



The City College
of New York

The Sound Lab



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Open the Keynote in Preview and put it in Full Screen Mode (Control + Command+ F). Now use Control +Command + G to move to the appropriate page.



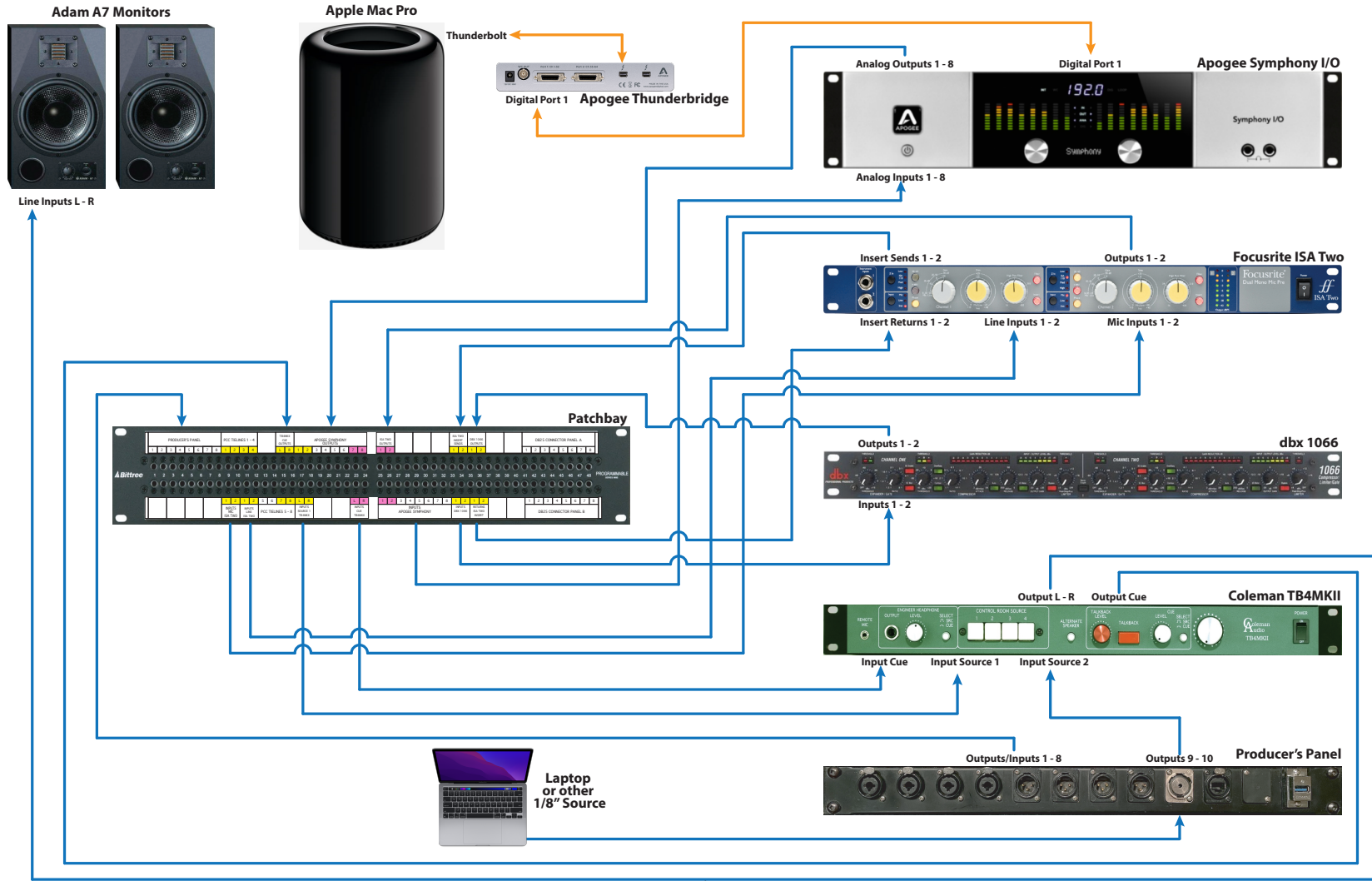
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Signal Flow Overview



198 Analog & Digital Signal Flow

- Patchbay - Full Normal = —
- Patchbay - Half Normal = —
- Line Level = —
- Digital Cable = —





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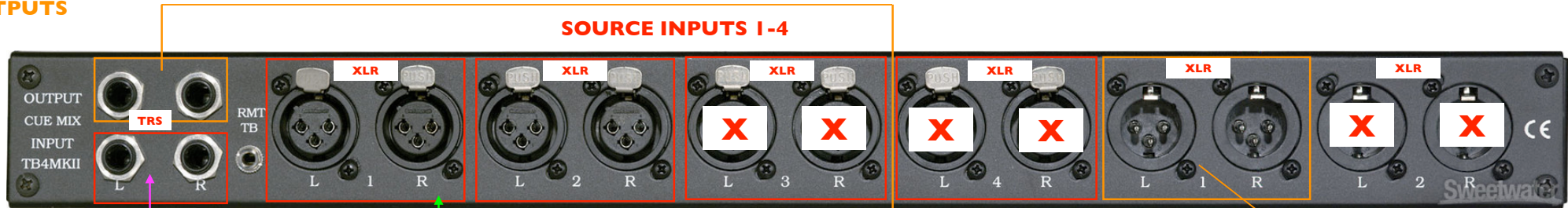
The Equipment & Interconnections



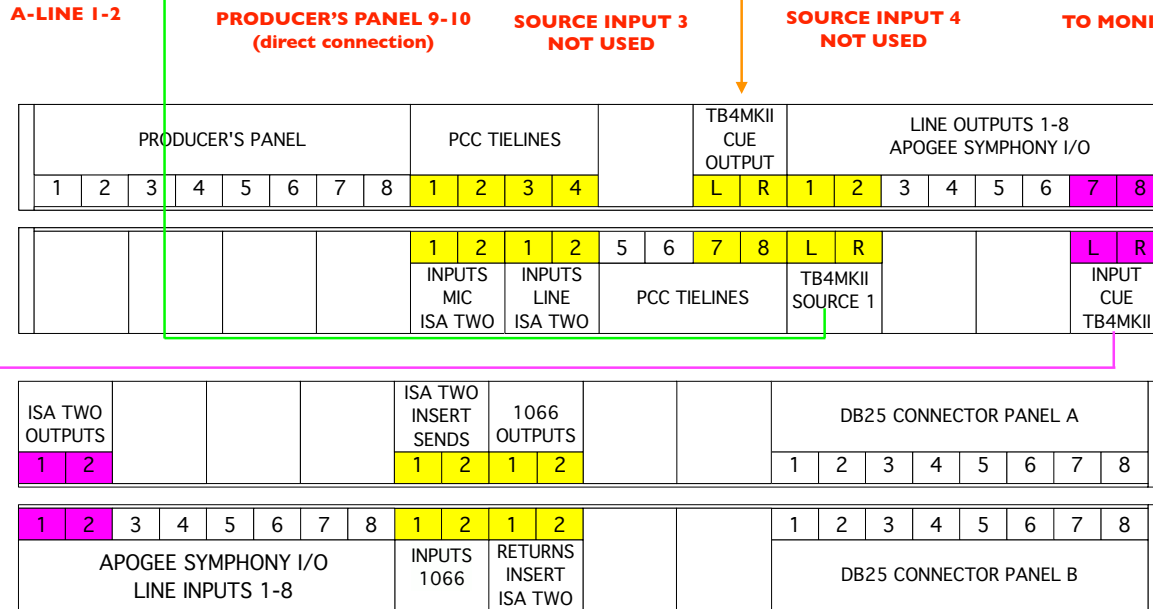
Coleman TB4MKII - Monitor Control



OUTPUTS



INPUTS



Adam A7s

- = full normalised patchbay connection
- = half normalised patchbay connection

Symphony - Interface, D-A & A-D Converter



PRODUCER'S PANEL								PCC TIELINES				TB4MKII CUE OUTPUT		LINE OUTPUTS 1-8 APOGEE SYMPHONY I/O							
1	2	3	4	5	6	7	8	1	2	3	4	L	R	1	2	3	4	5	6	7	8
				1	2	1	2	5	6	7	8	L	R							L	R
				INPUTS MIC ISA TWO	INPUTS LINE ISA TWO	PCC TIELINES				TB4MKII SOURCE 1										INPUT CUE TB4MKII	
ISA TWO OUTPUTS						ISA TWO INSERT SENDS		1066 OUTPUTS		DB25 CONNECTOR PANEL A											
1	2					1	2	1	2	1	2	3	4	5	6	7	8				
1	2	3	4	5	6	7	8	1	2	1	2									DB25 CONNECTOR PANEL B	
APOGEE SYMPHONY I/O LINE INPUTS 1-8								INPUTS 1066		RETURNS INSERT ISA TWO											

= full normalised patchbay connection
 = half normalised patchbay connection

Symphony, ThunderBridge, & Maestro



The ThunderBridge card does not have on-board processors for plug-ins, latency, etc. This is a host based system. Plug-ins are **AAX Native 64** (Pro Tools 11) or **AU** (Logic)

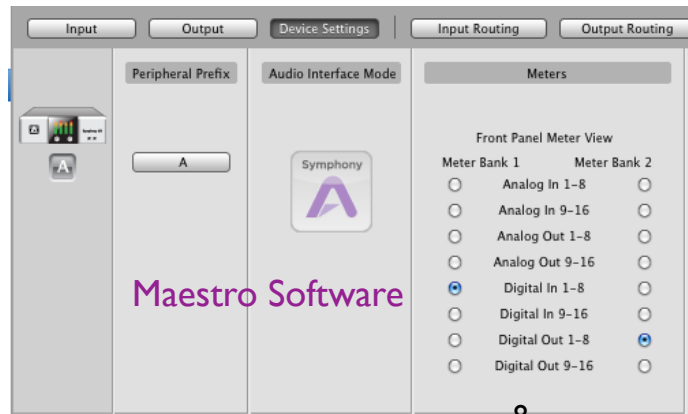
To/From
ThunderBridge



Symphony ThunderBridge

To/From
Mac Pro via Thunderbolt

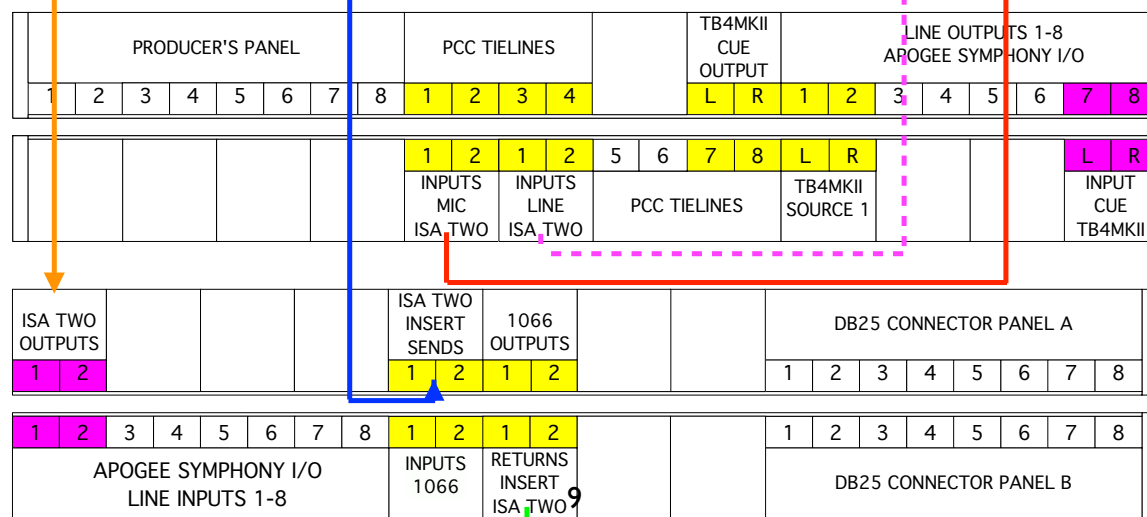
The Symphony **ThunderBridge** interface works in conjunction with the **Symphony** and the **Maestro** routing and control software.



Maestro Software

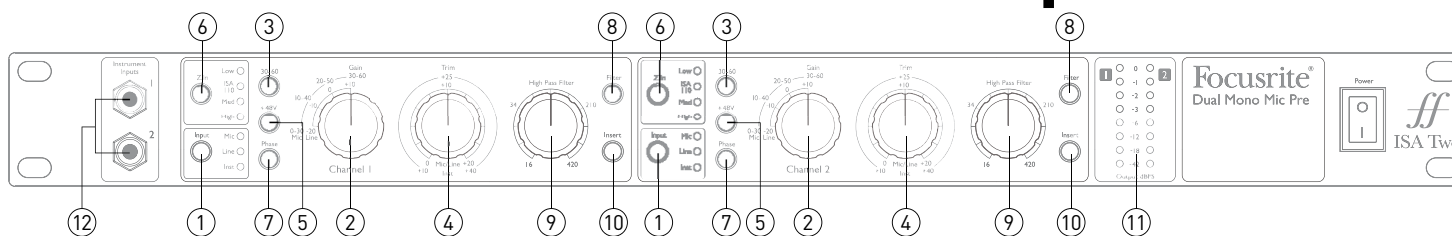


Focusrite ISA Two Preamplifier



= full normalized patchbay connection
 = half normalized patchbay connection

Focusrite ISA Two Preamplifier



1. Input switch: selects the input source (mic, line or instrument)
2. Gain control: sets the gain of the input signal in stepped values of 10 dB
3. 30-60 switch: selects the range of the Gain control (0 to +30 dB, or +30 to +60 dB). The default range is 0 to +30 dB
4. Trim control: allows an additional 20 dB of gain to be applied to a mic/line-level signal, or can be used as a gain control for the Instrument Inputs
5. Phantom power switch: supplies +48 V to the corresponding mic input on the rear panel
6. Z In switch: sets the mic input impedance to 600 Ω (Low), 1.4 k Ω (ISA 110), 2.4 k Ω (Med) or 6.8 k Ω (High)
7. Phase switch: inverts the phase of the signal
8. Filter switch: activates a high pass filter (HPF)
9. Filter control: selects the frequency of the high pass filter between 16 Hz-420 Hz
10. Insert: allows the signal to be sent to additional external processors (via the send and return connectors on the rear panel) prior to the output
11. Peak LED meters: show the main output levels in dBFS
12. Instrument Inputs: for connecting high impedance instruments such as guitars

dbx 1066 Compressor, Limiter, Gate



PRODUCER'S PANEL								PCC TIELINES				TB4MKII CUE OUTPUT		LINE OUTPUTS 1-8 APOGEE SYMPHONY I/O									
1	2	3	4	5	6	7	8	1	2	3	4	L	R	1	2	3	4	5	6	7	8		
								1	2	1	2	5	6	7	8	L	R					L	R
								INPUTS MIC ISA TWO	INPUTS LINE ISA TWO	PCC TIELINES				TB4MKII SOURCE 1						INPUT CUE TB4MKII			
ISA TWO OUTPUTS								ISA TWO INSERT SENDS		1066 OUTPUTS		DB25 CONNECTOR PANEL A											
1	2							1	2	1	2	1	2	3	4	5	6	7	8				
1	2	3	4	5	6	7	8	1	2	1	2									DB25 CONNECTOR PANEL B			
APOGEE SYMPHONY I/O LINE INPUTS 1-8								INPUTS 1066		RETURNS INSERT ISA TWO													

= full normalised patchbay connection
 = half normalised patchbay connection



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The Patchbay



Sound Lab Patchbay



= half normalized



= full normalized

PRODUCER'S PANEL								PCC TIELINES				TB4MKII CUE OUTPUT		APOGEE SYMPHONY I/O LINE INPUTS 1-8								ISA TWO OUTPUTS		ISA TWO INSERT SENDS		1066 OUTPUTS		DB25 CONNECTOR PANEL A																									
1	2	3	4	5	6	7	8	1	2	3	4	L	R	1	2	3	4	5	6	7	8	1	2	1	2	1	2	1	2	3	4	5	6	7	8																		
								1	2	1	2	5	6	7	8	L	R							L	R	1	2	3	4	5	6	7	8	1	2	1	2									1	2	3	4	5	6	7	8
								INPUTS MIC ISA TWO		INPUTS LINE ISA TWO		PCC TIELINES				TB4MKII SOURCE 1										INPUT CUE TB4MKII		APOGEE SYMPHONY I/O LINE INPUTS 1-8								INPUTS 1066		RETURNS INSERT ISA TWO		DB25 CONNECTOR PANEL B													

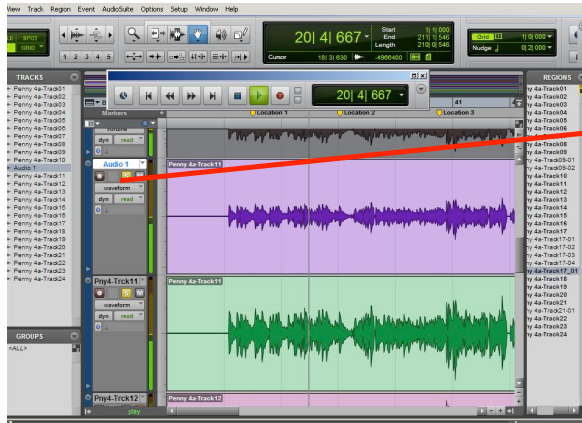


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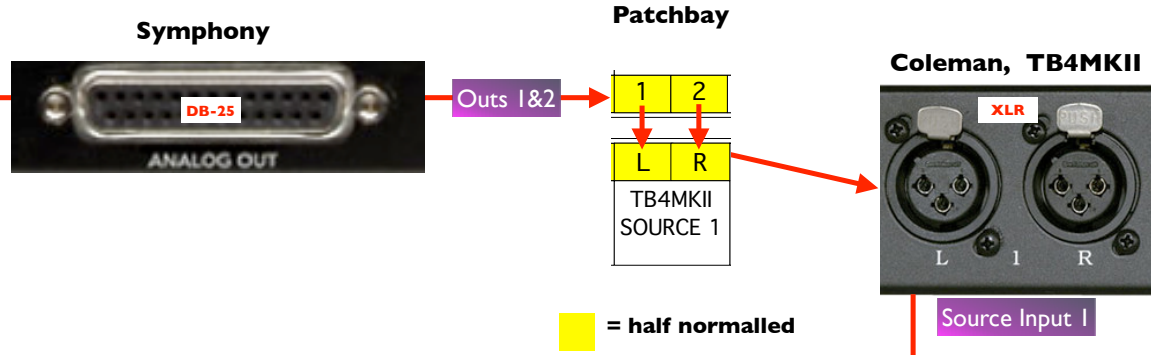
Pro Tools & Logic Playback



Playback to Monitors from Pro Tools using the Symphony

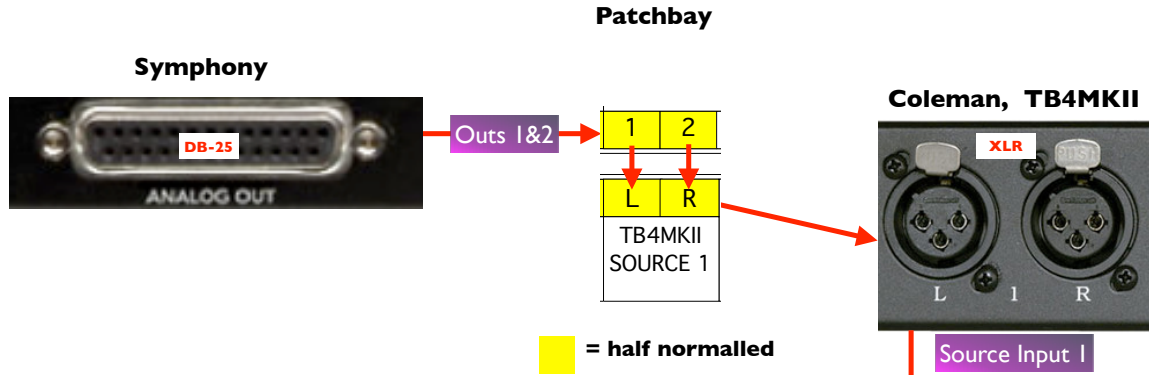


1. Select **Symphony 64** as Audio Engine in Setup/Playback Engine
2. **A Line I &2** assigned to playback tracks



Playback to Monitors from Logic using the Symphony

1. Select **Symphony 64** for audio device in Audio Preferences
2. **A Line 1&2** assigned to playback tracks





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Phone and Laptop Playback



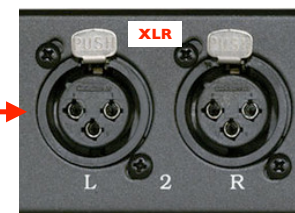
Playback to Monitors from Producer's Panel Inputs 9 & 10

1. Patch audio device with special cable to PRODUCER'S PANEL 9 & 10



Direct Connection

Coleman, TB4MKII



Source Input 2



Coleman, TB4MKII

For headphones Select **SOURCE**

Select **SOURCE 2**

Adam A7 Monitor level control

Coleman, TB4MKII

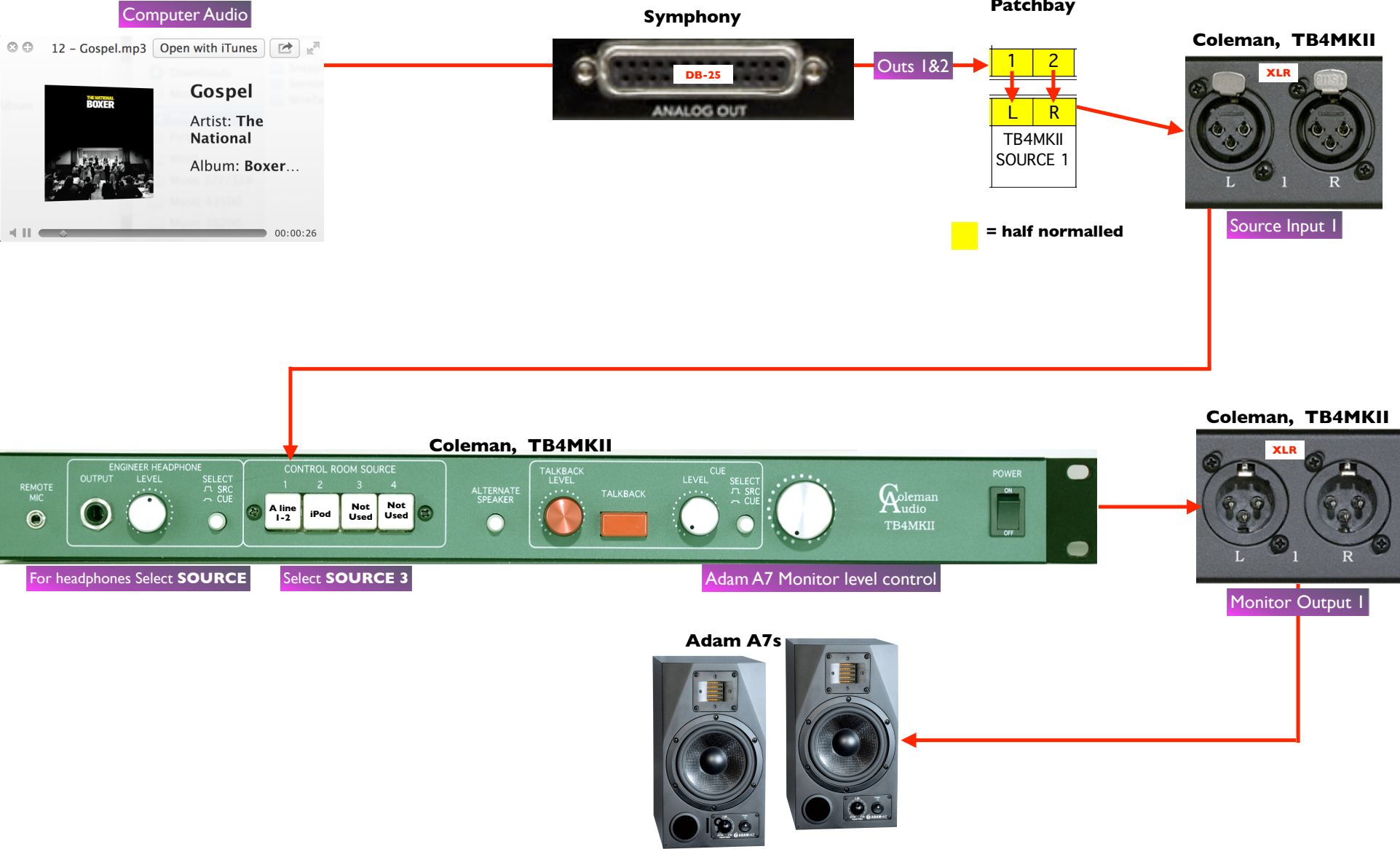


Monitor Output 1

Adam A7s



Playback to Monitors from Built In Computer Audio





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Pro Tools & Logic Recording

Recording into Pro Tools & Logic

1. Remote mics patch to **TIELINES**.
2. Local Mics patch to **PRODUCER'S PANEL**.
3. Local guitar/bass patch directly to **ISA TWO DI INPUTS**.
4. Local guitar/bass patch to **DI BOX** then to **PRODUCER'S PANEL**
5. Patch Tielines (use normals) and/or Producer's Panel to **ISA TWO INPUTS**.
6. Patch **ISA TWO OUTPUTS** (or use normals) to **SYMPHONY LINE INPUTS**.
7. In Logic and Pro Tools set the audio engine to **SYMPHONY 64**.
8. Set recording channels in Pro Tools and Logic to **A LINE INPUTS 1-8**.

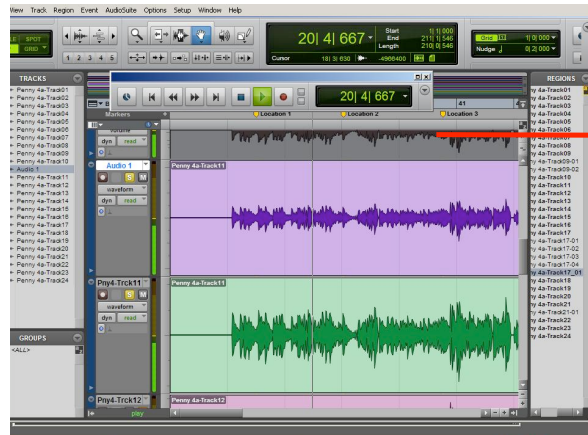
PRODUCER'S PANEL								PCC TIELINES				TB4MKII CUE OUTPUT		LINE OUTPUTS 1-8 APOGEE SYMPHONY I/O										
1	2	3	4	5	6	7	8	1	2	3	4	L	R	1	2	3	4	5	6	7	8			
								1	2	1	2	5	6	7	8	L	R					L	R	
								INPUTS MIC ISA TWO	INPUTS LINE ISA TWO	PCC TIELINES				TB4MKII SOURCE 1										INPUT CUE TB4MKII
ISA TWO OUTPUTS								ISA TWO INSERT SENDS		1066 OUTPUTS				DB25 CONNECTOR PANEL A										
1	2							1	2	1	2			1	2	3	4	5	6	7	8			
1	2	3	4	5	6	7	8	1	2	1	2			1	2	3	4	5	6	7	8			
APOGEE SYMPHONY I/O LINE INPUTS 1-8								INPUTS 1066		RETURNS INSERT ISA TWO				DB25 CONNECTOR PANEL B										



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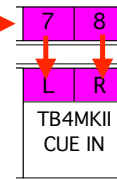
Pro Tools & Logic Headphones

Creating Headphone Sends from Pro Tools using the Symphony



Outs 7&8

Patchbay



Cue Mix Inputs

1. Create buses and Aux Master Tracks for Headphone Sends.
2. Assign the Aux Masters Outputs to **A Line OUTS 7&8**.



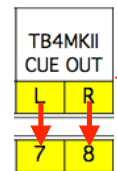
For engineer headphones Select **CUE**.
NOTE: Cue Controls are not part of this signal path.

1. Select **CUE**
2. Adjust overall level of Cue/Headphone send with **LEVEL** pot.
3. Depress **TALKBACK BUTTON** to activate talkback
4. Adjust Talkback level with **TALKBACK LEVEL** pot.



Cue Output

Patchbay



= half normalised

Tielines 23

Creating Headphone Sends from Logic using the Symphony

Logic

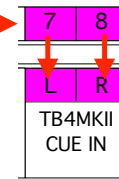
Patchbay

Symphony

Coleman, TB4MKII



Outs 7&8



Cue Mix Inputs



1. Select **Symphony 64** for audio device in Audio Preferences
2. Create buses and Aux Master Tracks for Headphone Sends.
3. Assign the Aux Masters Outputs to **A Line OUTS 7&8**



Coleman, TB4MKII

Coleman, TB4MKII



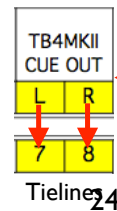
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Patchbay

■ = half normalised



Tielines 7, 8

