

ADJUSTMENT PROCEDURES

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1. Application

This specification shall be applied to the adjustment of the LCD1560VM set.

2. Basic Operation

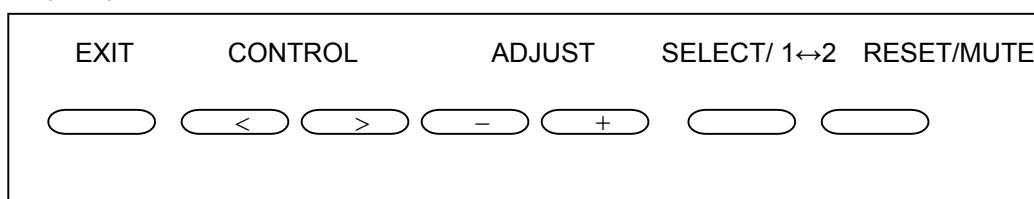
2.1. General conditions

Unless otherwise specified, adjustments shall be carried out under the following conditions:

- 1) Power source voltage: AC 100 - 120V/ 220 - 240V \pm 5%, 50/60Hz
- 2) Equipment to be used: Equipment that can generate an output of the adjusted VG-819 unit or equivalent
- 3) Connections: Connections are made to the D-SUB connector of the unit under inspection by means of the connector that can carry each output of the VG-819.

2.2. Basic Function

2.2.1. Key Layout



EXIT	: Menu Open and Close, Sub menu exit
CONTROL (< , >)	: Menu Open, Move the NEXT tag, Item Select
ADJUST (+ , -)	: Menu Open, Adjust select item.
SELECT/ 1↔2	: Input signal select, Enter Sub menu.
RESET/MUTE	: Open reset menu, Sound Mute.

2.2.2. Aging

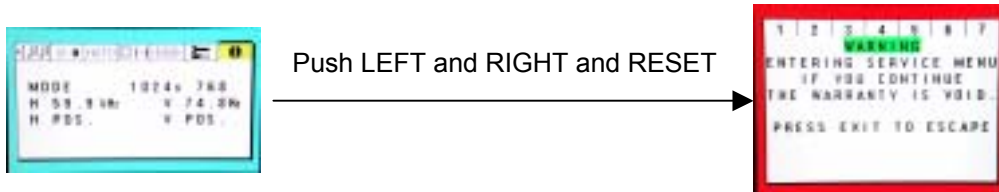
No required.

2.2.3. Service Mode

At the time of adjustment of this model, a suggestion may be given to enter the service mode. This will be explained below.

(1) Service mode:

- 1) In the "display mode" menu, press the (>) RIGHT or (<) LEFT keys at the same time while pressing the RESET key.
- 2) When the SELECT key is pressed under the condition that the WARNING screen is displayed, the mode moves to the SERVICE mode. At that time, the LED is blinks by amber and green. The OSM frame remains to be red. The OSM AUTO-OFF function is disabled.
- 3) When withdrawing from the SERVICE mode, press the EXIT key in the highest hierarchy of the SERVICE menu, or make a signal changeover, or take an action of POWER OFF.



(2) Service menu:

This is an OSM menu to be displayed when the mode is changed over to the SERVICE mode. The conditions differ in each mode, in regard to entering and withdrawal, and whether the data are recorded in the EEPROM. Items of the service menu are used in common.

3. Set Adjustments

3.1. Measuring Instruments to be Used

The measuring instruments considered necessary for the adjustment of the LCD1560VM set are specified below.

- 1) Equipment that can generate an output of the adjusted VG-819 unit or equivalent

3.2. Power Source Voltage

100 - 120V/ 220 - 240V \pm 5%, 50/60Hz

3.3. Electrification

- 1) Make connections according to the mode intended for VG-819 cable setting.
- 2) Turn on the POWER switch of the VG-819 unit.
- 3) Connect an AC power cable to the unit under inspection.
- 4) Confirm that the vacation switch (seesaw switch) at the left side of the unit being inspected has been moved to the "I" side, and turn the POWER switch ON at the right side of the front.
- 5) The LED of the unit under inspection is lit in amber. (In the middle of signal discrimination)
- 6) After the completion of signal discrimination, the LED is lit in green.

Note 1: When the POWER source switch is turned on for the first time, the initialization of EEPROM is effected regardless of the ON/OFF position of the POWER switch. In this period (about 1 minutes), the POWER switch must not be moved to the ON or OFF position. Upon the completion of the initialization, a normal screen is displayed. (If no signal input is entered, the information OSM is displayed.) If the screen is not displayed for more than 5 minutes after the electrification, however, this seems to have resulted from failure in the initialization of EEPROM. Such a condition is regarded as NG.

Note 2: Connections for the connectors should be carried out always under the condition that the AC POWER cord plug has been pulled out.

3.4. Input Signals

Refer to Paragraph 3.6.1 for each adjustment item.

3.5. POWER ON and Signal Input

- 1) Turn on the vacation switch located on the side of the main unit (the power supply for the signal generator turned off) and turn on the power circuit by pressing the POWER key on the front panel. Confirm in this case that the LED is lit in amber. When the power supply is turned on for the first time after the completion of PWB assembly, do not turn off the power supply for at least 10 seconds because initialization is required to be performed.
- 2) It unites with the port which had the input specified by SELECT/1↔2 key. SELECT/1↔2 key checks the port chosen by OSM displayed when 1/2 input interchanges and this switch is pushed, whenever it pushed once.
- 3) Turn on the power supply of the signal generator and enter an input of Signal 1. Confirm that the LED is turned from amber to green.
* If this LED is not lit in green at that time, it is regarded as a defective LED.
- 4) Prior to adjustments, execute the factory preset procedure without fail. The method of this action is described below.
 - a) Display the SERVICE menu and adjust the cursor to the item of [FACTORY PRESET].
 - b) Press the (+) PLUS or (-) MINUS key to execute the factory reset procedure.

3.6. Manual Adjustments

3.6.1. Input Video Signal

VG-819 Setting Values

MODE			Signal1 (1024*768@60)	Signal 2	Signal 3
H	DOT CLOCK	[MHz]	65.0	25.18	65.0
	TOTAL	[DOT]	1344	800	1344
	DISP	[DOT]	1024	640	1024
	SYNC PULSE	[DOT]	136	96	136
	BACK	[DOT]	160	48	160
	HDstrat	[DOT]	0	0	0
	Hdwidth	[DOT]	0	0	0
V	INTERLACE		NON	NON	NON
	TOTAL	[H]	806	525	806
	DISP	[H]	768	480	768
	SYNC PULSE	[H]	6	2	6
	BACK PORCH	[H]	29	33	29
	EQPfp	[H]	0	0	0
	EQPbp	[H]	0	0	0
	SERRATION	[H]	OFF	OFF	OFF
	EDP	[H]	OFF	OFF	OFF
	VDs	[H]	0	0	0
	VBf	[H]	0	0	0
OUTPUT	OUTPUT MODE		ANALOG	ANALOG	ANALOG
	NRZ/RZ		NRZ	NRZ	NRZ
	CV				
	HS		NEG	NEG	POS
	VS		NEG	NEG	POS
	CS		NEG	NEG	NEG
	HD		NEG	NEG	POS
	VD		NEG	NEG	POS
	RGB		POS	POS	POS
	HT		POS	POS	POS
	C		POS	POS	POS
	VIDEO		0.70	0.70	0.70
	Set-up		OFF	OFF	OFF
	Sync		0.3	0.3	0.3
	Display setting		Gray scale + External frame (16 gradations) 0 ~ 100%		Solid all white

3.6.2. VIDEO Gain Adjustments

Use the signal source for which the analog output (R/G/B) has been adjusted to 0.7V.

- 1) Enter a signal of XGA for INPUT1.
- 2) Turn off the display pattern completely and obtain an all black screen.
- 3) Assume the FACTORY mode in the procedures of Paragraph 2.2.3 and display the SERVICE menu.
- 4) Press the (>) RIGHT key once and advance to the tag [2].



- 5) Adjust the display pattern to Gray Scale (0 to 100%: in 16 gradations) + External Frame.
- 6) Use the SELECT key and adjust the cursor to [AUTO CONTRAST]. Make adjustments by pressing the (+) PLUS or (-) MINUS keys.
- 7) When adjustments are over and the original screen has been recovered, confirm that all the 16 gradations of black to white are displayed.
- 8) Press the EXIT key and withdraw from the SERVICE mode.

3.6.3. Factory Setting

- 1) Enter a signal input. (no prescribe)
- 2) Assume the FACTORY mode in the procedures of Paragraph 2.2.3 and display the SERVICE menu.
- 3) Press the (>) RIGHT key three times and advance to the tag |4| and the SELECT key is pushed.



- 4) Use the (>) RIGHT or (<) LEFT keys and adjust the cursor to [OSD DESIGN],[OSM SELECT] and [URL]. Set by pressing the (+) PLUS or (-) MINUS keys.

OSD DESIGN :

It is possible to change the display of OSM adjusting values.

0	Adjusting value displayed in percentage : setting for shipment
1	Adjusting value displayed in numeral : Debug

OSM SELECT :

The OSD/OSM display is changed over for the OSM menu.

0	OSM : setting for shipment
1	OSD

URL :

Display or no display of URL (internet address)

0	No displayed
1	Displayed : WWW.NECMITSUBISHI.COM : setting for shipment
2	Displayed : WWW.NEC-MITSUBISHI.COM

- 5) Press the EXIT key and withdraw from the SERVICE mode.