# frontrow CM800Si



### **CONFIGURATION GUIDE**

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## Introduction

### CM800Si

The CM800Si is the networked audio encoder / decoder / amplifier used in the FrontRow IP Intercom Speaker Kit. It includes a 30W amplifier module for driving speakers directly and includes an intercom jack for a FrontRow intercom microphone. The CM800Si in the IP Intercom Speaker Kit is designed primarily for rooms that want to add IP-based paging and intercom to smaller common areas such as conference rooms, teacher's lounge or nurse's office.

## **Specifications**

### CM800Si Networked Audio Encoder/Decoder/Amplifier with Intercom





#### 1 Brings Conductor IP-based paging and intercom to small common areas and office spaces

This audio decoder accepts 8kHz streaming audio input and drives up to four 8-ohm speakers, and includes an intercom jack for a FrontRow intercom microphone (CB75 or CB85), conveniently bringing IP paging and intercom to small common areas and shared office spaces.

**IP Stream Detect -** when used with an amplifier with an RS232 interface - in a multi-purppose room or gymnasium, for example - can be programmed to mute local audio when an audio stream from FrontRow Conductor is detected.

### Converts your analog PA system to an IP-based streaming solution

Mixes and samples line-level audio and plays it over the network.

#### Easier configuration and update

Onboard GUI software makes it easy to set IP address and adjust other settings. Remotely updatable as needed.

#### Triggered actions

You can program the CM800Si to execute actions based on relay or streamed events — for example, shutting down all projectors at 8pm.

#### Secure

Keep out hackers by setting up passwords for network access.

#### **SPECIFICATIONS**

Network support: 10/100Mb/s (auto sensing) Serial Baud rate: 2400 to 115200 baud Power supply: 12VDC at 3.5A Size (WxHxD):  $9.8 \times 6.4 \times 3.7$  cm/ $3.84 \times 2.5 \times 1.5$  in Amplifier Type: Class D Maximum output power:  $2 \times 8$ w (8  $\Omega$ ),  $2 \times 16$ w (4  $\Omega$ ) Weight: 0.14kg/0.30lbs

#### **INPUTS/OUTPUTS**

- (1) input power jack
- (1) RJ45 network jack
- (1) 3.5mm audio input jack (stereo, Line 2) (port shared with RJ45 mic input jack)
- (1) 3.5mm audio input jack (mono, Line 1)
- (2) captive screw general purpose output (GPO) relay terminals (4 position)
- (1) 3.5mm infrared control output jack
- (1) captive screw RS232 serial control input/output terminal (3 position)
- (1) captive screw loudspeaker terminal left and right, (mono output)
- (1) 3.5mm (audio output)
- (1) RJ45 Intercom jack for CB75 / CB85 (port shared with Line 2 input jack)

#### 2 IR control output

- 3 Serial control input/output
- 4 Intercom input

Connect the CB75 intercom panel or CB85 ceiling mic to build two-way communication with the front office. (Shared with line audio in 2)

- 5 Amplifier line out
- 6 Line audio in 1
- 7 Line audio in 2 Shared with intercom input
- 8 Simple speaker hookup
  - Captive screw terminals make speaker connection quick and easy.
- 9 Power jack
- 10 General purpose output (GPO) relay
- 11 Network jack

## Configuration

Your CM800Si has several parameters that can be configured to tell it how to communicate with other devices in an ezRoom or Conductor installation. While each installation is different, most of the default parameters will be appropriate.

#### 1. Connect to your CM800Si

• Connect your laptop computer's LAN port to the CM800Si LAN port with a CAT-5, or network, cable.



- Change the IPv4 address on your laptop to static address 192.168.1.100. See Appendix A for instructions.
- Open a web browser on your laptop and in the URL field type the IPv4 address 192.168.1.103 and press enter. This is the default static IP address of the CM800Si and will likely be changed when you configure it per the school's IP addressing scheme.
- You will be connected to your CM800Si and see a screen like this:

-	FrontRow	CM-800i
	Okay	
frontrow	Running; Amp module present; and the biological Main - Main -	+ Product View
	New Device1	
Main		
Product View		
Product Name/Info	CM-800ī	
User ID/Password		
Configuration		
Audio	A FrontRow Network Controller/Media Device	
EtherNet		
Serial Ports		
Miscellaneous		
Command Line		
Enter Command		
Events		
Macro Definitions		
Action Definition		
Action Viewer		
Event Definition		
Event Viewer		
Utilities		
Save/Restore		

#### 2. Name your CM800Si

The name you choose should contain meaningful information, such as the classroom number, so that a person accessing the device remotely will have appropriate context. Also on this screen you can see the device MAC address and firmware version.

-				FrontRow CM-8	001
17	Okay				
frontrow	Running; Amp module presen	ų.		Mam Product Name	Info
			New Device1		
Main	CM-800i Device Name				
Product View	Custom Device Name: New	Device			
Product Name/Info	(Max length = 63)	berreq			
User ID/Password	· · · · · · · · · · · · · · · · · · ·				
Configuration	Sav	e Setting			-
Audio	System MAC Address	40.00.20.71.07.65			-
EtherNet	MAC Address	d8:80:39:71:07:13			
Serial Ports	System Firmware Information				
Miscellaneous	Control firmware version	1.0.0.4			
Command Line	Control firmware build	December 21, 2015			
Enter Command					
Events					
Macro Definitions					
Action Definition					
Action Viewer					
Event Definition					
Event Viewer					
Utilities					
Save/Restore					

#### 3. Secure your CM800Si

If the project requires it you can password-protect the CM800Si configuration screens by adding a password that will be needed to make changes to the configuration. The old password is *calypso*. Choose a new one based on the school's guidelines and record the information.

-		FrontRow CM-800i
<b>1</b>	Okay	
frontrow	Running; Amp module present;	Main → UserID/Password
	New Device1	
Main	System Password Update	
Product View	C.( Dennel Constanting	
Product Name/Info	Set Password for: admin	
User ID/Password	Old Password:	
Configuration	New Password: Minimum 6 / Maximum 8 characters	
Audio	Re-enter New Password:	
EtherNet		
Serial Ports	Save Settings	
Miscellaneous	System Security	
Command Line	Samulta Landa Mara 💌	
Enter Command	Security Level: None	
Events	Save Setting	
Macro Definitions		
Action Definition		
Action Viewer		
Event Definition		
Event Viewer		
Utilities		
Save/Restore		

#### 4. Set audio parameters

In this section you can make adjustments to the CM800Si audio behavior to customize it for a specific installation. The default values of most parameters will provide optimal performance for most installations, and noted below are where adjustments should be made.

#### **Output Volume**

• Startup refers to the volume level when the device is powered up. 0 is lowest and 32 is highest.

#### Inputs

- When checked, **Enable** allows the audio signal on that channel to be used as an input to the device.
- **Gain** adjusts the input level of a channel so that when necessary it can be balanced with higher or lower inputs to level match with other channels.
- **Ch1 Line In** This channel would normally be used as an auxiliary input to play audio through speakers connected to the CM800Si. It can accept line or mic level input.
- Ch2 Line In and Intrcm This channel would normally be used as the input for a FrontRow intercom microphone. It is shared with the auxiliary input jack that can also play audio through speakers connected to the CM800Si. It can accept line level input. NOTE: Only one (Ch2 Line in *OR* Intrcm) can be used at a time. For more information, see section 7 in this guide labeled **Miscellaneous**.

#### **Other Settings**

- **PA volume** sets the output gain for the device. When integrated with a Conductor system, PA Volume specifies the volume level of pages, intercom and bells.
- **PA Restore** specifies the length of time after the paging or bells audio ceases that the other audio inputs are taken out of mute and returned to their previous volume levels and state.

						FrontRow	CM-800i
<b>1</b>	Okay						
frontrow	Running; Amp module pr	esent;				Configu	ration - Audio
1011010			New	Device1			
Main	Audio configuration						
Product View	Output Volume						
Product Name/Info	Output volume						
User ID/Password	Startup: 20 V						
Configuration	Inputs						
Audio		Ch2 Line In					
EtherNet	Chl Line In	and Intrem					
Serial Ports	Enable 🗆	Enable 🗹					
Miscellaneous	Gain 36 T	Gain 4 T					
Command Line	Boost Off T	onin 4					
Enter Command	Boost on t						
Events	Other Settings						
Macro Definitions	PA volume: 20 V	PA restore: 20 sec V					
Action Definition	V T L 400						
Action Viewer	Vox Level: 128						
Event Definition	Enable audio-detect	triggering 🗆 Trigge	er Level: 100	Silence Time	out: 2.0 sec 🔻		
Event Viewer		Save Settings					
Utilities	Audio settings	· · · · ·					
Save/Restore	Input Enabled	Gain Boost					
	Ch1	36 off					
	Ch2 X	4					
	Start Vol PA	Vol PA Restore	Audio-detect	Trigger Level	Silence Time		
	20 2	20 2.0 sec	disabled				

- **Vox Level** displays current VOX setting. This is almost always 128; any other value would be assigned by Frontrow Technical Support for special cases.
- Audio-detect triggering lets the CM800Si monitor the audio input channels for incoming audio. Events can be defined and triggered by incoming audio from an external PA using the Audio Begin and Audio End triggers. Trigger Level is used to tune how sensitive the trigger will be to the sound level. The higher the value, the louder the audio must be before triggering. Silence Timeout is the amount of time a after an Audio begin has triggered, that the audio must have returned to be below the Trigger Level before triggering Audio end. For more information on creating Actions, Events and Triggers, see sections 11 and 12.
- Save Settings will save any adjustments made on this screen.
- Audio Settings displays the current settings.

#### 5. Enable networking

#### **Device network configuration**

- Automatic IP configuration (DHCP) causes the CM800Si to request an IP address from a DHCP server; this should be enabled only if the IT department has a DHCP server online and has set up static (fixed) IP address reservations for CM800Si devices; otherwise manually enter the IP address reserved for the device in the IP Address field.
- The **IP Address** field displays, and also enables entering, the IP address for the device; while the default address for a CM800Si is 192.168.1.103 You must use the address provided by the IT department and ensure that each device has a unique address.
- The **IP Subnet Mask** is provided by the IT department; if the CM800Si is used as part of a Conductor system the subnet mask must be 255.255.255.0.
- The Router IP Address is required when the CM800Si is in a network in which switches determine cross subnet connectivity.
- The **Primary NameServer IP Address** and the **Secondary NameServer IP** Address are optionally provided by the IT department.
- Save Settings will save any adjustments made in this section.

-				FrontRow CM-800i
<b>1</b>	Okay			
frontrow	Running; Amp module present;			$Configuration \rightarrow Ethemet$
			New Device1	
Main	Device network configuration			
Product View	Automatic IP configuration (DHCP)		(use with caution)	
Product Name/Info	IP Address	192.168.1.103		
User ID/Password	IP Subnet Mask	255.255.255.0		
Configuration	Router IP Address	192, 168, 1, 1	(recommended)	
Audio	Primary NameServer IP Address	192 168 1 1	(ontional)	
EtherNet	Constant Server II Address	132.100.1.1	(optional)	
Serial Ports	Secondary NameServer IP Address		(optional)	
Miscellaneous	Save Settings	7		
Command Line	Device port configuration			
Enter Command	Web Server Port 80			
Events	Remote Management Port 72	62 (changin	ng this will automatically reset the device)	
Macro Definitions	Remote Port Idle Timeout (mins)	sabled V 10		
Action Definition	· /_			
Action Viewer	Save Settings			
Event Definition	System MAC Address	0.74.07.05		
Event Viewer	MAC Address d8:80:2	39:71:07:15		
Utilities				
Save/Restore				

#### **Device port configuration**

- Web Server Port is the default port used for web services and always set to 80.
- **Remote Management Port** specifies which port controllers are to use to for network commands; while the default is set to 7262 be sure that the CM800Si is set to the same port number as the controller devices.
- **Remote Port Idle Timeout** specifies how long the CM800Si will wait for a network device to respond before terminating the network session (i.e., before giving up); this can be a useful parameter when the network is large and/or congested, but it normally is not enabled.

#### 6. Serial Ports

- The **COM Port** menu specifies the COM port number that the parameters on this page apply to; the CM800Si has only one COM port.
- **Baud Rate** specifies the data speed at which the CM800Si should communicate with the attached serial device; while 9600 and 19.2K are typical for projectors, data speeds vary by manufacturer.
- **Stop Bit** is specified by the manufacturer but is typically 1.
- **Parity** is specified by the manufacturer but is typically None.
- Save Settings will save any adjustments made in this section.

						FrontRow	CM-800i
1	Okay						
frontrow	Running; Amp mode	ule present;				Configuratio	$n \rightarrow Serial Ports$
in offici offi				New D	evice1		
Main	Serial Port configura	ation					
Product View							
Product Name/Info	COM Port: 1						
User ID/Password	Baud Rate: 11520	0 •					
Configuration	Stop Bits: 1 Bit	•					
Audio	Parity: No Pa	arity 🔻					
EtherNet		0					
Serial Ports	Serial Port settings	Save Settings					
Miscellaneous	COM Port Ban	d Rate Stop Bits	Parity	Mode			
Command Line	1 11	5200 1	None	RS232			
Enter Command							
Events							
Macro Definitions							
Action Definition	1						
Action Viewer							
Event Definition							
Event Viewer							
Utilities							
Save/Restore							

#### 7. Miscellaneous

Use this screen to configure the CM800Si to be part of a Conductor system for intercom and/or PA.

#### Intercom/PA Stream Mode configuration

• Checking Intercom device tells the Conductor server that this CM800Si is part of the intercom system.

• Checking **Master device** tells the Conductor server that this CM800Si has a microphone and is allowed to initiate pages. This is set only when the CM800Si is part of a Conductor admin station, not when it is simply a part of the intercom system.

#### **Routing for outgoing streams**

• Sent from Ch2 Line In and Intrcm inputs should be checked when used as an intercom with a CB75 or CB85 intercom microphone

		FrontRow	CM-800i
	Okay		
frontrow	Running; Amp module present;	Configuration -	Miscellaneous
noncom	New Device1		
Main	Intercom/PA Stream Mode configuration		
Product View			
Product Name/Info	Intercom device (indicates a device with a microphone, or an INTERCOM module, is attached) Master device (indicates a device with a microphone, or an INTERCOM module, is attached)		
User ID/Password	Staster device (moleares a device used primarily to send media succasis)		
Configuration	Routing for outgoing streams		
Audio	Sent from Chl Line In input 🗌 (also disables this input except during streaming to prevent feedback)		
EtherNet	Sent from Ch2 Line In and Intrem inputs 🕜 (also disables this input except during streaming to prevent feedback)		
Serial Ports	Save Settings Reset		
Miscellaneous	Duch to talk configuration		
Command Line	Posi-to-tark configuration		
Enter Command	PTT Mode: Disabled (always handsfree)		
Events	Switch assignments: Unless the PTT mode is disabled, the PTT switch will always be on General Purpose Input-3,		
Macro Definitions	which is the button-press line on the Intrum RJ-45 jack		
Action Definition	Save Settings		
Action Viewer	General Purpose Input configuration		
Event Definition			
Event Viewer	GPI Mode: Rotary + Button V		
Utilities	Save Settings		
Save/Restore			

- Audio can also be streamed to other FrontRow networked audio devices from **Ch1 Line In input if the CM800Si** is set as a **Master device**.
- Save Settings will save any adjustments made in this section.
- **Reset** will revert any adjustments made in this section before a Save

#### Push to talk configuration

- **PPT Mode** refers to a CB75 "push to talk" configuration choices, which are Disabled (always hands-free), After push (initially hands-free), Always (never hands-free).
- Save Settings will save any adjustments made in this section.

#### **General Purpose Input configuration**

- The RJ45 Intercom jack serves as the GPI interface. **GPI Mode** sets whether the GPI is set to be is used with a CB75 (**Rotary + Button**) or with a TB8 breakout cable used with 3rd party devices (**3 GP Inputs**)
- Save Settings will save any adjustment made in this section.

#### 8. Enter Command

Use this section to send control commands to a device to verify that it performs the action desired.

Choose the command from the **(Select an entry)** menu and complete it with device and other specific information in the **Send Command** field. Submit it by pressing the **Send CMD** button.

Control feedback requested in the command sent will be displayed in the **Receive Command** field if specified within the control command. If no reply is requested *Command successful* will be displayed; this only means that the CM800Si successfully sent the command. In practice, the most salient feedback is gotten by observing the device itself.

frontrow Running; A		
frontrow Running; A		
	Amp module present	Command Line → Enter Comman
	New Device1	
Main	(Select an entry)	
Product View	(Gelect an entry)	
Product Name/Info		
User ID/Password		
Configuration Clear Fle		
Audio		
EtherNet		
Serial Ports		
Miscellaneous		
Command Line		
Enter Command Cloar Fig	Lommand	
Events	204 	
Macro Definitions		
Action Definition		
Action Viewer	Send CMD	
Event Definition		
Event Viewer		
Utilities		

#### 9. Macro Definitions

Defining Macros makes deployment of multiple CM800Si devices easier by letting you define Actions using variables to represent the IP addresses of the devices you'll control. This means that your configuration file can be written as a template, with IP addresses explicitly defined in only one place (the Macro Definitions) rather than repeated throughout your Actions. This saves a tremendous amount of labor as you re-use the configuration file to control new devices from room to room.

						FrontRow	CM-800i
	Okay						
frontrow	Running; A	Amp module present;				Events → Ma	cro Definitions
il offici off				New Device1			
Main	Macro Def	finitions					
Product View			Save Mac	ros			
Product Name/Info	Mac#	Macro Name	Ma	cro Value Field			
User ID/Password	1						
Configuration	2						
Audio	3						
EtherNet	4						
Serial Ports	5						
Miscellaneous	6						
Command Line	7						
Enter Command	8						
Events			Save Mac	ros			
Macro Definitions							
Action Definition							
Action Viewer							
Event Definition							
Event Viewer							
Utilities							
Save/Restore							

Enter up to 16 macro names and values in the following format:

- Macro Name: Any name can be used, but it is most useful if this is an easily recognizable, generic, and concise name for a device type used throughout your installation (e.g., CM3000, Projector, etc.)
- Macro Value Field: The value of this variable for this particular installation.

For NET commands this takes the format: lipaddress,Pport (e.g., I192.168.1.201,P7262)\

For HTP commands this simply takes the format: ipaddress (e.g., 192.168.1.201)

• Save Macros will save any adjustment made in this section

The Macro definitions are included as part of the saved configuration file. When you use this configuration file as a template in similar installations, simply change the value of each defined Macro to the appropriate IP address. For example, in subsequent rooms, we may set the value of 'CM3000' to I192.168.1.202,P7262; I192.168.1.203,P7262; and so on.

#### **10. Action Definition**

Actions are specific instructions that are sent to specific devices. Once defined, you will link them to various Events for execution.

To create or edit an Action

- You can move through various Actions using the buttons at the top of this screen. (CAUTION: Save your work on the current Action before navigating away or your changes will be lost!)
  - Edit New Action Lets you modify the Action definitions for a saved Action.
  - Paste to New Action Useful for cloning the current Action (displayed in the black strip labeled "Currently editing Action Number xx.") to another Action. Change the New Action field to the number of the target Action and click the Paste to New Action button. The current Action data will be copied to the target Action. (CAUTION: This will overwrite the target Action!)

0					Fr	ontRow	CM-800i
<b>1</b>	Okay						
frontrow	Running; Amp modu	ile present				Events $\rightarrow Ac$	tion Definition
in offici offi			N	ew Device1			
Main	New Action: 1	Edit New Action	Paste to Nev	v Action			
Product View	20		(This overwrite	s any previous settings of Ne	ew Action.)		
Product Name/Info	Edit Previous Action	Edit Next Action	E	dit Next Empty Action	Edit Next Defined Action		
User ID/Password						1	
Configuration	Currently editing	J Action Number 1					
Audio		Save Ac	ction Test Action				
EtherNet	Action Descript:	ion					
Serial Ports	Action Commany						
Miscellaneous	Manual entry	•					
Command Line	Examples: (Se	elect an entry)	•	1			
Enter Command							
Events							
Macro Definitions	100000000000						
Action Definition	Command:						
Action Viewer							
Event Definition				1.			
Event Viewer		Save Ac	tion Clear Action				
Utilities							
Save/Restore							

- Edit Previous Action: Moves to the previous Action record
- Edit Next Action: Moves to the next Action record.
- Edit Next Empty Action: Moves to a new undefined Action record.
- Edit Next Defined Action: Moves to the next defined Action (skipping over any undefined records)
- Give the Action a brief, useful description (e.g., "Net Mute")
- Define the Action using Action Command:
  - Select a template for the Action from the drop-down list:
  - NET Command For commands to be sent to IP-addressable devices over your network

- HTP Command To initiate an intercom call via a FrontRow Conductor<sup>™</sup> server to a FrontRow Conductor Head end. *For schools using the Conductor*<sup>™</sup> *IP paging and bell system only.*
- Serial Transmit For commands to be sent directly to serial devices using RS232 protocol
- IR-Out Universal Command For commands to be sent directly to devices that can only be controlled via infrared remote
- Alarm Command Initiates a beep with a short delay.
- NOP Command Effectively deletes an Action that was previously defined.
- Use the syntax template that appears to build the specific Action you want
- For complete programming guidance, refer to the Calypso Action Control Language (CACL) manual under the Guides and Resources section of the FrontRow website gofrontrow.com/guides-resources.
- If the CM800Si has been physically installed, you can test the action you created by clicking the Test Action button. Note that you can also test Actions via the Action Viewer by clicking on the check mark to the right of each Action. Alternatively, the Enter Command screen can be a useful tool for testing and troubleshooting actions.

#### 11. Action Viewer

Shows a list of defined actions. Navigate to previously defined Actions via the **Action Viewer**. Test Actions via the Action Viewer by clicking on the check mark to the right of each Action.

-			
	Okay		
rontrow	Running; Amp module pres	ent;	
		New Dev	vice1
Main	Act# Action Description	n Command	Test
Product View	I Power On	#COM1[T2,"BEEF0306002AD3010000600000"	
Product Name/Info	2 Power Off	#COM1[12,"BEEF030600BAD2010000600100"	
User ID/Password	3 HDMI 1	#COM1[T2,"BEEF030600FED2010000200000"	
Configuration	4 HDMI 2	#COM1[T2,"BEEF0306003ED0010000200400"	
Audio	5 VGA1	#COM1[T2,"BEEE0306006ED3010000200100"	
Ethernet	Num	her of defined actions: 5/32	-
Miscellaneous		our of defined actions. 57 52	22
Command Line			
Enter Command			
Events			
Macro Definitions			
Action Definition			
Action Viewer			
Event Definition			
Event Viewer			
Utilities			
Save/Restore			

#### **12. Event Definition**

With your collection of discrete Actions defined, you can now specify what Events will cause one or more of those Actions to be executed. Events can be triggered in a variety of ways, via Encore and Teacher Edition software, FrontRow Control panels, or from a push button (CB75 microphone or CB50).

0				FrontRow CM-800i
1	Okay			
frontrow	Running; Amp module	present;		$Events \rightarrow Event Definition$
			New Device1	
Main	New Event: 1	Edit New Event	Paste to New Event	
Product View			(This overwrites any previous settings of New Event.)	
Product Name/Info	Edit Previous Event	Edit Next Event	Edit Next Empty Event Edit Next De	efined Event
User ID/Password				
Configuration	Currently editing E	vent Number 1		
Audio		Save Event	Test Event	
EtherNet	Event Description			
Serial Ports	Event Trigger:	No Trigger 🔻		
Miscellaneous	How to run the	() All (in namellal)	() Roch (in order) () One new coll (in a	
Command Line	defined actions:	S All (in parallel)	G Kach (In order) G one per call (In so	equence)
Enter Command	Current Event Actio	ons		
Events	0.46	A attion Date	Action Commond	
Macro Definitions	0(40)	Actim Action Desc	Action Command	
Action Definition	+	nev		
Action Viewer				
Event Definition				
Event Viewer				
Utilities				
Save/Restore				
		Save Event	Clear Event	
		·		

To create or edit an event

- You can move through various Events using the buttons at the top of this screen. (CAUTION: Save your work on the current Event before navigating away or your changes will be lost!)
- Edit New Event: Lets you modify existing Events or create new Events. Enter the number of an existing Event or new Event to edit.
- Paste to New Event: Useful for cloning the current Event (displayed in the black strip labeled "Currently editing Event Number xx.") to another Event. Change the New Event field to the number of the target Event and click the Paste to New Event button. The current Event data will be copied to the target Event. (CAUTION: This will overwrite the target Event!)
- Edit Previous Event: Moves to the previous Event record
- Edit Next Event: Moves to the next Event record.
- Edit Next Empty Event: Moves to a new undefined Event record.
- Edit Next Defined Event: Moves to the next defined Event (skipping over any undefined records)
- Give the Event a useful description (e.g., "Mute")
- To have the Event initiated by a by a button press (e.g. CB75 push-to-talk intercom microphone), click the Trigger dropdown and select Input 3 open.

- You can have multiple Events with the same input trigger. When that defined trigger is detected by the CM800Si all the matching Events will be executed in no particular order. For each such Event, the Actions for the Event will execute according to that Event's mode setting (see below); however, Actions for different Events may be intermingled with each other. If you care about the order in which Actions happen, put them all in a single Event and set the mode to Each.
- Select the mode in which you would like to run the defined Actions:
  - All: the CM800Si will attempt to execute all Actions for that event simultaneously, but in no particular order (e.g., Action 2 and Action 1 and Action 3...)
  - **Each**: the CM800Si will execute all Actions in the order listed (e.g., Action 1, then Action 2, then Action 3...) This is useful when the order matters to you; for example, turning off a projector before retracting a projector screen.
  - **One per call**: the CM800Si will treat the actions as a loop, executing the next Action in the series each time the Event is initiated (e.g., Action 1 on the first button press, Action 2 on the second button press, Action 1 on the third button press, etc.). This is useful for toggle functions like power.
- Assign or remove one or more Actions to this Event using the list under Current Event Actions:
  - Click the + button and select the desired action from the list that appears below (Note that the order of the Actions in the list matters if you have chosen to run these in **Each** or **One per Call** mode.)
  - To remove an Action, click the button next to the action you no longer want to run
- If the CM800Si has been physically installed, you can test the Event you created by clicking the Test Event button. Note that you can also test Events via the Event Viewer by clicking on the check mark to the right of each Event.
- Be sure to Save the Event before moving to another section

#### 13. Event Viewer

Shows a list of defined Events. Navigate to previously defined Events via the **Event Viewer**. Test Events via the Event Viewer by clicking on the check mark to the right of each Event.

-					FrontRow	CM
	Okay					
ontrow	Running; Amp module pres	ent;			Events → I	Even
				New Device1		
In	Evt# Event Description	Trigger	Actions	Test		
oduct View	1 Power ON	-	Power On			
oduct Name/Info	2 Power OFF		Power Off			
er ID/Password	3 Power + HDMT1	<u> </u>	Power On HDMT 1			
figuration	5 Power + HDMII	<u> </u>	Power On, HDMI I			
dio	4 Intercom	Input-3 open	Intercom			
herNet	5 -Event 5-	-				
rial Ports	6 -Event 6-	-				
scellaneous	7 Event 7					
nmand Line	8 -Event 8-	<u>i</u> .				
ter Command	9 -Event 9-					
nts	10 - Event 10-	<u> </u>				
cro Definitions	10 -LVent 10-					
tion Definition	^^ Indica	ites trigger in	lactive			
tion Viewer	marc	ates trigger e				
ent Definition						
ent Viewer						
ities						
ve/Restore						

#### 14. Save / Restore

Use this window to either load an existing configuration file onto your CM800Si or save the current configuration to a file on your computer for re-use as a template for other CM800Si units

To load an existing configuration file onto your CM800Si:

- Select Browse and locate your Base Configuration File for this CM800Si
- Check the check box if you want the IP address contained in the loaded configuration file to overwrite the IP address on your connected CM800Si unit.
- Click Load

To save your current configuration file to use as a template for other CM800Si:

- Select Save/Restore
- Click Save
- To save your configuration file to a specific folder, right-click on the Save button and choose Save Target As... or Save Link As... depending on your browser

-		FrontRow	CM-800i
1	Okay		
frontrow	Running; Amp module present;	Utilities	
in office offi	New Device1		
Main	Load configuration		
Product View	Confirmation Filmanna Charace Film Martin shares		
Product Name/Info	Configuration Filename Choose File No file chosen		
User ID/Password	Allow Ir Address to be overwritten (else the Ir Address setting in the configuration file is ignored)		
Configuration	Load		
Audio	Save configuration		
EtherNet			
Scrial Ports	Download the Configuration file Save		
Miscellaneous			
Command Line			
Fnter Command			
Events			
Macro Definitions			
Action Definition			
Action Viewer			
Event Definition			
Event Viewer			
Utilities			
Save/Restore			

## Appendix A: Network Settings

This section describes how to change the setting of your computer's wired network adapter to use a fixed (or static) IP address rather than an automatically assigned address through DHCP. The screen shots for this procedure were taken from a computer running Windows 7, and while other versions and other operating systems will look different, the general procedure is identical. The goal is to get to the screen where you can change your network adapter from "Obtain an IP address automatically" (referred to as "DHCP") to "Use the following IP address" (referred to as "static").

1. Click on the **Windows Start** button located on the lower left portion of your screen.



2. Click on Control Panel.



#### 3. Click on View network status and tasks.



Note that your computer may be set up differently and you may see an alternate view, such as that shown below, in which case select **Network and Sharing Center.** 

djust your computer's settir	ngs		View by: Small icons *
Action Center	🖏 Administrative Tools	autoPlay	No. Backup and Restore
BitLocker Drive Encryption	Q Color Management	Configuration Manager	Credential Manager
Date and Time	🐨 Default Programs	📑 Desktop Gadgets	🚔 Device Manager
Devices and Printers	Marka Display	Dolby Advanced Audio	Sease of Access Center
Folder Options	🖟 Fonts	🔒 Getting Started	🝓 HomeGroup
Indexing Options	MI Intel(R) Graphics and Media	💮 Internet Options	🛃 Java
Keyboard	Lenovo - Airbag Protection	Lenovo - Power Controls	🚱 Lenovo - Update and Drivers
Location and Other Sensors	(32-bit)	J Mouse	Network and Sharing Center
Notification Area Icons	Performance Information and Tools	Personalization	Phone and Modem
Power Options	Programs and Features	Realtek HD Audio Manager	P Recovery
Region and Language	🐻 RemoteApp and Desktop Connections	N Sound	Speech Recognition
Sync Center	1 System	Taskbar and Start Menu	Troubleshooting
User Accounts	Windows CardSpace	Windows Defender	P Windows Firewall
Windows Mobility Center	Windows Update		

4. Click on **Change adapter settings.** Note that your computer may display different wording such as **Manage Network Connections.** 

Control Panel →	Ne
Control Panel Home	
Manage wireless networks <u>Change adapter settings</u> Change advanced sharing settings	
See also HomeGroup Internet Options Windows Firewall	

#### 5. Double click on Local Area Connection.



Local Area Connection Network cable unplugged Intel(R) 82579LM Gigabit Network... 6. Select Internet Protocol Version 4 then click the Properties button.

Networking S	Sharing			
Connect using	g:			
Intel(R)	) 82579LM Gi	igabit Network Co	onnection	
This connect	ion uses the f	ollowing items:	Configure	
🗹 🖷 Clier	nt for Microsof	ft Networks		
QoS	Packet Sche	eduler		
🗹 🚇 File :	and Printer Sł	haring for Microso	oft Networks	
🗹 📥 Inter	met Protocol	Version 6 (TCP/I	Pv6)	
🖌 📥 Inter	met Protocol	Vernier / (TCP/I	Pv4)	
		version 4 (TCF/I	1 1 10 5 1	
✓ → Link	-Layer Topolo	ogy Discovery Ma	apper I/O Driver	
<ul> <li>✓ Link</li> <li>✓ Link</li> </ul>	-Layer Topolo -Layer Topolo	ogy Discovery Ma ogy Discovery Re	apper I/O Driver esponder	
<ul> <li>✓ Link</li> <li>✓ Link</li> <li>✓ Install.</li> </ul>	-Layer Topolo -Layer Topolo	ogy Discovery Ma ogy Discovery Re Uninstall	apper I/O Driver esponder Properties	
<ul> <li>✓ Link</li> <li>✓ Link</li> <li>✓ Link</li> <li>Install.</li> </ul>	-Layer Topolo -Layer Topolo	ogy Discovery Ma ogy Discovery Re Uninstall	apper I/O Driver esponder Properties	
<ul> <li>✓ ▲ Link</li> <li>✓ ▲ Link</li> <li>✓ ▲ Link</li> <li>✓ Install.</li> <li>Description</li> <li>Transmissi wide area across dive</li> </ul>	-Layer Topolo -Layer Topolo -L	Uninstall btocol/Internet P btocol that provides btocted networks.	Properties Properties rotocol. The default	

7. Select **Use the following IP address**. In the **IP address** field enter *192.168.1.100*. This is the static IP address to use when connecting to FrontRow networked devices. Click into the **Subnet mask** field; it may automatically fill in *255.255.255.0* but if not type it in. Click the **OK** button and close each of the pop-ups.

You can get IP settings assigned this capability. Otherwise, you ne	automatically if your network supports eed to ask your network administrator
for the appropriate in settings.	
Obtain an IP address autom	natically
Output the following IP addres	S:
IP address:	192.168.1.100
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	
Obtain DNS server address	automatically
• Use the following DNS serve	er addresses:
Preferred DNS server:	X 1.0 (0.1
Alternate DNS server:	· · ·
🔲 Validate settings upon exit	Advanced

8. To return your computer to its original condition where it uses DHCP, follow the same steps described above but select **Obtain an IP address automatically**, press the **OK** button and close each popup as before.

eneral	Alternate Configuration						
You ca this ca for the	n get IP settings assigned a pability. Otherwise, you ne appropriate IP settings.	automatically i ed to ask you	f your r r netwo	ietwork s rk admini	supports strator		
0	btain an IP address automa	atically					
-OU	se the following IP address	:					
IP a	ddress:						
Sub	net mask:		10				
Defa	ault gateway:						
0	btain DNS server address a	utomatically					
OU	se the following DNS server	addresses:					
Pref	erred DNS server:						
Alte	rnate DNS server;						
	/alidate settings upon exit			Adva	anced		



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