Press a key or move the mouse.	
DPMS Suspend	Flashing green (1 sec. interval)	Blank	Press a key or move the mouse.†	ENERGY STAR®
DPMS Off	Flashing green (2 sec. interval)	Blank	Press a key or move the mouse.†	ENERGY STAR® and NUTEK

† There may be a slight delay before the picture reappears.

Specifications

The G54 (Type-model 6546-xBx) colour monitor uses a 15 inch FST CRT with a viewable image size of 13.7 inches (347 mm).

Dimensions	Width: Depth: Height:	370 mm 397 mm 394 mm
Weight		28.6 lb. (13.0 Kg)
Tilt Swivel	Forward tilt: Backward tilt: Swivel: Clockwise: Counterclockwise:	- 4° + 10° + 90° - 230°
Image	Maximum Height: Maximum Width: Dot Pitch:	210 mm 280 mm 0.28 mm
Power Input	Supply Voltage: Max Supply Current:	90 - 264 Vac, 47 - 63 Hz 1.2A at 120 Vac
Power Consumption (Typical)	Normal Operation: DPMS Stand-by: DPMS Suspend: DPMS Off:	75 W 55 W 15 W < 8 W

Video Input	Input Signal: Horiz. Addressability: Vert. Addressability: Clock Rate:	Analog Direct Drive, 75 ohm 0-0.7v 1280 pels (max.) 1024 lines (max.) 110 Mpels/sec
Communications	VESA DDC	1 / 28 / 2Bi
Synchronization Range	Horiz. Frequency: Vert. Frequency:	30 kHz - 69 kHz 50 Hz - 120 Hz
Environment	Temperature: Operating: Storage: Shipping: Humidity: Operating: Storage: Shipping:	0 to 40° C - 20 to 45° C - 40 to 65° C 10 to 80% 5 to 95% 5 to 95%

ENGLISH

The G74 (Type-model 6547-xBx) colour monitor uses a 17 inch FST CRT with a viewable image size of 15.9 inches (403 mm).

Dimensions	Width: Depth: Height:	426 mm 433 mm 434 mm
Weight		39.6 lb. (18 Kg)
Tilt Swivel	Forward tilt: Backward tilt: Swivel: Clockwise: Counterclockwise:	- 4° + 10° + 90° - 230°
Image	Maximum Height: Maximum Width: Dot Pitch:	242 mm 323 mm 0.28 mm
Power Input	Supply Voltage: Max Supply Current:	90 - 264 Vac, 47 - 63 Hz 1.4A at 120 Vac
Power Consumption (Typical)	Normal Operation: DPMS Stand-by: DPMS Suspend: DPMS Off:	90 W 72 W 15 W < 8 W

Video Input	Input Signal: Horiz. Addressability: Vert. Addressability: Clock Rate:	Analog Direct Drive, 75 ohm 0- 0.7v 1280 pels (max.) 1024 lines (max.) 110 Mpels/sec
Communications	VESA DDC	1 / 2B / 2Bi
Synchronization Range	Horiz. Frequency: Vert. Frequency:	30 kHz - 69 kHz 50 Hz - 120 Hz
Environment	Temperature: Operating: Storage: Shipping: Humidity: Operating: Storage: Shipping:	0 to 40° C - 20 to 45° C - 40 to 65° C 10 to 80% 5 to 95% 5 to 95%

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 you should 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 that the electrical outlet and the monitor are both switched on. Check that the 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.	<i>Connecting your monitor</i> on page 3.
Screen is blank and power indicator is steady green.	Brightness and Contrast may be too low.	Adjust brightness and contrast.	<i>User Controls</i> starting on page 5.

Problem	Possible Cause	Suggested Action	Reference
Screen is blank and power indicator is flashing green every half second.	The monitor is in the Power Management Standby state.	Press any key on the keyboard or move the mouse to restore operation. Check the Power Management software on your computer.	<i>Power Management</i> on page 11.
	Display mode of the computer is outside the range of the monitor.	Reconfigure the computer to use a supported display mode.	<i>Further Information</i> on page 10.
Screen is blank and power indicator is flashing green every 1 or 2 seconds.	The monitor is in the Power Management 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.	<i>Power Management</i> on page 11.
"Check Signal Cable" displays on the screen.	The monitor is not receiving a video signal.	Check that the signal cable is firmly connected to the computer and the monitor. Check that no pins are bent in the signal cable connector.	<i>Connecting your monitor</i> on page 3.

Problem	Possible Cause	Suggested Action	Reference
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.	Further information on page 10.
	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.	
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.	
	Magnetization of monitor components has built up.	Demagnetize the monitor.	User Controls, Degauss (Demagnetize) on page 8.
		Adjust the Color settings.	User Controls, Color on page 8.

Monitor Self Diagnosis

The monitor continuously checks for the presence of a signal cable. Should the cable become disconnected, the monitor displays a white box with a red border and characters stating "No Connection! Check Signal Cable." 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 seek further help as follows:

Call IBM HELPCENTER.

Waiting for European HELPCENTER NUMBERS.

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

1. Type, model and serial number from the label on the back of your monitor.
2. Purchase receipt.
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.

ENGLISH

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 authorized dealers.

In accordance with EN 50082-1 1992, Performance Criterion A1, it should be noted that in the presence of certain electromagnetic fields, some screen filter 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 meters (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 meters (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.

Warranty

For European warranty terms and conditions, refer to enclosed IBM warranty statement Part Number 72H9623