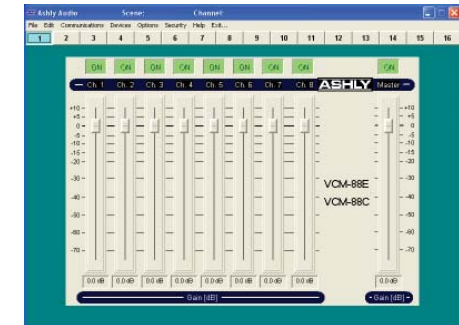
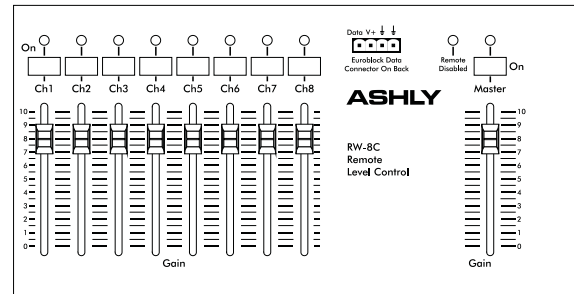
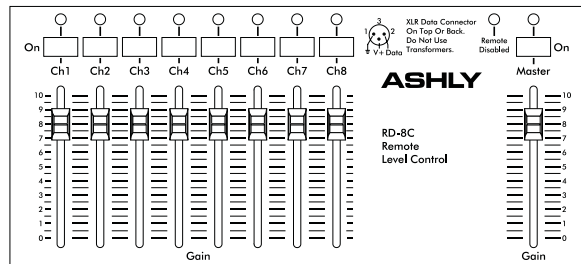
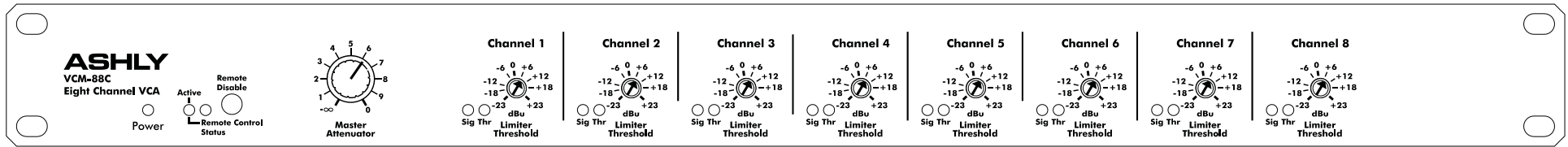




# VCM-88C Eight Channel VCA Matrixing Level Controller

# Technical Notes & Specifications



## Architects Specifications

### VCM-88C

The VCA unit shall contain 8 independent voltage controlled amplifier channels capable of 20dB of amplification as well as 75dB of attenuation. Each channel shall also have a limiter with a wide-range of threshold level adjustment and a limiter active indicator. Each channel shall have a balanced input and servo-balanced output. Each channel shall have the ability to combine unbalanced input and output connections.

The VCA unit shall provide a master level control and a master sum output connector for the unit to function as a stand-alone, remote controlled line mixer.

The VCA unit shall be remotely controllable digitally over a standard RS-232 serial cable. The VCA unit shall provide phantom power the remote controller and receive data over at least 1000 feet of 24 gauge shielded twisted pair. The unit shall also have a data reception indicator and a remote disable switch. The VCA channels and master level shall also be remotely controllable by DC voltages through a euroblock connector using standard linear taper potentiometers. The VCA channels and master level shall also be remotely controllable by a PC connected by a standard serial port and cable using Ashly Protea System Software, AMX or Crestron control software. The unit shall have internal patching capabilities to route individual channel's input and output to any channel.

The output noise at unity gain on each channel shall be less than -94dBu unweighted over 20Hz-20kHz. The total harmonic distortion shall be less than 0.03% at 0dBu.

Crosstalk between adjacent channels shall be less than 80dB over 20Hz-20kHz.

The frequency response shall be flat +/-0.2dB over 20Hz-20kHz. The VCA unit shall weigh no more than 9 lbs. net and mount into 1 rack space (1.75") of a standard 19" rack. The power requirement shall be 100-240VAC, 50-60Hz at less than 30W. The unit shall be the Ashly Audio VCM-88C.

The remote controller shall control 8 channels plus the master level using slide faders. Each channel and the master shall have an on/off switch with an indicator light. There shall also be a remote disable indicator that illuminates when the remote controller has been disabled at the VCA unit. The remote controller shall be phantom powered by the VCA unit so that no batteries or AC line cords are needed while controlling the VCA unit over 1000 feet of cable. The remote controller shall have a low profile for desk-top operation and must have provisions to be rack mounted where two remote controllers will occupy no more than two 19" rack spaces (3.5" high).

The data signal shall not have characteristics which would cause digital crosstalk noise into adjacent microphone-level channels in a multichannel snake cable. This data crosstalk noise shall be less than -110dB along 1000 feet of adjacent 150 ohm microphone lines. The remote controller shall be available in a desk-top/rack-mount version as well as a wall-mount version for permanently installing into a standard 4-gang electrical box. The desk-top/rack-mount remote controller shall be the model RD-8C and the wall-mount remote controller shall be the model RW-8C.

### Features:

- Eight Channels of Remote Level Control
- Bi-directional Communication
- Non-volatile Memory of Level Settings
- RS-232 Interface Connector
- PC Control Using Protea System Software, AMX or Crestron Control Software
- Digital Control Over Shielded Twisted Pair Cable
- DC Remote Control Using Potentiometers
- Internal Channel Patching for Flexible Signal Routing and Matrixing
- Internal Channel Pass-Through for Cascading Multiple Units in Parallel
- Signal Present LED's On Each Channel
- RD-8C, RW-8C Compatible
- Works With Any Mixer With Channel Insert Points
- Master Sum Output Jack
- +20dB to -75dB Level Control
- Individual Limiter Threshold Adjustment for Each Channel
- Safety/Compliance: cTUVus, CE, RoHS, FCC

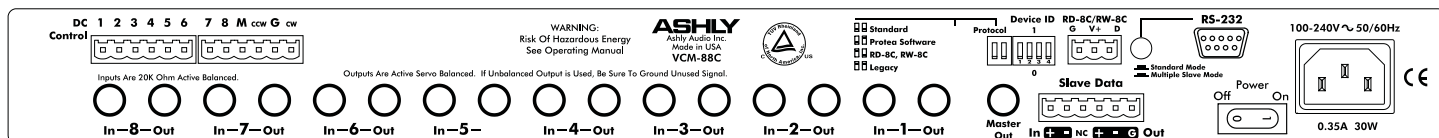
## Specifications VCM-88C

INPUT TYPE:	1/4" TRS *
INPUT IMPEDANCE:	20kΩ balanced, 10kΩ unbalanced
MAX INPUT LEVEL:	+23dBu
OUTPUT TYPE:	Euroblock
OUTPUT IMPEDANCE:	132Ω Servo-balanced, 66Ω unbalanced
MAX OUTPUT LEVEL:	+23dBu
NOMINAL GAIN:	0dB ± 0.5dB
GAIN RANGE:	+20dB to -75dB
FREQUENCY RESPONSE:	± 0.2dB, 20Hz-20kHz
THD:	< 0.03% @ 0dBu, 20Hz-20kHz
OUTPUT HUM AND NOISE:	< -94dBu, 20Hz-20kHz unweighted
CROSSTALK:	< -80dB @ 20Hz-20kHz
LIMITER THRESHOLD RANGE:	-23dBu to +22dBu
LIMITER COMPRESSION RATIO:	10:1
DATA INPUT TYPE:	9-pin female D-Sub connector, 6 pin euroblock, 3-pin euroblock
DATA FORMAT:	RS-232 using Protea System Software, 5V logic, RD-8C/RW-8C
DC CONTROL INPUT TYPE:	2x 6-pin euroblock
DC CONTROL VOLTAGE:	-4V to +15V provided for external 10k ohm potentiometers
SIZE:	19"L x 1.75"H x 8"D
POWER REQUIREMENTS:	100-240VAC, 50-60Hz, 30W
SHIPPING WEIGHT:	13 lbs

RD-8C/RW-8C SPECS:	
FADER RANGE:	+10dB to -75dB (master fader @ 0dB)
DATA/POWER CONNECTOR:	3-pin
MAX DATA CABLE LENGTH:	1000ft
DATA FORMAT:	9600 baud, 5V
SIZE:	7.5"L x 3.5" H x 1.75"D
POWER REQUIREMENTS:	Phantom powered by VCM-88C
SHIPPING WEIGHT:	3 lbs

\*Input connector may be internally selected as a single in/out patch point.

## Rear Panel VCM-88C



## Applications:

Remote control of stage monitors, personal monitor mixer, remote control of microphones in a church or large meeting room, remote control of sound in a theme park or banquet facility. Dedicated 8-channel limiter for speaker protection.

Ashly manufactures a complete and comprehensive line of Analog and Digital Signal Processors, Power Amplifiers, Mixers, and Amplifier Input Options. Please call, write or visit our web site for information on any of these Ashly Products.

Ashly Audio Inc., 847 Holt Road, Webster, NY 14580-9103  
 Toll Free (800) 828-6308, Tel: (585) 872-0010, Fax: (585) 872-0739  
 www.ashly.com, e-mail: info@ashly.com