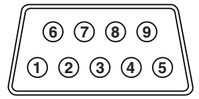
Preset Input Signals

	Signal name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Optional Terminal Board											
				Composite Video TY-42TM6B/V	Component Video TY-42TM6A/Z	PC Input TY-42TM6P	RGB (Digital) TY-42TM6D	HDMI TY-FB8HM	BNC Dual Video TY-FB9BD	Composite/Component Video TY-42TM6Y	RGB Active Through TY-42TM6G	SDI TY-FB7SD	HD-SDI TY-FB7HD	PC IN (D-Sub 15-pin) Fixed Terminal
Composite	NTSC	15.73	59.94	Y					Y	Y				
	PAL	15.63	50.00	Y					Y	Y				
	PAL60	15.73	59.94	Y					Y	Y				
	SECAM	15.63	50.00	Y					Y	Y				
	Modified NTSC	15.73	59.94	Y					Y	Y				
Component	525 (480)/60i	15.73	59.94		Y	Y				Y	Y	Y	Y	Y
	525 (480)/60p	31.47	59.94		Y	Y	Y	Y		Y	Y			Y
	625 (575)/50i	15.63	50.00		Y	Y				Y	Y	Y	Y	Y
	625 (575)/50p	31.25	50.00		Y	Y	Y	Y		Y	Y			Y
	750 (720)/60p	45.00	60.00		Y	Y	Y	Y		Y	Y		Y	Y
	750 (720)/50p	37.50	50.00		Y	Y	Y	Y		Y	Y			Y
	1125 (1080)/60i	33.75	60.00		Y	Y	Y	Y		Y	Y		Y	Y
	1125 (1080)/50i	28.13	50.00		Y	Y	Y	Y		Y	Y		Y	Y
	1125 (1080)/24p	27.00	24.00		Y	Y				Y	Y		Y	Y
	1125 (1080)/24sF	27.00	48.00		Y	Y				Y	Y		Y	Y
	1125 (1080)/25p	28.13	25.00		Y	Y				Y	Y		Y	Y
	1125 (1080)/30p	33.75	30.00		Y	Y				Y	Y		Y	Y
	1250 (1080)/50i	31.25	50.00		Y	Y				Y	Y			Y
RGB	640 x 400 @70Hz	31.46	70.07		Y	Y				Y	Y			Y
	640 x 480 @60Hz	31.47	59.94		Y	Y	Y	Y		Y	Y			Y
	640 x 480 @72Hz	37.86	72.81		Y	Y				Y	Y			Y
	640 x 480 @75Hz	37.50	75.00		Y	Y				Y	Y			Y
	640 x 480 @85Hz	43.27	85.01		Y	Y				Y	Y			Y
	852 x 480 @60Hz	31.47	59.94		Y	Y	Y			Y	Y			Y
	800 x 600 @56Hz	35.16	56.25		Y	Y				Y	Y			Y
	800 x 600 @60Hz	37.88	60.32		Y	Y	Y			Y	Y			Y
	800 x 600 @72Hz	48.08	72.19		Y	Y				Y	Y			Y
	800 x 600 @75Hz	46.88	75.00		Y	Y				Y	Y			Y
	800 x 600 @85Hz	53.67	85.06		Y	Y				Y	Y			Y
	1024 x 768 @60Hz	48.36	60.00		Y	Y	Y			Y	Y			Y
	1024 x 768 @70Hz	56.48	70.07		Y	Y				Y	Y			Y
	1024 x 768 @75Hz	60.02	75.03		Y	Y				Y	Y			Y
	1024 x 768 @85Hz	68.68	85.00		Y	Y				Y	Y			Y
	1152 x 864 @75Hz	67.50	75.00		Y	Y				Y	Y			Y
	1280 x 960 @60Hz	60.00	60.00		Y	Y				Y	Y			Y
	1280 x 960 @85Hz	85.94	85.00		Y	Y				Y	Y			Y
	1280 x 1024 @60Hz	63.98	60.02		Y	Y				Y	Y			Y
	1280 x 1024 @75Hz	79.98	75.03		Y	Y				Y	Y			Y
	1280 x 1024 @85Hz	91.15	85.02		Y	Y				Y	Y			Y
	1600 x 1200 @60Hz	75.00	60.00		Y	Y				Y	Y			Y
	1600 x 1200 @65Hz	81.25	65.00		Y	Y				Y	Y			Y
	1066 x 600 @60Hz	37.88	60.32		Y	Y	Y			Y	Y			Y
	1366 x 768 @60Hz	48.36	60.00		Y	Y	Y			Y	Y			Y
	Mac 13 (640 x 480)	35.00	66.67		Y	Y				Y	Y			Y
	Mac 16 (832 x 624)	49.72	74.54		Y	Y				Y	Y			Y
	Mac 21 (1152 x 870)	68.68	75.06		Y	Y				Y	Y			Y

Note: When a signal having a resolution that exceeds the panel resolution is input, a simplified display will be produced.

Serial RS232C: D-Sub 9-Pin (Female)



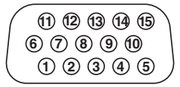
Pin Assignment and Signal Name

Pin No.	Signal name	Descriptions
1	CD	NC
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Not used
5	GND	Ground
6	DSR	Not used
7	RTS	Short Circuit
8	CTS	
9	RI	NC

Transmitting Conditions

Signal Level	Complied with RS232C
Synchronous System	Start/Stop Synchronous Communication
Baud Rate	9600 bps
Parity	Nil
Character Length	8 bits
Stop Bit	1 bit
X Parameter	Nil

PC Input: D-Sub 15-Pin (Female)



Signal Name

Pin No.	Signal name
1	R (P_R/C_R)
2	G (Y)
3	B (P_B/C_B)
4	GND (Ground)
5	GND (Ground)
6	GND (Ground)
7	GND (Ground)
8	GND (Ground)

Pin No.	Signal name
9	NC (Not connected)
10	GND (Ground)
11	GND (Ground)
12	SDA
13	HD/SYNC
14	VD
15	SCL

Supplied Remote Control

(Comes with every Panasonic Plasma Display model.)

Remote Control Functions

Power On
Power Off
Direct Input Selection (1/2/3/PC)
Input Selection
Status
Surround On/Off
Sound Mute On/Off
Volume Up/Down
Normalization (N)
Exit (R)
Position/Action
Digital Zoom
Dual Picture (MULTI PIP/SWAP/SELECT/MOVE)
Picture
Sound
Set Up
Picture Position/Size
Aspect
PC Mode Selection
Off Timer
Normal/ID Remote Selection
ID Number Set
ID All

Panasonic Broadcast & Television Systems Company
Division of Panasonic Corporation of North America
www.panasonic.com/broadcast

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(including Southeast)
WESTERN ZONE: 3330 Cahuenga Blvd W., Los Angeles, CA 90068 (323) 436-3608
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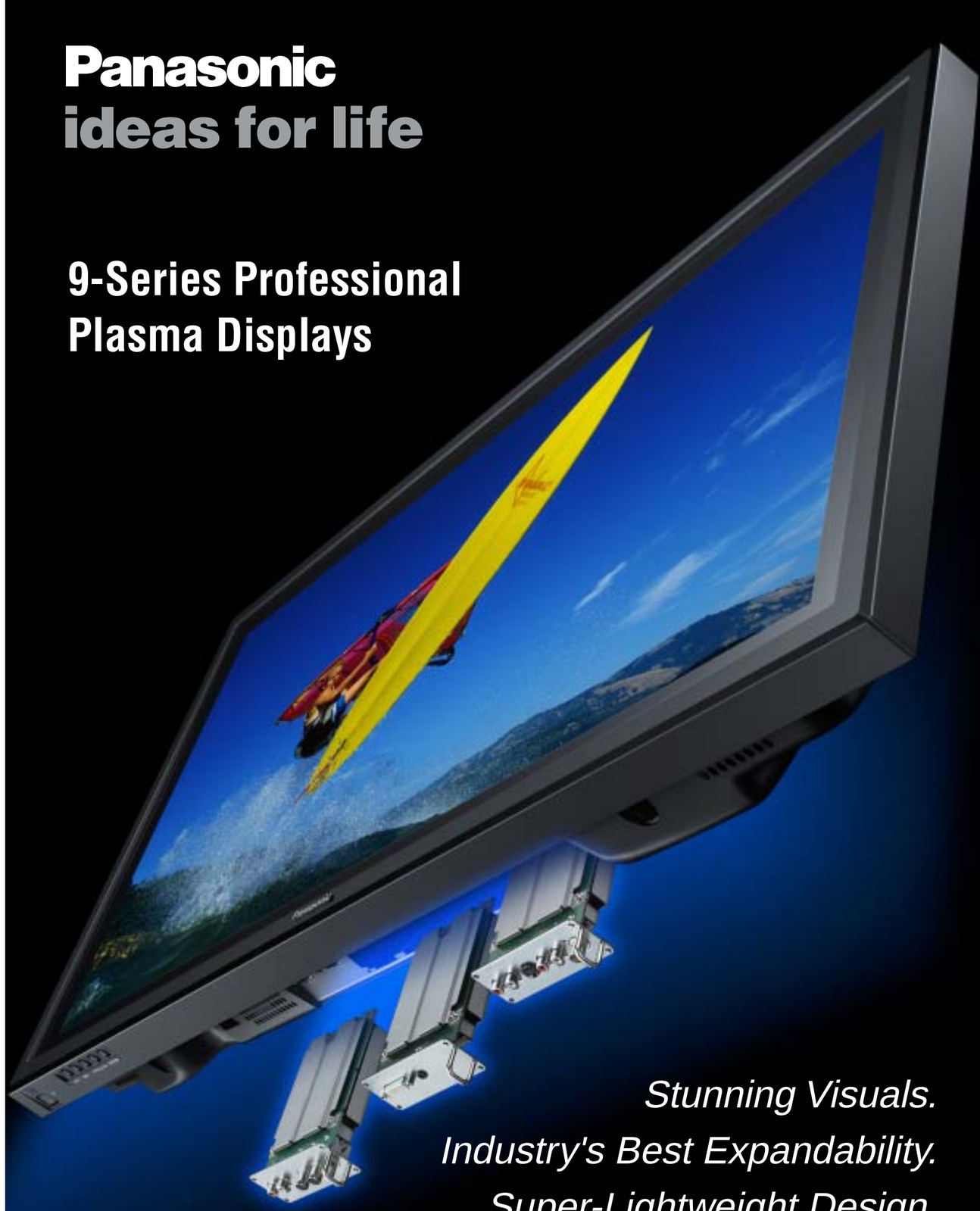
Panasonic
ideas for life

9-Series Professional Plasma Displays



Stunning Visuals.
Industry's Best Expandability.
Super-Lightweight Design.

The Industry Leader in Picture Quality, Versatility and Design

Panasonic's new 9-Series Professional Plasma Displays bring you greater efficiency, better visual quality and more flexible options. The specially designed 9-Series boasts the industry's highest levels of color gradation and contrast for crisp, clear colors and a stunning visual experience. Each model features an ultra-lightweight, energy-efficient design, with weight reduced by as much as 15%*1 compared with previous models. Exceptionally flexible and versatile, the 9-Series also features our signature multi-function input system that allows use in virtually any AV, PC or interactive environment. Whether used alone, set up as multi-screen systems, or mounted vertically, Panasonic 9-Series Professional Plasma Displays allow you to create a superior, customized system tailored to your professional needs.

*1: 42-inch HD model.

Supreme Visual Quality

Panasonic integrated its most advanced imaging technologies to achieve the industry's highest contrast and color gradation. Shattering conventional image quality standards, our new 9-Series Professional Plasma Displays feature cutting-edge panel improvements and advanced color management technology for breathtaking pictures that stimulate emotion and captivate any viewer.

Optimum Expandability

With triple function input slots*2 and a variety of terminal boards, Panasonic's 9-Series Professional Plasma Displays let you customize the display to your exact needs. This great expandability combined with the superb image quality to make Panasonic displays a high-performance solution in almost any application.

*2: The TH-37PH9UK has dual function slots.

Events/Entertainment
Visual "magnets" that keep customers entertained, informed and attentive.

Presentations
Powerful visual impact that helps make presentations and meetings a success. Optional touch panel adds interactivity and ease.

Digital Signage
Turnkey signage solutions that are attention getting and give your message extra punch.

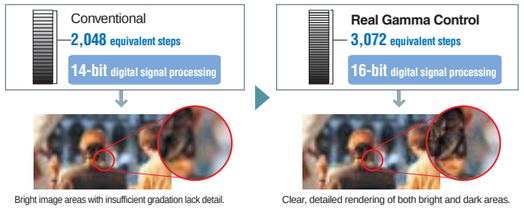
Industry's Best Picture Quality

Note: These features are found on the PH9UK/PS9UK models only.

3,072 Equivalent Steps of Gradation for Finely Nuanced Images

Real Gamma Control

Instead of using first-stage, basic processing like other brands, Panasonic plasma displays use maximum 16-bit processing, the highest level in the industry, to process video signals all the way up to the gamma correction stage. While other brands use the number of signal bits for calculation, Real Gamma Control reproduces the actual image that appears on the screen at the world's highest level of 3,072 equivalent steps of gradation.



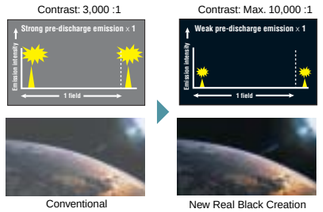
Bright image areas with insufficient gradation lack detail.

Clear, detailed rendering of both bright and dark areas.

Max.10,000:1 Contrast Provides Superb Depth

New Real Black Creation

Panasonic's original New Real Black Creation technology helps achieve the industry's highest level of contrast at a maximum of 10,000:1 in dark image areas to reproduce exceptionally deep, rich blacks. This system suppresses unwanted graying by reducing the electrical pre-discharge to about 30% of the level of conventional plasma displays.

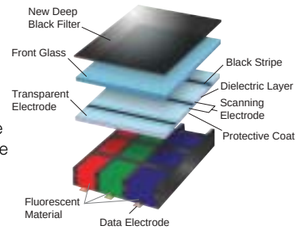


Excellent Brightness Even in Bright Rooms

Advanced Plasma Display Panel

Use of improved panel materials and enhanced rib and electrode shapes have boosted the efficiency of our plasma display panels. We've also attained a stable, high-speed discharge to cope with the light intensity in the finely-controlled discharge, These features combine to increase screen brightness by 20%*1 compared with previous models.

*1: For HD models. 5% for SD models.

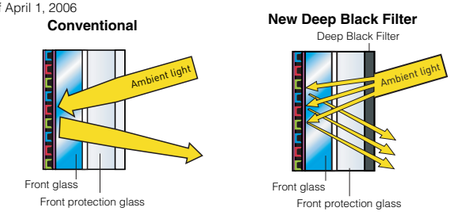


Industry's Best*2 Bright-Area Contrast

New Deep Black Filter

The New Deep Black Filter suppresses light transmittance and slashes the amount of external light reflected. This technology helps these displays achieve the industry's highest contrast ratio of 400:1 when viewed in bright surroundings. Reflection is minimal, so images are clean and distraction-free.

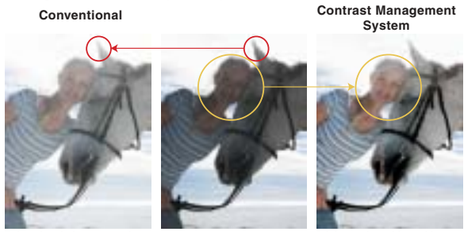
*2: As of April 1, 2006



Superior Expressive Detail

Contrast Management System

Original Panasonic technology optimizes the contrast by matching it to the images in each scene. Instead of losing gradation by making part of the image too bright or too dark, this new technology applies just the right amount of contrast correction for each part of the scene. The result brings natural beauty to all parts of the scene.



Enhancing dark areas washes out the highlights.

Brightens the subject without changing the background.

Rich, Vibrant Colors

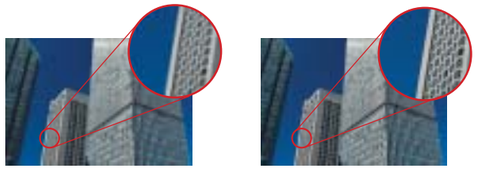
Advanced 3D Color Management

The Color Management System achieves precise control based on 3D management in the color difference plane and brightness directions. This finer level of control produces more expressive images.

Smooth Diagonal Lines and Sharp, Clear Images

Sub-Pixel Controller

The Sub-Pixel Controller eliminates jagged or blurred diagonal lines and produces smoother edges. Unlike conventional systems in which the three RGB colors are processed together, this advanced system processes each color separately for crisper, more natural-looking images. Theoretically, this results in a 30% improvement in horizontal resolution compared with conventional systems.



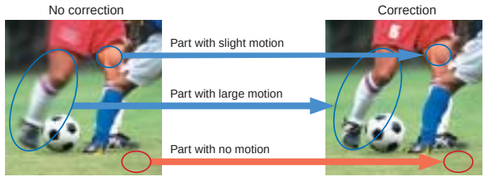
No correction

Correction

Even Scenes with Lots of Motion are Clear

Motion Pattern Noise Reduction

The Motion Pattern Noise Reduction circuit detects motion patterns that tend to generate noise, and makes adjustments to maximize image quality. It helps produce clean, sharp images with outstanding gradation, even in scenes with considerable motion. The result is a noticeable improvement in moving picture quality.



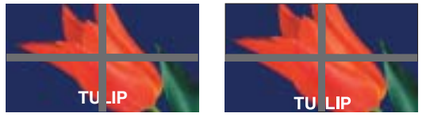
Panasonic plasma finely divides each scene into numerous parts, then detects the motion in each part and applies noise reduction where required.

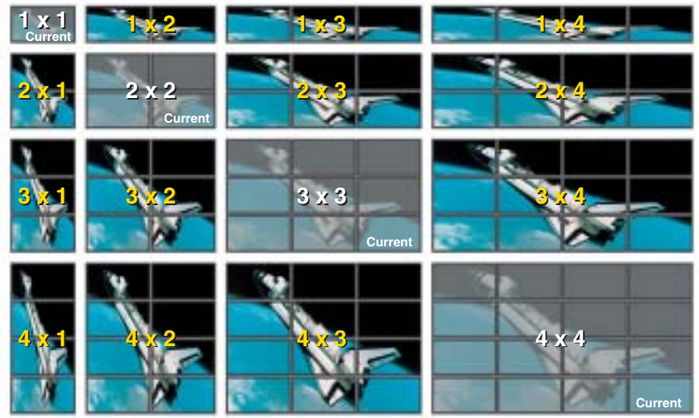
Advanced Usability

Powerful Multi-Screen Display Systems

Advanced Image-Enlarging Function

This built-in image-enlarging function makes it easier to set up multi-screen systems with as many as 16 displays (4x4 configuration).
A new function lets you enlarge the image up to 4x vertically and horizontally independently, making it easy to set up a multi-screen system with up to four displays arranged either vertically or horizontally. For example, expand the image horizontally to 4x and leave it unchanged vertically, and you can create a system with four units side-by-side. This is ideal in bank lobbies, airports and other places where you want a large display system that can be read from a distance.
Thanks to the ID control function, you can use the standard remote control unit to control multiple panels individually.
There is also a mode that displays a full-screen image, including the edges (the width of the frame) of the display panel. This is especially suitable for displaying text information, since no words are hidden by the frame.





Note: Image-enlarging function does not work in Dual Picture mode. Images of SXGA resolution or higher from a PC or RGB source may not enlarge correctly. Some degradation occurs when images are enlarged. Advanced image-enlarging function is not offered on the TH-65PHD8UK or TH-42PS9UK.
The ambient temperature varies depending on the installation location. Provide sufficient air conditioning for surrounding conditions.

Easy Installation

Ultra-Lightweight Cabinet

Panasonic's advanced PDP production technology made it possible to reduce the plasma panel glass thickness from 2.8 mm (0.1˝) to 1.8 mm (0.07˝). This reduces overall weight by up to 15%*3 compared with previous models, making installation easier than ever. Using less glass benefits the environment, too.

*3: 42-inch HD model.

Weight Comparison

	New	Conventional	Reduction
50" HD	81.6 lbs.	94.8 lbs.	14%
42" HD	59.5 lbs.	69.4 lbs.	15%
42" SD	57.3 lbs.	65.0 lbs.	12%
37" HD	50.6 lbs.	57.3 lbs.	12%

Advanced Dual Picture Mode

Panasonic plasma displays feature the Advanced Dual Picture Mode in addition to the conventional Dual Picture Mode. This mode lets you overlay a video image onto a full-screen PC image. For example, you can superimpose text information from a PC over a video clip, giving you a more effective way to present information.
When displaying two separate images, you can select the audio output from either source. Playing back the audio from the sub-source can be useful in teleconferencing, for example.

Advanced Dual Picture Mode

Note: Dual Picture Mode cannot handle the following combinations of two analog signals: Component - Component, Component - PC (RGB), PC (RGB) - Component, PC (RGB) - PC (RGB). The Advanced Dual Picture Mode may not work properly with some video signals.

Remote System Monitoring

In addition to the conventional display control command and power supply/input selection check command, Panasonic plasma displays feature a monitor command that lets you check the signal from a distant location. In conventional systems, you had to install a monitoring camera to check the images displayed on an advertising display panel or digital signage system. This monitor command, on the other hand, lets you monitor images by simply connecting a PC via a serial cable.

Long Service Life of 60,000 Hours

The inner panel improvements give Panasonic plasma panels a long service life of approximately 60,000 hours* even with their increased brightness.

* The time until panel brightness is reduced to half its initial level, when displaying moving images at standard mode. Excludes afterimages and malfunctions.

Vertical Mounting

The 65-inch, 50-inch and 42-inch models can be positioned vertically to display portrait images, allowing them to serve as effective storefront signboards. There's no need to install an optional fan kit.

Note: When using the display vertically, set it so the power button is on top. The 37-inch model cannot be positioned vertically.

Enhanced Screen Saver Functions

A variety of screen saver functions help minimize the risk of uneven phosphor aging. You can also use the timer to set the screen saver operating cycles, operating time, and start and stop times. This lets you make settings that match your application.

- **White Bar Scroll:** White bars move across the screen from left to right at regular intervals. Good for ordinary still-image displays.
- **Screen Reversal:** Displays images with the black and white reversed. Good for text displays.
- **Side Panel Adjustment:** Brightens the black bands on the sides of the screen when displaying images in the 4:3 format.
- **Wobbling:** Shifts the image's position by several pixels at fixed time intervals.
- **Peak Limit Mode:** Lowers the peak brightness level (image contrast) by 30%.

Energy-Saving Functions

A broad range of environment-friendly functions help minimize energy consumption.

- **DPMS (Display Power Management Signaling)**

Power is automatically turned on or off in response to a sync signal from the PC connected to the built-in PC input terminal.

- **Auto Power Off**

When you're using a device connected to the multi-function slots, the display panel goes into standby mode after about 10 minutes if no sync signal is received.

- **Power Save Mode**

Reduces the display's brightness.

- **Standby Power Save Mode**

Reduces power consumption when on standby. (Start-up may take a few moments once the display is in this mode.)

Sound Menu

The Sound Menu gives you a choice of three sound settings (Standard/Dynamic/Clear) to best match the kind of input source.

Super Quiet Operation

Our "silence engineering" has eliminated the need for a fan on SD models and dramatically suppressed the fan noise on HD models, to give you the kind of quiet operation that makes for a more pleasant viewing experience.

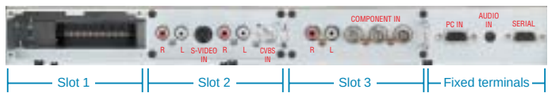
Industry's Best Expandability

Multi-Function Slots

In addition to the fixed input interface, the Panasonic plasma display has three*1 interchangeable slots that let you add different combinations of optional terminal boards. This gives you the flexibility to add digital or analog capabilities, as necessary, and to customize your system for specific needs.

Multi-Function Slots on 65˝, 50˝ and 42˝ Models

These models come equipped with the standard terminal boards mounted in slots 2 & 3. You can mount optional terminal board in slot 1. Or, you can remove the standard terminal boards and mount up to three optional boards.



* The photo above shows the standard terminal boards on 50˝ and 42˝ models.

Multi-Function Slots on 37˝ Model

The 37-inch model comes with the standard terminal boards mounted in slots 1 and 2. You can remove the standard boards and mount one or two optional boards.

*1: 37-inch model comes with two interchangeable slots and fixed terminals.

Optional Terminal Boards

RGB Active Through Terminal Board (mounts in slots 1 & 2)

TY-42TM6G

- Sends the signal that's input via the PC IN terminal to a second display connected to the PC OUT terminal. This connectability adds convenience when configuring a multi-screen system.

RGB (Digital) Terminal Board (DVI-D w/HDCP) (mounts in slot 1 or 2)

TY-42TM6D

- Lets you connect a PC or other compatible digital equipment that outputs digital RGB signals (DVI-D compliant).
- Adding this board permits you to display images with the equivalent of 4,096 gradation levels.

HDMI Terminal Board (mounts in slot 1 or 2)

TY-FB8HM

- Enables fully digital connection of signals from HDMI-compatible DVD players and other digital equipment for blur-free images with no color bleeding.
- Adding this board permits you to display images with the equivalent of 4,096 gradation levels*1.

Specifications

Standards compliance	HDMI ver.1.1
Compatible video format	525/60p, 625/50p, 750/60p, 750/50p, 1125/60i, 1125/50i, VGA60

* High-Definition Multimedia Interface and HDMI are trademarks of HDMI Licensing, LLC.

The characters in red are added for explanation.

BNC Dual Video Terminal Board (mounts in slot 1 or 2)

TY-FB9BD

BNC Component Video Terminal Board (mounts in any slot)

TY-42TM6A

BNC Composite Video Terminal Board (mounts in slot 1 or 2)

TY-42TM6B

Composite/Component Video Terminal Board (mounts in slots 1 & 2, or slots 2 & 3)

TY-42TM6Y

RCA Component Video Terminal Board (mounts in any slot)

TY-42TM6Z

RCA Composite Video Terminal Board (mounts in slot 1 or 2)

TY-42TM6V

Ir Through Terminal Board (mounts in any slot)

TY-FB9RT

PC Input Terminal Board (mounts in any slot)

TY-42TM6P

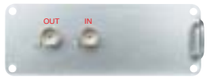
- Lets you display images from two or more PCs.

* Does not support the DPMS function.

SDI/HD-SDI Terminal Board (mounts in slot 1 or 2)

SDI Terminal Board **TY-FB7SD**

HD-SDI Terminal Board **TY-FB7HD**



- Supports the serial digital interface (SDI) used in broadcasting.
- Provides fully digital transmission for clear, clean image displays.
- The TY-FB7HD supports HDTV.

Specifications

	TY-FB7SD	TY-FB7HD
Standards compliance	SMPTE259M-C	SMPTE292M, SMPTE259M-C
Compatible video format	525/59.94i 625/50i	525/59.94i, 625/50i, 750/60p: 59.94p, 1125/30p, 1125/24p, 1125/60i: 59.94i, 1125/50i, 1125/24sF: 23.98sF

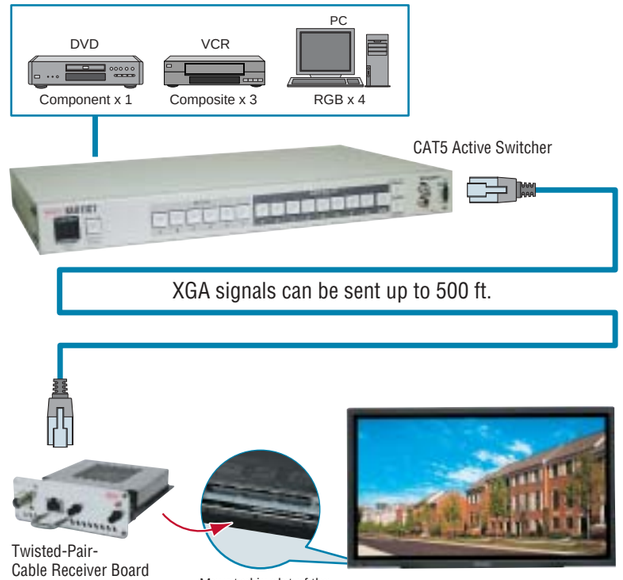
Peripherals

Note: Specifications of peripherals on this page are subject to change without notice.

Twisted-Pair-Cable Receiver Board

KE0101CR-BW (Mounts in any slot*)

*Should be mounted in slot 1 to send the display control signal. Display control signal transmission is one-way.



- Makes it possible, using a single CAT5e cable, to simultaneously send video signal (RGB, component, or composite), audio signal and the display control signal.
  * To send a composite video signal, the Composite Video Terminal Board (TY-FB9BD, 42TM6Y, 42TM6B or 42TM6V) must be mounted in the slot of the Plasma.
- This reduces both costs and setup time compared with a conventional BNC cable connection.
- XGA signals (1024 x 768 pixels) can be sent up to 500 ft.

For the latest information on the Twisted-Pair-Cable Receiver Board, please visit the following website:
http://www.kowa.co.jp/i-master/cat5-eng

CAT5 Active Switcher

KE811CT

* Makes it possible to simultaneously transmit video, audio and control signals over a single CAT5e cable to external equipment.
* Allows plasma display control (Power On/Off, Video Switching, Mute, Volume Up/Down, etc.) via RS-232C.
* Enables combined use with the KE0108CH-DW Distributor.

Twisted-Pair-Cable Transmitter

KE0202CT2

Sends video, audio and control signals over a CAT5e cable.

Twisted-Pair-Cable Distributor

KE0108CH-DW

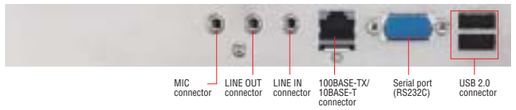
Distributes one input to eight output channels.

PDP Controller (for 65˝, 50˝ and 42˝ models)

PLUG-VC251 series (Mounts in slots 1, 2 & 3)

- Plug-in PC to facilitate turnkey solutions.
- Clear images made possible by digital connection using the function slot of the plasma display.
- Customized to maximize the performance of Panasonic plasma displays.
- Realistic display images achieved by a 1:1 pixel correspondence with Panasonic plasma displays.
- Can also be used in vertical display applications.
- Models with a pre-installed, digital signage system are also available.
- Easy to install, it requires only a network and power connection.

Terminals



Specifications

Applicable displays	Panasonic 65˝, 50˝ & 42˝ Plasma Displays
CPU	ULV Pentium® M 900MHz
Main storage memory	Standard 256MB DDR SO-DIMM
Internal HDD	2.5˝ HDD 30GB x 1
Network	100BASE-TX/10BASE-T x 1, Wake On LAN supported
Interfaces	Serial x 2*1, USB2.0/1.1 x 2*2, Line In x 1, Line Out x 1, MIC x 1
Preinstalled OS	Windows® XP Embedded
Dimensions (W x H x D)	12.4˝ x 1.1˝ x 8.3˝ (315 x 29 x 211 mm) (including cooling fan)
Weight	2.6 lbs. (1.2 kg)
Power supply	Supplied from the plasma display
Power consumption	20 W max.
Standard	FCC Class A

*1: One serial interface is connected internally.
*2: USB 1.1 is for HID (human interface devices) only. Maximum power supply for the two ports is 3.5 W.

Line Up

HD Models

TH-65PHD8UK
65-inch (165 cm) diagonal
High Definition Plasma Display

TH-50PH9UK
50-inch (127 cm) diagonal
High Definition Plasma Display

TH-42PH9UK
42-inch (106 cm) diagonal
High Definition Plasma Display

TH-37PH9UK
37-inch (94 cm) diagonal
High Definition Plasma Display

SD Model

TH-42PS9UK
42-inch (106 cm) diagonal
Progressive Wide Plasma Display

Hospitality Plasma Models Also Available

TH-42PR9U 42-inch HD model
TH-42PG9U 42-inch SD model
TH-37PR9U 37-inch HD model
TH-37PG9U 37-inch SD model

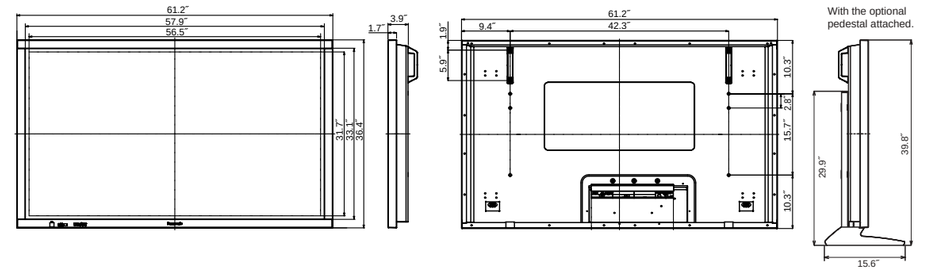
Specifications

	TH-65PHD8UK	TH-50PH9UK	TH-42PH9UK	TH-37PH9UK	TH-42PS9UK
DISPLAY					
Screen Size (Diagonal)	65-inch	50-inch	42-inch	37-inch	42-inch
Aspect Ratio	16:9	16:9	16:9	16:9	16:9
Effective Display Area (W x H)	56.5" x 31.7" (1,434 x 806 mm)	43.5" x 24.5" (1,106 x 622 mm)	36.2" x 20.4" (920 x 518 mm)	32.2" x 18.1" (818 x 461 mm)	36.2" x 20.4" (920 x 518 mm)
Resolution (H x V)	1,366 x 768 pixels	1,366 x 768 pixels	1,024 x 768 pixels	1,024 x 720 pixels	852 x 480 pixels
Pixel Pitch (H x V)	1.050 x 1.050 mm	0.810 x 0.810 mm	0.900 x 0.675 mm	0.800 x 0.635 mm	1.080 x 1.080 mm
Contrast Ratio (Bright-area*1)	3,000:1 (350:1)	Max. 10,000:1 (400:1)			
Gradation	2,048 steps (equivalent)	3,072 steps (equivalent)			
SIGNAL COMPATIBILITY					
Scan Rate	Horizontal frequency: 15 — 110 kHz; Vertical frequency: 48 —120 Hz				
PC Signal Compatibility	VGA, SVGA, XGA SXGA, UXGA... (Compressed)	VGA, SVGA, XGA SXGA, UXGA... (Compressed)	VGA, SVGA, XGA SXGA, UXGA... (Compressed)	VGA, SVGA XGA, SXGA, UXGA... (Compressed)	VGA SVGA, XGA, SXGA, UXGA... (Compressed)
Supported Video Standards	NTSC, PAL, PAL 60, SECAM, Modified NTSC				
Video Signal Compatibility	525 (480)/60i, 60p; 625 (575)/50i, 50p; 750 (720)/60p, 50p; 1125 (1080)/60i, 50i, 24p, 24sF, 25p, 30p... SMPTE274M, 1250 (1080)/50i				
INPUT/OUTPUT					
Fixed Terminals					
PC IN AUDIO IN	Mini D-sub 15pin x 1; Analog RGB/Component; Plug & Play (VESA DDC 1/2B) M3 jack x 1				
SERIAL	D-sub 9-pin x 1, External control, RS-232C compatible				
Interchangeable Terminals					
Slot1	Vacant	Vacant	Vacant	CVBS In (BNC x 1, Composite), Audio In (L/R) (RCA pin jack x 2); S-Video In (S-Video x 1), Audio In (L/R) (RCA pic jack x 2)	Vacant
Slot2	CVBS In/Out (BNC x 2, Composite), S-Video In (S-Video x 1), Audio In (L/R) (RCA pin jack x 2)	CVBS In (BNC x 1, Composite), Audio In (L/R) (RCA pin jack x 2); S-Video In (S-Video x 1), Audio In (L/R) (RCA pic jack x 2)		Component In (BNC x 3, Analog RGB/Components), Audio In (L/R) (RCA pin jack x 2)	CVBS In (BNC x 1, Composite), Audio In (L/R) (RCA pin jack x 2); S-Video In (S-Video x 1), Audio In (L/R) (RCA pic jack x 2)
Slot3	Component In (BNC x 3, Analog RGB/Components), Audio In (L/R) (RCA pin jack x 2)			—	Component In (BNC x 3, Analog RGB/Components), Audio In (L/R) (RCA pin jack x 2)
ELECTRICAL					
Power Requirements	120 V AC, 50 Hz/60 Hz	120 V AC, 50 Hz/60 Hz	120 V AC, 50 Hz/60 Hz	120 V AC, 50 Hz/60 Hz	120 V AC, 50 Hz/60 Hz
Power Consumption	675 W	460 W	345 W	300 W	290 W
Power off condition	0.2 W	0.1 W	0.1 W	0.1 W	0.1 W
Stand-by condition	Save Off: 0.7 W, Save On: 0.5 W	Save Off: 0.5 W, Save On: 0.3 W	Save Off: 0.6 W, Save On: 0.4 W	Save Off: 0.6 W, Save On: 0.4 W	Save Off: 0.6 W, Save On: 0.4 W
SOUND					
Audio Output	20 W [10 W + 10 W] (10 % THD)	16 W [8 W + 8 W] (10 % THD)			
MECHANICAL					
Dimensions (W x H x D*2)	61.2" x 36.4" x 3.9" (1,554 x 925 x 99 mm)	47.6" x 28.5" x 3.7" (1,210 x 724 x 95 mm)	40.2" x 24.0" x 3.5" (1,020 x 610 x 89 mm)	36.2" x 21.7" x 3.5" (920 x 550 x 89 mm)	40.2" x 24.0" x 3.5" (1,020 x 610 x 89 mm)
Weight (approx.)	172.0 lbs. (78.0 kg)	81.6 lbs. (37.0 kg)	59.5 lbs. (27.0 kg)	50.6 lbs. (23.0 kg)	57.3 lbs. (26.0 kg)
OPERATING ENVIRONMENT					
Temperature	32°F — 104°F (0°C — 40°C)				
Humidity	20% — 80% (Non condensation)				
Altitude	0 — 7,800 feet (0 — 2,400 m)	0 — 9,100 feet (0 — 2,800 m)			0 — 9,800 feet (0 — 3,000 m)
EMI REGULATIONS	FCC Part 15 (Class B Digital Devices)				
SAFETY STANDARDS	UL6500				
INCLUDED ACCESSORIES	Fixing band x 2, AC power cord, Operating instruction book				

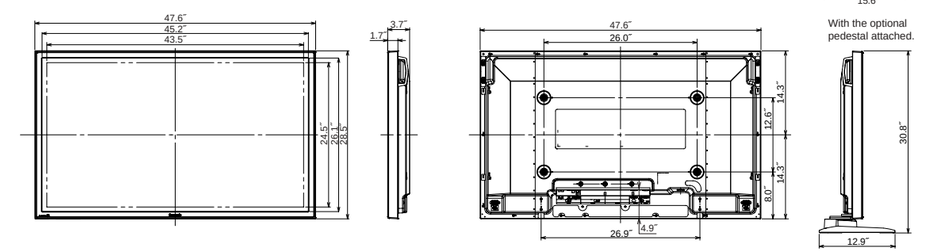
*1: Measured at 100 lux.
*2: Exclusive of protruding portion

Dimensions (Unit: inch)

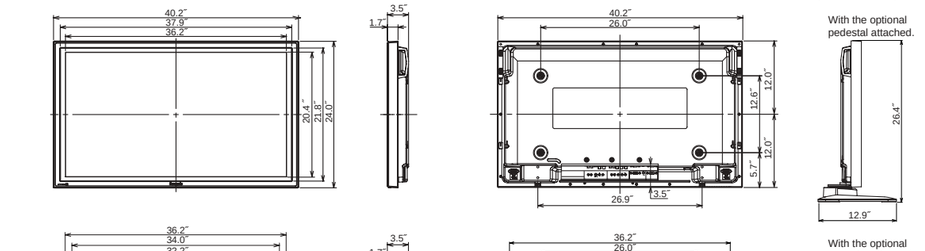
TH-65PHD8UK



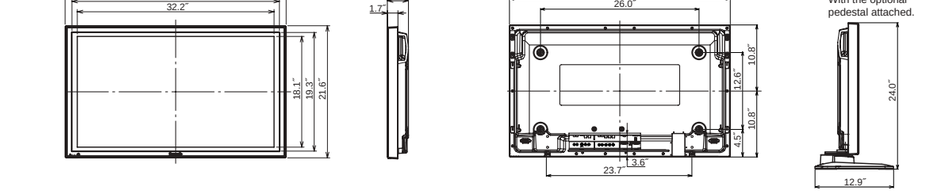
TH-50PH9UK



TH-42PH9UK
TH-42PS9UK



TH-37PH9UK

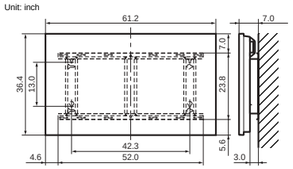


Options

Mounting Options

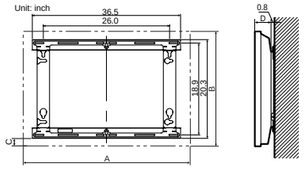
Wall-hanging bracket

TY-WK65PV7

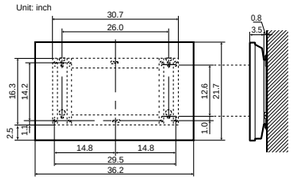


TY-WK42PV7

	50″ model	42″ model	37″ model
A	47.6	40.2	36.2
B	28.5	24.0	21.7
C	3.6	1.4	1.8
D	3.7	3.5	3.5

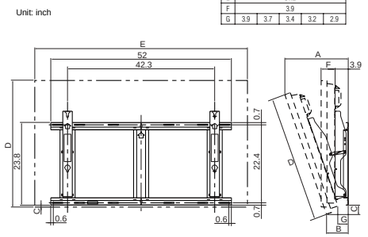


TY-WK37PV3



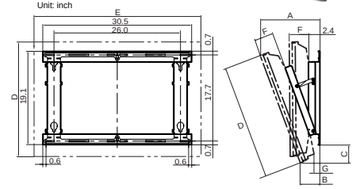
Wall-hanging bracket (angled)

TY-WK65PR8



R	0°	5°	10°	15°	20°
A	7.8	10.6	13.4	16.1	18.5
B	7.8	7.5	7.1	6.7	6.2
C	0.6	1.1	1.6	2.1	2.6
D	36.4				
E	61.2				
F	3.9				
G	3.9	3.7	3.4	3.2	2.9

TY-WK42PR7



50″ model

R	0°	5°	10°	15°	20°
A	6.1	7.9	9.6	11.2	12.8
B	6.1	5.4	4.7	3.9	3.1
C	6.1	5.4	5.7	6.0	6.1
D	28.5				
E	47.6				
F	3.7				
G	2.4	2.2	1.7	1.0	0.4

42″ model

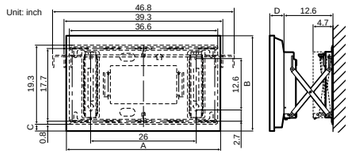
R	0°	5°	10°	15°	20°
A	5.5	7.4	8.9	10.4	11.8
B	5.5	5.3	4.8	4.2	3.6
C	2.9	3.1	3.5	3.7	4.0
D	24.0				
E	40.2				
F	3.5				
G	2.4	2.0	1.6	1.1	0.7

37″ model

R	0°	5°	10°	15°	20°
A	5.9	7.3	8.7	10.1	11.4
B	5.9	5.4	5.0	4.5	4.0
C	1.7	2.0	2.1	2.2	2.4
D	21.7				
E	36.2				
F	3.5				
G	2.4	2.1	1.8	1.5	1.1

Wall-hanging bracket (drawer type)

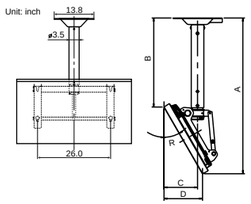
TY-WK42DR1



	50″ model	42″ model
A	47.6	40.2
B	28.5	24.0
C	4.4	2.2
D	3.7	3.5

Ceiling-hanging bracket

TY-CE42PS7



50″ model

R	0°				15°				30°			
A	46.7	50.7	54.6	58.6	47.3	51.2	55.2	59.1	46.5	50.4	54.4	58.3
B	18.3	22.3	26.2	30.1	19.9	23.9	27.8	31.7	22.0	25.9	29.8	33.8
C	7.8				9.8				11.3			
D	0				7.3				14.2			

42″ model

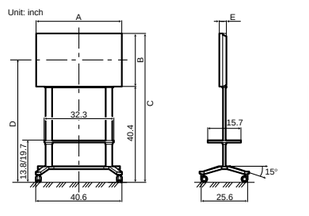
R	0°				15°				30°			
A	44.5	48.4	52.4	56.3	45.1	49.0	52.9	56.9	44.4	48.4	52.3	56.2
B	20.6	24.5	28.4	32.4	22.1	26.0	29.9	33.9	23.8	27.7	31.7	35.6
C	7.6				9.0				9.9			
D	0				6.2				11.9			

37″ model

R	0°				15°				30°			
A	43.3	47.3	51.2	55.1	43.9	47.9	51.8	55.7	43.4	47.4	51.3	55.2
B	21.8	25.7	29.6	33.6	23.2	27.1	31.0	35.0	24.8	28.8	32.7	36.6
C	7.6				8.7				9.3			
D	0				5.6				10.7			

Mobile stand

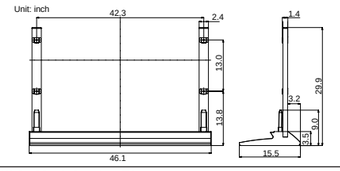
TY-ST42PF3



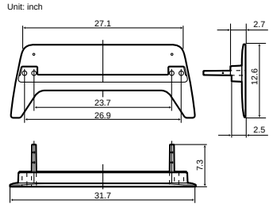
	50″ model	42″ model
A	47.6	40.2
B	28.5	24.0
C	68.9	64.4
D	54.7	52.4
E	3.7	3.5

Pedestal

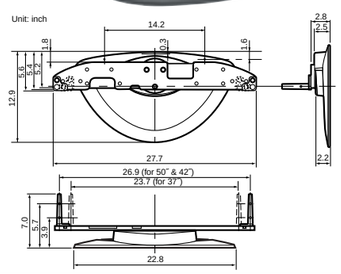
TY-ST65-K



TY-ST07-K



TY-ST08-K

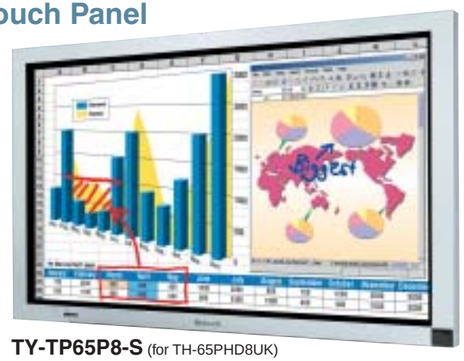


Compatible Models at a Glance

●: Compatible; —: Not compatible

	TY-ST65-K	TY-ST07-K	TY-ST08-K	TY-WK65PV7	TY-WK42PV7	TY-WK37PV3	TY-WK65PR8	TY-WK42PR7	TY-WK42DR1	TY-ST42PF3	TY-CE42PS7
TH-65PHD8UK	●	—	—	●	—	—	●	—	—	—	—
TH-50PH9UK	—	●	●	—	●	—	—	●	●	●	●
TH-42PH9UK/42PS9UK	—	●	●	—	●	—	—	●	●	●	●
TH-37PH9UK	—	●	●	—	●	●	—	●	—	—	●

Touch Panel



TY-TP65P8-S (for TH-65PHD8UK)
TY-TP50P8-S (for TH-50PH9UK)
TY-TP42P8-S (for TH-42PH9UK/42PS9UK)

This add-on touch panel lets you write directly onto the screen with a light touch. Ideal for adding written comments during a presentation or meeting.

- Highly reliable optical sensor system
- Outstanding resolution, easy operation
- Thin design makes a precise fit with display screen
- Lets you use display as a "whiteboard"

TY-TPEN6 Touch Pen also available.

	TY-TP65P8-S	TY-TP50P8-S	TY-TP42P8-S
Applicable display devices	Panasonic 65″ plasma display	Panasonic 50″ plasma display	Panasonic 42″ plasma display
Detection system	Infrared ray interruption		
Panel aperture (W x H)	57.3" x 32.0" (1455 x 812 mm)	44.4" x 25.4" (1129 x 645 mm)	37.2" x 20.9" (945 x 531 mm)
Detection range (W x H)	56.7" x 32.0" (1440 x 812 mm)	43.5" x 24.4" (1104 x 620 mm)	36.2" x 20.2" (920 x 513 mm)
Effective detection range	Above detection range + 0.04" (1.0 mm) top, bottom, right, and left		
Operating modes	Input point, Continuous, End point detection *1		
Resolution	2881 (H) x 1625 (V) *1	2209 (H) x 1241 (V) *1	1841 (H) x 1033 (V) *1
Detection pitch	0.08" x 0.08" (2.0 x 2.0 mm)		
Output system	Coordinate output		
Optical elements	361 (H) x 204 (V)	277 (H) x 156 (V)	231 (H) x 130 (V)
Optical element pitch	0.16" x 0.16" (4.0 x 4.0 mm)		
Minimum stylus	0.24" x 0.24" (6.0 x 6.0 mm)		
Scan speed	First touch: 45 msec/frame max. Moving: 10 msec/frame max.	First touch: 30 msec/frame max. Moving: 8 msec/frame max.	
Interface	USB1.1 compliant; Signal: +DATA, -DATA, VCC, GND; I/F connector: TYPE B		
Panel shape	Flat panel		
Dimensions (W x H x D) *2	62.9" x 37.4" x 2.8" (1598 x 951 x 72 mm)	49.5" x 30.4" x 2.7" (1257 x 773 x 69 mm)	42.2" x 25.9" x 2.7" (1073 x 659 x 69 mm)
Weight (Except bracket)	11.0 lbs. (5.0 kg)	12.8 lbs. (5.8 kg)	11.0 lbs. (5.0 kg)
Escutcheon (frame)	Aluminum	Aluminum, ABS rosin	
Power supply (voltage)	DC + 5 V ±10% (Supplied from USB bus power)		
Electric current	DC + 5 V max. 400 mA		

*1: When using the specific driver software.
*2: Except bracket, inclusive of protruding portion.

Non-Glare Filter

TY-AR65P9W (for TH-65PHD8UK)
TY-AR50P9W (for TH-50PH9UK)
TY-AR42P9W (for TH-42PH9UK/42PS9UK)

Detachable Stereo Speakers

TY-SP65P7W-K (for TH-65PHD8UK)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 3.9″ x 36.4″ x 3.5″ (100 x 925 x 90 mm)
Weight: 4.9 lbs. (2.2 kg)/each

TY-SP50P8W-K (for TH-50PH9UK)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 4.2″ x 28.5″ x 3.5″ (107 x 724 x 88 mm)
Weight: 4.4 lbs. (2.0 kg)/each

TY-SP42P8W-K (for TH-42PH9UK/42PS9UK)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 4.2″ x 24.0″ x 3.5″ (107 x 610 x 88 mm)
Weight: 4.4 lbs. (2.0 kg)/each

TY-SP37P8W-K (for TH-37PH9UK)
Configuration: 2-way, 3-speaker
Dimensions (W x H x D): 4.2″ x 21.7″ x 3.5″ (107 x 550 x 88 mm)
Weight: 4.4 lbs. (2.0 kg)/each