

VC224pm & VC226pm

POWERMATCH™ Digital Volume Controller



- Stereo to four or six room (zone) controller.
- Individual room stereo volume can be controlled by keypad or remote control.
- Two-piece speaker level digital stereo volume control with mute and LED status.
- 17 positions of attenuation to -48dB.
- High power handling 200 watts peak, 100 watts RMS continuous.
- POWERMATCH™ topology allows safe connection of up to six rooms to one amplifier without a stereo interface.
- Premium Transformer-Free™ sound quality.
- Silent start™ logic (installer defeatable) allows control to start muted, then when activated in volume level six or twelve.
- Modern keypad styling available in white, almond and ivory.
- One or two VC201 keypads with or without internal infrared receivers can control each zone.

Knoll Powermatch™ Digital Volume Controller

For more than 20 years Knoll has been the world leader in premium sound quality volume controls and stereo interfaces. The VC224pm and VC226pm are our new pinnacle in sound quality and multi-room control. Each room with a keypad and speakers can be set to a volume of fully on, fully off or 15 positions in between. Some keypads can even be individually controlled by a remote control and allow all system remote commands to be relayed to source components. Best of all Knoll digital controllers continues its long tradition by providing the best balance of high-power handling capacity, modern styling and functionality, V-pad Transformer-Free™ sound quality with installation ease for stereo systems, home theater, multi-room custom installation and commercial applications.

Silent start™ logic is standard on all of our digital controllers and is installer defeatable in some or all rooms, Silent start keeps the sound off in this room only

until the keypad or remote control button is pushed. This is desirable for master bedrooms, nursery's etc. when the stereo is first turned on to eliminate unwanted sound "turn-ons". Whenever the stereo is first turned on, the Knoll digital volume controller reverts to the installer selected Silent start (or not) AND the starting volume 6 or 12 (out of 17), regardless of the level it was at when the system was shut down.

The Knoll V-pad design does not generate heat like a transformer or L-pad that can dissipate large amounts of power in low and off positions creating early failures, wall damage or even a fire hazard. Nor is there any sonic degradation at low operating levels. Instead the Knoll digital volume controller presents the listener with a full frequency response and original dynamic range at all volume positions and power levels. The stereo signal passes to the speakers without the compression effect associated with all transformer volume controls.

Knoll V-pad Transformer-Free™ technology is the best and most reliable solution for new construction, renovations and upgrades of existing stereo systems.

The VC201 keypad design has a smooth 17 position action with a modern rocker switch to match virtually any modern decor. Keypads are available in white, bone and almond. To increase the volume, press the "up" rocker. To decrease the volume, press the "down" rocker. To mute the volume, press the center of the rocker. When in mute, the LED blinks. To restore the volume press the rocker anywhere. To avoid the blinking lamp, press and hold the "down" rocker until the keypad is in the lowest position. In the lowest position the volume control mutes without a blinking LED lamp.

The Knoll digital volume controller system consists of one or two VC201 keypads and a pair of speakers each room, a VC224pm or VC226pm controller and a stereo amplifier or receiver powering the whole system. The Knoll digital controller is usually located in an electrical room, low voltage panel, closet or near the stereo. One to two VC201 keypads can be connected in each room. The keypad is connected to the digital controller with conventional eight conductor cat 3 or cat 5 wire. VC201 keypads are available with and without internal infrared receivers that don't need extra wiring. VC200 keypads do not work with the VC224pm or VC226pm digital controllers.

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[VC201 Keypad](#)

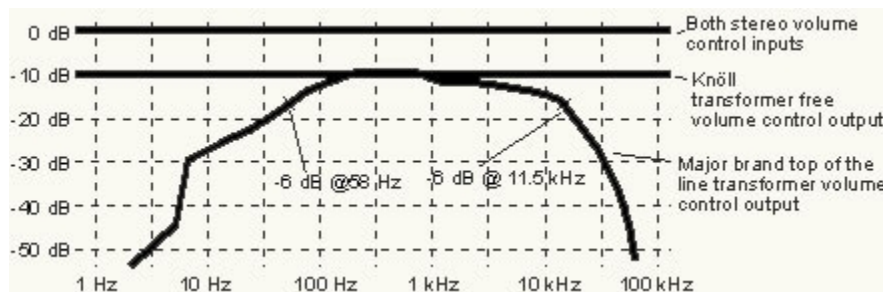
[RB8 Remote Control](#)



VC201i keypads with internal infrared receivers are recommended for use with the VC224pm or VC226pm when remote control use is desired. The VC201i infrared receivers work with most brands of electronics to pass signals from rooms to the stereo, CD player etc. No extra wiring is required for this feature.

Fig 1. Volume Control Frequency Response

With identical paralleled inputs and 8 ohm output loads, the -11 dB attenuation output frequency response of a Knöll Transformer-Free™ versus a top of the line major brand autoformer volume control is shown.



Specifications:

VC224pm, VC226pm Controllers

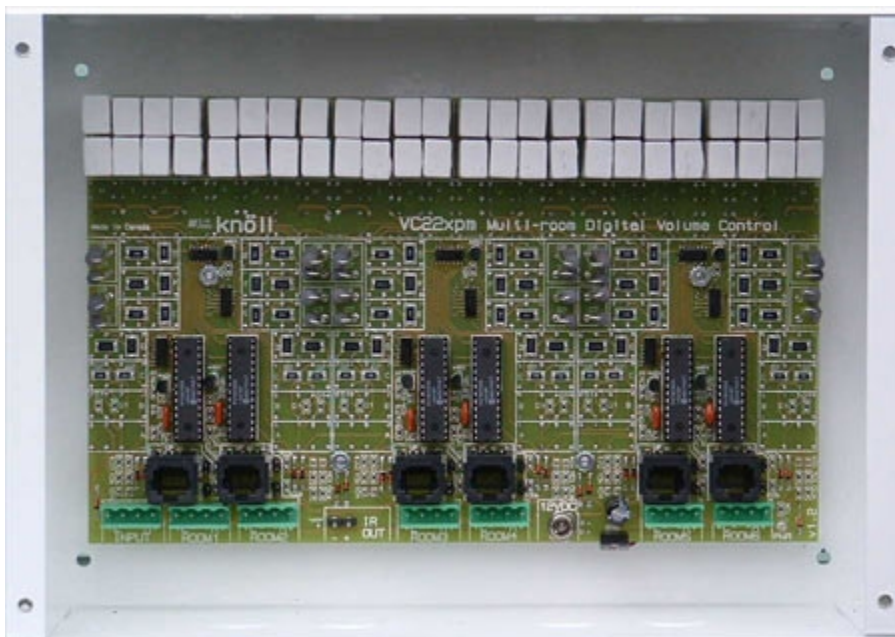
Peak RMS Power Rating	200 watts per channel
Continuous RMS Power	100 watts per channel
Frequency Response	DC to 500,000 Hz at all power levels up to 350 watts +/-0.1 dB
Speaker Impedance	4-16 ohms (single or multiple speakers)
Connection	Removable screw terminals
VC224pm Power	Requires 12 VDC 240 ma
VC226pm Power	Requires 12 VDC 360 ma
Weight	5 lbs. (2.3 kg)
Dimensions	In wall mount 13" x 9" x 3.25" d (32 x 23 x 8.3 cm)

VC201 Keypad

VC201 Mount Depth	1.5" (3.8 cm)
Electrical Junction Box	Keypad fits in single gang
Connection	RJ45 with cat 3 or cat 5 wire 8/8
VC201 Colors	Order as Decora™ white, bone or almond

Note: Keypads do not include single or multi-gang cover plates.

Inside the VC226pm:



Wire Requirements:

Speaker wire should be copper, 14 to 18 gauge. Runs longer than 33' (10 m) should be minimum 14 gauge wire. For safety reasons, we suggest using fire rated wire whenever possible. Two wire pairs (left and right) are run from the stereo amplifier, receiver or stereo interface to the Knoll digital controller. A home run wire pair continues to each speaker. When "pre-wiring", leave an extra 3' (1 m) at each end to allow easy component installation.

A home run of 8 conductor cat 3 or cat 5 wire is run from each keypad to the Knoll digital controller. An extra single cat 3 or cat 5 wire should be run from the digital controller to the stereo for power, IR signals and IR power.