



ST200

Short Throw **LED** 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.

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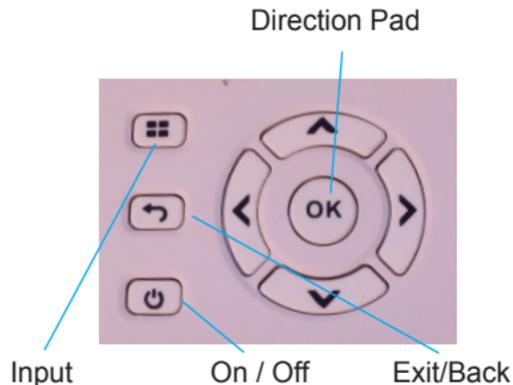
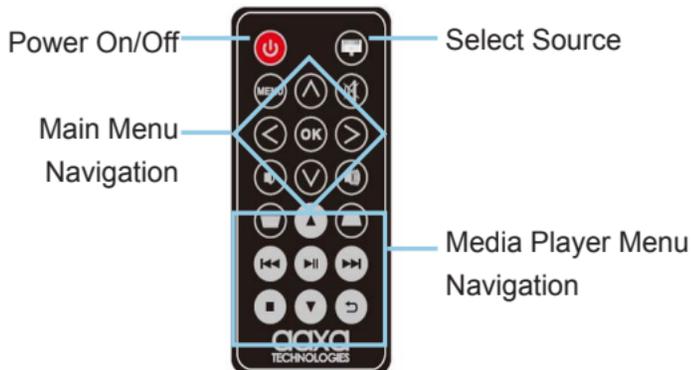
ST200 at a Glance

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 ST200 unit. The Media Player Menu Navigation allows you to control the media you are currently playing. There is also an Input source button and a keystone up/down on the remote control. You may also control the volume with the mute button or with the volume up and volume down buttons.

NOTICE: Pressing power on the remote will only put the projector in **STANDBY** mode. Please switch the On / Off switch of the projector to the “Off” position if you want to turn it off.

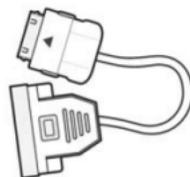
Accessories



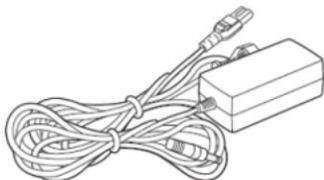
Tripod



Remote



VGA Cable



Power Adapter



A/V Cable

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

Powering ON the projector

1. Connect the power cord to the ST200.
2. Connect the wall plug into the wall power source.
3. Switch the On/Off switch on the side of the projector to the “On” position. The projector should turn on automatically. If the projector does not turn on automatically with the On/Off switch to “On” position press the power button on the top of the projector or press the power button on the remote control.

Standby Mode

1. Stand By Mode – To enter “stand by mode” press the power button on top of the projector twice. This will put the projector into “stand by mode”. In “stand by mode” the projector is idle but is able to be powered on with the remote control or “wake up feature” (custom models only). “Stand by mode” consumes power even when the projector is idle.

Powering OFF the projector

1. Switch the On/Off switch to “Off” to turn off the projector.

Note: The ST200 Projector battery does not charge when the projector is in operation.

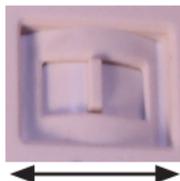
Focus Adjustment /Short-Throw Optics

Focus Adjustment

- Spin the focus wheel left or right until the image becomes clear.

Short-Throw Optics

- The ST200 incorporates a short-throw optical system. Short-throw optics have the advantage of delivering a brighter and larger image at a shorter “throw” distance. The calculation of a projector’s throw ratio is (distance / picture width) and the ratio for the ST200 is 0.8.

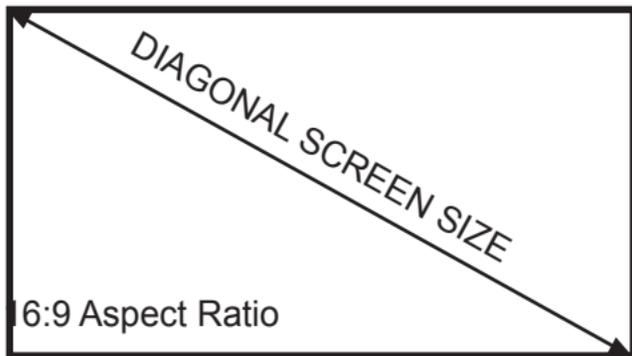


Throw Distance Chart

Distance inch (")	Diagonal Inch (")
12	17
24	34
36	52
48	69
60	86
72	103

Throw Ratio 0.8

*minimum throw distance: 10 inches



Installing the Battery Pack

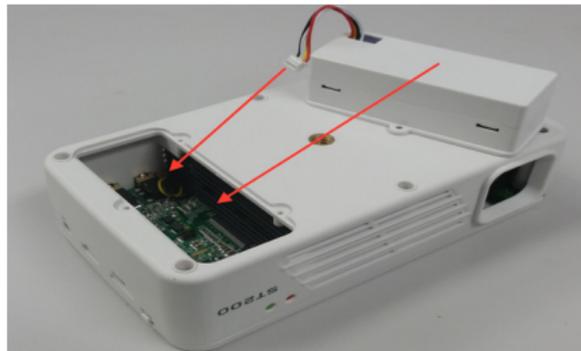
Step 1. Unplug ST200 from the power adapter and power switch to “OFF” position.

Step 2. Remove the (3) screws holding the battery to ST200 casing.

Step 3. Remove the battery casing and disconnect battery from receptacle.

Step 4. Connect the new battery harness to the receptacle on the PCBA.

Step 5. Install the battery until it fits in correctly onto the ST200 and reinstall the (3) screws



Note: The ST200 Projector already comes with the battery preinstalled.

Connecting to a Computer via VGA

Step 1:

Connect the large end of the



VGA Cord

to your computer's



VGA Adapter

Step 2:

Connect the small end of the



VGA Cord

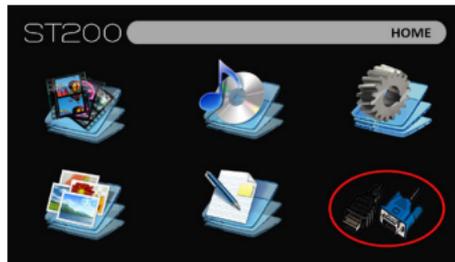
to your ST200's



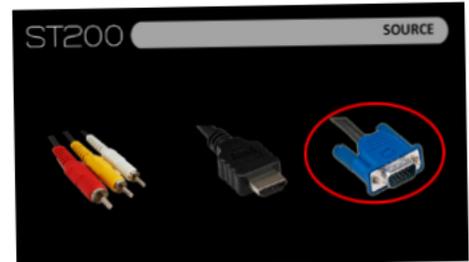
VGA Adapter

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 7 computer – not all systems are the same.

Step 5:



Press Windows+P to toggle through display settings. Select either “Duplicate” or “Extend” depending on your viewing option.

**NOTE: different operating systems may differ*

Step 6:



1. Right click on computer desktop and select “Screen Resolution”.
2. Display Properties window will pop up.
3. If a secondary monitor is grayed out, click on it and select “Extend these displays” in the “Multiple Displays” drop down.
4. If the image is blurry or the text is not legible, adjust the screen resolution. We recommend 1280x720.

Connecting to a Computer via HDMI

Step 1:

Connect one end of the



HDMI Cord

to your computer's



HDMI Adapter

Step 2:

Connect one end of the



HDMI Cord

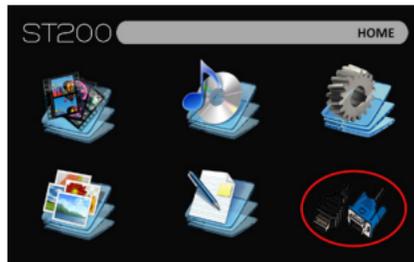
to your ST200s



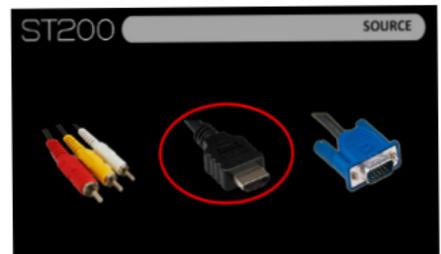
HDMI Adapter

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 7 computer – not all systems are the same.

Step 5:



Press Windows+P to toggle through display settings. Select either “Duplicate” or “Extend” depending on your viewing option.

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Step 6:



1. Right click on computer desktop and select “Screen Resolution”.
2. Display Properties window will pop up.
3. If a secondary monitor is grayed out, click on it and select “Extend these displays” in the “Multiple Displays” drop down.
4. If the image is blurry or the text is not legible, adjust the screen resolution. We recommend 1280x720.

Connecting to Composite Video

Step 1:

Connect one end of the



Composite Cord

to your ST200's



A/V Adapter

Step 2:

Connect opposite end of



Composite Cord

to your devices



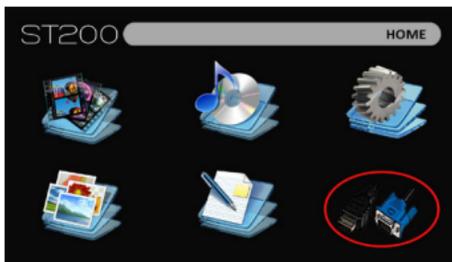
Composite Cord



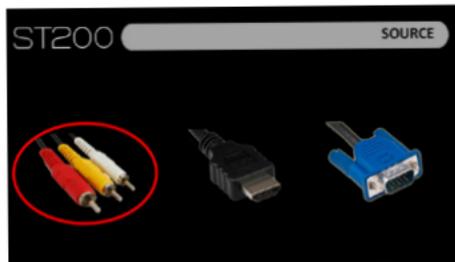
Connecting to Composite Video Cont.

Step 3:

In the Main Menu



Select "INPUT" icon



Select "AV" icon

Step 4:

Turn on your multimedia device.

Connectivity with multimedia devices

The ST200 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.

*Apps on smart phones require video out capabilities to be displayed with the ST200.

Connecting to HDMI Video

Step 1:

Connect one end of the



HDMI

to your ST200's



HDMI Adapter

Step 2:

Connect one end of the



HDMI

to your devices



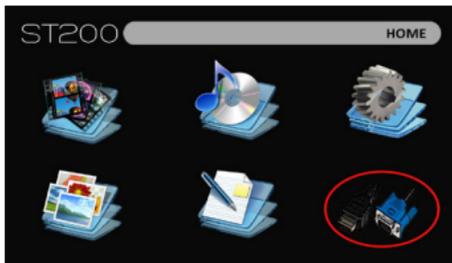
HDMI Adapter



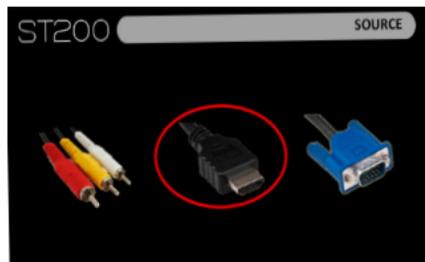
Connecting to HDMI Video Cont.

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 ST200 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.

*Apps on smart phones require video out capabilities to be displayed with the ST200.

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 left side of the ST200. (as shown in picture)
- Gently slide the SD card until it clicks into place.

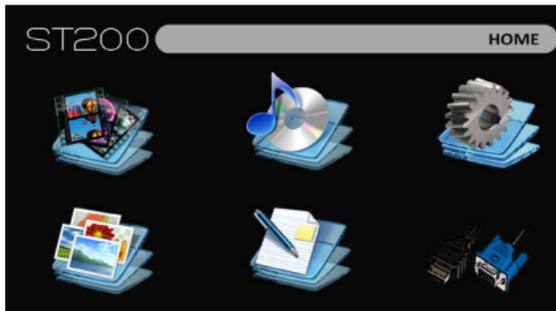
How to access your Micro SD Card

- 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.**

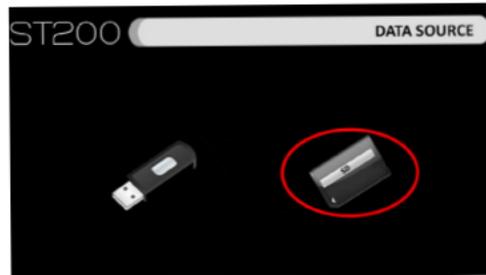


Micro SD Card Cont.



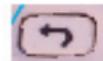
Media Player menu

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



File Menu System

- The ST200 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.

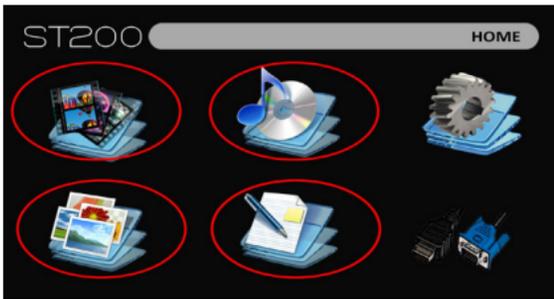
How to access your USB Drive

- 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.

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

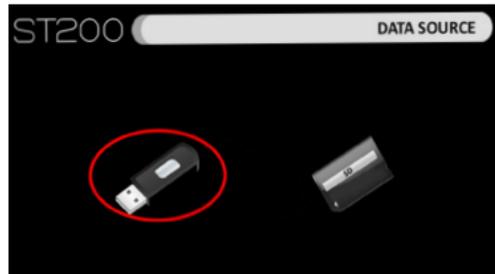


USB Host Cont.



Media Player menu

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



File Menu System

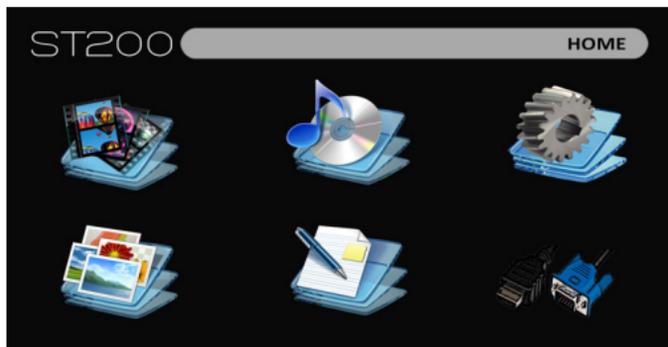
- The ST200 will show all folders and files you have on your USB Drive.
- Use the directional buttons to navigate to different folders or files.



Return: Brings you back to the main menu

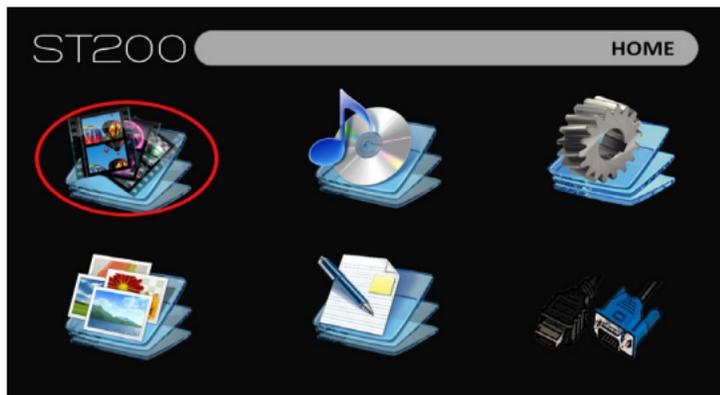
Main Menu

The ST200 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 or 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



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.

Select the “Video” icon.

The ST200 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.

Video Player Menu

Playing Videos

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



Keystone Up



Directional Right



Ok Selection

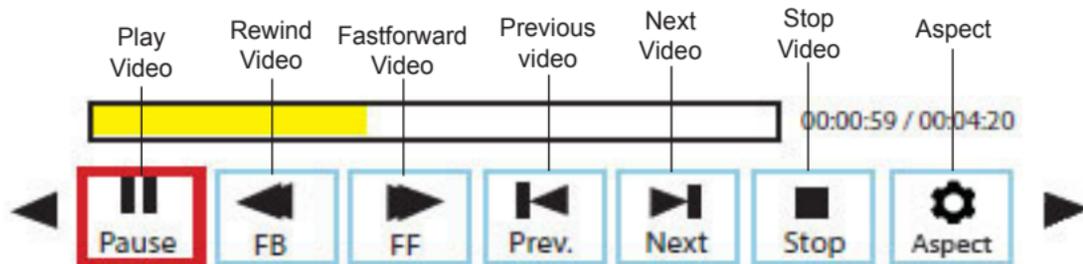


Directional Left



Keystone Down

- To open the video player menu, press “OK” on the projector.
- To close the video player menu, hit “back” on the projector.
- To adjust the volume press left or right on the directional pad when the the video player menu is closed.

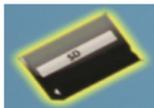


Note: There are ten more video player menu options to choose from after the “Aspect” option. To view them, continue to press the right directional key to navigate to the other options.

Video Playback FAQ

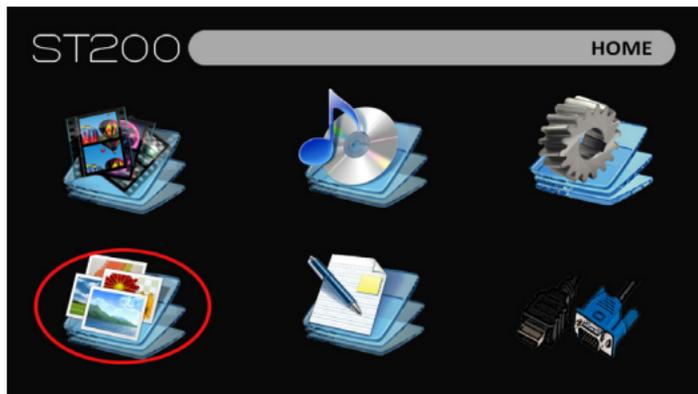
How do I loop a video?

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.

Photo Menu



Select the "Photo" icon.

The ST200 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.

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.

Photo Menu

Viewing Pictures

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



Keystone Up



Directional Left



OK Selection

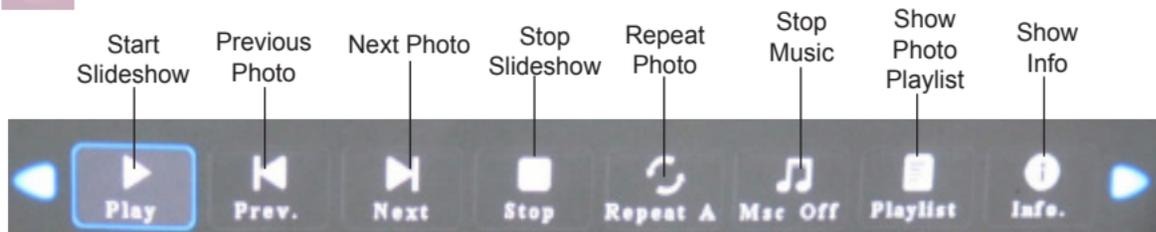


Directional Right



Keystone Down

- To open the photo player menu, press “OK” on the projector.
- To close the video player menu, hit “back” on the projector.
- To navigate to the next photo, use the left or right directional keys.



Note: There are four more menu options after the “info” option. These include the rotation and zoom tools. To navigate to these settings, use the directional keypad and move to the right of the info setting.

Photo Slideshow FAQ

How do I play a slideshow?

1. Choose either USB or SD Card for playback.

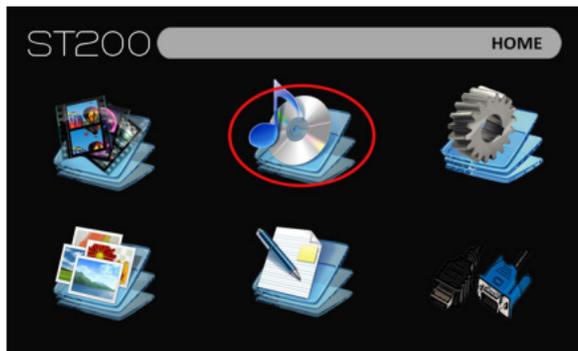


2. Navigate to the folder that contains the pictures you wish to see in the slideshow.
3. Confirm selection of the first picture.
4. Press “play” in the photo menu
5. Slideshow will now play.
6. NOTE: Selecting “repeat” will loop slideshow.

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 pause the slideshow with the “play/ pause” button.
3. You may use either the left or right directional keys 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.

The ST200 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.

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.

Music Player Menu

Listening to Audio

To use the audio controls, use the directional keys to highlight the option you wish to choose. When the player menu is not open you can control the volume with the left and right directional buttons on the projector or from the remote.



Move selection left

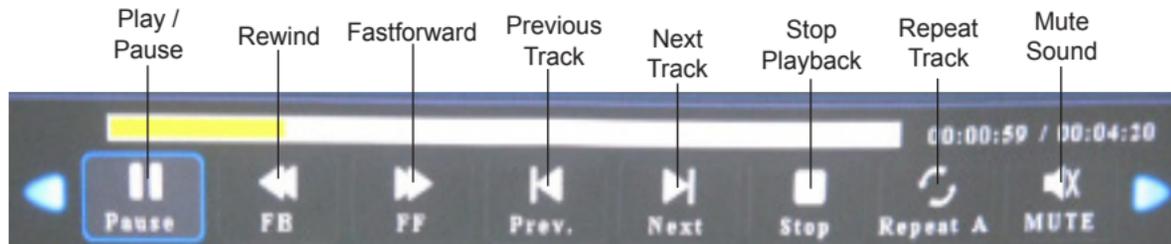


Move selection right



Confirm selection

- To open the music menu, press “OK” on the projector.
- To close the music menu, hit “back” on the projector.
- Use the left and right direction keys to change the volume.

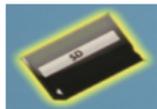


Note: The “playlist” and “info” option settings are located after “Repeat A” option. Please navigate further to the right to view these options.

Music Playback FAQ

How do I loop a song?

1. Choose either USB or SD Card for playback.



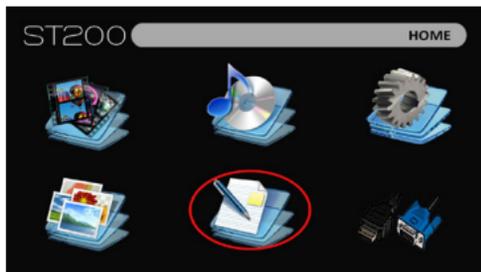
2. Navigate the folders until you reach the file you wish to play.
3. Highlight the file you want to play, then confirm the selection.
4. Move selection on music player menu to “repeat”, and confirm the selection.
5. The song will now loop after playback is finished.

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.

EBook Viewer Menu



Opening a file:

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

The ST200 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.

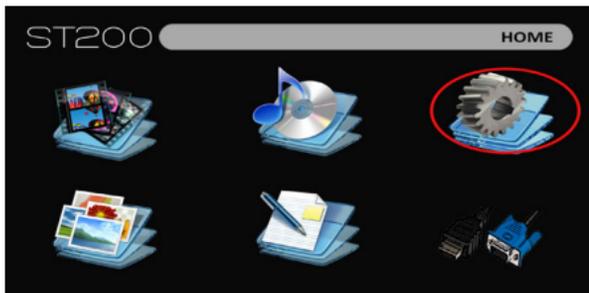
Viewing text files

The ST200 Pico Projector allows you to view text files. Select the file you want to view in the file menu for the particular storage device on which the file is stored. You can press the left and right arrow buttons on the directional pad or remote to flip through the pages you have in the present folder.

*Review Specification section of this manual for supported ebook formats.

Setup Menu

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



Within the settings menu there are four more submenus that allow you to customize your ST200 to the settings you want.

Picture

- Picture Mode User
- Color Mode Medium
- Slideshow Time
- Projection
- Aspect Ratio
- PC Setup
- Upgrade

Option

- OSD Language
- Restore Factory Default
- OSD Duration
- Current Version

Sound

- Sound Mode
- Balance
- Auto Volume
- Surround Sound

Time

- Clock
- Off Time
- On Time
- Sleep Timer
- Auto Sleep Time

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).

Slideshow Time

- Adjusts the time for your slide-shows.

Aspect Ratio

- Changes the aspect ratio of the picture - 4:3, 16:9*

PC Setup

- Disabled for this model

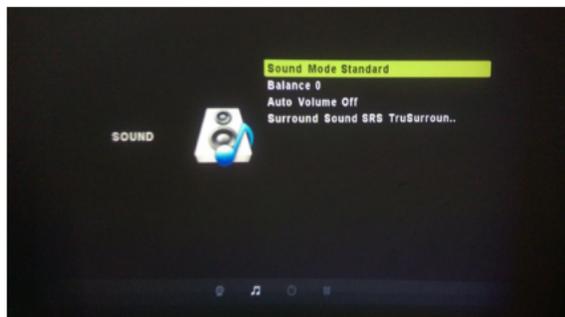
Upgrade

- Allows you to upgrade the software via USB



*Caution: Some pictures may be cut off when aspect ratio is set incorrectly

Sound Settings



Sound Mode

- Change the sound mode depending on what is currently playing.

Balance

- Adjusts the balance of the sound, from left to right.

Auto Volume

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

Surround Sound

- Adjusts the surround sound capabilities of the projector.

Time Settings

Clock

- Adjust the time/date.

Off Time

- Sets a time for auto turn off of projector

On Time

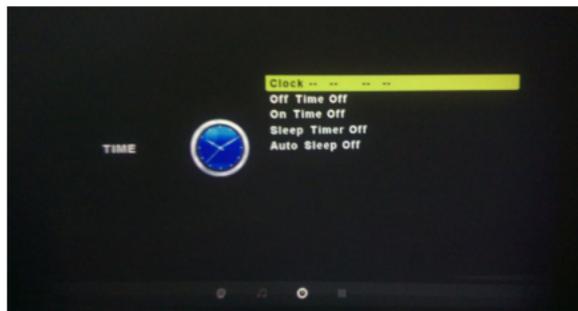
- Sets a time for the projector to auto turn on.

Sleep Timer

- Sets a timer until the projector to go into sleep mode

Auto Sleep

- Sets the auto sleep of the unit.



Option Settings



OSD Language

- Changes the language of the device.

Restore Factory Default

- Restores the projector to factory settings.

OSD Duration

- Allows the projector to set a duration for the selected OSD language.

Current Version

- Displays you the current version you have installed for the projector

Keystone Adjustments



What is Keystoneing?

“Keystoneing” 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

How to Correct Keystone

- If the image looks trapezoidal with the base larger (as pictured right), press the bottom button on the directional pad on the top of the ST200 until the keystone effect corrects and the picture turns into a square projection.



- If the image looks trapezoidal with the top larger (as pictured right), press the top button on the directional pad on the top of the ST200 until the keystone effect corrects and the picture turns into a square projection.



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 even plane with the screen.

No Sync, No Signal

1. 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 ST200 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 ST200 projector is 1280x720. 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 projector. 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	150 Lumens
Native Resolution	1280x720(720P)
Maximum Resolution	1920x1080(1080P)
Contrast Ratio	2000:1
Projectoin Lens:	Manual Focus
Image Size:	10~100 inches
Lamp:	Triple RGB LEDs with Vibrant Color Technology Life 15,000hrs
Video in:	Composite A/V VGA(mini-VGA) HDMI
Audio Output:	1.0 W stereo speakers 3.5 mm audio jack
SD Card	MicroSD Card Slot (16 GB maximum)
USB:	USB Host (Memory Sticks)
Dimensions	140x80x35mm
Weight	0.7 lbs

Please direct all customer service inquiries to:

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