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Assunto: Documento comprovante PE 249/2024 - Diligência
Anexos: Declaração Fabricante Infocus SP226.pdf; ScreenPlay_Users_Manual_v1.0_Vista_Genesis_I_II-1-87_EN.pdf

Bom dia.

Anexamos os documentos do fabricante Maxnerva/ Screenplay Infocus, comprovando as características técnicas do projetor Infocus ScreenPlay SP226.

(<https://infocus.com/product/screenplay-genesis-ii/>).

Estamos à disposição para quaisquer esclarecimentos adicionais

Att

Eduardo

--

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27 de novembro de 2024

DECLARAÇÃO

FUNDAÇÃO UNIVERSIDADE REGIONAL DE BLUMENAU PROCESSO ADMINISTRATIVO Nº 249/2024

A InFocus Corp Latin America declara que a empresa CEK INFORMÁTICA LTDA, CNPJ 00.949.640/0001-42, localizada na Rua Pedro Hilgenstieler, 91, Centro, São Bento do Sul, Santa Catarina - CEP 89280-025, é nosso PARCEIRO/REVENDEDOR OFICIAL INFOCUS, estando apta a comercializar toda a nossa linha de produtos no Brasil.

Declaramos que a CEK INFORMÁTICA LTDA é nossa parceira autorizada a prestar garantia e assistência técnica no Brasil, tanto na modalidade balcão quanto on-site, pelo prazo de até 36 meses para o projetor e 90 dias para a lâmpada, de acordo com o Código de Defesa do Consumidor vigente no Brasil.

A garantia consiste na substituição de peças e reparos técnicos em conformidade com os manuais e normas técnicas especificadas pelo FABRICANTE. Caso necessário, o equipamento será substituído por um novo.

Os manuais, drivers, firmwares e todas as atualizações podem ser encontradas no site: <https://www.infocus.com>.

Além disso, declaramos:

- O projetor INFOCUS SCREENPLAY GENESIS II SERIES SP226 está de acordo com o padrão ANSI Lúmens;
- O projetor INFOCUS SCREENPLAY GENESIS II SERIES SP226 possui reprodução de 1,073 bilhão de cores;
- A vida útil da lâmpada do projetor INFOCUS SCREENPLAY GENESIS II SERIES SP226 é de mais de 5.000 horas em modo normal e mais de 10.000 horas em modo estendido.

Atenciosamente,

Maxnerva Technology Services US LLC
Latin America Regional Sales Manager

InFocus and the InFocus wordmark are registered trademarks of InFocus Corporation. used under license. InFocus branded projectors and interactive touch displays are brought to the market by Maxnerva Technology Services Limited a Foxconn affiliated company and its subsidiaries Maxnerva Technology Services US LLC, Maxnerva (Shenzhen) Technology Services Co., Limited, and Grand Field Technology Limited.

InFocus e a marca InFocus são marcas registradas da InFocus Corporation. usadas sob licença. Os projetores e displays interativos de toque da marca InFocus são trazidos ao mercado pela Maxnerva Technology Services Limited, uma empresa afiliada à Foxconn, e suas subsidiárias Maxnerva Technology Services US LLC, Maxnerva (Shenzhen) Technology Services Co., Limited e Grand Field Technology Limited

www.maxnerva.com

1001, 10/F, Houston Centre, 63 Mody Road, TST East, KLN, HK



USERS GUIDE SCREENPLAY VISTA, GENESIS I, GENESIS II SERIES



REGULATORY MODEL	SERIES NAME	LENS TYPE/RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P122	SCREENPLAY VISTA	STANDARD THROW	–	SP2234	SP2236	SP2238	–
P123	SCREENPLAY VISTA	SHORT THROW	–	SP2234ST	SP2236ST	SP2238ST	–
P124	SCREENPLAY GENESIS I	STANDARD THROW	SP122	SP124	SP126	–	–
P125	SCREENPLAY GENESIS II	STANDARD THROW	SP222	SP224	SP226	SP228	SP229
P126	SCREENPLAY GENESIS II	SHORT THROW	–	SP224ST	SP226ST	–	–



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1. ABOUT THIS GUIDE

1.1 DESCRIPTION OF THE USER

This document is intended for anyone who will install, setup, or use the projector.

1.2 CONVENTIONS USED IN THIS GUIDE

The following style conventions are used in this document:

Bold

- Names of product elements, commands, options, and programs.
- Names of interface elements (such windows, dialog boxes, buttons, fields, and menus).
- Interface elements the user selects, clicks, taps, or types.

Italic

- Publication titles.
- Emphasis (for example, a new term).

1.3 EXPLANATION OF SAFETY WARNINGS



WARNING

“WARNING” indicates a hazard with a medium to high level of risk which, could result in death or serious injury.



ATTENTION

“ATTENTION” indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.



INFORMATION

“INFORMATION” Indicates information considered important, but not hazard-related.

1.4 RETAINING INSTRUCTIONS

Keep all safety information and instructions for future reference and pass them on to subsequent users of the product.



WARNING

Ensure that each person who uses the product has read and understood this guide and its safety instructions before using this product. Failure to do so can result in serious injury or death.



ATTENTION

Follow all the instructions. This will avoid fire, explosions, electric shocks, or other hazards that may result in damage to property and/or severe or fatal injuries.



INFORMATION

The manufacturer is not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with the safety instructions. In such cases, the warranty will be voided.

1.5 OBTAINING DOCUMENTATION AND INFORMATION

The latest version of this document can be obtained by visiting:

- <https://www.screenplay.net/projectors/vista>
- <https://www.screenplay.net/projectors/genesis I>
- <https://www.screenplay.net/projectors/genesis II>

1.6 DOCUMENTATION FEEDBACK

If you are reading product documentation on the internet, any comments can be submitted [Here](#). We appreciate your comments.

1.7 SUPPORT AND SERVICE

Please contact the support team in your region for technical and product support. Alternatively, you may contact your local distributor if you are in Asia or Australia.

Americas

Monday – Friday

6am – 5pm PST



+1 877-388-8360



support@screenplay.net



screenplay.net/support

Europe, Middle East & Africa

Monday – Friday

8am – 5pm CET



eusupport@screenplay.net



screenplay.net/support

Asia Pacific

Monday – Friday

8am – 5pm ICT



apsupport@screenplay.net



screenplay.net/support

2. PRODUCT DESCRIPTION



2.1 FEATURES

	GENESIS I			GENESIS II						VISTA						
	P124			P125				P126		P122			P123			
	SP122	SP124	SP126	SP222	SP224	SP226	SP228	SP229	SP234ST	SP236ST	SP2234	SP2236	SP2238	SP22345T	SP22365T	SP22385T
Nine Picture Modes including DICOM Simulation, User Definable and ISF Night & Day	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Seven Wall Colour Modes	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Brightness, Sharpness, Contrast, Colour, Tint, Gamma Adjustment Settings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
10 Step BrilliantColor Implementation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Individual Hue, Saturation and Gain Adjustments for RGB, C, M, Y,W	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RGB Gain/Bias Adjustments	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Five Colour Space Adjustment Settings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
White and Black Level Adjustments	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
IRE and Signal Settings and Adjustments	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Aspect Ratio Format Settings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4:3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
16:9	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
16:10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Letter Box	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Native	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Auto	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Digital Edge Masking	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Digital Image Shift - Horizontal & Vertical	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Digital Zoom	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Vertical Keystone Adjustment	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3D Activation, DLP -Link Settings & Formats	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3D Sync Invert	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2D to 3D Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Enhanced Low Latency Gaming Mode	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Picture Mode Lock	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
27 Selectable OSD Languages	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Projection Modes - Front, Rear, Front Ceiling, Rear Ceiling OSD Menu Positioning	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Screen Type - Aspect Ratio Locking 16:10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Screen Type - Aspect Ratio Locking 16:9	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Security On/Off Se tting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

	GENESIS I			GENESIS II						VISTA						
	P124			P125				P126		P122			P123			
	SP122	SP124	SP126	SP222	SP224	SP226	SP228	SP229	SP234ST	SP236ST	SP2234	SP2236	SP2238	SP2234ST	SP2236ST	SP2238ST
Security Timer	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Security Password Selector	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Assignable Project ID Number	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Audio Input and Volume Settings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
HDMI Link Activation and Settings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Startup Logo Removal and Background Colour Selector Projector Information Messaging Override	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Input Source Lock Auto Source Setting High Altitude Setting Keypad Lock Setting Built in Test Patterns IR Faction Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15 user presets with single key activation Direct Power On Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Signal Power On Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Auto Power Off Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sleep Timer Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Quick Resume Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
VGA Out Standby Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
USB-A Power Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Lamp Usage Reminder Setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Lamp Brightness Mode	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Projector Information Table	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
24/7 Operation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Waveform Lamp Colour Enhancement AV Mute	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AV Mute	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Crestron Connect Certified	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

2.2 INTENDED USE AND REASONABLY FORESEEABLE MISUSE

The product may only be used in accordance with the instructions described in this guide. Any use other than those described in this guide is considered non-intended use and will void the warranty.

The ambient operating environment should be free of airborne smoke, grease, oil, and other contaminants that can affect the operation or performance of the projector.



WARNING

Do not use the product near water or moisture. Do not expose the product to rain, steam or condensation to reduce the risk of fire or electric shock.

2.3 PRODUCT ELEMENTS

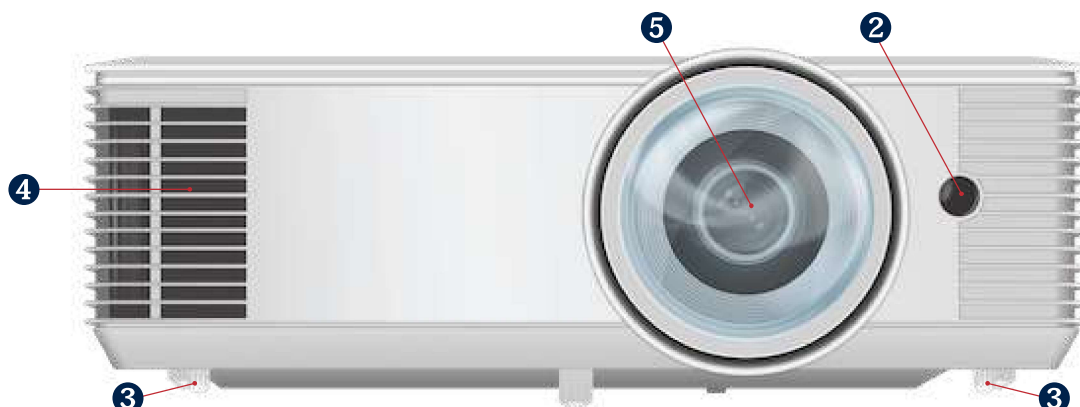
2.3 FRONT

a)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P122	SCREENPLAY VISTA	STANDARD THROW	–	SP2234	SP2236	SP2238	–
P124	SCREENPLAY GENESIS I	STANDARD THROW	SP122	SP124	SP126	–	–
P125	SCREENPLAY GENESIS II	STANDARD THROW	SP222	SP224	SP226	SP228	SP229

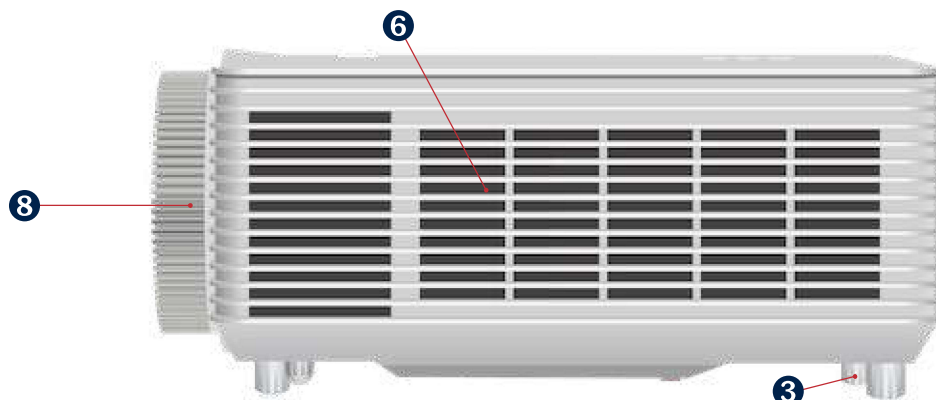
b)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P123	SCREENPLAY VISTA	SHORT THROW	–	SP2234ST	SP2236ST	SP2238ST	–
P126	SCREENPLAY GENESIS II	SHORT THROW	–	SP224ST	SP226ST	–	–

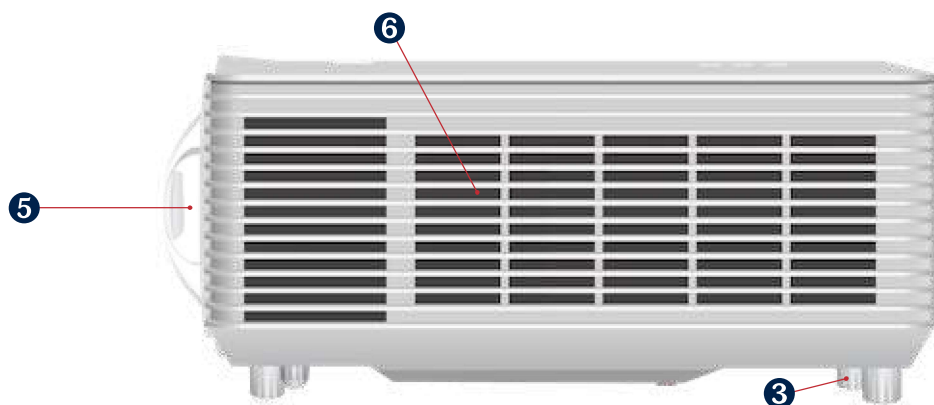
2.3.2 RIGHT SIDE

a)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P122	SCREENPLAY VISTA	STANDARD THROW	–	SP2234	SP2236	SP2238	
P124	SCREENPLAY GENESIS I	STANDARD THROW	SP122	SP124	SP126	–	–
P125	SCREENPLAY GENESIS II	STANDARD THROW	SP222	SP224	SP226	SP228	SP229

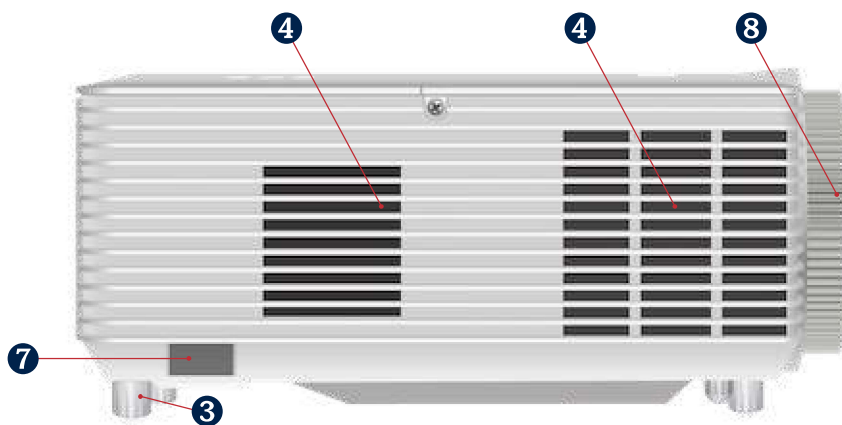
b)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P123	SCREENPLAY VISTA	SHORT THROW	–	SP2234ST	SP2236ST	SP2238ST	–
P126	SCREENPLAY GENESIS II	SHORT THROW	–	SP224ST	SP226ST	–	–

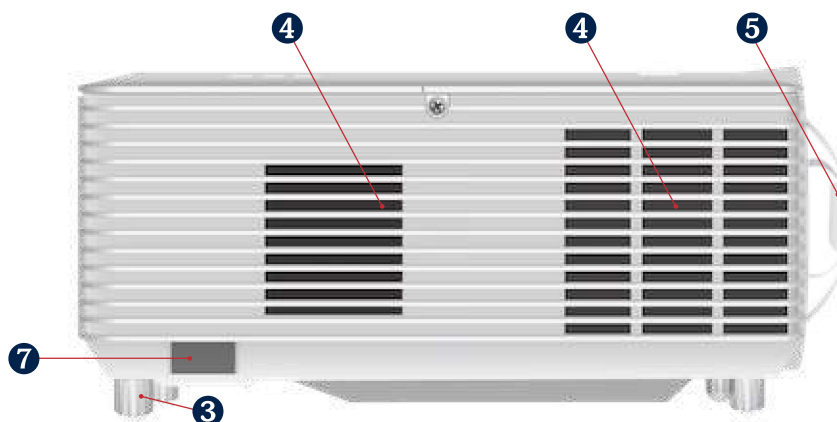
2.3. LEFT SIDE

a)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P122	SCREENPLAY VISTA	STANDARD THROW	–	SP2234	SP2236	SP2238	
P124	SCREENPLAY GENESIS I	STANDARD THROW	SP122	SP124	SP126	–	–
P125	SCREENPLAY GENESIS II	STANDARD THROW	SP222	SP224	SP226	SP228	SP229

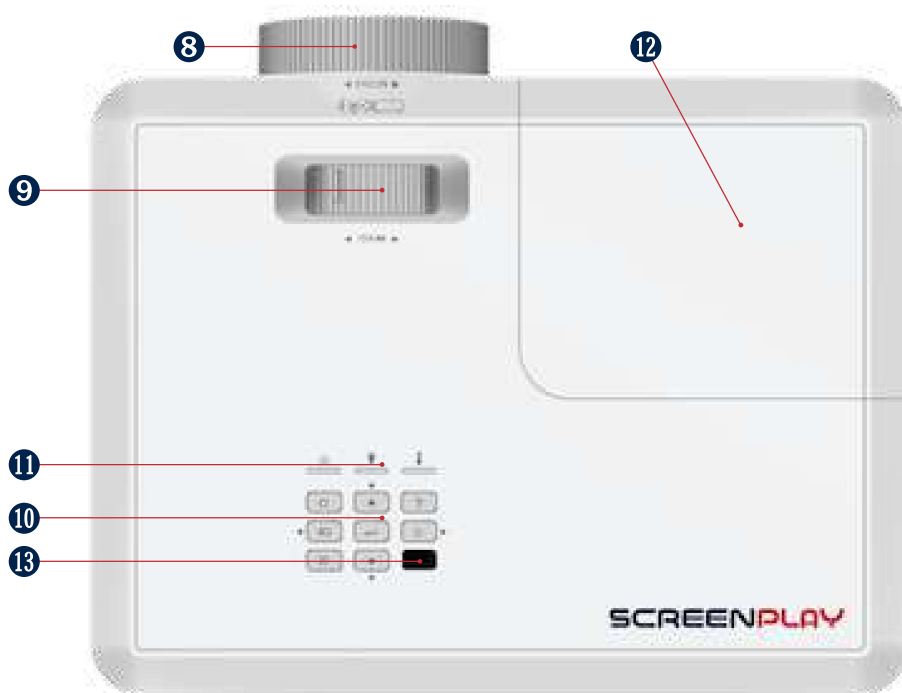
b)



REGULATORY MODEL	SERIES NAME	LENS TYPE/RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P123	SCREENPLAY VISTA	SHORT THROW	–	SP2234ST	SP2236ST	SP2238ST	–
P126	SCREENPLAY GENESIS II	SHORT THROW	–	SP224ST	SP226ST	–	–

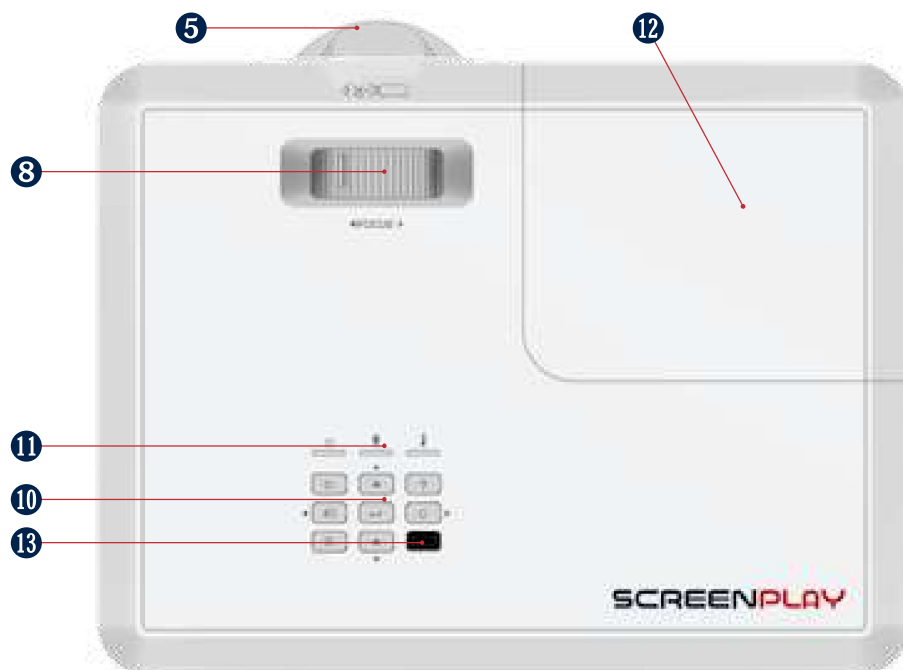
2.3 TOP

a)



REGULATORY MODEL	SERIES NAME	LENS TYPE/RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P122	SCREENPLAY VISTA	STANDARD THROW	–	SP2234	SP2236	SP2238	
P124	SCREENPLAY GENESIS I	STANDARD THROW	SP122	SP124	SP126	–	–
P125	SCREENPLAY GENESIS II	STANDARD THROW	SP222	SP224	SP226	SP228	SP229

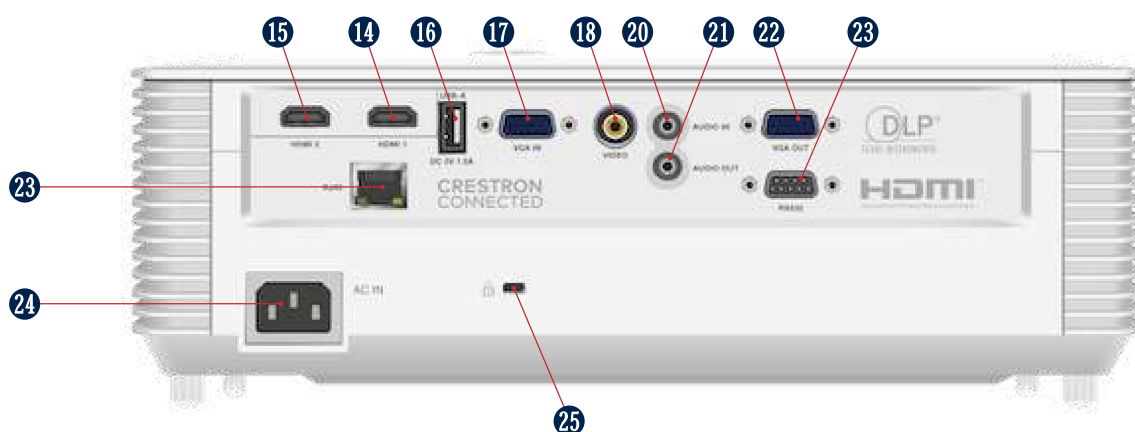
b)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P123	SCREENPLAY VISTA	SHORT THROW	—	SP2234ST	SP2236ST	SP2238ST	—
P126	SCREENPLAY GENESIS II	SHORT THROW	—	SP224ST	SP226ST	—	—

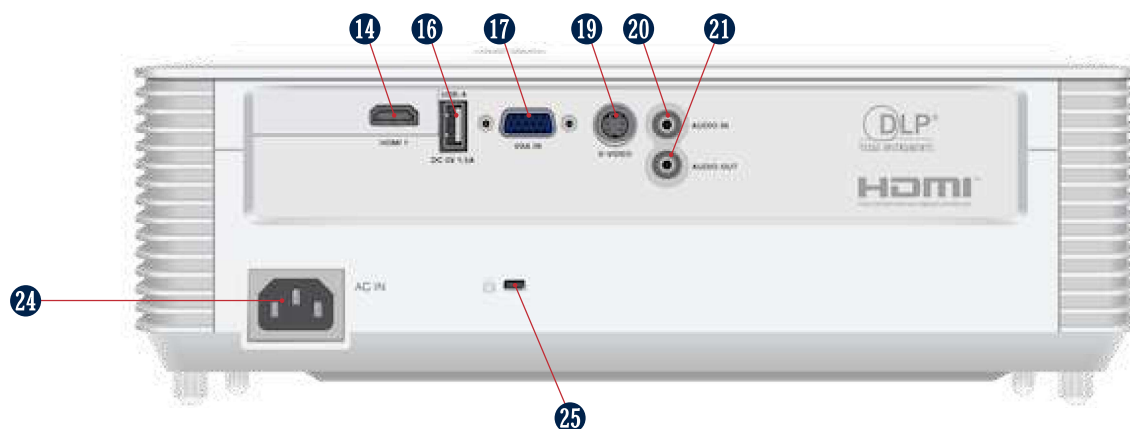
2.3.5 BACK

a)



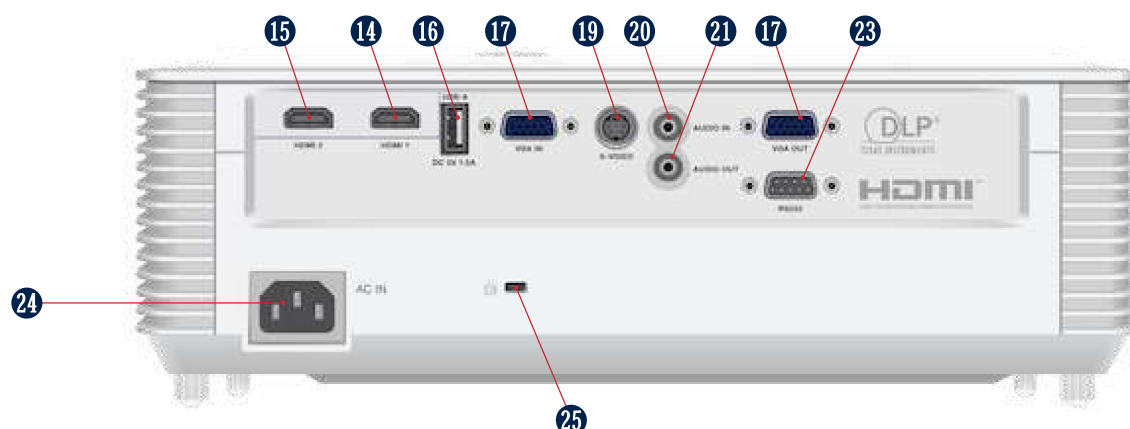
REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P122	SCREENPLAY VISTA	STANDARD THROW	—	SP2234	SP2236	SP2238	—
P123	SCREENPLAY VISTA	SHORT THROW	—	SP2234ST	SP2236ST	SP2238ST	—

b)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P124	SCREENPLAY GENESIS I	STANDARD THROW	SP122	SP124	SP126		

c)



REGULATORY MODEL	SERIES NAME	LENS TYPE / RESOLUTION	SVGA	XGA	WXGA	1080P	WUXGA
P125	SCREENPLAY GENESIS II	STANDARD THROW	SP222	SP224	SP226	SP228	SP229
P126	SCREENPLAY GENESIS II	SHORT THROW	—	SP224ST	SP226ST	—	—

REFERENCE	DESCRIPTION	REFERENCE	DESCRIPTION
1	Standard throw zoom lens	14	HDMI 1, 1.4 Input
2	Remote control IR receiver 1	15	HDMI 2, 1.4 Input
3	Adjustable feet	16	USB A for service and wireless dongle power 5v/1.5A
4	Air exhaust grill	17	VGA Input
5	Short throw fixed lens	18	Composite Input
6	Air Intake grill	19	S-VIDEO Input
7	Cable and Lock slot	20	3.5mm Audio Input

REFERENCE	DESCRIPTION	REFERENCE	DESCRIPTION
8	Focus adjustment ring	21	3.5mm Audio Output
9	Zoom adjustment ring	22	VGA Output
10	Keypad	23	RS232 Control
11	LED function lights	23	RJ45 Networking and Control
12	Lamp door	24	Power Cord AC IN
13	Remote control IR receiver 2	25	Kensington Lock Slot

3. SAFETY

3.1 HOW TO USE THE PRODUCT SAFELY



WARNING

Read and understand this guide and its safety instructions before using this product. Failure to do so can result in serious injury.

3.1.1 VULNERABLE PEOPLE SAFETY INFORMATION

This device is not intended for use by persons (including children) with restricted physical, sensory or intellectual capability or lack of experience and/or knowledge.

The projector complies with the safety standards for electromagnetic devices. Contact your physician prior to use if you have a pacemaker or other implanted device.

3.1.2 TECHNICAL LIFE SPAN

The technical lifespan of the projector is five years or 20,000 hours of use in normal mode and 30,000 hours of use in ECO mode under normal operating conditions (whichever comes first).

3.1.3 INTENDED USE SAFETY INFORMATION

Use the projector only for its intended use as described in this user guide.
Do not expose the projector to temperatures above 104 F / 40 C or below 32 F / 0 C.

3.1.4 INSTALLATION SAFETY INFORMATION

Check the projector for damage before installation. If there is any visible damage, do not connect the projector and contact ScreenPlay.

Do not install the projector:

- Near heat sources such as radiators, heat registers, stoves, or other devices that produce heat
- Near water or in direct sunlight
- In an enclosure such as a book case or a cabinet that restricts air flow

3.1.5 ELECTRICAL SAFETY INFORMATION

Check for damage before connecting the power cable.

Only connect the projector to a grounded socket with earth leakage protection using the provided power cable.

Immediately unplug the projector from the wall outlet:

- If it has been damaged
- If water or another substance enters the projector
- If you smell smoke or other odours coming from the projector
- During lightning storms
- When unused for long periods of time

3.1.6 SAFETY INFORMATION



WARNING

**Do not look straight at the projector lens during operation.
The intense light beam may damage your eyes.**

3.1.7 MAINTENANCE SAFETY INFORMATION

Review the instructions in the CLEANING section before cleaning the projector.

Disconnect the power supply before cleaning the projector. Do not use abrasive cleaning cloths or chemicals.

3.1.8 SERVICE AND REPAIR SAFETY INFORMATION

The projector contains no user serviceable parts. Contact ScreenPlay for service or repair.

3.2 SAFE DISPOSAL

Follow the instructions in the DISPOSAL section in this user guide for safe disposal of the projector.

3.3 GRAPHICAL SYMBOLS

The following table describes the safety and regulatory symbols and marks on the packaging and product.

SYMBOL	MEANING
	The CCC mark on the product is the manufacturer's declaration that the product complies with the essential requirements for the relevant safety legislation of China.
	The CE mark on the product is the manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety, and environmental protection legislation.
	The cTUVus seal on a product is a seal of quality that confirms that the product has been tested by the German T V testing organization for use in the US and Canada.

SYMBOL	MEANING
	The EAC mark on the product is the manufacturer's declaration that the product complies with the essential requirements of the relevant safety legislation of the Eurasian Economic Union (EAEU).
	The FCC mark on the product is the manufacturer's declaration that the product's electromagnetic radiation is below the limits specified by the Federal Communication Commission (FCC).
	The NOM mark on the product is the manufacturer's declaration that the product complies with the essential requirements of the relevant Mexican safety legislation.
	The RoHS mark on the product is the manufacturer's declaration that the product complies with the essential requirements of the relevant European Union safety legislation.
	The Waste Electrical and Electronic Equipment (WEEE) symbol on the product, the accessories, or packaging indicates that this device shall not be treated as unsorted municipal waste, but shall be collected separately.
	The certification scheme of the Bureau of Indian Standards (BIS) is mandatory for specific electronic products in India. The BIS mark on the product is the manufacturer's declaration that the product complies with the essential requirements of the relevant India safety legislation.

4. UNPACKING AND INSTALLING

4.1 PACKAGING CONTENTS

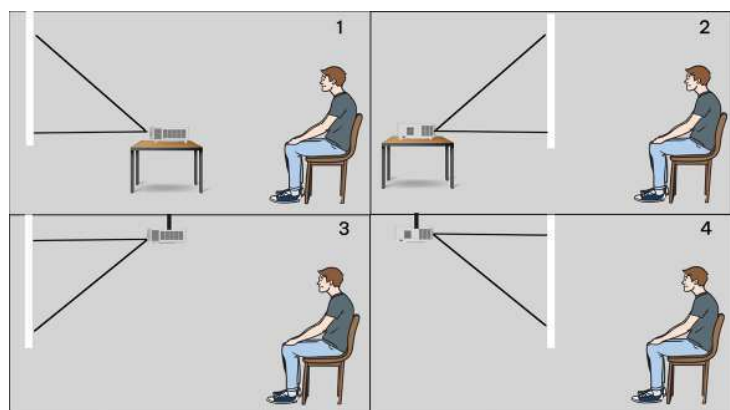
The projector packaging will contain:

- Projector
- Power cable
- VGA cable
- Remote control (batteries not included)
- Simplified users guide

4.2 INSTALLATION INSTRUCTIONS

Your projector is designed to be installed in one of four possible positions. Your room layout or personal preference will dictate which installation location you select. Take into consideration the size and position of your screen, the location of a suitable power outlet, as well as the location and distance between the projector and the rest of your equipment.

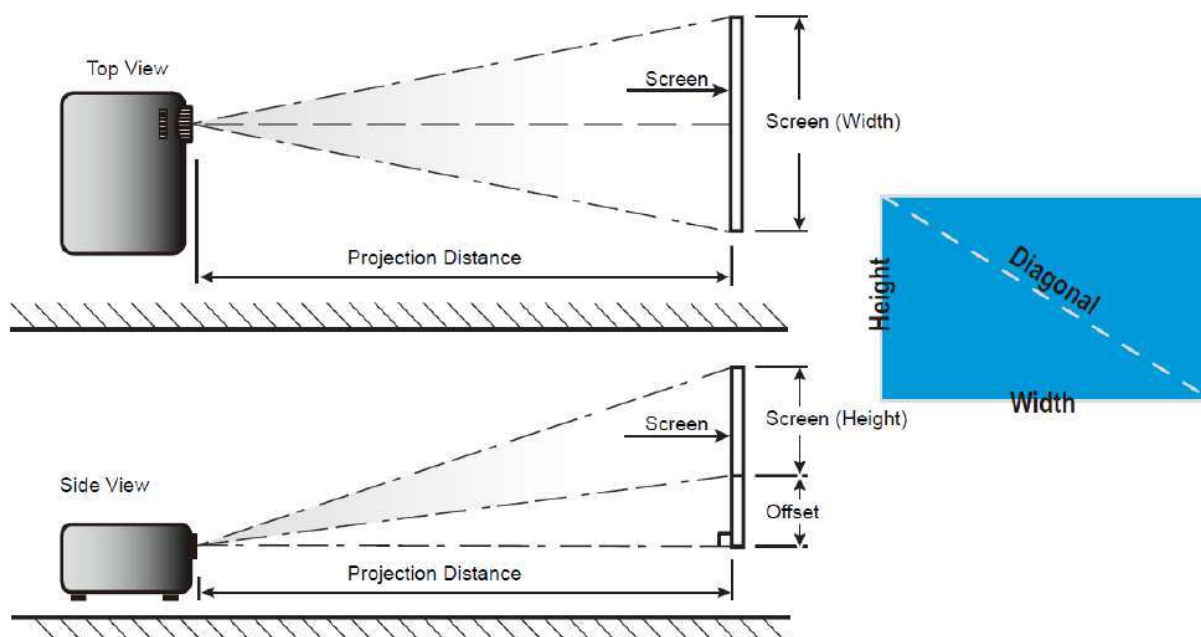
1. Table mounted front projection
2. Table mounted rear projection
3. Ceiling mounted front projection
4. Ceiling mounted rear projection



4.3 PLACEMENT AND DISTANCE FROM THE SCREEN

The projected image size will increase based on the projector's distance from the screen or projection surface. You can use the following tables to determine the best location for the projector and screen.

4.3 PROJECTION DISTANCE AND SCREEN SIZE



SP2234_RT_XGA 1.3× ZOOM

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Height	Width	Height	Wide	Tele	Wide	Tele		
30	0,61	0,46	24,02	18,11	0,9	1,2	35,43	47,24	7	2,8
40	0,81	0,61	31,89	24,02	1,2	1,6	47,24	62,99	9	3,5
50	1,02	0,76	40,16	29,92	1,5	2,0	59,06	78,74	12	4,7
60	1,22	0,91	48,03	35,83	1,8	2,4	70,87	94,49	14	5,5
70	1,42	1,07	55,91	42,13	2,1	2,7	82,68	106,30	16	6,3
80	1,63	1,22	64,17	48,03	2,4	3,1	94,49	122,05	18	7,1
90	1,83	1,37	72,05	53,94	2,7	3,5	106,30	137,80	21	8,3
100	2,03	1,52	79,92	59,84	3,0	3,9	118,11	153,54	23	9,1
120	2,44	1,83	96,06	72,05	3,6	4,7	141,73	185,04	27	10,6
150	3,05	2,29	120,08	90,16	4,5	5,9	177,17	232,28	34	13,4
200	4,06	3,05	159,84	120,08	6,0	7,8	236,22	307,09	46	18,1
250	5,08	3,81	200,00	150,00	7,5	9,8	295,28	385,83	57	22,4
300	6,1	4,57	240,16	179,92	9,0	==	354,33	==	69	27,2

SP2236_RT_WXGA 1.3x ZOOM

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Wide	Tele	Wide	Tele		
30	0.65	0.4	25.59	15.75	0.8	1.0	31.5	39.4	5	1.
40	0.86	0.54	33.86	21.26	1.0	1.3	39.4	51.2	7	2.
50	1.08	0.67	42.52	26.38	1.3	1.7	51.2	66.9	9	3.
60	1.29	0.81	50.79	31.89	1.5	2.0	59.1	78.7	10	3.94
70	1.51	0.94	59.45	37.01	1.8	2.3	70.9	90.6	12	4.72
80	1.72	1.08	67.72	42.52	2.0	2.7	78.7	106.3	13	5.12
90	1.94	1.21	76.38	47.64	2.3	3.0	90.6	118.1	15	5.91
100	2.15	1.35	84.65	53.15	2.6	3.3	102.4	129.9	16	6.30
120	2.58	1.62	101.57	63.78	3.1	4.0	122.0	157.5	20	7.87
150	3.23	2.02	127.17	79.53	3.8	5.0	149.6	196.9	25	9.84
200	4.31	2.69	169.69	105.91	5.1	6.7	200.8	263.8	34	13.39
250	5.38	3.37	211.81	132.68	6.4	8.3	252.0	326.8	41	16.14
300	6.46	4.04	254.33	159.06	7.7	==	303.1	==	52	20.47

SP2238_RT_1080p 1.3x ZOOM

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Wide	Tele	Wide	Tele		
30	0,66	0,37	25,98	14,57	0,8	1	31,50	39,37	6	2,36
40	0,89	0,50	35,04	19,69	1	1,3	39,37	51,18	8	3,1
50	1,11	0,62	43,70	24,41	1,3	1,6	51,18	62,99	10	3,94
60	1,33	0,75	52,36	29,53	1,5	2	59,06	78,74	12	4,7
70	1,55	0,87	61,02	34,25	1,8	2,3	70,87	90,55	14	5,51
80	1,77	1,00	69,69	39,37	2	2,6	78,74	102,36	16	6,30
90	1,99	1,12	78,35	44,09	2,3	2,9	90,55	114,17	18	7,09
100	2,21	1,25	87,01	49,21	2,5	3,3	98,43	129,92	19	7,48
120	2,66	1,49	104,72	58,66	3	3,9	118,11	153,54	24	9,45
150	3,32	1,87	130,71	73,62	3,8	4,9	149,61	192,91	30	11,81
200	4,43	2,49	174,41	98,03	5	6,5	196,85	255,91	40	15,75
250	5,53	3,11	217,72	122,44	6,3	8,1	248,03	318,90	50	19,69
300	6,64	3,74	261,42	147,24	7,5	==	295,28	==	59	23,23

SP2234ST_ST_XGA 1:1* ZOOM

Diagonal Screen	Screen size				Projection distance		Offset	
	(m)		(inch)		(m)	(inch)	(cm)	(inch)
	Width	Hight	Width	Hight	Fix	Fix		
40	0,81	0,61	32,01	24,02	0,5	19,69	9	3,54
50	1,02	0,76	40,00	30,00	0,63	24,80	11,8	4,65
60	1,22	0,91	47,99	35,98	0,75	29,53	13,6	5,35
70	1,42	1,07	55,98	42,01	0,88	34,65	16,3	6,42
80	1,63	1,22	64,02	47,99	1	39,37	18,1	7,13
90	1,83	1,37	72,01	54,02	1,13	44,49	20,8	8,19
100	2,03	1,52	80,00	60,00	1,25	49,21	22,6	8,90
120	2,44	1,83	95,98	72,01	1,5	59,06	27,1	10,67
150	3,05	2,29	120,00	90,00	1,88	74,02	34,4	13,54
180	3,66	2,74	144,02	107,99	2,26	88,98	40,7	16,02
250	5,08	3,81	200,00	150,00	3,13	123,23	57	22,44
303	6,16	4,62	242,40	181,81	3,8	149,61	69,2	27,24

SP2236SST_ST_WXGA 1:1* ZOOM

Diagonal Screen	Screen size				Projection distance		Offset	
	(m)		(inch)		(m)	(inch)	(cm)	(inch)
	Width	Hight	Width	Hight	Fix	Fix		
40	0,86	0,54	33,92	21,20	0,45	17,72	7,15	2,81
50	1,08	0,67	42,40	26,50	0,56	22,05	8,69	3,42
60	1,29	0,81	50,88	31,80	0,67	26,38	10,23	4,03
70	1,51	0,94	59,36	37,10	0,79	31,10	11,77	4,63
80	1,72	1,08	67,84	42,40	0,9	35,43	13,3	5,24
90	1,94	1,21	76,32	47,70	1,01	39,76	14,84	5,84
100	2,15	1,35	84,80	53,00	1,12	44,09	16,38	6,45
120	2,58	1,62	101,76	63,60	1,35	53,15	20,46	8,06
150	3,23	2,02	127,20	79,50	1,68	66,14	25,07	9,87
180	3,88	2,42	152,64	95,40	2,02	79,53	29,68	11,69
250	5,38	3,37	212,00	132,50	2,81	110,63	41,45	16,32
302,9	6,52	4,08	256,86	160,54	3,4	133,86	50,24	19,78

SP2238ST_ST_1080p1:1* ZOOM

Diagonal Screen	Screen size				Projection distance		Offset	
	(m)		(inch)		(m)	(inch)	(cm)	(inch)
	Width	Hight	Width	Hight	Fix	Fix		
40	0,89	0,50	34,86	19,61	0,44	17,32	8,19	3,22
50	1,11	0,62	43,58	24,51	0,55	21,65	9,74	3,83
60	1,33	0,75	52,30	29,42	0,66	25,98	12,28	4,83
70	1,55	0,87	61,01	34,32	0,77	30,31	13,83	5,44
80	1,77	1,00	69,72	39,22	0,88	34,65	16,38	6,45
90	1,99	1,12	78,44	44,12	0,99	38,98	17,93	7,06
100	2,21	1,25	87,16	49,03	1,10	43,31	19,47	7,67
120	2,66	1,49	104,59	58,83	1,32	51,97	23,57	9,28
150	3,32	1,87	130,74	73,54	1,65	64,96	30,21	11,89
180	3,98	2,24	156,88	88,25	1,98	77,95	35,85	14,11
250	5,53	3,11	217,89	122,57	2,75	108,27	49,68	19,56
302,9	6,71	3,77	264,00	148,50	3,33	131,10	60,81	23,94

SP122, SP124, SP222, SP224_RT_SVGA & XGA_1.1* ZOOM

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Wide	Tele	Wide	Tele		
30	0.61	0.46	24.00	18.00	1.18	1.32	46.56	51.84	6.86	2.70
40	0.81	0.61	32.00	24.00	1.58	1.76	62.08	69.12	9.14	3.60
50	1.02	0.76	40.00	30.00	1.97	2.19	77.60	86.40	11.43	4.50
60	1.22	0.91	48.00	36.00	2.37	2.63	93.12	103.68	13.72	5.40
70	1.42	1.07	56.00	42.00	2.76	3.07	108.64	120.96	16.00	6.30
80	1.63	1.22	64.00	48.00	3.15	3.51	124.16	138.24	18.29	7.20
90	1.83	1.37	72.00	54.00	3.55	3.95	139.68	155.52	20.57	8.10
100	2.03	1.52	80.00	60.00	3.94	4.39	155.20	172.80	22.86	9.00
120	2.44	1.83	96.00	72.00	4.73	5.27	186.24	207.36	27.43	10.80
150	3.05	2.29	120.00	90.00	5.91	6.58	232.80	259.20	34.29	13.50
200	4.06	3.05	160.00	120.00	7.88	8.78	310.40	345.60	45.72	18.00
250	5.08	3.81	200.00	150.00	9.86	10.97	388.00	432.00	57.15	22.50
300	6.10	4.57	240.00	180.00	11.83	13.17	465.60	518.40	68.58	27.00

SP126, SP226_RT_WXGA_1.1* ZOOM

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Wide	Tele	Wide	Tele		
30	0.65	0.40	25.44	15.90	1.00	1.11	39.18	43.76	5.01	1.97
40	0.86	0.54	33.92	21.20	1.33	1.48	52.24	58.34	6.68	2.63
50	1.08	0.67	42.40	26.50	1.66	1.85	65.30	72.93	8.35	3.29
60	1.29	0.81	50.88	31.80	1.99	2.22	78.36	87.51	10.02	3.94
70	1.51	0.94	59.36	37.10	2.32	2.59	91.41	102.10	11.68	4.60
80	1.72	1.08	67.84	42.40	2.65	2.96	104.47	116.68	13.35	5.26
90	1.94	1.21	76.32	47.70	2.99	3.33	117.53	131.27	15.02	5.91
100	2.15	1.35	84.80	53.00	3.32	3.70	130.59	145.86	16.69	6.57
120	2.58	1.62	101.76	63.60	3.98	4.45	156.71	175.03	20.03	7.89
150	3.23	2.02	127.20	79.50	4.98	5.56	195.89	218.78	25.04	9.86
200	4.31	2.69	169.60	106.00	6.63	7.41	261.18	291.71	33.39	13.14
250	5.38	3.37	212.00	132.50	8.29	9.26	326.48	364.64	41.73	16.43
300	6.46	4.04	254.40	159.00	9.95	11.11	391.78	437.57	50.08	19.72

SP228_RT_1080p_1.1* ZOOM

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Wide	Tele	Wide	Tele		
30	0.66	0.37	26.15	14.71	0.98	1.08	38.44	42.36	5.98	2.35
40	0.89	0.50	34.86	19.61	1.30	1.43	51.25	56.48	7.97	3.14
50	1.11	0.62	43.58	24.51	1.63	1.79	64.06	70.60	9.96	3.92
60	1.33	0.75	52.29	29.42	1.95	2.15	76.87	84.72	11.95	4.71
70	1.55	0.87	61.01	34.32	2.28	2.51	89.69	98.84	13.95	5.49
80	1.77	1.00	69.73	39.22	2.60	2.87	102.50	112.96	15.94	6.28
90	1.99	1.12	78.44	44.12	2.93	3.23	115.31	127.08	17.93	7.06
100	2.21	1.25	87.16	49.03	3.25	3.59	128.12	141.20	19.92	7.84
120	2.66	1.49	104.59	58.83	3.91	4.30	153.75	169.43	23.91	9.41
150	3.32	1.87	130.74	73.54	4.88	5.38	192.18	211.79	29.89	11.77
200	4.43	2.49	174.32	98.05	6.51	7.17	256.24	282.39	39.85	15.69
250	5.53	3.11	217.89	122.57	8.14	8.97	320.30	352.99	49.81	19.61
300	6.64	3.74	261.47	147.08	9.76	10.76	384.36	423.59	59.77	23.53

SP229_RT_WUXGA_1,1× ZOOM

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Wide	Tele	Wide	Tele		
30	0.65	0.40	25.44	15.90	0.95	1.05	37.40	41.21	4.04	1.59
40	0.86	0.54	33.92	21.20	1.27	1.40	49.86	54.95	5.38	2.12
50	1.08	0.67	42.40	26.50	1.58	1.74	62.33	68.69	6.73	2.65
60	1.29	0.81	50.88	31.80	1.90	2.09	74.79	82.43	8.08	3.18
70	1.51	0.94	59.36	37.10	2.22	2.44	87.26	96.16	9.42	3.71
80	1.72	1.08	67.84	42.40	2.53	2.79	99.72	109.90	10.77	4.24
90	1.94	1.21	76.32	47.70	2.85	3.14	112.19	123.64	12.12	4.77
100	2.15	1.35	84.80	53.00	3.17	3.49	124.66	137.38	13.46	5.30
120	2.58	1.62	101.76	63.60	3.80	4.19	149.59	164.85	16.15	6.36
150	3.23	2.02	127.20	79.50	4.75	5.23	186.98	206.06	20.19	7.95
200	4.31	2.69	169.60	106.00	6.33	6.98	249.31	274.75	26.92	10.60
250	5.38	3.37	212.00	132.50	7.92	8.72	311.64	343.44	33.65	13.25
300	6.46	4.04	254.40	159.00	9.50	10.47	373.97	412.13	40.39	15.90

SP224ST_ST_XGA_Fixed Lens

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Fixed		Fixed			
30	0.61	0.46	24.00	18.00	0.32		12.48		5.67	2.23
40	0.81	0.61	32.00	24.00	0.42		16.64		7.56	2.98
50	1.02	0.76	40.00	30.00	0.53		20.80		9.45	3.72
60	1.22	0.91	48.00	36.00	0.63		24.96		11.34	4.46
70	1.42	1.07	56.00	42.00	0.74		29.12		13.23	5.21
80	1.63	1.22	64.00	48.00	0.85		33.28		15.12	5.95
90	1.83	1.37	72.00	54.00	0.95		37.44		17.01	6.70
100	2.03	1.52	80.00	60.00	1.06		41.60		18.90	7.44
120	2.44	1.83	96.00	72.00	1.27		49.92		22.68	8.93
150	3.05	2.29	120.00	90.00	1.58		62.40		28.35	11.16
200	4.06	3.05	160.00	120.00	2.11		83.20		37.80	14.88
250	5.08	3.81	200.00	150.00	2.64		104.00		47.24	18.60
300	6.10	4.57	240.00	180.00	3.17		124.80		56.69	22.32

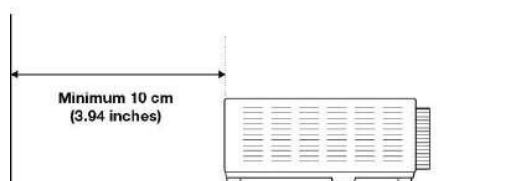
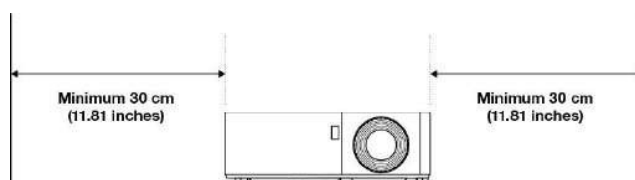
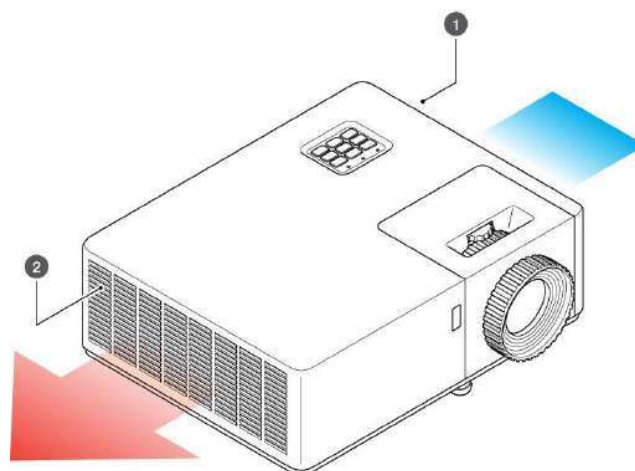
SP226ST_ST_WXGA_Fixed Lens

Diagonal Screen	Screen size				Projection distance				Offset	
	(m)		(inch)		(m)		(inch)		(cm)	(inch)
	Width	Hight	Width	Hight	Fixed		Fixed			
30	0.65	0.40	25.44	15.90	0.34		13.23		5.01	1.97
40	0.86	0.54	33.92	21.20	0.45		17.64		6.68	2.63
50	1.08	0.67	42.40	26.50	0.56		22.05		8.35	3.29
60	1.29	0.81	50.88	31.80	0.67		26.46		10.02	3.94
70	1.51	0.94	59.36	37.10	0.78		30.87		11.68	4.60
80	1.72	1.08	67.84	42.40	0.90		35.28		13.35	5.26
90	1.94	1.21	76.32	47.70	1.01		39.69		15.02	5.91
100	2.15	1.35	84.80	53.00	1.12		44.10		16.69	6.57
120	2.58	1.62	101.76	63.60	1.34		52.92		20.03	7.89
150	3.23	2.02	127.20	79.50	1.68		66.14		25.04	9.86
200	4.31	2.69	169.60	106.00	2.24		88.19		33.39	13.14
250	5.38	3.37	212.00	132.50	2.80		110.24		41.73	16.43
300	6.46	4.04	254.40	159.00	3.36		132.29		50.08	19.72

4.4 CLEARANCE

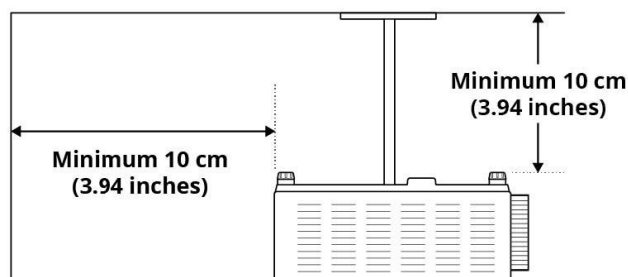
Allow at least 30cm clearance around the intake and exhaust vent and ensure that the intake vents do not recycle hot air from the exhaust vent.

- ① Air intake vent
- ② Air outtake vent



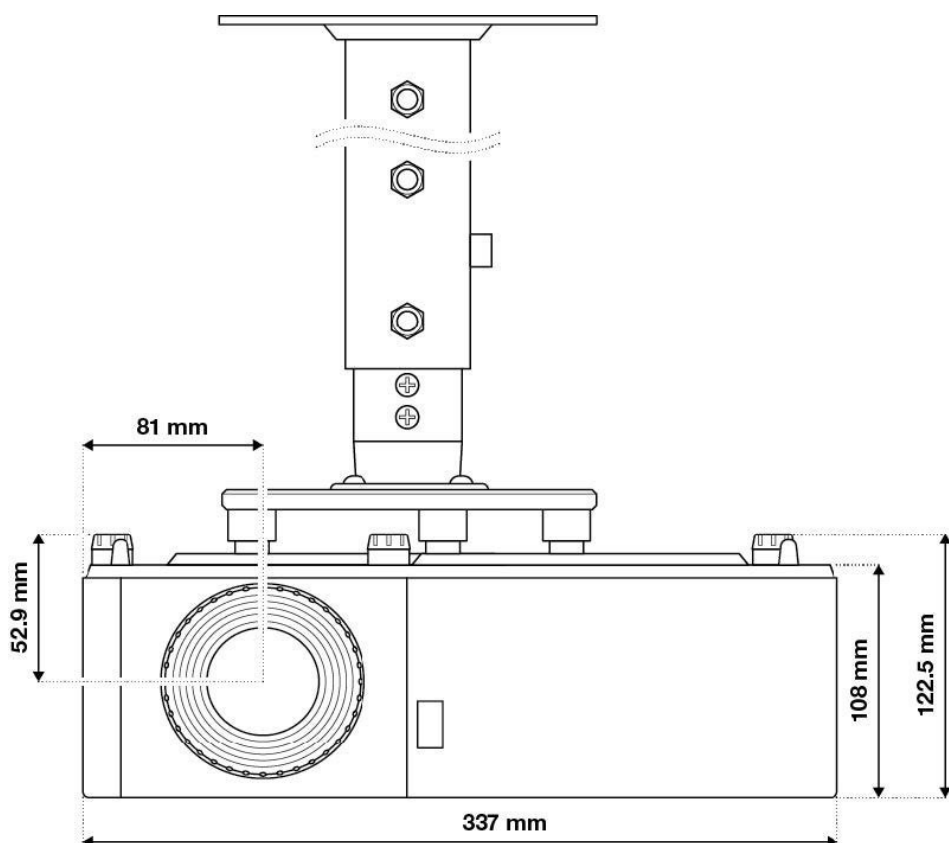
When operating the projector in an enclosed space:

- The surrounding air temperature within the enclosure should not exceed operation temperature while the projector is running
- The air intake and exhaust vents should be unobstructed
- The enclosure should pass a certified thermal evaluation to ensure that the projector does not recycle exhaust air



4.5 CEILING MOUNT

- Screw type: M4×10
- Minimum screw length: 10mm



INFORMATION

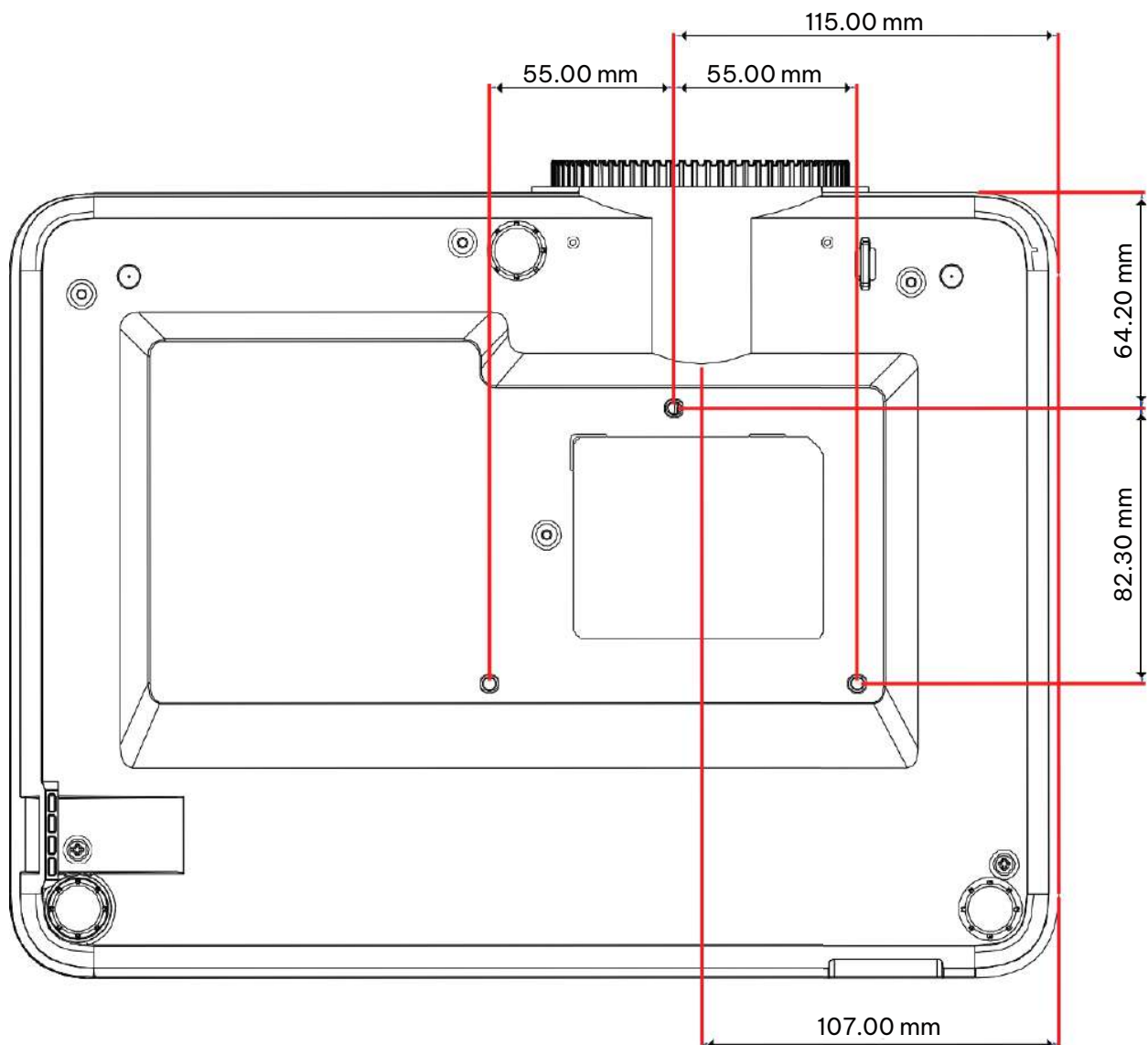
“Please note that damage resulting from incorrect installation will void the warranty. If you buy a ceiling mount from another company, please be sure to use the correct screw size. Screw size will vary depending on the thickness of the mounting plate.

4.6 MOUNTING HOLE DIAGRAM

When using a ceiling mount, please be sure to use the correct screw size. Screw size will vary depending on the thickness of the mounting plate.

Be sure to keep at least 10 cm gap between the ceiling and the bottom of the projector.

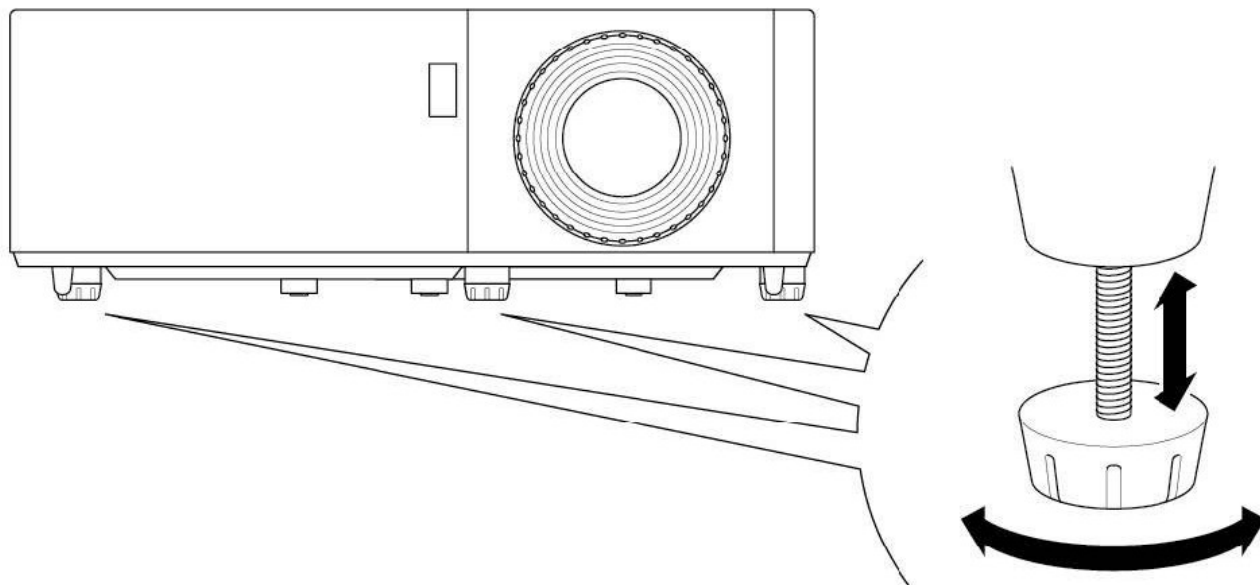
Avoid installing the projector near a heat source.



5. ADJUSTING

5.1 DJUSTING THE IMAGE HEIGHT AND TILT

The projector's height and tilt can be adjusted with the tilt adjustment feet and ring. Locate the adjustable foot you wish to adjust on the underside of the projector. Rotate the foot clockwise or counterclockwise to raise or lower the projector.



5.2 ADJUSTING THE ZOOM, LENS SHIFT AND FOCUS

To adjust the image size, turn the zoom ring clockwise or counterclockwise to increase or decrease the projected image size.

To adjust the image position, turn the lens shift dial clockwise or counterclockwise to adjust the position of the projected image vertically. (Not available on all models.)

To adjust the focus, turn the focus ring clockwise or counterclockwise until the image is sharp and legible.

5.3 ADJUSTING THE VERTICAL AND HORIZONTAL KEYSTONE

If one side of the image is shorter than the other, for example the top is shorter than the bottom, you can either reposition the projector or use keystone correction.

To adjust the top or bottom of the picture (the pitch), angle the projector lower or higher. If that is not possible, adjust the vertical keystone:

Press the Menu button on the projector keypad or the Menu button on the remote control to open the OSD menu.

Select Image > V Keystone

Adjust the settings by using the arrow keys

Press the Return symbol or Enter button to select a setting.

Press the Menu symbol or *Menu *button to close the OSD menu. The menu will close and the projector will automatically save the new settings.

To adjust the left or right side of the picture (the yaw), turn the projector slightly left or right. If that is not possible, adjust the horizontal keystone:

Press the Menu button on the projector keypad or the Menu button on the remote control to open the OSD menu.

Select ***Image > H Keystone ***

Note horizontal keystone correction is not available on all models

Adjust the settings by using the ***Arrow ***keys.

Press press the Return symbol or ***Enter ***button to select a setting.

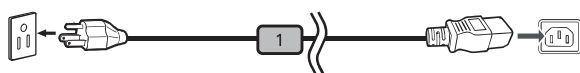
Press the Menu button to close the OSD menu. The menu will close and the projector will automatically save the new settings.



INFORMATION

“Ensure that the projection screen or projection surface is within the required distance from the projector. Refer to “4.3 Placement distance from screen” for more information.

6.1 CONNECTION DIAGRAM



#	Description	#	Description
1	Power cord	8	RS232 cable
2	Audio cable	9	WirelessHD dongle
3	HDMI (MHL) cable	10	Wireless dongle
4	VGA to component/HDTV adapter	11	Wired remote control
5	VGA cable	12	LAN cable
6	3 RCA component cable	13	12V DC cable
7	Composite video cable	14	3D SYNC cable



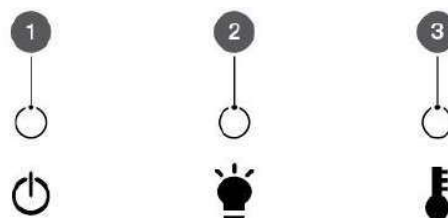
INFORMATION

Not all inputs are available on all models.

7. USING

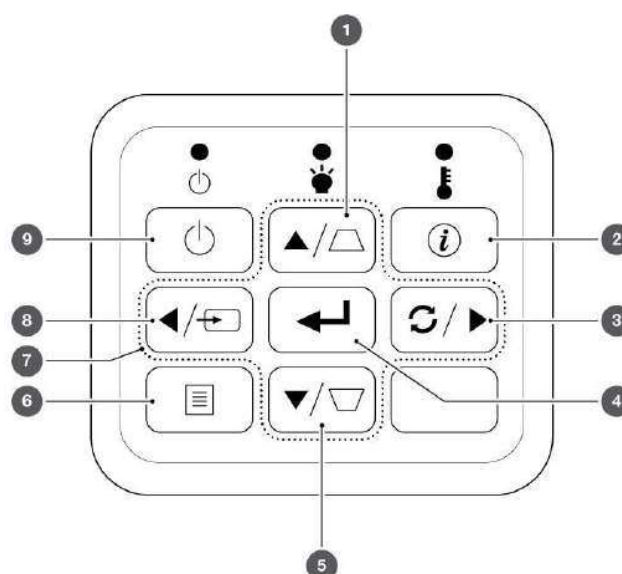
7.1 LEDs

- ① Power
- ② Lamp
- ③ Temperature



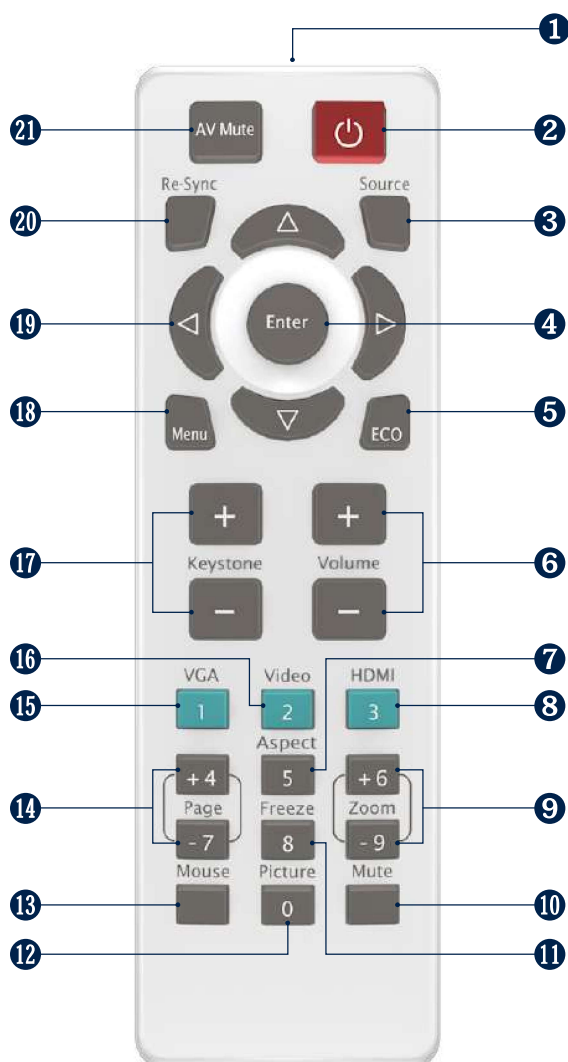
7.2 KEYPAD

- ① Up / Keystone correction +
- ② Information
- ③ Right / Re-sync
- ④ Enter
- ⑤ PowerDown / Keystone correction -
- ⑥ Menu
- ⑦ Directional arrows
- ⑧ Left / Source
- ⑨ Power



7.3 REMOTE CONTROL

- ❶ IR LED
- ❷ Power
- ❸ Source
- ❹ Enter
- ❺ ECO
- ❻ Volume
- ❼ Aspect
- ❽ HDMI – Press once for HDMI 1 and twice for HDMI 2
- ❾ Zoom
- ❿ Mute
- ⓫ Freeze
- ⓬ Picture
- ⓭ Mouse
- ⓮ Page
- ⓯ VGA
- ⓰ Video
- ⓱ Keystone correction
- ⓲ Menu
- ⓳ Directional keys
- ⓴ Re-sync
- ⓵ AV Mute



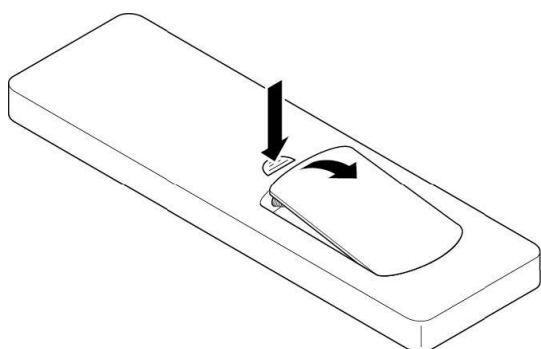
INFORMATION

Some keys may have no function for models that do not support the key's feature.

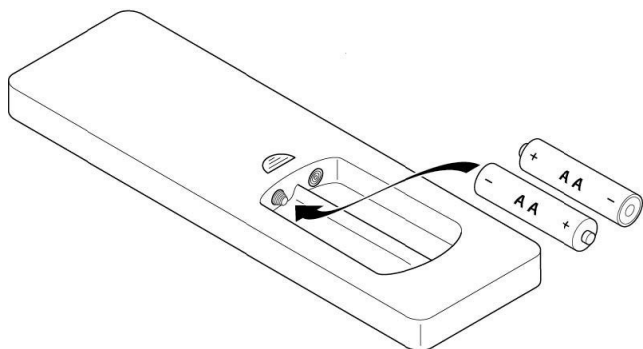
7.3.1 INSTALLING BATTERIES IN THE REMOTE CONTROL

The remote requires two AAA batteries (not included).

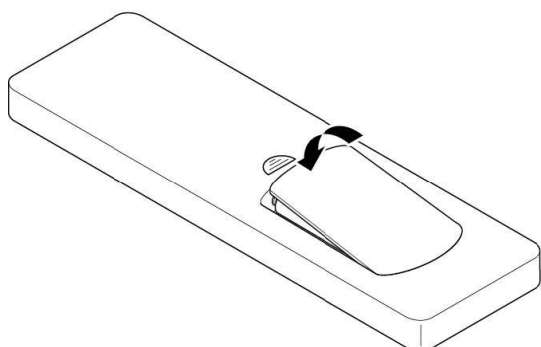
1. Remove the battery cover on the back of the remote control.



2. Insert AAA batteries in the battery compartment. Ensure each battery's polarity $\pm$ is aligned correctly.



3. Replace back cover on the remote control and press down until it clicks in to place.



ATTENTION

The remote control may fail to operate if the infrared remote sensor is exposed to bright sunlight or fluorescent lighting.

Incorrect battery usage may cause leakage of battery fluid and battery rupture, which could result in fire, injury or corrosion of the remote. When replacing batteries, take the following precautions.

Do not use batteries of different types or mix old and new batteries.

Remove the batteries if you will not be using the projector for a long period of time.

Do not expose batteries to heat or flame and do not put them in water.

Dispose of used batteries according to local regulations.

Keep batteries out of the reach of children. Batteries are choking hazards and are very dangerous if swallowed.

7.3.2 REMOTE CONTROL IR CODES

NUMBER	FUNCTION	REPEATFORMAT	BYTE1	BYTE2	BYTE3	BYTE4	COMMENTS
1	AV mute	F1	87	4E	51	AE	
2	Power On/Off	F1	87	4E	17	E8	
3	Re-Sync	F1	87	4E	33	CC	
4	Up	F2	87	4E	13	EC	Do Volume+ when no OSD
5	Source	F1	87	4E	10	EF	
6	Left	F2	87	4E	11	EE	Do Source when no OSD
7	Enter	F1	87	4E	32	CD	
8	Right	F2	87	4E	12	ED	Do Re-Sync when no OSD
9	Menu	F1	87	4E	02	FD	
10	Down	F2	87	4E	14	EB	Do Volume- when no OSD
11	Eco	F1	87	4E	77	88	Open Brightness Mode menu
12	Keystone+	F2	87	4E	20	DF	
13	Volume+	F2	87	4E	08	F7	
14	Keystone-	F2	87	4E	21	DE	
15	Volume-	F2	87	4E	04	FB	
16	VGA (1)	F1	87	4E	19	E6	
17	Video (2)	F1	87	4E	1A	E5	
18	HDMI (3)	F1	87	4E	71	8E	Toggle HDMI 1 and HDMI 2
19	Page+ (4)	F1	87	4E	7D	82	Page+ not supported
20	Aspect (5)	F1	87	4E	34	CB	
21	Zoom+	F1	87	4E	52	AD	
22	page- (7)	F1	87	4E	7E	81	Page- not supported
23	Freeze	F1	87	4E	0E	F1	
24	Zoom-	F1	87	4E	53	AC	
25	Mouse	F1	87	4E	3E	C1	Mouse not supported
26	Picture	F1	87	4E	2C	D3	Open Display Mode menu
27	Mute	F1	87	4E	29	D6	

7.4 REMOTE CONTROL EFFECTIVE RANGE

You can locate the infrared (IR) remote control sensors on the top of the projector next to the keypad and on the front to the left of the lens. Hold the remote control at an angle within 60 degrees perpendicular of the projector's IR remote control sensor. Ensure that there are no obstacles between the remote control and the IR sensor on the projector.

The distance between the remote control and the IR sensor should be less than 12 meters (39.4 feet). If the remote control is less than 20cm (8 inches) from the IR sensor, the remote control might become ineffective. The effective range is approximately 5 meters (16.4 feet) when reflecting the IR beam using a screen. The range will depend on the screen's surface and reflectivity. Direct sunlight or florescent lamps can reduce the range of the remote control.

7.5 TURNING THE PROJECTOR ON

1. Securely connect the mains cable to the projector and to a mains outlet. When connected, the Power LED will turn red.
2. Connect a signal/source cable to a source device and the projector.
3. Remove the lens cap.
4. Press the **Power** button on the keypad or the  the symbol on the remote control.

The ScreenPlay startup screen will appear after approximately 10 seconds. The Power LED will flash blue and then steady blue.



ATTENTION

Make sure that people cannot step on any electrical cables or trip over the cables. Do not put objects on the cables.

7.6 SELECTING A INPUT SOURCE

1. Turn on the connected source, such as a computer or DVD player, or connect a digital media player, such as a Google Chromecast.
2. Press the Source button on the keypad or remote control to select the input source.
3. Play the content on the source device.



INFORMATION

You can set up the projector to automatically detect an active source and turn itself on and project the source content automatically. To turn on this feature, press the Menu button on the remote control or keypad, navigate to Settings > Power Settings > Signal Power, and select On.



INFORMATION

Your projector has a Direct Power On setting. This setting will automatically turn on the projector when a power source is connected. To turn on this feature, press the Menu button on the remote control or keypad, navigate to Settings > Power Settings > Direct Power On, and select on.

7.7 TURNING THE PROJECTOR TO STANDBY MODE

1. Press the Power button on the keypad or remote control.
The following message will appear: Power Off?
2. Press the Power button again to confirm turning off your projector.
If the Power button is not pressed a second time, the message will disappear after 10 seconds and the projector will not turn off.
The cooling fans will operate for about 10 seconds and the Power LED will flash blue. When the Power LED changes to solid red, the projector has entered standby mode.
3. Replace the lens cap.



INFORMATION

If you want to turn the projector on again, wait 100 seconds.

Always allow the projector fan to turn off after you power down and before you unplug the projector power cable from the electrical outlet.

7.8 VIEWING 3D CONTENT

Please follow all warnings and precautions as recommended before you or your child use the 3D function of this projector and view 3D projected content.



ATTENTION

Children and teenagers may be more susceptible to health issues associated with viewing in 3D and should be closely supervised when viewing 3D content.

7.8.1 PHOTOSENSITIVE SEIZURE WARNING AND OTHER HEALTH RISKS



ATTENTION

- Some viewers may experience an epileptic seizure or stroke when exposed to specific flashing images or lights contained in certain Projector pictures or video games. If you suffer from or have a family history of epilepsy or strokes, please consult with a medical specialist before using the 3D function.
- Even those without a personal or family history of epilepsy or stroke may have an undiagnosed condition that can cause photosensitive epileptic seizures.
- We recommend that the projectors 3D functionality not be used by pregnant women, sufferers of serious medical conditions, persons who are sleep-deprived or under the influence of alcohol.
- If you experience any of the following symptoms, stop viewing 3D content immediately and consult a medical specialist: (1) altered vision; (2) lightheadedness; (3) dizziness; (4) involuntary movements such as eye or muscle twitching; (5) confusion; (6) nausea; (7) loss of awareness; (8) convulsions; (9) cramps; or (10) disorientation. Children and teenagers may be more likely than adults to experience these symptoms. Parents should monitor their children and ask whether they are experiencing these symptoms.
- Watching 3D projected content may also cause motion sickness, perceptual aftereffects, disorientation, eye strain, and decreased postural stability. Users should take frequent breaks to lessen the potential of these effects. If you have any of the above symptoms, immediately discontinue using this device and do not resume using it for at least thirty minutes after the symptoms have subsided.
- Watching 3D projected content while sitting too close to the screen for an extended period may damage your eyesight. The ideal viewing distance should be at least three times the screen height. We recommend that the viewer's eyes are level with the screen.
- Watching 3D projected content while wearing 3D glasses for an extended period may cause headaches or fatigue. If you experience a headache, tiredness or dizziness, stop viewing the 3D projection and rest.
- Do not use 3D glasses for any other purpose than for watching 3D projected content.
- Wearing the 3D glasses for any other purpose (such as spectacles, sunglasses, protective goggles, etc.) may be physically harmful to you and weaken your eyesight.
- Viewing 3D projected content may cause disorientation for some viewers. Accordingly, DO NOT place your 3D projector near open stairwells, cables, balconies, or other objects that can be tripped over, run into, knocked down, broken or fallen over.

7.8.2 ENABELING 3D MODE

To enable 3D mode, the input frame rate should be set to 60Hz. Other frame rate are not supported. For the best 3D performance, use a resolution of 1920×1080. 4K (3840×2160) resolution is not supported in 3D mode.

1. Select **Display > Display Mode > 3D > 3D Mode**.
2. Select *** On***.
If the 3D Mode is set to Off, the 2D-3D and 3D sync Invert functions will not be selectable. These functions can only be selected if the 3D mode is set to On.
3. Press **Enter**.
4. If you only want to view the left or right frame: * Select **Display > Display Mode > 3D > 3D-2D**. * Select **L** (left) or **R** (right). * Press **Enter**.
5. If you want to turn off the 3D sync invert function:
 - Select **Display > Display Mode > 3D > 3D Sync Invert**.
 - Select **Off**.
 - Press **Enter**.

7.8.3 ENABLING AUTO 3D MODE

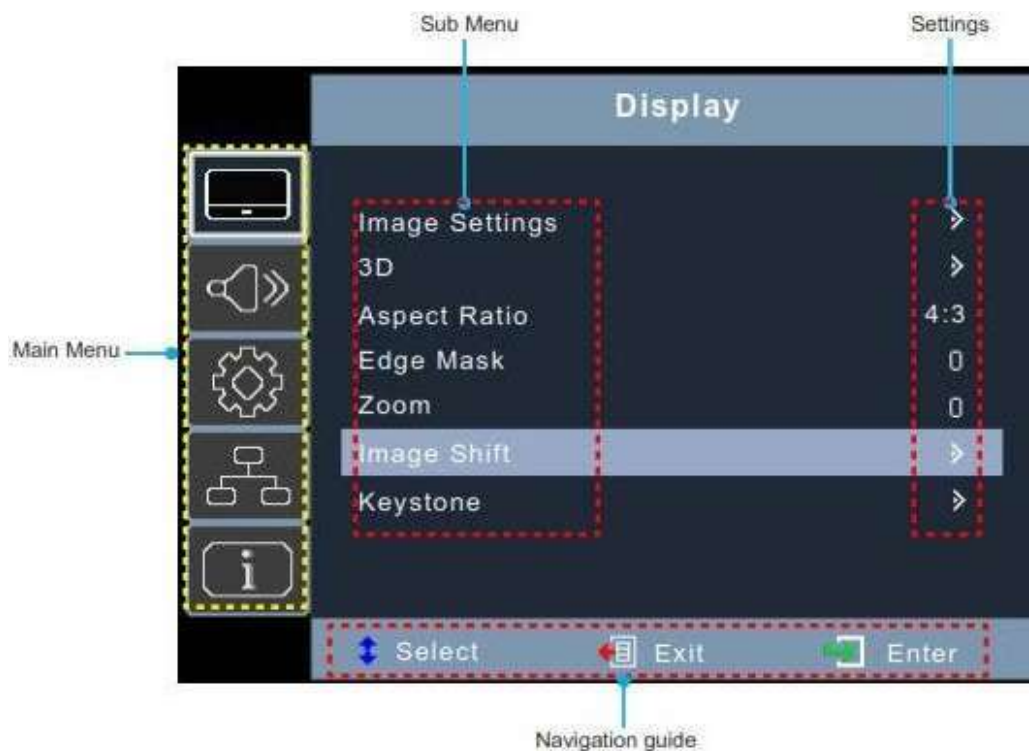
1. Select **Display > Display Mode > 3D > 3D Format**.
2. Select **Auto**.
3. Press **Enter**.

Other options:

- SBS: Display 3D signal in “Side-by-Side” format.
- Top and Bottom: Display 3D signal in “Top and Bottom” format.
- Frame Sequential: Display 3D signal in “Frame Sequential” format.

8. USING THE ON SCREEN DISPLAY (OSD)

The multilingual On Screen Display (OSD) menus can be used to setup and adjust the projector.



8.1 SELECTING THE LANGUAGE FOR THE ON SCREEN MENU

1. Select **Setup > Options > Language**
2. Select a language.
3. Press **Enter**.

8.2 SELECTING A DISPLAY MODE

1. Select **Display > Image Settings > Display Mode**.
2. Select a display mode:
 - **Presentation:** Suitable for giving presentations using a PC.
 - **Bright:** The brightest possible setting when using a PC.
 - **HDR SIM.:** Decodes and displays High Dynamic Range (HDR) content for the deepest blacks, brightest whites, and vivid cinematic colour using the REC.2020 colour gamut. This mode will be automatically enabled if HDR content is sent to the projector (4K UHD Blu-ray, 1080p/4K UHD HDR/HLG games, or 4K UHD streaming video). While HDR mode is active, other displays cannot be selected as HDR delivers colour that is highly accurate and exceeds the colour performance of the other display modes. HDR mode can also be manually selected for use with non HLG content for simulation effect.
 - **HLG SIM.:** Decodes and displays Hybrid Log Gamma (HLG) content for the deepest blacks, brightest whites, and vivid cinematic colour using the REC.2020 colour gamut. This mode will be automatically

enabled if HLG content is sent to the projector (4K UHD Blu-ray, 1080p/4K UHD HDR/HLG games, or 4K UHD streaming video). HLG mode can also be manually selected for use with non HLG content for simulation effect.

- Cinema: Provides the best colour reproduction for watching movies.
- Game: Increases the brightness and decreases the response time for playing video games with minimal lag.
- sRGB: Standardized accurate colour reproduction.
- DICOM SIM.: Simulation mode for viewing monochrome images such as X-rays.
- User: Saved user settings.
- 3D: To experience 3D, you will need 3D glasses and a video source that is capable of sending 3D content.

3. Press **Enter**.



INFORMATION

The display settings are only visible when an active source is connected to the projector.

8.3 ADJUSTING THE IMAGE COLOUR AND TEMPERATURE

1. Select **Display > Image Settings > Color Settings > Color Temperature**.
2. Select a value.
3. Press **Enter**.



INFORMATION

The Display settings are only visible when an active source is connected to the projector.

8.4 ADJUSTING THE SHARPNESS OF THE IMAGE

1. Select **Display > Image Settings > Color**.
2. Press **Enter**.

8.5 MAGNIFYING THE IMAGE

1. Select **Display > Zoom**.
2. Press **Enter**.

8.6 SELECTING AN ASPECT RATIO

1. Select **Display > Aspect Ratio**.
2. Select the desired aspect ratio.
3. Press **Enter**.

8.7 ADJUSTING THE BRIGHTNESS

1. Select **Display > Image Settings > Brightness Mode**.
2. Select a brightness mode.
3. Press **Enter**.

8.8 ENABELING ECO MODE

1. Select **Display > Image Settings > Brightness Mode**.
2. Select **Eco**.
3. Press **Enter**.

8.9 ENABLING CLOSED CAPTIONS

1. Select **Setup > Options > Closed Caption**.
2. Select **CC1 *or *CC2**.
3. Press **Enter**.

8.10 DISPLAYING A TEST PATTERN

1. Select **Setup > Test Pattern**.
2. Select a test pattern.
3. Press **Enter**.

8.11 PREVENTING UNAUTHORIZED USE

1. Select **Setup * > *Security > Security**.
2. Select *** On***. The default password is 1234.
3. Press **Enter**.

8.12 HANGING THE PASSWORD

1. Select **Setup > Security > Change Password**.
2. Type the new password.
3. Press **Enter**.



INFORMATION

Do not lose the password. The password can only be reset at an authorized ScreenPlay repair facility.

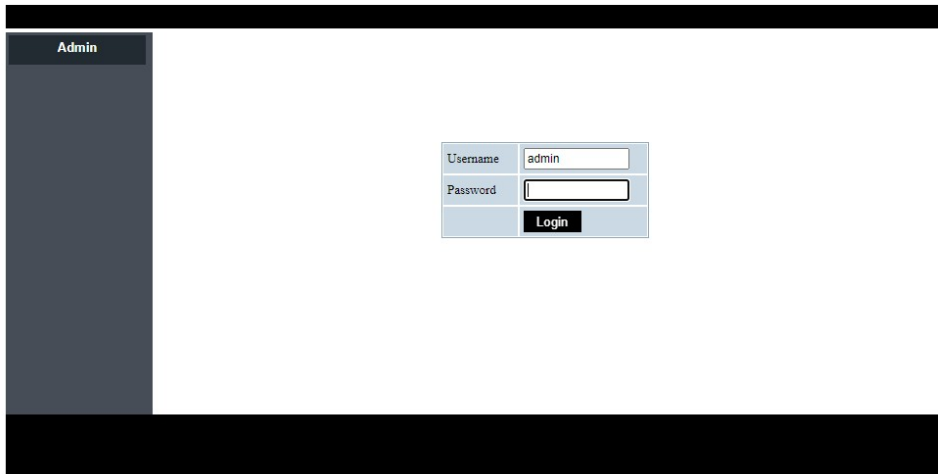
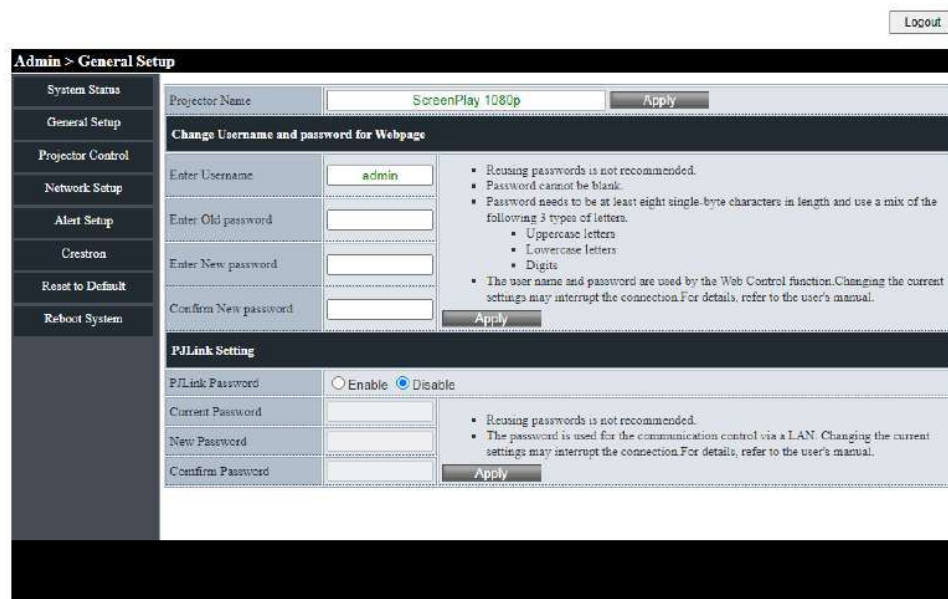
8.13 CONTROLLING THE PROJECTOR FROM A WEB BROWSER

1. Connect the projector to an active network port using the RJ45 port on the back of the projector.
2. Select *** Network* > LAN > DHCP**.
3. Select **On**.
4. Press **Enter**.
5. Select **Network > LAN * > IP Address*** to view the projector's IP address.
6. Open a web browser.
7. Type the projector's IP address type the user name and password. The default user name and password is admin.
8. Click **Login**. The projector's configuration page appears.



INFORMATION

This section is only applicable to p122 and p123 vista products.

Logout

Admin > System Status

System Status
General Setup
Projector Control
Network Setup
Alert Setup
Crestron
Reset to Default
Reboot System

Model Name	ScreenPlay 1080p
Projector Name	ScreenPlay 1080p
FW Version	
System	B01
LAN	B01
LAN Status	
IP Address	192.168.0.100
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.254
MAC Address	00:60:E9:00:00:01

Logout

Admin > Projector Control

System Status
General Setup
Projector Control
Network Setup
Alert Setup
Crestron
Reset to Default
Reboot System

Power On
Power Off
Auto Set
Input
Auto Source
AV Mute
Freeze
3D Format
Auto
L/R Reverse

Input: HDMI1
Image
Brightness: 0
Contrast: 0
Sharpness: 0
Picture Mode: Presentation
Audio
Volume: 5
Management
Auto Power Off (Min): 20
Lamp Power Mode: Bright
Aspect Ratio: 4:3



Web Control Aspect Ratio Support list below

Aspect Ratio	XGA	WXGA	1080P
4:3	V	V	V
16:9	V	V (Follow OSD->Screen Type)	V
16:10		V (Follow OSD->Screen Type)	
LBX		V	V
Native	V	V	V
AUTO	V	V	V

Notice If web page select the unsupport aspect ratio, projector will do nothing and the web will show the aspect ratio same with OSO.
The aspect ratio of WXGA model will change due to the screen type setting.

Logout

Admin > Network Setup

System Status
General Setup
Projector Control
Network Setup
Alert Setup
Creston
Reset to Default
Reboot System

IP Setup

DHCP ☐ On ☒ Off
IP Address
Subnet Mask
Default Gateway
DNS Server

Logout

Admin > Alert Setup

System Status
General Setup
Projector Control
Network Setup
Alert Setup
Creston
Reset to Default
Reboot System

Alert Type

☐ Fan Error
☐ High Temp Warning ☐ Light Source Error
☒ Alert Mail Notification

SMTP Setting

SMTP Server
From
Username
Password

Email Setting

Mail Subject
Mail Content
To

Logout

Admin > Crestron

System Status		
General Setup		
Projector Control		
Network Setup		
Alert Setup		
Crestron		
Reset to Default		
Reboot System		

Crestron Settings

Connect to	Control Box	
Control Box IPID	7	
Control Box IP	255.255.255.255	Off-line
Control Box Port	41794	
VC4 RoomID		
RoomView IPID	5	
Device Username		
Device Password		
Use SSL	Disable	
Use Certificate	Disable	
Upload Certificate File	Upload File	
FITC Registration URL		
FITC Registration Port	443	Off-line
Auto Discovery	Enable	

Logout

Admin > Crestron

System Status		
General Setup		
Projector Control		
Network Setup		
Alert Setup		
Crestron		
Reset to Default		
Reboot System		

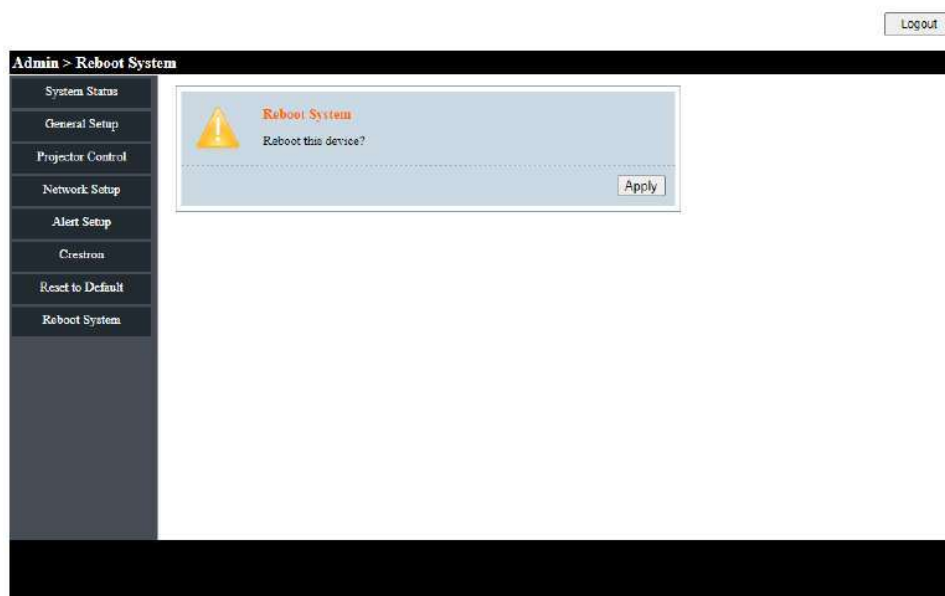
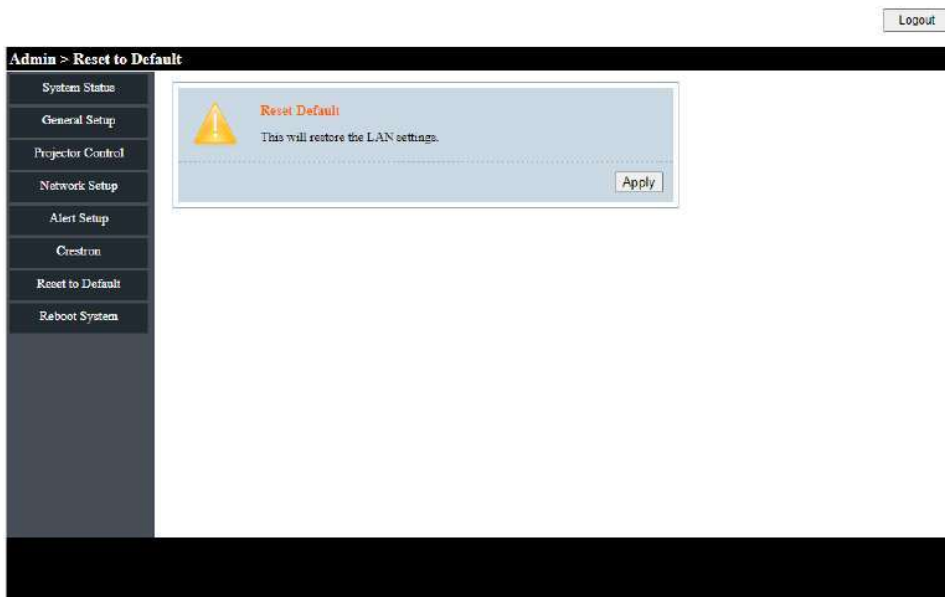
Device Username		
Device Password		
Use SSL	Disable	
Use Certificate	Disable	
Upload Certificate File	Upload File	
FITC Registration URL		
FITC Registration Port	443	Off-line
Auto Discovery	Enable	Apply

XiO Information

MAC Address	00.60.e9.00.00.01	Off-line
Serial Number		

System Time Settings

Current Time	2021-11-01 00:03:52	
NTP Function	☒ Enable ☐ Disable	
NTP Server	time.nist.gov	
Time Zone	+8	Apply



INFORMATION

Only applicable to Superior Series

8.14 DIRECTLY CONNECTING A COMPUTER TO THE PROJECTOR

1. Select **Network > LAN > DHCP**.
2. Select **Off**.
3. Press **Enter**.
4. Select **Network > LAN**.
5. Configure the IP address, Subnet Mask, Gateway, and DNS settings.
6. Set the computer to use the same IP address, subnet mask, gateway, and DNS settings.
7. Open a web browser.
8. Type the projector's IP address type the user name and password. The default user name and password is **admin**.



INFORMATION

Only applicable to Superior Series.

9. CLEANING

Do not use canned air or any type of abrasive pad, paper towel, scouring powder, glass cleaner, or solvent (such as alcohol, paint thinner or benzene).
Unplug the projector before cleaning.

9.1 CLEANING THE LENS

Clean the projector's lens with a lightly damp cloth. Do not spray liquid directly onto the lens.

9.2 CLEANING THE CASE

Clean the projector's case using a lightly damp cloth.

9.3 CLEANING THE AIR VENTS

Clean the air intake vents with a soft and dry cloth, a soft brush, or a small vacuum cleaner designed for cleaning electrical devices.

10. SANITATION

- Using only lightly dampened microfibre cloth to avoid malfunction and possible permanent damage to electronic parts, lightly clean the surface of the product, avoiding any connection points, ventilation holes or the lens.
- After the application, dry the product with a clean and dry microfibre cloth.

Please follow all safety and handling instructions listed with the cleaning solution and keep out of reach of children. For schools conducting an overall deep clean of their facilities, here are steps to appropriately protect your ScreenPlay product in advance of chemicals being sprayed or fogging devices being employed:

- Disconnect the product from its power source.
- Cover the product to prevent damage to internal electronic components.
- Remember to remove any covering before use.

Please ensure that those with access to your ScreenPlay products are aware of the cleaning procedure.



ATTENTION

Ensure your ScreenPlay product is fully covered on all sides before facilities deep cleaning. Chemicals must not be allowed to enter or be sprayed on to the surface of the product, this will avoid any damage to the internal electronic components and outer casing parts.



INFORMATION

Good personal hygiene practices of washing and drying hands should be employed before and after use of ScreenPlay products.

Should you have any questions relating to these procedures please contact ScreenPlay Technical Support. Contact details can be found [Here](#).

11. DISPOSAL

11.1 DISPOSAL OF ELECTRICAL COMPONENTS



The symbol on the product, the accessories or packaging indicates that this device shall not be treated as unsorted municipal waste, but shall be collected separately. Dispose of the device via a collection point for the recycling of waste electrical and electronic equipment if you live within the EU and in other European countries that operate separate collection systems for waste electrical and electronic equipment. By disposing of the device in the proper manner, you help to avoid possible hazards for the environment and public health that may otherwise be caused by improper treatment of waste equipment. The recycling of materials contributes to the conservation of natural resources.

11.2 DISPOSAL OF PACKAGING WASTE

The packaging is made of environmentally friendly materials, which may be disposed of through your local recycling facilities. By disposing of the packaging and packaging waste in the proper manner, you help to avoid possible hazards for the environment and public health.

12. TROUBLESHOOTING

12.1 LED INDICATOR LIGHTS

The following table describes the LED indicator light colours and their meaning.

LED	INDICATOR	MEANING
Power	Blue solid	Normal operation
Power	Blue flashing	The projector is warming up, shutting down, or cooling down. The remote control may be disabled while the indicator is flashing blue.
Power	Red solid	Standby mode
Power	Off	Off or Sleep mode
Lamp	Red flashing	lamp failure
Temperature	Red flashing	Fan failure
Temperature	Red solid	Over temperature

The projector will automatically shutdown if there is a laser failure, a fan failure or if the projector has overheated. Unplug the power cable from the projector, wait 30 seconds, and try again. If the warning indicators light up or flash, contact your nearest service center for assistance.

12.2 SOLVING ON/OFF ISSUES

The following table provides solutions for potential issues that may occur when the projector is turned on or off.

ISSUE	CAUSE	SOLUTION
Projector will not turn on.	No power	Check that the power cable is connected. Check that the power indicator is on.
Projector will not turn on.	The projector has overheated	Make sure there is at least 30cm of clearance around the intake and exhaust vents. Wait five minutes and try turning the projector on again. If the projector is being used above 5500 ft/1600 m, use the On Screen Display (OSD) menu to set High Altitude to on.
Projector turns off by itself.	The Auto Power Off timer is set	Use the On Screen Display (OSD) menu to adjust the auto power of setting.

12.3 SOLVING IMAGE ISSUES

The following table provides solutions for potential image issues.

ISSUE	CAUSE	SOLUTION
No image	Incorrect source is selected.	Press the SOURCE button or one of the source buttons again.
No image	Source cable is not connected.	Ensure the source cable is securely connected to the projector and source device
No image	Source is not playing	Make sure the source has not stopped or paused the video. If the source is a computer, make sure the PC is not in a screen saving or power saving mode and resend the video to the projector.
No image	AV-Mute is on	Ensure the AV-MUTE (video off) buttons has not been pressed.
No image	Brightness and/or contrast setting is too low	Use the On Screen Display (OSD) menu to adjust the brightness and contrast

ISSUE	CAUSE	SOLUTION
Image is reversed	Orientation is set incorrectly.	Use the On Screen Display (OSD) menu to adjust the orientation.
Image has slanted sides	Projector is not positioned perpendicularly to the screen.	Ensure the projector is centered on the screen and below the bottom of the screen
Image has slanted sides	Keystone is not set correctly.	Press the keystone + or – buttons to adjust the image alignment.
Image is too small or too large.	Projector is too far from or too close to the screen.	Move the projector
Image is too small or too large.	The zoom is not set correctly.	Press the Zoom + or – buttons to adjust the zoom.
Image is too dark	ECO mode is enabled	Check if the projector is in the Forced ECO mode because the ambient temperature is too high.
Image is blurry	Focus is not set correctly.	Use the focus ring to adjust the focus.
Image is blurry	Projector is too close or too far from the screen.	Ensure that the distance between the projector and screen is within the adjustment range of the lens.
Image is blurry	Smudge or condensation on the lens.	Clean the lens. Condensation may form on the lens if the projector is cold, brought into a warm place, and turned on.
Image is scrolling or flickering.	Source resolution and/or frequency is not supported.	Make sure that the source's resolution and frequency are supported by the projector.

12.4 SOLVING VIDEO, AUDIO AND REMOTE CONTROL ISSUES

The following table provides solutions for potential video, audio, and remote control issues.

ISSUE	CAUSE	SOLUTION
Video is frozen	the Freeze button has been pressed.	Press the Freeze button on the remote to unfreeze the video.
Video is stretched	16:9 (wide) source is setup incorrectly.	Ensure the source is set to use the 16:9 (wide) display format.
Video is stretched	Letterbox (LBX) source is setup incorrectly.	Use the On Screen Display (OSD) menu to set the aspect ratio to LBX.
Video is stretched	4:3 source is setup incorrectly.	Use the On Screen Display (OSD) menu to set the aspect ratio to 4:3.
No audio	Projector is muted.	Press the Mute button to unmute the projector.
No audio	Volume setting is too low.	Press the volume + button to increase the volume.
No audio	Source cable is not connected.	Ensure the source cable is securely connected to the projector and source device.
No audio	Source is muted.	Ensure the source has not been muted.
Remote does not work.	Batteries expired.	Install new batteries.
Remote does not work.	Batteries installed incorrectly.	Remove and reinstall the batteries.
Remote does not work.	Remote is too far from projector.	The remote should be within 16.4 feet (5m) of the projector.

ADDITIONAL INFORMATION



ISSUE	CAUSE	SOLUTION
Remote does not work.	IR receiver cannot detect remote.	Ensure there are no obstructions between the remote and the projector's IR receiver. Ensure the operating angle of the remote control is within $\pm 20^\circ$ to the projector's IR receiver. Ensure there are no fluorescent light sources shining on the projector's IR receiver.

If you are still experiencing technical issues with your projector, please contact ScreenPlay Customer Support [Here](#)

12.5 SERVICING

Servicing is required when the projector has been damaged, exposed to rain or moisture, does not operate normally, or has been dropped. All servicing and repairs should be performed by an authorized ScreenPlay representative.

13. ADDITIONAL INFORMATION

13.1 RS232 PIN ASSIGNMENTS

PIN NUMBER	BO DETAILED TIMING
1	—
2	RDX
3	TXD
4	
5	GND
6	—
7	—
8	—
9	—

13.2 RS232 PROTOCOL FUNCTION LIST

FUNCTION	VALUE
BAUD RATE	19200
PARITY BIT	NONE
DATA BIT	8
STOP BIT	1
ON DELAY	20 SECONDS
POWER DOWN DELAY	20 SECONDS
SOURCE CHANGE DELAY	8 SECONDS
INTERCOMMAND DELAY MINIMUM	500 MILLISECONDS
INTERCHARACTER DELAY MINIMUM	2 MILLISECONDS

13.2.1 RS232 PROJECTOR COMMAND CODES

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S001	~XX00 1	7E 30 30 30 30 20 31 0D	Power	On	Yes	Yes	Yes
S001	~XX00 0	7E 30 30 30 30 20 30 0D	Power	Off (0/2 for backward compatible)	Yes	Yes	Yes
S002	~XX00 1 ~nnnn	7E 30 30 30 30 20 31 20 a 0D	Power ON with Password ~nnnn	"nnnn = Password ~0000 (a=7E 30 30 30 30) ~9999 (a=7E 39 39 39 39)"	Yes	Yes	Yes
S003	~XX01 1	7E 30 30 30 31 20 31 0D	Resync		Yes	Yes	Yes
S004	~XX02 1	7E 30 30 30 32 20 31 0D	AV Mute	On	Yes	Yes	Yes
S004	~XX02 0	7E 30 30 30 32 20 30 0D	AV Mute	Off (0/2 for backward compatible)	Yes	Yes	Yes
S005	~XX03 1	7E 30 30 30 33 20 31 0D	Mute	On	Yes	Yes	Yes
S005	~XX03 0	7E 30 30 30 33 20 30 0D	Mute	Off (0/2 for backward compatible)	Yes	Yes	Yes
S006	~XX04 1	7E 30 30 30 34 20 31 0D	Freeze		Yes	Yes	Yes
S006	~XX04 0	7E 30 30 30 34 20 30 0D	Unfreeze	(0/2 for backward compatible)	Yes	Yes	Yes
S007	~XX05 1	7E 30 30 30 35 20 31 0D	Zoom Plus		Yes	Yes	Yes
S008	~XX06 1	7E 30 30 30 36 20 31 0D	Zoom Minus		Yes	Yes	Yes
S009	~XX11 0	7E 30 30 31 31 20 30 0D	IR Function	Off	No	No	No
S009	~XX11 1	7E 30 30 31 31 20 31 0D	IR Function	On	No	No	No
S010	~XX12 5	7E 30 30 31 32 20 35 0D	Direct Source Commands	VGA	Yes	Yes	Yes
S010	~XX12 9	7E 30 30 31 32 20 39 0D	Direct Source Commands	S-Video	No	No	No
S010	~XX12 10	7E 30 30 31 32 20 31 30 0D	Direct Source Commands	Video	Yes	Yes	Yes
S010	~XX12 1	7E 30 30 31 32 20 31 0D	Direct Source Commands	HDMI (HDMI 1)	Yes	Yes	Yes
S010	~XX12 15	7E 30 30 31 32 20 31 35 0D	Direct Source Commands	HDMI 2	Yes	Yes	Yes
S011	~XX20 1	7E 30 30 32 30 20 31 0D	Picture Mode	Presentation	Yes	Yes	Yes

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S011	~XX20 2	7E 30 30 32 30 20 32 0D	Picture Mode	Bright	Yes	Yes	Yes
S011	~XX20 3	7E 30 30 32 30 20 33 0D	Picture Mode	Movie (Cinema)	Yes	Yes	Yes
S011	~XX20 4	7E 30 30 32 30 20 34 0D	Picture Mode	sRGB	Yes	Yes	Yes
S011	~XX20 13	7E 30 30 32 30 20 31 33 0D	Picture Mode	DICOM SIM.	Yes	Yes	Yes
S011	~XX20 5	7E 30 30 32 30 20 35 0D	Picture Mode	User	Yes	Yes	Yes
S011	~XX20 9	7E 30 30 32 30 20 39 0D	Picture Mode	3D	Yes	Yes	Yes
S011	~XX20 12	7E 30 30 32 30 20 31 32 0D	Picture Mode	Game	Yes	Yes	Yes
S011	~XX20 22	7E 30 30 32 30 20 32 32 0D	Picture Mode	HDR SIM.	Yes	Yes	Yes
S011	~XX20 26	7E 30 30 32 30 20 32 36 0D	Picture Mode	HLG SIM.	Yes	Yes	Yes
S012	~XX21 n	7E 30 30 32 31 20 a 0D	Brightness	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S013	~XX22 n	7E 30 30 32 32 20 a 0D	Contrast	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S014	~XX23 n	7E 30 30 32 33 20 a 0D	Sharpness	n = 1 (a=31) ~ 15 (a=31 35)	Yes	Yes	Yes
S015	~XX24 n	7E 30 30 32 34 20 a 0D	RGB Gain/Bias Red Gain	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S016	~XX25 n	7E 30 30 32 35 20 a 0D	RGB Gain/Bias Green Gain	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S017	~XX26 n	7E 30 30 32 36 20 a 0D	RGB Gain/Bias Blue Gain	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S018	~XX27 n	7E 30 30 32 37 20 a 0D	RGB Gain/Bias Red Bias	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S019	~XX28 n	7E 30 30 32 38 20 a 0D	RGB Gain/Bias Green Bias	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S020	~XX29 n	7E 30 30 32 39 20 a 0D	RGB Gain/Bias Blue Bias	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S021	~XX34 n	7E 30 30 33 34 20 a 0D	BrilliantColorTM	n = 1 (a=30) ~ 10 (a=31 30)	Yes	Yes	Yes
S022	~XX35 1	7E 30 30 33 35 20 31 0D	Gamma	Film	Yes	Yes	Yes
S022	~XX35 2	7E 30 30 33 35 20 32 0D	Gamma	Video	Yes	Yes	Yes

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S022	~XX35 3	7E 30 30 33 35 20 33 0D	Gamma	Graphics	Yes	Yes	Yes
S022	~XX35 4	7E 30 30 33 35 20 34 0D	Gamma	Standard (2.2)	Yes	Yes	Yes
S022	~XX35 5	7E 30 30 33 35 20 35 0D	Gamma	1.8	Yes	Yes	Yes
S022	~XX35 6	7E 30 30 33 35 20 36 0D	Gamma	2.0	Yes	Yes	Yes
S022	~XX35 12	7E 30 30 33 35 20 31 31 0D	Gamma	2.4	Yes	Yes	Yes
S022	~XX35 8	7E 30 30 33 35 20 38 0D	Gamma	2.6	Yes	Yes	Yes
S023	~XX36 4	7E 30 30 33 36 20 34 0D	Colour Temp.	Warm	Yes	Yes	Yes
S023	~XX36 1	7E 30 30 33 36 20 31 0D	Colour Temp.	Standard	Yes	Yes	Yes
S023	~XX36 2	7E 30 30 33 36 20 32 0D	Colour Temp.	Cool	Yes	Yes	Yes
S023	~XX36 3	7E 30 30 33 36 20 33 0D	Colour Temp.	Cold	Yes	Yes	Yes
S024	~XX37 1	7E 30 30 33 37 20 31 0D	Colour Space	Auto	Yes	Yes	Yes
S024	~XX37 2	7E 30 30 33 37 20 32 0D	Colour Space	RGB \ RGB	Yes	Yes	Yes
S024	~XX37 3	7E 30 30 33 37 20 33 0D	Colour Space	YUV	Yes	Yes	Yes
S024	~XX37 4	7E 30 30 33 37 20 34 0D	Colour Space	RGB	Yes	Yes	Yes
S025	~XX44 n	7E 30 30 34 35 20 a 0D	Tint	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S026	~XX45 n	7E 30 30 34 34 20 a 0D	Colour (Saturation)	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S027	~XX46 1	7E 30 30 34 36 20 31 0D	Brightness	Brightness -	Yes	Yes	Yes
S027	~XX46 2	7E 30 30 34 36 20 32 0D	Brightness	Brightness +	Yes	Yes	Yes
S028	~XX47 1	7E 30 30 34 37 20 31 0D	Contrast	Contrast -	Yes	Yes	Yes
S028	~XX47 2	7E 30 30 34 37 20 32 0D	Contrast	Contrast +	Yes	Yes	Yes
S029	~XX59 1	7E 30 30 35 39 20 31 0D	Four corners	top-left (right+)	Yes	Yes	Yes
S029	~XX59 2	7E 30 30 35 39 20 32 0D	Four corners	top-left (left+)	Yes	Yes	Yes
S029	~XX59 3	7E 30 30 35 39 20 33 0D	Four corners	top-left (up +)	Yes	Yes	Yes

INDEX	ASCIICODE	HEXCODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S029	~XX59 4	7E 30 30 35 39 20 34 0D	Four corners	top-left (down +)	Yes	Yes	Yes
S029	~XX59 5	7E 30 30 35 39 20 35 0D	Four corners	top right (right +)	Yes	Yes	Yes
S029	~XX59 6	7E 30 30 35 39 20 36 0D	Four corners	top right (left +)	Yes	Yes	Yes
S029	~XX59 7	7E 30 30 35 39 20 37 0D	Four corners	top right (up +)	Yes	Yes	Yes
S029	~XX59 8	7E 30 30 35 39 20 38 0D	Four corners	top right (down +)	Yes	Yes	Yes
S029	~XX59 9	7E 30 30 35 39 20 39 0D	Four corners	Bottom-left (right+)	Yes	Yes	Yes
S029	~XX59 10	7E 30 30 35 39 20 31 30 0D	Four corners	Bottom-left (left+)	Yes	Yes	Yes
S029	~XX59 11	7E 30 30 35 39 20 31 31 0D	Four corners	Bottom-left (Up+)	Yes	Yes	Yes
S029	~XX59 12	7E 30 30 35 39 20 31 32 0D	Four corners	Bottom-left (down+)	Yes	Yes	Yes
S029	~XX59 13	7E 30 30 35 39 20 31 33 0D	Four corners	Bottom-right (right+)	Yes	Yes	Yes
S029	~XX59 14	7E 30 30 35 39 20 31 34 0D	Four corners	Bottom-right (left+)	Yes	Yes	Yes
S029	~XX59 15	7E 30 30 35 39 20 31 35 0D	Four corners	Bottom-right (Up+)	Yes	Yes	Yes
S029	~XX59 16	7E 30 30 35 39 20 31 36 0D	Four corners	Bottom-right (down+)	Yes	Yes	Yes
S030	~XX60 1	7E 30 30 36 30 20 31 0D	Format (Aspect Ratio)	4:3	Yes	Yes	Yes
S030	~XX60 2	7E 30 30 36 30 20 32 0D	Format (Aspect Ratio)	16:9	Yes	Yes	Yes
S030	~XX60 3	7E 30 30 36 30 20 33 0D	Format (Aspect Ratio)	16:10	Yes	No	Yes
S030	~XX60 5	7E 30 30 36 30 20 35 0D	Format (Aspect Ratio)	LBX	Yes	Yes	Yes
S030	~XX60 6	7E 30 30 36 30 20 36 0D	Format (Aspect Ratio)	Native	Yes	Yes	Yes
S030	~XX60 7	7E 30 30 36 30 20 37 0D	Format (Aspect Ratio)	Auto	Yes	Yes	Yes
S031	~XX61 n	7E 30 30 36 31 20 a 0D	Edge mask	n = 0 (a=30) ~ 10 (a=31 30)	Yes	Yes	Yes

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S032	~XX62 n	7E 30 30 36 32 20 α 0D	Zoom	n = -5 (α=2D 35) ~ 25 (α=32 35)	Yes	Yes	Yes
S033	~XX63 n	7E 30 30 36 33 20 α 0D	H Image Shift	n = -100 (α=2D 31 30 30) ~ 100 (α= 31 30 30)	Yes	Yes	Yes
S034	~XX64 n	7E 30 30 36 34 20 α 0D	V Image Shift	n = -100 (α=2D 31 30 30) ~ 100 (α= 31 30 30)	Yes	Yes	Yes
S035	~XX65 n	7E 30 30 36 35 20 α 0D	H Keystone	n = -30 (α=2D 33 30) ~ 30 (α=33 30)	Yes	Yes	Yes
S036	~XX66 n	7E 30 30 36 36 20 α 0D	V Keystone	n = -30 (α=2D 33 30) ~ 30 (α=33 30)	Yes	Yes	Yes
S037	~XX69 1	7E 30 30 36 39 20 31 0D	Auto Keystone	On	Yes	Yes	Yes
S037	~XX69 0	7E 30 30 36 39 20 30 0D	Auto Keystone	Off (0/2 for backward compatible)	Yes	Yes	Yes
S037	~XX70 1	7E 30 30 37 30 20 31 0D	Language	English	Yes	Yes	Yes
S037	~XX70 2	7E 30 30 37 30 20 32 0D	Language	Deutsch	Yes	Yes	Yes
S037	~XX70 3	7E 30 30 37 30 20 33 0D	Language	Français	Yes	Yes	Yes
S037	~XX70 4	7E 30 30 37 30 20 34 0D	Language	Italiana	Yes	Yes	Yes
S037	~XX70 5	7E 30 30 37 30 20 35 0D	Language	Español	Yes	Yes	Yes
S037	~XX70 6	7E 30 30 37 30 20 36 0D	Language	Português	Yes	Yes	Yes
S037	~XX70 7	7E 30 30 37 30 20 37 0D	Language	Polski	Yes	Yes	Yes
S037	~XX70 8	7E 30 30 37 30 20 38 0D	Language	Nederlands	Yes	Yes	Yes
S037	~XX70 9	7E 30 30 37 30 20 39 0D	Language	Svenska	Yes	Yes	Yes
S037	~XX70 10	7E 30 30 37 30 20 31 30 0D	Language	Norsk/Dansk	Yes	Yes	Yes
S037	~XX70 11	7E 30 30 37 30 20 31 31 0D	Language	Suomi	Yes	Yes	Yes
S037	~XX70 12	7E 30 30 37 30 20 31 32 0D	Language	ελληνικά	Yes	Yes	Yes
S037	~XX70 13	7E 30 30 37 30 20 31 33 0D	Language	繁體中文	Yes	Yes	Yes

INDEX	ASCIICODE	HEXCODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S037	~XX70 14	7E 30 30 37 30 20 31 34 0D	Language	简体中文	Yes	Yes	Yes
S037	~XX70 15	7E 30 30 37 30 20 31 35 0D	Language	日本語	Yes	Yes	Yes
S037	~XX70 16	7E 30 30 37 30 20 31 36 0D	Language	한국어	Yes	Yes	Yes
S037	~XX70 17	7E 30 30 37 30 20 31 37 0D	Language	Русский	Yes	Yes	Yes
S037	~XX70 18	7E 30 30 37 30 20 31 38 0D	Language	Magyar	Yes	Yes	Yes
S037	~XX70 19	7E 30 30 37 30 20 31 39 0D	Language	Čeština	Yes	Yes	Yes
S037	~XX70 20	7E 30 30 37 30 20 32 30 0D	Language	عبرع	Yes	Yes	Yes
S037	~XX70 21	7E 30 30 37 30 20 32 31 0D	Language	ไทย	Yes	Yes	Yes
S037	~XX70 22	7E 30 30 37 30 20 32 32 0D	Language	Türkçe	Yes	Yes	Yes
S037	~XX70 23	7E 30 30 37 30 20 32 33 0D	Language	عسراف	Yes	Yes	Yes
S037	~XX70 24	7E 30 30 37 30 20 32 34 0D	Language	हिंदी	No	No	No
S037	~XX70 25	7E 30 30 37 30 20 32 35 0D	Language	Tiếng Việt	Yes	Yes	Yes
S037	~XX70 26	7E 30 30 37 30 20 32 36 0D	Language	Bahasa Indonesia	Yes	Yes	Yes
S037	~XX70 27	7E 30 30 37 30 20 32 37 0D	Language	Română	Yes	Yes	Yes
S037	~XX70 28	7E 30 30 37 30 20 32 38 0D	Language	Slovenčina	Yes	Yes	Yes
S037	~XX70 29	7E 30 30 37 30 20 32 39 0D	Language	Pilipino	No	No	No

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S037	~XX70 30	7E 30 30 37 30 20 33 30 0D	Language	Melayu	No	No	No
S037	~XX70 31	7E 30 30 37 30 20 33 31 0D	Language	বাংলা	No	No	No
S039	~XX71 1	7E 30 30 37 31 20 31 0D	Projection	Front	Yes	Yes	Yes
S039	~XX71 2	7E 30 30 37 31 20 32 0D	Projection	Rear	Yes	Yes	Yes
S039	~XX71 3	7E 30 30 37 31 20 33 0D	Projection	Front-Ceiling	Yes	Yes	Yes
S039	~XX71 4	7E 30 30 37 31 20 34 0D	Projection	Rear-Ceiling	Yes	Yes	Yes
S040	~XX72 1	7E 30 30 37 32 20 31 0D	Menu Location	Top Left	Yes	Yes	Yes
S040	~XX72 2	7E 30 30 37 32 20 32 0D	Menu Location	Top Right	Yes	Yes	Yes
S040	~XX72 3	7E 30 30 37 32 20 33 0D	Menu Location	Centre	Yes	Yes	Yes
S040	~XX72 4	7E 30 30 37 32 20 34 0D	Menu Location	Bottom Left	Yes	Yes	Yes
S040	~XX72 5	7E 30 30 37 32 20 35 0D	Menu Location	Bottom Right	Yes	Yes	Yes
S041	~XX73 n	7E 30 30 37 33 20 a 0D	Signal Frequency	n = -10 (a=2D 31 30) ~ 10 (a=31 30) By signal	Yes	Yes	Yes
S042	~XX74 n	7E 30 30 37 34 20 a 0D	Signal Phase	n = 0 (a=30) ~ 31 (a=33 31) By signal	Yes	Yes	Yes
S043	~XX75 n	7E 30 30 37 35 20 a 0D	Signal H. Position	n = -5 (a=2D 35) ~ 5 (a=35) By timing	Yes	Yes	Yes
S044	~XX76 n	7E 30 30 37 36 20 a 0D	Signal V. Position	n = -5 (a=2D 35) ~ 5 (a=35) By timing	Yes	Yes	Yes
S045	~XX77 n	7E 30 30 37 37 20 aabbcc 0D	Security Security Timer Month/Day/ Hour	"n = mm/dd/hh mm= 00 (aa=30 30) ~ 12 (aa=31 32) dd = 00 (bb=30 30) ~ 30 (bb=33 30) hh= 00 (cc=30 30) ~ 24 (cc=32 34)"	Yes	Yes	Yes
S046	~XX78 1 ~nnnn	7E 30 30 37 38 20 31 0D	Security	"On with password ~nnnn = ~0000 (a= 7E 30 30 30 30) ~9999 (a=7E 39 39 39 39)"	Yes	Yes	Yes
S046	~XX78 0 ~nnnn	7E 30 30 37 38 20 32 20 a 0D	Security	"Off (0/2 for backward compatible) with password ~nnnn = ~0000 (a= 7E 30 30 30 30) ~9999 (a=7E 39 39 39 39)"	Yes	Yes	Yes

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S047	~XX79 n	7E 30 30 37 39 20 α 0D	Projector ID	n = 00 (α=30 30) ~ 99 (α=39 39)	No	No	No
S048	~XX80 1	7E 30 30 38 30 20 31 0D	Mute	On	Yes	Yes	Yes
S048	~XX80 0	7E 30 30 38 30 20 30 0D	Mute	Off (0/2 for backward compatible)	Yes	Yes	Yes
S049	~XX81 n	7E 30 30 38 31 20 α 0D	Volume (Audio)	n = 0 (α=30) ~ 10 (α=31 30)	Yes	Yes	Yes
S050	~XX82 1	7E 30 30 38 32 20 31 0D	Logo	Default	Yes	Yes	Yes
S050	~XX82 2	7E 30 30 38 32 20 32 0D	Logo	User	No	No	No
S050	~XX82 3	7E 30 30 38 32 20 33 0D	Logo	Neutral	Yes	Yes	Yes
S051	~XX88 0	7E 30 30 38 38 20 30 0D	Closed Captioning	Off	Yes	Yes	Yes
S051	~XX88 1	7E 30 30 38 38 20 31 0D	Closed Captioning	CC1	Yes	Yes	Yes
S051	~XX88 2	7E 30 30 38 38 20 32 0D	Closed Captioning	CC2	Yes	Yes	Yes
S052	~XX90 1	7E 30 30 39 31 20 31 0D	“Screen Type (Only for WXGA/ WUXGA)”	16:10	Yes	No	Yes
S052	~XX90 0	7E 30 30 39 31 20 30 0D	-	16:	Yes	No	Yes
S053	~XX91 1	7E 30 30 39 31 20 31 0D	Signal Automatic	On	Yes	Yes	Yes
S053	~XX91 0	7E 30 30 39 31 20 30 0D	Signal Automatic	Off	Yes	Yes	Yes
S054	~XX101 1	7E 30 30 31 30 31 20 31 0D	High Altitude	On	Yes	Yes	Yes
S054	~XX101 0	7E 30 30 31 30 31 20 30 0D	High Altitude	Off (0/2 for backward compatible)	Yes	Yes	Yes
S055	~XX102 1	7E 30 30 31 30 32 20 31 0D	Information Hide	On	No	No	No
S055	~XX102 0	7E 30 30 31 30 32 20 30 0D	Information Hide	Off (0/2 for backward compatible)	No	No	No
S056	~XX103 1	7E 30 30 31 30 33 20 31 0D	Keypad Lock	On	No	No	No
S056	~XX103 0	7E 30 30 31 30 33 20 30 0D	Keypad Lock	Off (0/2 for backward compatible)	No	No	No

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S057	~XX104 0	7E 30 30 31 30 34 20 30 0D	Background Color	None	Yes	Yes	Yes
S057	~XX104 1	7E 30 30 31 30 34 20 31 0D	Background Color	Blue	Yes	Yes	Yes
S057	~XX104 3	7E 30 30 31 30 34 20 33 0D	Background Color	Red	Yes	Yes	Yes
S057	~XX104 4	7E 30 30 31 30 34 20 34 0D	Background Color	Green	Yes	Yes	Yes
S057	~XX104 6	7E 30 30 31 30 34 20 36 0D	Background Color	Gray	Yes	Yes	Yes
S057	~XX104 7	7E 30 30 31 30 34 20 37 0D	Background Color	Logo	Yes	Yes	Yes
S058	~XX105 1	7E 30 30 31 30 35 20 31 0D	Direct Power On	On	Yes	Yes	Yes
S058	~XX105 0	7E 30 30 31 30 35 20 30 0D	Direct Power On	Off (0/2 for backward compatible)	Yes	Yes	Yes
S059	~XX106 n	7E 30 30 31 30 36 20 a 0D	"Auto Power Off (min)" (5 minutes for each step)."	n = 0 (a=30) ~ 180 (a=31 38 30)	Yes	Yes	Yes
S060	~XX107 n	7E 30 30 31 30 37 20 a 0D	"Sleep Timer (min)" (30 minutes for each step)."	n = 0 (a=30) ~ 990 (a=39 39 30)	No	No	No
S061	~XX109 1	7E 30 30 31 30 39 20 31 0D	Lamp Reminder	On	No	No	No
	~XX109 0	7E 30 30 31 30 39 20 30 0D	Lamp Reminder	Off (0/2 for backward compatible)	No	No	No
S062	~XX110 1	7E 30 30 31 31 30 20 31 0D	Brightness Mode	Bright	No	No	No
	~XX110 2	7E 30 30 31 31 30 20 32 0D	Brightness Mode	Eco	Yes	Yes	Yes
	~XX110 4	7E 30 30 31 31 30 20 34 0D	Brightness Mode	Dynamic	Yes	Yes	Yes
	~XX110 6	7E 30 30 31 31 30 20 36 0D	Brightness Mode	Power	Yes	Yes	Yes

INDEX	ASCIICODE	HEXCODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S063	~XX111 1	7E 30 30 31 31 31 20 31 0D	Lamp Reset	Yes	No	No	No
S064	~XX112 1	7E 30 30 31 31 32 20 31 0D	Reset to Default Yes (P.S When security is off)	“Yes with no password (Security is Off)”	Yes	Yes	Yes
S065	~XX112 1 ~nnnn	7E 30 30 31 31 32 20 31 0D	Reset to Default Yes (P.S When security is On/ Off)	“Yes with no password (Security is Off)”	Yes	Yes	Yes
S066	~XX113 1	7E 30 30 31 31 33 20 31 0D	Signal Power On	On	Yes	Yes	Yes
	~XX113 0	7E 30 30 31 31 33 20 30 0D	Signal Power On	Off (0/2 for backward compatible)	Yes	Yes	Yes
S067	~XX114 1	7E 30 30 31 31 34 20 31 0D	Power Mode (Standby)	Active	Yes	Yes	Yes
	~XX114 0	7E 30 30 31 31 34 20 30 0D	Power Mode (Standby)	Eco. (<0.5W)	Yes	Yes	Yes
S068	~XX115 1	7E 30 30 31 31 35 20 31 0D	Quick Resume	On	No	No	No
	~XX115 0	7E 30 30 31 31 35 20 30 0D	Quick Resume	Off (0/2 for backward compatible)	No	No	No
S069	~XX140 10	7E 30 30 31 34 30 20 31 30 0D	IR Function	Up	Yes	Yes	Yes
	~XX140 11	7E 30 30 31 34 30 20 31 31 0D	IR Function	Left	Yes	Yes	Yes
	~XX140 12	7E 30 30 31 34 30 20 31 32 0D	IR Function	Enter (for Projection MENU)	Yes	Yes	Yes
	~XX140 13	7E 30 30 31 34 30 20 31 33 0D	IR Function	Right	Yes	Yes	Yes
	~XX140 14	7E 30 30 31 34 30 20 31 34 0D	IR Function	Down	Yes	Yes	Yes
	~XX140 15	7E 30 30 31 34 30 20 31 35 0D	IR Function	Keystone +	Yes	Yes	Yes
	~XX140 16	7E 30 30 31 34 30 20 31 36 0D	IR Function	Keystone -	Yes	Yes	Yes

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE			
	~XX140 17	7E 30 30 31 34 30 20 31 37 0D	IR Function	Volume -	Yes	Yes	Yes
	~XX140 18	7E 30 30 31 34 30 20 31 38 0D	IR Function	Volume +	Yes	Yes	Yes
	~XX140 19	7E 30 30 31 34 30 20 31 39 0D	IR Function	Brightness	Yes	Yes	Yes
	~XX140 20	7E 30 30 31 34 30 20 32 30 0D	IR Function	Menu	Yes	Yes	Yes
	~XX140 21	7E 30 30 31 34 30 20 32 31 0D	IR Function	Zoom	Yes	Yes	Yes
	~XX140 28	7E 30 30 31 34 30 20 32 38 0D	IR Function	Contrast	Yes	Yes	Yes
	~XX140 47	7E 30 30 31 34 30 20 34 37 0D	IR Function	Source	Yes	Yes	Yes
S070	~XX195 0	7E 30 30 31 39 35 20 30 0D	Test Pattern	Off	Yes	Yes	Yes
	~XX195 1	7E 30 30 31 39 35 20 31 0D	Test Pattern	Grid (White)	Yes	Yes	Yes
	~XX195 2	7E 30 30 31 39 35 20 32 0D	Test Pattern	White	Yes	Yes	Yes
	~XX195 3	7E 30 30 31 39 35 20 33 0D	Test Pattern	Grid (Green)	Yes	Yes	Yes
	~XX195 4	7E 30 30 31 39 35 20 34 0D	Test Pattern	Grid (Magenta)	Yes	Yes	Yes
S071	~XX200 n	7E 30 30 32 30 30 20 a 0D	White level	n = 0 (a=30) ~ 31 (a=33 31)	No	No	No
S072	~XX201 n	7E 30 30 32 30 31 20 a 0D	Black level	n = -5 (a=2D 35) ~ 5 (a=35)	No	No	No
S073	~XX204 1	7E 30 30 32 30 34 20 31 0D	IRE	0	No	No	No
	~XX204 0	7E 30 30 32 30 34 20 30 0D	IRE	7.5	No	No	No

INDEX	ASCIICODE	HEXCODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S074	~XX210 n	7E 30 30 32 30 30 20 n 0D	Display message on the OSD	n: 1-30 characters	Yes	Yes	Yes
S075	~XX215 1	7E 30 30 32 31 35 20 31 0D	Colour Setting	Reset	Yes	Yes	Yes
S076	~XX230 0	7E 30 30 32 33 30 20 30 0D	3D Mode	Off	Yes	Yes	Yes
	~XX230 1	7E 30 30 32 33 30 20 31 0D	3D Mode	DLP-Link	Yes	Yes	Yes
S077	~XX231 0	7E 30 30 32 33 31 20 30 0D	3D Sync Invert	Off	Yes	Yes	Yes
	~XX231 1	7E 30 30 32 33 31 20 31 0D	3D Sync Invert	On	Yes	Yes	Yes
S078	~XX313 1	7E 30 30 33 31 33 20 31 0D	Information Menu	On	Yes	Yes	Yes
	~XX313 0	7E 30 30 33 31 33 20 30 0D	Information Menu	Off (0/2 for backward compatible)	Yes	Yes	Yes
S079	~XX320 1	7E 30 30 33 32 30 20 31 0D	Optional Filter Installed	Yes	No	No	No
	~XX320 0	7E 30 30 33 32 30 20 30 0D	Optional Filter Installed	No (0/2 for backward compatible)	No	No	No
S080	~XX322 0	7E 30 30 33 32 32 20 30 0D	Filter Reminder	Off	No	No	No
	~XX322 1	7E 30 30 33 32 32 20 31 0D	Filter Reminder	300hr	No	No	No
	~XX322 2	7E 30 30 33 32 32 20 32 0D	Filter Reminder	500hr	No	No	No
	~XX322 3	7E 30 30 33 32 32 20 33 0D	Filter Reminder	800hr	No	No	No
	~XX322 4	7E 30 30 33 32 32 20 34 0D	Filter Reminder	1000hr	No	No	No
S081	~XX323 1	7E 30 30 33 32 33 20 31 0D	Filter Reset	Yes	No	No	No

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S082	~XX327 n	7E 30 30 33 32 37 20 α 0D	Colour Setting Red Hue	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S083	~XX328 n	7E 30 30 33 32 38 20 α 0D	Colour Setting Green Hue	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S084	~XX329 n	7E 30 30 33 32 39 20 α 0D	Colour Setting Blue Hue	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S085	~XX330 n	7E 30 30 33 33 30 20 α 0D	Colour Setting Cyan Hue	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S086	~XX331 n	7E 30 30 33 33 31 20 α 0D	Colour Setting Yellow Hue	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S087	~XX332 n	7E 30 30 33 33 32 20 α 0D	Colour Setting Magenta Hue	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S088	~XX333 n	7E 30 30 33 33 33 20 α 0D	Colour Setting Red Stutation	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S089	~XX334 n	7E 30 30 33 33 34 20 α 0D	Colour Setting Green Stutation	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S090	~XX335 n	7E 30 30 33 33 35 20 α 0D	Colour Setting Blue Stutation	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S091	~XX336 n	7E 30 30 33 33 36 20 α 0D	Colour Setting Cyan Stutation	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S092	~XX337 n	7E 30 30 33 33 37 20 α 0D	Colour Setting Yellow Stutation	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S093	~XX338 n	7E 30 30 33 33 38 20 α 0D	Colour Setting Magenta Stutation	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S094	~XX339 n	7E 30 30 33 33 39 20 α 0D	Colour Setting Red Gain	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S095	~XX340 n	7E 30 30 33 34 30 20 α 0D	Colour Setting Green Gain	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S096	~XX341 n	7E 30 30 33 34 31 20 α 0D	Colour Setting Blue Gain	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes
S097	~XX342 n	7E 30 30 33 34 32 20 α 0D	Colour Setting Cyan Gain	n = -50 (α=2D 35 30) ~ 50 (α=35 30)	Yes	Yes	Yes

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S098	~XX343 n	7E 30 30 33 34 33 20 a 0D	Colour Setting Yellow Gain	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S099	~XX344 n	7E 30 30 33 34 34 20 a 0D	Colour Setting Magenta Gain	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S100	~XX345 n	7E 30 30 33 34 35 20 a 0D	Colour Setting White Red	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S101	~XX346 n	7E 30 30 33 34 36 20 a 0D	Colour Setting White Green	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S102	~XX347 n	7E 30 30 33 34 37 20 a 0D	Colour Setting White Blue	n = -50 (a=2D 35 30) ~ 50 (a=35 30)	Yes	Yes	Yes
S103	~XX348 1	7E 30 30 33 34 38 20 31 0D	Display Mode Lock	On	No	No	No
S103	~XX348 0	7E 30 30 33 34 38 20 30 0D	Display Mode Lock	Off	No	No	No
S104	~XX400 0	7E 30 30 34 30 30 20 30 0D	3D→2D	3D	Yes	Yes	Yes
S104	~XX400 1	7E 30 30 34 30 30 20 31 0D	3D→2D	L	Yes	Yes	Yes
S104	~XX400 2	7E 30 30 34 30 30 20 32 0D	3D→2D	R	Yes	Yes	Yes
S105	~XX405 0	7E 30 30 34 30 35 20 30 0D	3D Format	Auto	Yes	Yes	Yes
S105	~XX405 1	7E 30 30 34 30 35 20 31 0D	3D Format	SBS	Yes	Yes	Yes
S105	~XX405 2	7E 30 30 34 30 35 20 32 0D	3D Format	Top and Bottom	Yes	Yes	Yes
S105	~XX405 3	7E 30 30 34 30 35 20 33 0D	3D Format	Frame Sequential	Yes	Yes	Yes
S106	~XX506 0	7E 30 30 35 30 36 20 30 0D	Wall Colour	OFF (Whiteboard)	Yes	Yes	Yes
S106	~XX506 1	7E 30 30 35 30 36 20 31 0D	Wall Colour	Blackboard	Yes	Yes	Yes

INDEX	ASCII CODE	HEX CODE	FUNCTION	VALUE/RANGE	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
S106	~XX506 7	7E 30 30 35 30 36 20 37 0D	Wall Colour	Light Yellow	Yes	Yes	Yes
S106	~XX506 3	7E 30 30 35 30 36 20 33 0D	Wall Colour	Light Green	Yes	Yes	Yes
S106	~XX506 4	7E 30 30 35 30 36 20 34 0D	Wall Colour	Light Blue	Yes	Yes	Yes
S106	~XX506 5	7E 30 30 35 30 36 20 35 0D	Wall Colour	Pink	Yes	Yes	Yes
S106	~XX506 6	7E 30 30 35 30 36 20 36 0D	Wall Colour	Gray	Yes	Yes	Yes
S107	~XX511 0	7E 30 30 35 31 31 20 30 0D	HDMI Link(CEC)	Off (0/2 for backward compatible)	Yes	Yes	Yes
S107	~XX511 1	7E 30 30 35 31 31 20 31 0D	HDMI Link(CEC)	On	Yes	Yes	Yes
S108	~XX563 0	7E 30 30 35 36 33 20 30 0D	Auto Source	Off (0/2 for backward compatible)	Yes	Yes	Yes
S108	~XX563 1	7E 30 30 35 36 33 20 31 0D	Auto Source	On	Yes	Yes	Yes

13.2.2 SENT FROM PROJECTOR AUTOMATICALLY

INDEX	ASCII CODE	HEX CODE	FUNCTION	PROJECTOR RETURN	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
A001	N/A	N/A	“Projector Information a=0, Standby a=1, Warming a=2, Cooling a=3, Out of Range a=6, Fan Lock a=7, Over Temperature a=8, Lamp(SSI) Hours Running Out”	INFOa	Yes	Yes	Yes

13.2.3 RS232 CODES READ FROM PROJECTOR

INDEX	ASCIICODE	HEXCODE	FUNCTION	PROJECTORRETURN	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
R001	~XX87 1	7E 30 30 38 37 20 31 0D	LAN Settings / Network State	Oka (a=0 Disconnected a=1 Connected)	Yes	Yes	Yes
R002	~XX87 3	7E 30 30 38 37 20 33 0D	LAN Settings /IP Address	Okaaa_bbb_ccc_ddd	Yes	Yes	Yes
R003	~XX108 1	7E 30 30 31 30 38 20 31 0D	“Lamp Hours aaaaa=(5 digits) Total Lamp Hours”	Okaaaaa	Yes	Yes	Yes
R004	~XX121 1	7E 30 30 31 32 31 20 31 0D	“Input Source Commands a=0, None a=7, HDMI (HDMI1) a=2, VGA a=4, S-Video a=5, Video a=8, HDMI 2”	Oka	Yes	Yes	Yes
R005	~XX122 1	7E 30 30 31 32 32 20 31 0D	“Software Version aaaa=Software Version”	Okaaaa	Yes	Yes	Yes
R006	~XX123 1	7E 30 30 31 32 33 20 31 0D	“Display Mode a=0, None a=1, Presentation a=2, Bright a=3, Movie (Cinema) a=4, sRGB a=5, User a=9, 3D a=12, Game a=13, DICOM SIM. a=22, HDR SIM. a=26, HLG SIM.”	Oka	Yes	Yes	Yes
R007	~XX124 1	7E 30 30 31 32 34 20 31 0D	“Power State a=0, Off a=1, On”	Oka	Yes	Yes	Yes
R008	~XX125 1	7E 30 30 31 32 35 20 31 0D	“Brightness aaa= -50~+50”	Okaaa	Yes	Yes	Yes
R009	~XX126 1	7E 30 30 31 32 36 20 31 0D	“Contrast aaa= -50~+50”	Okaaa	Yes	Yes	Yes
R010	~XX127 1	7E 30 30 31 32 37 20 31 0D	“Aspect Ratio aa=0, None aa=1, 4:3 aa=2, 16:9 aa=3, 16:10 aa=5, LBX aa=6, Native aa=7, Auto”	Okaa	Yes	Yes	Yes

INDEX	ASCIICODE	HEXCODE	FUNCTION	PROJECTORRETURN	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
R011	~XX128 1	7E 30 30 31 32 38 20 31 0D	“Color Temperature a=0, Standard a=1, Cool a=2, Cold a=3, Warm”	Oka	Yes	Yes	Yes
R012	~XX129 1	7E 30 30 31 32 39 20 31 0D	“Projection Mode a=0, Front a=1, Rear a=2, Front-Ceiling a=3, Rear-Ceiling”	Oka	Yes	Yes	Yes
R013	~XX150 1	7E 30 30 31 35 30 20 31 1D	“Information a=Power Status a=0, Power Off a=1, Power On bbbb=Lamp Hours cc=Input Source cc=00, None cc=02, VGA cc=05, Video cc=07, HDMI 1 cc=08, HDMI 2 dddd=Software Version ee=Display Mode ee=00, None ee=01, Presentation ee=02, Bright ee=03, Movie (Cinema) ee=04, sRGB ee=05, User ee=09, 3D ee=10, DICOM SIM. ee=12, Game ee=22, HDR SIM. ee=26, HLG SIM.”	Okabbbbcbccddddee	Yes	Yes	Yes
R014	~XX150 4	7E 30 30 31 35 30 20 34 0D	“Resolution a=string (e.g. Ok1920×1080)”	Oka	Yes	Yes	Yes
R020	~XX150 16	7E 30 30 31 35 30 20 31 36 0D	“Standby Power Mode a=0, Eco. a=1, Active”	Oka	Yes	Yes	Yes
R015	~XX150 19	7E 30 30 31 35 30 20 31 39 0D	“Refresh rate a=string (e.g. Ok60Hz)”	Oka	Yes	Yes	Yes

INDEX	ASCIICODE	HEXCODE	FUNCTION	PROJECTORRETURN	SP2234 SP2234ST	SP2236 SP2236ST	SP2238 SP2238ST
R016	~XX151 1	7E 30 30 31 35 31 20 31 0D	“Model Name a=1, SVGA a=2, XGA a=3, WXGA a=4, 1080p a=5, WUXGA”	Oka	Yes	Yes	Yes
R017	~XX321 1	7E 30 30 33 32 31 20 31 0D	“Filter Usage Hours aaaaa=00000~99999”	Okaaaaa	No	No	No
R018	~XX352 1	7E 30 30 33 35 32 20 31 0D	“System Temperature aaa=000~999”	Okaaa	Yes	Yes	Yes
R019	~XX353 1	7E 30 30 33 35 33 20 31 0D	“Serial Number a=string”	Oka	Yes	Yes	Yes
R020	~XX355 1	7E 30 30 33 35 35 20 31 0D	“AV Mute a=0, Off a=1, On”	Oka	Yes	Yes	Yes
R021	~XX356 1	7E 30 30 33 35 36 20 31 0D	“Mute a=0, Off a=1, On”	Oka	Yes	Yes	Yes
R022	~XX543 1	7E 30 30 35 34 33 20 31 0D	“H Image Shift aaaa=-100~+100”	Okaaaaa	Yes	Yes	Yes
R023	~XX543 2	7E 30 30 35 34 33 20 32 0D	“V Image Shift aaaa=-100~+100”	Okaaaaa	Yes	Yes	Yes
R024	~XX543 3	7E 30 30 35 34 33 20 33 0D	“V Keystone aaa=-40~+40”	Okaaa	Yes	Yes	Yes
R025	~XX543 4	7E 30 30 35 34 33 20 34 0D	“H Keystone aaa=-40~+40”	Okaaa	Yes	Yes	Yes
R026	~XX555 1	7E 30 30 35 35 35 20 31 0D	LAN MAC Address	Ok###:###:###:###:##	Yes	Yes	Yes
R027	~XX558 1	7E 30 30 35 35 38 20 31 0D	“Projector ID aa=00~99”	Okaa	Yes	Yes	Yes

13.3 SUPPORTED RESOLUTIONS AND REFRESH RATES

Video Compatibility

NTSC	NTSC M/J, 3.58MHz, 4.43MHz
PAL	PAL B/D/G/H/I/M/N, 4.43MHz
SECAM	SECAM B/D/G/K/K1/L, 4.25/4.4 MHz
SDTV	480i/p, 576i/p
HDTV	720p(50/60Hz), 1080i(50/60Hz), 1080P(50/60Hz)

Note Video timing detail

Signal	Resolution	Refresh Rate(Hz)	Notes
TV(NTSC)	720×480	60	For Composite Video /S-video
TV(PAL,SECAM)	720×576	50	
SDTV(480I)	720×480	60	For Component
SDTV(480P)	720×480	60	
SDTV(576I)	720×576	50	
SDTV(576P)	720×576	50	
HDTV(720p)	1280×720	50/60	
HDTV(1080I)	1920×1080	50/60	
HDTV(1080p)	1920×1080	24/50/60	

True 3D Video Compatibility table

Input Resolutions	HDMI 1.4a 3D Input	Input timing		
		1280×720P @ 50Hz	Top-and-Bottom	
		1280×720P @ 60Hz	Top-and-Bottom	
		1280×720P @ 50Hz	Frame packing	
		1280×720P @ 60Hz	Frame packing	
		1920×1080i @50 Hz	Side-by-Side (Half)	
		1920×1080i @60 Hz	Side-by-Side (Half)	
		1920×1080P @24 Hz	Top-and-Bottom	
		1920×1080P @24 Hz	Frame packing	
	HDMI 1.3	1920×1080i @ 50Hz	Side-by-Side(Half)	SBS mode is on
		1920×1080i @ 60Hz		
		1280×720P @50Hz		
		1280×720P @60Hz		
		800×600 @ 60Hz		
		1024×768 @ 60Hz		

Input Resolutions	HDMI 1.3	1920×1080i @ 50Hz	Top-and-Bottom	TAB mode is on
		1920×1080i @ 60Hz		
		1280×720P @50Hz		
		1280×720P @60Hz		
		800×600 @ 60Hz		
		1024×768 @ 60Hz		
		480i	HQFS	3D format is Frame sequential

If 3D input is 1080p@24Hz, the DMD should replay with integral multiple with 3D mode
Support NVIDIA 3DTV Play if there is no patent fee from InFocus

Note 1080i@25Hz and 720p@50Hz will run in 100Hz; other 3D timing will run in 120Hz.

VESA standards
Computer Signal (Analog RGB Compatible)

Signal	Resolution	Refresh Rate(Hz)	Notes for Mac
VGA	640×480	60/67/72/85	Mac 60/72/85/
SVGA	800×600	56/60(*2)/72/85/120(*2)	Mac 60/72/85
XGA	1024×768	48/50/60(*2)/70/75/85/120(*2)	Mac 60/70/75/85
HDTV(720P)	1280×720	50/60(*2)/120(*2)	Mac 60
WXGA	1280×768	60/75/85	Mac 60/75/85
	1280×800	48/50/60	Mac 60
WXGA(*3)	1366×768	60	
SXGA	1280×1024	60/75/85	Mac 60/75
SXGA+	1400×1050	60	
UXGA	1600×1200	60	
HDTV(1080p)	1920×1080	24/50/60	Mac 60
WUXGA	1920×1200(*1)	60/50hz	Mac 60

(*1) 1920×1200 @60Hz only support RB (reduced blanking)

(*2) Support 3D timing for 3D Ready projector (STD) and True 3D projector (Option)

(*3) Window 10 standard timing

13.4 ON SCREEN DISPLAY (OSD) MENU TREE

IMAGE

SETTING 1	SETTING 2	SETTING 3	VALUES	COMMENTS
Picture Mode			Presentation	1. RGB source default: Presentation 2. YUV source default: Movie 3. 3D on default: 3D 4. ISF Day and ISF Night are valid while ISF Mode is On or Unlock
			Bright	
			Movie	
			sRGB	
			DICOM SIM.	
			User	
			3D	
			ISF Day	
			ISF Night	
Wall Colour			Whiteboard	
			Blackboard	
			Light Yellow	
			Light Green	
			Light Blue	
			Pink	
			Gray	
Brightness			-50 ~ 50	
Contrast			-50 ~ 50	
Sharpness			1 ~ 15	
Colour			-50 ~ 50	Only for YUV source
Tint			-50 ~50	Only for YUV source
Advanced	Gamma		Film	1. Picture Mode is DICOM SIM. Gamma item will be hide. 2. Wall Colour is Blackboard. Gamma item will be hide.
			Video	
			Graphics	
			Standard (2.2)	
			1,8	
			2.0	
			2,4	
	BrilliantColorTM		1 ~ 10	
	Colour Temp		Warm	
			Medium	
			Cold	
	Colour Settings	Red- Hue	-50 ~ 50	
		Red- Saturation	-50 ~ 50	
		Red- Gain	-50 ~ 50	
		Exit		

SETTING 1	SETTING 2	SETTING 3	VALUES	COMMENTS
Advanced	Colour Settings	Green- Hue	-50 ~ 50	
		Green- Saturation	-50 ~ 50	
		Green- Gain	-50 ~ 50	
		Exit		
		Blue- Hue	-50 ~ 50	
		Blue- Saturation	-50 ~ 50	
		Blue- Gain	-50 ~ 50	
		Exit		
		Cyan- Hue	-50 ~ 50	
		Cyan- Saturation	-50 ~ 50	
		Cyan- Gain	-50 ~ 50	
		Exit		
		Magenta- Hue	-50 ~ 50	
		Magenta- Saturation	-50 ~ 50	
		Magenta- Gain	-50 ~ 50	
		Exit		
		Yellow- Hue	-50 ~ 50	
		Yellow- Saturation	-50 ~ 50	
		Yellow- Gain	-50 ~ 50	
		Exit		
		White- Red	-50 ~ 50	
		White- Green	-50 ~ 50	
		White- Blue	-50 ~ 50	
		Exit		
		Reset		
		Exit		
	RGB Gain/Bias	Red Gain	-50 ~ 50	
		Green Gain	-50 ~ 50	
		Blue Gain	-50 ~ 50	
		Red Bias	-50 ~ 50	
		Green Bias	-50 ~ 50	
		Blue Bias	-50 ~ 50	
		Reset		
		Exit		
	Colour Space		AUTO	
			RGB	Only for non-HDMI source
			RGB (0-255)	Only for HDMI source
			RGB (16-235)	Only for HDMI source
			YUV	

SETTING 1	SETTING 2	SETTING 3	VALUES	COMMENTS
Advanced	White Level		0 ~ 31	Only for Video
	Black Level		-5 ~ 5	Only for Video
	IRE		0	For Video Input Source NTSC Signal default: 7.5 PAL Signal default: 0 IRE Adjustment Only for NTSC-M/ NTSC-J/NTSC-4.43/PAL-M/ PAL-60
			7.5	
	Signal	Automatic	Off	Only for Analog VGA source
			On	
		Phase	0 ~ 31	
		Frequency	-10 ~ 10	
		H. Position	-5 ~ 5	
		V. Position	-5 ~ 5	
		Exit		
	Exit			

Display



INFORMATION

**Zoom has a total of 30 step adjustment, each step representing 0.04* adjustment from -0.8 to 2.0*
Brightness Power, each step represents 5% power adjustment from 100% to 50%**

SETTING 1	SETTING 2	SETTING 3	VALUES	COMMENTS
Format			4:3	
			16:9	For all models but WXGA models depend on Screen Type selection
			16:10	Only for WXGA models depend on Screen Type selection
			LBX	Only for WXGA, 1080p models.
			Native	Original image without any scaling
			Auto	
Edge Mask			0 ~ 10	
Zoom			-5 ~ 25	
Image Shift	H		-100 ~ 100	One step: 2
	V		-100 ~ 100	One step: 2
	Exit			

SETTING 1	SETTING 2	SETTING 3	VALUES	COMMENTS
V Keystone			-40 ~ 40	for RT
			-20 ~ 20 (TBD)	for ST Note: the V keystone range of 1080p ST: -10~10 in 3D mode by DDP4422 limitation
3D	3D Mode		Off	
			DLP-Link	
	3D-2D		3D	
			L	Only display left frame
			R	Only display right frame
	3D Format		Auto	
			SBS	SBS = Side by Side Half
			Top and Bottom	
			Frame Sequential	
	3D Sync. Invert		Off	
			On	
	Exit			
Enhanced Gaming			Off	1. Only for 1920x1080 60Hz timing 2. Disable Keystone/Overscan/ Zoom/Image Shift/Aspect Ratio when turn On
			On	
Picture Mode Lock			Off	
			On	

Audio

SETTING 1	SETTING 2	SETTING 3	VALUES
Mute	—	—	Off / On (ICON)
Volume	—	—	0-10

Setup



INFORMATION

Power Mode, Eco/Active – Eco disables LAN and puts USB in to standby mode, Active leaves LAN active and USB in to standby

SETTING 1	SETTING 2	SETTING 3	VALUE	Remark
Language			English	English
			Deutsch	German
			Français	French
			Svenska	Swedish
			Español	Spanish
			Português	Portuguese
			Polski	Polish
			Nederlands	Dutch
			हिंदी	Hindi
			Norsk/Dansk	Norwegian/Danish
			Pilipino	Filipino
			Melayu	Malay
			Română	Romanian
			Italiana	Italian
			简体中文	Simplified Chinese
			Suomi	Finnish
			ελληνικά	Greek
			Русский	Russian
			Magyar	Hungarian
			Čeština	Czech
			العربية	Arabic
			ไทย	Thai
Projection			Front (ICON)	
			Rear (ICON)	
			Front-Ceiling (ICON)	
			Rear-Ceiling (ICON)	
Menu Location			Top-Left (ICON)	
			Top-Right (ICON)	

SETTING 1	SETTING 2	SETTING 3	VALUE	Remark
Menu Location			Center (ICON)	
			Bottom-Left (ICON)	
			Bottom-Right (ICON)	
Screen Type			16:10	1. Only for WXGA models 2. Relate to Format
			16:9	
Security	Security		Off	Default PIN: 1234
			On	
	Security Timer	Month	0 ~ 12	
		Day	0 ~ 30	
		Hour	0 ~ 24	
Change Password				PIN is 4 digitals
Project ID			0 ~ 99	
Audio Settings	Mute		Off	
			On	
	Volume		0 ~ 10	
	Audio Input		Default	Only for HDMI source
			AUDIO IN	
Exit				
HDMI Link Settings	HDMI Link		Off	
			On	
	Power On Link		Mutual	
			PJ -> Device	
			Device -> PJ	
	Power Off Link		Off	
			On	
Network	Network State		Connect/Disconnect	DHCP Off, default IP configure setting: IP Address: 192.168.0.100 Subnet Mask: 255.255.255.0 Gateway: 192.168.0.254 DNS: 192.168.0.1
	DHCP		Off	
			On	
	IP Address		xxx.xxx.xxx.xxx	
	Subnet mask		xxx.xxx.xxx.xxx	
	Gateway		xxx.xxx.xxx.xxx	Support Network Functions: Crestron 2.0 => Port 41794 Extron => Port 2023 AMX Device Discovery => Port 9131 PJ Link => Port 4352 Telnet => Port 23 HTTP => Port 80, Webpage Control
	DNS		xxx.xxx.xxx.xxx	
	Apply	Yes		
No				
Exit				
Advanced	Logo		Default	
			Neutral	Same as below Background Colour setting

SETTING 1	SETTING 2	SETTING 3	VALUE	Remark
Advanced	Background Colour		Black	
			Red	
			Blue	
			Green	
			White	
			Logo	
	Information Hide		Off	Warning message & power off not hide
			On	
	Exit			

OPTIONS

SETTING 1	SETTING 2	SETTING 3	VALUE	COMMENTS
Input Source			VGA	
			Video	
			HDMI 1	
			HDMI 2	
			Exit	
Auto Source			Off	
			On	
High Altitude			Off	
			On	
Keypad Lock			Off	1. Keypad unlock hotkey: Press the "Enter" key on keypad for 5s to release keypad lock 2. Relate to IR Function: If Keypad Lock setting from Off to On, IR Function will be automatically changed to On.
			On	
Test Pattern			Red Grid	
			Green Grid	
			Blue Grid	
			White	
Remote Settings	IR Function		Off	Relate to Keypad Lock: If IR Function setting from On to Off, Keypad Lock will be automatically changed to Off.
			On	
	User 1		AV Mute	Executed through the "AV Mute" key on the remote control
			Wall Colour	
			Brightness	
			Contrast	
			Gamma	

SETTING 1	SETTING 2	SETTING 3	VALUE	COMMENTS
Remote Settings	User 1		Colour Temp.	Executed through the “AV Mute” key on the remote control
			Colour Settings	
			RGB Gain/Bias	
			Language	
			Projection	
			Security	
			Test Pattern	
			Auto Power Off (min)	
			Sleep Timer (min)	
			Lamp Settings	
			INFO	
Advanced	Direct Power On		Off	
			On	
	Signal Power On		Off	
			On	
	Auto Power Off (min)		0 ~ 180	One step: 5
	Sleep Timer (min)		0 ~ 990	One step: 30
	Quick Resume		Off	
			On	
	VGA Out (Standby)		Off	
			On	
	USB Power		Off	Standby not supported
			On	
	Exit			
Lamp Settings	Lamp Hours		(DisplayOnly)	Range 0-99999
	Lamp Reminder		Off	
			On	
	Brightness Mode		Bright	
			Eco	
			Dynamic	
	Lamp Reset		No	
			Yes	
	Exit			
Reset			No	
			Yes	

Information



INFORMATION

The information menu provides information on the active source and other details of the projector, there are no adjustable settings in this section of the menu.

SETTING 1	SETTING 2	SETTING 3	VALUE	Remark
Regulatory			P122 for RT P123 for ST	
Serial Number			(DisplayOnly)	
Input Source			(DisplayOnly)	
Resolution			(DisplayOnly)	
Refresh Rate			(DisplayOnly)	
Picture Mode			(DisplayOnly)	
Lamp Hours	Bright		(DisplayOnly)	Range 0~99999
	Eco.		(DisplayOnly)	Range 0~99999
	Dynamic		(DisplayOnly)	Range 0~99999
	Total		(DisplayOnly)	Range 0~99999
Brightness Mode			(DisplayOnly)	
Firmware Version	System		(DisplayOnly)	
	MCU		(DisplayOnly)	
Project ID			(DisplayOnly)	

14. SPECIFICATIONS



INFORMATION

All specifications are subject to change without notice.

14.1 ISTA, P122 & P123, SPECIFICATIONS

	SP2234	SP2236	SP2238	SP2234ST	SP2236ST	SP2238ST
IMAGE						
Product Series	VISTA					
Display Technology	Texas Instruments DLP®					
Panel Size	0.55" DMD	0.65" DMD	0.65" DMD	0.55" DMD	0.65" DMD	0.65" DMD
Native Resolution	XGA	WXGA	1080p	XGA	WXGA	1080p
Pixels	1024×768	1280×800	1920×1080	1024×768	1280×800	1920×1080
Aspect Ratio	4:3	16:10	16:9	4:3	16:10	16:9
Contrast Ratio	30000:1					
Brightness (Lumens)	4600	4700	4400	4200	4300	4000
Light Source	UHP Lamp					
Light Source Life Maximum Hours	15000					
Maximum Supported Resolution	1920×1200					
Horizontal Sync. Range (KHz)	15 ~ 97.55					
Vertical Sync. Range (Hz)	54 ~ 85					
Uniformity (%)	80					
LENS						
Lens	1.3×			1:1 Fixed		
Lens Zoom Adjustment	Manual			—		
Image Offset (%)	115	112.4	116	115	112.4	116
Focal Length (mm)	21.85 ~ 24.01			7.15		
F-Stop	2.43	2.7	2.43	2.8	2.43	2.8
Keystone Adjustment	Manual/Automatic					
Vertical Keystone Correction	± 40°			± 20°		
Projection Factor	1.48-1.93	1.19-1.54	1.13-1.47	0.617	0.521	0.496
Projection Distance (Meters/Feet)	1.0 ~ 9.1 / 3.28 ~ 29.85	1.0 ~ 7.7 / 3.28 ~ 22.26	1.0 ~ 10.0 / 3.28 ~ 32.80	0.4 ~ 3.8 / 1.31 ~ 12.46	0.4 ~ 3.4 / 1.31 ~ 11.15	0.4 ~ 3.3 / 1.31 ~ 10.82
Optical Zoom	1.3:1			1:1		
Digital Zoom Demagnification / Magnification	0.8× ~ 2.0×					
Focus Adjustment	Manual					
CONNECTIVITY—INPUTS						
Mini D-sub 15-pin (VGA)	✓	✓	✓	✓	✓	✓
Composite Video	✓	✓	✓	✓	✓	✓
S-Video	—	—	—	—	—	—
HDMI™ 1.4	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓

	SP2234	SP2236	SP2238	SP2234ST	SP2236ST	SP2238ST
RJ45 – LAN 10/100/1000	✓	✓	✓	✓	✓	✓
3.5 mm Stereo Mini Jack	✓	✓	✓	✓	✓	✓
CONNECTIVITY – OUTPUTS						
Mini D-sub 15-pin (VGA)	✓	✓	✓	✓	✓	✓
3.5 mm Stereo Mini Jack	✓	✓	✓	✓	✓	✓
Powered USB-A for Wireless Dongle	✓	✓	✓	✓	✓	✓
CONNECTIVITY - OTHER						
RS232	✓	✓	✓	✓	✓	✓
All Major 3D Formats	✓	✓	✓	✓	✓	✓
USB-A for Service	✓	✓	✓	✓	✓	✓
POWER						
Power Supply	100 ~ 240 V AC; 50 ~ 60 Hz					
Power Consumption Max (W)	267					
Power Consumption Min. (W)	210					
Power Consumption Network Standby (W)	<2.0					
Power Consumption Standby (W)	<0.5					
GENERAL						
Product Dimensions (L x W x H) (mm / in)	313 x 236 x 96.4 / 12.4 x 9.3 x 3.8					
Product Weight (Kilograms/Pounds)	2.9 / 6.4					
Packaged Dimensions (L x W x H) (mm / in)	395 x 337 x 166 / 15.6 x 13.3 x 6.5					
Packaged Weight (Kilograms/Pounds)	4.1 / 9.0					
Fan Noise (dB)	27					
Audio (W)	1 x 10					
Operating Temperature (Celsius/Fahrenheit)	5 ~ 40 / 41 ~ 104					
Operating Humidity (%)	10 ~ 85					
Max Operating Altitude (meters / feet)	3048 / 10000					
Storage Temperature (Celsius/Fahrenheit)	-10 ~ 60 / 14 ~ 140					
Storage Humidity (%)	10 ~ 85					
Security	Kensington Security Slot™, PIN Code Lock & Timer					
Safety and Regulatory	CB, CE, EAC, cTUVus, CCC, FCC, UKCA, NOM, PSB, BIS					
Environmental	WEEE, EU RoHS, China RoHS, CEL, CECP					
IN THE BOX						
Projector	✓	✓	✓	✓	✓	✓
Simplifed Users Guide	✓	✓	✓	✓	✓	✓
VGA Cable	✓	✓	✓	✓	✓	✓
Regional Power Cord	✓	✓	✓	✓	✓	✓
Remote Control (no Battery)	✓	✓	✓	✓	✓	✓

14.2 ENESIS I, P124, SPECIFICATIONS

	SP122	SP124	SP126
IMAGE			
Product Series	GENESIS I		
Display Technology	Texas Instruments DLP®		
Panel Size	0.55" DMD		0.65" DMD
Native Resolution	SVGA	XGA	WXGA
Pixels	800×600	1024×768	1280×800
Aspect Ratio	4:3		16:10
Contrast Ratio	30000:1		
Brightness (Lumens)	4000		
Light Source	UHP Lamp		
Light Source Life Maximum Hours	15000		
Maximum Supported Resolution	1920×1200		
Horizontal Sync. Range (KHz)	15 ~ 97.55		
Vertical Sync. Range (Hz)	54 ~ 85		
Uniformity (%)	80		
LENS			
Lens	1.1×		
Lens Zoom Adjustment	Manual		
Image Offset (%)	115	112.4	
Focal Length (mm)	21.85 ~ 24.01		
F-Stop	2.41		
Keystone Adjustment	Manual/Automatic		
Vertical Keystone Correction	± 40°		
Projection Factor	1.94 ~ 2.16:1		1.54 ~ 1.72:1
Projection Distance (Meters/Feet)	1.2 ~ 12.0 / 3.94 ~ 39.36		1.0 ~ 10.0 / 3.28 ~ 32.80
Optical Zoom	1.1:1		
Digital Zoom Demagnification / Magnification	0.8× ~ 2.0×		
Focus Adjustment	Manual		
CONNECTIVITY—INPUTS			
Mini D-sub 15-pin (VGA)	☑		
Composite Video	—		
S-Video	☑		
HDMI™ 1.4	☑		
RJ45 – LAN 10/100/1000	—		
3.5 mm Stereo Mini Jack	☑		

	SP122	SP124	SP126
CONNECTIVITY – OUTPUTS			
Mini D-sub 15-pin (VGA)	—		
3.5 mm Stereo Mini Jack	✓		
Powered USB-A for Wireless Dongle	✓		
CONNECTIVITY - OTHER			
RS232	—		
All Major 3D Formats	✓		
USB-A for Service	✓		
POWER			
Power Supply	100 ~ 240 V AC; 50 ~ 60 Hz		
Power Consumption Max (W)	267		
Power Consumption Min. (W)	210		
Power Consumption Network Standby (W)	—		
Power Consumption Standby (W)	<0.5		
GENERAL			
Product Dimensions (L x W x H) (mm / in)	313×236×96.4 / 12.4×9.3×3.8		
Product Weight (Kilograms/Pounds)	2.9 / 6.4		
Packaged Dimensions (L x W x H) (mm / in)	395×337×166 / 15.6×13.3×6.5		
Packaged Weight (Kilograms/Pounds)	4.1 / 9.0		
Fan Noise (dB)	27		
Audio (W)	1×3		
Operating Temperature (Celsius/Fahrenheit)	5 ~ 40 / 41 ~ 104		
Operating Humidity (%)	10 ~ 85		
Max Operating Altitude (meters / feet)	3048 / 10000		
Storage Temperature (Celsius/Fahrenheit)	-10 ~ 60 / 14 ~ 140		
Storage Humidity (%)	10 ~ 85		
Security	Kensington Security Slot™, PIN Code Lock & Timer		
Safety and Regulatory	CB, CE, EAC, cTUVus, CCC, FCC, UKCA, NOM, PSB, BIS		
Environmental	WEEE, EU RoHS, China RoHS, CEL, CECP		
IN THE BOX			
Projector	✓	✓	✓
Simplifed Users Guide	✓	✓	✓
VGA Cable	✓	✓	✓
Regional Power Cord	✓	✓	✓
Remote Control (no Battery)	✓	✓	✓

14.3 ENESIS II P125 & P126, SPECIFICATIONS

	SP222	SP224	SP226	SP228	SP229	SP224ST	SP226ST
IMAGE							
Product Series	GENESIS II						
Display Technology	Texas Instruments DLP®						
Panel Size	0.55" DMD		0.65" DMD	0.47" DMD	0.48" DMD	0.55" DMD	0.65 DMD
Native Resolution	SVGA	XGA	WXGA	1080p	WUXGA	XGA	WXGA
Pixels	800×600	1024×768	1280×800	1920×1080	1920×1200	1024×768	1280×800
Aspect Ratio	4:3		16:10	16:9	16:10	4:3	16:10
Contrast Ratio	30000:1						
Brightness (Lumens)	4000					3800	
Light Source	UHP Lamp						
Light Source Life Maximum Hours	15000						
Maximum Supported Resolution	1920×1200						
Horizontal Sync. Range (KHz)	15 ~ 97.55						
Vertical Sync. Range (Hz)	54 ~ 85						
Uniformity (%)	80						
LENS							
Lens	1.1×					1:1 Fixed	
Lens Zoom Adjustment	Manual					—	
Image Offset (%)	115	112.4	116	110	115	112.4	
Focal Length (mm)	21.85 ~ 24.01					7.15	
F-Stop	2.41			2.1		2.7	2.8
Keystone Adjustment	Manual/Automatic						
Vertical Keystone Correction	± 40°					± 20°	
Projection Factor	1.94 ~ 2.16:1		1.54 ~ 1.72:1	1.47 ~ 1.62:1		0.621:1	0.52:1
Projection Distance (Meters/Feet)	1.2 ~ 12.0 / 3.94 ~ 39.36		1.0 ~ 10.0 / 3.28 ~ 32.80	1.0 ~ 9.8m / 3.28 ~ 32.14	1.0 ~ 9.5 / 3.28 ~ 31.16	0.4 ~ 3.76 / 1.31 ~ 12.33	0.4 ~ 3.37 / 1.31 ~ 11.05
Optical Zoom	1.1:1					1:1	
Digital Zoom Demagnification / Magnification	0.8× ~ 2.0×						
Focus Adjustment	Manual						
CONNECTIVITY—INPUTS							
Mini D-sub 15-pin (VGA)	✓						
Composite Video	—						
S-Video	✓						
HDMI™ 1.4	✓ ✓						
RJ45 - LAN 10/100/1000	—						
3.5 mm Stereo Mini Jack	✓						

	SP222	SP224	SP226	SP228	SP229	SP224ST	SP226ST
CONNECTIVITY – OUTPUTS							
Mini D-sub 15-pin (VGA)				✓			
3.5 mm Stereo Mini Jack				✓			
Powered USB-A for Wireless Dongle				✓			
CONNECTIVITY - OTHER							
RS232				✓			
All Major 3D Formats				✓			
USB-A for Service				✓			
POWER							
Power Supply	100 ~ 240 V AC; 50 ~ 60 Hz						
Power Consumption Max (W)	267						
Power Consumption Min. (W)	210						
Power Consumption Network Standby (W)	—						
Power Consumption Standby (W)	<0.5						
GENERAL							
Product Dimensions (L x W x H) (mm / in)	313 x 236 x 96.4 / 12.4 x 9.3 x 3.8						
Product Weight (Kilograms/ Pounds)	2.9 / 6.4						
Packaged Dimensions (L x W x H) (mm / in)	395 x 337 x 166 / 15.6 x 13.3 x 6.5						
Packaged Weight (Kilograms/ Pounds)	4.1 / 9.0						
Fan Noise (dB)	27						
Audio (W)	1 x 10						
Operating Temperature (Celsius/ Fahrenheit)	5 ~ 40 / 41 ~ 104						
Operating Humidity (%)	10 ~ 85						
Max Operating Altitude (meters / feet)	3048 / 10000						
Storage Temperature (Celsius/ Fahrenheit)	-10 ~ 60 / 14 ~ 140						
Storage Humidity (%)	10 ~ 85						
Security	Kensington Security Slot™, PIN Code Lock & Timer						
Safety and Regulatory	CB, CE, EAC, cTUVus, CCC, FCC, UKCA, NOM, PSB, BIS						
Environmental	WEEE, EU RoHS, China RoHS, CEL, CECF						

	SP222	SP224	SP226	SP228	SP229	SP224ST	SP226ST
IN THE BOX							
Projector	✓	✓	✓	✓	✓	✓	✓
Simplified Users Guide	✓	✓	✓	✓	✓	✓	✓
VGA Cable	✓	✓	✓	✓	✓	✓	✓
Regional Power Cord	✓	✓	✓	✓	✓	✓	✓
Remote Control (no Battery)	✓	✓	✓	✓	✓	✓	✓

15. PRODUCT COMPLIANCE

15.1 FOR USERS IN THE UNITED STATES



INFORMATION

FCC COMPLIANCE STATEMENT – CLASS B

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual may cause interference to radio communications. It has been tested and found to comply with the limits for a Class “B” computing device pursuant to Subpart B of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, or any other form of communication, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the product and receiver.
- Connect the product to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance may void the user’s authority to operate the product. Where shielded interface cables have been provided with the product, specified additional components or accessories elsewhere defined to be used with the installation of the product, they shall be used in order to ensure compliance with FCC regulations.

US Importer and Local Representative in accordance with FCC regulations

Maxnerva Technology Services USA LLC
13190 SW 68th Parkway, Suite 120
Portland, Oregon 97223,

15.2 FOR USERS IN CANADA



INFORMATION

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

INDUSTRY CANADA REGULATORY INFORMATION

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The user is cautioned that this device should be used only as specified within this manual to meet RF exposure requirements. Use of this device in a manner inconsistent with this manual could lead to excessive RF exposure conditions.

INSTRUCTIONS TO USERS: This equipment complies with the requirements of FCC equipment provided that the following conditions are met. If the cables include a EMI ferrite core, attach the ferrite core end of the cable to the projector. Use the cables which are included with the projector or specified.

****Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

Complies with IDA Standards DA103121

15.3 FOR USERS IN EUROPEAN UNION

**INFORMATION
EU COMPLIANCE****INFORMATION
CE COMPLIANCE STATEMENT**

Electromagnetic Compatibility Statement: Meets 2014/30/EU Directive
Low Voltage Directive: Meets 2014/35/EU Directive

EU Importer

Grand Field Technology Limited
Room 1001, 10/F, Houston Centre, 63 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong.

EU Authorised Representative

24hour Solutions B.V.
Van Nelleweg 1,
3044 BC, Rotterdam,
The Netherlands
info@24hour-ar.com
www.24hour-ar.com

15. FOR USERS IN THE UNITED KINGDOM AND NORTHERN IRELAND

**INFORMATION
UK COMPLIANCE**

**INFORMATION****UKCA COMPLIANCE STATEMENT**

Electromagnetic Compatibility Regulations 2016

Electrical Equipment (Safety) Regulations 2016

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Manufacturer, Importer and Authorised Representative in accordance with natational directives

Manufacturer

Maxnerva Technology Services Limited

Room 1001, 10/F, Houston Centre, 63 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong.

UK Authorised Representative in accordance with UK regulations

24hour Solutions Ltd.

15 Beaufort Court

Admirals Way, Canary Wharf

London, E14 9XL, UK

+44 (0)20 457 129 06

Company ID 13630765

15.5 FOR USERS IN RUISSIA

**INFORMATION****Russian Authorised Representative**

Maxnerva has appointed AUVIX LLC, 129085, c. Moscow, Zvezdny Boulevard, 21, bldg. 1. as the authorised representative in Russia and this product is compliant with TR TC 004/2011, TR TC 020/2011 and TR CU 020/2011 local conformity testing and approvals.

Махнерва назначил ООО « АУВИКС », 129085, г. Москва, Звездный бульвар, д. 21, стр. 1., в качестве официального представителя в России, и этот продукт соответствует требованиям TR TC 004/2011, TR TC 020/2011 и TR CU 020 /2011г. местные испытания на соответствие и согласования

ООО « АУВИКС »

129085, г. Москва, Звездный бульвар, д. 21, стр. 1

+7 (495) 797-57-75

info@auvix.ru

16. WARRANTY



SCREENPLAY LIMITED WARRANTY

This document details the terms and conditions for the Maxnerva limited warranty supplied with ScreenPlay branded products. Maxnerva is understood to include all company entities involved in the sale or supply of ScreenPlay branded products and includes Maxnerva Technology Services Ltd. Maxnerva Technology Services US LLC., Grand Field Technology, Wisecloud Technology Service Inc. and Maxnerva (Shenzhen) Technology Services Limited collectively referred to as "Maxnerva."

EFFECTIVE DATE

ScreenPlay branded product purchases effective 1st October 2023

WHO THE WARRANTY PROTECTS

The ScreenPlay limited warranty is valid for the first end-user purchase; it is non-transferable.

WARRANTY STATEMENT

Maxnerva warrants its products to be free from defects in material and workmanship during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, Maxnerva or a Maxnerva authorized service company will, in a commercially reasonable time, remedy defects in materials, design and workmanship free of charge by repairing, or should Maxnerva in its discretion deem it necessary, replacing the product in accordance with this warranty (unless otherwise required by law). Replacement products may include remanufactured products or products with neutral or alternative branding of the same or similar performance, which may consist of refurbished parts or components. Maxnerva will process each valid claim as quickly as practicable within the constraints of its operational procedures.

Maxnerva shall not be held responsible or liable for any loss, financial, consequential, or otherwise caused due to any delay whatsoever in the supply of a refurbished or replacement Projector under this warranty.

The balance of time remaining on the customer's original limited warranty will cover the replacement product. Maxnerva provides no warranty for any third-party software, whether included with the product or installed by the customer, installation of any unauthorized or third-party hardware parts or components (e.g., Projector Lamps).

DEAD ON ARRIVAL (DOA)

All new sealed ScreenPlay products carry a fourteen (30) day Dead on Arrival (DOA) warranty policy for the first consumer purchaser. A new replacement unit will be provided if the product is found to be non-operational within fourteen (30) days of purchase or fails due to a manufacturing fault. You are responsible for returning the product in its original "new" condition, with no cosmetic marking or damage and with all packaging and accessories included. Maxnerva will cover two-way freight. For valid DOA claims.

Please indicate whether you prefer a warranty repair when communicating with the ScreenPlay customer service or technical support representative.

WARRANTY PERIOD

PRODUCT	WARRANTY PERIOD
Laser Illumination Projectors	Five Years or 20000 Hours
Lamp Illumination Projectors	Two Years
Interactive Touch Displays	Three Years
Open Pluggable Specification (OPS)	Two Years
Original Lamp	1 Year or 1000 Hours
Replacement Lamps	3 Months
Accessories	3 Months

WHAT THE WARRANTY DOES NOT COVER

1. Any product on which the serial number is removed, erased, defaced, altered, modified or illegible.
2. Products that are not genuine ScreenPlay Products.
3. Damage, deterioration, or malfunction resulting from:

- Accident, misuse, neglect, fire, water, lightning, or other acts of nature,
- Unauthorized product modification or failure to follow instructions supplied with the product.
- Repair or attempted repair by anyone not authorized by Maxnerva.
- Damage to or loss of programs, data, or removable storage media.
- Software or data loss occurring during repair or replacement.
- Any damage to the product due to shipment.
- Removal or installation of the product.
- Causes external to the product, such as electric power fluctuations or failure.
- Use of supplies or parts not meeting Maxnerva specifications.
- Normal wear and tear.
- Failure of the owner to perform periodic product maintenance as stated in the user's guide.
- Any other cause which does not relate to a product defect.
- Damage caused by static (non-moving) images displayed for lengthy periods (image burn-in)
- Any third-party software included with the product or installed by the customer.
- Installation of any unauthorized hardware, accessories, consumable parts, or components
- Damage to, or abuse of, the coating on the surface of the product through inappropriate cleaning as described in the product User Guide

EXTENDED WARRANTY

All extended warranty must be purchased within one month (30 days) from the product purchase date. The Warranty Period starts at the time of the product's original purchase by the first end-user.

This warranty extends product warranty terms and warranty period in the ScreenPlay limited warranty document as follows:

EXTENSION	DETAILS	EXTENDS LIMITED WARRANTY BY
SPEPW1	Extends Lamp Illumination Projector Warranty	1 Year
SPEPW2	Extends Lamp Illumination Projector Warranty	2 Years
SPELW1	Extends Lamp Warranty	1 Year
SPELW2	Extends Lamp Warranty	2 Years
SPEDW1	Extends Display Warranty	1 Year
SPEDW2	Extends Display Warranty	2 Years
SPEOW1	Extends OPS Warranty	1 Year
SPEOW2	Extends OPS Warranty	2 Years

Extended warranties cannot be stacked to obtain extended warranty periods of more than two years. The Warranty Period will not be extended, renewed, or otherwise affected due to:

1. Subsequent resale or
2. Repair of the product; or
3. Replacement of the product

OBTAINING WARRANTY SERVICE

Submit your request using the service form or contact your local ScreenPlay support, information and details can be located at www.screenplay.net/support

Be sure to read our RMA instructions closely to ensure a smooth and timely process of your report; these will be sent to you with the RMA confirmation.

Products presented for delivery at ScreenPlay repair or logistics centres without an assigned RMA will be refused and returned to the sender. Products delivered to ScreenPlay repair or logistics centres damaged will be held, and customers will be notified. It is the responsibility of the sender to file claims directly with their freight carrier company.

OTHER IMPORTANT NOTICES

This warranty applies exclusively to the complete failure of the Projector. It does not apply to normal wear and tear, such as reduced brightness over time.

The user is advised that Lamps are classed as consumable items. Maxnerva gives no guarantee that the expected life will always be achieved.

Maxnerva reserves the right, at its absolute discretion, to determine the validity of any Warranty claim. Maxnerva's decision will be final.

All parts of the product or other equipment that Maxnerva has replaced shall become the property of Maxnerva.

If a product is found not to be covered by the terms and conditions of this Warranty, Maxnerva reserves the right to charge a handling fee.

LIMITATION OF IMPLIED WARRANTIES

To the extent allowed by local law, this product is provided to you "as is" without warranties or conditions of any kind, whether oral or written, express or implied. Maxnerva specifically disclaims any implied warranties or conditions of merchantability, satisfactory quality, noninfringement and fitness for a particular purpose.

EXCLUSION OF DAMAGES

Maxnerva's liability is limited to the cost of repair or replacement of the product. Maxnerva shall not be liable for the following;

1. Damage to other property caused by any defects in the product.
2. Damages based upon inconvenience, lost profit, lost data or downtime costs, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
3. Any other damages, whether direct, special, incidental, consequential, or otherwise.
4. Any claim against the customer by any other party.

LOCAL LAW

This warranty gives you specific legal rights, and you may also have other rights which vary from locality to locality. Some localities do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

TRADEMARKS

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