aaxa TECHNOLOGIES

M4 Pico Projector

User Guide

Caution!

WARNING: Please use this product as instructed. Misuse may cause injury or death.

DO NOT use while driving

DO NOT expose to water or wet surfaces. Electric shock may occur.

DO NOT expose the projected LED image to your eyes or the eyes of others

DO NOT block or restrict airflow from ventilation holes as this may cause the projector to overheat

Keep the projector, battery, or charger away from any heat sources

Caution for Battery Use

- Do not pierce or puncture the battery with sharp objects
- Do not heat the product or expose it to high temperature.
- Do not wet it or place it in any liquid

Caution for Headphone Use

- Prolonged use at high volume may impair your hearing.
- High volume during walking or driving may cause distractions and result in injury or death

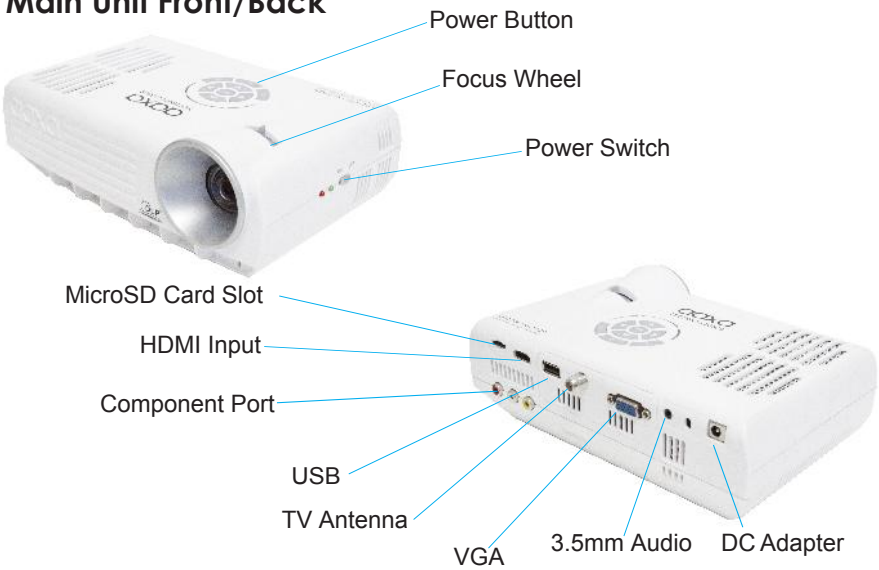
Table of Contents

1 **Chapter 1: M4 at a glance**
2 Main Unit Front/Back
3 Remote & Keypad
4 Accessories
Chapter 2: Getting Started
5 Powering On / OFF
6 FocusAdjustment/Throw Distance
7 Battery Pack Information
8 Connecting to a Computer VGA
10 Connecting to a Computer HDMI
12 Connecting to HDMI Video
14 DTV Setup
17 Connecting to Speaker or Headphones
18 Connecting a Micro SD Card
20 Connecting to a USB Host
Chapter 3: Menu Screens
22 Main menu
23 Video Player Menu
25 Video FAQ
26 Photo Viewer Menu
28 Photo FAQ
29 Music Player Menu
31 Music FAQ
32 Setup Menu
39 Keystone Adjustments
41 **Chapter 4: Technical Details**
Troubleshooting
Specifications

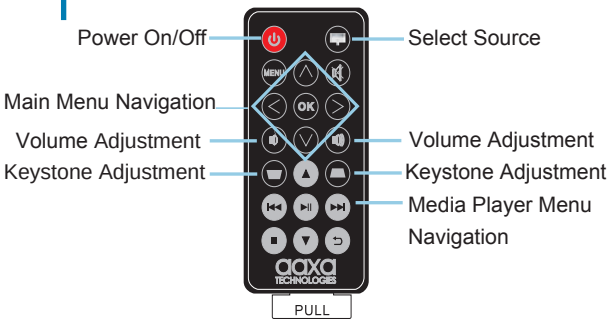
M4 at a Glance

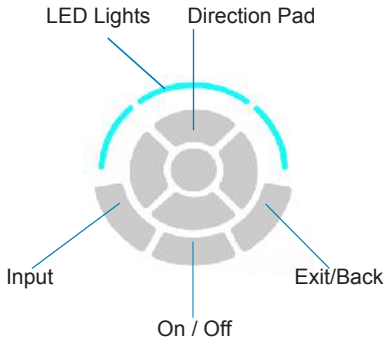
Chapter 1

Main Unit Front/Back



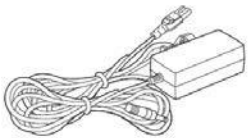
Remote & Keypad





Both the keypad and remote can be used to navigate through the menus. The Main Menu Navigation on the remote functions exactly the same as the directional pad on the M4 unit for all modes except DTV mode. In DTV mode the remote control is necessary to perform the “scan” feature

Accessories



Power Adapter

Remote

Internal Battery
(pre-installed)

*Under various circumstances, the actual accessories may be different from those shown in the pictures above.

Getting Started

Chapter 2

Powering ON the projector

1. Connect the power adapter to the projector and power outlet
2. Switch the On / Off switch on the side of the projector to the “ON” position

Powering OFF the projector

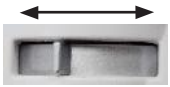
There are two "idle" modes for the projector. "Off" and "Standby". The "Off" mode complete turns off the projector. The "Standby" mode allows the projector to be turned on with the remote control. The standby mode consumes a little battery power when left in this mode.

1. To fully power off the projector, switch the On / Off switch on the side of the projector to the "Off" position
2. To put the projector in "Standby" mode press the POWER button on the keypad
3. A window will pop up asking "Do you want to power off?"
4. Press the power button again to put the projector in "Standby" mode

Note: The M4 Projector battery does not charge when it is in operation. For first time operation charge the battery for 120 minutes to ensure a full charge.

Focus Adjusment / Throw Distance

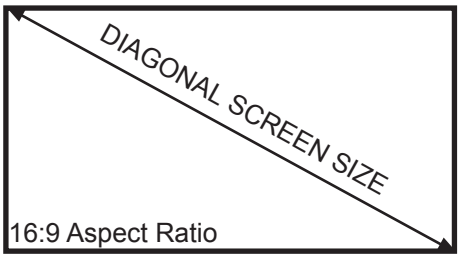
Focus Adjustment



- Adjust the focus wheel left and right until the image becomes clear.

Throw Distance Chart

Distance (Meters)	Screen Size (Inch)
3	102
2.8	96
2.6	89
2.4	82
2.2	75
2	68
1.8	61
1.6	55
1.4	48
1.2	41
1	34
0.8	27
0.6	21



Throw Ratio 1.360

Battery Pack Installation

**Please note that the battery pack is pre-installed in the M4. The instructions below is how to remove the battery unit if replacement is needed.

1. Remove the three screws circled in blue holding the M4 battery compartment.

2. Disconnect the battery harness to the battery receptacle on the PCBA

3. Remove the battery and replace with new battery unit using previous instructions in reverse order.

Connecting to a Computer via VGA

Step 1:

Connect the large end of the to your computer's

VGA Cord VGA Adapter

Step 2:

Connect the large end of the to your M4

VGA Cord VGA Adapter

Step 3:

In the Main Menu

Select "INPUT" icon

Select "VGA" icon

Connecting to a Computer Cont.

Step 4:

Enabling VGA or HDMI output on your Computer – To enable VGA or HDMI output on your computer most computers require “turning on” the video output feature. Each computer is different. Please consult your owner’s manual for instructions to enable VGA or HDMI output. Below are standard instructions for a Windows XP computer – not all systems are the same.

Step 5:

Press function & “F5” to instruct the computer to enable multiple displays.
You can also press Windows+P to toggle through display settings.

**NOTE: different operating systems may differ*

Step 6:

1. Right click on computer desktop and select “Properties”
2. Display Properties window will pop up
3. Click on the “Settings” Tab
4. If a secondary monitor is grayed out, click on it and check “Extend my Windows Desktop onto this monitor”
5. If the image is blurry or the text is not legible, adjust the screen resolution. We recommend 1280x800.

Connecting to a Computer via HDMI

Step 1:

Connect one end of the to your computer's

HDMI Cord

HDMI Adapter

Step 2:

Connect one end of the to your M4's

HDMI Cord

HDMI Adapter

Step 3:

In the Main Menu

Select "INPUT" icon

Select "HDMI" icon

Connecting to a Computer Cont.

Step 4:

Enabling VGA or HDMI output on your Computer – To enable VGA or HDMI output on your computer most computers require “turning on” the video output feature. Each computer is different. Please consult your owner’s manual for instructions to enable VGA or HDMI output. Below are standard instructions for a Windows XP computer – not all systems are the same.

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5. If the image is blurry or the text is not legible, adjust the screen resolution. We recommend 1280x800.

Connecting to HDMI Video

Step 1:

Connect one end of the to your M4's

HDMI HDMI Adapter

Step 2:

Connect one end of the to your devices

HDMI HDMI Adapter

Connecting to HDMI Video Cont.

Step 3:

In the Main Menu

Select “INPUT” icon

Select “HDMI” icon

Step 4:

Turn on your multimedia device. If available select 1280x720 or 1920x1080

Connectivity with multimedia devices

The M4 can connect to many media devices including: iPod, iPhone, iPad, VHS players, DVD players, smart phones, cameras, video game consoles and other peripherals with ease.

*Smart phones will require video out capabilities to be able to be displayed with the M4.

Setting up DTV

Step 1:

Connect the cable end of the to your M4's

Antenna Cable

Antenna Adapter

**Please follow the instructions on the following pages on how to set up channels.

Setting up DTV Cont.

Step 2:

In the Main Menu

Select Digital TV Icon

**Upon first selection of the Digital TV Source, a “Please Run Channel Auto Scan” window will appear

Please follow the instructions on the following page to set up channels.

DTV Setup

Step 3:

Setting Up Channels

The M4 features DTV capability which enables the display of ATSC (North American) digital TV signals that are broadcast through the air or through analog cable TV. To setup DTV first connect either an external antenna or analog cable TV wire. We recommend a large antenna as DTV broadcast signals are notoriously hard to receive. After connecting the antenna run "Channel Scan" through the remote control.

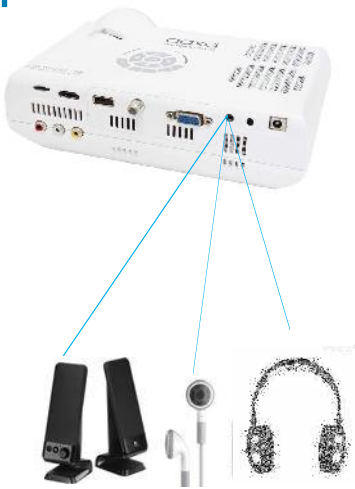
Select the Menu Button on Remote Provided

Select Auto Scan Option

Channels will start scanning

**Please note that channel scan can only be run using the remote control.

Connecting Speakers/Headphones



Step 1: Connect your speakers/headphones to the projector's speaker adapter.

3.5 mm cord

Speaker Adapter

Step 2: Ensure the power and volume on your speaker or headphones is turned on

Step 3: Place the headphones on and enjoy!

*CAUTION for Headphone Use

- Prolonged use at high volume may impair hearing

Micro SD Card

How to insert your Micro SD Card

- Slide in your SD card into the SD card slot on the front of the M4. (as shown in picture)
- Gently slide the SD card until it clicks into place.

How to access your Micro SD Card

- Once your SD Card has been inserted, you can navigate to any media content in the main menu.
- After selecting the media content, choose the SD card selection.
- You can now access the data on your SD card through the onboard media player

***Review the Specification section of this manual to read about the supported file formats.**

Micro SD Card Cont.

Media Player menu

- In the Media Player selection you can choose from Videos, Audio, Pictures, and Ebooks.
- Select the appropriate menu for the type of file you wish to view.

File Menu System

- The M4 will show all folders and files you have on your SD Card in the C: drive.
- Use the directional buttons to navigate to different folders or files.

Return: Brings you back to the main menu

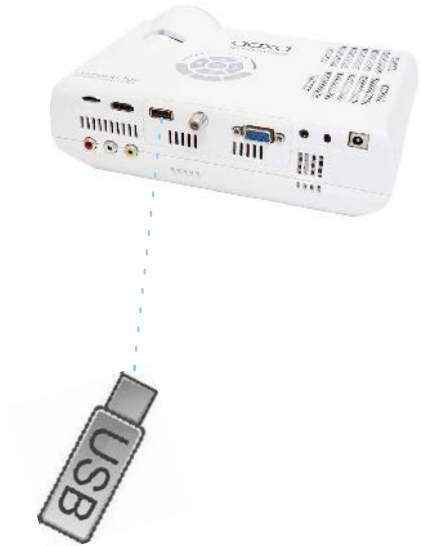
USB Host

How to insert your USB Drive

- Slide your USB Drive into USB adapter. (as shown in picture)
- Gently slide the drive until it cannot go in any further

How to access your USB Drive

- Once your USB Drive has been inserted, you can navigate to any media content in the main menu..
- After selecting the media content, choose the USB selection.
- You can now access the data on your USB drive through the onboard media player



USB Host Cont.

Media Player menu

- In the Media Player selection you can choose from Videos, Audio, Pictures, and Ebooks.
- Select the appropriate menu for the type of file you wish to view.

File Menu System

- The M4 will show all folders and files you have on your USB Drive.
- Use the directional buttons to navigate to different folders or files.

Return: Brings you back to the main menu

Menu Screens

Chapter 3

Main Menu

The M4 features a built in PMP (Portable Media Player) function.
This function allows the projector to play videos, pictures, music files, and text. To access the main menu simply turn on the projector.

- Scroll Left/Right by pressing the left and right directional buttons
- To select a submenu, highlight the desired submenu and press the OK button located in the middle of the keypad or remote.
- To go back to the previous page while in a submenu, press the back on the far right just underneath the directional keypad.

Video Player Menu

Select the “video” icon

Opening a file:

- Select the video option from the main menu.
- Select the hardware media the file is stored on
- Choose which file you wish to play.

The M4 will show all folders and files you have on your USB or microSD Drives. Use the directional buttons to navigate to different folders or files.

Previewing Files:

- Press the directional keys to highlight the item of interest
- Wait 2-3 seconds and a preview of the video will show on the screen

Video Player Menu

Playing Videos

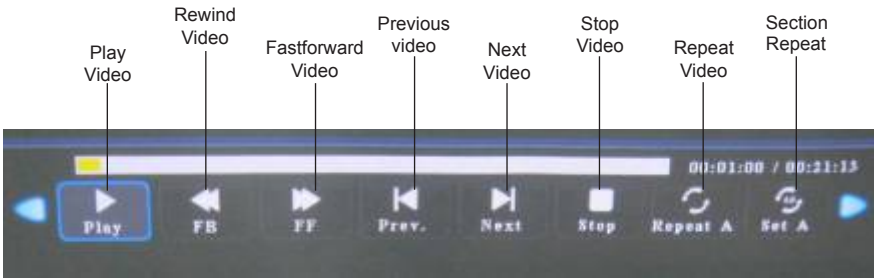
To use the video controls, use the directional keys to highlight the option you wish to choose.

Move selection left

Move selection right

Confirm selection

- To open the vide player menu, press “OK” on projector.
- To close the video player menu, hit “back” on projector.



Video Playback FAQ

How do I loop a video?

1. Choose either USB or SD Card for playback

2. Navigate the folders until you reach the file you wish to play.
3. Highlight the file you want to play, then confirm the selection.
4. Move selection on video player menu to “repeat”, and confirm the selection.
5. The video will now loop after playback is finished.

How do I preview a video?

1. Choose the “video” option from the main menu
2. Navigate using either remote or onboard buttons to the file you wish to preview.
3. Highlight the file. *Do not select the file, just highlight it.
4. Wait for 3-4 seconds.
5. A preview screen will pop up on the top right for the video.

Photo Menu

Select the “photo” icon

Opening a file:

- Select the photo option from the main menu.
- Select the hardware media the file is stored on
- Choose which file you wish to play.

The M4 will show all folders and files you have on your USB or SD Drives. Use the directional buttons to navigate to different folders or files.

Previewing Files:

- Press the directional keys to highlight the item of interest
- Wait 2-3 seconds and a preview of the picture will show on the screen

Photo Menu

Viewing Pictures

To use the photo controls, use the directional keys to highlight the option you wish to choose.

Move selection left

Move selection right

Confirm selection

- To open the vide player menu, press “OK” on projector.
- To close the video player menu, hit “back” on projector.

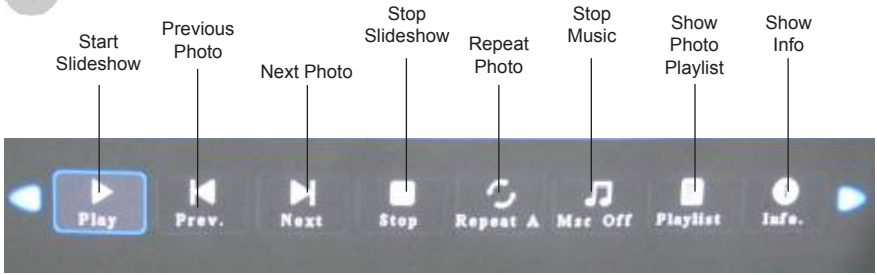


Photo Slideshow FAQ

How do I play a slideshow?

1. Choose either USB or SD Card for playback

2. Navigate to the folder that contains the pictures you wish to see in the slideshow
3. Confirm selection of the first picture.
4. Press “play” in the photo menu
5. Slideshow will not play.
6. NOTE: Selecting “repeat” will loop slideshow.

How do I manually control the slideshow?

1. After selecting the photo you wish to be displayed, you can press “play” to start the slideshow (as outlined in the previous FAQ).
2. To manually control the slideshow, you must stop the slideshow with the “stop” button.
3. You may use either the controls on your remote or on top of the projector itself to flip through the pictures in the current playlist.

Music Player Menu

Select the “Audio” icon

Opening a file:

- Select the audio option from the main menu.
- Select the hardware media the file is stored on
- Choose which file you wish to play.

The M4 will show all folders and files you have on your USB or SD Drives. Use the directional buttons to navigate to different folders or files.

Previewing Files:

- Press the directional keys to highlight the item of interest
- Wait 2-3 seconds and a preview of the audio will show on the screen

Music Player Menu

Listening to Audio

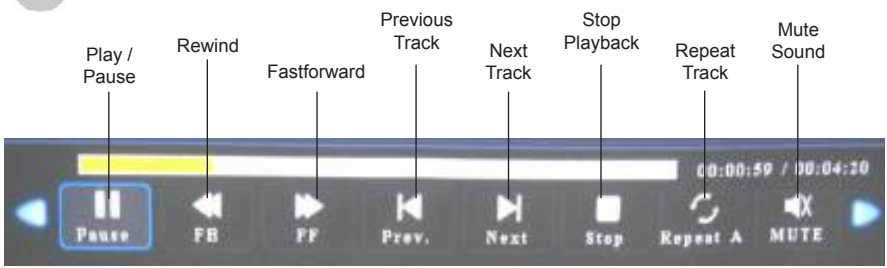
To use the audio controls, use the directional keys to highlight the option you wish to choose.

Move selection left

Move selection right

Confirm selection

- To open the music menu, press “OK” on projector.
- To close the music menu, hit “back” on projector.



Music Playback FAQ

How do I loop a song?

1. Choose either USB or SD Card for playback

2. Navigate the folders until you reach the file you wish to play.
3. Highlight the file you want to play, then confirm the selection.
4. Move selection on music player menu to “repeat”, and confirm the selection.
5. The song will now loop after playback is finished.

How do I create a song playlist?

1. Insert your media device (either microSD card or USB) into computer.
2. Make a new folder on media device (folder name will be the name of the playlist).
3. Transfer songs from computer to the new folder, name accordingly.
4. Remove media device from computer and insert into projector.
5. Navigate to Audio section, then choose appropriate media device.
6. Navigate to your playlist folder.
7. Start at first song.
8. Playback will follow each successive song on the list.

*To create a special order for the list, add numerical numbering to the beginning of each file.

Setup Menu

The Settings Menu can be accessed by selecting “Settings”on the main menu

Within the settings menu there are three more submenus that allow you to customize your M4 to the settings you want.

Picture
Picture Mode
Color Mode
Zoom Mode
DLC
Projection
Brightness
Keystone
Color Range
Slideshow time
Battery Capacity

Audio
Equalizer
Audio Only
AVC

Setup
Menu Language
Transparent
Restore Default
Software Update (USB)
CEC

Picture Settings

Picture Mode

- Changes the picture mode to different settings depending on your choosing

Color Mode

- Adjusts the color temperature from hot to cool (red to blue).

Zoom Mode

- The “Zoom” mode allows users to select the aspect ratio or “zoom” of videos or pictures being displayed. For example if a 4:3 aspect ratio is selected, movies and pictures will be displayed in 4:3. Available selections include Auto, 4:3, 16:9, 16:10, Zoom 1, Zoom 2

Projection

- The Projection function allows the user to choose the image orientation. The modes are Front, Rear, Invert Front, Invert Rear. In other words it allows the user to flip the image both vertically and horizontally to accommodate for rear projection and ceiling mounted projection. For example a ceiling mounted projector will require a 180 degree image rotation whereas a rear projection would require an image rotation on the Y-Axis.

Picture Settings Cont.

Slideshow Time

- This mode allows the user to adjust the picture slideshow transition time (in seconds)

Brightness

- The brightness function allows the user to select between 4 different brightness settings (plugged-in mode only).

i. Economy – Best mode for movie watching. Most vivid colors. LED life is at the maximum. Fan noise is at a minimum.

ii. Standard – Good mix of color quality and brightness. LED life is at the standard.

iii. Bright – Good for presentations. Employs color-mixing (overlap) technology to improve brightness. Slightly decreases LED life expectancy. Fan noise is increased.

iv. Brightest – Good for presentations. Employs color-mixing (overlap) technology to generate maximum brightness. LED life expectancy is decreased ~30%. Fan noise is increased.

Picture Settings Cont.

Color Mode

- The color mode allows the user to pick between Warm, Medium, and Cool color temperatures. The differences in each mode is changes to the Red, Green, Blue color-mix. A forth mode “user” allows the user to manually adjust the color-mix.

Slideshow Time

- Please see "Keystone" adjustment on page FILL THIS IN

Picture Mode

- The picture mode allows the user to select between different picture modes Dynamic, Standard, Mild, and Custom. The differences in each mode is a combination of changes in Contrast, Brightness, Color, Sharpness, and Tint. A fifth mode, “User” allows the user to manually adjust these settings.

Sound Settings

Equalizer

- The equalizer allows the user to adjust the dynamic audio output range. There are four pre-defined settings and also a user programmable option

Surround Sound

- Adjusts the surround sound capa- bilities of the projector.

Auto Volume *(AVC)*

- Sets the projector to auto-detect for the volume. The projector will auto detect the appropriate sound mode

Setup

Menu Language

- Selectable menu languages include English, Spanish, French, and Chinese. Additional language options may be available through reflash. Please contact AAXA Technologies if another language support is required.

Transparent

- Adjusts the transparency of the settings screen

Restore Factory Default

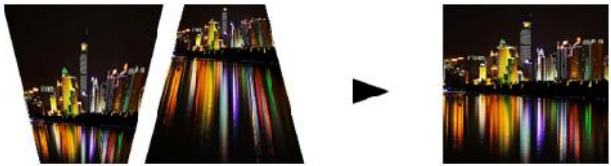
- By choosing this function the user can restore the default settings

Setup Cont.

Software Update

- A firmware upgrade can be achieved through two options. Both options require the user to copy the new firmware version onto the USB memory stick.
- **Option One** – Through the settings Menu. Insert the USB stick with the firmware into the USB port and select the upgrade option through the Setup menu. The firmware will upgrade automatically
- **Option Two** – Self Boot. Insert the USB stick with the firmware into the USB port. Turn off the projector by using the On/Off power switch on the side. Then turn the projector back on by switching the power switch on the side to "On". The red and green lights on the side of the projector should begin flashing.
  DO NOT REMOVE THE USB STICK.
  After several minutes the red and green lights should become stable.
  Wait for the projector to boot by itself. After the projector boots verify that the firmware version has been updated. Remove the USB stick.

Keystone Adjustments



What is Keystoning?

“Keystoning” occurs when a projector is aligned non-perpendicularly to a screen, or when the projection screen has an angled surface. The image that results from one of these misalignments will look trapezoidal rather than square.

Digital Keystone Adjustments

By adding a special, selectable, algorithm to the scaling, some new projectors are able to alter the image before it reaches the projection lens. The result is a squared image, even at an angle.

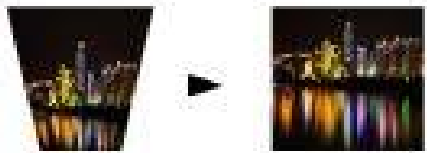
Keystone Adjustments FAQ

Keystone adjustments are made automatically. Adjustments can be made manually via changing the option in the settings menu.

How to Correct Keystone

- If the image looks trapezoidal with the base larger (as pictured right), adjustment can be made using the M4 remote provided.

- If the image looks trapezoidal with the top larger (as pictured right), adjustment can be made using the M4 remote provided.



**Please refer to page 3 for reference to keystone buttons on the remote.

Troubleshooting

IMAGE IS BLURRED

Possible Causes	Solution
The Projector is not in focus	Adjust the focus with the focus adjustment dial until the image comes into focus
The Projector is offset from plane / angle of operation	Move the projector so that it is both 180 degrees and on an evern plane with the screen.

No Sync, No Signal

Be sure to setup the computer to enable a video signal output. On some laptops this is done by pressing and holding Function F5 key. If using the M4 as an external monitor on Windows based systems, this can be done by selecting "extend my desktop to this monitor". The native resolution of the M4 projector is 1280x800. Depending on the video driver different resolutions may need to be selected for proper output.

Technical Details

Troubleshooting

THE PROJECTOR DOES NOT TURN ON

Possible Causes	Solution
There is no power	Check to ensure the power outlet or battery source is good. check the power adapter to ensure a proper connection with the wall outlet as well as the proejctor. Confirm that the unit is charged and has enough power
The power button was not held long enough	To power on the projector, the power button needs to be depressed for a full 3 seconds. try holding the power button until the optical engine turns on

NO PICTURE / FILE NOT SUPPORTED

Possible Causes	Solution
The video source is not properly connected or selected	Check the video source signal to ensure that it is properly connected. Select the current input source by choosing the input desired from the main menu
Incorrect file extension / Video is encoded with incorrect codec	Please refer to "Specifications" page to see which file types and codex are supported. Verify that the file was encoded properly.

Specifications

Brightness	**800 Lumens (Plugged In)** **400 Lumens (Battery)**
Native Resolution	**1280x800(WXGA)**
Maximum Resolution	**1920x1080(1080P)**
Contrast Ratio	**2000:1**
Projectoin Lens:	**Manual Focus**
Image Size:	**15~200 inches**
Lamp:	**Triple RGB LEDs with Vibrant Color Technology Life 20,000hrs Composite**
Video in:	**A/V** **VGA(mini-VGA)** **HDMI(mini-HDMI)**
Audio Output:	**2.0 W dual stereo speakers** **3.5 mm audio jack**
SD Card	**MicroSD Card Slot** **(32GB maximum)**
USB:	**USB Host Reader** **(Memory Sticks)**
Digital TV Tuner	**ATSC Air & Cable (Requires Antenna)**
Dimensions	**5.6 x 8.2 x 2.9" inches**
Weight	**2.5 lbs**

Please direct all customer service inquiries to:

AAXA Technologies, Inc.
1541 Parkway Loop
Tustin, CA 92780
(714) 957-1999

info@aaxatech.com