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Human-Computer Interface

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14Pages

17" TFT LCD Monitor INOV17V-T

USER'S MANUAL

HUMAN-COMPUTER INTERFACE SOLUTION



INOV17V-T

Revision History

Date	Rev. No.	Contents	Page
11.01.26	1.0	Initial	

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1. Safety Precaution

-The safety recommendations outlined in this section are to be read, understood and followed before operating the product.

- Keep this information in a safe place for future reference. Failure to comply with any of the following safety procedures could result in serious hazard.

1.1. Set up and General Handling Precaution

1. Please set up the monitor in clean area where there is no dust.
2. Do not set up the monitor on shaky stand, on incline surface or surfaces subject to frequent vibration.
3. This monitor is intended for indoor use only.
4. Do not press heavily the TFT-LCD panel with sharp objects, such as nails.
5. When set up the monitor, be extremely careful.
You may get injured from the sharp parts, such as steel covers
6. When transporting the monitor, hold the body with both hands and letting LCD screen goes up.
7. Do not lift the monitor up with holding LCD panel itself.
8. The fluorescence lamp of LCD panel includes mercury.
Do not waste or bury illegally. When waste, follow the related laws and regulations.

1.2. Operating Precaution

1. Do not place the monitor in areas subject to direct sunlight and radiators or heat registers. Fire or electrical shock may result.
2. Do not cover the vents on the monitor cabinet. Bad ventilation may cause a breakdown or fire.
3. Do not remove cover(or back). This could result electrical shock.
Refer servicing to qualified service personnel.
4. If you find any abnormal issue or failure while you are using this equipment, immediately unplug the power cable and contact your retailer or Jinyoung Contech Support Help Desk.
5. Do not take apart or modify the equipment for any purpose.
Fire or electrical shock may result.
6. Never spill liquid of any kind on the monitor. Do not place in areas where there is high humidity and water splashes.
7. Do not plug in/unplug the power cable with wet hands.
Fire or electrical shock may result.

8. Do not plug the monitor into outlets with voltage other than the specified voltage. Incorrect voltage may result in fire or electrical shock.
9. Do not pull the plug out by the wire. This may cause an electric shock or fire.
10. Make sure that the power cable is firmly plugged in and not loose.
Fire or electrical shock may result.
11. Unplug the power cable for safety when not in use the monitor for a long period of time, such as long weekend or moving it. If dust accumulates in this area, it may result in fire.
9. Do not connect too many extension cords or plugs to an outlet.
Fire or electrical shock may result.
10. Use only a properly grounded plug and receptacle.
11. Do not spill flammable liquid on the monitor. Fire or electrical shock may result.
12. Set up the outlet in areas where close to the monitor, easily accessible and easily operative.

1.3. Cleaning of the equipment and management Precaution

1. Do not take apart or modify the monitor.
Fire or electrical shock may result.
2. When cleaning the monitor, always unplug the power.
3. When cleaning the monitor, do not use flammable liquids, such as alcohol, benzene or thinners.
4. If you strongly wipe down the surface of the monitor with a sponge and a piece of cloth, in case of plastic equipment, the coating may be fallen away.
5. When cleaning the monitor case or the surface of the TFT LCD, wipe with a slightly moistened, soft fabric.
6. If the cleaning inside of the monitor is necessary, please contact Jinyoung Contech Support Help Desk.

◆ Introduction

This unit is a LCD monitor using TFT Color LCD panel. It basically supports Analog R,G,B signals, H-Sync, V-Sync. It also support DVI-D Single Link, CVBS 1 Channel and S-Video 1 Channel.

This unit has OSD function for the best quality of display on characteristics of each VGA Cards.

Touch screen is available by option as user's demand. Touch screen can be used with PS/2 Mouse at the same time.

◆ Graphics input Modes supported

Mode	Resolution	Horizontal freq.(KHz)	Vertical freq.(Hz)	Pixel Clock (MHz)
VESA MODES				
	640 x 480 @60Hz	31.469	59.940	25.175
	640x480@ 72 Hz	37.861	72.809	31.500
	640x480 @ 75 Hz	37.500	75.000	31.500
SVGA	800x600 @ 56 Hz	35.156	56.250	36.000
	800x600 @ 60 Hz	37.879	60.317	40.000
	800x600 @ 72 Hz	48.077	72.188	50.000
	800x600 @ 75 Hz	46.875	75.000	49.500
XGA	1024x768 @ 60 Hz	48.363	60.004	65.000
	1024x768 @ 70 Hz	56.476	70.069	75.000
	1024x768 @ 75 Hz	60.023	75.029	78.750
	1152x864 @ 75 Hz	67.500	75.000	108.000
	1280x960 @ 60 Hz	60.000	60.000	108.000
SXGA	1280x1024 @ 60 Hz	63.981	60.020	108.000
	1280x1024 @ 75 Hz	79.976	75.025	135.000
IBM Modes				
EGA	640x350 @ 70 Hz	31.469	70.086	25.175
CGA	640x400 @ 70 Hz	31.469	70.086	25.175
DOS	720x350 @ 70 Hz	31.469	70.087	28.322
DOS	720x400 @ 70 Hz	31.469	70.087	28.322
VGA	640x480 @ 60 Hz	31.469	59.940	25.175
XGA	1024x768 @ 72 Hz	57.515	72.1	75.000
SXGA	1280x1024 @ 67 Hz	70.755	67.003	120.000

◆ Specification
DISPLAY

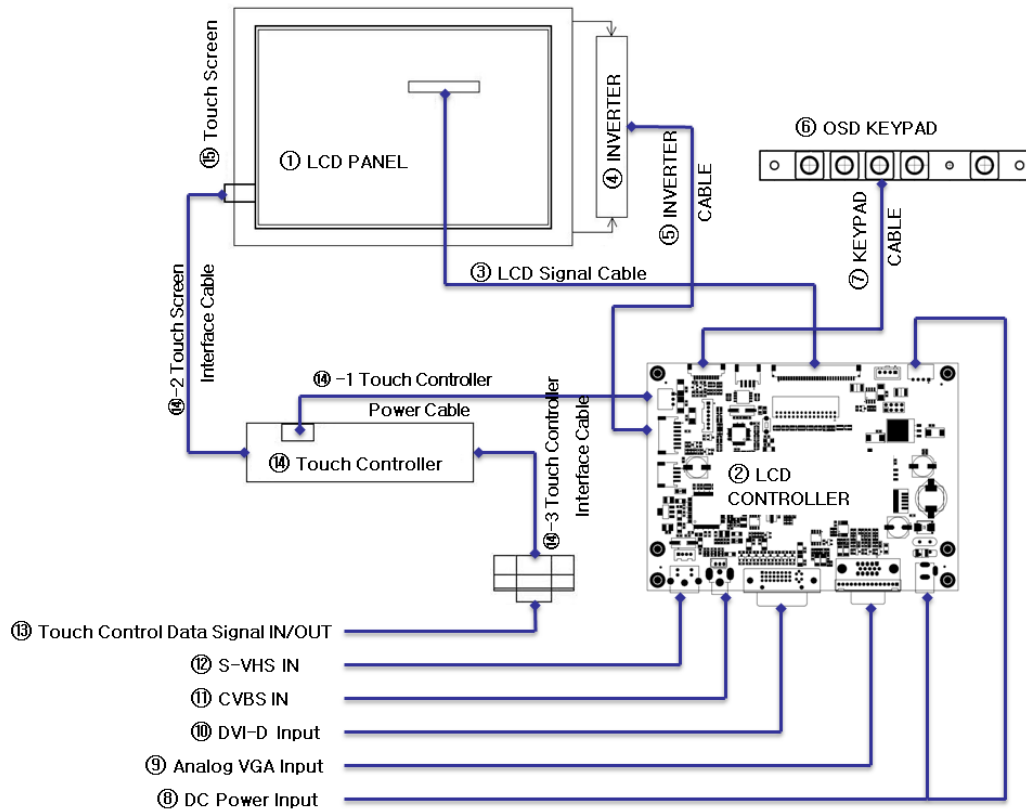
	Item	Description
Panel Features	Active Display Area (mm)	337.92(H) x 270.336(V)
	Resolution	SXGA
	Pixel Format	1280 x 1024
	Pixel Pitch	0.264 x 0.264 (mm)
	Number of Colors	16.7 M
	Contrast Ratio	1,000 (Typ)
	Brightness (cd/m ²)	250 (Typ),
	Viewing Angle (L/R/U/D) CR≥10	80/80/80/80 L/R/U/D (Typ)
	Interface	LVDS
	Lamp Life Time	50,000 Hours

Input Signal	PC Connectivity	Analog RGB 0.7Vpp±10%, 75 Ohms
	Standard Input Source	DVI-D (Single Link) CVBS 1 Channel S-VHS 1 Channel
Display	Functions	OSD Functions
Power AC/DC ADAPTER	Adapter Input Voltage Range	AC 100 ~ 240 VAC(50/60Hz)
	DC out and Monitor Input Voltage	+12 Vdc / 3.5A[Max]
Environmental	Storage Temperature	-20 ~ 60°C
Considerations	Operating Temperature	0 ~ 50°C
Dimensions	W x H x D	397 x 331.5 x 61(55) mm
Weight	Net	kg,

Touch Screen (Optional)	Touch Screen Technology	5-Wire Analog Resistive
	Interface	Serial RS-232
	Driver Software	

◆ **Block Diagram**

System Block Diagram based on TFT LCD Panel & Touch screen



1. LCD PANEL
2. LCD Controller (TU530)
3. LCD Signal Cable
4. Inverter
5. Inverter Cable
6. OSD Keypad Board
7. Keypad Control Cable
8. DC12[V] Power Input (Adaptor or Power Module)
9. PC Analog VGA Input
10. DVI-D Input
11. Composite Video Input (CVBS)
12. S-Video Input
13. Touch Control data IN/OUT (Option)
14. Touch Controller (Option)
- 14-1 Touch Controller Power Cable (DC5V or DC12V) (Option)
- 14-2 Touch Screen DATA Cable (Option)
- 14-3 Touch Controller Interface Cable (Option)
15. Touch Screen

◆ **LCD DISPLAY SYSTEM Adjustments and Settings**

Controls	Description	HOT KEY Functions
On/Off	Board power on / off Control.	
Menu	Enter OSD Main Menu or Exit OSD Main Menu.	
SEL	Select or operate Main item and sub item.	Input Source Change
UP	Increase setup value or move cursor up.	AUTO (Analog Input Only)
DN	Decrease setup value or move cursor down.	
HOT KEY Function is only available while OSD menu is OFF.		



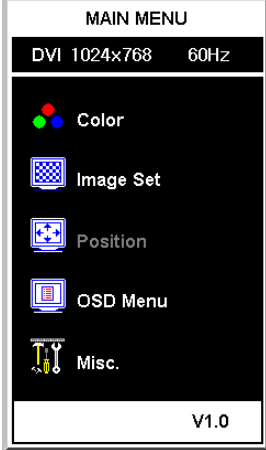




- Input Source Select : VGA → DVI → CVBS → S-Video



OSD B'D R11

OSD Function

MAIN MENU :

Analog RGB Input Source	MAIN MENU	DVI & Video Input Source
	 Enter COLOR Menu.	
	 Enter IMAGE SET Menu.	
	 Enter POSITION Menu. (DVI, Video Input Not Support)	
	 Enter OSD Menu.	
	 Enter MISC Menu.	

COLOR :

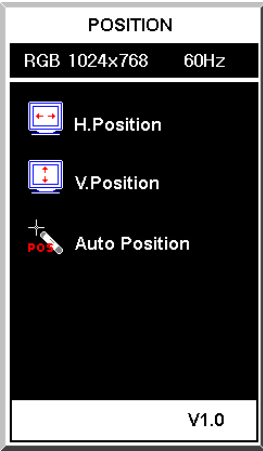



Analog RGB Input Source	COLOR MENU		DVI & Video Input Source
		Adjust Contrast.	
		Adjust Brightness.	
		Red, Green, Blue Color Adjust	
		Adjust Color Temperature.	
		Auto Adjustment. (Not Supported at DVI Input)	

CVBS Input Source	COLOR MENU		S VIDEO Input Source
		Adjust Contrast.	
		Adjust Brightness.	
		Adjust Hue.	
		Adjust Saturation.	

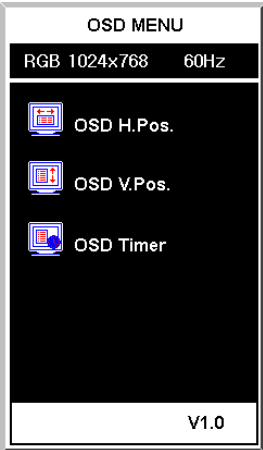



IMAGE SET :

Analog RGB Input Source	IMAGE SET MENU		DVI & VIDEO Input Source
		Adjust Image CLOCK. (Not Supported at DVI, Video Input)	
		Adjust Image Phase. (Not Supported at DVI, Video Input)	
		Adjust GAMMA.	
		Adjust Sharpness.	

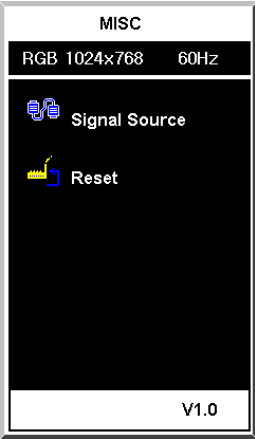


POSITION :






Analog RGB Input Source	POSITION MENU		
		Adjust the Image Horizontally. (Not Supported at DVI, Video Input)	Only Analog RGB Input Source
		Adjust the Image Vertically. (Not Available in DVI, Video mode)	
		Image Auto Adjustment. (Not Supported at DVI, Video Input)	

OSD MENU :




All Input Source	OSD MENU	
		Adjust the OSD Menu Horizontally.
		Adjust the OSD Menu Vertically.
		Adjust the amount of OSD menu display time.

MISC :

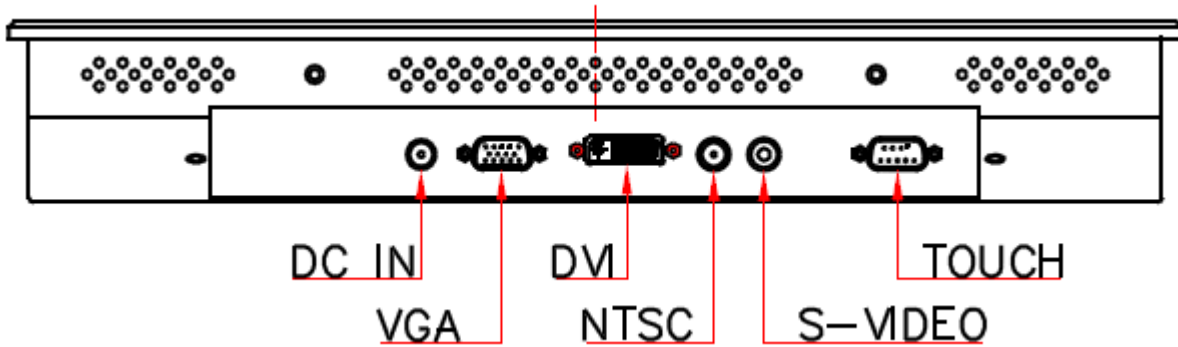
All Input Source	MISC MENU	
		Select Input signal source.
		Factory Reset.

All Input Source	SOURCE SELECT Sub MENU	
		Select PC Analog RGB Input Source.
		Select PC DVI Input Source.
		Select Composite Input Source.
		Select Super Video. (S-VIDEO)

Warning Message :

Warning Message		
	No Signal	When there is no VGA Signal(R,G,B H-SYNC, V-SYNC) from PC or when DPMS function is activated.
	No Cable	Check cable connections. (Analog RGB or DVI Support)
	Out of Range	This issue may occur if the signal from the video adapter exceeds the scan range of the monitor. (Analog RGB or DVI Support)

◆ **Connector**



➤ **DVI Input : HSM C0507-29FRXSW0R (Digital Single Link)**

PIN	SYMBOL	DESCRIPTION
1	RX2-	T.M.D.S Data 2 -
2	RX2+	T.M.D.S Data 2 +
3	GND	Ground
4	NC	No connection
5	NC	No connection
6	SCL	DDC Clock
7	SDA	DDC Data
8	V-SYNC	Analog Vertical sync
9	RX1-	T.M.D.S Data 1 -
10	RX1+	T.M.D.S Data 1 +
11	GND	Ground
12	NC	No connection
13	NC	No connection
14	DVI_+5V	+5V Power
15	NC	No connection
16	Hot Plug	Hot Plug Detect
17	RX0-	T.M.D.S Data 0 -
18	RX0+	T.M.D.S Data 0 +
19	GND	Ground
20	NC	No connection
21	NC	No connection
22	GND	Ground
23	RXC+	T.M.D.S Clock +
24	RXC-	T.M.D.S Clock -
25/C1	NC	No connection
26/C2	NC	No connection
27/C3	NC	No connection
28/C4	NC	No connection
29/C5	GND	Analog ground
30/C5	GND	Analog ground

➤ **VGA analog Input : DB-15 way high density 3 row**

PIN	SYMBOL	DESCRIPTION
1	RED	Red, analog
2	GREEN	Green, analog
3	BLUE	Blue, analog
4	NC	No connection
5	CHK_CBL	VGA cable connection check
6	AGND	Analog ground red
7	AGND	Analog ground green
8	AGND	Analog ground blue
9	DDC5V	+5V power supply for DDC (optional)
10	GND	Digital ground
11	NC	No connection
12	D_SDA	DDC serial data
13	HS_IN	Horizontal sync or composite sync, input
14	VS_IN	Vertical sync, input
15	D_SCL	DDC serial clock

➤ **CVBS Input : RCA Right Angle (Yellow)**

PIN	SYMBOL	DESCRIPTION
1	CVBS	Composite Video Signal Input
2	GND	Ground

➤ **S-VHS Input : Mini-Din 4pin**

PIN	SYMBOL	DESCRIPTION
1	S-C_IN	Croma Input
2	GND	Ground
3	GND	Ground
4	S_Y_IN	Luminance Input

➤ **Power DC 12[V] Input Jack : DC Power jack, 2.5mm contact pin diameter**

PIN	DESCRIPTION
+	+ 12VDC In
-	Ground

➤ **Touch Rs232 port : DB-9 way high density 2 row (Optional)**

Pin	Signal	Pin	Signal
1	N.C	6	DSR
2	TXD0(To PC RXD Pin)	7	RTS
3	RXD0(To PC TXD Pin)	8	N.C
4	DTR	9	N.C
5	Ground		

◆ **Dimensions**

