

RVC-5 (39370-1 & 39370-2)

Automatic Remote Volume Control

Installation Instructions

PR007 Revision 1.1

Description

The 39370 is an accessory for the CNA-200 automation that supports automatic volume control for popular sound processors. When connected to the “remote fader” of the sound processor, the CNA-200 becomes the master fader control. The CNA-200 provides manual volume control as well as automatic volume control with the new “Volume Instruction”. The CNA-200 supports a wide volume range of -50.0dB to +10.0dB. This range is achievable only if the sound processor remote fader supports it. For example, the remote fader range of the Dolby CP500 is about -38dB to +4dB.

The 39370 board is “piggy-backed” to the CNA I/O CPU board (P/N 39334). These two boards make up the RVC-5. The RVC-5 must be plugged into either a Single Termination Board (P/N 39332) or a Booth Termination Board (P/N 39331). The RVC-5 will not work if plugged into a Console Termination Board (P/N 39330). The RVC-5 is available as either a “single” or “dual” version. The single RVC-5S has one isolated fader control output. The dual RVC-5D has two isolated fader control outputs to control two different sound processors.

Equipment Required

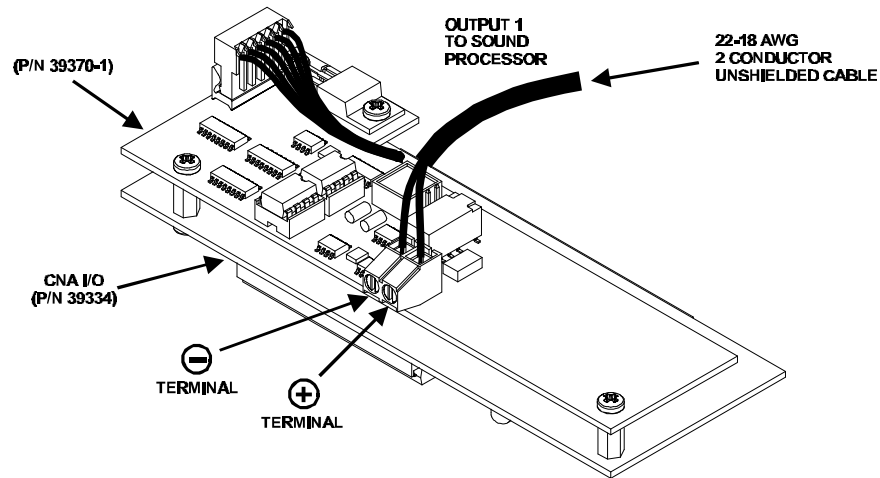
The following hardware and software are required

- CNA-200 automation with version 1.016 (or later) software (Version 1.017 is required for Sony)
- CNA I/O Board (P/N 39334) with version 4 software
- P/N 39370-1 or 39370-2 connected to CNA I/O Board.

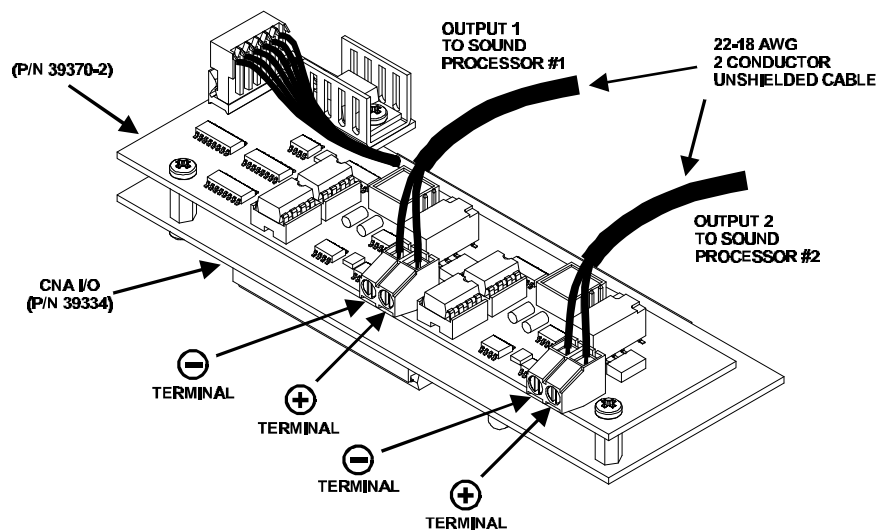
Note: CNA-200 software version 1.016 (and later) is compatible with previous versions of CNA I/O software and previous versions can exist on the LIN with version 4. For example, the console termination board can be running version 1 software and the booth termination board can be running version 4 software with no adverse effects.

Installation (upgrades)

Begin by powering down the CNA-200 and Sound Processor. Locate the CNA termination board. You will have either a single termination board or dual termination board system. The single termination board system will use the 39332 board. The dual termination board system will use the 39330 and 39331 boards. You are looking for either the 39332 or 39331 board. The 39332 board will be located inside the console. The 39331 board will either be inside the console or mounted in the BTC-10 cabinet on the wall. Remove the existing CNA I/O board (P/N 39334) from the termination board. Carefully plug the new RVC-5 board set into the termination board connector.



RVC-5S SINGLE OUTPUT

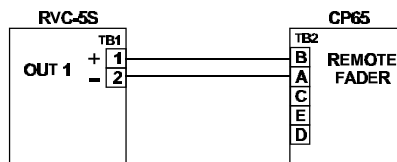
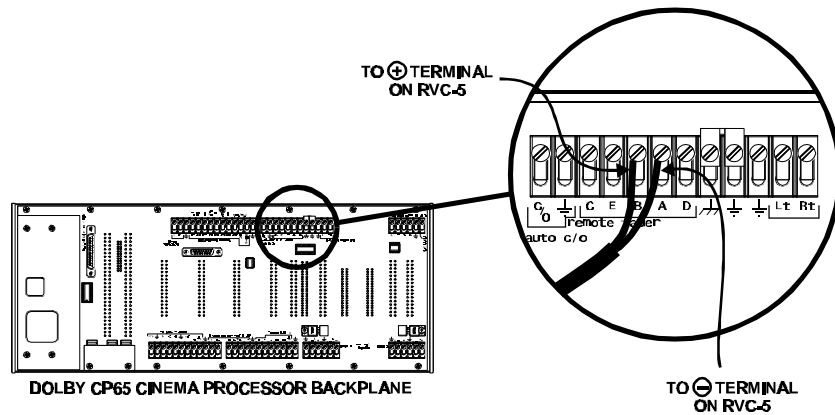


RVC-5D DUAL OUTPUT

Wire the RVC-5 to the sound processor using 22 -18 AWG 2-conductor unshielded cable. (Observe polarity.)

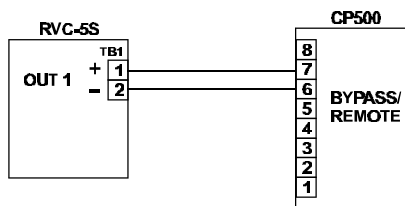
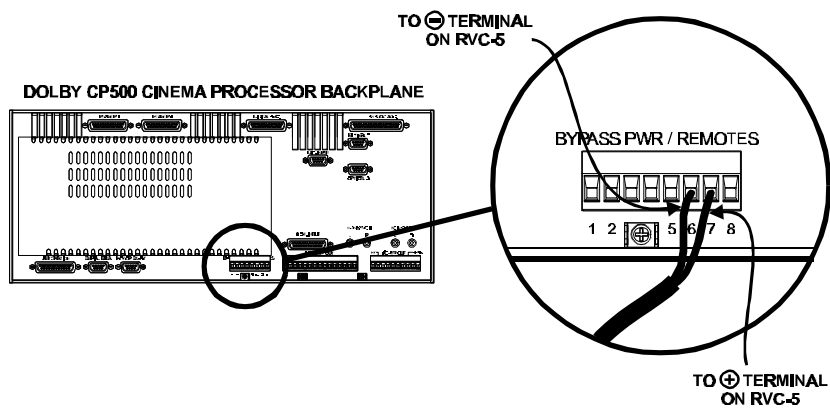
Dolby CP65

Wire the RVC-5 to the Dolby CP65 as shown in the illustration. Also be sure that J1 on the CAT 443 card is set to REMOTE FADER IN and J3 is set to WAKE UP REMOTE. The sound processor will now power up with the remote fader active.



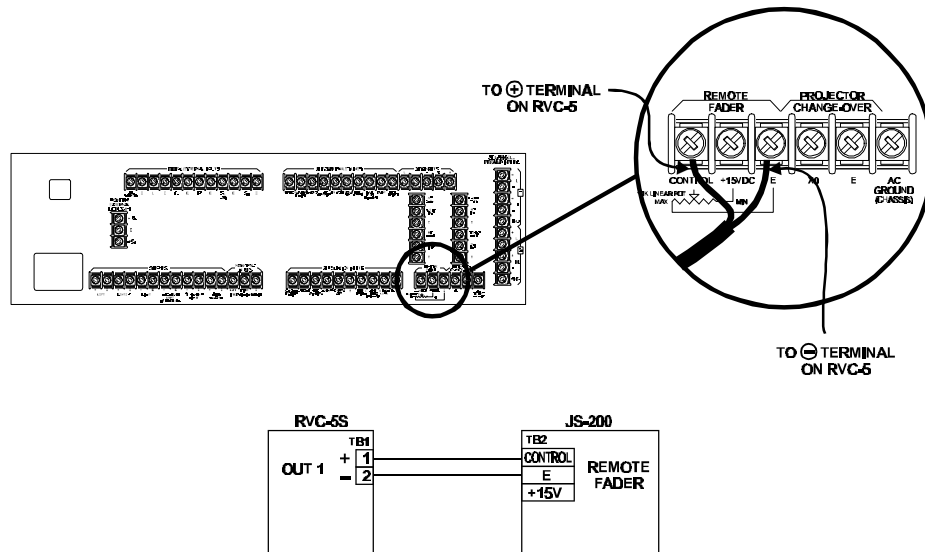
Dolby CP500

Wire the RVC-5 to the Dolby CP500 as shown in the illustration. Enable the Auditorium Fader on the CP500.



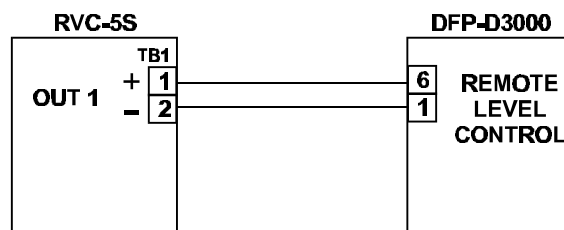
Ultra Stereo JS-200

Wire the RVC-5 to the Ultra Stereo JS-200 as shown in the illustration. Enable the Remote Fader on the JS-200 front panel.



Sony DFP-D3000 Film Sound Decoder

Wire the RVC-5 to the Sony DFP-D3000 as shown in the illustration. Enable the Remote Fader on the Sony unit by pressing the 'EXT FADER' button.



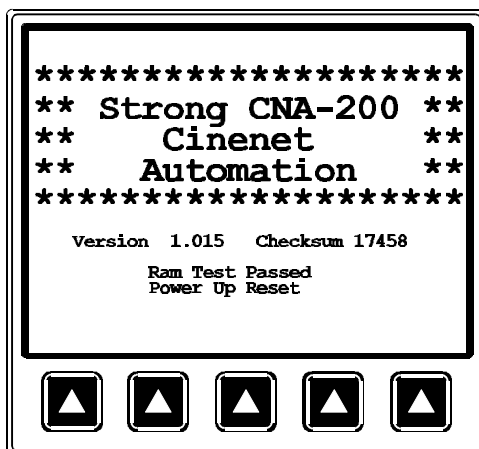
CNA-200 Software Upgrade

If the CNA-200 is running software previous to version 1.016, it must be upgraded.

Note: Due to the extent of the changes in software version 1.016, the memory that stores the system setup data has moved. Therefore, upgrading to version 1.016 from a previous version will overwrite the old setup data. This includes programs, all supervisory data, clock start times and cue learn times. The "Run and Maintenance Schedule Timers" will also be reset to "0". If you use the maintenance timers, you may want record the values and re-adjust the Maintenance Timer set points as necessary. Before upgrading to this new version use the Host to backup each CNA-200. If you do not have the Host or Gateway interface will need to re-program all CNA-200s. See 'Network Copy' in the *CNA-200 Setup and Operation* manual.

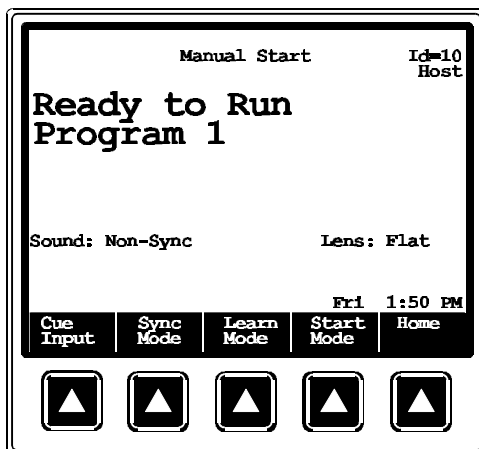
Open the CNA-200 front panel by removing the three philips head screws. Remove chips U15 and U20 with a small flat blade screw driver. Carefully insert the new chips into the sockets. Be sure not to bend any pins and remember these chips can be destroyed by static electricity. Close the front panel and secure the three screws.

You may now apply power to the CNA-200. Pay attention to the power up screen on the CNA-200.



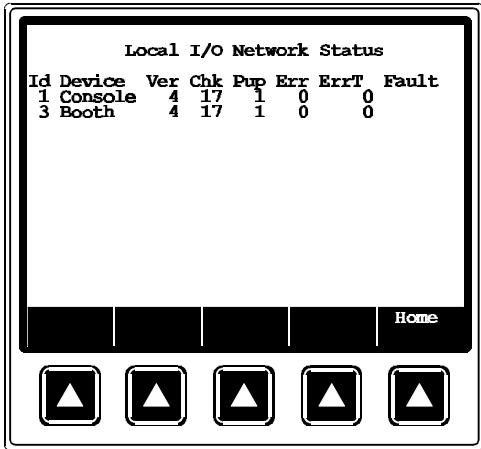
When power is first applied, the first screen that appears indicates the software version number and a RAM test message.

Version 1.016 Checksum 23717
Version 1.017 Checksum 20075



In a few seconds, the Main Run screen appears. This is the normal operating screen that the projectionist will use.

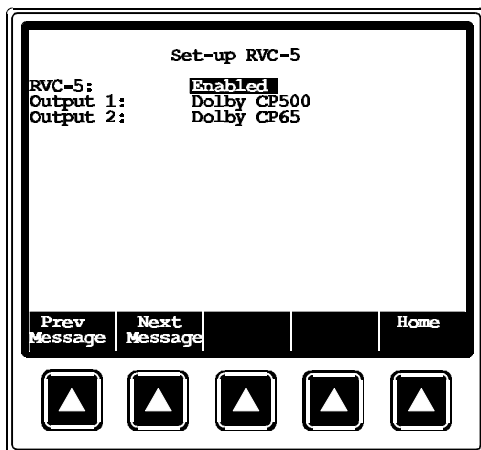
Now verify that the new CNA I/O board is operating properly by viewing the LIN Network Status screen.



To view the LIN Status screen:

Press the **Menu** key,
Press **Network**,
Choose **LIN Status**

You should see that the Booth termination board is running version 4 software.



Now, from the Main Run screen:

Press the **Menu** key,
Press **Set-up**,
Press **Set-up Super**,
Press **Set-up Sound**,
Choose **Set-up RVC-5**.

(A password may be required at this point.)

Press the **Next Message** or **Prev Message** key to enable the RVC-5. Move the cursor to the **Output 1** field and select the sound processor you have connected to it. Do the same for **Output 2** if there is a sound processor connected to it.

Exit back to the Main Run screen. You should notice that the volume level is displayed on the screen next to the sound format. It will be at the minimum level.



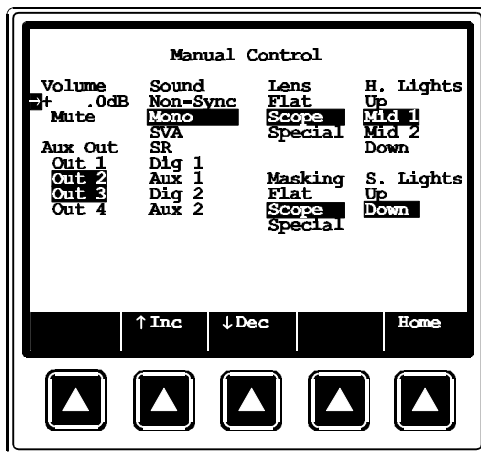
Press the **Home** key until you are back to the Main Run screen.

The Main Run screen will display CNA-200 volume level.

At this point be sure the sound processor(s) is powered up with the remote fader enabled. Enter the CNA-200 Manual Control screen and adjust the volume level to +.0dB.

Manual Volume Control

When the remote fader is enabled at the sound processor, the CNA-200 becomes your “master fader”. You will find the volume control on the Manual Control screen.



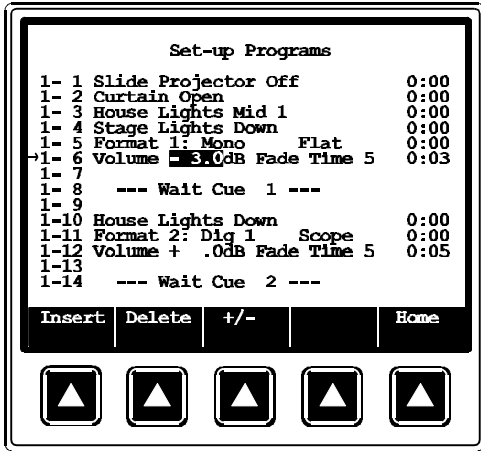
To enter the Manual Control screen from the Main Run screen:

Press the **Menu** key,
Press **Manual Control**.

The cursor will be on the **Volume** field. Press the **Inc** key to increase the volume. Press the **Dec** key to decrease the volume. Press the key once to change the level by 1/10th of a dB. Press and hold the key to ramp the level. It will take about 5 seconds to reach maximum ramp speed. It will take about 20 seconds to go from minimum to maximum level or vise-versa.

Automatic Volume Control

Volume in the auditorium can be controlled automatically by the CNA-200. This is accomplished with the volume instruction. The volume instruction has a level range of -50.0dB to +10.0dB and a fade time range of 0 to 10 seconds.

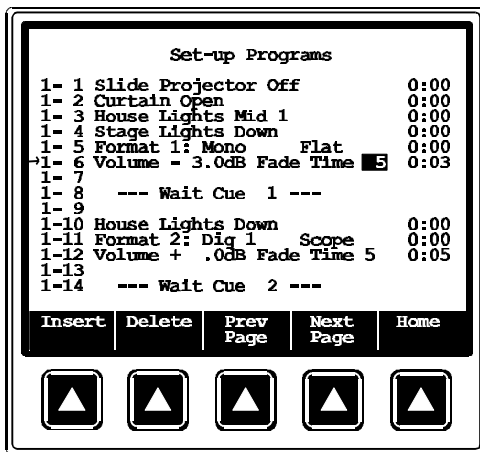


From the main Run Screen:

Press the **Menu** key,
Press **Set-up**,
Press **Set-up Program**,
(Enter the high level password, if required.)

The volume instruction can be inserted anywhere in a program. Insert this instruction as you would any other. Enter the level with the number keys and change the number to positive or negative with the +/- key.

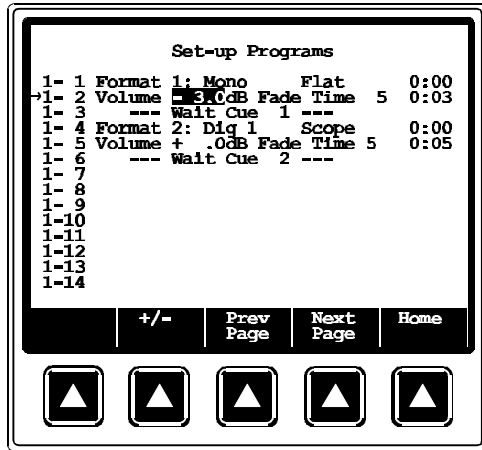
Fade time is defined as how many seconds it will take to *ramp* to the new sound level.



Enter the fade time with the number keys.

Continue to enter volume instructions for each cue as required. Just like any other instruction, the volume instruction can be added anywhere in a program and must be separated by a Wait Cue or Wait timer instruction.

If during a presentation the operator determines that the volume is programmed either to low or too high for a segment, they would first enter the manual control screen and change the volume to an appropriate level. If this level is desired for subsequent presentations, the operator would enter the program with the low level password and change the level. The low level password only allows film format and sound level changes.



Press the **Menu** key,
 Press **Set-up**,
 Press **Set-up Program**,
 (Enter the low level password)

Select the program, find the volume instruction you want to change and edit the level with the number keys. The level instruction can be edited anytime (during or between shows).

Press the **Home** key until you are back to the Main Run screen.

Note: On CNA-200 power down, the RVC-5 relays disengage and are no longer connected to the remote fader on the sound processor. On power up, the CNA-200 establishes communications with the RVC-5, drives the volume to minimum, closes the relays thereby connecting the RVC-5 to the sound processor, and ramps the volume to the last memorized level in the last memorized fade in time.

Sound Processor Remote Fader Specs

<u>Processor</u>	<u>Output Level Range</u>	<u>Fader Input Voltage</u>
Dolby CP65	-50.0dB to +10.0dB	0.0 to 8.0 volts DC
Dolby CP500	-40.0dB to +4.0dB	3.9 to 0.8 volts DC
EPRAD DSS	-50.0dB to +10.0dB	3.8 to 7.5 volts DC
USL JS-200	-35.0dB to +10.0dB	11.9 to 0.6 volts DC
Sony DFP-D3000	-50.0dB to +10.0dB	1.0 to 10.0 volts DC

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