

CHARACTER DISPLAY

CPD-9090/1290 CHM-9002/1202

OPERATING INSTRUCTIONS

Before operating the unit, please read this manual thoroughly and retain it for future reference.

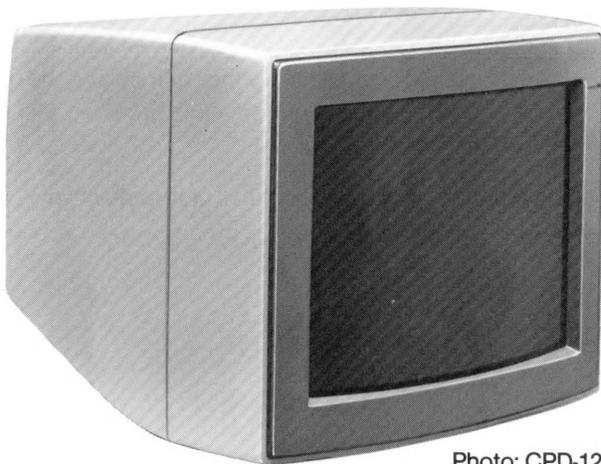


Photo: CPD-1290

OWNER'S RECORD

The model and serial numbers are located at the rear.
Record these numbers in the spaces provided below.
Refer to them whenever you call upon your Sony dealer
regarding this product.

Model No. _____ Serial No. _____

Introduction

The CPD-9090/1290, CHM-9002/1202 are high resolution superfine pitch character display with a dark screen (CPD-9090/CHM-9002) or an anti-glare screen (CPD-1290/CHM-1202). It is designed for use with microcomputers, character generators, and videotex units with either the digital and analog RGB output.

The difference of the four models

This manual explains both the CPD-9090/1290 and the CHM-9002/1202. The CPD-9090 and CHM-9002 have a 9-inch picture tube and CPD-1290 and CHM-1202 have a 12-inch picture tube. These models are functionally equivalent, except that the CHM models are shipped without a cabinet enclosure.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Dangerously high voltages are present inside the unit.

Do not open the cabinet. Refer servicing to qualified personnel only.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna
- Relocate the equipment with respect to the receiver
- Move the equipment away from the receiver
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart J of Part 15 of FCC rules.

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PRECAUTIONS

On safety

- Operate the unit only on 120 V ac, 60 Hz.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the ac power cord, pull it out by the plug. Never pull the cord itself.

On installation

- Allow adequate air circulation to prevent internal heat build-up.
Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

To keep the unit looking brand-new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner or benzene, or abrasive cleansers since these will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.

On repacking

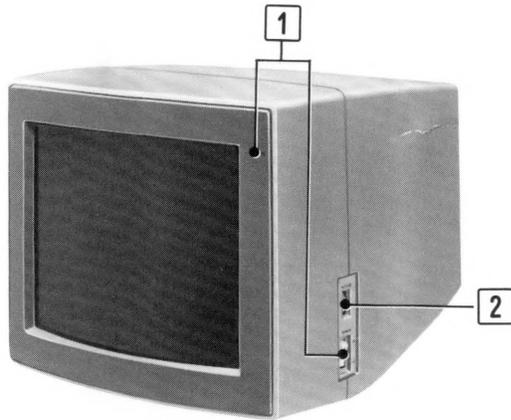
Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

If you have any questions about this unit, contact your authorized Sony dealer.

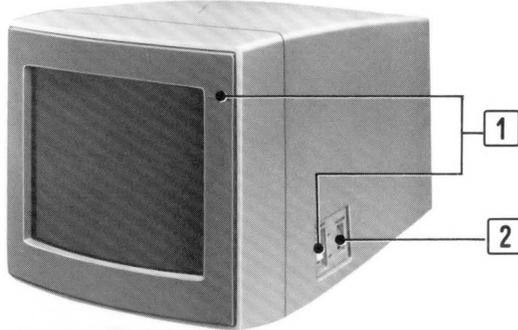
LOCATION AND FUNCTION OF CONTROLS

Note

The CHM-9002/1202 do not have a cabinet enclosure as depicted for the CPD-9090/1290 models in the illustration. However, the location and function of the controls are identical for both the CHM and CPD models.

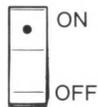


CPD-1290

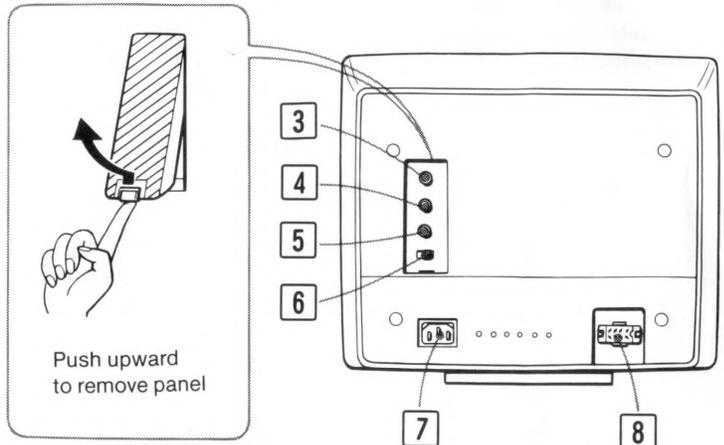


CPD-9090

- 1 POWER switch and indicator (green)**
To turn on the power of the unit, press this switch to ON. The indicator will light up. To turn off the unit, press this switch to OFF.



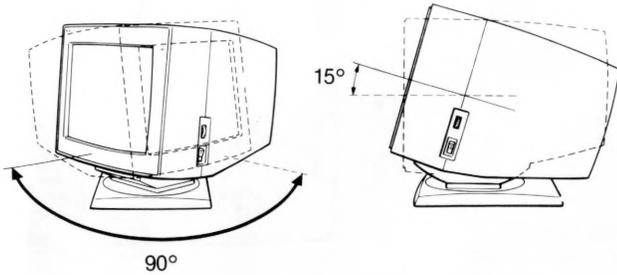
- 2 PICTURE control**
Adjusts the contrast. Turn downwards to increase contrast, or upwards to decrease it.



- 3 BRIGHTNESS control**
Normally keep this control at the center detent position. For a brighter display, turn this knob clockwise. For a darker display, turn it counterclockwise.
- 4 H SHIFT (horizontal shift) control**
If the displays of microcomputers, character generators, etc. are shifted toward the left or right side of the screen, turn this control to center the displays.
- 5 V HOLD (vertical hold) control**
If the display rolls vertically, adjust this control until the display stabilizes.
- 6 RGB input selector**
Depending on the RGB output of the equipment you have connected, set this switch to one of the following 3 positions.
ANALOG: For microcomputers and videotex units having analog RGB output.
DIGITAL 1: For microcomputers having digital RGB output with positive sync signals, such as the IBM PC, IBM PC XT.
DIGITAL 2: For microcomputers having digital RGB output with negative sync signals.
- 7 AC power input connector**
Connect to the AC outlet with the supplied AC power cord.
- 8 RGB IN (input) connector (8-pin)**
Allows a microcomputer, a character generator or a videotex unit having either analog or digital output to be connected.

USE OF A DISPLAY STAND

With the optional Sony SU-531 display stand, this unit can be adjusted to be viewed at your desired angle within 90° horizontally and 15° vertically.

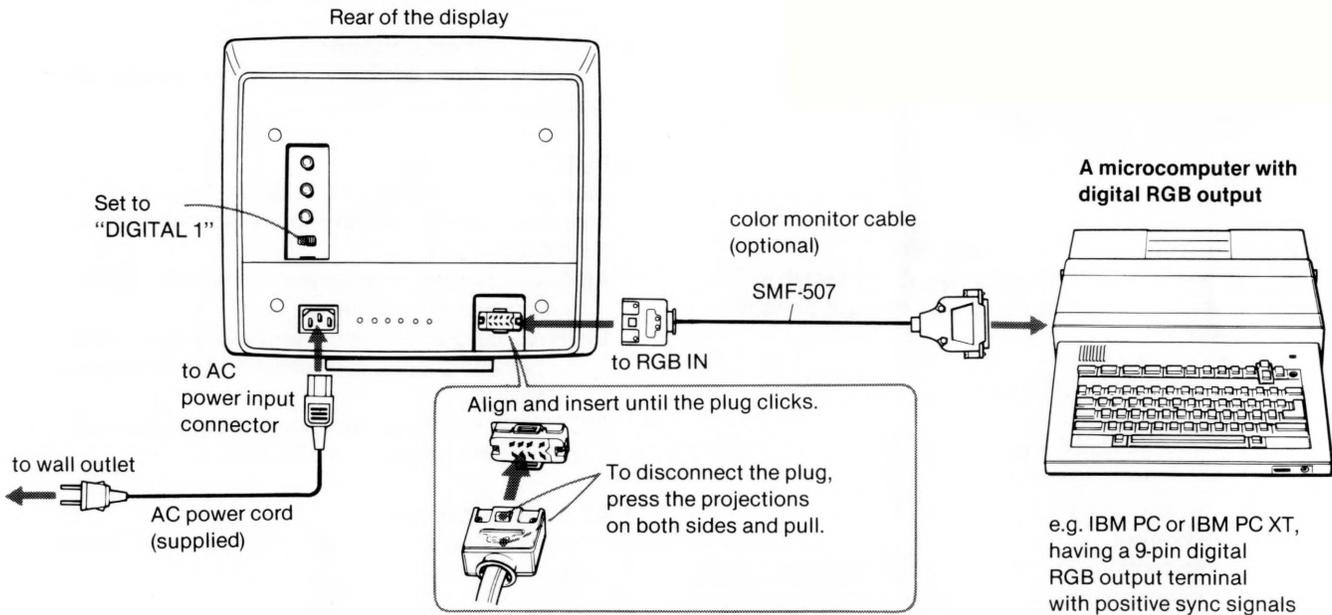


For details, read the instructions of the display stand.

CONNECTIONS

Be sure to turn the power of the unit off before making any connections.

The illustration below shows a connection with an equipment with digital RGB output.



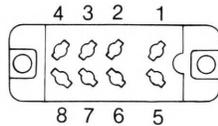
SPECIFICATIONS

Picture tube Super Fine Pitch Trinitron color tube
 CPD-1290/CHM-1202
 12-inch picture tube measured diagonally,
 90 degree deflection
 Anti-glaring dark screen
 Useful screen 237 mm × 185 mm
 Phosphor EBU
 Phosphor pitch 0.26 mm
 CPD-9090/CHM-9002
 9-inch picture tube
 measured diagonally,
 90 degree deflection
 Useful screen 180 mm × 139 mm
 Phosphor P22
 Phosphor pitch 0.26 mm

Resolution CPD-1290/CHM-1202: 800 × 240 dots
 CPD-9090/CHM-9002: 640 × 240 dots

Scanning frequency
 Vertical sync signal frequency:
 50/60 Hz
 Horizontal sync signal frequency:
 15.75 kHz

Input RGB input (8-pin)



Pin arrangement

Pin No.	SIGNAL	Position of RGB input selector		
		ANALOG	DIGITAL 1	DIGITAL 2
1	INTENSITY	—	TTL level	—
2	RED	Analog 0.7 Vp-p	TTL level	TTL level
3	GREEN	Analog 0.7 Vp-p	TTL level	TTL level
4	BLUE	Analog 0.7 Vp-p	TTL level	TTL level
5	GND	—	—	—
6	GND	—	—	—
7	H SYNC	Composite sync 0.3 Vp-p	TTL level sync positive	TTL level sync negative
8	V SYNC	—	TTL level sync positive	TTL level sync negative

Power requirements 120 V AC, 50/60 Hz
 Power consumption 65 W (max.)

Dimensions (w/h/d) including projecting parts
 CPD-1290: 324 × 288 × 390 mm
 (12⁷/₈ × 11³/₈ × 15³/₈ inches)
 CHM-1202: 315 × 256 × 347
 (12¹/₂ × 10¹/₈ × 13³/₄)
 CPD-9090: 253 × 237 × 340 mm
 (10 × 9³/₈ × 13¹/₂ inches)
 CHM-9002: 232 × 196 × 312
 (9¹/₄ × 7³/₄ × 12³/₈)

Weight CDP-1290: 11.2 kg (24 lb 11 oz)
 CHM-1202: 9.4 kg (19 lb 14 oz)
 CDP-9090: 7.4 kg (16 lb 5 oz)
 CHM-9002: 6.0 kg (13 lb 23 oz)

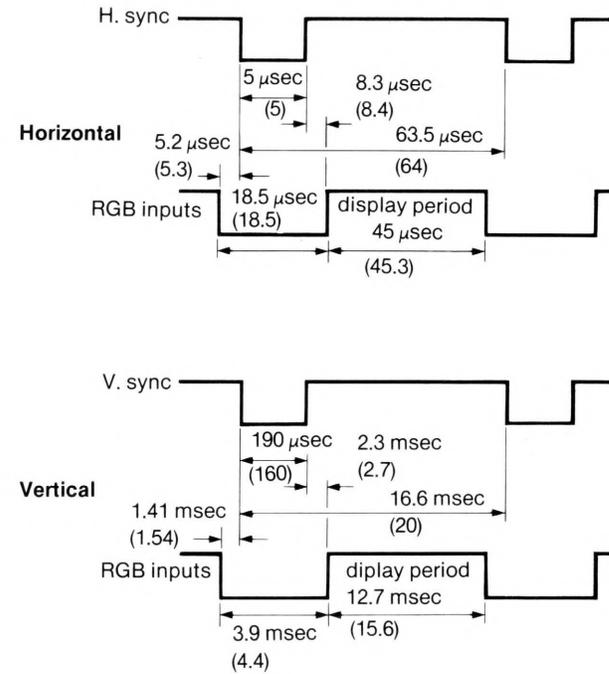
Supplied accessory
 AC power cord (1)

Optional accessories

Monitor cable SMF-507 (9-pin ↔ 8-pin)
 Display stand SU-531

Design and specifications subject to change without notice.

TIMING CHART (Approximate reference)



The numbers inside parentheses apply when the line period is 64 μsec. and the field period is 20 msec.

The numbers not in parentheses apply when the line period is 63.5 μsec. and the field period is 16.6 msec.

Note

The picture may be biased or the picture size may be changed, depending on the timing of the connected equipment.

