

COLOR DISPLAY

MODEL COLOR-II

OPERATING GUIDE



AMDEK CORP.

HOW TO GET THE MOST ENJOYMENT FROM YOUR NEW AMDEK COLOR DISPLAY

Your new AMDEK Color Display incorporates a host of features designed to give you excellent performance if you follow the instructions in this guide.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS DISPLAY TO RAIN OR MOISTURE.

FEATURES

- Excellent terminals for microcomputers and office computers
- Color display monitor employing newly developed high-resolution color display tube
- Bright sixteen colors display
- Up to 2000 characters can be displayed
- Low power consumption of 79W

“**WARNING**—This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.”

POWER SOURCE

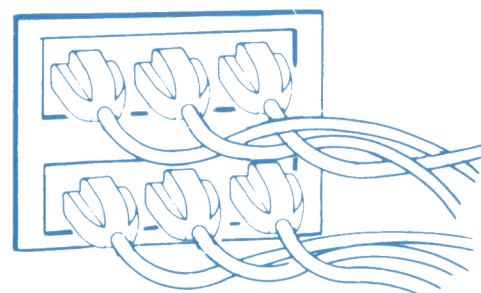
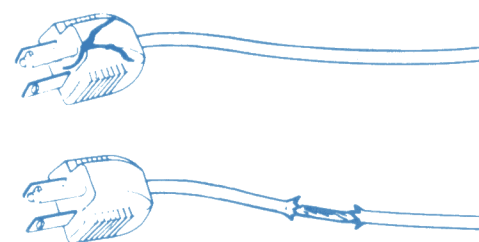
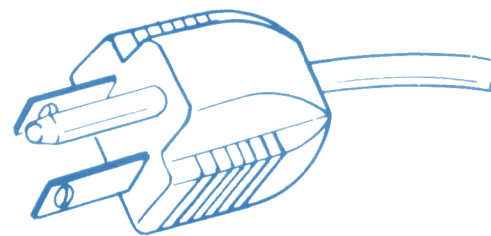
This color display is designed to operate on 120 volts 60 Hz, AC house current. Insert the power cord plug into a 120 volts 60 Hz outlet.

NEVER CONNECT THE DISPLAY TO OTHER THAN THE SPECIFIED VOLTAGE, TO 50 Hz OR TO DIRECT CURRENT.

Note: Never remove the back cover of the display as this can expose you to very high voltage and other hazards. If the display does not operate properly, unplug the display and call your dealer or service shop.

NOTE:

- This color display is equipped with a polarized alternating current line plug. This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, or if the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- When the power cord or plug is damaged or frayed, unplug this color display from the wall outlet and refer servicing to qualified service personnel.
- Do not overload wall outlets and extension cords as this can result in fire or electric shock.

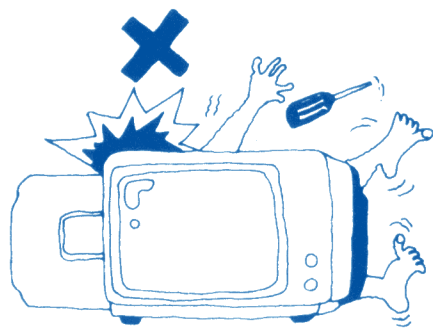


CAUTIONS ON USE

★ PRECAUTIONS TO BE OBSERVED FROM THE VIEW POINT OF SAFETY

■ Cautions on electric shock

A section with high voltage is present inside the color display. Do not touch the inside; it is dangerous.

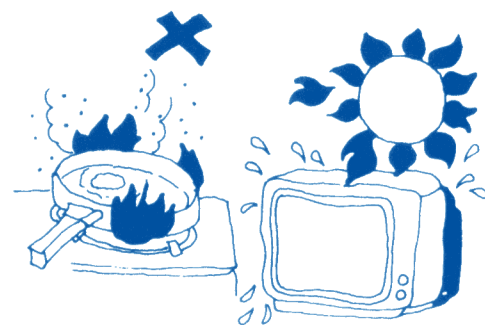


■ Keep in a well-ventilated place

Ventilation holes are provided in the cabinet to prevent the temperature from rising. Do not place the unit in a place badly ventilated or cover the unit with cloth, or place the unit on a carpet; it clogs the ventilation holes.

■ High temperature causes trouble

Avoid placing the unit in direct sunshine, near a heating appliance or where lamp soot will directly contact the unit such as in a kitchen, etc. It can harm the cabinet.



■ Take good care of the power cord

Do not stuff the power cord under the set, or hold any thing with the power cord, to prevent it from being damaged. It is dangerous to use the power cord while it is damaged. Be sure to pull the power cord out by holding the plug without holding the power cord.

■ Do not apply a shock

The picture tube is made of glass, so do not apply a shock by dropping, crushing, etc.

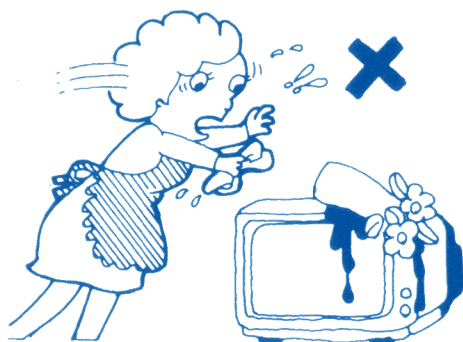


■ Cautions on the power voltage

When the power voltage is extremely high or low, it may cause trouble or it may not give optimum performance. Consult your dealer at that time.

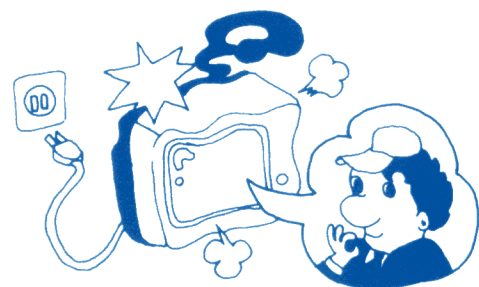
■ Keep water out

When water or liquid enters the set, it becomes dangerous to use the unit. Immediately pull the plug out and contact your dealer.



■ When behavior is abnormal

When any abnormal sound, odor or smoke is generated, turn the power switch off, pull the power plug out from the socket and contact your dealer.



- **It is dangerous to let foreign matters enter the unit**

When metals or inflammables are inserted or dropped through the ventilation hole, it can cause trouble such as electric shock or fire, etc.

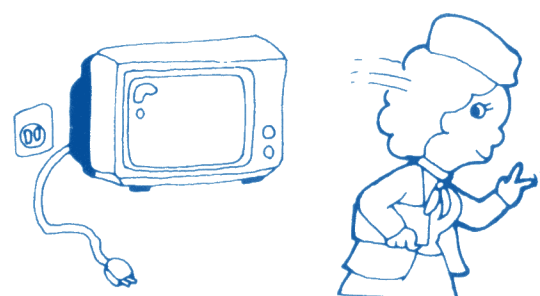
- **Keep in a place with little moisture or dust**

Do not place the unit in a place with much moisture or dust such as inside a bathroom or near a washing machine, etc.

This can cause trouble.

- **When the unit is not used for a long time**

Be sure to pull the power plug out from the socket when you are going on a trip, etc. and the unit will not be used for a long time.



★ CAUTIONS

- **Treating the surface**

Do not wipe the surface of the set using volatiles such as benzine or thinner, or chemically treated cloth; do not apply insecticide. It may denature the surface or cause peeling-off of the paint. Be careful in that when a vinyl product is kept in contact with the surface for a long time, stains may occur.



- **Static electricity of the picture tube**

You may feel electricity when you touch the surface of the picture tube. This is because it is static-electrified, and is not harmful to human body.

- **Cleaning**

Dust inside the set may cause trouble. Avoid putting the unit in a place with much dust and ask the dealer to clean the inside of the set approximately once a year.

- **When any trouble occurs**

When any trouble occurs, immediately contact the dealer from whom you purchased the unit.

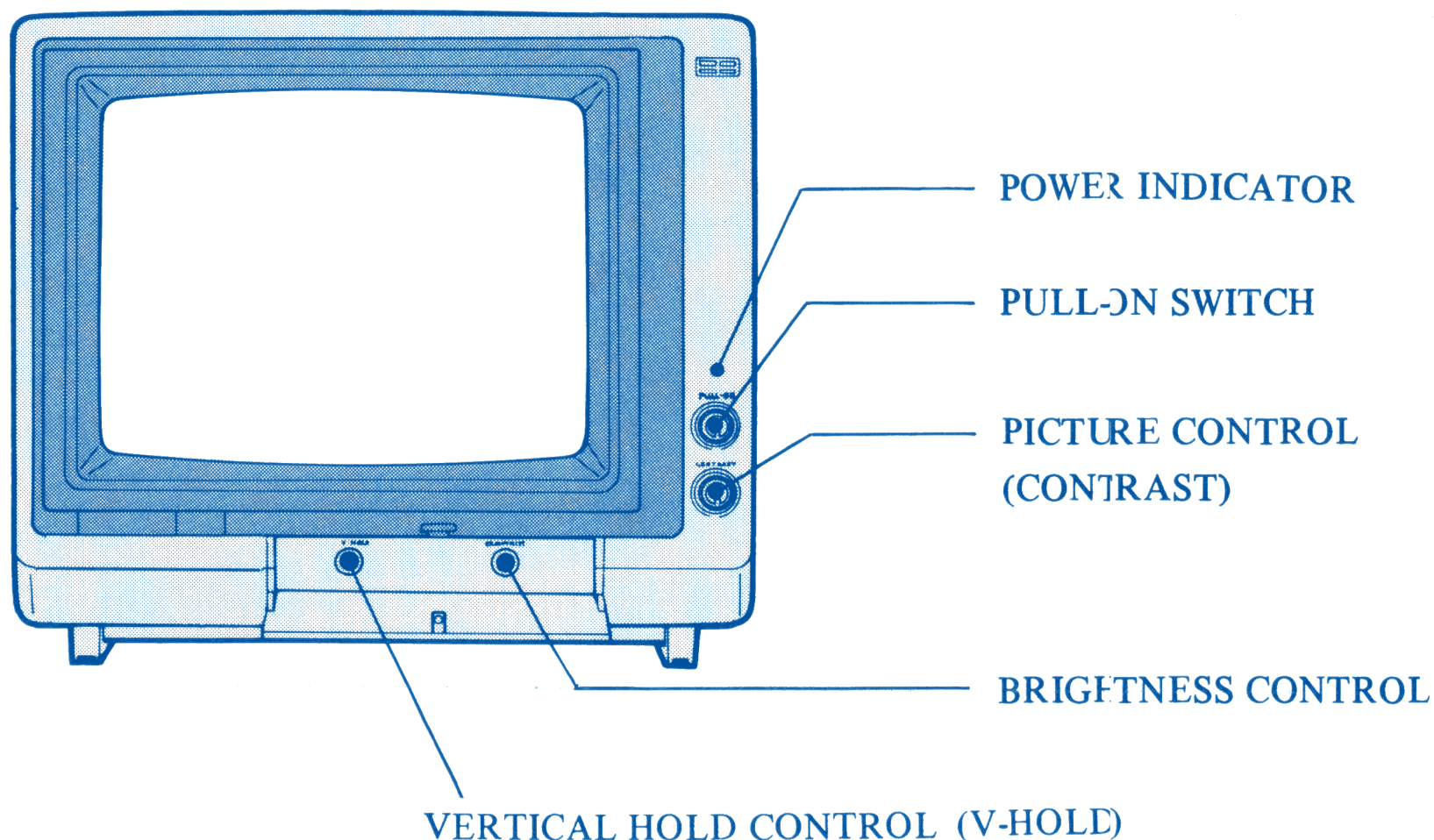
- **Be careful of magnetism**

Do not bring materials which generate magnetism, such as a magnet, speaker system, printer, floppy disc, etc. nearby; the set may be affected by magnetism, causing color disturbance, picture distortion, etc.



LOCATION OF CUSTOMER CONTROLS

FRONT VIEW

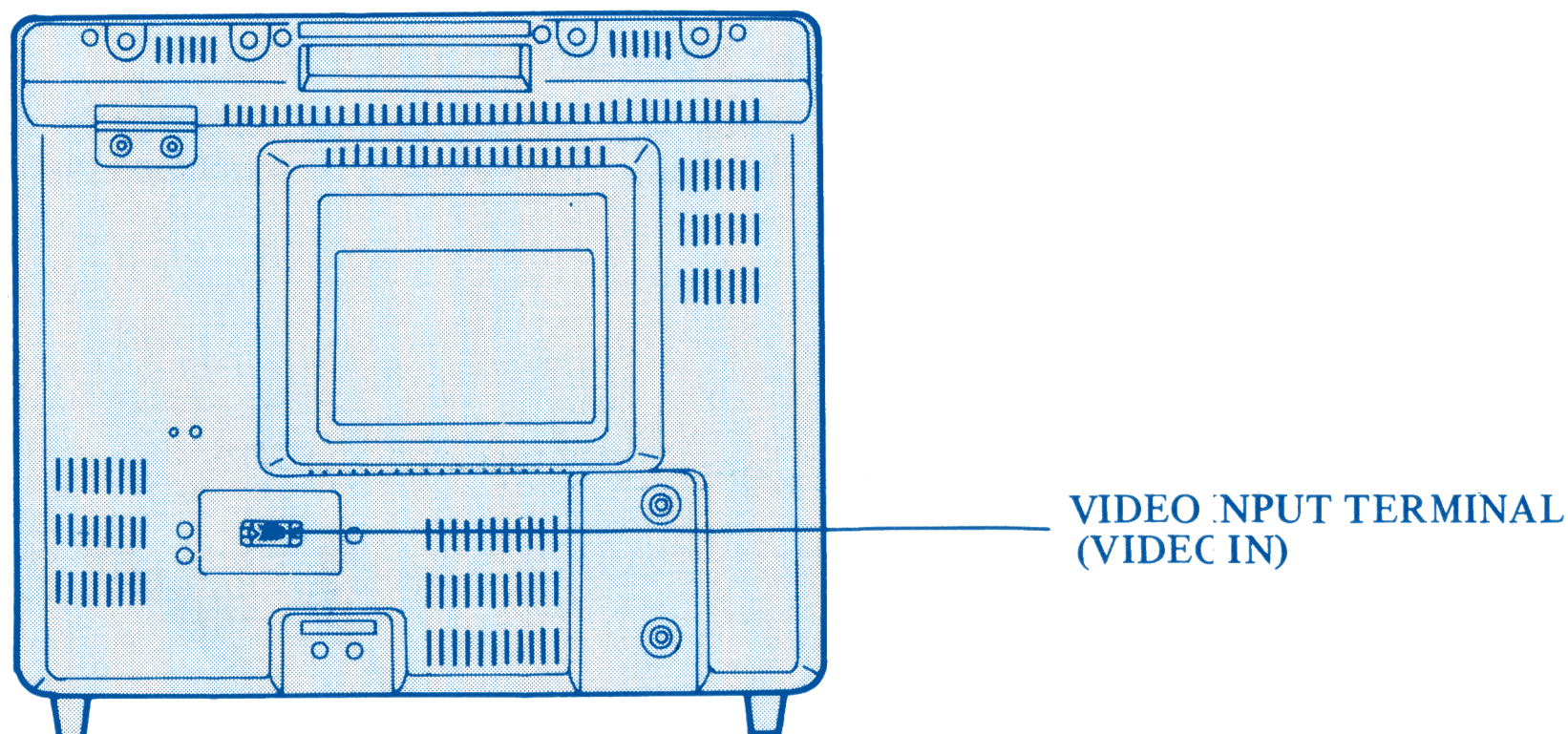


VERTICAL HOLD CONTROL (V-HOLD)

When the picture branches to the top and bottom, or flows vertically, turn the vertical hold control (V-HOLD) gradually to adjust it.

* Refer to "When signals other than the recommended signal are received" on page 11.

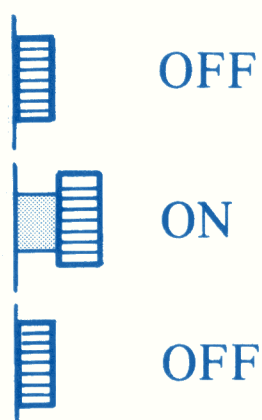
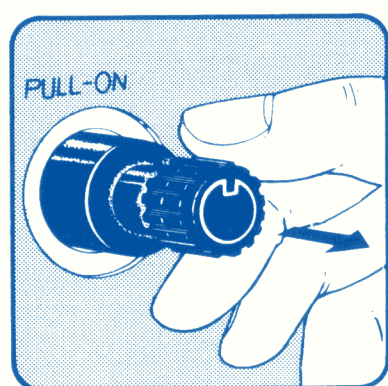
REAR VIEW



ORDINARY OPERATION

- When viewing the color display in general, a beautiful color picture can be obtained by handling the unit as described in items 1 ~ 3.

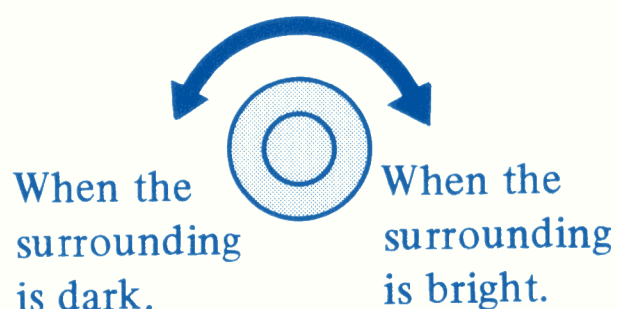
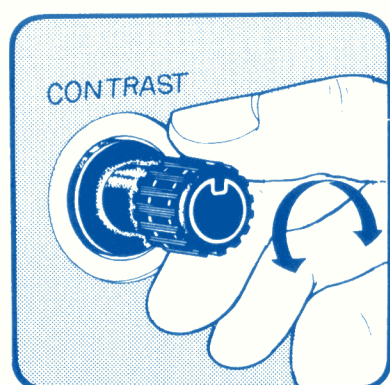
1 Turn the power ON and adjust.



Power is turned on when the knob is pulled.

Press the knob to turn the power off.

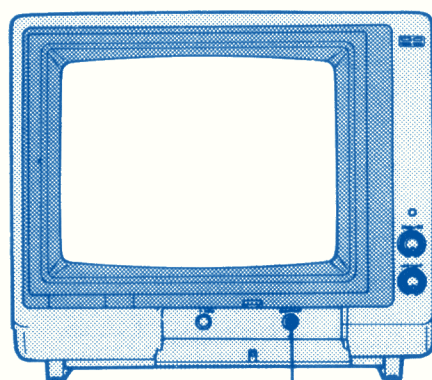
2 Adjust the picture.



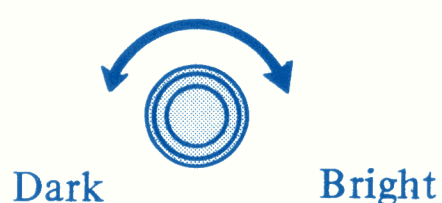
Adjust the picture according to the brightness of the room. The picture gets brighter, contrast stronger and the color thicker as the picture control (contrast control) knob is turned clockwise.

The picture becomes easy-to-see as this knob is turned counterclockwise in a dark room.

3 Adjust the brightness



BRIGHTNESS CONTROL



Adjust the BRIGHTNESS as shown below.

- 1) Adjust the picture control knob (CONTRAST) according to the brightness in the surroundings to obtain a picture that is easy-to-see.
- 2) Turn the brightness control knob to adjust so that the picture is clear.

Note: The brightness knob has a center-click setting. Normally this knob can be turned to the click-point setting.

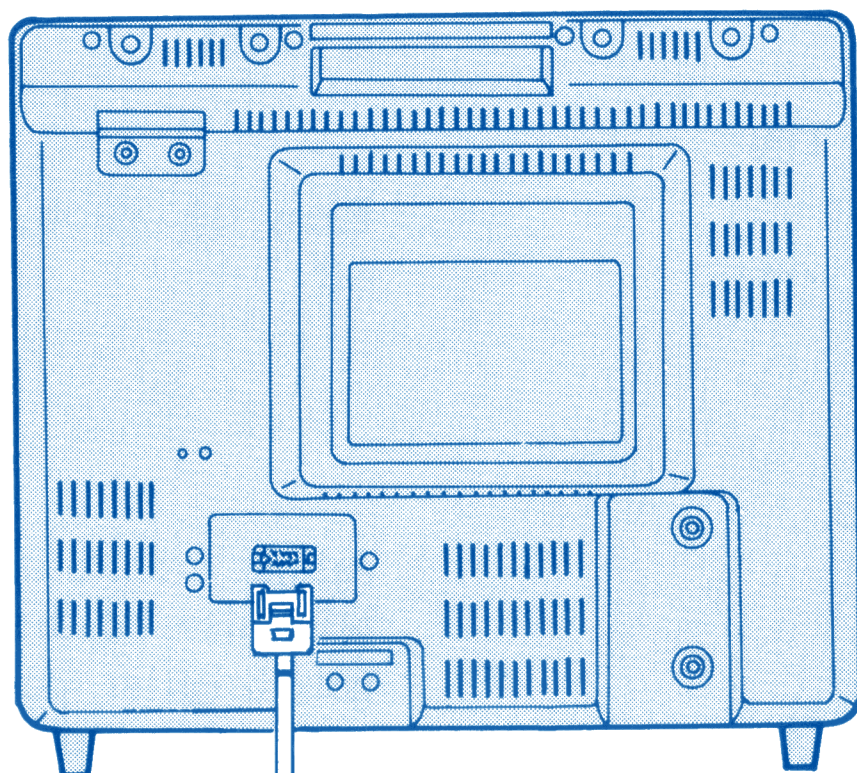
CONNECTING WITH EXTERNAL EQUIPMENT

Connect external equipment referring to the example shown below.

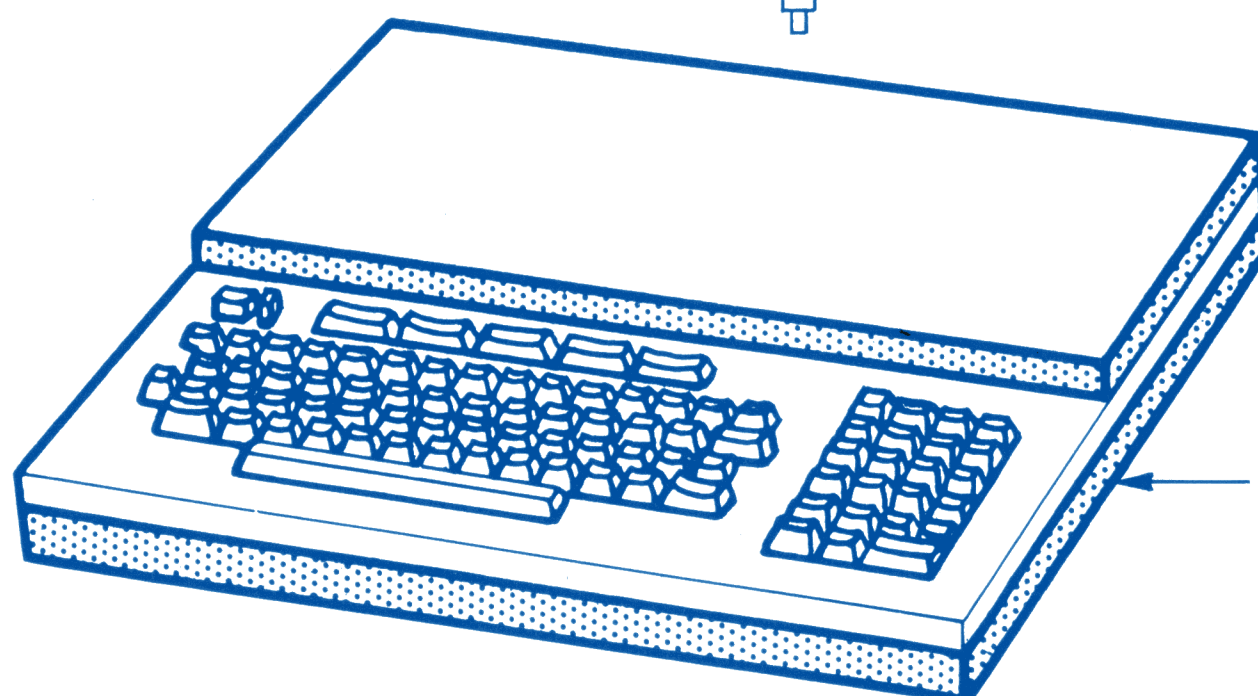
Cautions:

Be sure to cut off the power to the equipment connect to the color display before connecting external equipment.

COLOR DISPLAY
(COLOR-II)



CONNECTION
CABLE
(TYPE-I CONNECTOR)



COMPUTER;
R,G,B, channel type

VIDEO INPUT SIGNAL

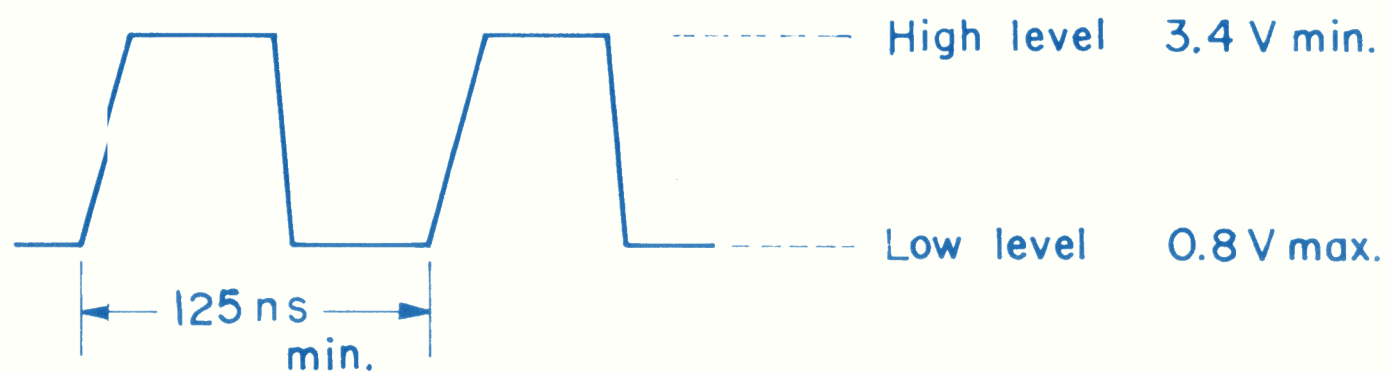
Recommended signals are shown below.

1. Signal level

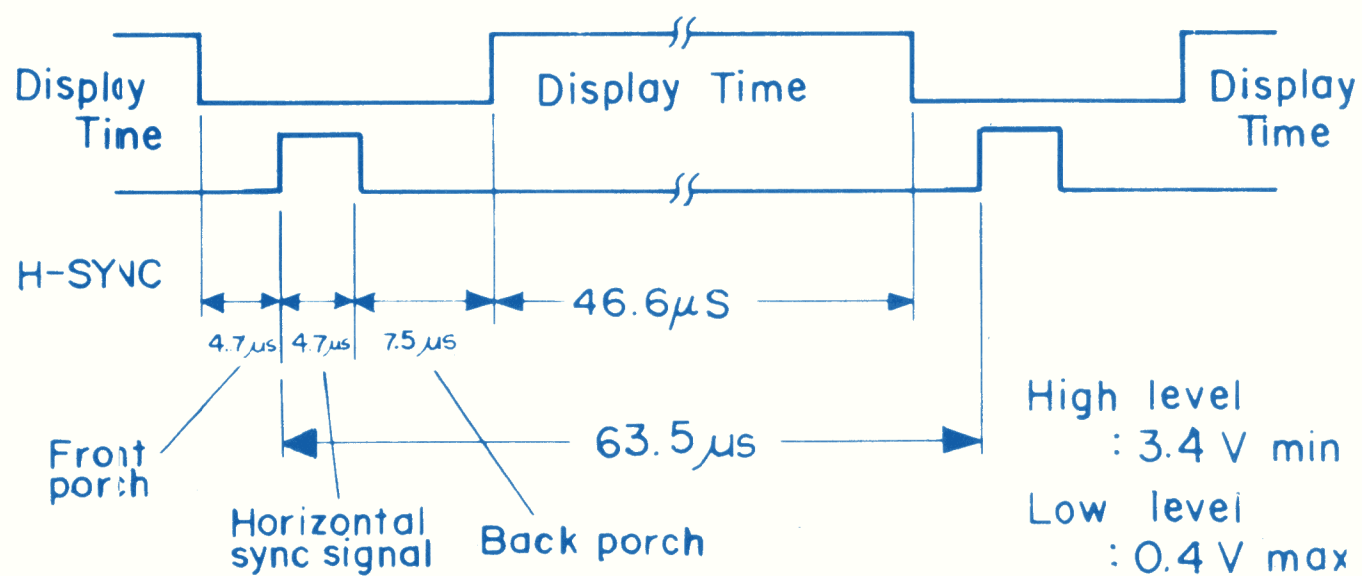
Video input:	R, G, B, separated TTL level, positive
Intensity input:	TTL level, positive
Sync input:	H-sync ; TTL level, positive V-sync ; TTL level, positive

2. Wave from

2 - 1 . Video input(R, G, B) (Intensity)

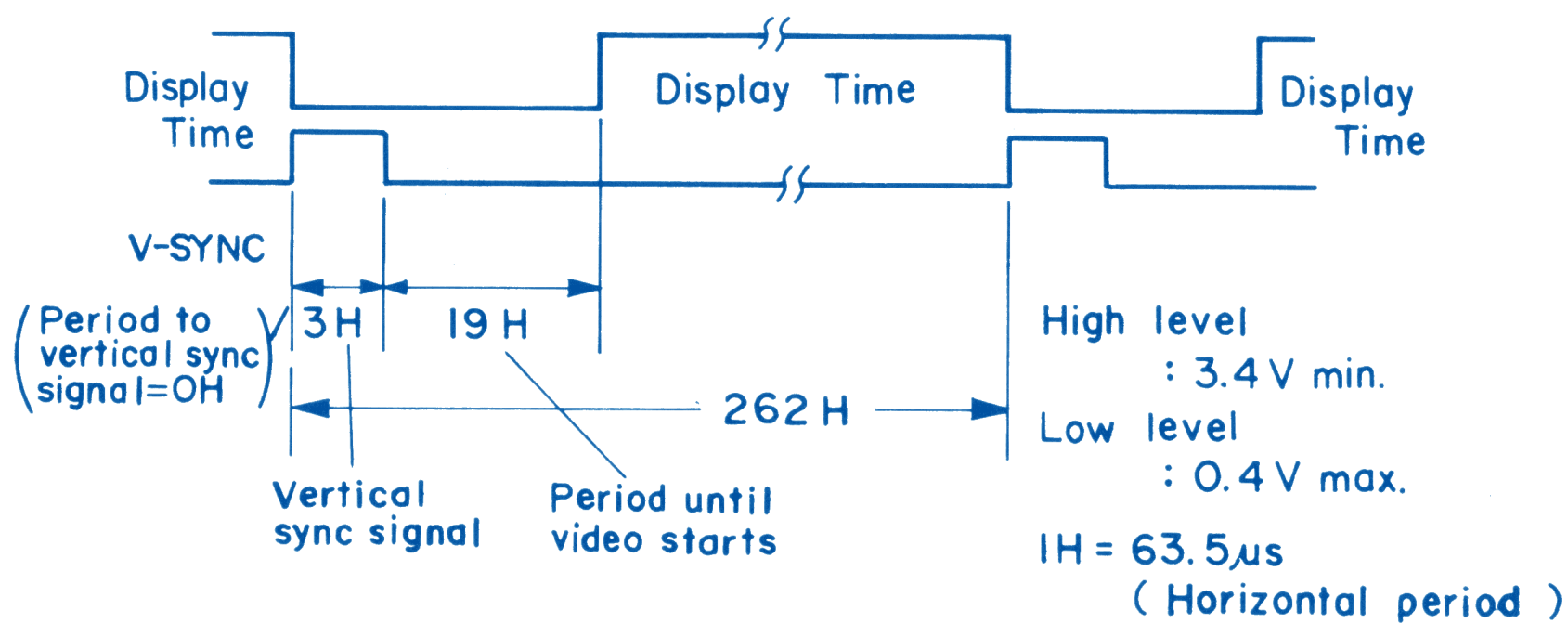


2 - 2 . H-sync



VIDEO INPUT SIGNAL (continued)

2-3. V-sync



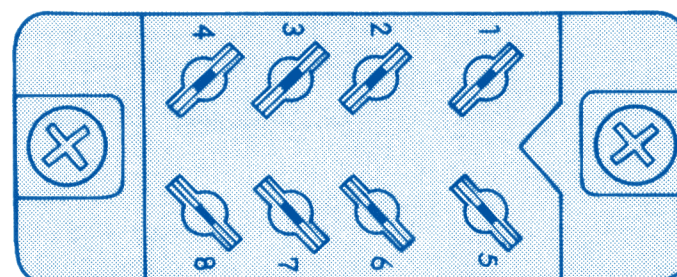
3. Video input terminal

TYPE-I CONNECTOR (8p) is used as the input signal connector of this color display. Each pin and input signal are shown in the table below.

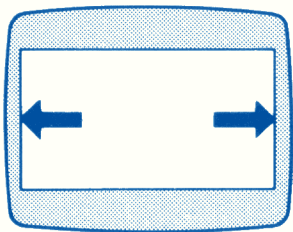
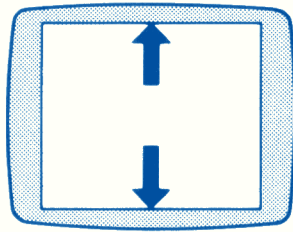
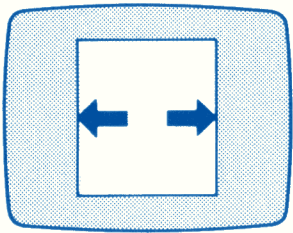
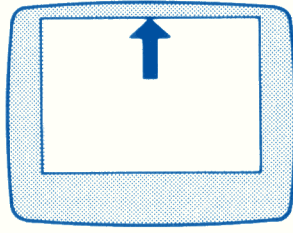
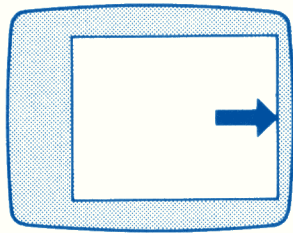
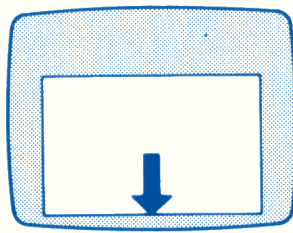
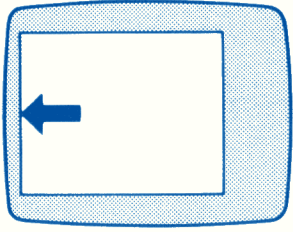
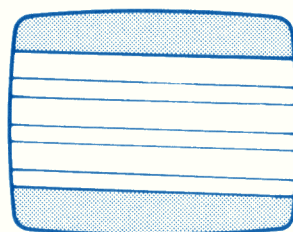
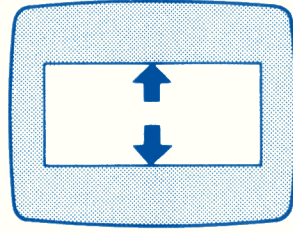
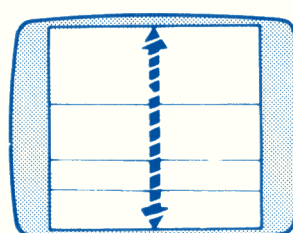
Pin Connection

Pin No.	Connection
1	INTENSITY
2	R.VIDEO
3	G.VIDEO
4	B.VIDEO
5	GND
6	GND
7	H.SYNC
8	V.SYNC

TYPE-I CONNECTOR



When signals other than the recommended signal are received

Phenomenon	Cause	Phenomenon	Cause
Picture width too wide 	Data display period is more than $46.6\mu\text{S}$.	Height of picture too much extended 	Vertical flyback period is 22H or less.
Picture width too narrow 	Data display period is $46.6\mu\text{S}$ or less	Picture deviates upward. 	Period until Video starts 19H or less
Picture deviates to the right. 	Value reduction of front porch from back porch is $2.8\mu\text{S}$ or more.	Picture deviates downward. 	Period until Video starts 19H or more
Picture deviates to the left. 	Value reduction of front porch from back porch is $2.8\mu\text{S}$ or less.	Picture becomes lateral stripes. 	Horizontal sync frequency is not set to 15.75 kHz.
Height of picture too shortened. 	Vertical flyback period is 22H or more.	Picture flows vertically (upward and downward) 	Vertical sync frequency is not set to 60 Hz.

SPECIFICATIONS

Input signal

Video signal (Intensity)	.....	Red, Green, Blue channel TTL level (positive)
Sync signal	.....	Horizontal and Vertical Sync. TTL level (positive)
Retrace time	.....	Hor. 10 μ s max., Ver. 1.0 ms max.
Character display zone	....	Hor. appr. 240 mm, Ver. appr. 180 mm
Resolution	.....	Hor. 560 dots, Ver. 240 lines
Recommended display characters	.....	2000 characters (80 ch x 25 rows)
Valid trace time	.....	Hor. 46.6 μ s, Ver. 15.3 ms
Sweep frequency	.....	Hor. 15.75 kHz, Ver. 60 Hz
Display color	.....	16 colors
Power input	.....	AC 120V $\pm$ 10% 60 Hz
Power consumption	.....	79 W (1.0 A)
Convergence	.....	Self convergence
Focus	.....	Electrostatic
Picture tube	.....	370 LJB22 (13 inch, 90 degrees)
Input terminal	.....	Type-I connector
Transistors	.....	25
Diodes	.....	65
ICs	.....	3
Modules	.....	2
Weights	.....	Appr. 14.5 kg
Dimensions	.....	(W) 43.3 cm x (H) 37.5 cm x (D) 38.6 cm

AMDEK CORP.