PLANAR™

PJT195RW
Touch Screen LCD Monitor

USER'S GUIDE

www.planartouch.com

Contents

Preface

This manual is designed to assist users in setting up and using the LCD Monitor. Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means, in any form, without prior written permission of the manufacturer.

FCC Statement Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reposition or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced monitor technician for help.

Warning

Use only shielded signal cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not expressly approved by the party responsible for comliance could void your authority to operate the equipment.

This device complies with part 15 FCC Rules. Operation is subject to the following two conditions (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.

Canadian DOC Notice

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Important Recycle Instruction:

Hg LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. FOR MORE INFORMATION, CONTACT THE ELECTRONIC INDUSTRIES ALLIANCE AT WWW.EIAE.ORG. FOR LAMP SPECIFIC DISPOSAL INFORMATION CHECK WWW.LAMPRECYCLE.ORG.

Contains Mercury, Dispose of Properly

For more information on how to recycle your product, please visit WWW.PLANARSYSTEMS.COM/GREEN

Important Safety Instructions

Please read the following instructions carefully. This manual should be retained for future use.

1. To clean LCD Monitor screen;
    -- Power off LCD Monitor and unplug the AC Cord.
    -- Spray a non-solvent cleaning solution onto a rag.
    -- Gently clean the screen with dampened rag.

2. Do not place the LCD Monitor near a window. Exposing the monitor to rain water, moisture or sunlight can severely damage it.

3. Do not apply pressure to the LCD screen. Excess pressure may cause permanent damage to the display.

4. Do not remove the cover or attempt to service this unit by yourself. Servicing of any nature should be performed by an authorized technician.

5. Store LCD Monitor in a room with a room temperature of -20° ~ 60℃ (or -4° ~ 140℉). Storing the LCD Monitor outside this range could result in permanent damage.

6. If any of the following occurs, immediately unplug your monitor and call an authorized technician.
    *   Monitor to PC signal cable is frayed or damaged.
    *   Liquid spilled into LCD Monitor or the monitor has been exposed to rain.
    *   LCD Monitor or the case is damaged.

7. Only use the supplied main lead to connect the monitor. For a nominal current up to 6A and a device weight above 3 kg, a line not lighter than H05VV-F, 3G, 0.75 mm^2 must be used.
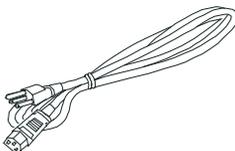
Installation

Unpacking

Before unpacking the LCD Monitor, prepare a suitable workspace for your Monitor and computer. You need a stable and clean surface near a wall power outlet. Make sure that LCD Monitor has enough space around it for sufficient airflow. Though the LCD Monitor uses very little power, some ventilation is needed to ensure that the Monitor does not become too hot.

After you unpack the LCD Monitor, make sure that the following items were included in the box:

Package Overview
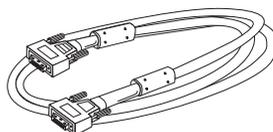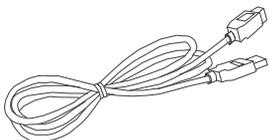
LCD Display   Power Cord   VGA Signal Cable

USB Cable (A to B)   Audio-in Cable

User's Guide   Touch Screen Driver
                          Installation CD-ROM

If you find that any of these items is missing or appears damaged, contact your dealer immediately.

Viewing Angle Adjustment

The LCD Monitor is designed to allow users to have a comfortable viewing angle. The viewing angle can be adjusted from -2°to +90°.(See fig. 1-1)
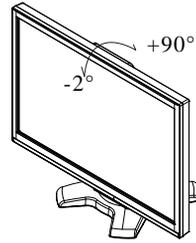

Figure 1-1

Warning

Do not force the LCD Monitor over its maximum viewing angle settings as stated above. Attempting this will result in damaging the Monitor and Monitor stand.

Detaching LCD Monitor from Its Stand

Unscrew screws ❶ from the base support column and pull down ❷ the hinge to release.
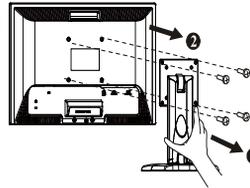
Figure 1-2

Interface for Arm Applications

Before installing to mounting device, please refer to Fig.1-2.

The rear of this LCD display has four integrated 4 mm, 0.7 pitch threaded nuts, as well as four 5 mm access holes in the plastic covering as illustrated in Figure 1-3. These specifications meet the VESA Flat Panel Monitor Physical Mounting Interface Standard (paragraphs 2.1 and 2.1.3, version 1, dated 13 November 1997).

Note :Please using M 4mm x 11mm (L) screw for this application.

100mm x 100mm
Screw Mounting Options

100mm

100mm

4mm ,0.7pitch threaded holes x4

Figure 1-3

Connecting the Display

1. Power off your computer.
2. Connect one end of the signal cable to the LCD Monitor's VGA port . (See Fig 1-4)
3. Connect the other end of the signal cable to the VGA port   on your PC.
4. Make sure connections are secure.

D-SUB

Figure1-4

5
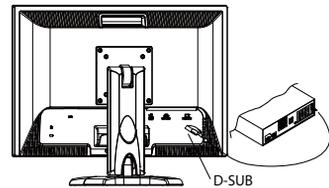
Connecting the AC Power

1. Connect the power cord to the LCD Monitor.(See Fig. 1-5)
2. Connect the power cord to an AC power source.

AC Power Jack   Power Cord
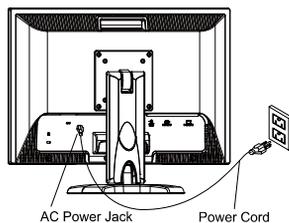
Figure1-5

Connecting the Audio Cable

1. Connect the audio cable to the "LINE OUT" jack on your PC's audio card or to the front panel's "AUDIO OUT" jack of your CD ROM drive. (See Fig. 1-6)
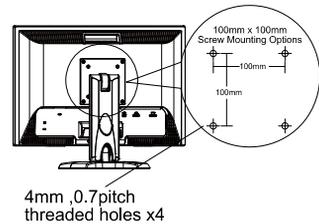
Connect the other end of the audio cable to the LCD Monitor's "LINE IN" jack.

Audio Jack
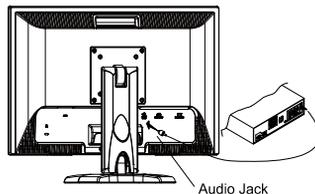
Figure1-6

Connecting the USB Cable

1. Connect the USB cable to your PC.

2. Connect the USB cable to LCD Monitor. (See Fig. 1-7)

USB cable
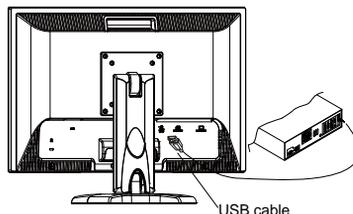
Figure1-7

Setting Up the LCD Monitor

1. Make sure the AC power cord is connected to the LCD Monitor.
2. Turn on the LCD Monitor's power switch, located on the bezel of the monitor.

Power Management System

This LCD Monitor complies with the VESA DPM Power Management guidelines. If you have VESA's DPM™ compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. If input from keyboard, mouse or other input devices is detected by the computer, the monitor will automatically "wake up". When the LCD Monitor is in power saving mode, the monitor screen will be blank and the power LED indicator will light yellow.

Display Controls

User Controls
A brief description and the location of all LCD Monitor functions controls and indicators:
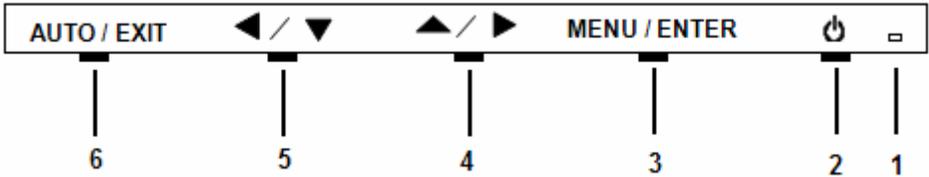
Figure 2-1

1		Power LED will be Green when monitor is on, be yellow when in power saving mode, be dark when monitor in off mode.
2	⏻	Power ON/OFF switch. Push to power on or power off. (Toggle switch)
3	**Menu/Enter**	Shows main OSD menu/ Enter key (in OSD menu)/ Audio mute and unmute (must activate Volume OSD first, push ▲ / ▶ then Menu/Enter)
4	▲ / ▶	Shows Volume OSD/ Moves right or up (in OSD menu)
5	◀ / ▼	Selects input source/ Moves left or down (in OSD menu)
6	**Auto/Exit**	Auto adjustment (in D-Sub input only)/ Exit OSD menu/ Exit (in OSD menu)

Adjusting the Monitor's Display

Main OSD

Main Menu icon	Sub Menu item	Sub Menu item	Description
	Preset Mode	STANDARD	Default Setting. Reflects native display capability.
		MOVIE	Displays scenes in clearest detail. Pictures and photographs appear in vibrant colors with sharp detail.
		GAME	Enhances color.
		TEXT	Optimal balance of brightness and contrast prevent eyestrain. The most comfortable way to read onscreen text
		PHOTO	Enhances colors and emphasize fine detail.
	Brightness		Adjusts the background brightness of the screen image.
	Contrast		Adjusts the contrast between the foreground and background of the screen image.
	Auto Contrast		Adjusts the contrast of screen image automatically.
	Black Level		Adjusts the black level of screen image.
	Sharpness		Adjusts the scaling effect. (smoother or sharper.)

	Expansion Mode	FULL	Selects wide format for display.	
		ASPECT	Selects 4:3 format for display.	
	Auto Adjustment		Auto adjusts the H/V Position, Phase and Clock of picture. (available in analog mode only)	
	H. Position		Adjusts the horizontal position. (available in analog mode only)	
	V. Position		Adjusts the vertical position. (available in analog mode only)	
	Clock		Adjusts picture Clock. (available in analog mode only)	
	Phase		Adjusts picture Focus. (available in analog mode only)	
	9300K		Sets the color temperature to 9300K.	
	7500K		Sets the color temperature to 7500K.	
	5000K		Sets the color temperature to 5000K.	
	sRGB		Sets the color temperature to sRGB.	
	User	R/G/B	Allows users to adjust red/green/blue intensity.	
	Language		Multi-language selection.	
	OSD H. Position		Adjusts the horizontal position of the OSD.	
	OSD V. Position		Adjusts the vertical position of the OSD.	
	OSD Turn Off		Adjusts the OSD timeout.	
	Volume		Adjusts the volume of audio	
	Input Select	D-SUB	Selects input signal to analog (D-Sub)	
	Resolution Select	720/640x400 1360/1280/1024x768 1680/1400x1050	Selects the resolution of choice.	
	DDC/CI	ON/OFF	Turns ON/OFF DDC/CI support	
	Recall		Clear each old status and return all adjusted parameters to factory preset values.	

Icon	Function		Description
	Information		Shows the resolution, H/V frequency and input port of current input timing.

Icon	Function	Description
9300	CIE coordinated Color Temperature of 9300°K	Sets the CIE coordinate color temperature to 9300°K
7500	CIE coordinated Color Temperature of 7500°K	Sets the CIE coordinate color temperature to 7500°K
5000	CIE coordinated Color Temperature of 6500°K	Sets the CIE coordinate color temperature to 5000°K
User	Three colors (Red, Green, Blue) can be adjusted from the OSD menu	Sets the settings to a by user defined CIE Temperature.

OSD Lock Out Function

When monitor is in normal display, you can enable the "OSD LOCK OUT" function.

Option 1: OSD & Power button lock-all 5 buttons including the "POWER" button are locked.
Press and hold the "**Auto/Exit**" and " ▲／▶ "buttons at the same time for 3 seconds
to lock all 5 buttons

The monitor will show an "OSD LOCKED !" message for 5 seconds and the message will disappear
automatically.

OSD LOCKED ！

Repeat this step to unlock.

Option 2: OSD Lock – all 4 buttons are locked except the "POWER" button.
Press and hold the" ◀／▼ " and " ▲／▶ " buttons at the same time for 3 seconds
to lock the buttons.

The monitor will show an "OSD UNLOCKED !" message for 5 seconds and the message will disappear
automatically.

OSD LOCKED ！

Repeat this step to unlock

Technical Information

Specifications

LCD Panel	
Size	19W"
Display Type	Active matrix color TFT LCD
Resolution	1440 x 900
Display Dot	1440x (RGB) x 900
Display Color	16.7M with FRC or Dithering

Video		
Input Signal	Analog RGB 0.7Vp-p	
Input Impedance	75 Ohm ± 2%	
Polarity	Positive, Negative	
Amplitude	0 - 0.7 ± 0.05 Vp	
Multi-mode Supported	Horizontal Frequency: 30 ~ 80 kHz	30~80kHz
	Vertical Frequency: 56 ~ 75 Hz	56~75Hz

Control	
Power switch (hard and soft types)	On/Off switch with LED indicator

Audio	
Input	500mVrms
Output	1W +1W

OSD	
Brightness	Digital
Contrast	Digital
Horizontal Position	Digital
Vertical Position	Digital
Phase	Digital
Clock	Digital
Display Mode Setup	Use EEPROM to save settings in memor.

Power Management

Mode	Power Consumption*	AC Input	LED Color
DPM On	42 W maximum	240 VAC	Green
DPM Off	2 W maximum	240 VAC	Yellow
DC switch off	1 W maximum	240 VAC	Dark

∗Meeting VESA DPM requirements measured from AC Input end of AC power cord.

Sync Input	Analog	
Signal	Separate TTL compatible horizontal and vertical synchronization.	TMDS
Polarity	Positive and negative	--

Plug & Play	Supports VESA DDC2B DDC/CI functions	
External Connection		
Power Input (AC input)	AC socket	
Video Cable	15-pin D-sub connector Monitor-to-PC Cable	
Audio Cable	Stereo Jack	
Power Input (AC input)	AC socket	
Environment		
Operating Condition	Temperature	5°C to 40°C/41°F to 104°F
	Relative Humidity	20% to 80%
Storage Condition	Temperature	-20°C to 60° C/-4°F to140°
	Relative Humidity	5% to 85%
Power Supply (AC Input)		
Input Voltage	Single phase, 100 ~ 240VAC, 50 / 60 Hz	
Input Current	1.2 A maximum	
Size and Weight		
Dimensions	17.3" (W) x 13.7" (H) x 7.8" (D) (438.5 (W) x 356.6(H) x 227.23 (D) mm)	
Net Weight	13.2 + .6 lbs (6.0 ± 0.3 kg)	
Gross Weight	16.8 + .6 lbs (7.6 ± 0.3 kg)	
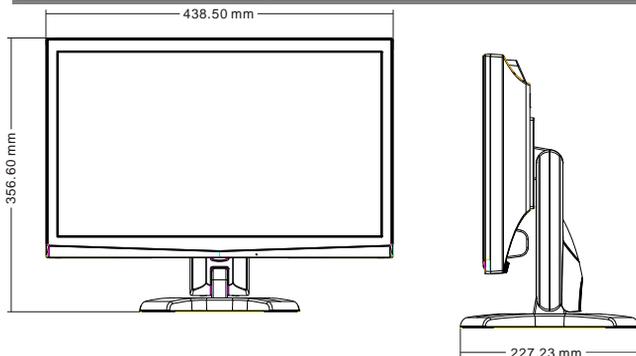
Standard Timing Table

If the selected timing is NOT included in table below, this LCD monitor will use the most suitable available timing.

TIMING NAME	FH (KHz) FV (Hz)	SYNC POLARITY	TOTAL/ ACTIVE (DOT / LINE)		SYNC WIDTH	FRONT PORCH	BACK PORCH	PIXEL FOREQ.(MHz)
					(DOT / LINE)			
640x350	31.469	+	800	640	96	16	48	25.175
VGA-350	70.087	–	449	350	2	37	60	
640x400	31.469	–	800	640	96	16	48	25.175
VGA-GRAPH	70.087	+	449	400	2	12	35	
640x480	31.469	–	800	640	96	16	48	25.175
VGA-480	59.94	–	525	480	2	10	33	
640x480	35	–	864	640	64	64	96	30.24
APPLE MAC-480	66.67	–	525	480	3	3	39	
640x480	37.861	–	832	640	40	16	120	31.5
VESA-480-72Hz	72.809	–	520	480	3	1	20	
640x480	37.5	–	840	640	64	16	120	31.5
VESA-480-75Hz	75	–	500	480	3	1	16	
720x350	31.47	+	900	720	108	18	54	28.322
70Hz	70.087	–	449	400	2	37	60	
720x400	31.469	–	900	720	108	18	54	28.322
VGA-400-TEXT	70.087	+	449	400	2	12	35	
832x624	49.725	–	1152	832	64	32	224	57.2832
APPLE MAC-800	74.55	–	667	624	3	1	39	
800x600	35.156	+	1024	800	72	24	128	36
SVGA	56.25	+	625	600	2	1	22	
800x600	37.879	+	1056	800	128	40	88	40
VESA-600-60Hz	60.317	+	628	600	4	1	23	
800x600	48.077	+	1040	800	120	56	64	50
VESA-600-72Hz	72.188	+	666	600	6	37	23	
800x600	46.875	+	1056	800	80	16	160	49.5
VESA-600-75Hz	75	+	625	600	3	1	21	
848x480	31.02	+	1088	848	112	16	112	33.75
VESA	60	+	517	480	8	6	23	
1024x768	48.363	–	1344	1024	136	24	160	65
XGA	60.004	–	806	768	6	3	29	
1024x768	53.964	+	1328	1024	176	16	112	71.664
COMPAQ-XGA	66.132	+	816	768	4	8	36	
1024x768	56.476	–	1328	1024	136	24	144	75
VESA-768-70Hz	70.069	–	806	768	6	3	29	

TIMING NAME	FH (KHz) FV (Hz)	SYNC POLARITY	TOTAL/ ACTIVE (DOT / LINE)		SYNC WIDTH	FRONT PORCH	BACK PORCH	PIXEL FOREQ.(MHz)
					(DOT / LINE)			
1024x768	60.023	+	1312	1024	96	16	176	78.75
VESA-768-75Hz	75.029	+	800	768	3	1	28	
1024x768	60.24	–	1328	1024	96	32	176	80
1152x864	54.054	+	1480	1152	96	40	192	80
(60Hz)	59.27	+	912	864	3	13	32	
1152x864	63.851	+	1480	1152	96	32	200	94.499
(70Hz)	70.012	+	912	864	3	1	44	
1152x864	67.5	+	1600	1152	128	64	256	108
(75Hz)	75	+	900	864	2	2	32	
1152x870	68.68	–	1456	1152	128	32	144	100
(75Hz)	75.06	–	915	870	3	3	39	
1280x720	44.772	–	1664	1280	128	64	192	74.5
(60Hz)	59.855	+	748	720	5	3	20	
1280x960	60	+	1800	1280	112	96	312	108
(60Hz)	60	+	1000	960	3	1	36	
1280x960	70	+	1800	1280	112	96	312	126
(70Hz)	70	+	1000	960	3	1	36	
1280x960	75	+	1800	1280	112	96	312	135
(75Hz)	75	+	1000	960	3	1	36	
1280x1024	64	+	1688	1280	112	48	248	108
VESA-1024-60Hz	60	+	1066	1024	3	1	38	
1280x1024	80	+	1688	1280	144	16	248	135
VESA-1024-75Hz	75	+	1066	1024	3	1	38	
1360x768	75	+	1792	1360	112	64	256	85.5
60Hz	75	+	795	768	6	3	18	
1440x900	55.469	+	1600	1440	32	48	80	88.75
Red. BLKing 60Hz	59.901	–	926	900	6	3	17	
1440x900	55.935	–	1904	1440	152	80	232	106.5
60Hz	59.887	+	934	900	6	3	25	
1440x900	70.635	–	1936	1440	152	96	248	136.75
75Hz	74.984	+	942	900	6	3	33	

Note :
Mode 640x350, 640x400 and 720x400 will locate on middle position but cannot be expanded to full screen on vertical direction.

Troubleshooting

This LCD Monitor has been pre-adjusted using factory standard VGA timings. Due to the output timing differences among various VGA cards in the market, users may initially experience an unstable or unclear display whenever a new display mode or new VGA card is selected.

Attention

This LCD Monitor Supports Multiple VGA Modes.

Refer to the Standard Timing Table for a listing of modes supported by this LCD Monitor.

PROBLEM   Picture is unclear and unstable

The picture is unclear and unstable, please perform the following steps:

1. Enter PC to "Shut Down Windows" status while you're in MS-Windows environment.
2. Check the screen to see if there's any black vertical stripes appear. If there are, take advantage of the "Clock" function in OSD menu and adjust (by increment or decrement numbers) until those bars disappear.
3. Move to "Phase" function in OSD menu again and adjust the monitor screen to its most clear display.
4. Click "No" on "Shut Down Windows" and back to the normal PC operating environment.

PROBLEM   There is no picture on LCD Monitor

If there's no picture on the LCD Monitor, please perform the following steps:

1. Make sure the power indicator on the LCD Monitor is ON, all connections are secured, and the system is running on the correct timing. Refer to Chapter 3 for information on timing.
2. Turn off the LCD Monitor and then turn it back on again. If there is still no picture, press the Adjustment Control button several times.
3. If step 2 doesn't work, connect your PC system to another external CRT. If your PC system Functions properly with a CRT Monitor but it does not function with the LCD Monitor, the output timing of the VGA card may be out of the LCD's synchronous range. Please change to an alternative mode listed in the Standard Timing Table or replace the VGA card, and then repeat steps 1 and 2.

PROBLEM   There is no picture on LCD Monitor

If you have chosen an output timing that is outside of the LCD Monitor's synchronous range (Horizontal: 30 ~ 80 kHz and Vertical: 56 ~ 75 Hz), the OSD will display a "Out of Range" message. Choose a mode that is supported by your LCD Monitor.

Also, if the signal cable is not connected to LCD monitor at all or properly, the monitor screen will display a message "No Input Signal".

Touch Screen Driver Installation

The PJT155R/ PJT175R/ PJT195RW is available with USB connection. The touch software is located on the enclosed CD-ROM for these operating systems: Windows® 7, VISTA, XP, 2000, ME, 98, NT4.0, CE, XP Embedded, Linux, Apple® Mac OS

Please Note: The PJT155R/ PJT175R/ PJT195RW is Microsoft® Windows® HID (Human Interface Device) compatible if you use the USB touch screen interface. No additional software driver is required for general operation of the touch screen. A calibration tool can be installed for improved touch position accuracy. The calibration tool supports Windows® 7, VISTA, XP, XP Embedded, and 2000 operating systems via USB only.

PJT155R/ PJT175R/ PJT195RW Driver Installation

Touch Screen Driver Installation

The PJT155R/ PJT175R/ PJT195RW is available with USB connection. The touch driver is available online for these operating systems: Windows® 7, VISTA 64/32 bits, XP, 2000, ME, 98, NT4.0, CE, XP Embedded, Linux, Apple® Mac OS.

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PJT155R/ PJT175R/ PJT195RW Optional Calibration Tool Install

If you would like to use the Optional Calibration Tool, follow the instructions below. Please note: the calibration tool supports Windows® 7, VISTA, XP, XP Embedded, 2000, 98 and ME operating systems via USB only.

1. Download the calibration tool online.
2. Execute the calibration tool.
3. From here the user can choose to do the following:
> a. 4 Points Calibration
> b. 9 Points Linearization
> c. 25 Points Linearization
> d. Clear
> e. Draw Test
> f. Advanced. In the Advanced settings area the user may do the following:
> i. Adjust the Double Click Area.
> ii. Enable auto right click and adjust the auto right click time.
> iii. Choose to be either in the HID Mouse Mode or HID Digitizer Mode
> (Windows® 7, Vista).
> iv. Simply click the "Apply" button once the settings are finalized.

PJT155R/ PJT175R/ PJT195RW Install Instructions

If you are using a PC running Windows® 7, VISTA, XP, 2000, ME, 98, NT4.0, follow the instructions below:

1. Power on the PC.
2. Be sure the USB cable is connected from the PC to the LCD display.
3. Download the driver online and execute.
4. Follow the step-by-step instructions as shown on the pop-up windows.

If you are using a PC running Windows® XP Embedded, follow the instructions below:

Express:

1. Power on the computer.
2. Make sure the USB cable is connected to the computer.
3. Be sure that your EWF is disabled. If your EWF is enabled, please disable the EWF by using the EWF Manager command.
4. Once the EWF is disabled, download the driver online and execute.
5. Click on the XP driver and follow the step-by-step instructions as shown on the pop-up windows.

Custom:

1. Power on the computer.
2. Make sure the USB cable is connected to the computer.
3. Download the driver online and execute.
4. Follow the step-by-step instructions found in the folder file of the driver.

If you are using a PC running Windows® CE, follow the instructions below:

1. Power on the computer.
2. Make sure the USB cable is connected to the computer.
3. Download the driver online
4. Using Platform Builder, build an image file by following the step-by-step instructions found in the folder file of the driver.

If you are using a PC running Linux or Apple® Mac OS, follow the instructions below:

1. Power on the computer.
2. Make sure the USB cable is connected to the computer.
3. Download the driver online and execute.
4. Follow the step-by-step instructions found in the folder file of the driver.

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