

# Renew

Reaching the Remote



# Vista<sup>SP</sup>



Portable Presentation System

Solar-powered Audio & Video for up to 1000 Viewers



## FCC Emissions Information

This equipment complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications. 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 on and off, 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 the interfering device

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes are made, you could be required to stop operation of the equipment.

## Safety Information

Please read this manual carefully before operating this unit and keep it for future reference.

**CAUTION:** This mobile DVD player is a Class 1 laser product. Be sure to operate the mobile DVD player correctly as instructed.

### **WARNING:**

- Only the included battery charger or solar panel may be used to charge the battery. Use of any other charger is extremely hazardous and can result in fire or danger of electrical shock.
- To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture. If this equipment becomes wet from rain or moisture, allow equipment to dry completely before operating.
- To reduce the risk of fire, electric shock, or annoying interference, use only the recommended accessories.
- Do not look directly into the lens while the projector is on.
- Follow local guidelines regarding the disposal of batteries. Never place battery in fire.
- Do not attempt to crush or puncture battery.
- Store the accessories (battery, etc.) safely out of the reach of children.
- Do not open covers and do not attempt to repair this unit. Refer servicing to qualified personnel.

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# Introduction

The Vista SP is a uniquely-portable, solar-powered presentation system. A single person can carry everything needed for a presentation to be seen and heard by 1000 people!

The Vista SP is capable of projecting a 90" image in darkness from DVD or other audio/video player. The core Engine weighs less than 23 pounds and comes packed in a padded shoulder bag. It can be configured for showing video in small rooms or large outdoor venues exceeding 1,000 attendees.

The system also includes one marine speaker loud enough for 150 people to hear. Audio capacity can be increased with the use of additional marine or horn speakers (up to 4 total).

For situations where power is available, the AC-powered version of the Vista is available with a larger, brighter projector.

The Vista SP consists of the following components:

- LED Projector
- DVD Player
- Vista Engine including 4-channel Audio Amp
- Wired Microphone
- NiMH Battery Power Plant
- Solar Panel
- AC Charger
- AC Adapter
- Shoulder Bag
- Flashlight
- Marine Speaker
- All Necessary Cables

The following components may be added to suit your needs:

- Additional Marine or Horn Speakers
- 60", 90", 148" Lightweight Screens
- Screen Stand Tripod
- Wireless Microphone and Receiver
- Backpack
- Crush-proof Hard Case

# Operating the Vista Engine

**Refer to Vista Quick Start Directions for visual setup instructions.**

## **Power**

1. Connect "Battery Power" Cable to Power Plant battery.
2. Check that Engine's power is OFF ("O" is down). Connect "Power In" end of Battery Cable to Engine.
3. Turn power ON ("I" is down) using switch above Engine's POWER IN port. Red power light will turn on.

## **Video**

4. Remove projector from bag. Connect "Power Out" end of the Projector DC Cable to Engine's DC OUT port.
5. Connect blue "Projector DC In" end of cable to projector.
6. Connect yellow "AV Out" end of the Projector AV Cable to Engine's A/V OUT port.
4. Connect yellow "Projector Video In" end to projector.

## **Audio**

8. Connect Speaker Cable to Engine's speaker port (SPKR1-4) by first aligning the indention on the plastic tip.
9. Connect the other end of Speaker Cable to port on back of Speaker
  - Left Channel : SPKR1 & SPKR3
  - Right Channel : SPKR2 & SPKR4
10. Adjust AMP VOL to regulate volume of all audio including
  - Any external device using the AV IN port
  - DVD player (Set volume on DVD player to max)
  - Wired MIC 1 and MIC 2

## **DVD Player**

11. Press Power button on DVD player.
12. Insert DVD after ejecting any other discs.

## **Projector**

13. Press Power button on the side of the projector.
14. If video does not appear, press Input Search button.
15. Adjust the focus ring to create a sharp picture.

**Connecting guitars or other high-output devices:**

- The Vista Engine provides two ¼" jacks on the right side for use with powered devices, including the optional wireless microphone and the user's powered device.
- Neither of these jacks have volume controls; adjust the volume with the volume controls of your device.

**Connecting wired microphones:**

- The Vista supports up to two wired microphones using standard ¼" plugs.
- Adjust the knobs labeled **MIC1VOL** and **MIC2VOL** beside each jack to control their volume.

**To reduce power consumption, turn off any devices that you are not actively using.**

**Using the Vista to play music or other media before a presentation will reduce battery charge and presentation length.**

# Operating the Projector

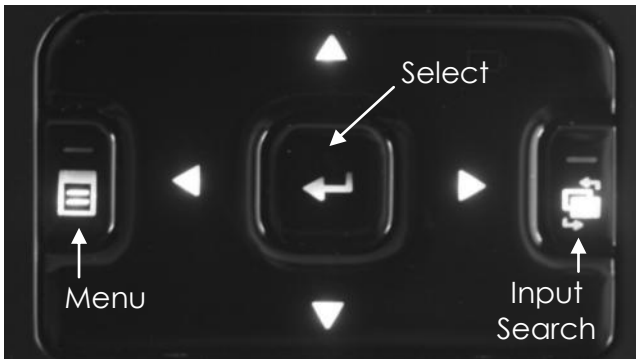
- The projector's power button is located on the side of the unit. Press it to turn the projector ON.
- Projector connects to the Vista using the AV IN port and DC IN ports on the back of the unit.
- Adjust the projector's focus ring to create a sharp picture. If the picture will not become sharp, you may need to move the projector closer to the screen.
- When the projector powers ON, it will automatically search for video input, starting with AV IN. If no video begins to play, check that the cable is fully connected to the AV IN port and press the Input Search button again.
- For a longer run time, try adjusting the projector's brightness in its menu system under:  
RAM > Settings > System Setup > Brightness



Projector's power button



Projector's focus ring



Projector Controls

# Operating the DVD Player

1. Lay player in the horizontal position.
  2. Power ON the DVD player
  3. Insert DVD (label-side up)
  4. Using remote control arrow keys, navigate DVD menu and press enter
- On some DVD's, the subtitles come up automatically. If this happens and you don't want the subtitles, simply press SUB-T on the remote to remove them.
  - The DVD's are set to play Region One videos. If you have a DVD that is not Region one and a Region Error occurs, email renew at [info@renewoutreach.com](mailto:info@renewoutreach.com) and we will help you.
  - Volume can be adjusted using the Main Volume control on the Vista Engine and through the volume buttons on the remote control. For best sound, set DVD Player's volume to its max.
  - The remote control can be used to fast forward to specific portions of a movie, add captioning (if supported by the DVD), zoom the picture, etc.
  - Please consult the separately-enclosed DVD player manual for details on its many functions.

# Playing from External Devices

In addition to playing from DVD, Vista will also play from an iPod or any external device with RCA audio and video output.



1. Connect "Audio In" adapter (included with Vista) to Vista's A/V IN port.



2. Connect yellow video output\* from external device to Vista's A/V IN port.



3. Connect red and white audio output\* from external device to Vista's adapter.



4. Set Vista's input switch to "A/V IN". \*\*

\* RCA video and audio output cables are typically included with external devices and are not part of the Vista system.

**\*\* Remember to set Vista's input switch back to "DVD" before playing from the internal DVD player. The internal DVD player will have no sound or video if this switch is not set to "DVD".**

# Optional Wireless Microphone

1. Install 2 AA alkaline batteries in the microphone.
2. Unzip front pocket of bag to expose receiver's antenna.
3. Turn wireless receiver power ON ("| " is down) at bottom right of Engine. Receiver's light will glow red.
4. Turn microphone ON. The mic's light will briefly glow then go out to indicate adequate battery charge.

When the wireless microphone is powered on, another LED light on the receiver will glow red. If you speak into the wireless microphone, this red LED light will glow green to indicate reception from the microphone.

Please note the following:

- Reception for the wireless microphone is about 100 feet (30 meters).
- Microphone battery life is about 20 hours.
- Remove batteries between uses to extend battery life.
- Keep Microphone OFF when not in use to save power and reduce potential amplifier noise.
- Expose wireless receiver's antenna for best reception.



# Charging the Battery

## Using the AC Charger

- Charging time is 7-8 hours for an empty battery; the smart charger shuts off when the battery is full. It is a good practice to leave the battery charging overnight.
- Connect the charger to an AC outlet. The charger automatically adjusts itself to the available voltage: 110 to 220.
- Connect the output cable of the charger to the battery. The LED light indicator on the charger will briefly show red (indicating that the battery needs to be charged) then will continue glowing red to show that charging is in process.
- Keep battery away from direct sunlight and heat.
- When the charger LED light shows green, the battery should be fully charged. Total charge time for an empty battery is approximately 7-8 hours.
- If the charger LED light flashes an alternating red and green, there is a malfunction with either the charger or the battery.
- A fully charged battery will measure approximately 16.8V.
- Protect the charger from exposure to rain or moisture.

## Using the Solar Panel Charger

- Charging time is 6.5 –10 hours for an empty battery
- Locate a sunny location for the solar panel with no obstructions to the sun.
- Keep battery away from direct sunlight. If possible run battery cable inside while the solar panel is outside in the sun. This is important because the battery life will be shortened as the battery gets hot. It is best not to charge the battery if either the air or battery temperature exceeds 120° F.
- Angle the solar panel directly at the sun if possible.
- Connect the solar panel to the battery via the enclosed cable. Connect the end labeled "Solar Panel" to the panel's connector. Connect the end labeled "Battery" to the battery.
- Battery charge level can be checked via the switch on the battery case. To fully top-off the battery, charging should be continued for about two hours *after* all LED lights are lit on the battery fuel gauge.

# Packing for Transport

## Vista Shoulder Bag

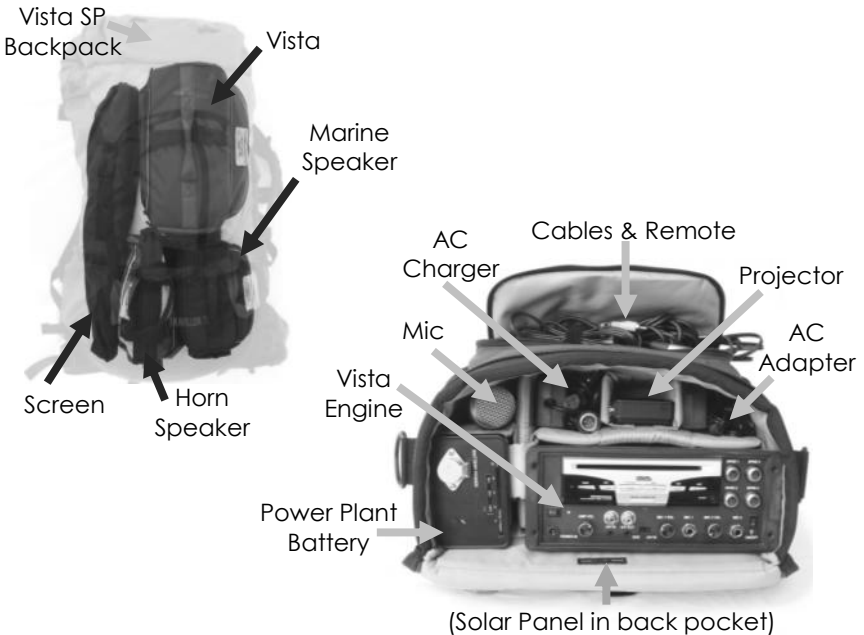
- The shoulder bag containing the engine and projector will pack well into a large plastic, crushproof suitcase for airport check-through. Pack plenty of soft cloths around the case to help protect it during rough airport handling.
- For mailing, the shoulder bag with the Engine should be boxed and carefully padded before being shipped.

## Vista Backpack System

- Backpack may be checked through as luggage at the airport as long as the Vista Lowepro Engine shoulder bag is well-packed and well-padded inside the backpack.

## Vista Hard Case System

- The hard case is crushproof and airtight. It may be checked through as luggage or even mailed if the contents are well buffered and packed tightly.



# Technical Specifications

## Vista Engine

- Power: 11V – 16.8V DC, 3A nominal
- Fuse: 6A Quick Blow 20mm (left side of case, spares are in top pocket of shoulder bag)
- Temperature: Engine runs best in temperatures below 98° F
- FCC Class A approved
- Audio
  - 4x10W RMS/channel max. into 8 ohms
  - Stereo output: Left: SPKR1 & SPKR3, Right: SPKR2 & SPKR4
  - Amp protected from short circuit (requires turning off, and then back on to reset amp)
- DVD Player
  - DVD player supports DVD, VCD, MPEG4, Audio CD, Audio DVD, MP3
  - Remote control necessary for most functions
- Other Inputs
  - External audio and video in jacks labeled A/V IN
    - Audio jack accepts 1/8" stereo plug
    - Video jack accepts standard RCA plug
    - Switch on front panel between DVD and A/V IN
    - Accepts input from CD, DVD, VHS, IPOD, etc.
  - External wired microphones
    - Use either MIC 1 or MIC 2 for 1/4" plugs
    - MIC 1 and MIC 2 are for microphones only
    - Control volume using Engine's AMP VOL
  - Guitar input
    - Use input jack for 1/4" plug on right side of Engine
    - Use volume control on guitar

### **Projector**

- LED based DLP projector (LED life > 20k hrs)
- Brightness: 50 ANSI lumens in Bright mode
- Screen size: 5" – 120" maximum
- Resolution: 854 x 480 (16:9) native
- Contrast Ratio: 2000:1

### **Solar Panel**

- Nominal 30W output (cloudless day, direct sunlight)
- Voc = 28V
- Protect from extreme cold (freezing)
- Use extreme care in folding/unfolding the solar panel if air temperatures are below 45° F to prevent casing cracking

### **Battery Pack**

- Li Polymer battery pack
- Ratings: 14.8V, 150 WH
- UN T1-T8 approved for air transport
- Battery Life: 70% capacity @ 500 charge/discharge cycles
- Exposure to 120° F or above will shorten battery life
- Never charge battery if battery temp is above 120° F

### **Battery Charger**

- 100-240V AC charger
- 1.8A nominal output
- LED lights indicate charge status

### **Optional Wireless Microphone & Receiver**

- UHF transmission and reception
- Frequency specified on receiver & microphone
- FCC approved
- Useful range 100 feet (30 m)
- Microphone use 2 AA Alkaline batteries
- 20 hours typical life from new batteries

# Troubleshooting

## Power Problems

### No Power to Vista Engine

- Check battery charge (button on battery activates LED battery charge gauge).
- Check cable connection from battery to Engine.
- Check Engine fuse.
  - Fuse located on left side of engine.
  - Spare fuses located in plastic box in shoulder bag.

### Vista plays video for less than 2 hours

- The battery must be fully charged for a 2-hour showing. The battery charge status is shown by the LED light gauge on the battery and is activated by pressing the battery's button. Do not start a movie showing if the battery indicates less than 100% charge.
- Like all batteries, the battery pack in your Vista will gradually lose charge capacity due to aging. After approximately 500 charge/discharge cycles or 2 years of usage, battery capacity will be approximately 70% of new.
- Battery capacity is also affected by air temperature. Do not allow your Vista battery to be heated directly by the sun at any time. Your battery should be kept as cool as possible while charging.

### After charging all day with the Vista Solar Panel, the battery shows less than 100% charge

- Solar panel charging time depends on several variables:
  - Time – Min charge time is 6.5 hours of direct sunlight.
  - Directness of exposure to sunlight –
    - Keep the panel angled at the sun if possible.
    - Cloudiness will reduce the charging efficiency.
    - Change the location of the solar panel, if necessary, to minimize shadows throughout the day.
- Angle of the sun in the sky – Charging at latitudes above 40 degrees during winter will be slower. Two days may be necessary for a full charge.

Battery is discharged and you have a showing scheduled

- Power the Vista with your AC power adapter.
- The battery may also be charged separately using the AC Charger while the Vista is run from the AC Adapter.

Battery charger flashes alternating red & green

- Measure your battery voltage using a Volt Meter
- Normal battery voltage ranges from 10.5V to 16.8V. A voltage below 10.5V would indicate a failed battery.

## Video Problems

No Image and no Sound

- Check Engine to see if the DVD A/V IN switch is set to "DVD" to run DVD player (see picture below).

Image is not clear on screen

- Turn focus ring near projector's lens.
- Check that screen is not tilted; it must be straight upright.
- Check for condensation on the projector's lens. This should disappear after several minutes of operation.
- Check for dust on projector's lens and carefully wipe with a clean, soft cloth.
- Screen must be tight on frame with no wrinkles in fabric.
- Screen is two-sided, but **image on back side of screen will not be as clear as on the front.**

No image is on screen, but sound is audible

- Check that projector is powered ON.
- Check yellow AV IN cable from Engine to projector.
- Check that DVD A/V IN switch is set to "DVD" on Engine (see picture below).



The Engine's DVD A/V IN switch should be set to DVD in order to play from a DVD.

## Audio Problems

### No sound, but video is visible on screen

- Check speaker cable connections.
- Check that the DVD/AV switch is correctly set (see picture on page 13).
- Check Mute button on DVD player remote control.

### DVD Volume too low

- Check volume control on DVD player and set to max volume using remote control.
- Check that all speakers are connected.
- Vista is available with a variety of speakers such as:
  - Marine speakers, which are intended for large groups inside or outside.
  - Horn speakers, which are intended for very large outdoor groups.

### Wireless Microphone is too loud or too soft

- Check battery condition of wireless microphone. Batteries normally last for up to 20 hours of use. Replace with two AA batteries.
- Adjust wireless microphone volume by turning the knob on the wireless receiver.

### Wireless microphone audio breaks up or is garbled

- Maximum range of the wireless microphone is about 100 feet (30m).
- Check that antenna on receiver is extended.
- Check for large objects (trees, cars, etc.) between the microphone and antenna.
- Avoid shouting into the microphone. This will cause the amp to overload and cut off the signal.
- Practice different ways of holding the wireless microphone near your mouth. The distance from your mouth as well as the angle of the microphone significantly impacts the sound quality of your voice.

### No sound from wireless microphone

- Check battery in microphone (see previous section) by switching microphone ON. Red LED light in microphone handle should light up briefly and then turn off if the battery is okay. If Red LED light remains ON or does not light at all, then batteries must be replaced.
- Check LED lights on Wireless Receiver.
  - Power ON LED light should be lit.
  - A Red LED on the receiver will light when the microphone is turned on. This LED will switch to Green when talking on the microphone indicating that the receiver is receiving a signal from the microphone.
- Check power to wireless receiver.
  - Check that Wireless Receiver's red LED is lit, indicating receiver is powered ON.
  - Check Wireless Power switch in lower right corner of Vista Engine faceplate. " | " should be down.
  - Check power cable from Engine to Wireless Receiver. Cable exits right side of Engine and goes to Wireless Receiver in front pocket of carry bag.
- Check signal cable from Engine to Wireless Receiver. Signal cable exits right side of Engine and goes to Wireless Receiver in front pocket of carry bag.

## DVD Problems

### DVD will not load

- Check that the DVD Player is powered ON.
- Check for damage such as scratches or cracks on DVD.
- Power player OFF and back ON after turning Engine Power OFF and back ON.

### DVD will not eject

- Power player OFF and back ON after turning Engine power OFF and back ON.
- Press eject button on DVD player faceplate in addition to remote control.

### No sound or video, but DVD Player appears to be working

- Check that DVD A/V IN switch is set to "DVD" on faceplate of Engine (see image below).

### Video image has captions turned ON

- Use the DVD remote control to turn captions OFF.

### Video image appears magnified

- Use Zoom button on DVD remote control.

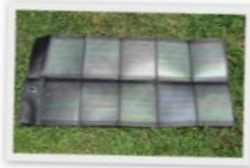


The Engine's DVD A/V IN switch should be set to DVD in order to play from a DVD.

# — { Vista Options & Accessories } —



60", 90", 148" lightweight screens & screen stands



30-watt Solar Panel



Backpack or Hard Case



Marine Speaker for 150 people  
Horn Speaker for 750 people



2500-lumen AC Projector  
or 50-lumen Solar Projector

# — { Other Tools from Renew } —



Papyrus Solar Player  
Audio for 200+ People



RAN Solar Player  
Audio/Video for 50 People



Vista Mini System  
Audio/Video Projection  
for 30-100 People

**Renew**  
Reaching the Remote

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