

Panasonic

PT-M1085E PT-M1083E

60" - 300" Multiscan Projectors

- Very bright 850 lumens output
- high resolution: 1,600 x 1,280*
- Wide scan range for direct PC/Workstation connection versatility
Horizontal: 15 - 100 kHz*, Vertical: 38 - 150 Hz
- User definable aspect ratios



High-Precision, Multi-Source Projectors Add Power and Flexibility to Your Presentation



Multimedia presentations are more persuasive than ever, with Panasonic's PT-M1085E and PT-M1083E large-screen, high-performance colour video projectors. They connect directly to your personal computer or workstation or video source to project sharp images measuring 60 inches to 300 inches diagonally. High-brightness CRTs produce very bright, high-resolution pictures for graphically compelling communication. A multi-function remote control is supplied for easy operation and assistance from on-screen menus. Digital convergence enables precise, simplified setup.

Bright 850 Lumens Output

High luminance output is essential to the production of a clear viewable image under typical indoor lighting conditions. The PT-M1085E/M1083E employs 7-inch high-brightness CRTs and hybrid lenses to deliver outstanding optical power of 850 lumens (at white peak). The result is sharpness, clarity and strong contrast*.

* Contrast ratio: 100:1

High Resolution for Crystal-Clear Images

These projectors bring computer monitor precision to all your presentations of computer documents, CAD/CAM data and 3-D graphic images. Resolution is a very high 1,600 x 1,280 on the PT-M1085E, 1,500 x 1,200 on the PT-M1083E with 850-TV-line resolution for video sources on both models. You'll be amazed at the detailed realism of photo and video images.

Wide Range Scanning Capability for Easy PC/Workstation Connection

The automatic scanning function quickly and precisely locks to horizontal frequencies between 15 and 100 kHz (up to 70 kHz for the PT-M1083E), and vertical frequencies between 38 and 150 Hz. This wide scan frequency range, and 90 MHz bandwidth (75 MHz for the PT-M1083E), enables easy connection to IBM PCs, compatible models, Macintosh, and many other computers or workstations used in corporate presentations.

Pure, Natural Colour Reproduction

Thanks to exclusive coloured lenses for red and green, overall colour rendition is remarkably improved, providing rich and natural images in true colours. Also accurate black to white tracking provides better rendering of the picture's subtle colouring.

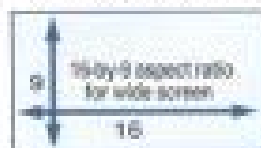
Colour Temperature

Various colour temperatures are provided to match your viewing demands whether it is television post production, film, or consumer television. Factory presets of 7400K, 6500K

and 3200K can each be readjusted and stored to a preferred colour temperature.

Aspect Ratios

Three different aspect ratios can be set for each signal input. Since horizontal and vertical parameters can be set independently, you can easily store wide screen formats such as 7:1:3 (Cinemascope) and 16:9, in addition to the standard 4:3 ratio of TV and computer screens.



Multiple Input Capability

The PT-M1085E/M1083E employs two types of RGB inputs. "RGB IN 1" BNC connectors handle analogue RGB signals from computer, switcher, camera, or HDTV sources. "RGB IN 2" is a VESA standard 15-pin HD-D-sub connector for simple and direct connection to most PCs. The S-Video 4-pin connector permits separate luminance and chrominance inputs. Line input and output BNC connectors for composite video signals and a set of audio left and right inputs and outputs are provided.

Serial Remote Control

All the functions on the hand-held remote are available on the RS-232C port. This allows the projector to be easily controlled for setup or normal operation via a PC or other control packages. Simple switches set the projector's address so that multiple projectors can be controlled from a common point in applications such as command centres. If only several projectors need to be controlled in a simple system, "REMOTE 3" can be looped to each projector and the hand-held remote can be used as the controller.

Independent Adjustment Memories

Adjustment settings, such as convergence, white balance, raster size, linearity, position, colour temperature, sharpness, tint, colour bright, contrast, blanking, and clamp position,

Rear connection terminals



- 1 RGB IN 1 (BNC)
- 2 RGB IN 2 (15-pin HD-D-sub)
- 3 LINE IN/OUT (BNC)
- 4 S-VIDEO IN (4-pin mini-DIN)
- 5 AUDIO IN/OUT (RCA phono)
- 6 REMOTE IN 1 (3-pin D-sub)
- 7 REMOTE IN 2 (15-pin D-sub, RS-232C)
- 8 SIGNAL SELECTOR (15-pin D-sub)
- 9 REMOTE 3 IN/OUT (mini jack)



The PT-M1085E and PT-M1083E are ideal for a number of applications where large screen projection is required:

- Conference
- Education
- Television Production
- Corporate training



can be independently memorized for each input source. 16 memory presets for RGB, 2 presets (S-Video and video) for PAL/SECAM, and 2 presets (S-Video and NTSC/M-NTSC) are possible. Also each preset has sub-memory presets for three aspect ratios. This provides a total of 60 memory positions.

Data Copy

When setting up for a new signal format, you can start by copying the data for a similar signal and frequency that has already been memorized. This greatly reduces the time and effort required for adjustment.

Screen Saver

This mode minimizes CRT burn-in when still images must be shown for extended periods. It works by slowly shifting the image horizontally and vertically in a random pattern. Movement is in half-hour cycles, over a range of about 1 cm for a 100 inch diagonal image, so it is virtually unnoticeable.

Clamp Level Adjustment

For each input signal, the clamp position can be set and stored by remote control. This solves the problem of clamping error with a tri-sync G-sync input or when two RGB sources having different clamp positions are connected.

21-Zone Digital Convergence Adjustment

Convergence adjustment is quick and precise, with the 21-zone digital control. This separately adjusts test patterns in 21 zones, thereby assuring correct convergence all the way to the screen boundaries. Test patterns include cross hatch, cross hair, dot pattern, H pattern, all white, window, and pluge.

Ergonomically Designed, User-Friendly Wireless/Wired Remote Control

The supplied 43-key multi-function remote control covers all functions. Two modes can be selected based on the immediate need. The Normal mode provides simple source selection and picture control. The Technician mode provides complete controls for installation and convergence. Technician controls can be locked to prevent accidental



misadjustments. With the supplied cable, you can use the unit as a wired remote control. For multi-screen use, individual projector control using ID numbers is possible. The remote control is backlit for easy viewing in the dark.

Maintenance

Maintenance is simplified with several features. The top cover is hinged so it can be opened easily even when the projector is ceiling-mounted. This allows access to the lenses and focus controls. For different screen sizes spacers are included to alter the lens configuration. The system constantly monitors operating parameters. In the event of an error, an LED indicator on the main unit displays a 2-digit error code. For example, error code "01" indicates that an error has occurred in the horizontal deflection circuit. The error codes simplify troubleshooting to speed up maintenance and repair.



Top cover can be opened for easy maintenance.

Other Valuable Features

- "REMOTE IN 1" 9-pin D-sub connector for external control
- "REMOTE IN 2" 15-pin D-sub RS-232C connector for PC/Mac connection
- Selectable baud rate: 9600/4800/2400/1200
- "REMOTE 3 IN/OUT" mini-jacks for supplied remote control and multiple projector connection
- 15-pin D-sub connector for an external signal selector
- PAL/SECAM/NTSC/M-NTSC compatible
- Picture noise reduction (PNR) function
- On-screen display
- Sound mute
- Sound volume control
- Advanced Digital Scan Converter
- ET-100DS compatibility for NTSC format only (optionally available only in selected countries and areas)

System Connection Examples

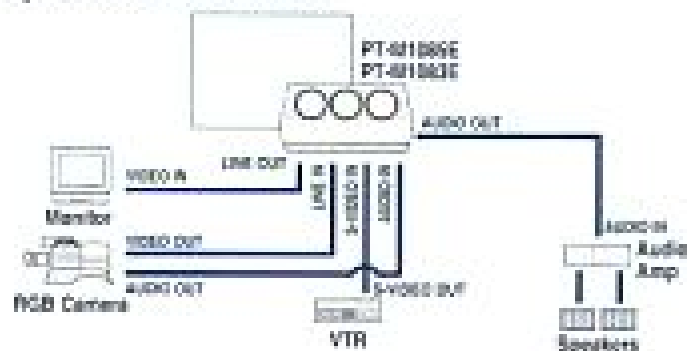
- Connecting to RGB IN 1 terminals



- Connecting to RGB IN 2 terminal



- Connecting to Line/S-video terminals



PT-M1085E/M1083E Specifications

Power Source:	220 - 240 V AC, 50/60 Hz
Power Consumption:	
M1085E:	420 W
M1083E:	380 W
Projection Tubes:	7" liquid-cooled, high-brightness, electrostatic focusing tubes
Lenses:	F 1.03 hybrid lenses, liquid-cooling, air coupling system Colour-lenses for R, G
Light Output:	850 lumens (at white peak)
Resolution:	
M1085E:	1600 x 1280
M1083E:	1500 x 1200
Screen Size:	60 - 300 inches diagonally
Signal Bandwidth (RGB):	
M1085E:	60 MHz
M1083E:	75 MHz
Horizontal Frequency:	
M1085E:	15 - 100 kHz
M1083E:	15 - 70 kHz
Vertical Frequency:	38 - 150 Hz
Retrace Time:	
Horizontal:	2.6 μ sec
Vertical:	550 μ sec
Number of Scan Memories:	60
Convergence:	Digital control, separate 21-zone adjustment
Internal Test Patterns:	7 Patterns, cross hatch, cross hair, dot pattern, H pattern, all white, window, and plug

Signal Terminals:	
RGB IN 1 Input Level:	
R, G, B:	0.7 Vp-p, 75 Ω
G. sync:	1.0 Vp-p, 75 Ω (in sync capable)
H/V:	0.3 - 5.0 V, high impedance
V:	0.3 - 5.0 V, high impedance (BNC connectors)
RGB IN 2 Input Level:	VGA-compliant (D-sub 15-pin connector)
Line In/Out:	1.0 Vp-p, 75 Ω or high impedance (BNC connectors)
S-Video In:	Y signal: 1.0 Vp-p, positive polarity (with negative sync signal), 75 Ω (Mini-DIN 4-pin connector)
Audio In/Out:	0.5 Vrms, 33 k Ω or higher (RCA type connectors)
Control Terminals:	
Remote In 1:	For external control (D-sub 9-pin)
Remote In 2:	RS-232C connector for personal computer (D-sub 15-pin)
Remote 3 In/Out:	For supplied remote control and serial operation (mini-jack)
Signal Selector:	For external signal selector (D-sub 15-pin)
ID Address:	8 (via supplied remote control) 15 (via PC)

Dimensions (W x H x D):	607 x 376 x 617 mm
Weight:	62 kg
Operating Ambient Temperature:	-5°C - 40°C (23°F - 104°F)
Operating Ambient Humidity:	20% - 80%
Supplied Accessories:	Hand-held wired/wireless remote control (wireless remote operating distance: 12 m) Remote control cable (length approx. 10 m) Batteries for remote control S-Video/BNC conversion adaptors Lens spacers for 70" and 200" (for front projection) Lens spacers for 70", 100" and 200" (for rear projection) Operating instructions Installation instructions
Optional Accessory:	Ceiling mounting bracket kit: ET-PK180
Safety Regulations:	EN 60950
EMC Regulations:	EN 50082-1 EN 55022 Class B EN 60555-2 EN 60555-3

Weight and dimensions shown are approximate. Specifications are subject to change without notice. Trademarks or registered trademarks are the property of their respective holders.

Standard setting-up examples

+ Ceiling mounting



- A: Distance from screen surface to hanging bolt hole
- B: Distance from attachment plate bottom to screen centre
- C: Distance from G lens surface to screen centre
- D: Height of effective screen area

Diagonal size	A	B	C	α°	D
60"	1.957	790	1.643	12.7	914
120"	3.555	1,199	3,484	13.0	1,829
200"	5.681	1,831	5,673	13.3	3,048
300"	8.342	2,343	8,409	13.3	4,572

Unit: mm

+ Floor mounting



- A: Distance from screen surface to front legs
- B: Distance from floor to screen centre
- C: Distance from G lens surface to screen centre
- D: Height of effective screen area

Diagonal size	A	B	C	α°	D
60"	2,040	827	1,643	12.7	914
120"	3,638	1,268	3,484	13.0	1,829
200"	5,764	1,588	5,673	13.3	3,048
300"	8,425	2,300	8,409	13.3	4,572

Unit: mm

+ Rear mounting

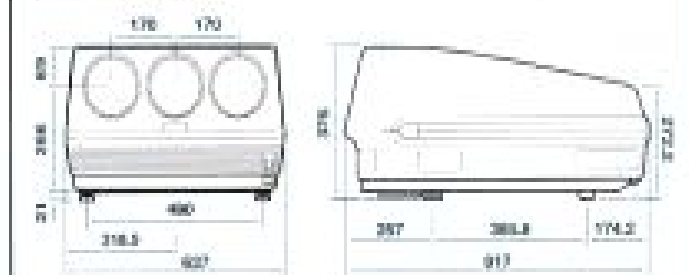


- A: Distance from G lens surface to screen centre
- B: Distance from screen surface to front legs
- C: Distance from front legs to screen centre
- D: Height of effective screen area

Diagonal size	A	B	C	D
60"	1,829	2,129	229	914
120"	3,463	3,760	229	1,829
200"	5,628	5,935	229	3,048
300"	8,386	8,653	229	4,572

Unit: mm

Dimensions



Unit: mm

NOTE: Sizes are for a 4:3 aspect ratio.