

Teleprompter LCD Monitor

User Manual



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Caution

Before operating the set, please read this manual carefully.

WARNING:

To reduce the risk of electric shock does not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel. To prevent fire or shock hazard, do not expose the rear of the set to rain or moisture. Do not rub or strike the Active Matrix LCD with anything hard as this may scratch, mark, or damage the Active Matrix LCD permanently.

Unauthorized tampering with the inside of the monitor invalidates the warranty.

The manufacturer shall not warrant for any damage caused by improper maintenance and/or repair. Work by third parties.

Important safeguards for you and your new product:

Your product has been manufactured and tested with your safety in mind. However, improper use can result in potential electrical shock or fire hazards. To avoid defeating the safeguards that have been built into your new product, please read and observe the following safety points when installing and using your new product and save them for future reference.

Read Instructions

Follow Instructions

All operating and use instructions should be followed.

Retain Instructions

The safety and operating instructions should be retained for future reference.

Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

Cleaning

Disconnect the unit from the electricity supply before cleaning. Do not use abrasive cleaners. Use a damp cloth for cleaning.

Water and Moisture

Do not use this apparatus near water.

Transporting Product

A product and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the product and cart combination to overturn.

Attachments

Do not use attachments not recommended by **Boland** as they may cause hazards.

Ventilation

Do not block any of the ventilation openings.

Install in accordance with the manufacturer's instructions.

Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your supplying dealer.

Power Lead Polarization

This product is equipped with a three-wire grounding-type cord. This is a safety feature. Do not defeat the safety purpose of the grounding-type cord.

Power Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles and the point where they exit from the product.

Outdoor Cable Grounding

Caution

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. A "face plate" also needs to be installed with an isolating capacitor to prevent any damage from static.

Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent possible damage to the product due to lightning and power-line surges.

Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to avoid contact with such power lines or circuits, as contact with them might be fatal.

Earthing the product

This product must be earthed properly to comply with the safety regulations in the country of use. If you are unsure of these regulations, please consult a qualified electrician.

Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltages or other hazards. Refer all servicing to qualified service personnel. If the Set does not operate properly, switch it off and call your dealer.

Damage Requiring Service

Isolate this product from the mains supply and refer servicing to qualified service personnel under the following conditions:

- A. *If the power-supply cord or plug is damaged.*
- B. *If the glass front has been damaged.*
- C. *If there is ingress of water between the glass and the LCD screen.*
- D. *If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.*
- E. *If the product has been dropped or the cabinet has been damaged.*
- F. *If the product exhibits a distinct change in performance.*

Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition and the front seal is intact.

Mounting

The product should be mounted on a wall only as recommended in the instructions.

Power

This set operates on an AC supply; the voltage is as indicated on the label on the Manual. This appliance must be earthed at all times through the chassis as well as through the power lead.

Features

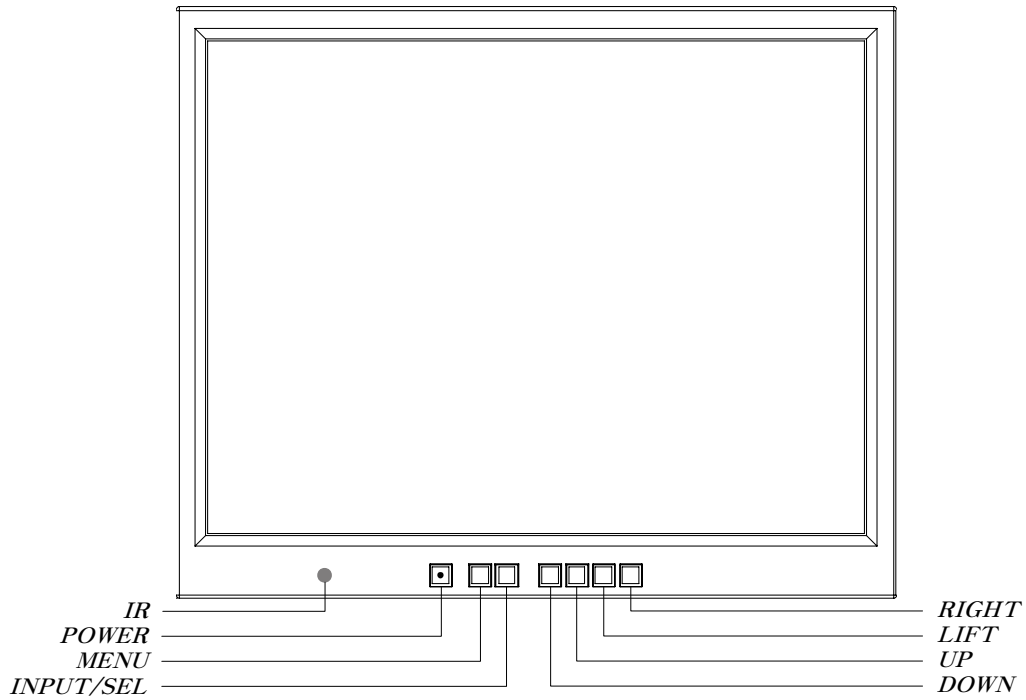
This product is the multi-format Digital LCD Panel to display various kinds of digital video input signal as HD/SD-SDI/HDMI Digital and analog signal such as Composite/PC-RGB

This is also High Definition Broadcasting Teleprompter Monitor which can make it available to do output of stable video signal with the menu of considering convenient user interface and the easy control for brightness and color.

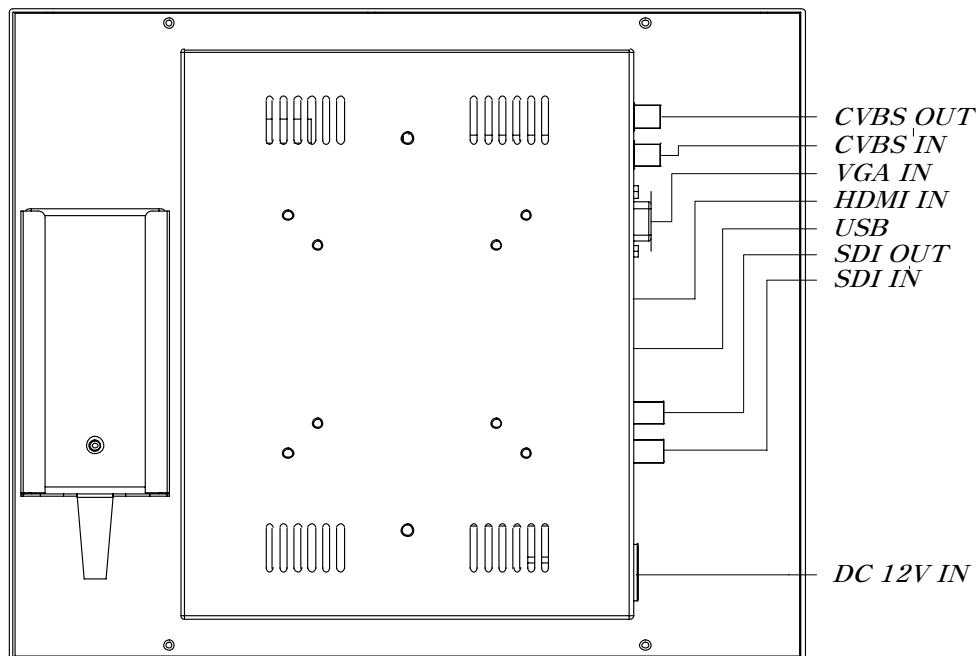
- *HD/SD SDI 1INPUT/1 OUTPUT.*
- *High & Standard Definition Video LCD Monitors 1080/720/576/480(@60/59.94/50)*
- *HDMI inputs accepts up to 1080p*
- *HDMI (HDCP) function.*
- *Analog Inputs are Composite, VGA(Analog PC)*
- *15" 1000 Nit High Brightness LCD Panel(LED backlight)*
- *OSD: Graphic based OSD, 9 Languages (UNICODE System).*
-English, French, Español, Svenska, Deutsch, Italiano, Русский, Chinese, Nederlands .
- *Color Temperature – Cool, Medium, Warm, User*
- *H Flip / V Flip*
- *LCD Dimming Control*
- Manual Dimming Level Control.
- *Aspect Ratio: 16:9, 4:3, Zoom1, Zoom2*
- *USB port- software update*

Controls, Indicators and Connections

TP12/15/17/19 Front



TP12/15/17/19 Rear



Controls, Indicators and Connections

Front Keys Arrangements

- **Power Key**

Power ON/OFF Button. This button is operated after being pressed about 1 second.

- **MENU**

Activates main OSD menu

Navigates higher menu in main OSD menu

Exits OSD menu

- **INPUT/SEL**

Activates OSD menu of input source selecting

Changes input source by selecting

Executes functions (by OSD help commands) in main OSD menu

Activates child menu

- **DOWN(▼)**

Decreases values of user menu in main OSD menu

Executes function (by OSD help commands) in main OSD menu

- **UP (▲)**

Increases values of user menu in main OSD menu

Executes function (by OSD help commands) in main OSD menu

- **Right(▶)**

Executes function by OSD help commands in main OSD menu.

Increases values of user menu in main OSD menu.

- **Lift(◀)**

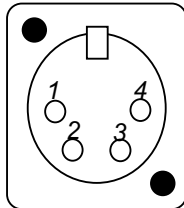
Executes function (by OSD help commands) in main OSD menu.

Decreases values of user menu in main OSD menu.

Controls, Indicators and Connections

REAR Panel

- *SDI IN*
HD SDI / SD SDI Input
- *SDI OUT*
SDI Loop Out
- *USB*
Software Update
- *HDMI*
High Definition Multimedia Input
- *PC-RGB*
Analog PC-RGB Video Input
- *CVBS IN*
CVBS Input
- *CVBS OUT*
CVBS Loop Out
- *DC 12V IN*



<i>PIN NO(4P_12V)</i>	<i>Description</i>
1	GND
2, 3	
4	+ 12V

MENU Basic Operation

In this menu system, there are several ways to customize the menu settings provided.

Most menus consist of three levels to set up the options, but some require greater depth for the variety of settings. If you press the **MENU** button, only the first and second level of the menu system will appear on the monitor screen. The third level can be displayed by pressing **SEL/INPUT**. If a menu has more than three levels, the pop-up dialogue box will be displayed as the fourth or fifth level.

To show and remove the Menu

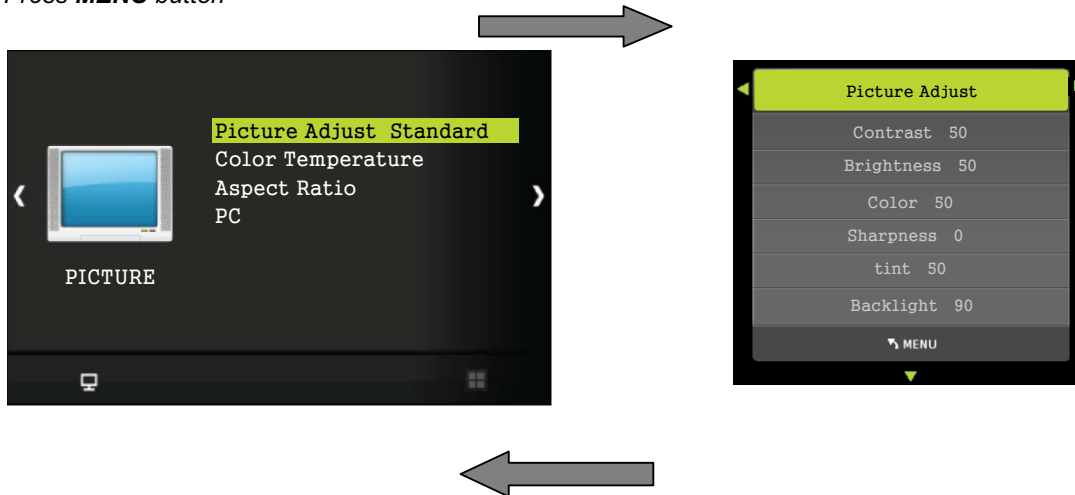
Press the **MENU** button to display the menu. A second press of the **MENU** button will take you back to monitor viewing.

To go to the next level

Press **SEL/INPUT** button.

To go back to the previous level

Press **MENU** button



Typical Menu Operation

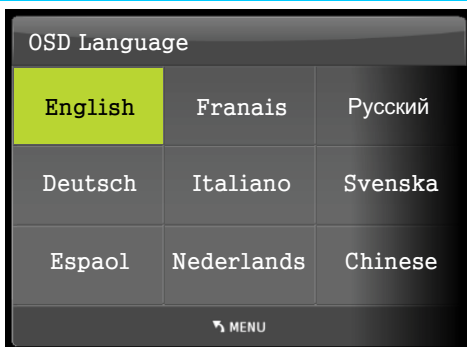
1. Press **MENU** button: The main menu will appear.
2. While the desired menu option is selected, press **SEL/INPUT** to move to the second level.
3. Press **SEL/INPUT** to move to the third level: Some menu options require additional steps.
4. Press **MENU** to return to the previous menu to return to monitor viewing.

Turning On the Monitor

1. First, connect power cord correctly. At this moment, the monitor switches to standby or power on mode. In standby mode, in order to turn monitor on, press the **Power** button.
2. Select the viewing source by using **SEL/INPUT** button on Keypad in front of monitor

MENU Basic Operation

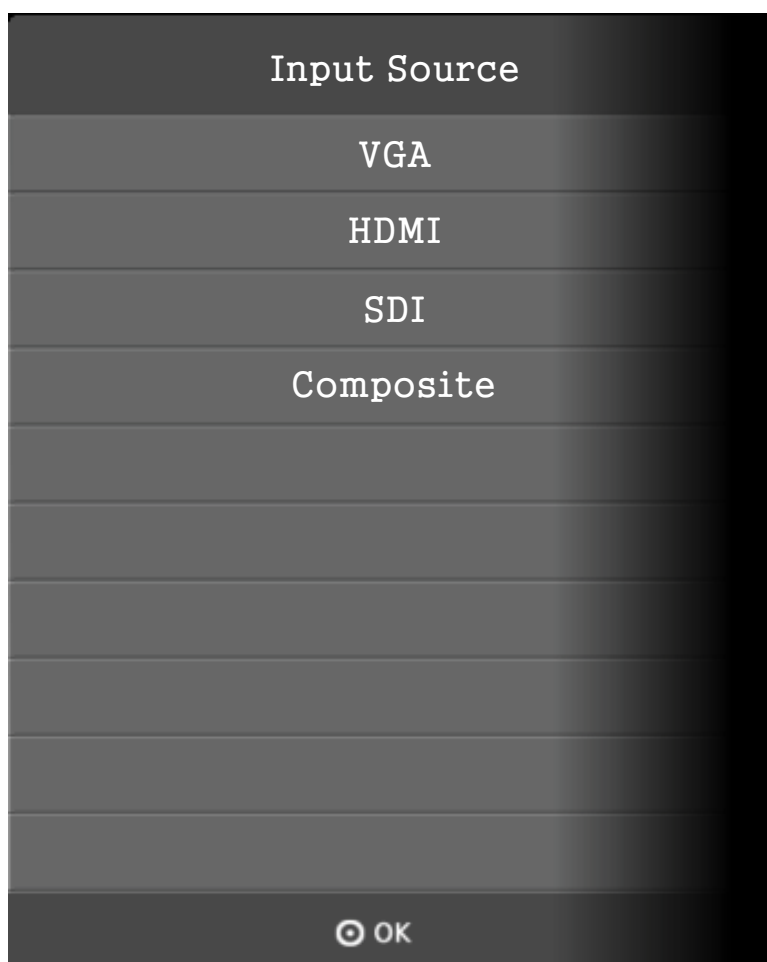
On Screen Menus Language Selection



- Option -> OSD Language
- The menus can be shown on the screen in the selected language.
 - Supported Language: English, French, Espao1, Svenska, Deutsch, Italiano, Русский, Chinese, Nederlands .

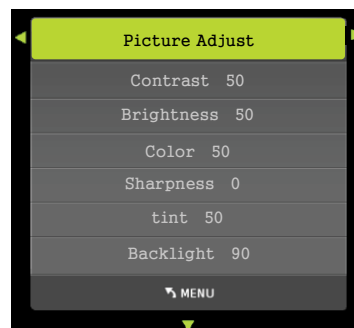
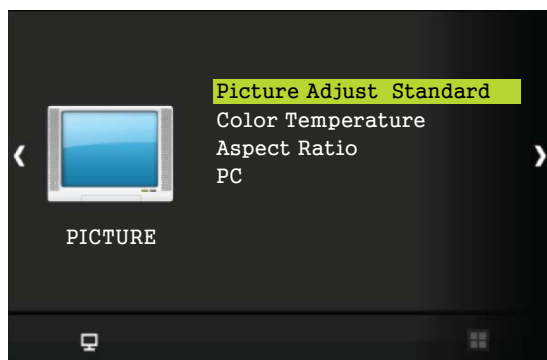
How to Select Video Source by OSD

1. Press the **SET/INPUT** button and then **UP/DOWN** button to select each video source.
2. Press the **SET/INPUT** button to go to desired video source.
3. If Input Name is enabled, The **SET/INPUT** button goes into input name edit mode instead of selecting source.



PICTURE MENU

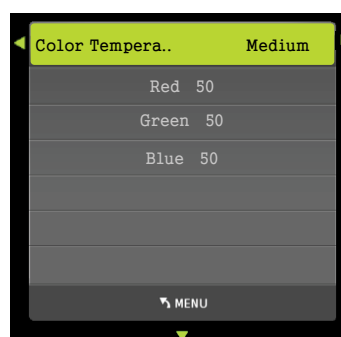
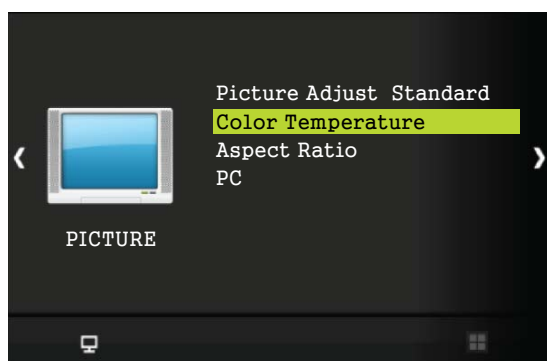
Picture Mode



-Picture Mode : Standard, Dynamic, Mild, User

- User Mode Adjust the values of Brightness, Contrast, Color and Tint directly from 0 to 100

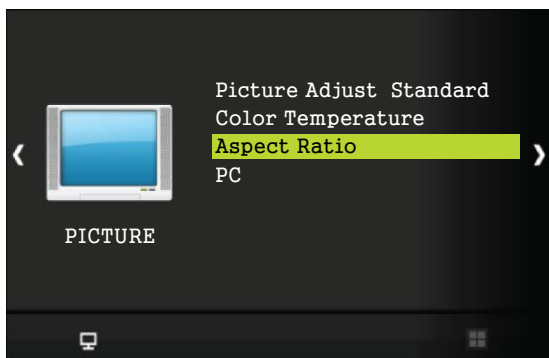
Color Temperature



- Color Temperature: User, Cool, Medium, Warm.

- User (User setting RGB gain value): 0 ~100

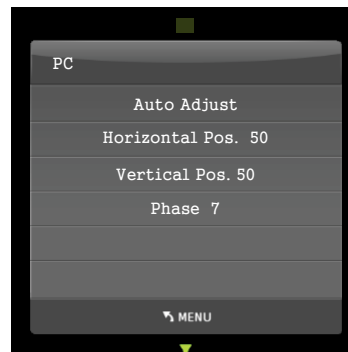
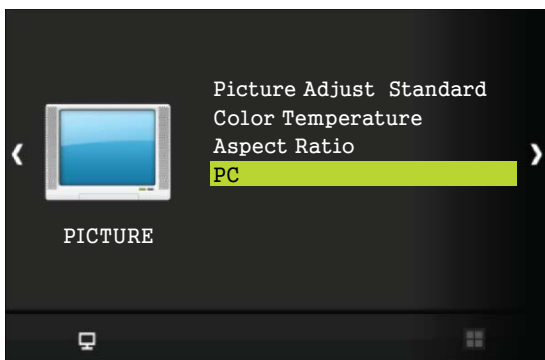
Aspect Ratio



-Auto, 4:3, 16:9, Zoom1, Zoom2

PICTURE MENU

PC

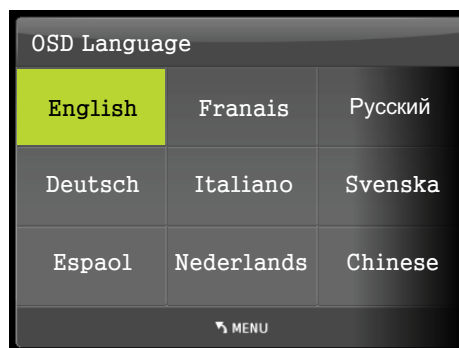
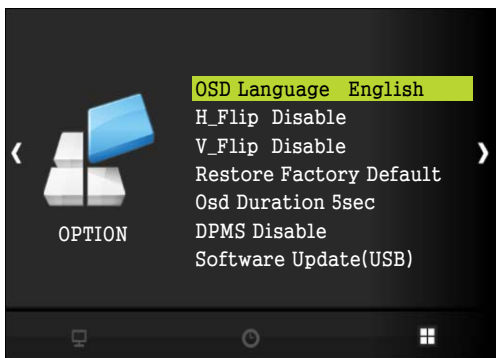


-Only Pc Mode

- Auto-Adjust automatically set the optimum values of Phase, HV position and Frequency.

OPTION MENU

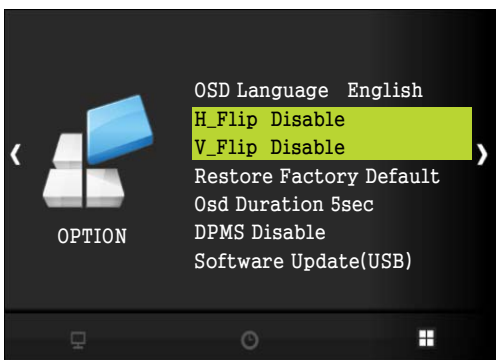
OSD Language



- The menus can be shown on the screen in the selected language.

- Supported Language: English, French, Espaol, Svenska, Deutsch, Italiano, Русский, Chinese, Nederlands .

H/V_Flip

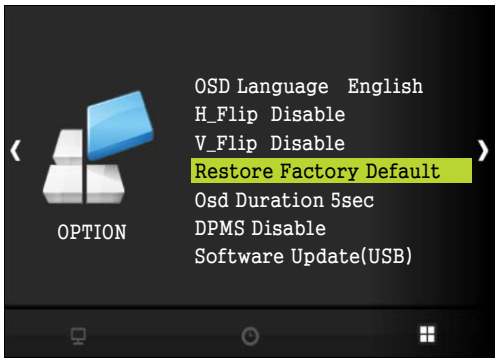


-H Flip: Disable/Enable

-V Flip: Disable/Enable

OPTION MENU

Reset

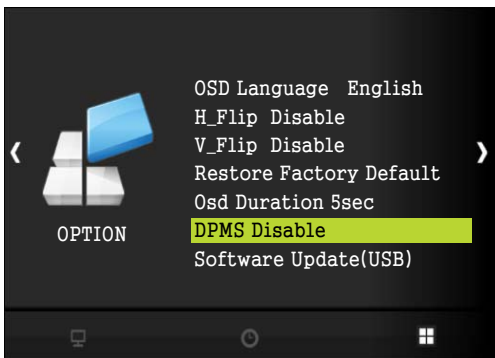


- Resets user setting values as default

OSD Duration

- Adjusting the keep the time OSD.(off/5sec/10sec/15sec)

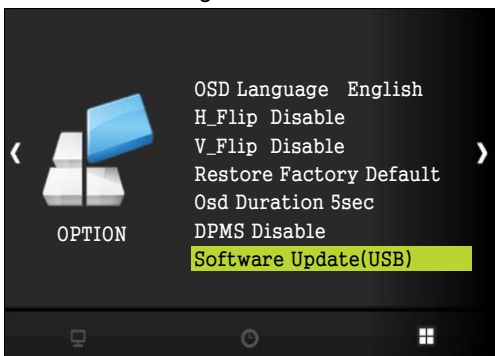
DPMS



Shut off the panel power after the input source has been unused for some time (idle), to save power.

Software Update(USB)

When downloading software via USB memory.



-Must be new version software (merge.bin) in USB memory

Input Support Mode

Supported Signals

Items		Specifications
Supported Signals	Serial Digital Interface	HD SDI- 2.970Gbps
		SD HDI- 270Mbps
	HDMI	H Frequency Range : 20~82 kHz
		V Frequency Range : 55 ~ 90 Hz
		Maximum resolution :1920x1080 60Hz
		Maximum pixel rate : 162 MHz
		DTV mode support : 720P, 1080i, 1080p
	ANALOG RGB	H Frequency Range : 20~82 kHz
		V Frequency Range : 55 ~ 90 Hz
		Maximum resolution : 1920x1080 60Hz
		Maximum pixel rate : 162 MHz
		DTV mode support: 720P/1080i/1080p
	CVBS	NTSC/PAL/SECAM

Supported Timings

- **SDI input**

SMPTE-425M(3G)	1920x1080P(50/60)
SMPTE-259M	1920x1080i(50)
SMPTE-274M	1920x1080i (50/59.94/60)
SMPTE-296M	1280x720P (50/59.94/60)
SMPTE-125M	480i(59.94)
ITU-R BT.601	576i(50)

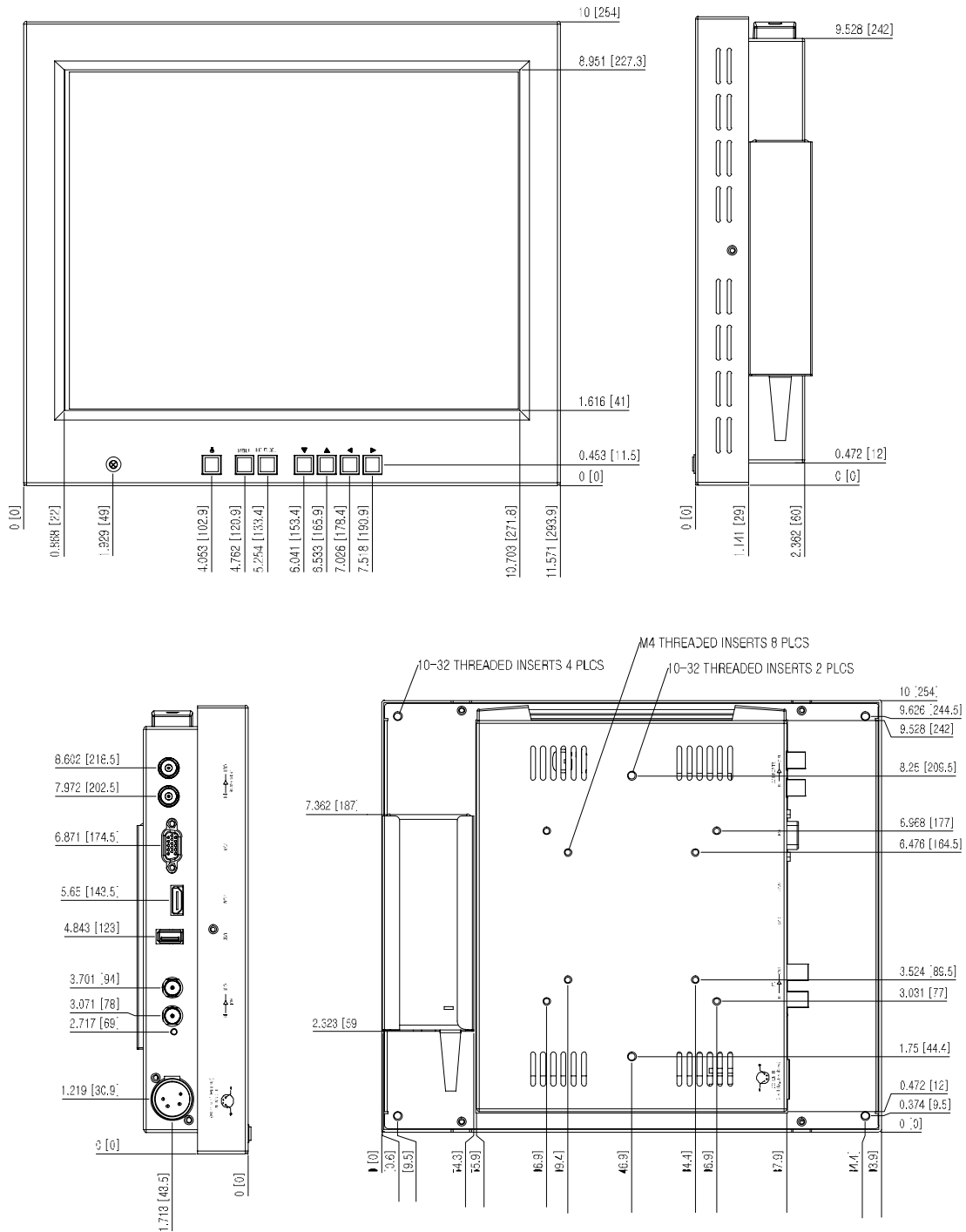
- **PC input**

Section	Resolution	H Frequency(kHz)	V Frequency(Hz)	Pixel Frequency(MHz)	Comment
PC	640x400	37.861	85.08	31.5	
	640x350	31.469	70.087	25.175	
	640x350	37.861	85.08	31.5	
	640x480	31.469	59.94	25.175	
	640x480	35.000	66.667	30.24	
	640x480	34.940	69.884	28.513	
	640x480	37.861	72.809	29.765	
	640x480	37.500	75.0	31.5	
	640x480	43.269	85.008	36.0	
	640x480	45.540	90.0	37.889	
	720x400	31.469	70.087	28.322	
	720x400	37.927	85.039	35.5	
	800x600	35.156	56.25	36.0	
	800x600	37.879	60.317	40.0	
	800x600	43.764	70.02	45.513	

	800x600	48.077	72.188	50.0	
	800x600	46.875	75.0	49.5	
	800x600	53.674	85.061	56.25	
	800x600	56.880	90.0	60.065	
	832x624	49.726	74.551	57.284	
	1024x768	48.780	60.001	64.11	
	1024x768	48.363	60.004	65.0	
	1024x768	56.476	70.069	75.0	
	1024x768	57.703	72.039	78.476	
	1024x768	60.241	74.927	81.724	
	1024x768	60.030	75.029	78.75	
	1024x768	68.677	84.997	94.5	
	1024x768	72.810	90.0	100.187	
	1152x864	53.700	60.0	81.624	
	1152x864	62.932	69.924	96.663	
	1152x864	67.500	75.0	104.993	
	1152x870	68.681	75.062	100.0	
	1152x900	61.846	66.0	94.787	
	1152x900	72.713	76.047	105.561	
	1280x720	47.760	60.0	74.481	
	1280x720	52.500	70.0	89.040	
	1280x720	54.072	72.0	91.706	
	1280x720	56.400	75.0	95.654	
	1280x768	60.150	75.0	102.977	
	1280x960	60.000	60.0	102.104	
	1280x960	59.640	60.0	102.104	
	1280x1024	63.337	59.978	108.18	
	1280x1024	63.981	60.02	108.0	
	1280x1024	64.754	60.06	108.992	
	1280x1024	63.600	60.0	108.883	
	1360x768	47.700	60.0	84.700	
	1600x1200	75.000	60.0	162.000	
DTV	720x480	15.735	59.94	13.500	Interlaced
	720x576	15.735	50.0	13.595	Interlaced
	720x480	31.469	59.94	25.175	
	720x576	31.250	50.0	26.566	
	1280x720	44.964	59.94	74.176	
	1280x720	37.500	50.0	60.466	
	1920x1080	33.750	60.0	74.25	Interlaced
	1920x1080	28.125	50.0	70.723	Interlaced
	1920x1080	31.250	50.0	72.000	Interlaced
	1920x1080	67.5	60	148.5	Progressive

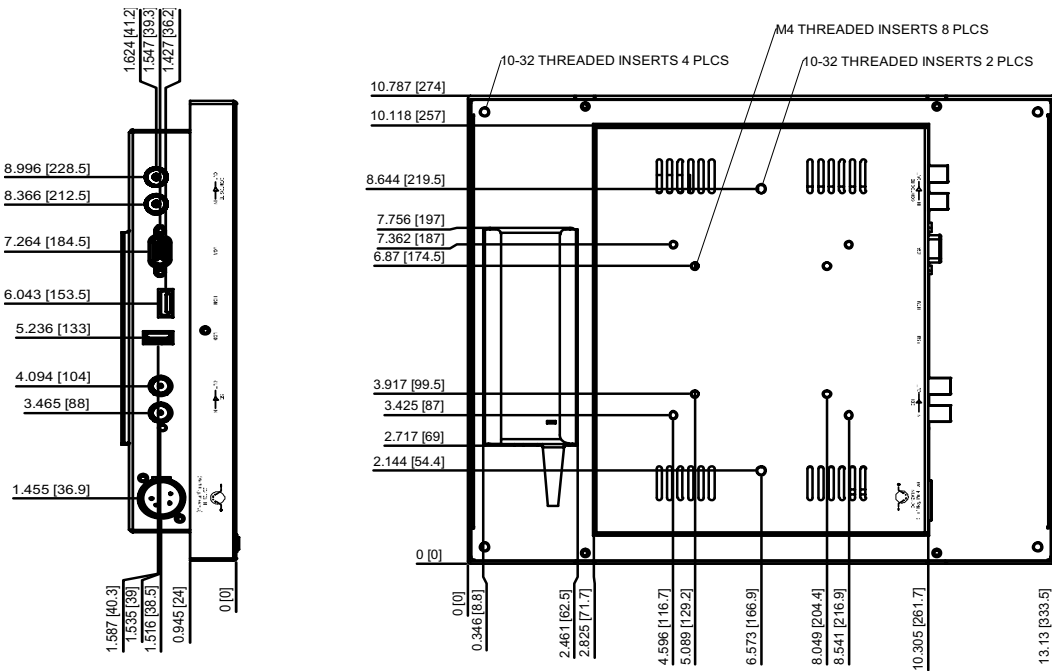
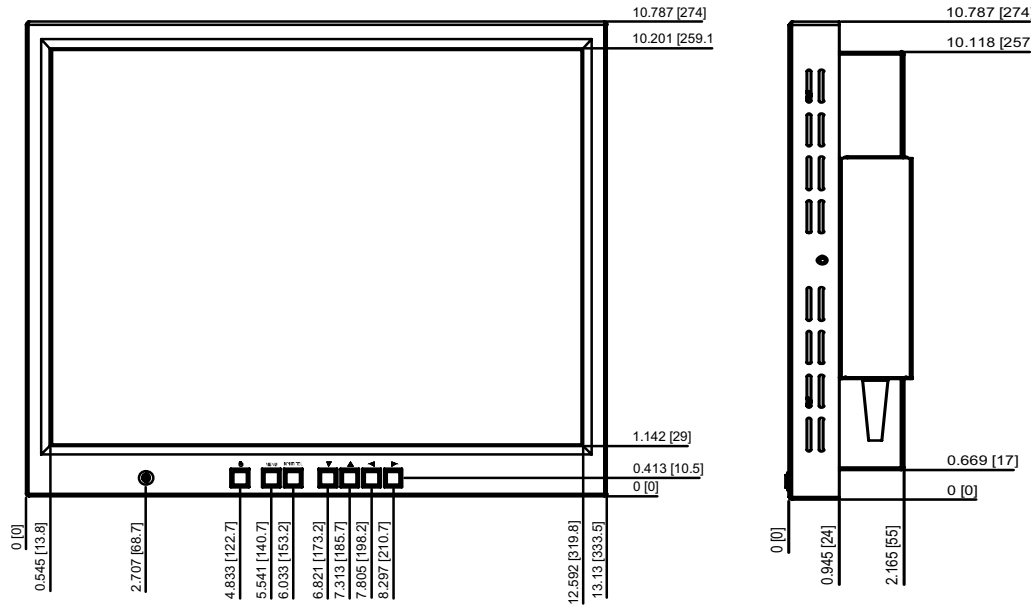
Mechanical Dimension

TP12



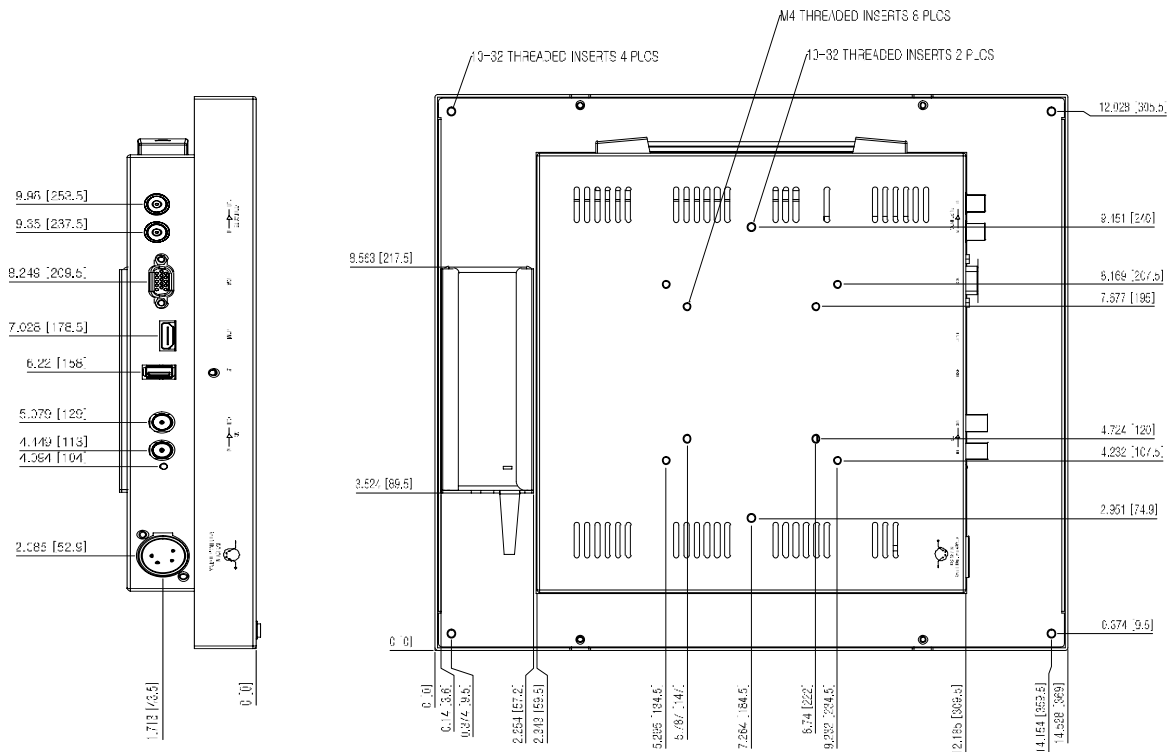
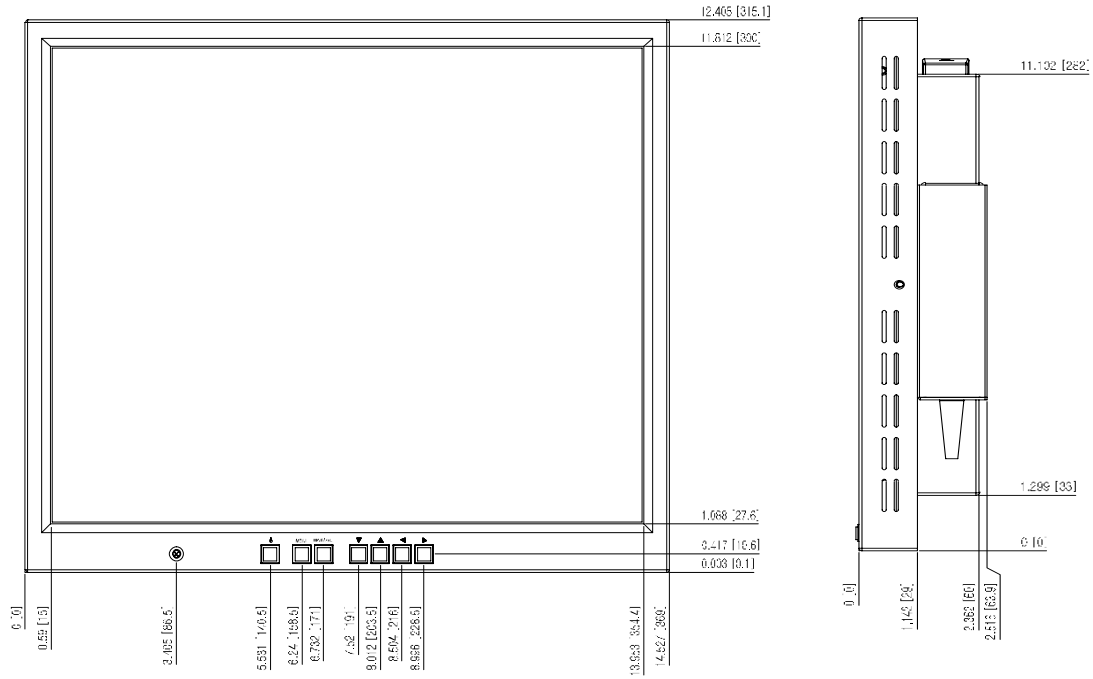
Mechanical Dimension

TP15



Mechanical Dimension

TP17



Mechanical Dimension

TP19

