



**VISTA GROUP
INTERNATIONAL**

Serving Great Exhibits Since 1990

*National September 11
Memorial Museum, Great Hall
Photo Courtesy: Electrosonic*

VCX-150 Amplifier User Guide

Listener Adjustable Volume with Auto-Reset

We Bring Exhibits To Life

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Differentiators

Value for the money – Our client installations tell the story:

- White House Visitor Center, Washington, DC
- National September 11 Memorial Museum, New York City
- PNC Bank Headquarters, Pittsburgh PA
- Fort Smith National Battlefield, Arkansas

Unique product - Allows audio-visual designers to do things not possible before:

- Offer personalized volume control without having it remain at last set level for the next user.
- Satisfies ADA and Section 508 compliance regulations for adjustable volume with auto-reset.
- Personalized volume helps people who are hard-of-hearing and provides a superior listening experience for everyone.

Vista Group's VCX 150 amp is helping visitors understand the exhibits at the National September 11 Memorial Museum in New York City. More than ten million visitors attended the museum in its first three years.

Notice to Users

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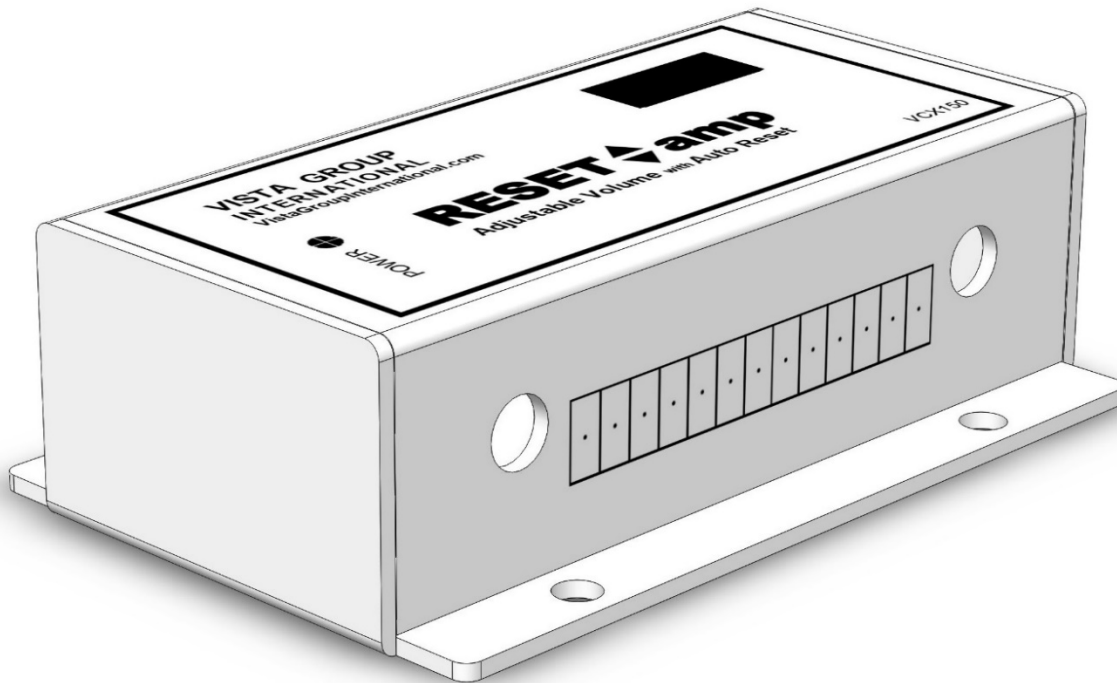
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VCX-150 Overview

Image 1: VCX 150 Schematic



Overview

Vista Group's VCX 150 is a compact, easy way to offer automatic volume control and reset.

The VCX150 is designed to be used with an external audio source such as a typical mp3 player; UP/DOWN push buttons for raising and lowering volume; and a low power speaker or headphone jack.

The volume resets automatically to midrange by setting the VCX 150 to one of the modes below: list

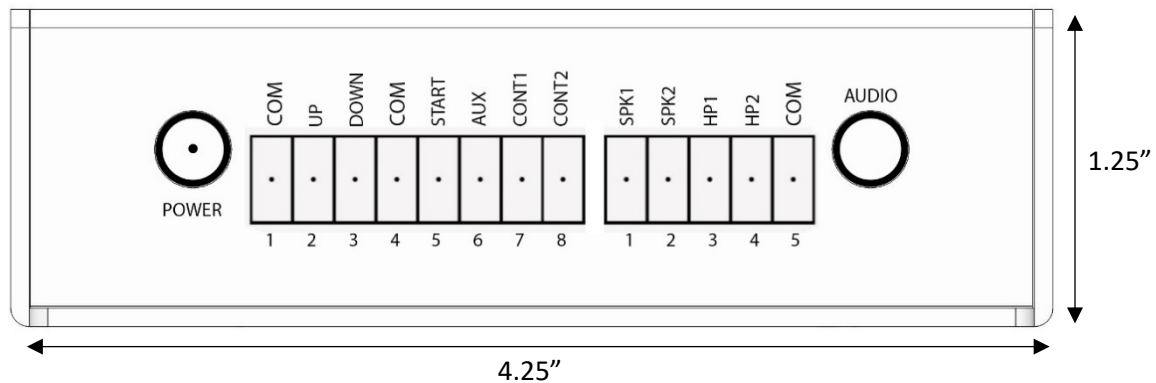
Power off when making changes to dip switch settings and connectors. Reapply when all connections are complete otherwise settings will not activate.

Cautions

Always use shielded Line Level audio input. Amplified Speaker level may damage unit. Start at low volume. Increase volume to maximum with Volume UP button and then increase volume on player to maximum desired.

Always connect speaker output directly across supplied terminals. Connecting speaker to ground may damage unit.

Image 2: Connectors



Connections:

1. **COM:** Common for volume push button inputs
2. **UP:** Increase volume push button (Normally Open)
3. **DOWN:** Decrease volume push button (Normally Open)
4. **COM:** Common for optional Start Switch input
5. **START:** Optional Start Switch
6. **AUX:** Saved for future use
7. **CONT1:** Optional output from amp to player's Start Common
8. **CONT2:** Optional output from amp to player's Start Hot

1. **SPK1 +:** Output from amp to speaker
2. **SPK2 -:** Output from amp to speaker
3. **HP1:** Headphone jack tip
4. **HP2:** Headphone jack ring
5. **COM:** Headphone jack common

Power: 5VDC Regulated, 1 Amp, barrel size of 5/64" x 7/32" x 7/16"

Audio Input: Stereo Mini Connector, Stereo or Mono

Line Level analog or Headphone output

High impedance. Compatible with unbalanced, analog outputs of typical mp3 players

Specifications

Audio Input: Line Level or Headphone Output, High Impedance

Audio Output: 1 Watt, 8 Ohm-32 Ohm, Stereo or Mono

Power Supply: 5VDC Regulated, 1 Amp

Max Power: 200 Milliamps

Status Indicator: Power LED

Push Buttons (Optional) Dry Contact Normally Open

Size: 4 1/4" x 3 3/4" x 1 1/4"

Material: Aluminum; Black Paint with White Silk Screen

Included in Box

5VDC Regulated 1 amp power supply

3.5mm Remote Jack for Headphone Out (Optional)

Start Switch Detect Mode –

For Normally Open Momentary Switch

Application Example


The VCX150 Start Switch Mode automatically resets volume and can trigger audio playback. This allows each visitor to start hearing the program at mid-range and adjust volume while listening, but not annoy the next visitor by leaving the level too high or too low.

Pressing push button again during playback resets volume to mid-range, but does not affect program playback. To interrupt, advance or stop player, use DPDT push button or set with external relay. For lighted push button use COM, START, AUX.

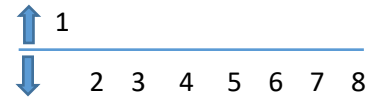
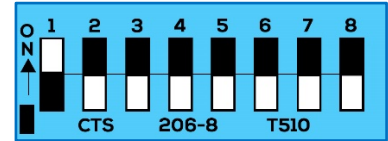
Operating Mode

VCX150 automatically detects change of state of start input switch, and resets volume of audio program. If CONT 1 and CONT 2 are connected to audio source, VCX150 will start audio program.

See also Switch Double Echo Mode – Dip Switches 1+4+5 UP

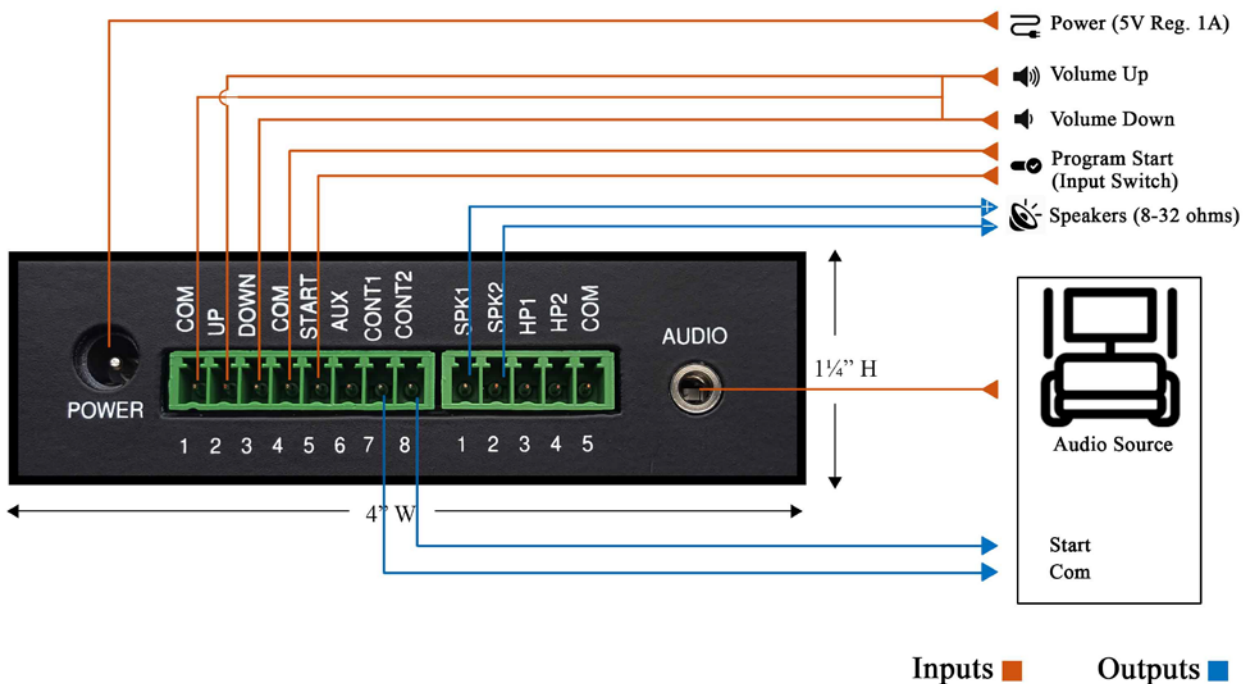
Turn off power before changing connections and switches. 

DIP Switch Configuration



Volume adjustment is relative 15 dB + or – from input level.

Compatible with Vista Group's SOUNDSTIKvcx, generic handsets, and small, efficient speakers, 8-32 ohms.



Mute Mode –

For Normally Open Non-Momentary Switch

Application Example

The VCX150 mute mode automatically reduces volume to barely audible. When a visitor lifts an exhibit audio handset that triggers a NO non-momentary switch starting a player, the visitor can adjust the volume with push buttons on the display (or on the handset). If the visitor returns the handset to the control element before the program ends, volume will diminish to nearly mute until the program stops or another person triggers the switch resuming the program at mid-range level.

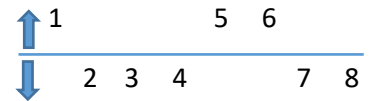
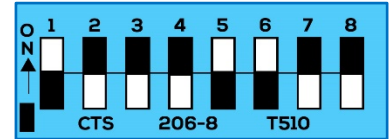
Operating Mode

VCX150 detects change of state of the continuous NO switch and starts VCX volume reset program. When switch closes, playback volume is set to barely audible.

For NO non-momentary switch, use 1 + 4 + 5 + 6 UP

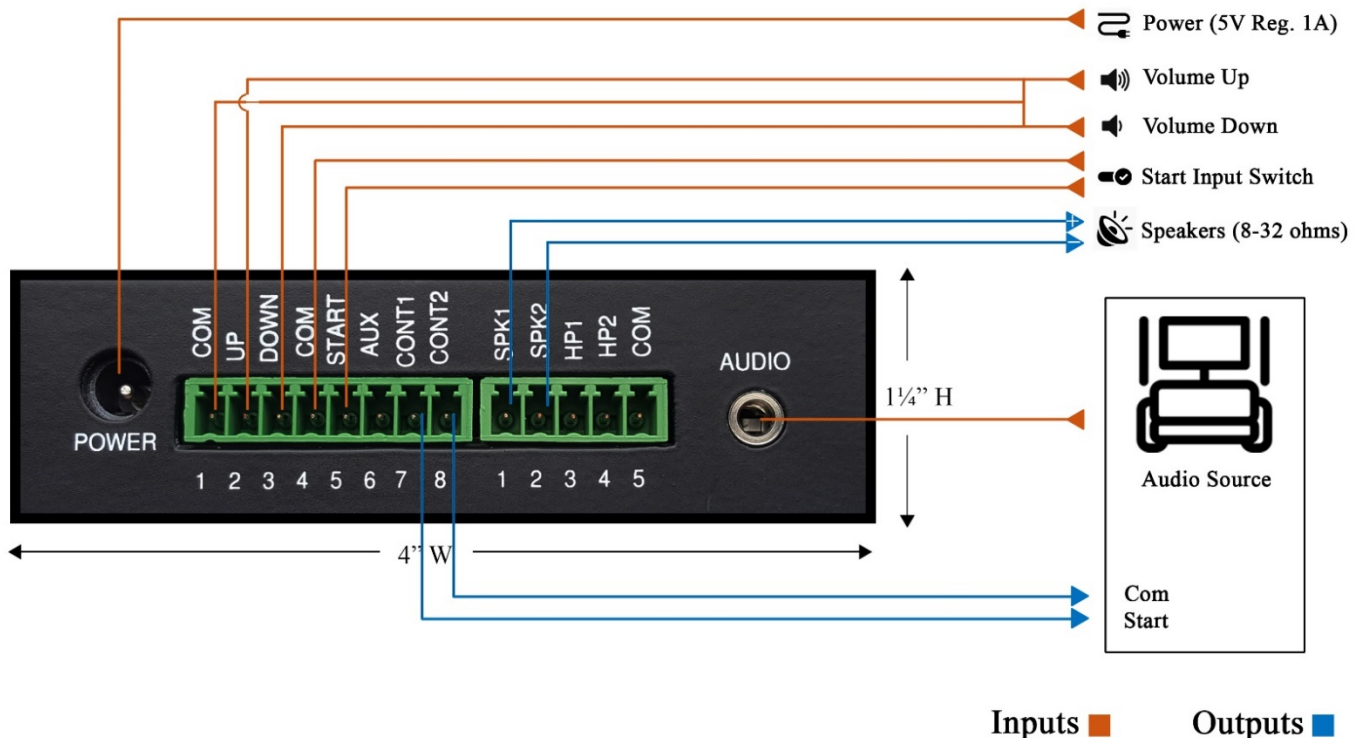
Turn off power before changing connections and switches. ⚡

DIP Switch Configuration



Volume adjustment is relative 15 dB + or – from input level.

Also compatible:
SOUNDSTIKvcx with integrated NO non-momentary switch.
Requires Hanger Mount.



Inputs ■ Outputs ■

Invert Input Mode-

For Normally Open Non-Momentary Switch

Application Example

The VCX150 invert input mode is an option to use as needed depending upon the system's switch type. The VCX150 uses this mode to make a NO continuous switch act like a common momentary push button and trigger the volume reset program. While audio content plays, user can adjust volume up or down.

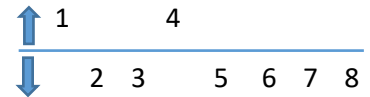
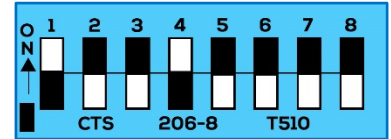
Operating Mode

VCX 150 inverts activated condition/logic state of continuous start input switch (NO or NC). When switch returns to influence of external control, the VCX150 does nothing; volume remains at last used level.

Note: For Normally Closed Non-Momentary Switch use dip switches 1+4+5 UP.

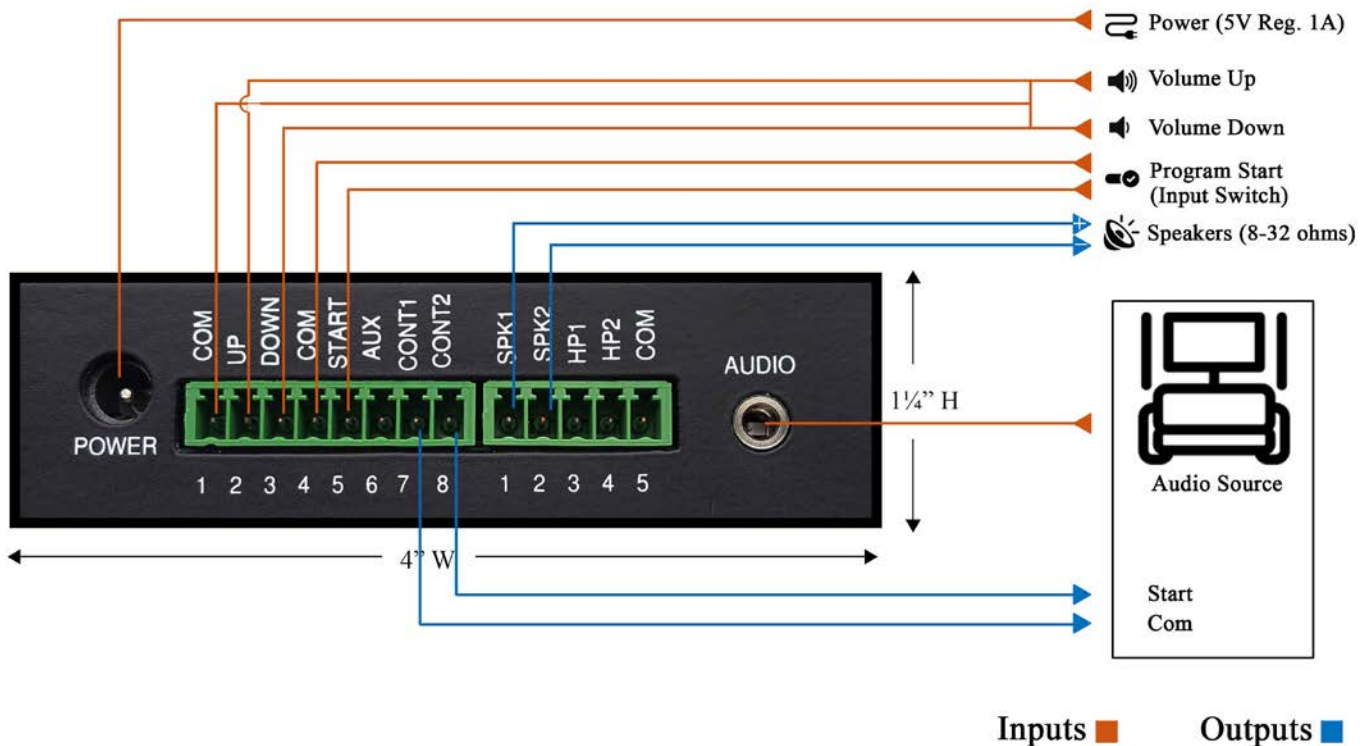
Turn off power before changing connections and switches. ⚡

DIP Switch Configuration



Volume adjustment is relative 15 dB + or – from input level.

Compatible with small, efficient speakers, generic handsets and SOUNDSTIKvcx.



Switch Double Echo Mode -


For Normally Closed Non-Momentary

Application Example

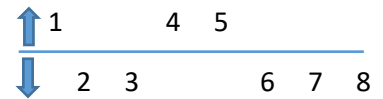
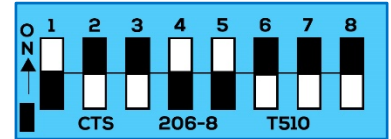
The VCX150 switch double echo mode performs two automatic volume resets and can start/stop the playback device. A visitor lifting a SOUNDSTIKvcx-NC from its Hanger Mount automatically starts the audio program at mid-range volume. Replacing the SOUNDSTIKvcx in the holder resets volume and stops or resets audio playback depending upon player set up.

Operating Mode

The VCX150 inverts the activated condition of the NC switch generating the initial reset and then acts as output relay. *For automatic start/interrupt controls, the "start" and "com" ports have to be connected appropriately to client's device (audio or video).* If a hang-up detect program is not connected, the sound won't automatically reset until the SOUNDSTIKvcx is picked up again.

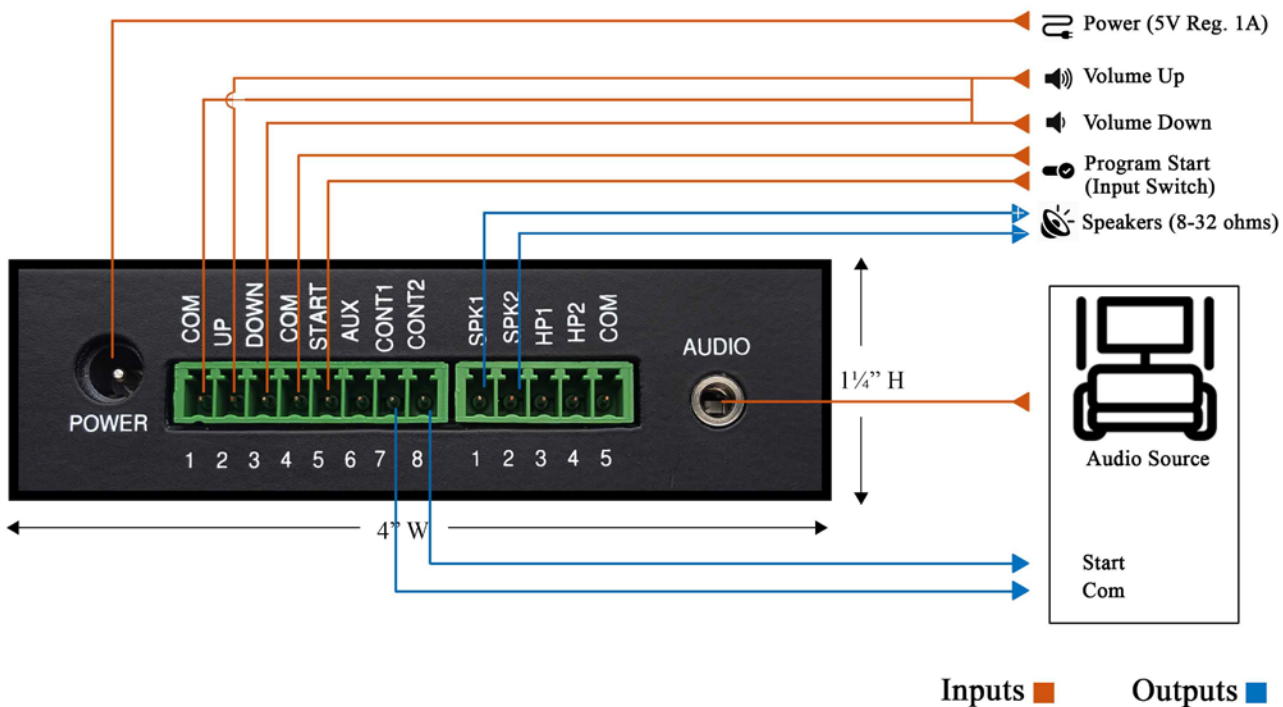
Turn off power before changing settings and switches. 

DIP Switch Configuration



Volume adjustment is relative 15 dB + or – from input level.

Compatible with small, efficient speakers, generic handsets and SOUNDSTIKvcx.



Headphone Detect Mode

Application Example


The VCX150 headphone detect mode automatically lets each visitor start hearing audio playback at mid-range level when he inserts his headphone into a remote jack. Volume can be adjusted by push buttons on the display or on one of Vista Group's pre-wired control plates. VCX150 retains volume level while headphone is plugged in.

To simultaneously play audio via loudspeaker at headphone mid-range level, connect the loudspeaker directly to player.

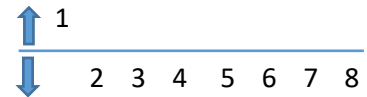
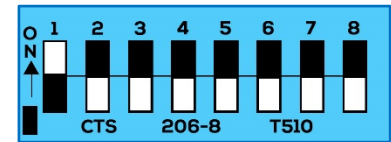
Ask us about compatible small amps for loudspeakers when more volume is needed. We also supply ADA compliant control plates and headphone jacks.

Operating Mode

VCX150 detects 3.5mm plug insertion and runs reset volume program. This mode is ON whenever speakers are ON, even if not connected.

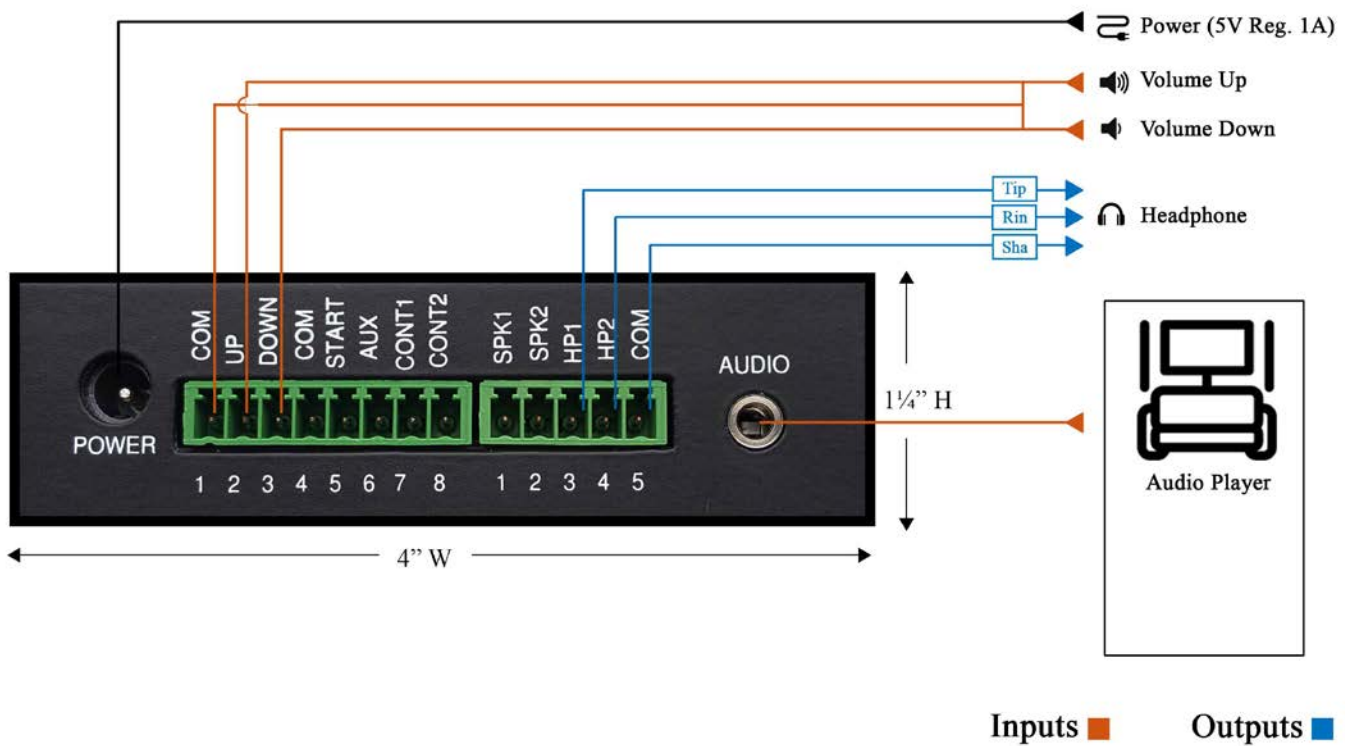
Turn off power before changing connections and switches. 

DIP Switch Configuration



Volume adjustment is relative 15 dB + or – from input level.

Compatible with typical BYOD headphones, stereo or mono.



Silence Detect Mode


Application Example

The VCX150 silence detect mode automatically resets volume after a period of silence: 2, 5, 10, 30 seconds. This setting allows a visitor to listen to multiple audio programs started by typical push buttons without having to adjust the volume to his preferred level with each new program. For instance, as long as the visitor is actively listening and pressing selections with less than 30 of delay, the volume will remain as adjusted. If 30 seconds of silence is detected, the volume will reset.

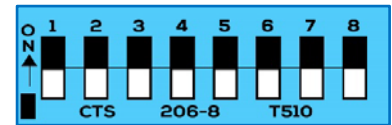
Operating Mode

VCX150 plays back audio from video soundtrack or other device. Visitor can adjust volume while listening. Volume resets after program ends and silence is detected. (Call Vista Group for custom timing.)

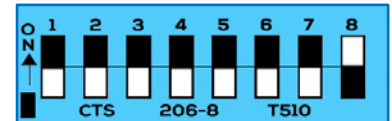
*Volume adjustment is relative 15 dB + or – from input level.
Compatible with small, efficient, speakers, generic handsets, and SOUNDSTIKvcx.*

Turn off power before changing connections and switches. 

DIP Switch Configuration



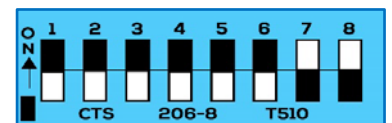
2 Seconds



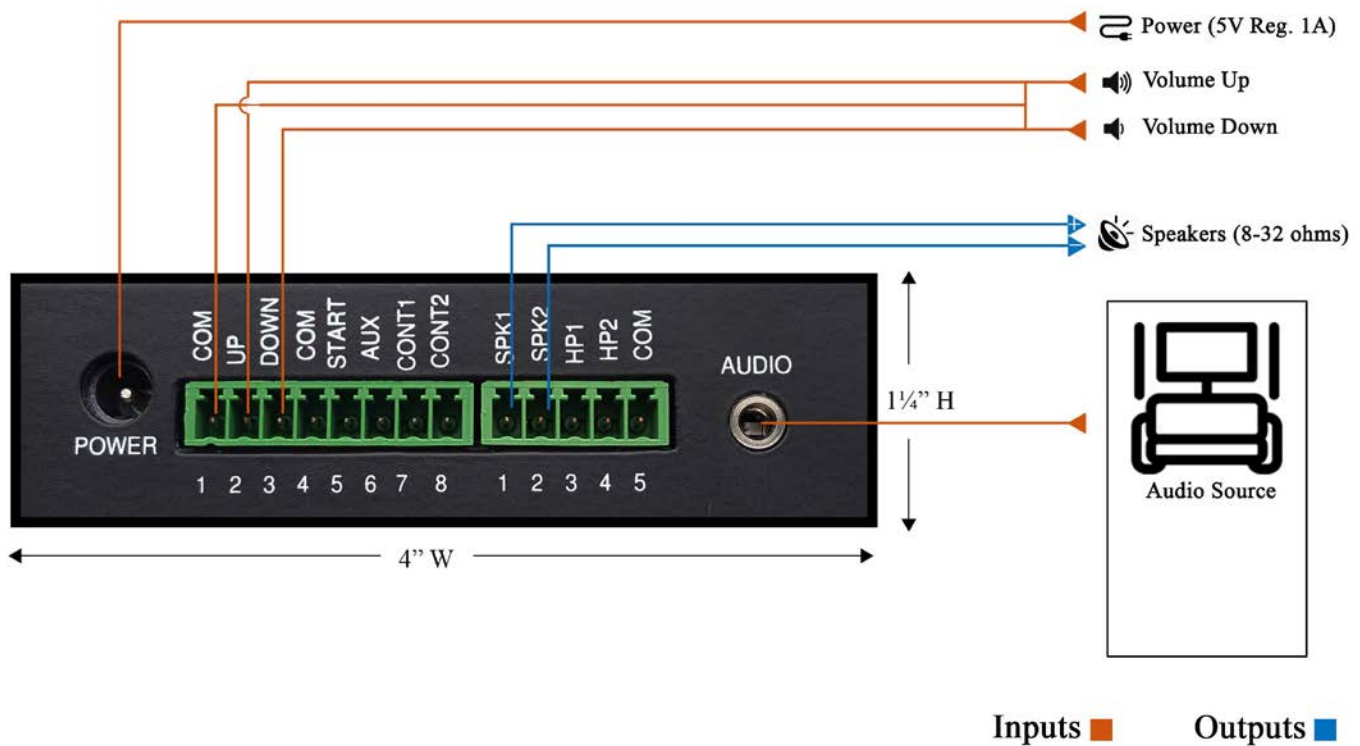
5 Seconds



10 Seconds



30 Seconds



VCX-150 Companion Devices

The **SOUNDSTIK®** VCX

The **SOUNDSTIK®** vcx is a VCX companion device is designed to make exhibit audio more accessible for people with hearing and vision impairments. Visitors may adjust the sound by pressing the UP or DOWN push buttons. When the replace the SOUNDSTIK in its Hanger Mount, the volume automatically resets to a mid-range level. An auto-mute feature keeps the SOUNDSTIK quiet when in its Hanger Mount, even if the audio continues to play—ideal for video kiosks with looping programs.

National September 11 Memorial Museum

Visitors to the Great Hall may sit on benches and listen to remembrances.

Picking up a vcx model handset and holding it to their ear like a phone, they press a pushbutton to start a story.

Each person can adjust the volume. It will remain set while going from story to story. When they are finished, the **Vista VCX auto-reset amplifier** will return the volume to the default level for the next visitor.



VCX Audio Control and Reset System

The VCX audio control and reset system is designed to provide seamless disability access for kiosks and exhibits offering audio description for headphone playback. This is a quick upgrade for a kiosk to provide audio description or used by visitors BYOD headphones.

- Adjustable volume while listening
- Automatic reset—headphone detect
- Detects stereo or mono headphones
- Custom control plates available (call to discuss your application)
- Speaker and electric push buttons
- Designed to fit a single gang electrical box



Warranty

The Vista VCX150 is warranted against defects in workmanship and material for a period of one (1) year from date of original purchase. This warranty is offered to the first end-user customer, if purchased and used in the United States. If the unit requires service, return it to Vista Group and it will be repaired or replaced at our discretion. Units out of warrant or damaged by improper use, abuse, or unauthorized service or repairs will be repaired at prevailing rates at the time. In no event shall Vista Group be responsible for consequential damages due to any failure of equipment to perform as intended. Vista Group's maximum liability shall not ever be greater than the price paid for the equipment.