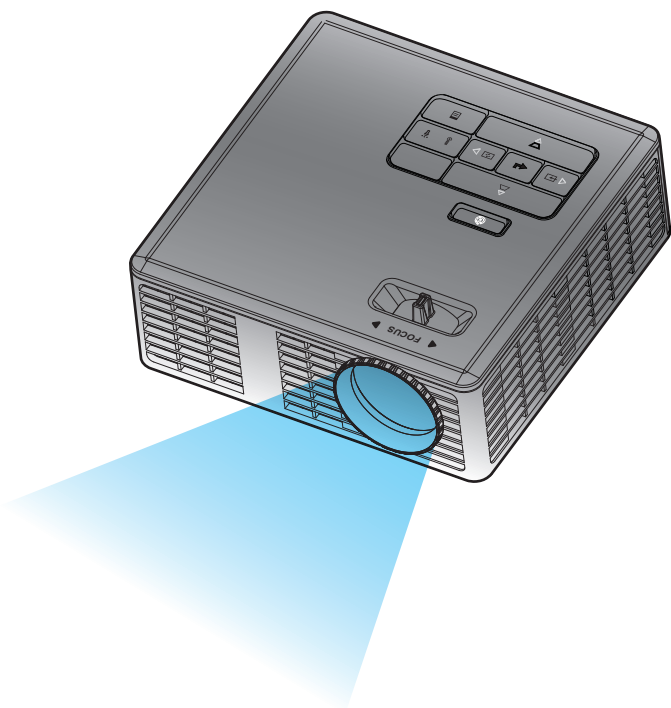


Optoma[®]





User Manual

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Safety Instructions

| | |
|---|---|
|  | The lightning flash with arrow head within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. |
|  | The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. |

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

Class B emissions limits

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Important Safety Instruction

1. Do not block any ventilation openings. To ensure reliable operation of the projector and to protect from over heating, it is recommended to install the projector in a location that does not block ventilation. As an example, do not place the projector on a crowded coffee table, sofa, bed, etc. Do not put the projector in an enclosure such as a book case or a cabinet that restricts air flow.
2. Do not use the projector near water or moisture. To reduce the risk of fire and/or electric shock, do not expose the projector to rain or moisture.
3. Do not install near heat sources such as radiators, heaters, stoves or any other apparatus such as amplifiers that emits heat.
4. Clean only with dry cloth.
5. Only use attachments/accessories specified by the manufacturer.
6. Do not use the unit if it has been physically damaged or abused.
Physical damage/abuse would be (but not limited to):
 - Unit has been dropped.
 - Power supply cord or plug has been damaged.
 - Liquid has been spilled on to the projector.
 - Projector has been exposed to rain or moisture.
 - Something has fallen in the projector or something is loose inside.Do not attempt to service the unit yourself. Opening or removing covers may expose you to dangerous voltages or other hazards. Please call Optoma before you send the unit for repair.
7. Do not let objects or liquids enter the projector. They may touch dangerous voltage points and short out parts that could result in fire or electric shock.
8. See projector enclosure for safety related markings.
9. The unit should only be repaired by appropriate service personnel.

Intended Use Statement

- Operation temperature:
 - For 0 - 2500 ft, 5 - 35 °C
 - For 2500 - 5000 ft, 5 - 30 °C
 - For 5000 - 10000 ft, 5 - 25 °C
- Maximum Humidity:
 - Operating: 5°C ~ 35°C, 80%RH (Max.), Non-condensing
 - Storage: -20°C ~ 60°C, 80%RH (Max.), Non-condensing

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.

Use of this product in adverse conditions will void the product warranty.

Safety Information

Please read, understand, and follow all safety information contained in these instructions prior to the use of this projector. Retain these instructions for future reference.

Explanation of Signal Word Consequences

- | |
|---|
| <p>⚠ Warning: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.</p> <p>⚠ Caution: Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.</p> <p>⚠ Warning: Hazardous voltage</p> |
|---|

⚠ Warning

To reduce the risk associated with hazardous voltage:

- Do not modify this product in any way.
- Do not attempt to service this projector.
- There are no user-serviceable parts. Service to be performed only by a Optoma authorized service provider using Optoma approved system components.
- Do not use the wall power supply in a wet environment.
- Do not use with a damaged wall power supply. Replace damaged part prior to use.

To reduce the risk associated with fire and explosion:

- Do not immerse the projector in any liquid or allow either to get wet.
- Use only Optoma approved power supply.

To reduce the risks associated with choking:

- Keep all small parts like the remote control battery away from young children and pets.

To reduce the risk associated with hazardous voltage, impact, tripping, and intense visible light:

- Do not use this projector around unsupervised children.

⚠ Caution

To reduce the risks associated with hearing loss:

- Be sure to read earphone manufacturer's instructions with respect to volume level.
- User is responsible to set a safe volume level.

To reduce the risk associated with explosion, and/or chemicals from a leaking batteries:

- Use only with battery type CR2025.
- Orient the battery's plus (+) and minus (-) terminals of the batteries according to the markings found on the remote control.
- Do not leave the battery in the remote for an extended period of time.
- Do not heat or expose the battery to fire.
- Do not disassemble, short, or recharge battery
- Do not carry batteries loose in your pocket or purse.
- Avoid eye and skin contact in the event that battery leaks.
- Do not recharge the battery near a heat source or in extremely hot conditions.

To reduce the risk associated with environmental contamination:

- Dispose of all system components in accordance with applicable government regulations.

To reduce the risks associated with LED bright light:

- Do not stare directly into the projector lens.

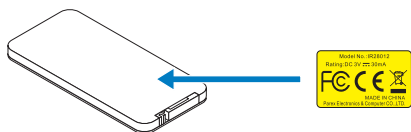
To reduce the risks associated with tripping and falling:

- Position the charging cord and data cables so that they are not a tripping hazard.

IMPORTANT NOTE: Do not expose the projector to direct sunlight in a closed space such as a vehicle.

SAVE THESE INSTRUCTIONS

Safety Labels



Remote Control (Optional)

Model No. IR28012

Trademarks

Optoma and the Optoma logo are trademarks of Optoam Company. Adobe and the Adobe logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. Microsoft, PowerPoint, and Excel are registered trademarks of Microsoft Corporation. microSD and microSDHC are trademarks of the SD Association.

All other trademarks or registered trademarks are property of their respective companies.

Video and Audio Decoder Notices

MPEG-4 NOTICE

THIS PRODUCT IS LICENSED UNDER THE MPEG-4 VISUAL PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER FOR (i) ENCODING VIDEO IN COMPLIANCE WITH THE MPEG-4 VISUAL STANDARD ("MPEG-4 VIDEO") AND/OR (ii) DECODING MPEG-4 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NONCOMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED BY MPEG LA TO PROVIDE MPEG-4 VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION INCLUDING THAT RELATING TO PROMOTIONAL, INTERNAL AND COMMERCIAL USES AND LICENSING MAY BE OBTAINED FROM MPEG LA, LLC. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpegla.com).

AVC VIDEO NOTICE

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NONCOMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpegla.com).

MPEG LAYER-3 NOTICE

Supply of this product does not convey a license nor imply any right to distribute MPEG Layer-3 compliant content created with this product in revenue-generating broadcast systems (terrestrial, satellite, cable and/or other distribution channels), streaming applications (via Internet, intranets and/or other networks), other content distribution systems (pay-audio or audio-on-demand applications and the like) or on physical media (compact discs, digital versatile discs, semiconductor chips, hard drives, memory cards and the like). An independent license for such use is required.

For details, please visit <http://mp3licensing.com>.

Regulatory Notices

FCC 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

NOTICE: This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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.

This Class [B] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

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.

Note: 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

CE Statement

ElectroMagnetic Compatibility Statement: Meets 2004/108/EC Directive

Low Voltage Directive: Meets 2006-95-EC Directive.

WEEE Statement

The following information is only for EU-members States:

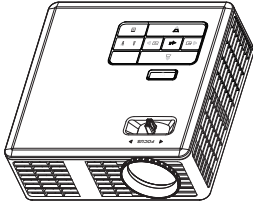
The mark shown to the right is in compliance with Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE). The mark indicates the requirement NOT to dispose the equipment as unsorted municipal waste, but use the return and collection systems according to local law.



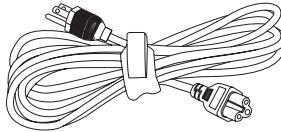
Introduction

Package Contents

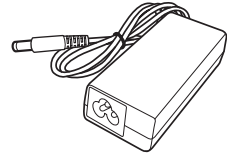
Your projector comes with all the items shown below. Ensure that you have all the items, and contact your local reseller or service center if anything is missing.



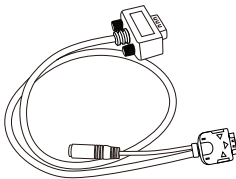
Projector



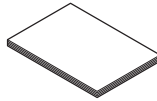
Power cable



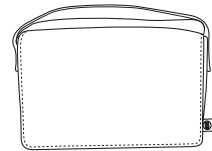
AC adapter



Universal 24-pin to
VGA/Audio cable



Quick start card
and documentation



Carrying case

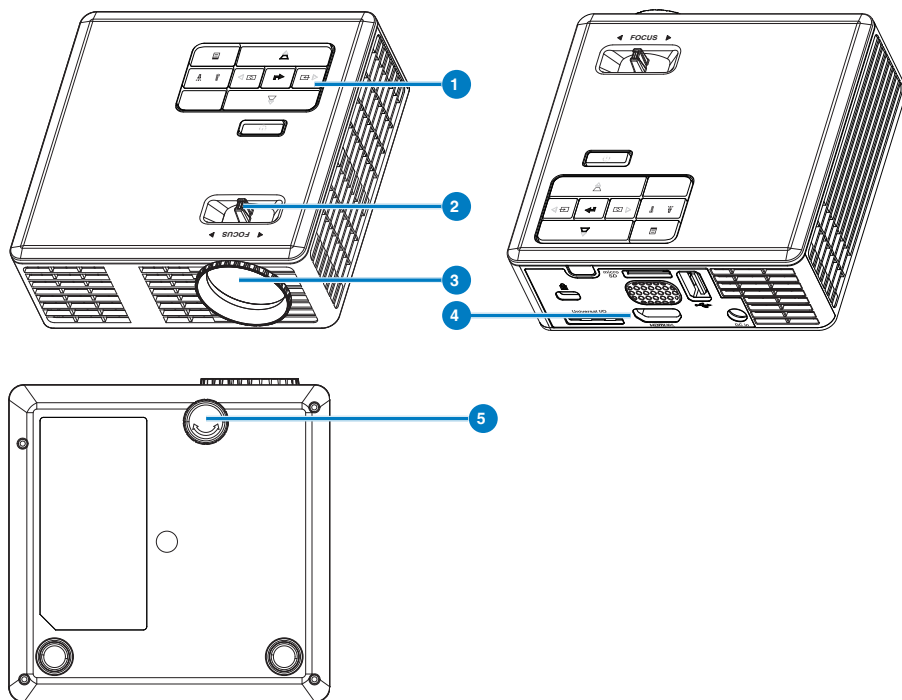


Remote control

NOTE: The remote control is shipped with battery.

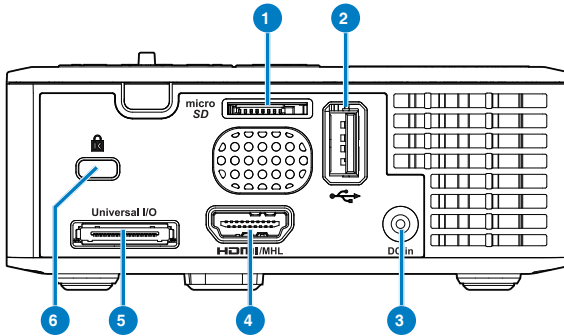
About Your Projector

Main Unit



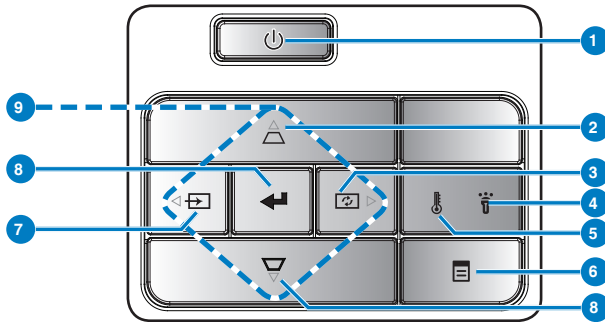
| # | Description |
|---|----------------------------|
| 1 | Control panel |
| 2 | Focus ring |
| 3 | Lens |
| 4 | Input / Output connections |
| 5 | Tilt adjusting wheel |

Input / Output Connections



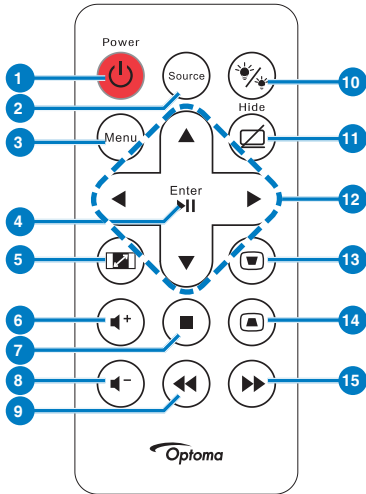
| # | Description |
|---|-------------------------|
| 1 | MicroSD card slot |
| 2 | USB Type A connector |
| 3 | DC input connector |
| 4 | HDMI/MHL connector |
| 5 | Universal I/O connector |
| 6 | Security cable slot |










Control Panel



| # | Name | Description |
|---|------------------------------|---|
| 1 | Power | Turns the projector on or off. |
| 2 | Keystone adjustment | Press to adjust image distortion caused by tilting the projector (+/-40 degrees). <i>NOTE: This function is not supported on Multi-Media function.</i> |
| 3 | Auto adjust | Press to synchronize the projector to the input source. <i>NOTE: Auto Adjust does not operate if the on-screen display (OSD) is displayed.</i> |
| 4 | Error LED | Error LED is solid amber, one of the LED has failed. The projector will automatically shut down. |
| 5 | Temp LED | If the TEMP amber indicator is blinking, one of the following problems could be occurring: <ul style="list-style-type: none"> • Internal temperature of the projector is too high. • The fans has failed. |
| 6 | Menu | Press to activate the OSD. Use the directional keys and the Menu button to navigate through the OSD. |
| 7 | Source | Press to enter Source menu and select an input source. <i>NOTE: This function is not supported on Multi-Media function.</i> |
| 8 | Enter | Press to confirm the selection item. |
| 9 | Four Directional Select Keys | Press to navigate through the On-Screen Display (OSD) Menu items. |

Remote Control



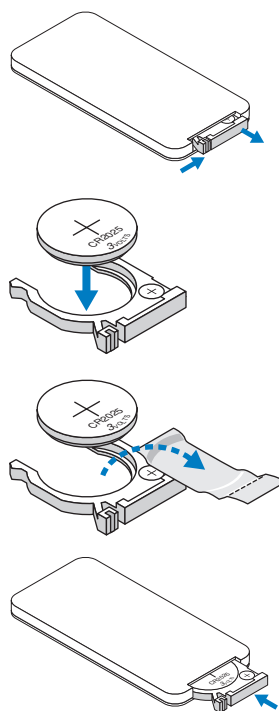
| # | Name | Description |
|----|---|---|
| 1 | Power | Turns the projector on or off. |
| 2 | Source | Press to enter Source menu and select an input source. |
| 3 | Menu | Press to activate the OSD. |
| 4 | Enter | Press to confirm the selection. |
| 5 | Aspect Ratio  | Press to change aspect ratio of a displayed image. |
| 6 | Volume up  | Press to increase the volume. |
| 7 | Stop  | Press to stop playing media file. |
| 8 | Volume down  | Press to decrease the volume. |
| 9 | Rewind  | Press to search backward. |
| 10 | LED mode  | Allows you to select the display mode. |
| 11 | Blank screen  | Press to hide/unhide the image. |
| 12 | Up/Down/Left/Right | Press to navigate through the On-Screen Display (OSD) Menu items. |
| 13 | Keystone adjustment  | Press to adjust image distortion caused by tilting the projector (+/-40 degrees). |
| 14 | | |
| 15 | Fast Forward  | Press to search forward. |

Installing the Remote Control Battery

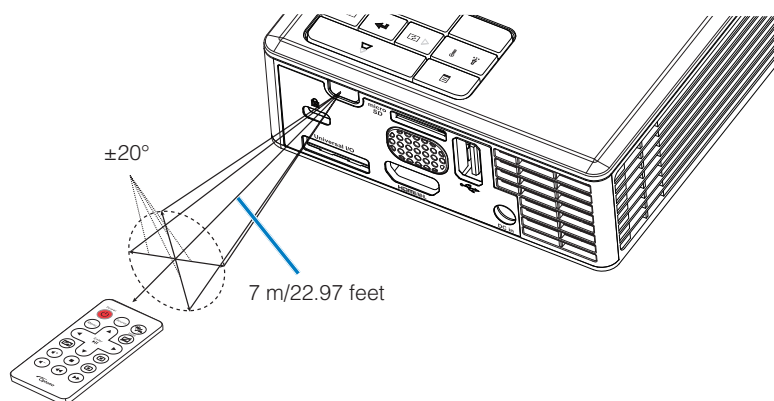
1. Remove the battery holder by holding down the side release firmly and pulling out the battery holder.
2. Insert a CR2025 coin cell battery and align the polarity correctly according to the marking in the battery holder.

NOTE: When you use the remote control for the first time, there is a plastic sheet between the battery and its contact. Remove the sheet before use.

3. Replace the battery holder.



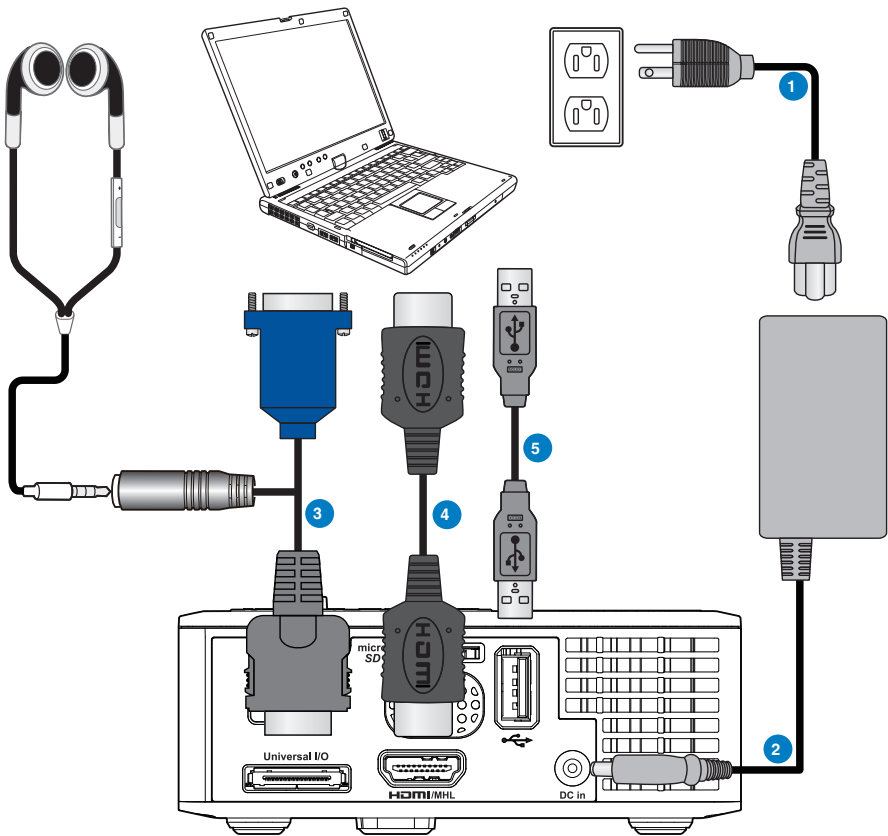
Operating Range with Remote Control



NOTE: Actual operating range may slightly differ from the diagram. Additionally, a weak battery reduces or eliminates the operating range of the remote control.

Installation

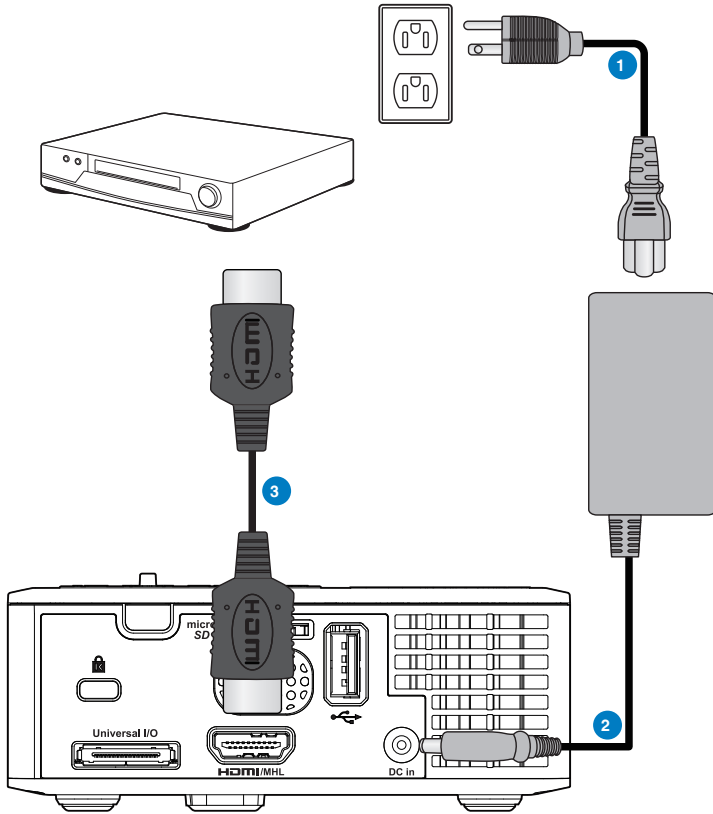
Connecting to a Computer



| # | Description |
|---|-------------------------------------|
| 1 | Power cord |
| 2 | AC adapter |
| 3 | Universal 24-pin to VGA/Audio cable |
| 4 | HDMI cable * |
| 5 | USB-A to USB-A cable * |

* NOTE: The accessory is not shipped with your projector.

Connecting to a DVD Player

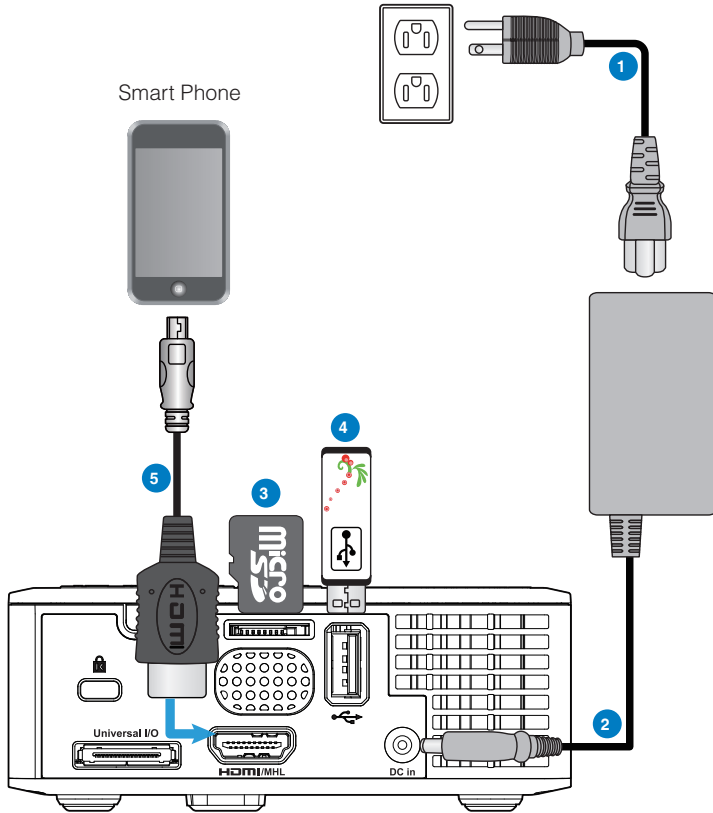


Description

- 1 Power cord
- 2 AC adapter
- 3 HDMI cable *

* NOTE: The accessory is not shipped with your projector.

Connecting to Multi-Media



| # | Description |
|---|------------------|
| 1 | Power cord |
| 2 | AC adapter |
| 3 | MicroSD card * |
| 4 | USB flash disk * |
| 5 | MHL cable * |

* NOTE: The accessory is not shipped with your projector.

Turning On/Off the Projector

Turning Your Projector On

NOTE: Turn on the projector before you turn on the source (computer, DVD player, etc.). The Power button light blinks amber until pressed.

1. Connect the power cord with AC adapter and appropriate signal cables to the projector.
2. Press the **Power** button.
3. Turn on your source (computer, DVD player, etc).
4. Connect your source to the projector using the appropriate cable.
5. The input source is determined by the last connected input source. (By default, the input source of the projector is set to Multimedia). Change the input source of the projector if necessary.
6. If you have multiple sources connected to the projector, press the **Source** button on the remote control or control panel to select the desired source.

Turning Your Projector Off

1. Press the **Power** button. Follow the instruction displayed on screen to properly turn

NOTE: The "Press Power Button to Turn off Projector" message will appear on the screen. The message disappears after 5 seconds or you can press the Menu button to clear it.

- off the projector.
2. Press the **Power** button again. The cooling fans continue to operate for 3~5 seconds.
3. Disconnect the power cord and AC adapter from the electrical outlet and the projector.

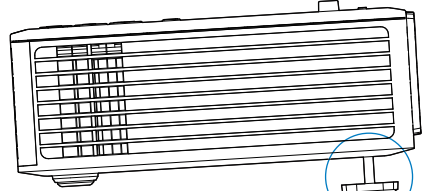
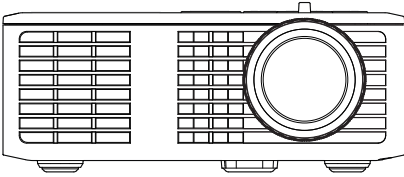
Adjusting the Projected Image

Raising the Projector Height

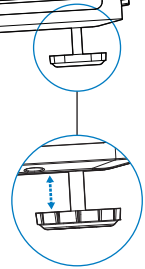
Raise the projector to the desired display angle, and use the front tilt adjustment wheel to fine-tune the display angle.

Lowering the Projector Height

Lower the projector, and use the front tilt adjustment wheel to fine-tune the display angle.



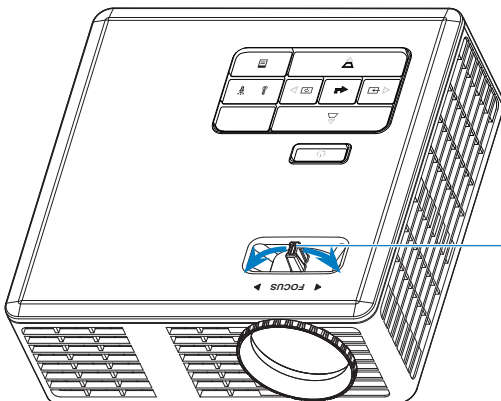
Front tilt adjustment wheel
(Angle of tilt: 0 to 6 degrees)



Adjusting the Projector Focus

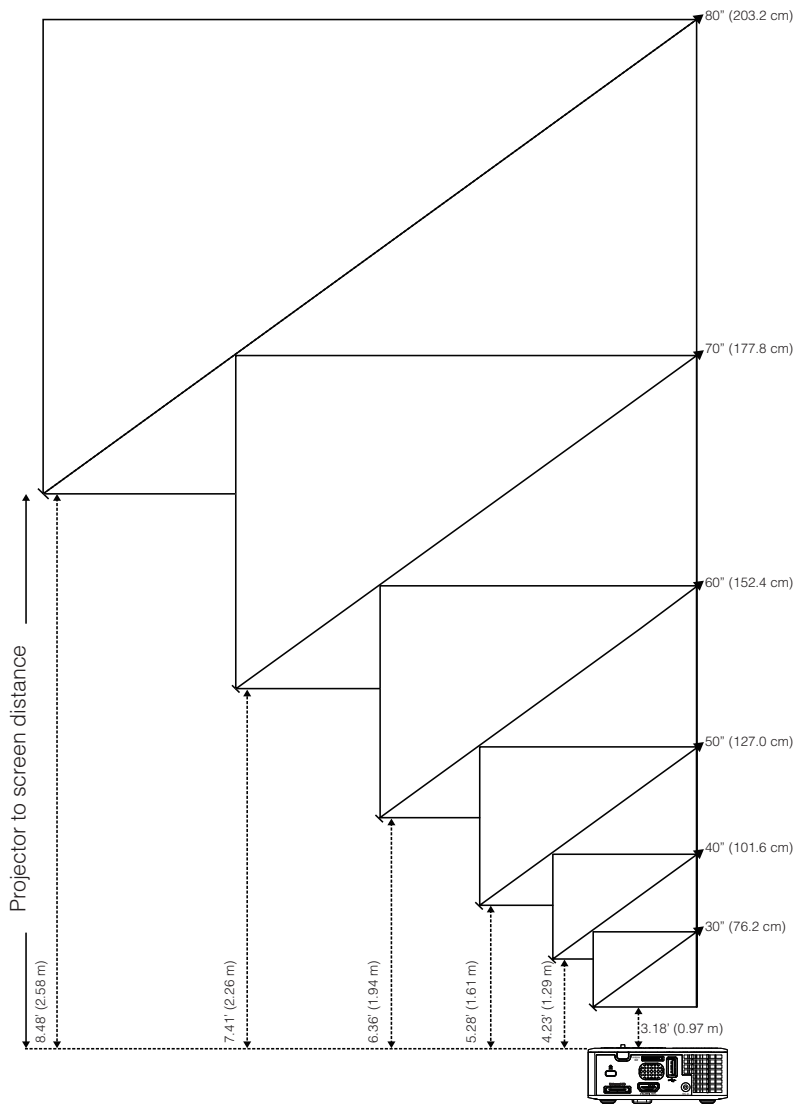
IMPORTANT NOTE: To avoid damaging the projector, ensure that the adjustment wheels are fully retracted before moving the projector or placing the projector in its carrying case.

Rotate the focus tab until the image is clear. The projector focuses at distances ranging between 3.18 ft to 8.48 ft (97 cm to 258 cm).



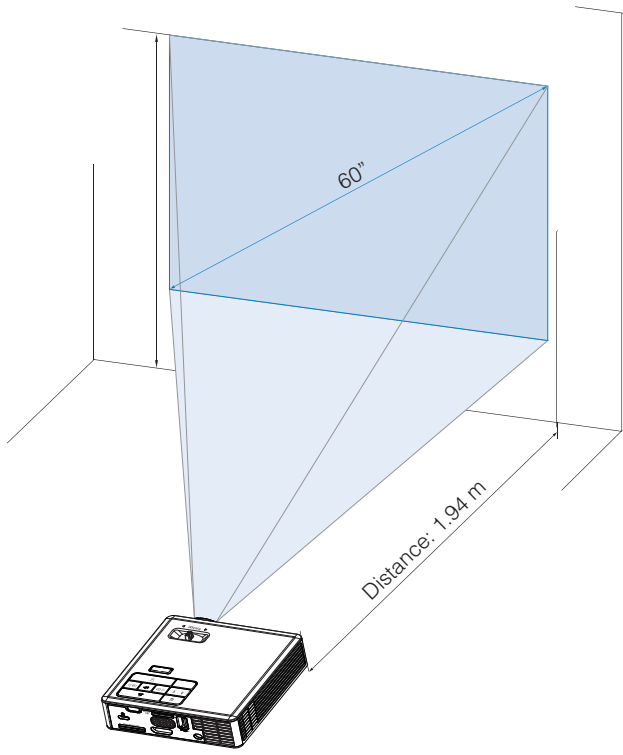
Focus tab

Adjusting Projection Image Size



| Screen Size | | | Distance |
|----------------|-----------------|-----------------|----------------|
| Diagonal | Width | Height | |
| 30" (76.2 cm) | 25.59" (65 cm) | 15.75" (40 cm) | 3.18' (0.97 m) |
| 40" (101.6 cm) | 33.86" (86 cm) | 21.26" (54 cm) | 4.23' (1.29 m) |
| 50" (127.0 cm) | 42.13" (107 cm) | 26.38" (67 cm) | 5.28' (1.61 m) |
| 60" (152.4 cm) | 50.79" (129 cm) | 31.89" (81 cm) | 6.36' (1.94 m) |
| 70" (177.8 cm) | 59.45" (151 cm) | 37.01" (94 cm) | 7.41' (2.26 m) |
| 80" (203.2 cm) | 67.72" (172 cm) | 42.52" (108 cm) | 8.48' (2.58 m) |

NOTE: This graph is for user reference only.



User Controls

Using the On-Screen Display

1. The projector has a multi-language On-Screen Display (OSD) Menu that can be displayed with or without an input source.
2. Press the **Menu** button on the control panel or the remote control to enter the Main Menu.
3. To select an option, press the \uparrow or \downarrow buttons on your projector's control panel or remote control.
4. Use the \leftarrow or \rightarrow buttons on the control panel or remote control to adjust the settings.
5. To exit the OSD, press the **Menu** button directly on the control panel or the remote control.

Main Menu

Language

Allows you to set the language for the OSD. Press \leftarrow and \rightarrow to select different languages and press \rightarrow to change the language.

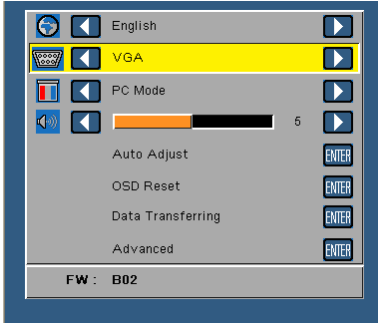
With 3D function

Without 3D function




Source

The Source menu allows you to select your projector's input source.



■ **Auto Source**

If you select and press  to activate, the Auto option will automatically find the next available input source.

■ **VGA**

Press  to detect a VGA signal.

■ **HDMI**

Press  to detect a HDMI signal.

■ USB

Allows you to playback the photo, Audio, or Video files from your USB flash disk.

■ MicroSD

Allows you to playback the photo, Audio, or Video files from your microSD card.

■ Internal Memory

Allows you to playback the photo, Audio, or Video files from internal memory of the projector.

Display Mode

The Display Mode menu allows you to optimize the display image. The options are: **Bright**, **PC**, **Cinema**, and **Photo** mode.



Audio

The Audio menu allows you adjust the volume setting of your projector.



Press ◀ to decrease the volume and ▶ to increase the volume.

Auto Adjust

Auto Adjust automatically adjusts the projector's **Horizontal Position, Vertical Position, Frequency, and Tracking** in VGA source (PC mode).



OSD Reset

Select and press  to reset all settings to its factory default.

The below warning message appears:



Reset items include both computer sources and Video source settings.

Data Transferring

Select and press  to action.

The below warning message appears:



Advanced

See "Advanced Menu" on pages 27~31.

FW Version

Display the current projector's firmware version.

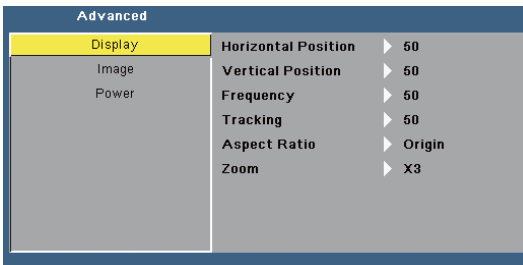
Advanced Menu

The Advanced menu allows you to change settings for **Display**, **Image**, and **Power**.



Display (In PC Mode)

Select and press \leftarrow to activate display settings. The display menu provides the following options:



■ **Horizontal Position**

Press \rightarrow to move the image right and \downarrow to move the image left.

■ **Vertical Position**

Press \uparrow to move the image up and \downarrow to move the image down.

■ **Frequency**

Allows you to change the display data clock frequency to match the frequency of your computer's graphics card. If you see a vertical flickering wave, use the Frequency control to minimize the bars. This is a coarse adjustment.

■ **Tracking**

Synchronize the phase of the display signal with the graphic card. If you experience an unstable or flickering image, use the Tracking to correct it. This is a fine adjustment.

■ Aspect Ratio

Allows you to select the aspect ratio to adjust how the image appears. Options are: **Origin, 16:9** and **4:3**.

- Origin: Select **Origin** to maintain the aspect ratio of the image projector according to the input source.
- 16:9: The input source scales to fit the width of the screen to project a 16:9 screen image.
- 4:3: The input source scales to fit the screen and projects a 4:3 image.

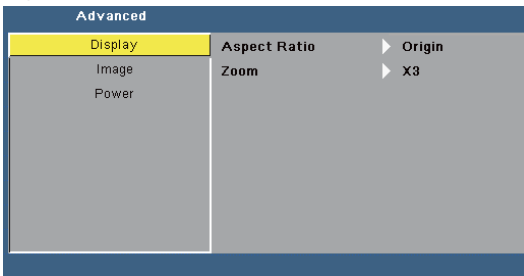
■ Zoom

Press \uparrow or \downarrow to zoom and view the image.

NOTE: Closed caption option is available for NTSC only.

Display (In Video Mode)

Select and press \leftarrow to activate display settings. The display menu provides the following options:



■ Aspect Ratio


Allows you to select the aspect ratio to adjust how the image appears. Options are: **Origin, 16:9** and **4:3**.

- Origin: Select **Origin** to maintain the aspect ratio of the image projector according to the input source.
- 16:9: The input source scales to fit the width of the screen to project a 16:9 screen image.
- 4:3: The input source scales to fit the screen and projects a 4:3 image.

■ Zoom



Press \uparrow or \downarrow to zoom and view the image.

Image (In PC Mode)


Select and press  to activate image settings. The image menu provides the following options:

| Advanced | | |
|----------|-----------------|------|
| Display | Brightness | ▶ 50 |
| Image | Contrast | ▶ 50 |
| Power | White Intensity | ▶ 10 |

■ **Brightness**

Press  and  to adjust the brightness of the image.

■ **Contrast**


Press  and  to adjust the display contrast.

■ **White Intensity**

Press  and use  and  to display white intensity.



NOTE: If you adjust the settings for Brightness, Contrast, Color Temperature, and White Intensity the projector automatically switches to User mode.

Image (In Video Mode)

Select and press  to activate image settings. The image menu provides the following options:

| Advanced | | |
|----------|-------------------|-------|
| Display | Brightness | ▶ 50 |
| Image | Contrast | ▶ 50 |
| Power | Color Temperature | ▶ Mid |
| | Saturation | ▶ 50 |
| | Sharpness | ▶ 50 |
| | Tint | ▶ 50 |
| | White Intensity | ▶ 10 |

■ **Brightness**

Press  and  to adjust the brightness of the image.

■ **Contrast**

Press ▲ and ▼ to adjust the display contrast.

■ **Color Temperature**

Allows you to adjust the color temperature. The screen appears cooler at higher color temperatures and warmer at lower color temperatures.

■ **Saturation**

Allows you to adjust the video source from black and white to fully saturated color. Press ▲ to increase the amount of color in the image and ▼ to decrease the amount of color in the image.

■ **Sharpness**

Press ▲ to increase the sharpness and ▼ to decrease the sharpness.

■ **Tint**

Press ▲ to increase the amount of green in the image and ▼ to decrease the amount of green in the image (available for NTSC only).


■ **White Intensity**

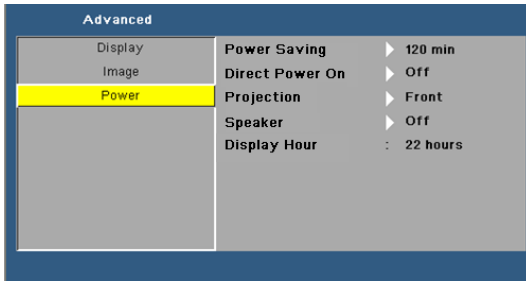
Press ← and use ▲ and ▼ to display white intensity.

NOTE:

1. *If you adjust the settings for Brightness, Contrast, Color Temperature, Saturation, Sharpness, Tint, and White Intensity the projector automatically switches to User mode.*

Power

Select and press  to activate power settings. The power menu provides the following options:



■ **Power Saving**

Select **Off** to disable Power Saving mode. By default, the projector is set to enter power saving mode after 120 minutes of no activity. A warning message appears on screen showing a 60 seconds countdown before switching to power saving mode. Press any button during the countdown period to stop the power-saving mode. You can also set a different delay period to enter power saving mode. The delay period is the time you want the projector to wait without an input signal. Power saving can be set to **30, 60, 90, or 120** minutes. If an input signal is not detected during the delay period, the projector turns off. To turn on the projector, press the **Power** button.

■ **Direct Power On**

Choose **On** to activate Direct Power mode. The projector will automatically power on when AC power is supplied, without pressing the **Power** button on the projector control panel or on the remote control.

■ **Projection**

Allows you to select the projector mode, depending upon how the projector is mounted.

- **Front:** This is the default option.
- **Rear:** The projector reverses the image so that you can project from behind a translucent screen.
- **Front Ceiling:** The projector turns the image upside down for ceiling-mounted projection.
- **Rear Ceiling:** The projector reverses and turns the image upside down. You can project from behind a translucent screen with a ceiling-mounted projection.

■ **Speaker**

Select **On** or **Off** to turn on or turn off the speaker.

■ **Display Hour**

Display the projection time.

Multi-Media Introduction

Multi-media format supported:

Photo Format

| Image Type (Ext Name) | Sub Type | Encode Type | Max Pixels | Max Size |
|--------------------------|-------------|-------------|-------------------------|----------|
| Jpeg / Jpg | Baseline | YUV420 | No Limitation | 2GB |
| | | YUV422 | | |
| | | YUV440 | | |
| | Progressive | YUV420 | 64x panel resolution | 2GB |
| | | YUV422 | | |
| | | YUV440 | | |
| BMP | | | 64x panel resolution | |

Video Format

| File Format | Video Format | Decode Max res. | Max Bit Rate (bps) | Audio Format | Profile |
|-----------------------|--------------|--------------------|-----------------------|--------------------------------|----------|
| MPG,MPEG | MPEG1 | 1920x1080 30fps | 30M bps | MPEG1 L1-3 | |
| AVI, MOV, MP4, MKV | H.264 | 1920x1080 30fps | 30M bps | MPEG1 L1-3 HE-ACC v1 AC3 | BP/MP/HP |
| AVI, MOV, MP4, | MPEG4 | 1920x1080 30fps | 30M bps | HE-ACC v1 | SP/ASP |
| AVI, MOV, MP4, | Xivd | 1920x1080 30fps | 30M bps | MPEG1 L1-3 HE-ACC v1 | HD |
| AVI | MJPEG | 8192x8192 30fps | 30Mbps | MPEG1 L1-3 HE-ACC v1 | Baseline |
| WMV | VC-1 | 1920x1080 30fps | 30M bps | WMA8/9(V1/ v2) | SP/MP/AP |

Audio Format

| Music Type (Ext Name) | Sample Rate (KHz) | Bit Rate (Kbps) |
|------------------------------|--------------------------|------------------------|
| MP3 | 8-48 | 8-320 |
| WMA | 22-48 | 5-320 |
| ADPCM-WAV | 8-48 | 32-384 |
| PCM-WAV | 8-48 | 128-1536 |
| AAC | 8-48 | 8-256 |

Office Viewer Format

| File Format | Support Version | Page/Lines Limitation | Size Limitation |
|--------------------|--|---|------------------------|
| Adobe PDF | PDF 1.0, 1.1, 1.2, 1.3, 1.4 | Up to 1000 pages (One File) | Up to 75MB |
| MS Word | British Word 95, Word 97, 2000, 2002, 2003 Word 2007(.docx), Word2010(.docx), | Because office viewer does not load all pages of MS/Word file at the same time, there are not obvious limitations of page and line. | Up to 100MB |
| MS Excel | British Excel 5,95 Excel 97, 2000, 2002, 2003 Excel 2007(.docx), Excel 2010(.docx) Office XP Excel | Row Limit: up to 595 Column Limit: up to 256 Sheet: up to 100 Note: Any one of three limitations above can not appear on one excel file simultaneously | Up to 15MB |
| MS PowerPoint | British PowerPoint 97 PowerPoint 2000, 2002, 2003 PowerPoint 2007(.pptx) PowerPoint 2010(.pptx) Office XP PowerPoint PowerPoint presentatin 2003 and earlier (.ppx) PowerPoint presentatin 2007 and 2010 (.ppsx) | Up to 1000 pages (One File) | Up to 19MB |

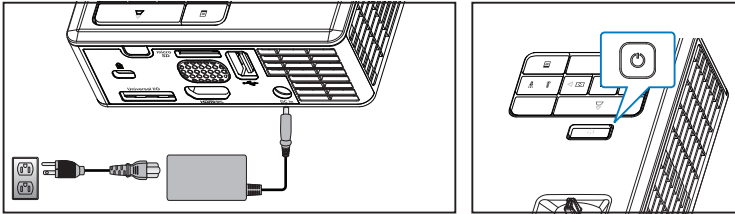
How to set-up File Type for Multi-Media with USB

NOTE:

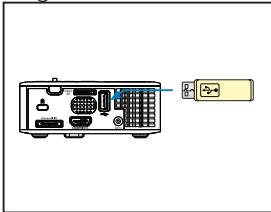
1. A USB flash disk must be plugged into the projector if you want to use the multimedia USB function.
2. Please don't connect USB port for camera since it would be exist compatibility problem.

Follow these steps to playback the Photo, Video, Music, or Office Viewer files on your projector:

1. Connect the power cable with AC adapter and turn on the projector by pressing the **Power** button.



2. Plug in a **USB flash disk** to your projector.



3. Access the **Source** menu, select the **USB** option and press the  button. The image input source will automatically switch to Multimedia Menu when **USB** option is selected in this step.



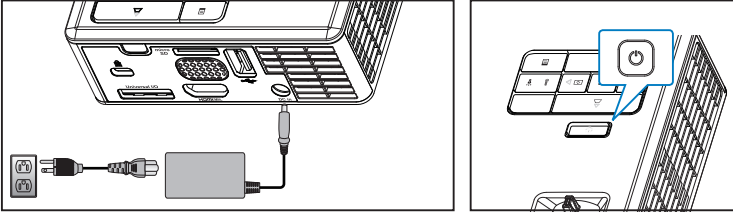
4. Select the multi-media files: **Photo**, **Video**, **Music**, or **Office Viewer**, and then press the  to start playing. Or select the **SETUP** option to change settings for **Photo**, **Video**, **Music**, or **Office Viewer**.

How to set-up File Type for Multi-Media with MicroSD

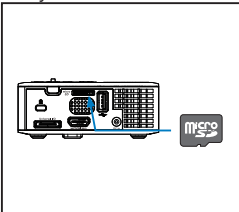
NOTE: A microSD card must be plugged into the projector if you want to use the multimedia microSD function.

Follow these steps to playback the Photo, Video, Music, or Office Viewer files on your projector:

1. Connect the power cable with AC adapter and turn on the projector by pressing the **Power** button.



2. Plug in a **MicroSD card** to your projector. The image input source will be automatically switched to microSD screen when you plug in a microSD card.



3. Access the **Source** menu, select the **MicroSD** option and press the **↔** button. The image input source will automatically switch to Multimedia Menu when **MicroSD** option is selected in this step.

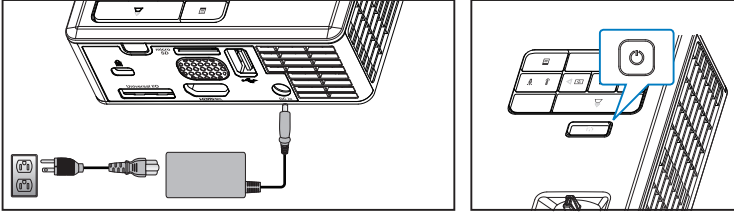


4. Select the multi-media files: **Photo**, **Video**, **Music**, or **Office Viewer**, and then press the **↺** to start playing. Or select the **SETUP** option to change settings for **Photo**, **Video**, **Music**, or **Office Viewer**.

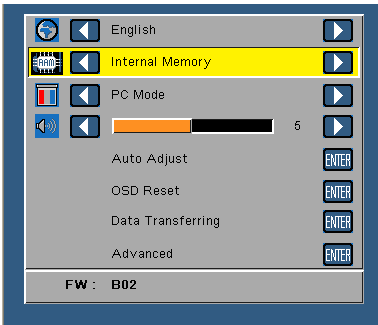
How to set-up File Type for Multi-Media with Internal Memory

Follow these steps to playback the Photo, Video, Music, or Office Viewer files on your projector:

1. Connect the power cable with AC adapter and turn on the projector by pressing the **Power** button.

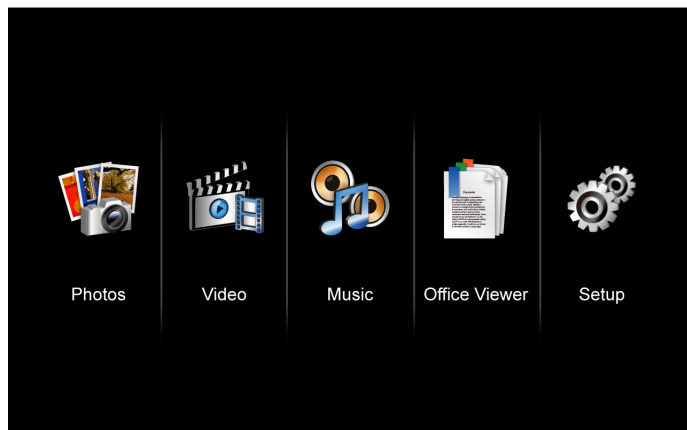


2. Access the **Source** menu, select the **Internal Memory** option and press the **↔** button. The image input source will automatically switch to Multimedia Menu when **Internal Memory** option is selected in this step.



3. Select the multi-media files: **Photo**, **Video**, **Music**, or **Office Viewer**, and then press the **↻** to start playing. Or select the **SETUP** option to change settings for **Photo**, **Video**, **Music**, or **Office Viewer**.

Multi-Media Main Menu




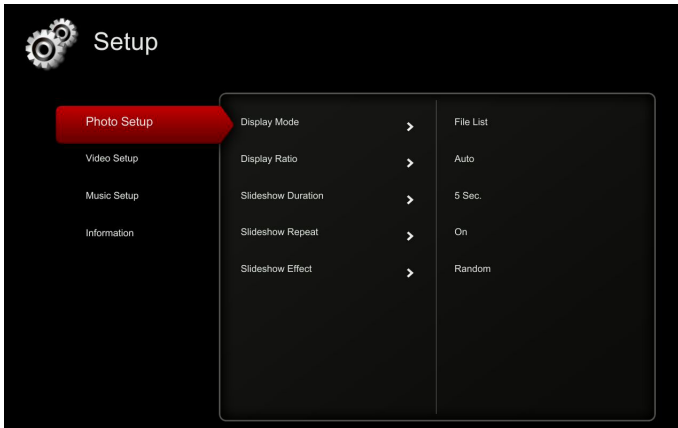
Multi-Media SETUP for USB, MicroSD, and Internal Memory

The multi-media setup menu allows you to change settings for Photo, Video, Music, and Office Viewer.



NOTE: Multi-media setup menu and set are the same for the USB, MicroSD, and Internal Memory.

Photo Setup



Select and press  to activate photo setup menu. The photo setup menu provides the following options:





■ Display Mode

Press  or  to select the display mode of the photo on the screen. Options are: **File List**, **Thumbnail**, and **Slideshow**.

■ Display Ratio

Press  or  to select the display ratio of the photo as **Auto** (original ratio) or **Full** (full screen).



■ Slideshow Duration

Press  or  to select the slideshow duration. The image will automatically switch to the next photo after the time out. Options are: **5 sec**, **15 sec**, **30 sec**, **1 min**, **5 min**, and **15 min**.

■ Slideshow Repeat


Select **On** to repeat slideshow always. Or select **Off** to stop slideshow when it goes to the last page.

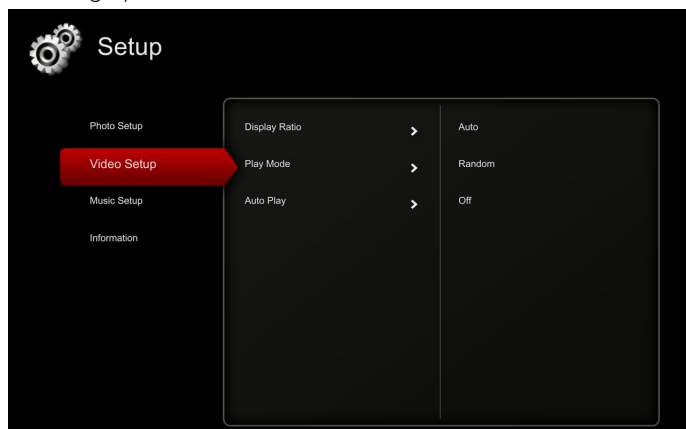
■ Slideshow Effect

Press  or  to select what slideshow effect you want. Options are: **Random**, **Rect.**, **Off**, **Snake**, **Partition**, **Erase**, **Blinds**, **Lines**, **GridCross**, **Cross**, and **Spiral**.

NOTE: Slideshow Duration, Slideshow Repeat, and Slideshow Effect function only support Slideshow mode.

Video Setup

Select and press  to activate video setup menu. The video setup menu provides the following options:





■ **Display Ratio**

Press  or  to select the display ratio of the Video.

- Auto: Keep original aspect ratio.
- Full: Full screen.


■ **Play Mode**

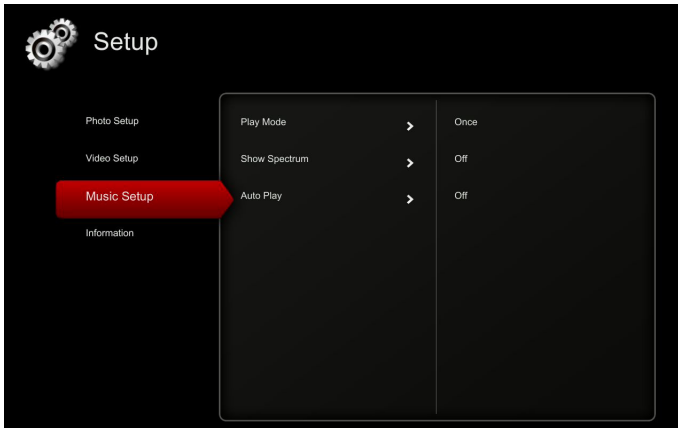
Press  or  to select the video play mode. Options are: **Once**, **Repeat Once**, **Repeat**, and **Random**.

■ **Auto Play**



Select **On** to play the video automatically while entering the video list.

Music Setup

Select and press  to activate music setup menu. The music setup menu provides the following options:



■ Play Mode

Press  or  to select the video play mode. Options are: **Once**, **Repeat Once**, **Repeat**, and **Random**.

■ Show Spectrum

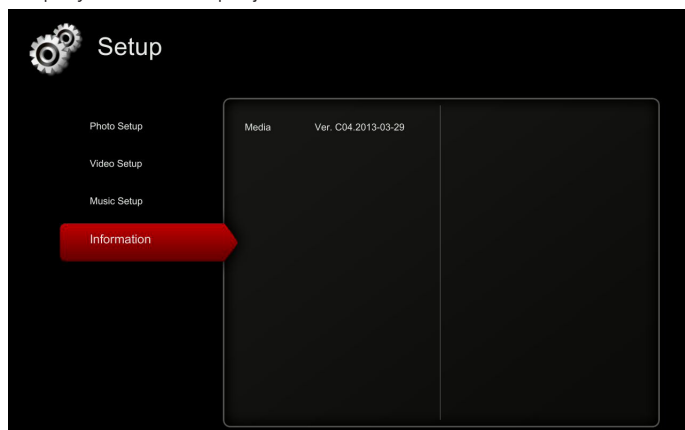
Select **On** to show the spectrum plot while music is playing.

■ Auto Play

Select **On** to play the music automatically while entering the music list.

Information

Display the current projector's firmware version and date.



Appendices

Troubleshooting

If you experience problems with your projector, see the following troubleshooting tips. If the problem persists, contact your local reseller or service center.

| Problem | Possible Solution |
|--|--|
| No image appears on the screen | <ul style="list-style-type: none">• Ensure that the projector is turned on.• Ensure that you have chosen the correct input source on the OSD Source menu.• Ensure the external graphics port is enabled. If images are not displayed properly, please upgrade the video driver of your computer.• Ensure that all the cables are securely connected.• Ensure that the pins of the connectors are not bent or broken. |
| Partial, scrolling or incorrectly displayed image | <ul style="list-style-type: none">• Press the Auto Adjust button on the control panel.<ul style="list-style-type: none">- If you are using a portable computer, set the resolution of the computer to WXGA (1280 x 800).• If you experience difficulty in changing resolutions, or if your monitor freezes, restart all the equipment and the projector.• If images are not displayed properly, please upgrade the video driver of your computer. |
| The screen does not display your presentation | <ul style="list-style-type: none">• If you are using a portable computer, press the toggle output settings. Example: [Fn]+[F4]. |
| Image is unstable or flickering | <ul style="list-style-type: none">• Adjust the tracking in the OSD Display settings of the Advanced menu (in PC Mode only). |
| Image has vertical flickering bar | <ul style="list-style-type: none">• Adjust the frequency in the OSD Display settings of the Advanced menu (in PC Mode only). |
| Image is out of focus | <ol style="list-style-type: none">1. Adjust the focus ring on the projector lens.2. Ensure that the projection screen is within the required distance from the projector (3.18 ft [97 cm] to 8.48 ft [258 cm]). |

Problem

Possible Solution

The image is stretched when displaying a 16:9 DVD

- The projector automatically detects the input signal format. It will maintain the aspect ratio of the projected image according to input signal format with an Original setting.
- If the image is still stretched, adjust the aspect ratio in the **Display** settings of the **Advanced** menu in the OSD.

LED warning indicator (LED) is solid amber

- A projector LED has failed and the projector will automatically shut down. If the problem persists, contact Optoma.

TEMP warning indicator (LED) is blinking amber

- The projector has overheated. The display automatically shuts down. Turn the display on again after the projector cools down. If the problem persists, contact Optoma.
- If the projector fan fails, the projector will automatically shut down. Clear the projector mode by pressing and holding the **Power** button for 10 seconds. Please wait for about 5 minutes and try to power up again. If the problem persists, contact Optoma.

The remote control is not operating smoothly or works only within a limited range

- The battery may be low. Check if the LED indication from the remote is too dim. If so, replace with a new CR2025 battery.

Guiding Signals

| Projector Status | Description | Power (Blue/Amber) | TEMP Warning (Amber) | LED Warning (Amber) |
|----------------------|--|--------------------|---|---------------------|
| Standby mode | Projector in Standby mode. Ready to power on. | Amber Flashing | OFF | OFF |
| Power on | Projector in Normal mode, ready to display an image. | BLUE | OFF | OFF |
| Projector overheated | Air vents might be blocked or ambient temperature may be above 35 °C. The projector automatically shuts down. Ensure that the air vents are not blocked and that the ambient temperature is within operational range. If the problem persists, contact us. | OFF | Amber Flashing (cycling turn-off 1sec and turn-on 3sec) | OFF |
| Fan breakdown | One of the fans has failed. The projector automatically shuts down. If the problem persists, contact us. | OFF | Amber Flashing (cycling turn-off 0.5sec and turn-on 2sec) | OFF |
| LED failure | LED shutdown. | OFF | OFF | AMBER |

Compatibility Modes (Analog/Digital)

| Resolution | Refresh Rate (Hz) | Hsync Frequency (KHz) | Pixel Clock (MHz) |
|-----------------|-------------------|-----------------------|-------------------|
| 640 x 350 | 70.087 | 31.469 | 25.175 |
| 720 x 400 | 70.087 | 31.469 | 28.322 |
| 720 x 400 | 70.087 | 31.469 | 28.322 |
| 640 x 480 | 59.940 | 31.469 | 25.175 |
| 640 x 480 | 75.000 | 37.500 | 31.500 |
| 640 x 480 | 85.008 | 43.269 | 36.000 |
| 800 x 600 | 60.317 | 37.879 | 40.000 |
| 800 x 600 | 75.000 | 46.875 | 49.500 |
| 800 x 600 | 85.061 | 53.674 | 56.250 |
| 1024 x 768 | 60.004 | 48.363 | 65.000 |
| 1024 x 768 | 75.029 | 60.023 | 78.750 |
| 1024 x 768 | 84.997 | 68.677 | 94.500 |
| 1280 x 720 | 59.855 | 44.772 | 74.500 |
| 1280 x 1024 | 60.020 | 63.981 | 108.000 |
| 1280 x 1024 | 75.025 | 79.976 | 135.000 |
| 1280 x 768 | 59.87 | 47.776 | 79.500 |
| 1366 x 768 | 59.789 | 47.712 | 85.500 |
| 1680 x 1050 | 59.954 | 65.290 | 146.250 |
| 1440 x 900 | 59.887 | 55.935 | 106.500 |
| 1920 x 1080 | 60.000 | 67.500 | 148.500 |
| 1280 x 800 | 59.810 | 49.702 | 83.500 |
| 1280 x 720 | 59.855 | 44.772 | 74.500 |
| 720 x 480 p60 | 59.940 | 31.469 | 27.000 |
| 720 x 576 p50 | 50.000 | 31.250 | 27.000 |
| 1280 x 720 p60 | 60.000 | 45.000 | 74.250 |
| 1280 x 720 p50 | 50.000 | 37.500 | 74.250 |
| 1920 x 1080 i60 | 60.000 | 33.750 | 74.250 |
| 1920 x 1080 i50 | 50.000 | 28.125 | 74.250 |
| 1280 x 768 -R60 | 59.995 | 47.396 | 68.250 |
| 1280 X 768 | 74.893 | 60.289 | 102.250 |
| 1280 X 768 | 84.837 | 68.633 | 117.500 |
| 1280 x 800 -R | 59.910 | 49.306 | 71.000 |
| 1280 x 800 | 74.934 | 62.795 | 106.500 |
| 1440 x 900 | 74.984 | 70.635 | 136.750 |

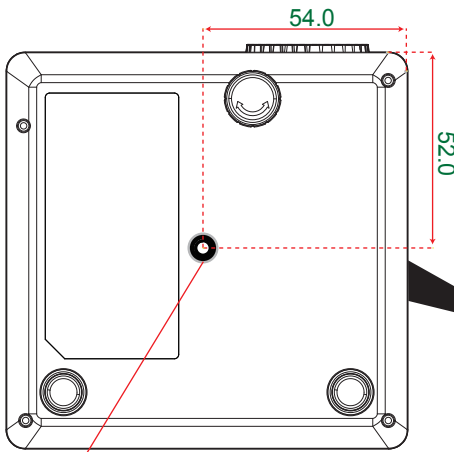
Tripod Mount the Projector

Screw a standard tripod into the screw hole on the projector.

NOTE:

1. The tripod and ceiling mount are optional accessories.
2. Please note that damage resulting from incorrect installation will void the warranty.

Unit: mm



Insert Nut 1/4" - 20 UNCxL7.5mm
(Screw hole for tripod)

