

# *Parameters Xb: Micromanagement 2014*

for Bird Rat Centipede

for two guitarists  
David Pocknee

## **Overview**

In this piece, two guitarists use numbered cables to create different combinations of connections between two electric guitars, two laptops, and two guitar amplifiers to manipulate the sound of audio feedback.

The work is split into four movements, each dealing with a particular way of combining the devices.

All the laptops run the same Max/MSP patch which records and plays back in a continuous loop using its internal microphone, internal speakers, headphone socket and line in socket.

This piece is an updated version of “Micromangement” (also known as “Parameters X: Micromanagement”), which was written for Acid Police Noise Ensemble in 2010. The new version has a reduced set-up and aims to be more “tourable”. It dispenses with the transcription aspects of the first version, and no longer has a variable ensemble playing simultaneously to the guitarists. Instead, this version strips the piece back to its core: 20 minutes of guitar feedback.

Any set of consecutive movements can be played independently of the whole.

## **Equipment Needed**

### **Guitarist 1**

1 Guitar Amplifier (Amp 1)  
2 Distortion Pedals (D1 & D2)  
1 Electric Guitar (G1)  
1 Laptop (L1)

### **Guitarist 2**

1 Guitar Amplifier (Amp 2)  
2 Distortion Pedals (D3 & D4)  
1 Electric Guitar (G2)  
1 Laptop (L2)

### **Distortion Pedals**

Distortion or overdrive pedals can be used as D1, D2, D3 & D4, but none should be the same model, although overdrive pedals are preferred. Each pedal should be set so that its distortion/overdrive is on maximum.

### **Amplifiers**

The amplifiers should not be too large, as the piece occurs at low volume. Amplifiers should be set to the “overdriven” channel and the settings should be altered so that feedback occurs easily, and at a low volume, when one distortion pedal is plugged in.

### **The Laptops**

Both laptops should be running a specially designed Max/MSP patch that can be obtained directly from the composer, or via my website.

To run the patch, both laptops will need to install the Max/MSP external fiddle~ by Miller Puckette.

The Max/MSP patch acts as a simple artificial feedback loop, recording its input and then amplifying and delaying it.

All laptops are unamplified and use their internal speakers – for this reason it is advised that

the performance happens as close to the audience as possible, as the piece is quiet. Laptops should all have an equal volume which collectively matches with that of the guitar feedback at the start of the piece.

All laptops must have separate headphone and line-in sockets as well as a working internal microphone and speakers.

When cables are plugged into the line-in socket of the laptops, they should change from taking input from their internal microphones to that of the line-in socket. However, on certain computers, especially Macs, the audio input will not automatically change when a cable is plugged into the line-in socket.

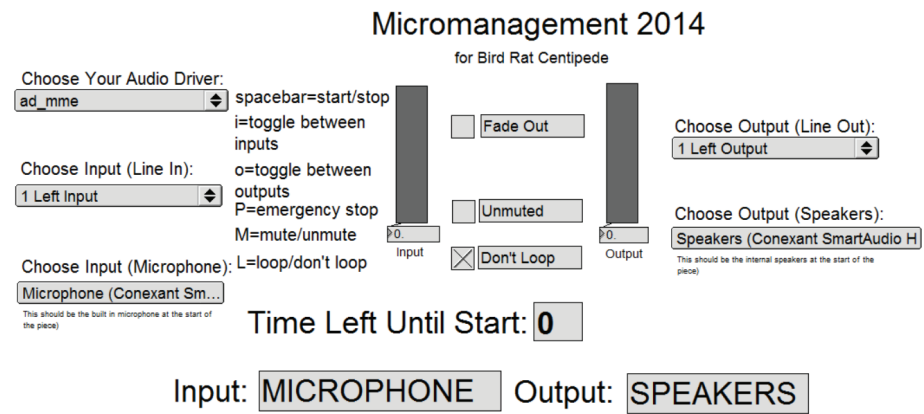
In this case, the enter key should be used to toggle the audio input (seen in the bottom left box below) between the laptop's internal microphone and its line-in socket when cables are plugged or unplugged from it.

The input should be toggled to the line-in whenever a cable is plugged into the line-in socket.

The input should be toggled back to the internal microphone whenever a cable is unplugged from the line-in socket.

This setting should be set to the internal microphone at the start of the piece.

(Some PC laptops will change this setting automatically when a cable is inserted into the line-in socket; in this case, there is no need to toggle between the two settings).



### The Cables

The two guitarists will need the following thirteen cables between them. The two jacks on each cable should have labels attached to them according to the table below.

It is recommended that the cables are hung on a small clothes line, or top of a sturdy music stand, using clothes pegs when they are not in use (i.e. when “put away”)

### List of Cables Needed by Guitarist 1 and Guitarist 2 (M=mini-jack, ¼= quarter-inch jack):

Number Of Cable	Jack			Length	Jack		
	Number	Size			Size	Number	
1	1A	¼	—	3m	—	¼	1B
2	2A	¼	—	1m	—	¼	2B
3	3A	¼	—	3m	—	¼	3B
4	4A	¼	—	3m	—	¼	4B
5	5A	¼	—	1m	—	¼	5B
6	6A	¼	—	3m	—	¼	6B
7	7A	M	—	3m	—	¼	7B
8	8A	M	—	3m	—	¼	8B
9	9A	M	—	1m	—	¼	9B
10	10A	M	—	1m	—	¼	10B
11	11A	M	—	1m	—	M	11B
12	12A	¼	—	1m	—	¼	12B
13	13A	M	—	1m	—	¼	13B

# Set-up

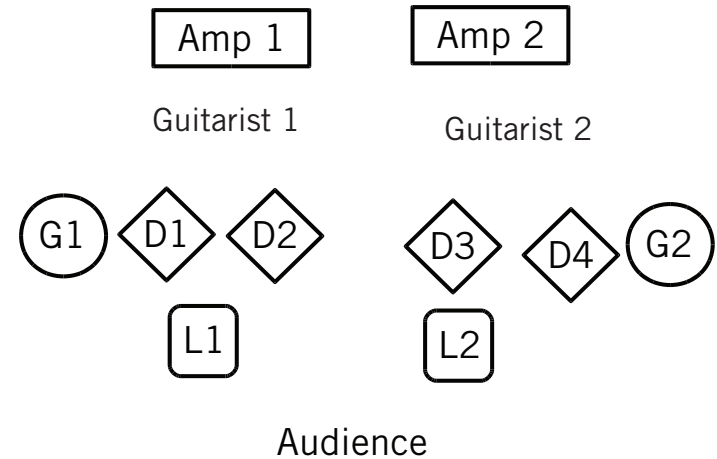
A suggested arrangement for the two guitarists, laptops, distortion pedals and amplifiers is shown to the right, although this may be altered for practicality.

Each guitarist should have a table in front of them with an electric guitar, two distortion pedals and two laptops on it. Guitars should be placed on the table on its back, with strings facing upwards.

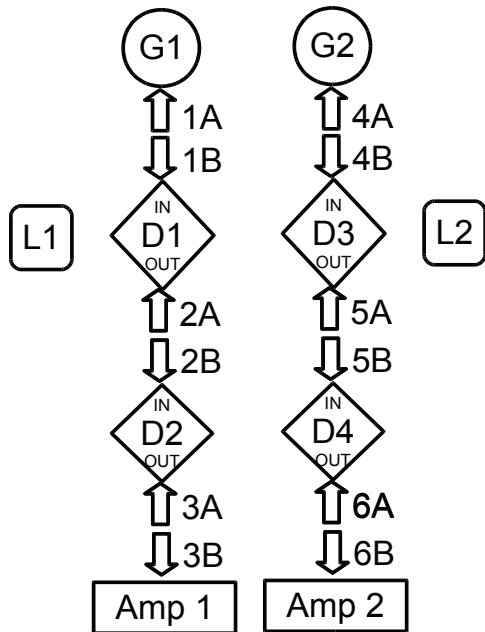
The two guitarists should be close enough together that they can pass wires to each other without moving.

At the beginning of each movement, the guitars, cables, pedals and amplifiers should be connected as shown below:

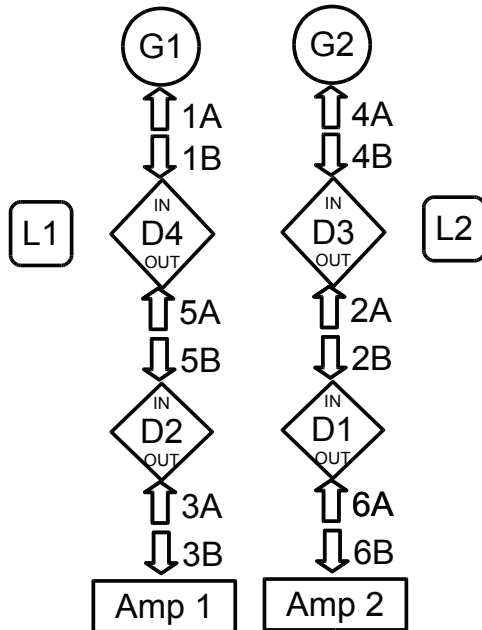
# Suggested Set-up



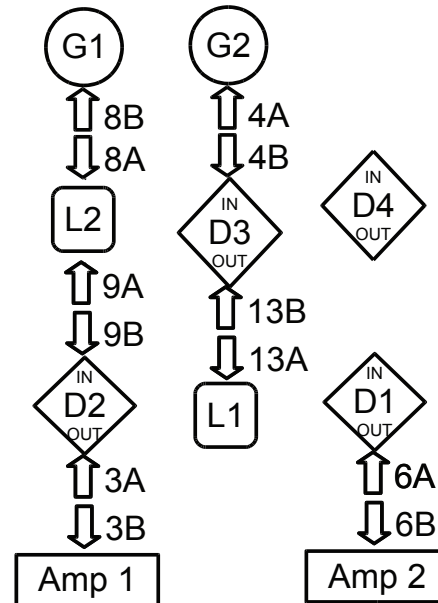
## Movement I



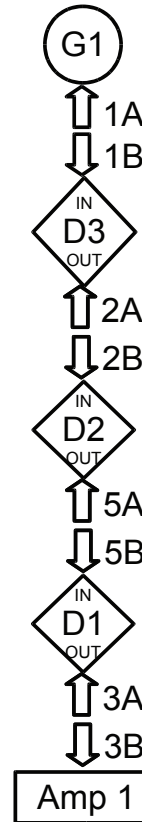
## Movement II



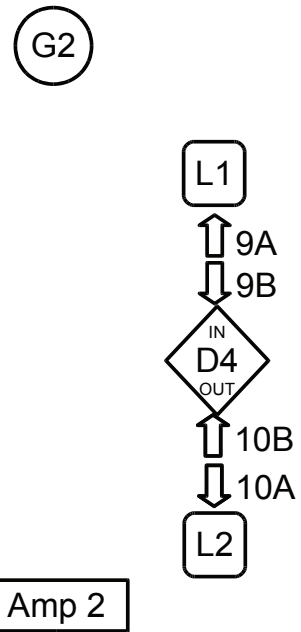
## Movement III



## Audience

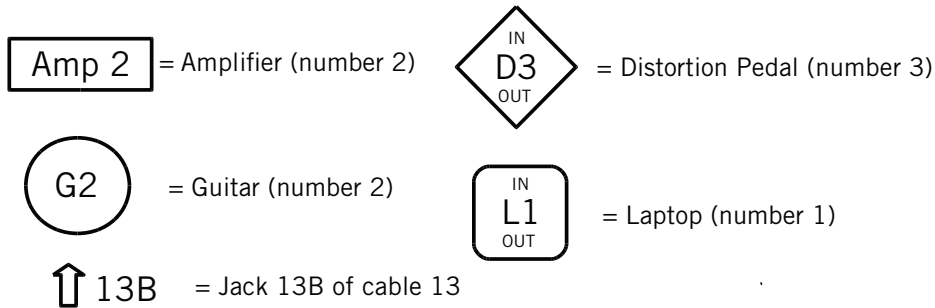


## Movement IV

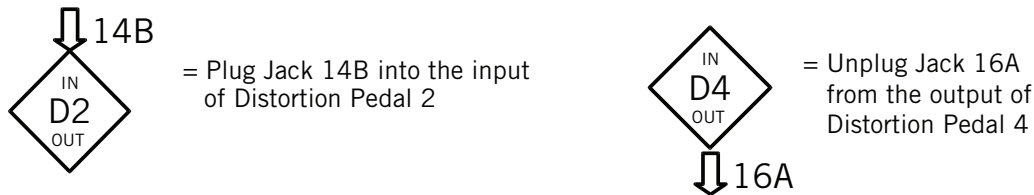


# The Guitarists' Notation

## Guide To Symbols Used In The Guitarists' Parts:



Examples of how the symbols are used:



The score is broken down into sets of series of actions. The start of each series is numbered and consists of a number of actions centred and arranged sequentially on a solid or dotted line. Each series should be worked through at each guitarists' own pace, independent of each other.

The solid line indicates that the actions which it joins together should be performed quickly and efficiently, independent of the other player. When a black dotted line joins two actions, the performer should wait after performing the first action, as the second one will need to be synchronized with the other player.

Synchronized actions are represented by the use of a grey dotted line or arrow joining an action from each player between the two

staves.

The score is designed to facilitate the efficient change between a number of states of feedback. These states are shown in the appendix to the score. Each state is reached at the last gesture of a series of actions.

Above and below each central black dotted or solid line, indications are given for the way in which signals should be routed through the laptop. Instructions above the line refer to the input used by the laptop, which will either be "MICROPHONE", indicating the internal microphone should be used as the input, or "LINE IN", indicating the line in socket should be used as the input. These can be toggled between in the Max patch by pressing "i". A similar system is used for the output, where instructions below the line indicate either "SPEAKERS", indicating that the laptop speakers should be outputting sound, or "LINE OUT", indicating that the audio signal should be sent out of the line out socket. Again, these can be toggled between via the Max patch by pressing "o".

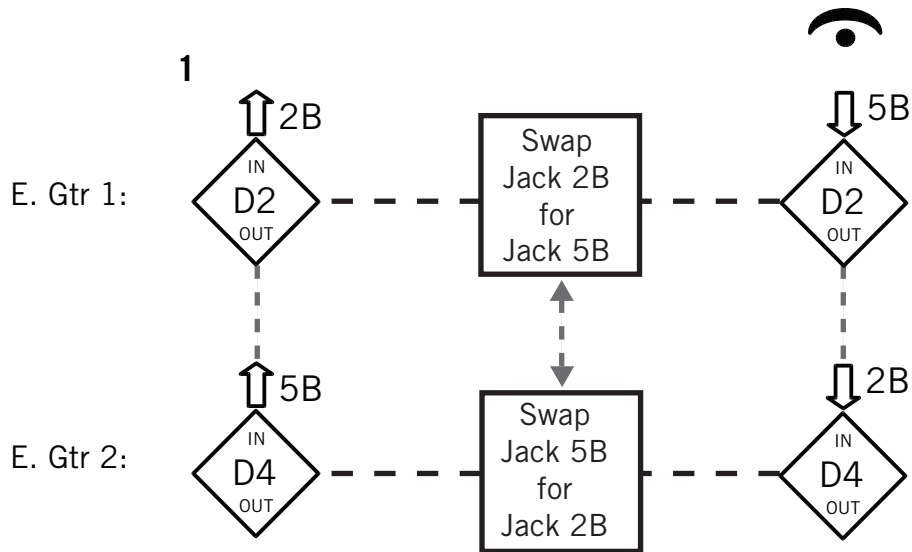
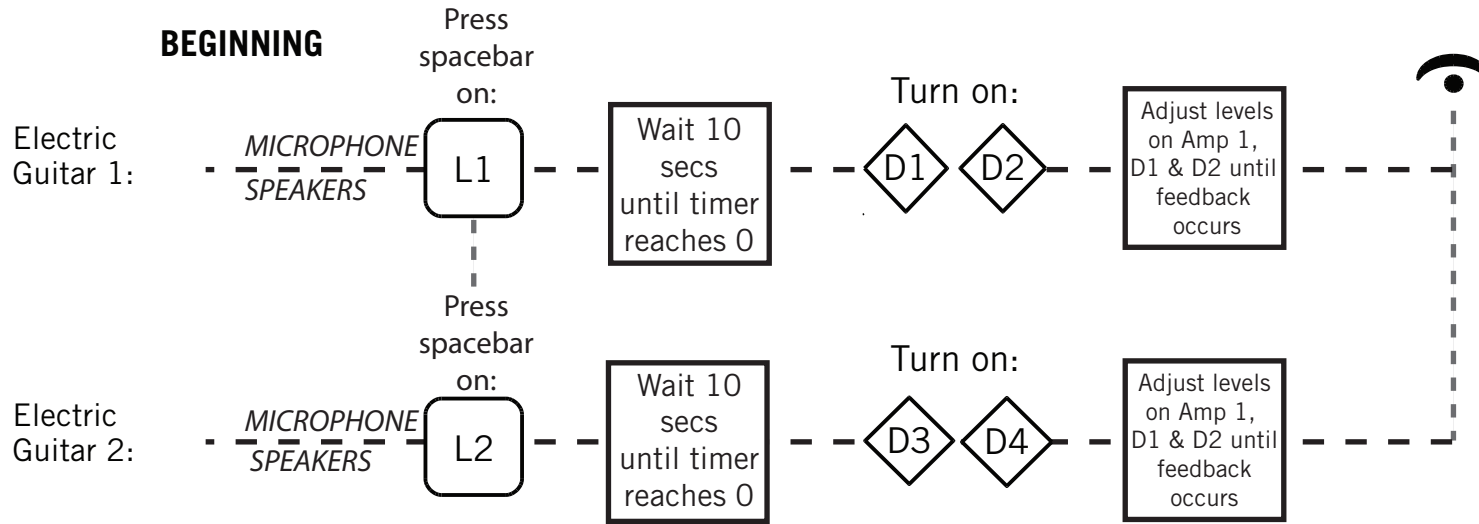
For ease of reading, and to allow the quick troubleshooting of audio routing, all routing via laptop sockets is accompanied by a grey band occurring above or below the central black line, indicating that at this point in the work the sound should be coming in or out of the line in/out sockets. All indications for changes in laptop input/outputs will occur after the symbol for an action, but should be performed as simultaneously to the action as possible.

The command 'put away' indicates that the guitarist should put the designated cable to one side, out of the way, (on the aforementioned clothes line or music stand) for use later on in the piece.

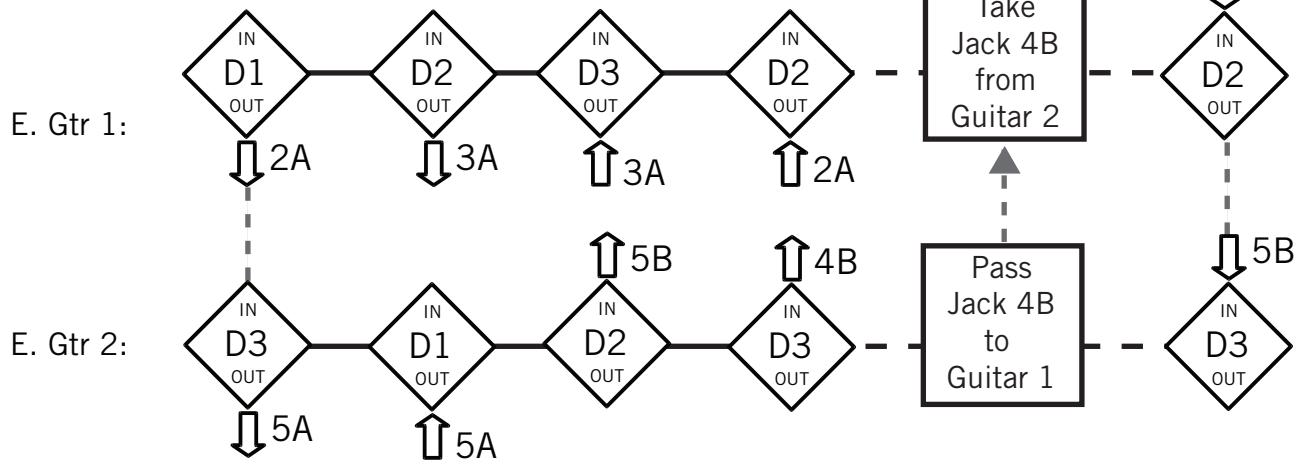
Where the command 'pick up' is used in the score, this refers to a cable that the guitarist has set to one side for use later on the clothes line or music stand.

# Guitar With Two Distortion Pedals And Amplifier

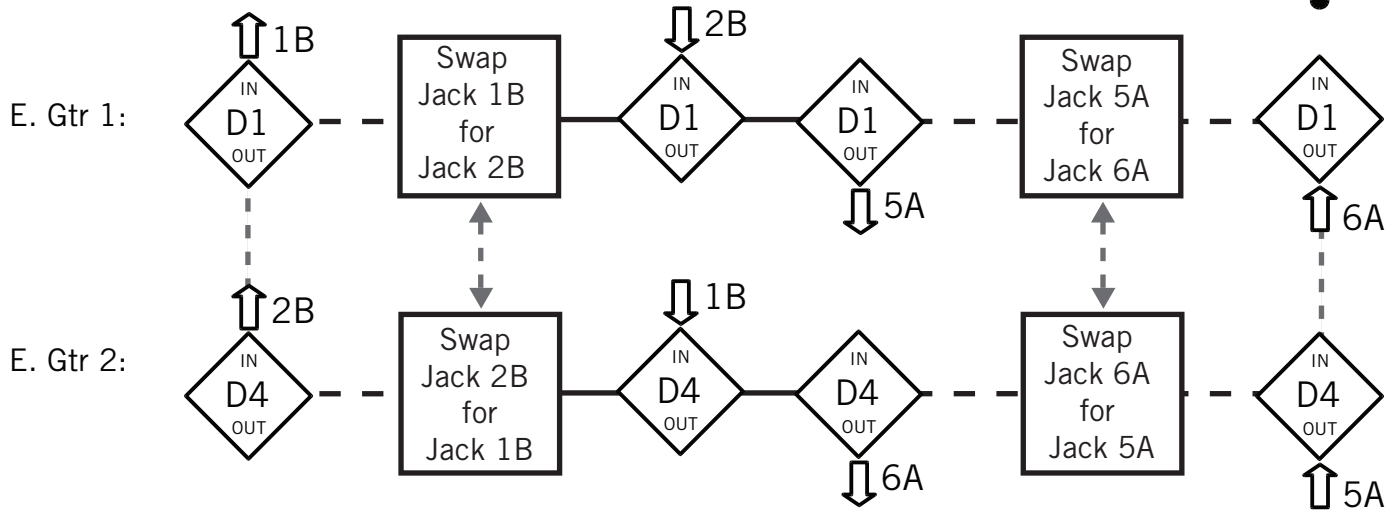
## BEGINNING



2

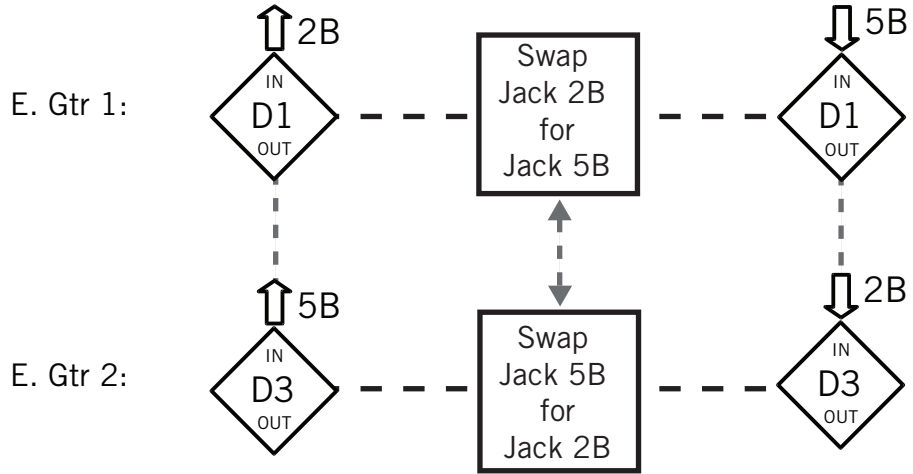


3

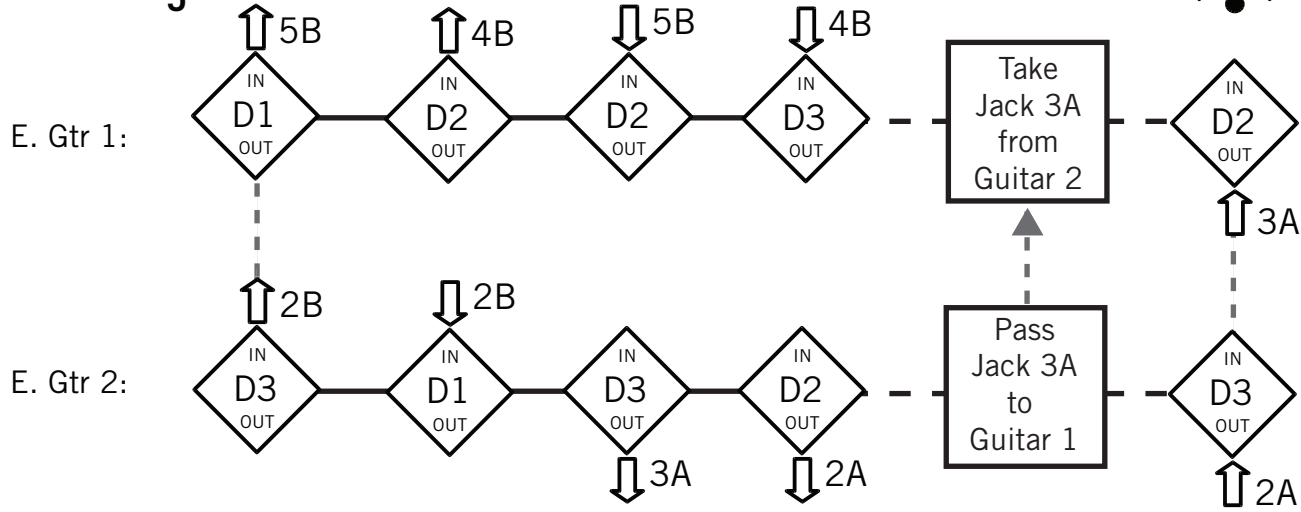


2

4



5



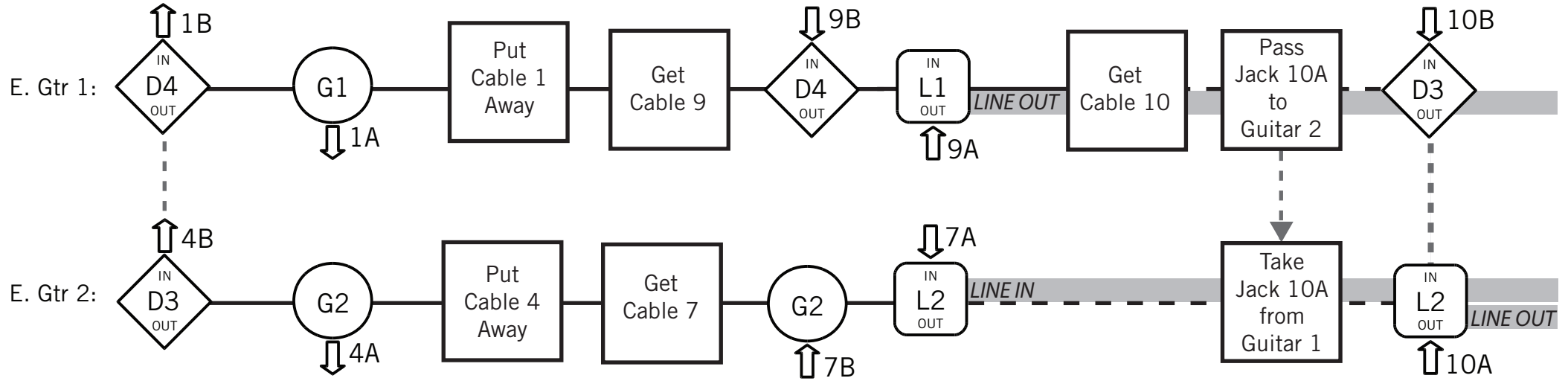
*attacca*

3

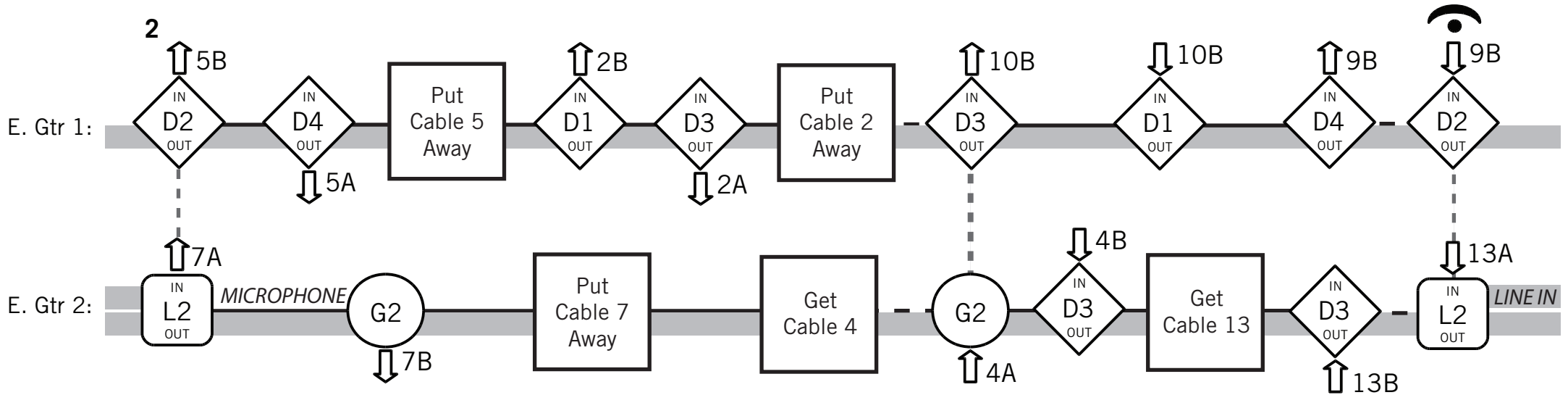


### Guitar With Laptop, No/One/Two Distortion Pedals And With/Without Amplifier

1



2



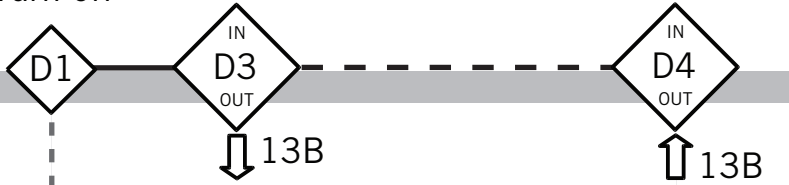
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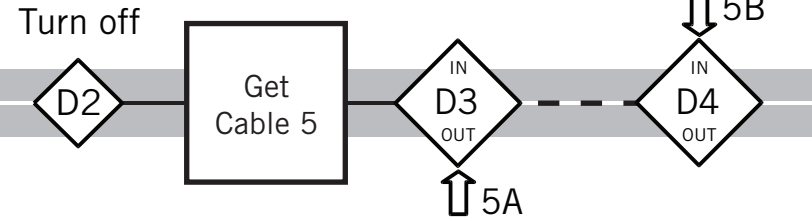
3

Turn off

E. Gtr 1:

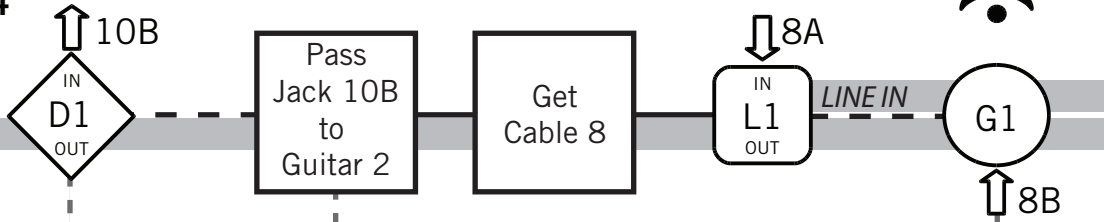


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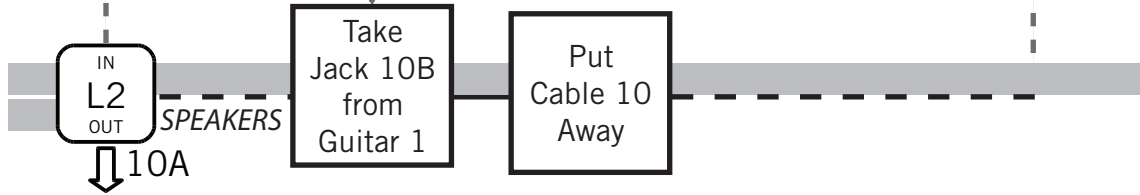


4

E. Gtr 1:



E. Gtr 2:



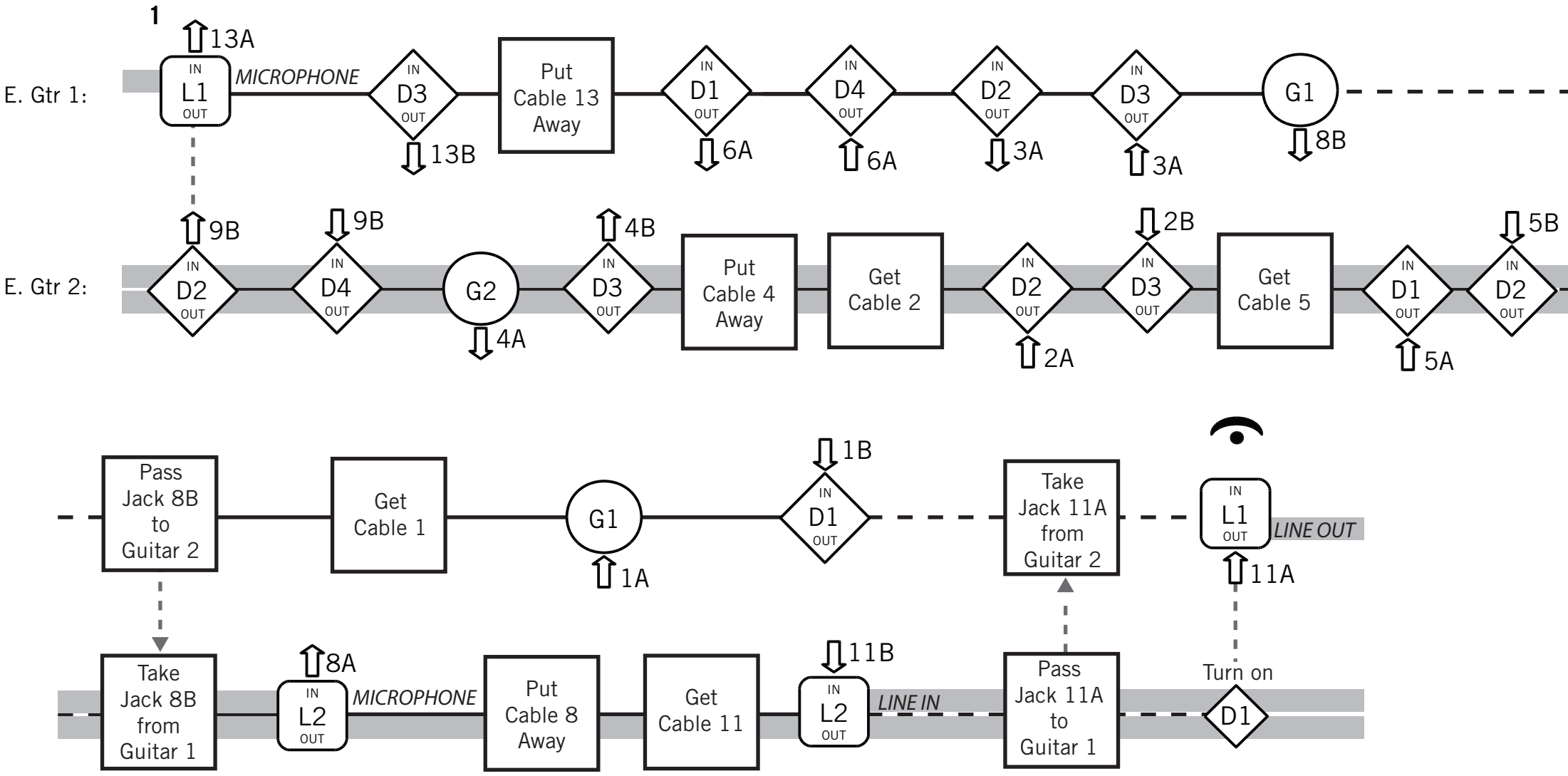
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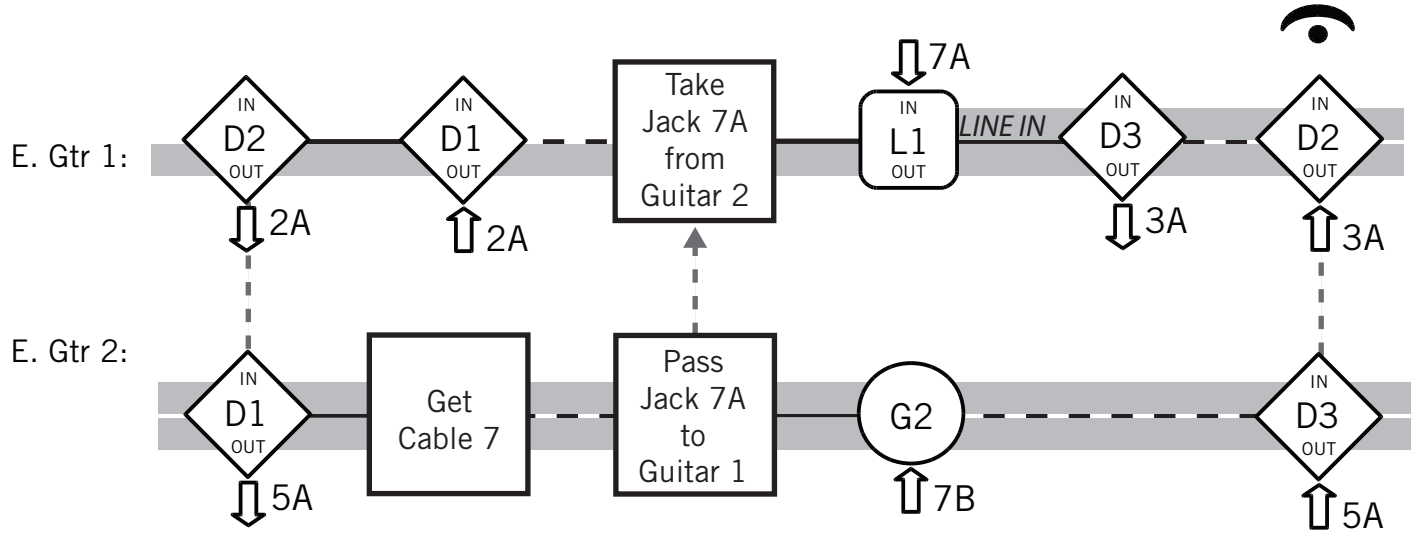




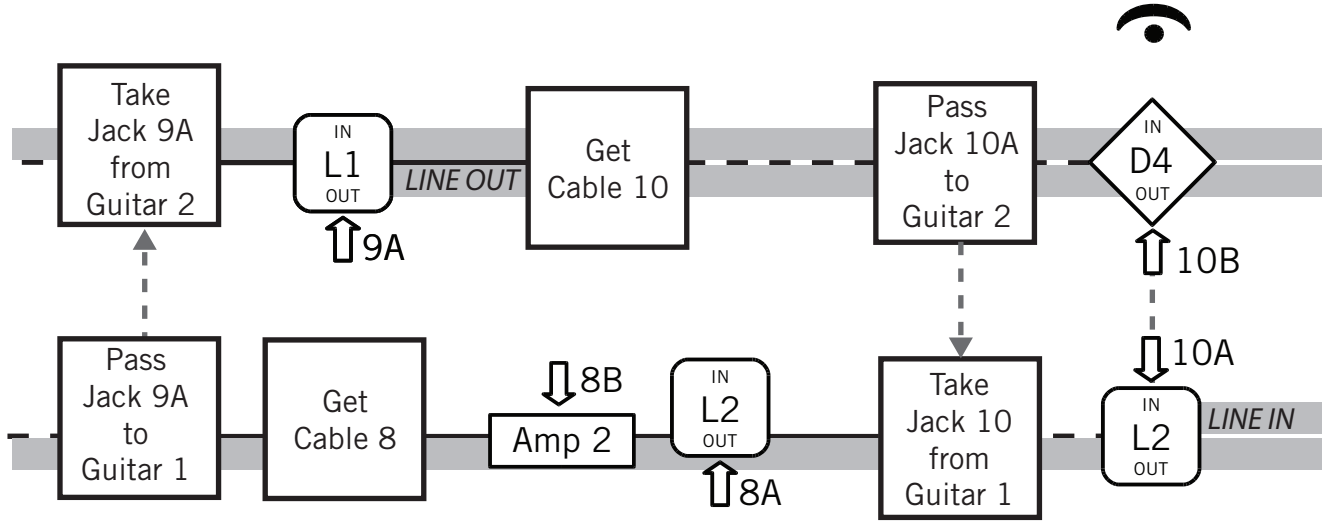
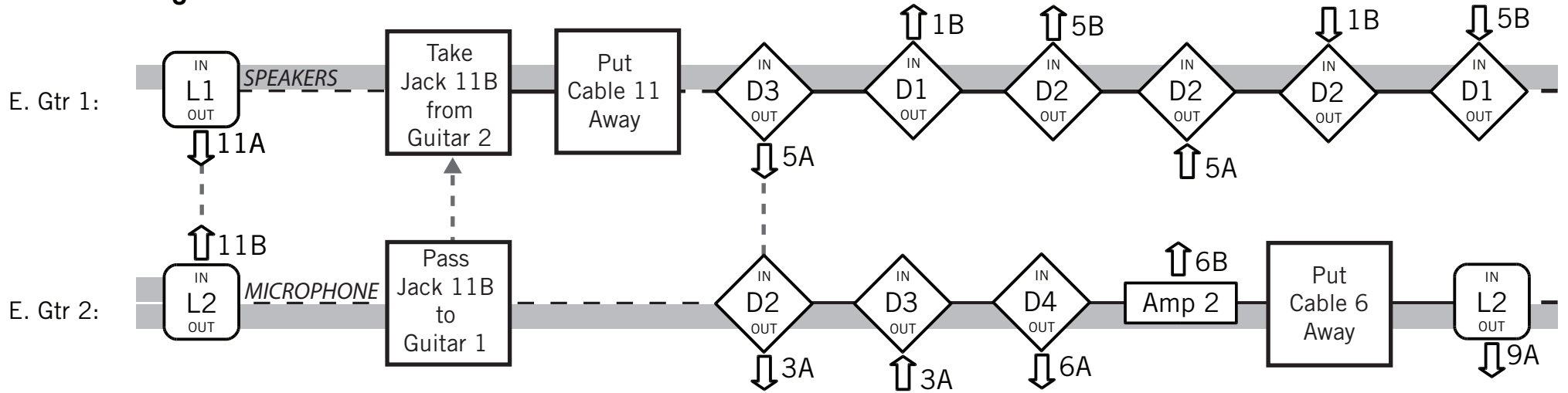
**Two Laptops and Distortion Pedal With/Without Guitar and/or Amplifier  
&  
Guitar With Three Distortion Pedals (All Permutations) and Amplifier**

is off

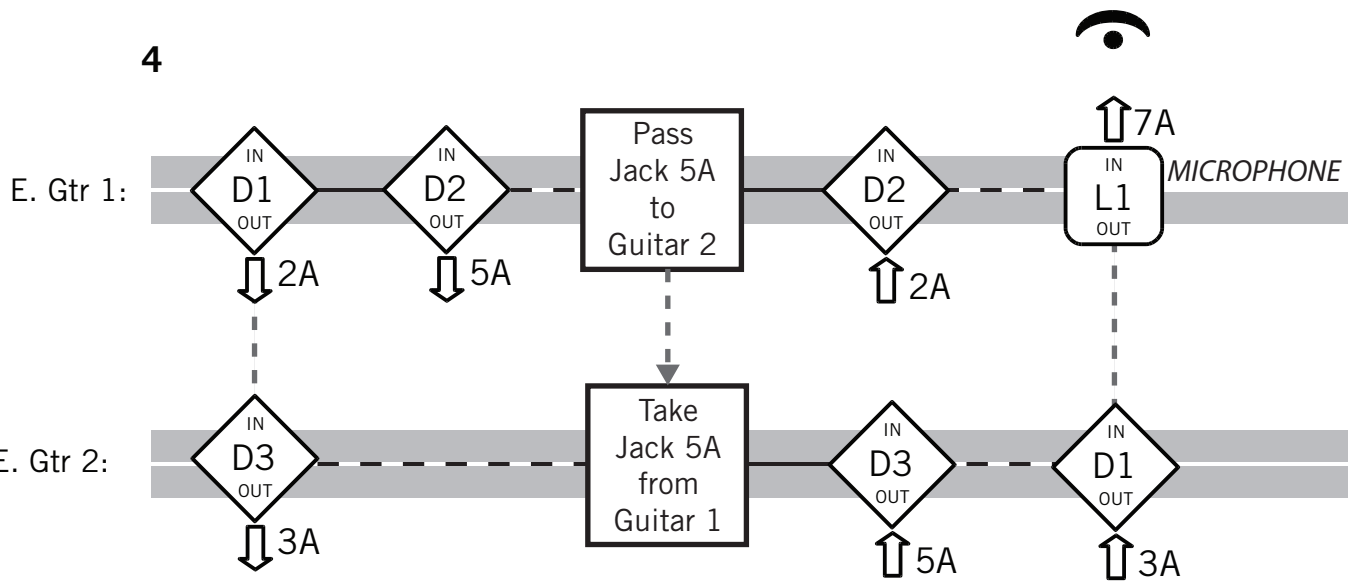




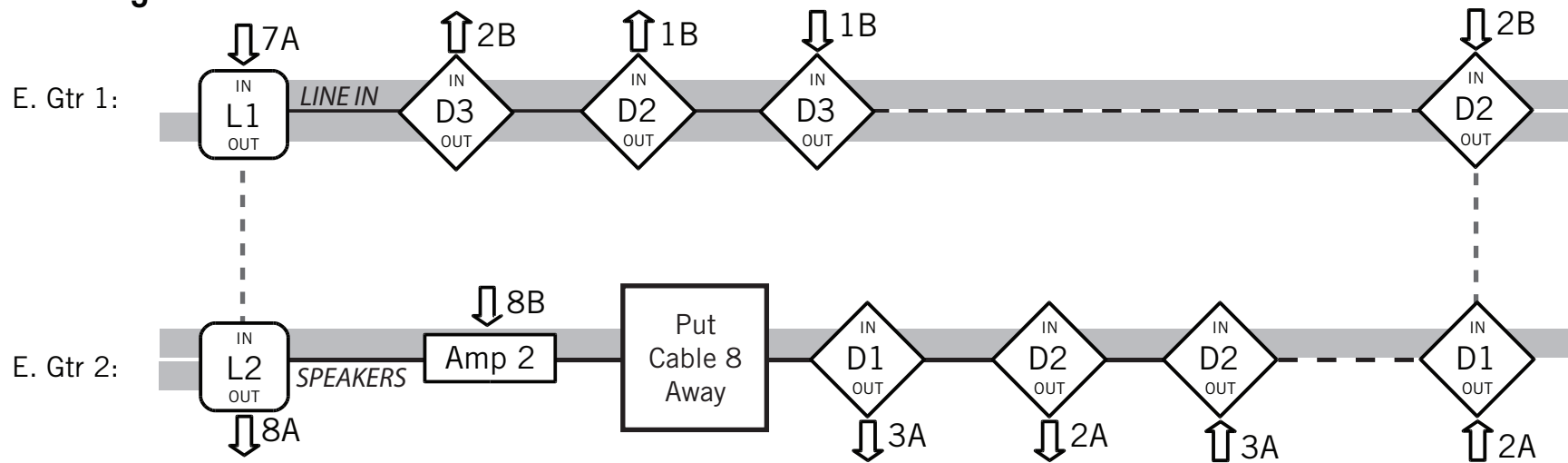
3



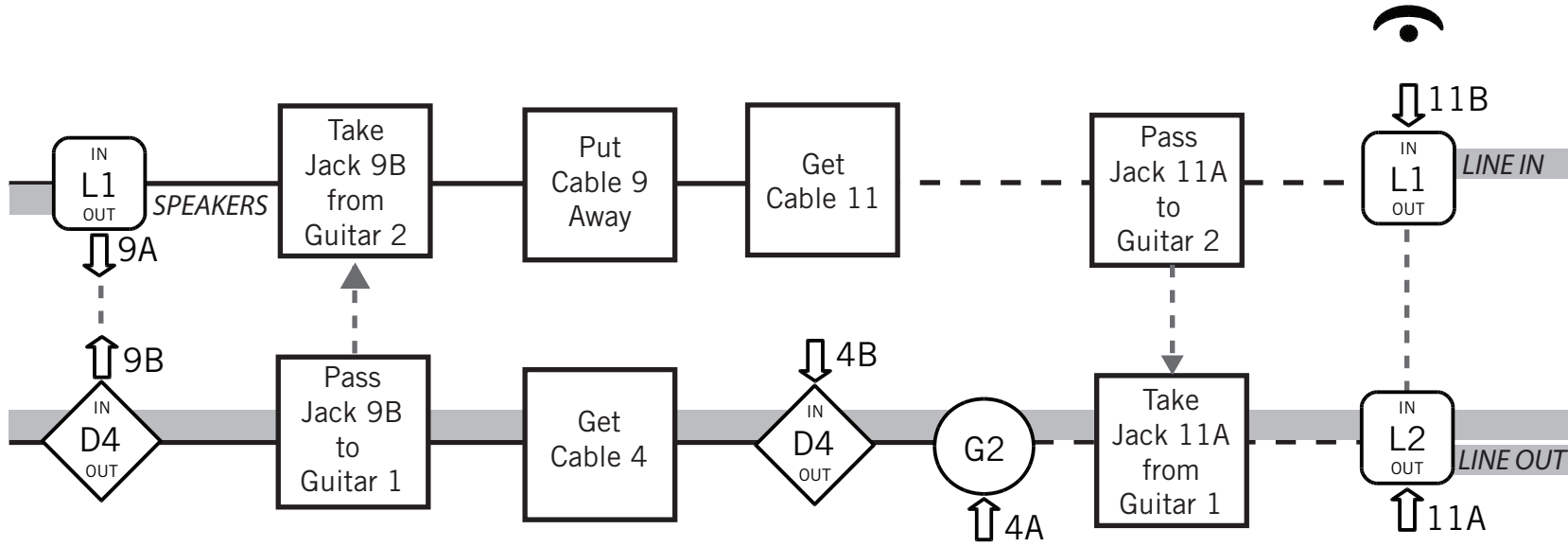
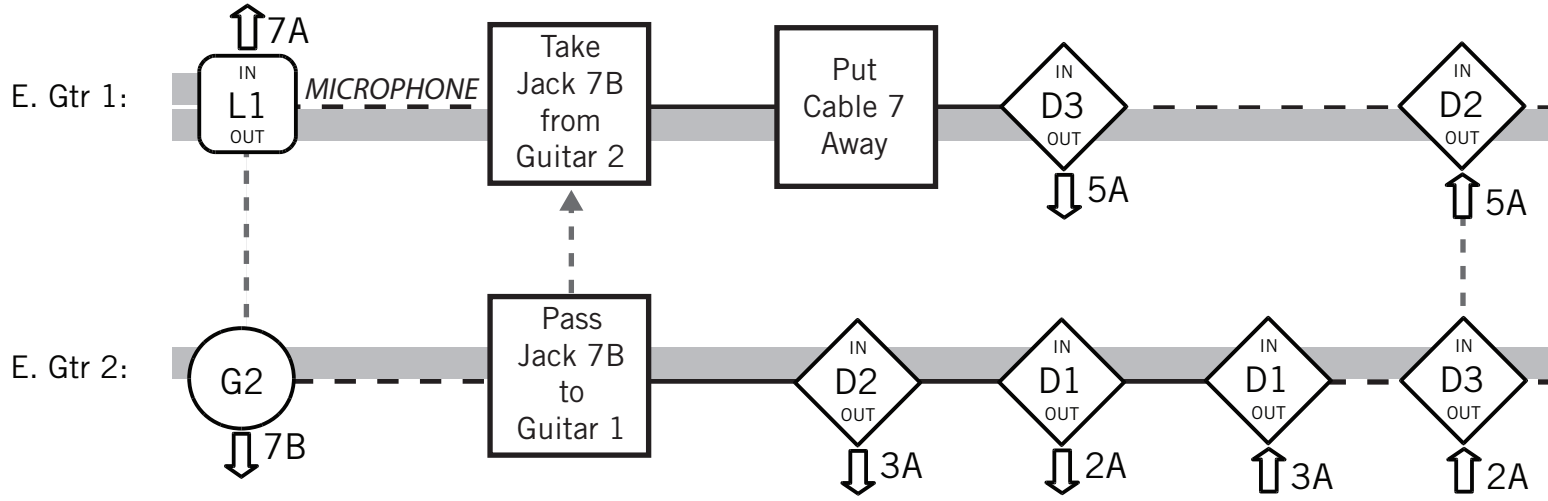
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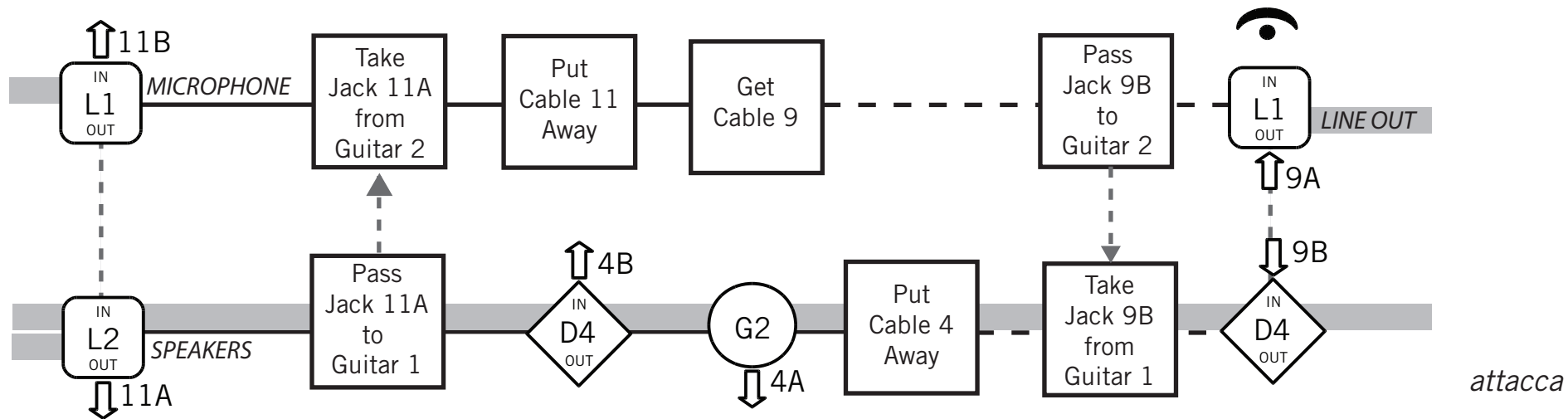
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6



7

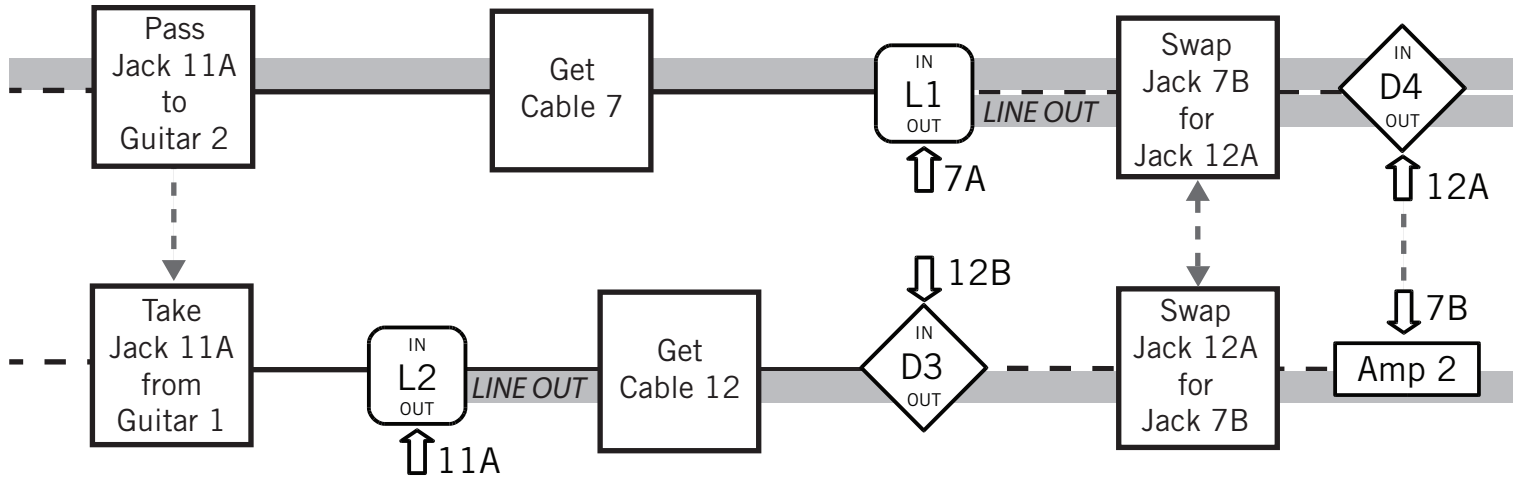
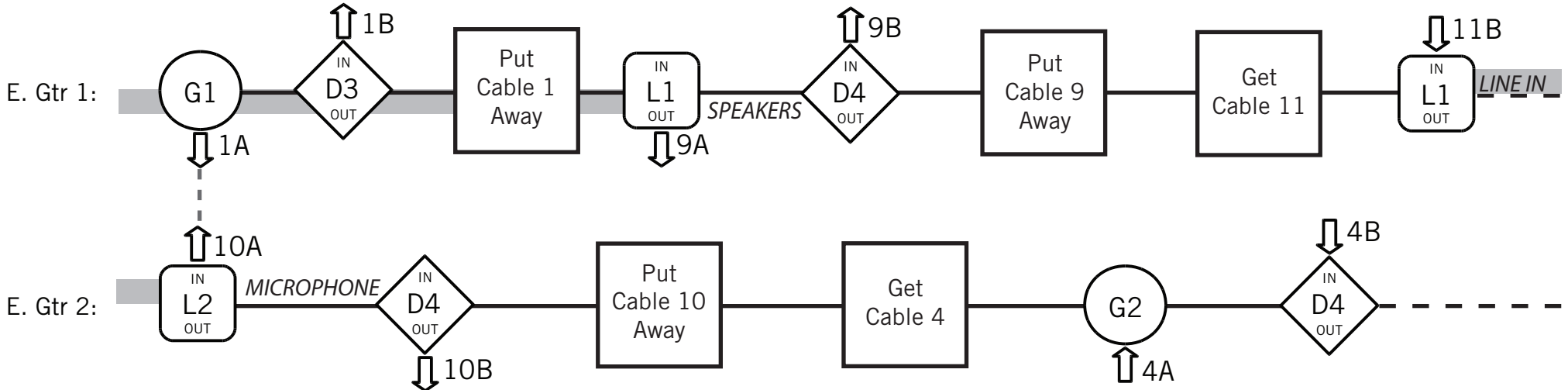




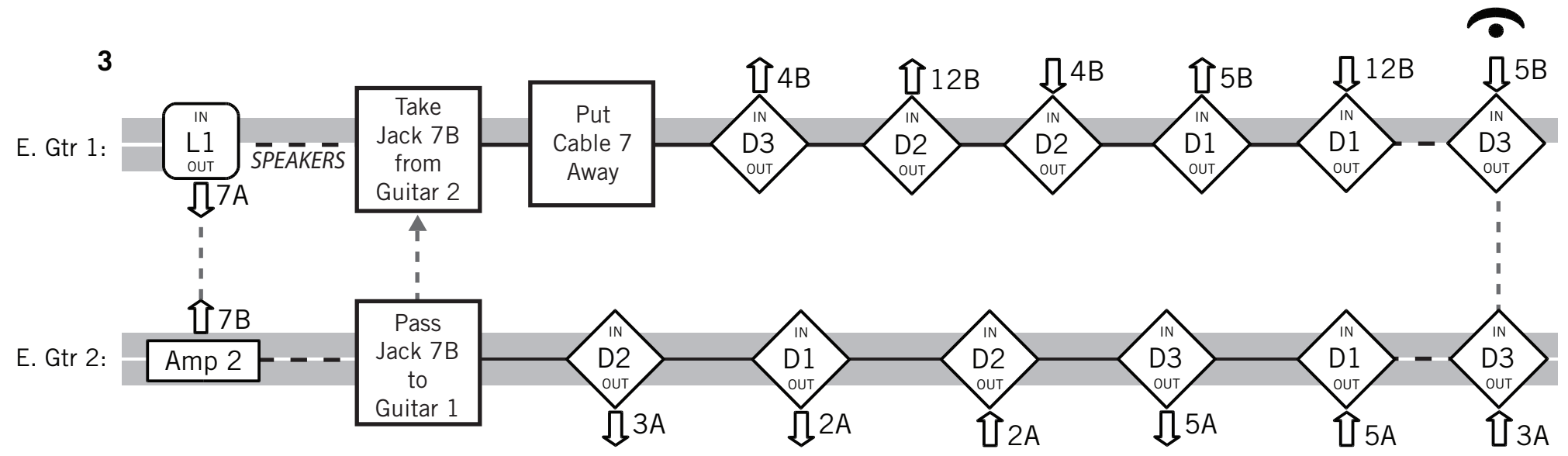
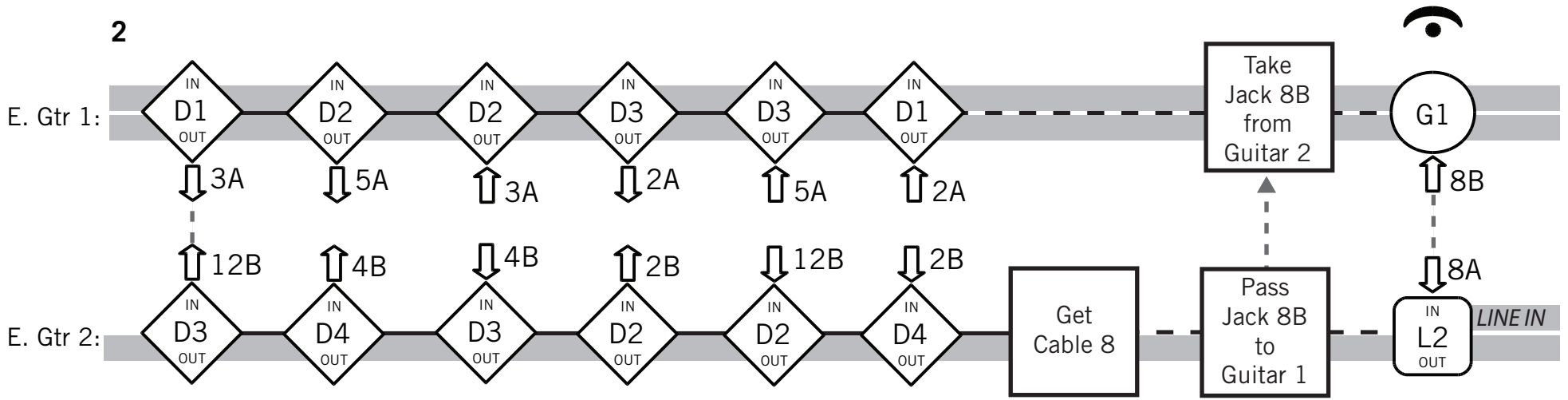
# IV

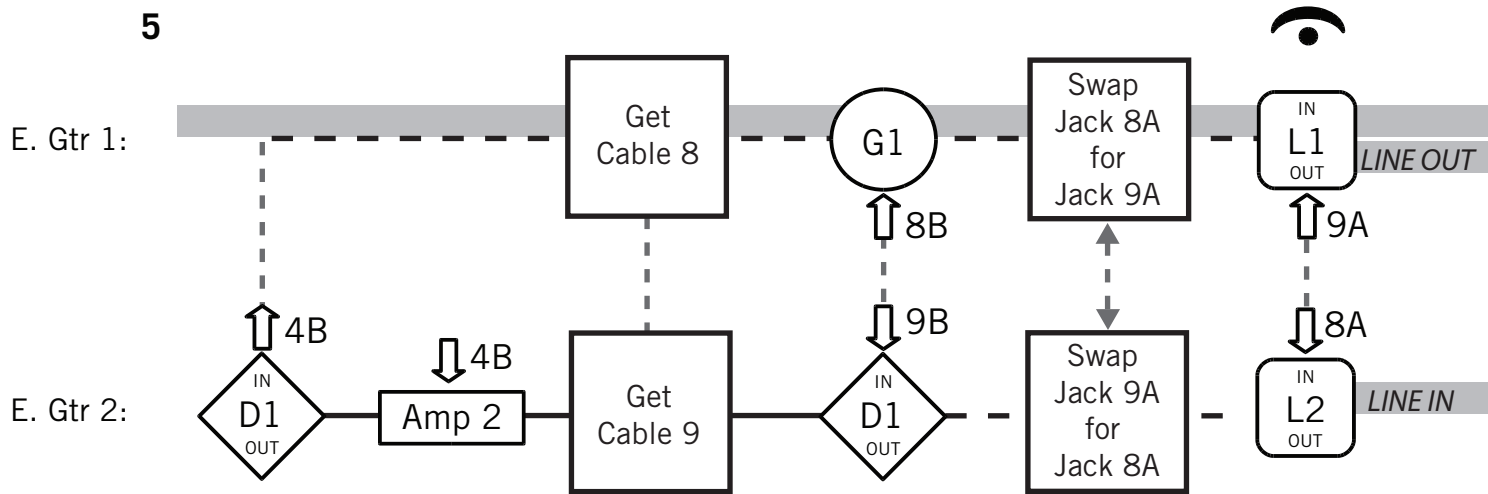
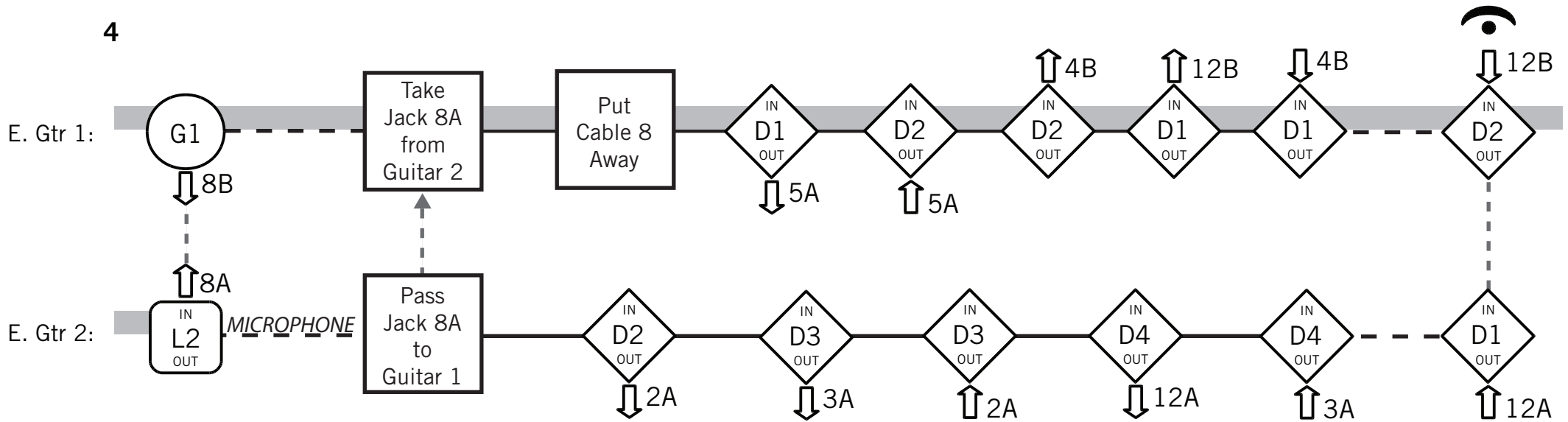
## Two Laptops With/Without Guitar and/or Amplifier & Guitar With Four Distortion Pedals and Amplifier

1



13

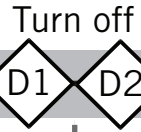
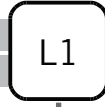




**ENDING**

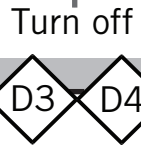
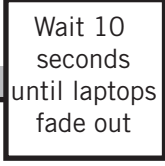
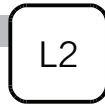
Press  
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on:

E. Gtr 1:



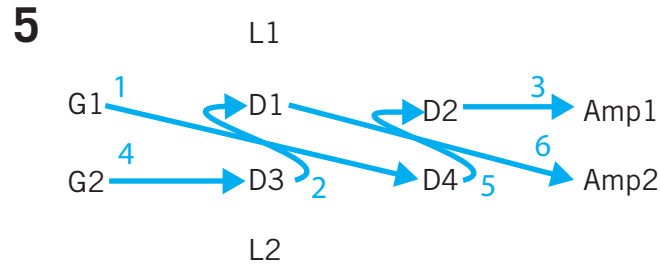
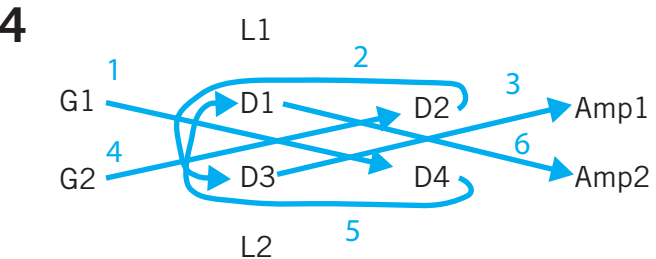
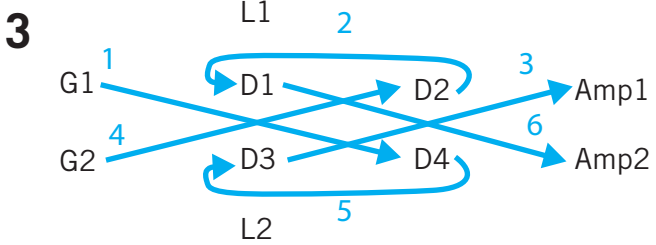
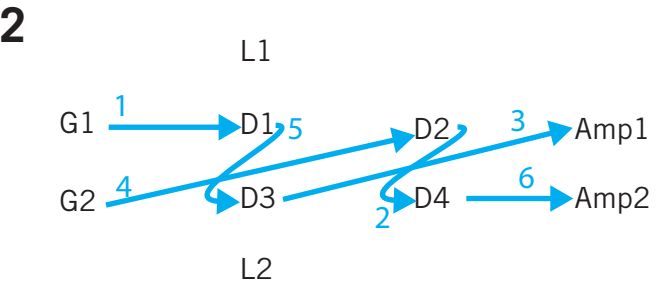
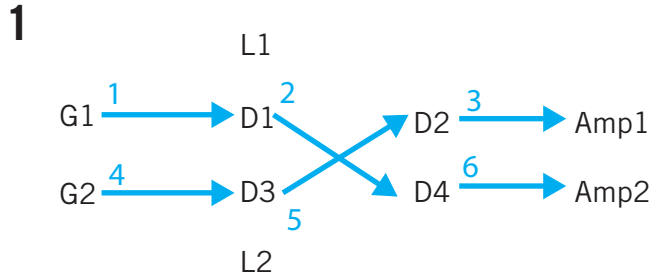
Press  
spacebar  
on:

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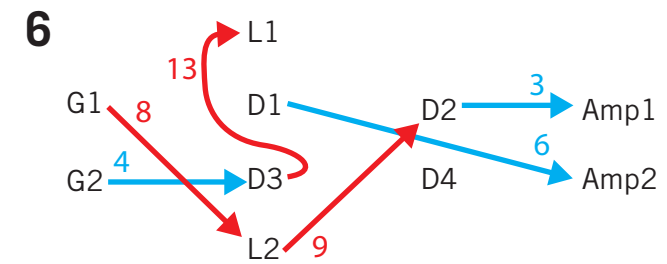
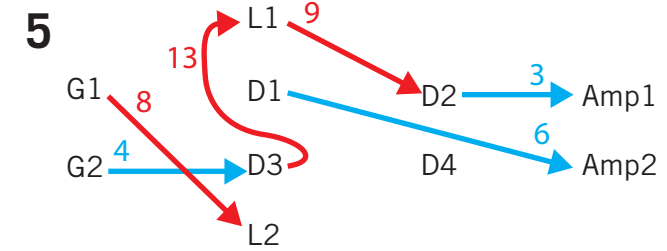
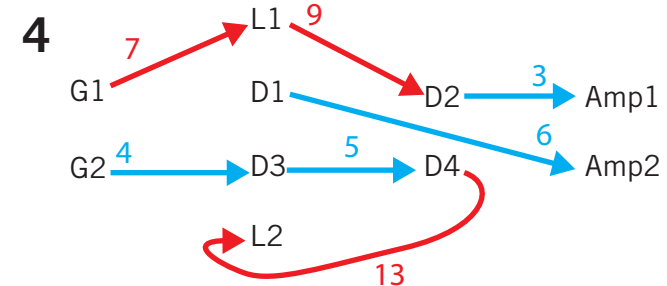
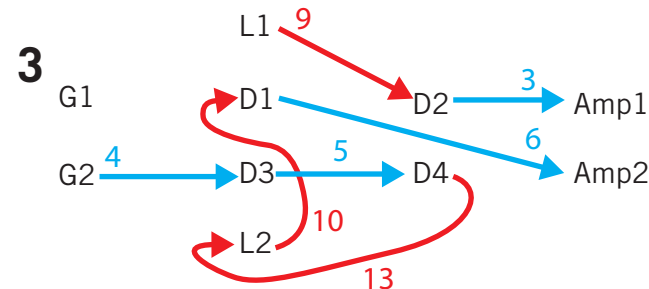
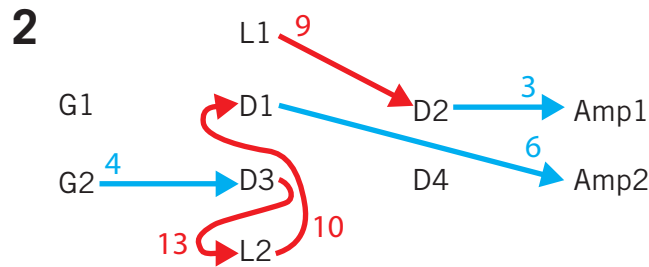
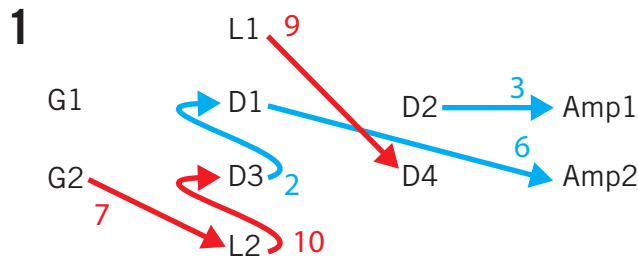


# Appendix

## Movement I



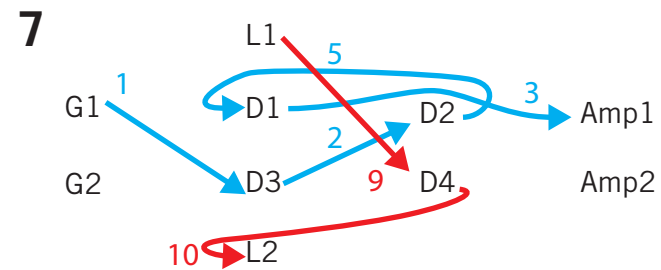
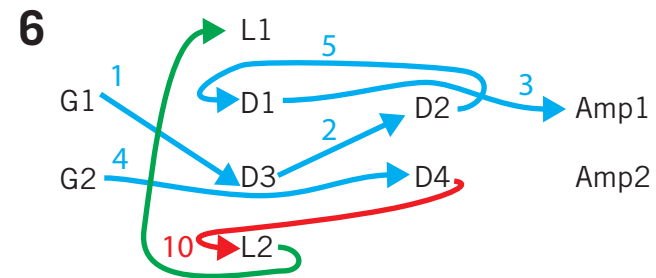
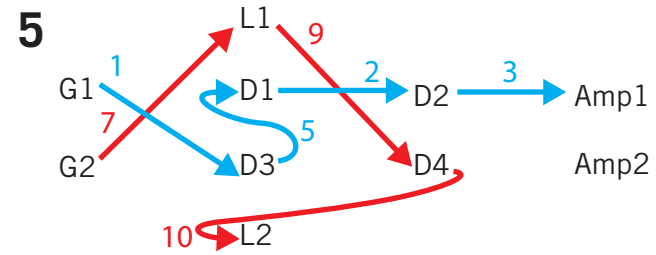
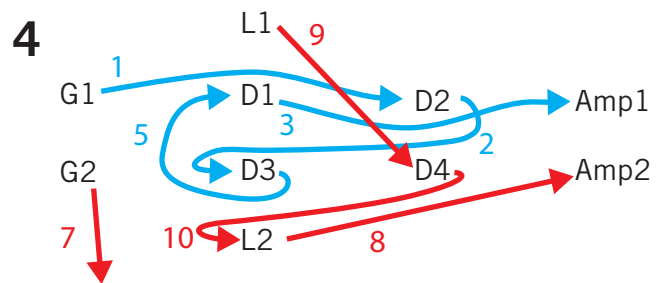
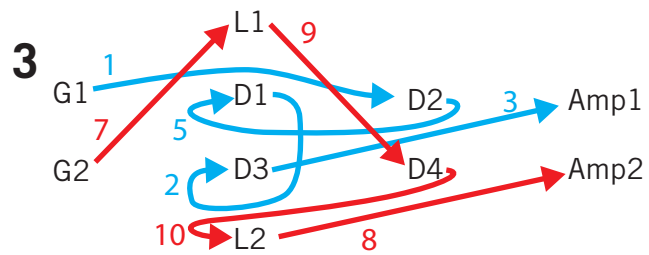
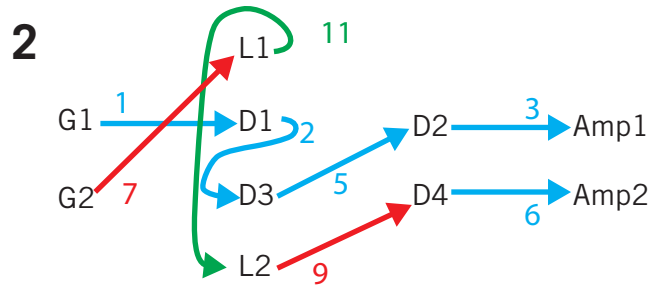
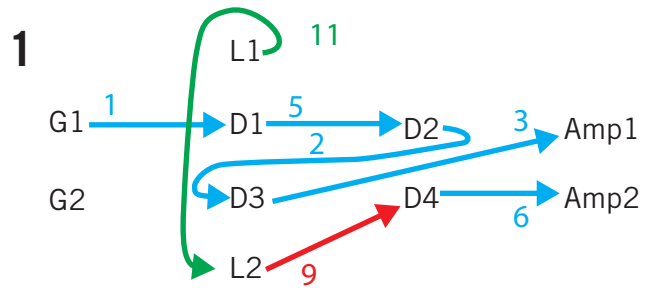
## Movement II



Blue Wires = 1/4 inch jack <=> 1/4 inch jack  
 Red Wires = mini jack <=> 1/4 inch jack  
 Green Wires = mini jack <=> mini jack

This appendix gives wiring diagrams showing how all the equipment will be connected at the end of each section. This should only be used for checking the wiring during rehearsals and should NOT be used during performances.

# Movement III



# Movement IV

