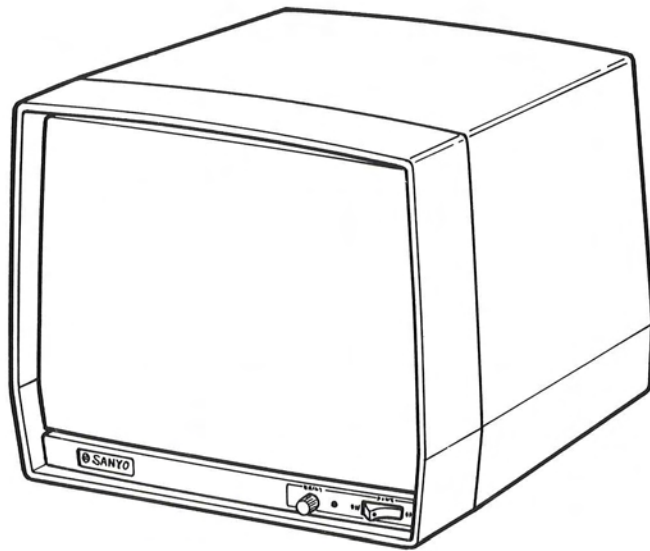




SANYO

DM8112CX



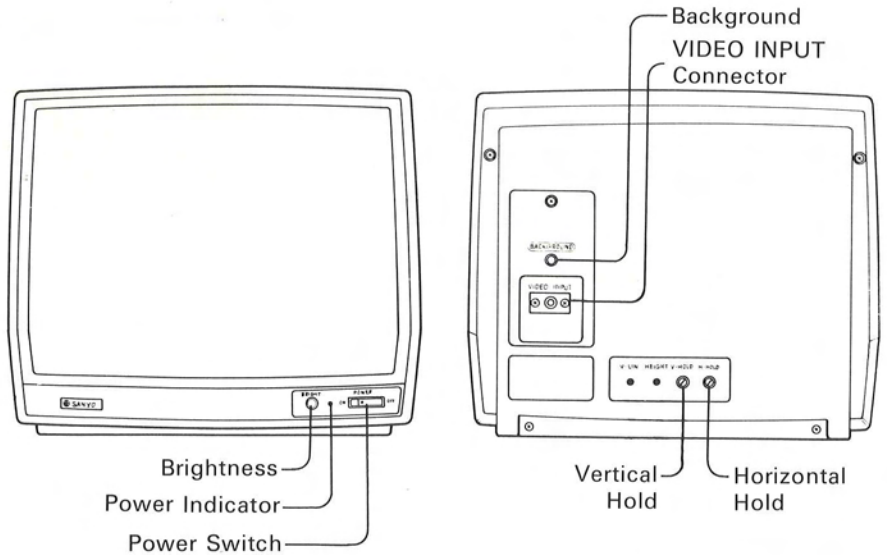
SANYO SOLID STATE DATA DISPLAY

OWNER'S MANUAL

Introduction

Your new DM8112CX solid state data display is a precision engineered product designed for use with the computer system which outputs a composite video signal. This picture tube employs an implosion proof, green phosphor. This data display is equipped with DC restoration (In the absence of a data signal, the data display screen will be fully black: no raster). Solid state electronics used in the DM8112CX provides improved reliability and superior performance even in continuous duty applications.

Controls



Installation

CONNECT.....Data Display to an outlet supplying 240 volts, 50 Hertz, alternating current (AC) only.

FOLLOW.....Instructions on all tags and labels before attempting to operate your display.

WARNING
THIS APPARATUS MUST BE EARTHED.
IMPORTANT

This wires in this mains lead are coloured in accordance with the following code.

- Green and Yellow Earth
- Blue Neutral
- Brown Live

The wires in this mains lead must be connected to the terminals in the plug as follows.

- | | |
|------------------------|--|
| Wire Colour . . . | Plug Terminal Marking |
| Green and Yellow . . . | E or $\frac{1}{\text{E}}$ or Green or GRN & YELL |
| Blue | N or BLACK |
| Brown | L or RED |

This equipment must be protected by a 3A fuse if a 13A (BS1363) plug is used. If another type of plug is used a 5A fuse or lower shall be used, either in the plug or adaptor or at the distribution board.

POWER SWITCH (ON-OFF)

This rocker switch provides power on-off control. Push side with red dot for power "ON," opposite side for power "OFF."

POWER INDICATOR

Red indicator lamp will light up when power switch is turned on.

BRIGHTNESS

This control permits adjustment of display brightness and is used to compensate for differences in room lighting.

BACKGROUND

This control permits adjustment of background brightness which should be set to fully black.

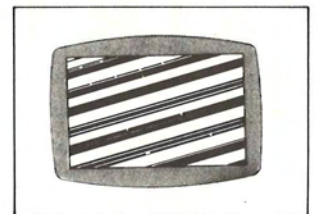
VERTICAL HOLD

Stops any up or down movement of the displayed data. See the right figure.



HORIZONTAL HOLD

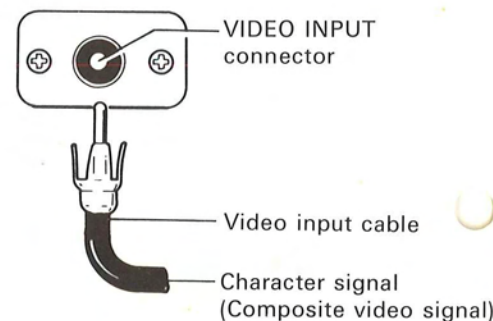
Corrects any slanting of the displayed data. See the right figure.



VIDEO INPUT Terminal

As shown in the figure, the signal input cable from the computer is connected to the signal input terminal.

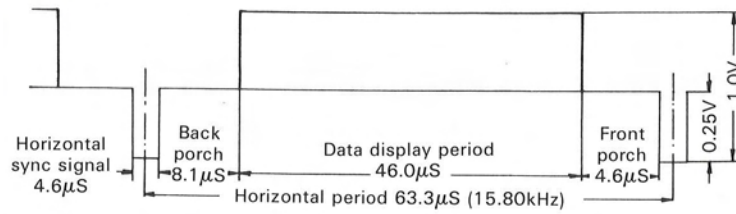
- Use a coupling capacitor for the input with an input signal having a DC voltage of 3V or more.



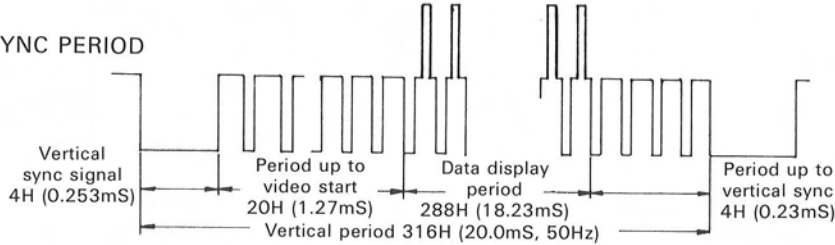
INPUT SIGNALS

The figures below show the recommend signal waveforms and their timing (with 75-ohm terminal).

HORIZONTAL SYNC PERIOD



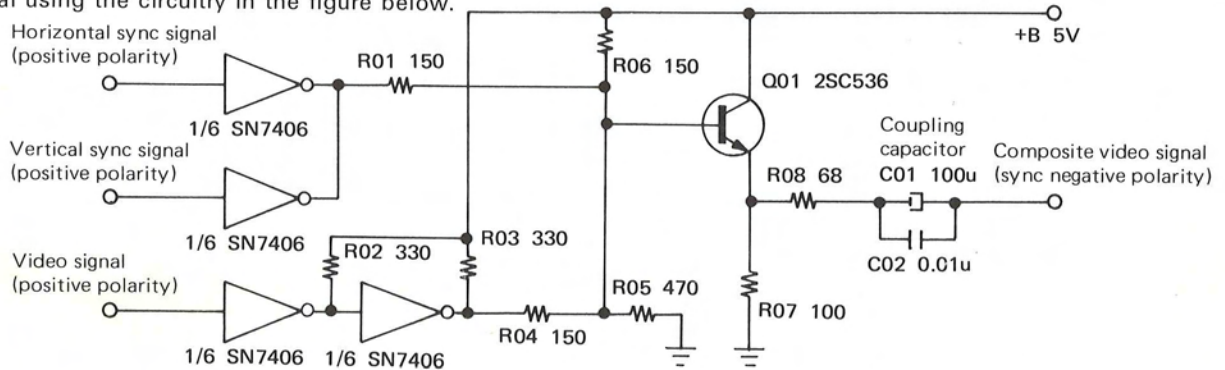
VERTICAL SYNC PERIOD



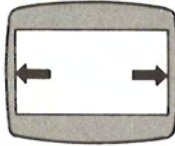
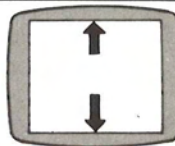
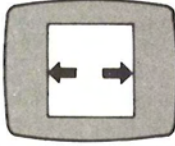
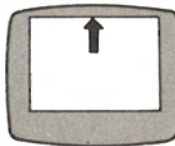
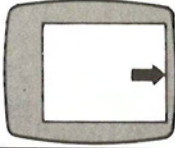
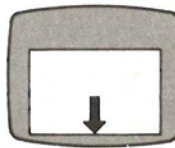
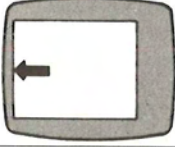
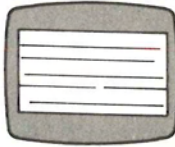
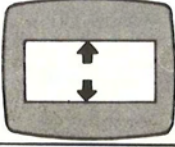
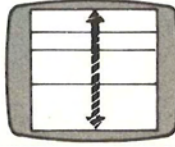
- set the sync signal distortion (overshoot and under-shoot) to less than 10%.
- Set the sync signal to $30\% \pm 5\%$ of the input signal's amplitude.

HOW TO PROVIDE THE COMPOSITE VIDEO SIGNAL

When the output signal from the signal generator is video sync separated, convert it into a composite sync signal using the circuitry in the figure below.



When signals other than those recommended are received, trouble such as that described in the table below will arise

TROUBLE	CAUSE	TROUBLE	CAUSE
Picture is too wide. 	Data display period is more than $46\mu\text{s}$.	Picture extends too far vertically. 	Vertical blanking period is less than 28H.
Picture is too narrow. 	Data display period is less than $46\mu\text{s}$.	Picture tends to top. 	Period up to the vertical sync signal is more than 4H.
Picture tends to right. 	Value given when front porch is subtracted from back porch is more than $3.5\mu\text{s}$.	Picture tends to bottom. 	Period up to the vertical sync signal is less than 4H.
Picture tends to left. 	Value given when front porch is subtracted from back porch is less than $3.5\mu\text{s}$.	Horizontal bars appear on picture. 	Horizontal sync frequency is no longer 15.80kHz.
Picture is cramped vertically. 	Vertical blanking period is more than 28H.	Picture flows vertically. 	Vertical sync frequency is no longer 50Hz.

CAUTION

- For installation, avoid excessively hot or humid places as well as dusty locations. Damage to the cabinet or electronic parts failures may result.
- Avoid any small object or water to fall in the cabinet through ventilation slits to prevent from component on circuit failures, or even dangerous fire hazard.
- The cabinet is provided with many ventilation flits on its rear and bottom. Do not attempt to cover with cloth, pads, or any other materials which may interfere proper ventilation.
- High voltage bearing components are contained in the cabinet. Do not attempt to remove the rear cover for safety against possible shock hazard. Refer servicing to qualified service personnel.

SPECIFICATIONS

Input Signals	Composite Video Signal, Negative SYNC. 1.0 ^{+0.5} -0.3 Vp-p, 75 ohm
CRT Size	31 cm diag. (12 inch diag.)
Phosphor	P31 (Green)
Semiconductors	IC 1 Transistors 14 Diodes 16
Video Amp Bandwidth	18 MHz
Display Area	Horizontal 21 cm (46 μS) x Vertical 15 cm (18.23 mS)
Display Format	1920 Characters max. (80 char. x 24 lines)
Scanning Frequency	Horizontal 15.80 kHz, Vertical 50 Hz
Power Input	AC 240 V, 50 Hz
Power Consumption	34 W
Dimensions	32.0 (W) x 27.2 (H) x 32.4 (D) cm
Weight	7.6 kg.

*Specifications are subject to change without notice.



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OSAKA, JAPAN