



MCM 171V

Bildschirm / Moniteur / Monitor / Skärm / Beeldscherm

Betriebsanleitung
Operating Manual
Manual de manejo
Användarmanual

Manuel d'utilisation
Istruzioni per l'uso
Gebruikshandleiding

Sie haben ...

... technische Fragen oder Probleme?

Wenden Sie sich bitte an:

- einen unserer IT-Service-Shops
- Ihren zuständigen Vertriebspartner
- Ihre Verkaufsstelle

Die Adressen Ihrer Servicepartner finden Sie im Garantieheft oder im Service-Adressenheft.

Aktuelle Informationen zu unseren Produkten, Tips, Updates usw. finden Sie im Internet:

<http://www.siemensnixdorf.com/pc>

... uns zu diesem Handbuch etwas mitzuteilen?

Schicken Sie uns bitte Ihre Anregungen unter Angabe der Bestellnummer dieses Handbuches.

Siemens AG
Redaktion OEC BS2 OS ID4
Otto-Hahn-Ring 6
D-81730 München

Is there ...

... any technical problem or other question you need clarified?

Please contact:

- one of our IT Service Shops
- your sales partner
- your sales office

The addresses of your service partners are contained in the guarantee booklet or in the service address booklet.

The latest information on our products, tips, updates, etc., can be found on the Internet under:

<http://www.siemensnixdorf.com/pc>

... anything you want to tell us about this manual?

Please send us your comments quoting the order number of the manual.

Siemens AG
User Documentation Department
OEC BS2 OS ID4
Otto-Hahn-Ring 6
D-81730 München

Noch Fragen zur Weiterbildung?

Das Siemens Training Center bietet Weiterbildungsberatung, Kurse und Selbstlernmedien zu fast allen Themen der Informationstechnik an - bei Ihnen vor Ort oder in einem Training Center in Ihrer Nähe, auch international.

Nennen Sie uns Ihren Trainingsbedarf oder fordern Sie Informationen an - am schnellsten geht es per Fax: (089) 636-42945

Oder schreiben Sie an:

Siemens AG
Training Center, Beratungsservice
D-81730 München

Your training needs?

The Siemens Training Centers offer you a wide range of training courses in information technology and on IT products and other subjects - onsite near to your workplace or offsite at one of our training centers.

Contact us for information on consulting, course schedules and selfstudy material - Either fax (which is the fastest way):

Fax: ..49 89 636-42945

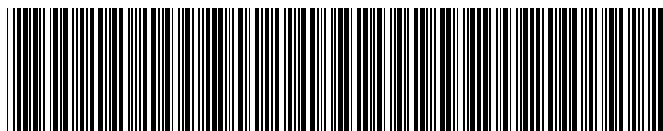
Or write to:

Siemens AG
Training Center, Beratungsservice
D-81730 München

Dieses Handbuch wurde auf Recycling-Papier gedruckt.
This manual has been printed on recycled paper.
Ce manuel est imprimé sur du papier recyclé.
Este manual ha sido impreso sobre papel reciclado.
Questo manuale è stato stampato su carta da riciclaggio.
Denna handbok är tryckt på recyclingpapper.
Dit handboek werd op recycling-papier gedrukt.

Herausgegeben von/Published by
Siemens AG
D-33094 Paderborn
D-81730 München

Bestell-Nr./Order No.: **A26361-K496-Z100-1-5E19**
Printed in Korea
AG 0798 07/98



A26361-K496-Z100-1-5E19

MCM 171V
Farbbildschirm
Color monitor
Moniteur couleur
Monitor de color
Monitor a colori
Färgskärm
Kleurenbeeldscherm

Betriebsanleitung
Operating Manual

Ausgabe Juli 1998
July 1998 edition

Deutsch

English

Français

Español

Italiano

Svenska

Nederlands

TCO'95

VESA, DDC und DPMS sind eingetragene Warenzeichen der Video Electronics Standards Association.

Copyright © Siemens AG 1998.

Alle Rechte vorbehalten, insbesondere (auch auszugsweise) die der Übersetzung, des Nachdrucks, der Wiedergabe durch Kopieren oder ähnliche Verfahren.

Zu widerhandlungen verpflichten zu Schadenersatz.

Alle Rechte vorbehalten, insbesondere für den Fall der Patenterteilung oder GM-Eintragung.

Liefermöglichkeiten und technische Änderungen vorbehalten.

VESA, DDC and DPMS are registered trademarks of Video Electronics Standards Association.

Copyright © Siemens AG 1998.

All rights, including rights of translation, reproduction by printing, copying or similar methods, even of parts are reserved.

Offenders will be liable for damages.

All rights, including rights created by patent grant or registration of a utility model or design, are reserved.

Delivery subject to availability. Right of technical modification reserved.

Contents

Introduction.....	1
Notational conventions	2
Important notes	2
Safety	2
Manufacturer's notes.....	4
Note on X-ray radiation	5
FCC Class B Compliance Statement	5
Important note on power cable	6
Disposal and recycling	8
Checking the contents of the consignment.....	8
Installing an ergonomic video workstation	9
Connecting the monitor	10
Operation of the monitor.....	11
Switching the monitor on	11
Switching the monitor off.....	12
Notes on power management	12
Changing the monitor settings using the OSD menu	13
Notes on ergonomic color adjustment	19
Technical data	20
VESA-DDC-compatible VGA interface	21
Preset operating modes	22
Pin assignment D-SUB.....	23
Tilting and turning area	24
Error handling.....	24

Introduction

Your new MCM 171V monitor supplies you with a high-quality color image with high resolution and ergonomic refresh rates. It possesses a whole range of useful features and functions, e. g.:

- 17" (43 cm) high-resolution CRT (0.28 mm dot pitch)
- automatic scanning of all horizontal frequencies from 30 to 70 kHz and all refresh rates (vertical frequencies) from 50 to 120 Hz
- digital screen controller with microprocessor for storing 16 different display modes
- freely adjustable color alignment for matching the screen colors to the colors of various input and output devices
- convenient operation via integrated OSD (On-Screen-Display) menu
- VESA-DDC compatibility
- power management for reducing power consumption by up to 95% when the PC system is not in use
- compliance with the latest ergonomic standards (ISO 9241-3)
- compliance with the recommendations in accordance with TCO '95

This Operating Manual contains important information you require to start up and run your monitor.

The monitor interworks closely with the screen controller (graphics card) of your PC. It processes the data supplied to it by the screen controller. The screen controller/the associated driver software is responsible for setting the modes (resolution and refresh rate).

Target group

You don't need to be an "expert" to perform the operations described here. Do, however, read the chapter with the important notes in the Operating Manual of your PC and in this Operating Manual.

In the event of any problems occurring, please contact your sales office or our service center.

Further information

Details of how you set the resolution and refresh rate are provided in the documentation on your screen controller/the associated driver software.

Notational conventions

The meanings of the symbols and fonts used in this manual are as follows:



Pay particular attention to texts marked with this symbol. Failure to observe this warning endangers your life, destroys the system, or may lead to loss of data.



This symbol is followed by supplementary information, remarks and tips.

- ▶ Texts which follow this symbol describe activities that must be performed in the order shown.

"Quotation marks" indicate names of chapters and terms that are being emphasized.

Important notes



In this chapter you will find information regarding safety which is essential to take note of with your monitor.

The chapter also contains information on the licenses issued for your equipment.

Safety

This device complies with the relevant safety regulations for data processing equipment, including electronic office machines for use in an office environment. If you have any questions, contact your sales office or our customer service.

- If the device is brought into the installation site from a cold environment, condensation can form. Before operating the device, wait until it is absolutely dry and has reached approximately the same temperature as the installation site.
- During installation and before operating the device, observe the instructions on environmental conditions in the chapter entitled "[Technical data](#)" as well as the instructions in the chapter "[Installing an ergonomic video workstation](#)".
- To ensure adequate ventilation the monitor may only be operated with the monitor foot installed.

- The color monitor must not be exposed to strong magnetic fields (e. g. caused by magnetic paper clip holders or loudspeakers). Strong magnetic fields could result in a permanent blotchy image.
- The device automatically sets itself to the correct voltage within the range from 100 V to 240 V. Ensure that the local mains voltage lies within these limits.
- The device must be installed in such a way that the user has good access to the appliance socket.
- The ON/OFF switch does not disconnect the device from the line voltage. To disconnect the line voltage completely, remove the power plug from the grounded power outlet.
- Lay all cables so that nobody can stand on them or trip over them. When attaching the device, observe the relevant notes in the chapter "[Connecting the monitor](#)".
- No data transmission cable should be connected or disconnected during a thunderstorm.
- Please ensure that no objects (e. g. necklaces, paperclips etc.) or liquids can get into the interior of the device (electrical shock, short circuit).
- In emergencies (e. g. damaged casing, elements or cables, penetration of liquids or foreign matter), switch off the unit, disconnect the power plug and contact your sales office or our customer service.
- Only qualified technicians may repair the device. Unauthorized opening or incorrect repair may greatly endanger the user (electric shock, fire risk).
- Tampering with the device, in particular adjusting the high voltage or installing a different type of CRT tube, may result in a large amount of X-ray radiation being emitted. Devices modified in this way no longer comply with their license and may not be used.
- You may set only those resolutions and refresh rates specified in the "[Technical data](#)" chapter. Otherwise you may damage your monitor. If you are in any doubt, contact your sales office or customer service.
- Keep this Operating Manual together with your device. If you pass on the device to third parties, you should also pass on the Operating Manual.

Color monitor MCM 171V

Cleaning note MCM 171V



Always pull out the power plug before you clean the monitor.

Do not clean any interior parts yourself, leave this job to a service technician.

Do not use any cleaning agents that contain abrasives or may corrode plastic.

Ensure that no liquid will run into the system.

Ensure that the ventilation areas of the monitor are free.

Wipe the monitor housing with a dry cloth. If the monitor is particularly dirty, use a cloth which has been moistened in mild domestic detergent and then carefully wrung out.

Transport notes



When transporting the monitor ensure that it is not exposed to strong magnetic fields.

Transport the monitor with care and only in its original packaging or another corresponding packaging fit to protect it against knocks and jolts.

Above all, never drop the monitor. If the CRT is damaged, there is a danger of implosion!

Manufacturer's notes

Energy Star



The Siemens multiscan color monitor MCM 171V is designed to conserve electricity by dropping to less than 15 W when it goes into suspend mode and to less than 8 W when it goes into OFF mode. With this new power management the MCM 171V qualifies for the U.S. Environmental Protection Agency's (EPA) Energy Star Computers award.

The EPA estimates that computer equipment uses 5 percent of all business electricity and it is growing rapidly. If all desktop PCs and peripherals enter a low-power mode when not in use, the overall savings in electricity could amount to \$ 2 billion annually. These savings could also prevent the emission of 20 million tons of carbon dioxide into the atmosphere - the equivalent of 5 million automobiles.

As an Energy Star Partner, Siemens AG has determined that this product meets the Energy Star guidelines for energy efficiency.

CE certificate



The shipped version of this device complies with the requirements of the EEC directives 89/336/EEC "Electromagnetic compatibility" and 73/23/EEC "Low voltage directive".

Note on X-ray radiation

This device complies with the German X-ray regulations (Röntgenverordnung - RöV). The local dosage emitted is less than 1 $\mu\text{Sv/h}$ (micro-Sievert per hour) at a distance of 0.1m.

FCC Class B Compliance Statement

If there is an FCC statement on the device, then:

The following statement applies to the products covered in this manual, unless otherwise specified herein. The statement for other products will appear in the accompanying documentation.

NOTE:

This equipment has been tested and found to comply with the limits for a "Class B" digital device, pursuant to Part 15 of the FCC rules and meets all requirements of the Canadian Interference-Causing Equipment Regulations. 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 strict accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and the receiver.
- 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.

Siemens AG is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Siemens AG. The correction of interferences caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

The use of shielded I/O cables is required when connecting this equipment to any and all optional peripheral or host devices. Failure to do so may violate FCC rules.

Important note on power cable

To guarantee safe operation, use the cable supplied. Use the following guidelines if it is necessary to replace the original cable set.

- The female/male receptacles of the cord set must meet CEE-22 requirements.
- The cable has to be HAR-certified or VDE-certified. The mark HAR or VDE will appear on the outer sheath or on the insulation of one of the inner conductors.
- For devices which are mounted on a desk or table, type SVT or SJT cable sets may be used. For devices which sit on the floor, only SJT type cable sets may be used.
- The cable set must be selected according to the current rating for your device.

Power cable for devices distributed in the US and Canada

In the United States and Canada the cord set must also be UL-listed and CSA-labelled. The voltage rating should be min. 250 volts a.c.

Please consult the following table for the selection criteria for power cables used in the United States and Canada.

Cable type	Size of conductors in cable	Maximum current rating of the device
SJT	18 AWG	10 Amps
	16 AWG	12 Amps
	14 AWG	12 Amps
SVT	18 AWG	10 Amps
	17 AWG	12 Amps

For the United Kingdom

Should the plug on the flexible cord not be of the type for your socket outlets, do not use an adapter but remove the plug from the cord and discard. Carefully prepare the end of the supply cord and fit a suitable plug.

WARNING

THIS APPLIANCE MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

- Green and Yellow: Earth
- Blue: Neutral
- Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured Green and Yellow 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.
- The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black.
- The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Red.

Disposal and recycling

This device has been manufactured to the greatest possible degree from materials which can be recycled or disposed of in a manner that is not environmentally damaging. The device is taken back after use, so that it can be recycled, provided that it is returned in a condition which is the result of normal use. Any components not recuperated will be disposed of in an environmentally acceptable manner.



We herewith declare that it will be possible to repair any device marked with the eco-label for at least 5 years after production of that device has discontinued.

If you have any questions on disposal, please contact your local office, our service department, or, directly:

Siemens AG
Recycling Center
D-33094 Paderborn

Tel.: ++ 49 5251 - 81 80 10 / Fax: ++ 49 5251 - 81 80 15

Checking the contents of the consignment

- ▶ Unpack all the individual parts.
- ▶ Remove any plastic caps from the plugs for the cables in the consignment.
- ▶ Check the delivery for damage incurred during transport.
- ▶ Check whether the delivery agrees with the details in the delivery note.

The complete shipment comprises:

- one monitor with data cable
- one power cable
- a Guarantee Booklet
- this Operating Manual

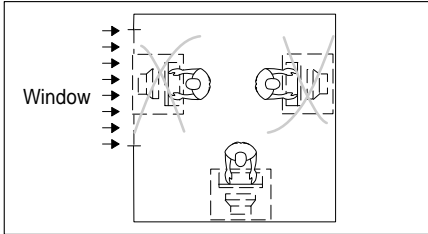
Should you discover that the delivery does not correspond to the delivery note, notify your local sales office immediately.



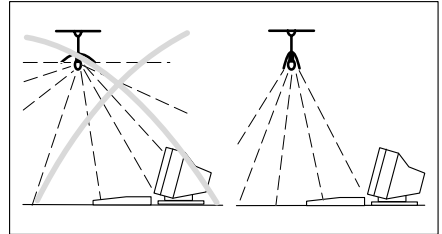
It is recommended not to throw away the original packing material. Keep it for future transportation of the drive.

Installing an ergonomic video workstation

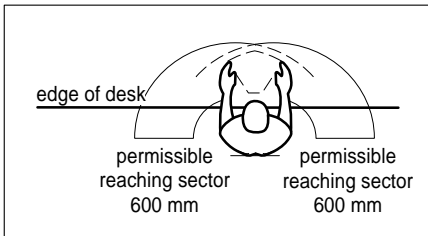
Before you set up your equipment you should select a suitable position for working at the monitor. Please observe the following advices when installing a video workstation.



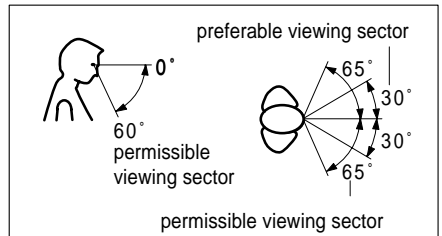
Avoid direct and reflected glare.



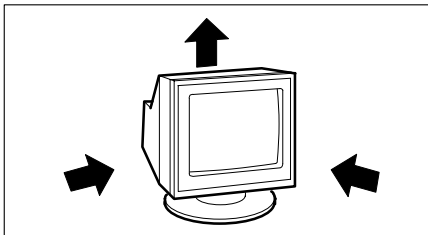
Avoid glare from electric lighting.



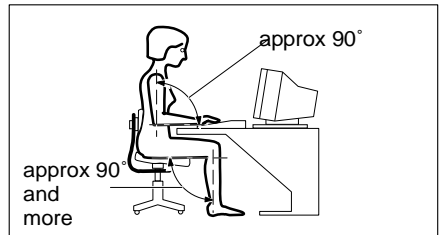
Position the keyboard where it is easiest to reach.



Position the monitor for optimum viewing. The viewing distance to the monitor should be approximately 50 cm.



Keep ventilated areas clear.



Remember to maintain correct posture.

Connecting the monitor

See your PC's operating manual for details of the ports on the system unit.



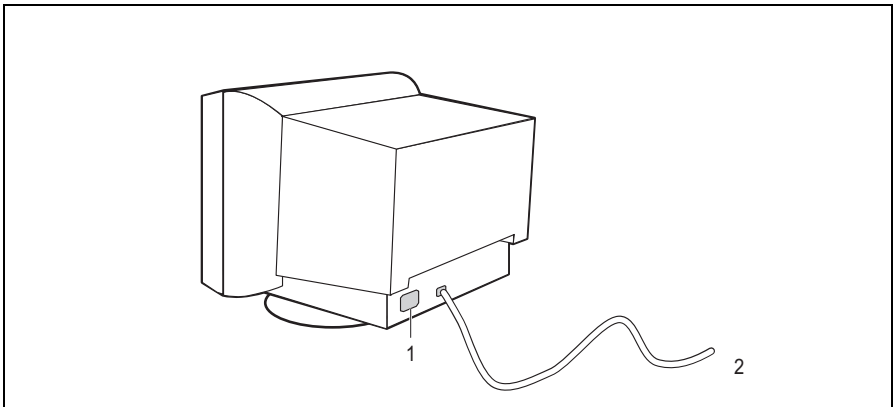
Please note the information provided in the chapter "[Safety](#)" at the beginning of this manual.

Do not cover the ventilation openings of the monitor.

If you are assembling monitors beside each other, there must be a minimum distance of 30 cm between monitors of the same constructional type, to avoid image distortion. With different monitors, the distance must be increased, if necessary.



The system unit's power plug must be pulled out!



1 = Power connector

2 = Data cable

- ▶ Be sure that the monitor and the system unit are switched off.

The data cable (2) is permanently attached to the monitor. It has a 15-pin D-SUB connector for the screen controller of the system unit.

See your PC's operating manual for details of the ports on the system unit.

- ▶ Connect the 15-pin connector of the data cable to the (active) monitor port on the system unit and secure the connector by tightening the safety screws.



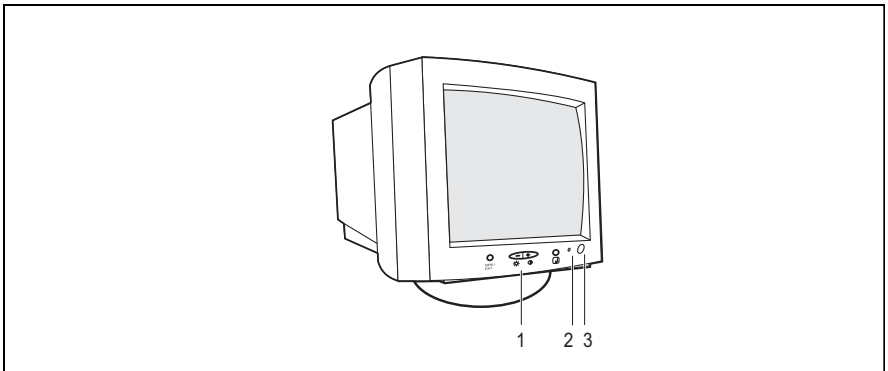
If your system unit has two monitor ports ("onboard" screen controller and separate graphics card), the monitor port for the separate graphics card is usually active.

- ▶ Plug the power cable supplied into the power connector of the monitor.
- ▶ Plug the power cable into the monitor connector at the rear of the system unit.
- ▶ Plug the power connector of the system unit into a properly grounded power outlet.



When you start working with your monitor for the first time you should install the appropriate graphics drivers for your application software. Details of how to do this are provided in the documentation on your screen controller/the associated driver software.

Operation of the monitor



1 = Buttons for the OSD menu
(On-Screen Display)

2 = Power lamp
3 = ON/OFF switch

Switching the monitor on

- ▶ Press the ON/OFF switch (3).

The power lamp (2) lights up green when the system unit is turned on.



If your PC has a power management function (energy-saving mode), you should read the notes on power management of the monitor in this chapter.

When you start your system, several mode changes will usually be carried out when various programs are called automatically (different settings for resolution and image refresh rate). Do not be confused by the unusual displays. They are not error messages.

Switching the monitor off

- ▶ Press the ON/OFF switch (3).

The power lamp (2) is dark.

Notes on power management

If your PC has a VESA DPMS (Video Electronics Standard Association, Display Power Management Signaling) power management function (energy-saving mode), your monitor will fully support this function. The monitor has a four-stage power management system.

Stage	ON	STANDBY mode	SUSPEND mode	OFF mode
Power lamp	glows green	flashes fast green	flashes slowly green	flashes slowly green
Function	Monitor operating normally	Monitor is dark	Monitor is dark	Monitor is dark
Power consumption	Normal < 90 W	Reduced to < 55 W	Reduced to < 15 W	Reduced to < 8 W

If your PC detects inactivity (no input) it sends an appropriate signal to the monitor to reduce the power consumption. The power lamp of the monitor changes color to indicate the status change.

If there is still no input, power consumption is further reduced (OFF mode). Once an input is made at the PC the screen contents are redrawn and full power is restored.

The length of the individual stages is determined by the power management system of the PC. For detailed information on how energy-saving mode operates refer to the Operating Manual or Technical Manual of your PC.

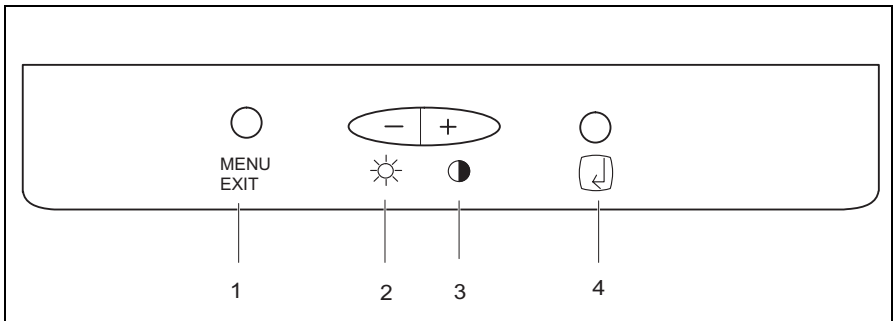
i The service life of your monitor will be extended if the OFF mode is switched to after 30 minutes at the earliest (setting in screen saver or in your PC's BIOS setup).

When the monitor is switched to OFF mode by the power management system a power consumption of up to 8 W is maintained to feed the circuit for redrawing the screen contents.

To cut off power consumption totally, press the ON/OFF switch on the front of the monitor.

Changing the monitor settings using the OSD menu

You can use the buttons on the control panel to set the screen display via an integrated OSD menu (On-Screen Display).



1 = MENU/EXIT button

2 = Minus button (brightness)


3 = Plus button (contrast)

4 =  button

The MENU/EXIT key toggles the OSD menu on and off or switches from a submenu into the parent menu.

Color monitor MCM 171V

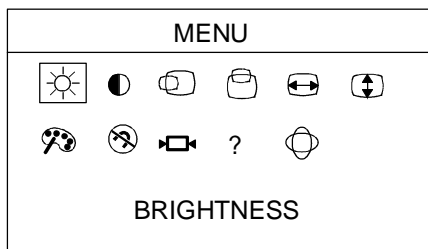
You use the - or + keys to mark the symbol for a function and can then make the settings for the selected function. If the OSD menu is not displayed, you can set the brightness and contrast with the - or + buttons


You use the  key to select the functions in the OSD menu.

To make a setting, perform the following steps:

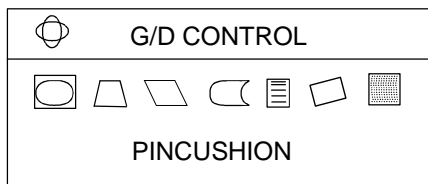
- ▶ Press the button MENU/EXIT to activate the OSD menu.


The main menu appears on the screen with icons for the setting functions. The first symbol *BRIGHTNESS* is highlighted.



- ▶ If necessary, use the - or + button to mark another icon, e. g. *G/D CONTROL*.
- ▶ Press the  button to display the appropriate submenu or options window.

Additional symbols are presented, depending on the function (in this case: *G/D CONTROL*).



- ▶ If necessary, press the - or + button to mark another icon.
- ▶ Press the  button to select the highlighted icon.
- ▶ Use the - or + button to make the desired setting.

All modifications are automatically stored if no button is pressed for several seconds. The power indicator flashes once to indicate the storage.

Adjusting the brightness and contrast

Brightness and contrast can be set via the OSD menu or directly using the - or + buttons on the control panel.



You will increase the life of your screen if you adjust the contrast and brightness to medium.

Icon	Function
	<i>BRIGHTNESS</i> : setting the overall brightness
	<i>CONTRAST</i> : Setting the contrast between the foreground and background


Adjusting size and position

Icon	Function
	<i>H. POSITION</i> : Horizontal picture position: Shifting the picture to the left or to the right
	<i>V. POSITION</i> : Vertical picture position: Shifting the picture down or up
	<i>H. SIZE</i> : Horizontal picture size: Making the picture narrower or wider
	<i>V. SIZE</i> : Vertical picture size: Making the picture shorter or longer

Color monitor MCM 171V

Setting color temperature (COLOR TEMPERATURE)

The "warmth" of the screen colors is set using the color temperature. The monitor has two fixed color temperatures (K = Kelvin).


Icon	Function
	Calling the <i>COLOR TEMPERATURE</i> options window
9300K	Set color temperature 9300 K (more blue)
6500K	Set color temperature 6500 K (more red)

Degaussing the monitor (DEGAUSS)

When color shifts occur in the screen display due to the influence of magnetic fields, the screen must be degaussed.




Do not use the feature more than once within a 30-minute period.

Icon	Function
	Degaussing the screen

Activating the factory settings (RECALL)

Factory settings are available for picture position, picture size and picture geometry in the preset operating modes (see table in the chapter "[Technical data](#)").

Icon	Function
	<i>YES</i> = The factory settings are activated. <i>NO</i> = The user-defined settings are retained.







Displaying screen information (USER MODE)

Icon	Function
------	----------

?	<p>Display information on the current and available modes</p> <p>The default and user modes are displayed with the - and + keys.</p>
---	--


Setting the picture geometry (G/D CONTROL)

Pincushion distortion is when the sides of the screen display are bent inward or outward. Trapezoid distortion is when the top or bottom of the screen display is too wide or too narrow. Parallelogram distortion means that the sides of the picture bend to the left or right. Unsymmetrical pin balance is when the sides of the screen displays are bent inward or outward on one side. Vertical linearity must be set when the screen display appears distorted at the top or bottom.

Icon	Function
	Calling the <i>G/D CONTROL</i> options window
	Vertical pincushion distortion (<i>PINCUSHION</i>): Bending the right and left side inward or outward
	Trapezoid distortion (<i>TRAPEZOID</i>): Making the bottom edge narrower and the top edge wider or making the top edge narrower and the bottom edge wider
	Parallelogram distortion (<i>PARALLEL</i>): Reducing the angle of the left and right sides
	Non-symmetrical pincushion distortion (<i>PINBALANCE</i>): Setting the sides so that they are symmetrical
	Vertical linearity (<i>V-LINEARITY</i>): Correcting compression distortion at the top or bottom of the display

Setting the picture rotation (ROTATION)


Tilt distortion must be set when the screen display is not axially symmetrical.

Icon	Function
	Picture rotation (<i>ROTATION</i>): Rotating the picture in a clockwise or counter-clockwise direction

Setting moiré reduction (V-MOIRE)

If the picture you see on screen has light and dark stripes or appears dull and blurred, this may be due to what is known as the moiré effect. This effect usually has physical causes, being triggered by interference between the pixels in the matrix and the video signal. The intensity of the moiré effect is dependent on the screen resolution and horizontal frequency.

- i** Set the picture size, brightness, etc. before you switch on moiré reduction. Only switch moiré reduction on if you can see light and dark stripes on your screen, or if the picture is dull and blurred. In some cases, moiré reduction may cause the picture quality to deteriorate (reduced picture definition, slight flickering.)

Icon	Function
	Setting or disabling the vertical moiré reduction The moiré reduction intensity is set with the - and + keys (0 = disabled).

Notes on ergonomic color adjustment

If you select colors for the display in your application programs, take note of the information below.

The primary colors blue and red on a dark background do not produce the minimum required contrast of 3:1 and are therefore not suitable for continuous text and data entry.

When using several colors for characters and background and giving the primary colors full modulation, you can obtain very suitable color combinations (see the following table):

Back-ground color	Character color							
	black	white	purple	blue	cyan	green	yellow	red
black		+	+	-	+	+	+	-
white	+		+	+	-	-	-	+
purple	+	+		-	-	-	-	-
blue	-	+	-		+	-	+	-
cyan	+	-	-	+		-	-	-
green	+	-	-	+	-		-	-
yellow	+	-	+	+	-	-		+
red	-	+	-	-	-	-	+	

- + Color combination very suitable; light background colors are only suitable for devices which are operated with a refresh rate of at least 75 Hz.
- Color combination not suitable because color locations are too close together, thin characters are not identifiable or rigorous focusing is demanded of the human eye.

Technical data

Dimensions and weight

CRT:	43 cm (17")
Visible diagonals:	40 cm
Dot pitch:	0.28 mm
Maximal resolution:	1280 x 1024 pixels
Dimensions (W x H x D):	420 mm x 422 mm x 426 mm
Weight:	17 kg
Accessories:	power cable (1.8 m)
Storable display modes:	16 (9 of which are preset)

Electrical data

Video:	analog, positive, 0.7 V _{pp} , 75 Ohm
Synchronization:	TTL
Line frequency:	30 kHz 70 kHz (multi-scanning)
Refresh rate:	50 Hz 120 Hz
Maximum pixel rate:	110 MHz
Power supply:	100 V - 240 V \pm 10%, 60 Hz/50 Hz \pm 3 Hz, < 1.5 A
Power consumption (see power management):	< 90 W (ON, Normal mode) < 55 W (Standby mode) < 15 W (Suspend mode) < 8 W (OFF mode)

Environmental conditions

Environment class 3K2, IEC 721

Rated range of operation: 15 °C 35 °C

Humidity: 10 % 80 %

Limit range of operation: 0 °C 40 °C

Humidity: 10 % 80 %

Condensation must be avoided.

VESA-DDC-compatible VGA interface

Your monitor is equipped with a VESA-DDC-compatible VGA interface. VESA-DDC (Video Electronics Standard Association, Display Data Channel) is used as the communications interface between the monitor and the PC. If your PC is equipped with a VESA-DDC-compatible VGA interface, it can automatically read the data for ensuring optimum operation from your monitor and select the appropriate settings.



If the monitor MCM 171V is not yet displayed in the list of monitors, you can select one of the following monitors instead:

Siemens Nixdorf	MCM 1755
Siemens Nixdorf	MCM 1754
Siemens Nixdorf	MCM 1753
Siemens Nixdorf	MCM 1503
Siemens Nixdorf	MCM 1405 (ND)
Siemens Nixdorf	MCM 1404

Preset operating modes

The monitor is preset to the following modes at the factory:

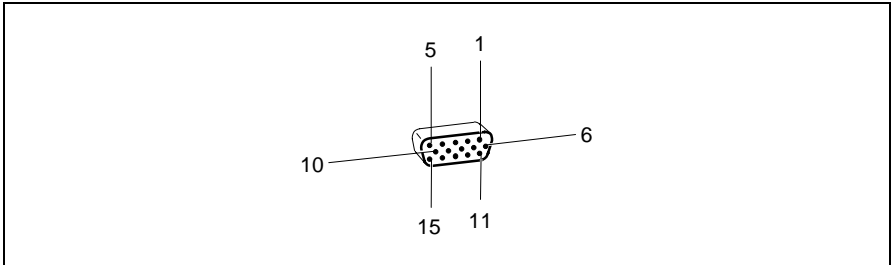
Horizontal frequency	Refresh rate	Screen resolution
31,5 kHz \pm 0.5 kHz	70 Hz \pm 2 Hz	720 x 400
31.5 kHz \pm 0.5 kHz	60 Hz \pm 2 Hz	640 x 480
37.8 kHz \pm 0.5 kHz	84 Hz \pm 2 Hz	720 x 400
43.3 kHz \pm 0.5 kHz	85 Hz \pm 2 Hz	640 x 480
50,6 kHz \pm 0.5 kHz	100 Hz \pm 2 Hz	640 x 480
53.7 kHz \pm 0.5 kHz	85 Hz \pm 2 Hz	800 x 600
60.0 kHz \pm 0.5 kHz	75 Hz \pm 2 Hz	1024 x 768
63,0 kHz \pm 0.5 kHz	100 Hz \pm 2 Hz	800 x 600
68,7 kHz \pm 0.5 kHz	85 Hz \pm 2 Hz	1024 x 768

For ergonomic reasons we recommend a refresh rate of at least 75 Hz and a maximum resolution of 1024 x 768 pixels.



The display position and size have been set to optimum values at the factory for the operating modes listed above. Depending on the screen controller used, it may be necessary to adjust the display position and size. In this case, you can change and save the settings (see "Operation of the monitor").

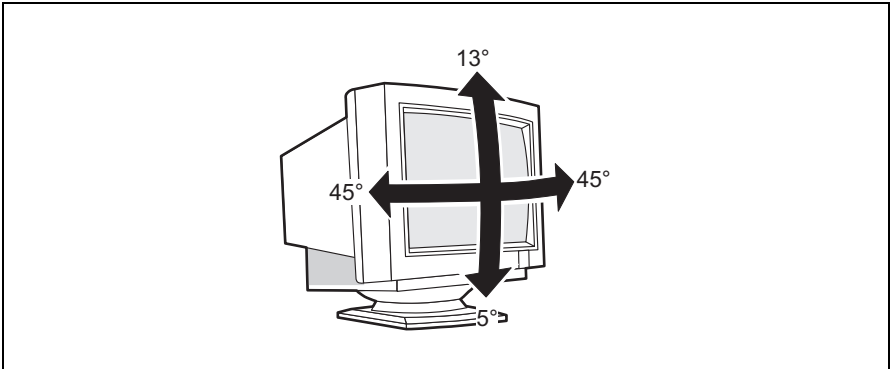
Pin assignment D-SUB



Pin	Meaning
1	Video Red
2	Video Green
3	Video Blue
4	Monitor ground
5	DCC return
6	Red video ground
7	Green video ground
8	Blue video ground

Pin	Meaning
9	not assigned
10	Logic ground
11	Monitor ground
12	Serial DDC data line (SDA)
13	H. sync
14	V. sync
15	Serial DDC clock line (SCL)

Tilting and turning area



The specified tilting area refers to the zero position of the monitor foot marked with an arrow.

Error handling

Should an error occur, first check the following points. If the distortion is still not eliminated, the monitor should, if possible, be checked on another PC.

If you cannot solve the problem, contact customer service.

The display is too small or not centered

The monitor recognizes an undefined mode.

- ▶ Adjust the picture size, position and edges (see "[Operation of the monitor](#)").

Color displacements

- ▶ Degauss the monitor (see "[Operation of the monitor](#)").
- ▶ Ensure that there are no devices or objects near the monitor which generate magnetic fields (e. g. loudspeakers, plug-in power supply units).

Flickering picture

- ▶ Set an ergonomic refresh rate (≥ 75 Hz) using the PC software (see documentation for your PC or your screen controller/graphics card).
- ▶ Ensure that the monitor is kept at a distance of at least 30 cm from other monitors of the same construction type. With different monitors, the distance must be increased, if necessary.

No display (power lamp does not light)

- ▶ Check whether the monitor is switched on.
- ▶ Check whether the power cable on the monitor is connected correctly.
- ▶ Check whether the system unit is switched on.

No display (power lamp lights)

- ▶ Check whether the system unit is switched on.
- ▶ Check whether the data cable for the monitor is correctly attached to the monitor and the monitor port on the system unit.
- ▶ Press any key on the PC keyboard - the PC may be in energy saving mode.
- ▶ Use the - or + button to adjust the contrast and brightness until you have a picture.