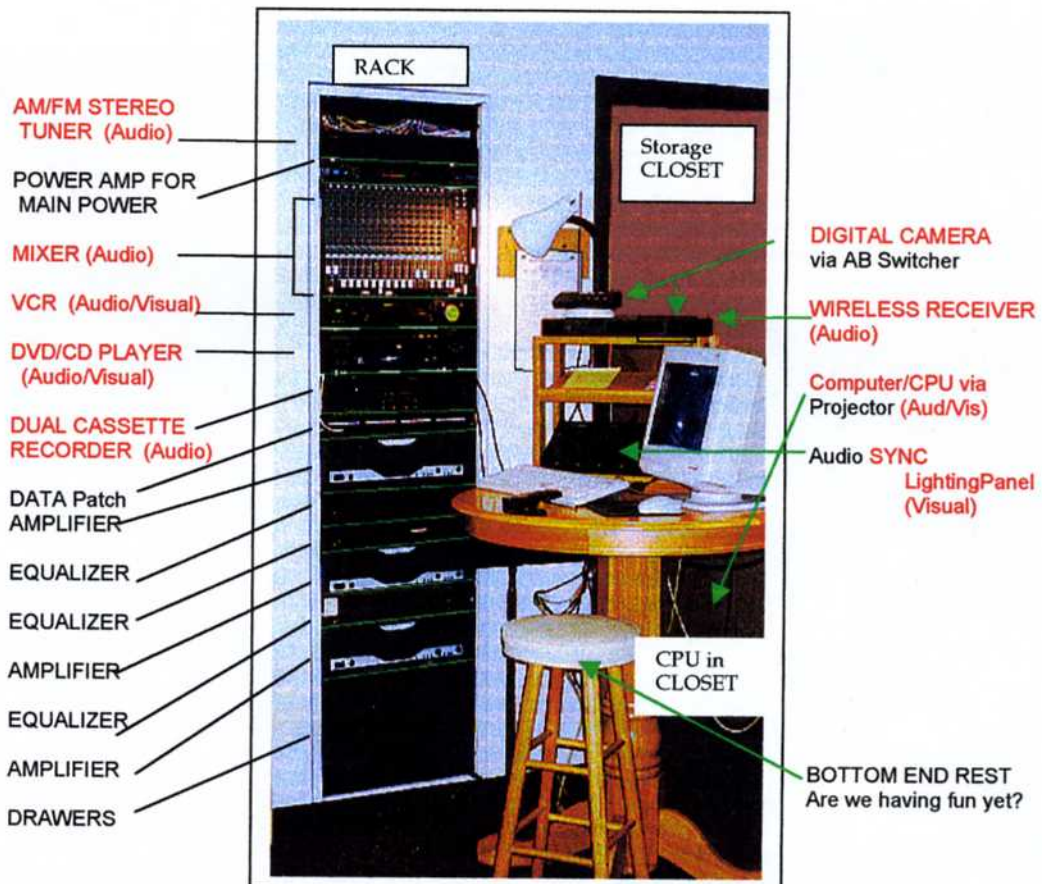
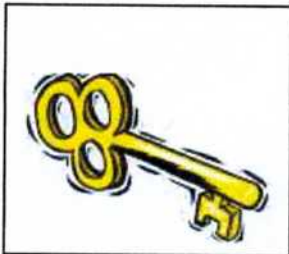


# THE BELMONT ROOM A/V HOUSE SYSTEM

## Arlington Heights Evangelical Free Church

### Student Exercise 2.1 & 2.2

Touch and name and identify the SIX audio and FIVE visual sources in and around the rack. State whether the equipment is capable of: audio, visual or both.



*To the Trainer of the Trainer...*

*The best way to help your future trainers is to take them through the course Unit by Unit, following the Instructor Guide.*

*To help them absorb the material more quickly, I suggest you have your trainers read the Knowledge Builder sections on line and then present the material face to face.*

*At the end of each unit, allow time to discuss how they feel their learners will grasp the concepts. At the end of the course, encourage a round table discussion to share ideas regarding motivating the high school age learner, or potential discipline issues that might conflict with the present Son Life/Son City guidelines.*

*Please write down any constructive suggestions for revision.*

*Send all suggestions and comments to:*

*Lori Thompson  
Talk and Text Training Service  
2850 Meadow Drive  
Rolling Meadows, IL 60008*

*alwysthnkn@yahoo.com*

A handwritten signature in cursive script that reads "Lori". The signature is written in black ink and is positioned to the right of the typed contact information.

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*To the Trainer of the Trainer...*

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ROOM 206

THE BELMONT ROOM A/V HOUSE SYSTEM

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Arlington Heights Evangelical Free Church

# Instructor Guide

# A note to the instructor...

You are about to teach the basics of a craft that is intrinsically rewarding.

Not only will your learners come away with a feeling of accomplishment and new knowledge but, you will also have shown them that their choice to serve as part of the audio visual team is crucial to the successful weekly delivery of the message.

Encourage them to practice, listen, and collaborate with you and their team members. Praise their accomplishments often and heartily.

When your learners complete these modular units, they will be able to demonstrate their ability to operate the individual functions of each piece of audio visual equipment mounted in the rack or connected to the rack in the Belmont Room house system.

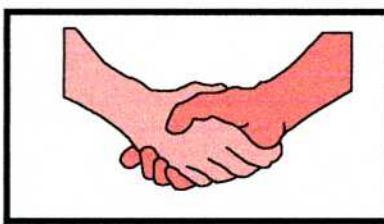
In simpler terms, your main objective is for your learners to become so comfortable with the system that the audience forgets they are there. The technology should be transparent.

But perfection is relative – not absolute. Visual presentation for the audio visual operator is primarily timing, but when it comes to running sound, keep in mind that it is a combination of both science and art.

The science of running sound is understanding the physical principals of signal flow, connections, gain and frequency. Knowledge of these items help to get the sound through the speakers and to your audience and are included in the following materials.

The art comes into play when the individual uses his or her own creativity to generate an environment of life; a mood that comes from careful preparation, just the right mix of technology, and an ear for tonal warmth. Invite experimentation during rehearsal.

Have fun exploring!



Arlington Heights Evangelical Free Church High School Ministry  
**EXPECTATIONS AGREEMENT**  
 For the Audio Visual Team

Thank you for wanting to make sure the message of Jesus Christ is delivered to your friends and future "buds" without distractions.

To help you understand what our staff needs from you, before preparing you to serve on the Audio Visual Team, please read through each check box and then discuss it with your mentor: who is

\_\_\_\_\_ (the trainer who will be showing you how to work the equipment)  
 Mentor Contact Information: \_\_\_\_\_



**Skills, Attitudes and Knowledge you should have prior to training: (initial each)**

**SKILLS**

- A 6th grade reading level.
- Must enjoy listening to music.
- The ability to listen for differences in volume, tone and pitch.
- The ability to observe and make decisions based on observations.
- The ability to follow 1,2,3 directions
- The manual dexterity to operate controls and set up equipment.

**ATTITUDES**

- The attitude of: "I can." "I'll try until I get it." And "mistakes are an opportunity to improve."
- The attitude of: "If I don't know, I will access available resources to find out."
- The attitude of: "I will commit time to learn what I need to know and to practice what I learn."
- The attitude of: "When I'm on shift, I will focus on my responsibilities, and catch up with my friends after or before my shift."
- A desire to want to make the program sound as pleasing to the listener as possible.

**KNOWLEDGE**

- How to use a computer mouse and keyboard to open computer documents.



**My regular A/V partner will be:** \_\_\_\_\_ **Phone:** \_\_\_\_\_



**What times/days are you AND your partner available to complete training?**

**Date/time** \_\_\_\_\_ **... First Training Session:** \_\_\_\_\_  
 Sunday 8:30-9:30 a.m. for Son Life (4-5 sessions) *date/time given by trainer*  
 Suggestions: Monday 5:30-7:30 p.m. for Son City (4-5 sessions)  
 Saturday or Tuesday (scheduled around band practice)



**I have talked with my mentor, and understand the expectations that come with the opportunity to be a part of the A/V team.**

**Print Name:** \_\_\_\_\_ **Signature** \_\_\_\_\_  
**Phone:** \_\_\_\_\_ **Pgr/Cell** \_\_\_\_\_ **email** \_\_\_\_\_



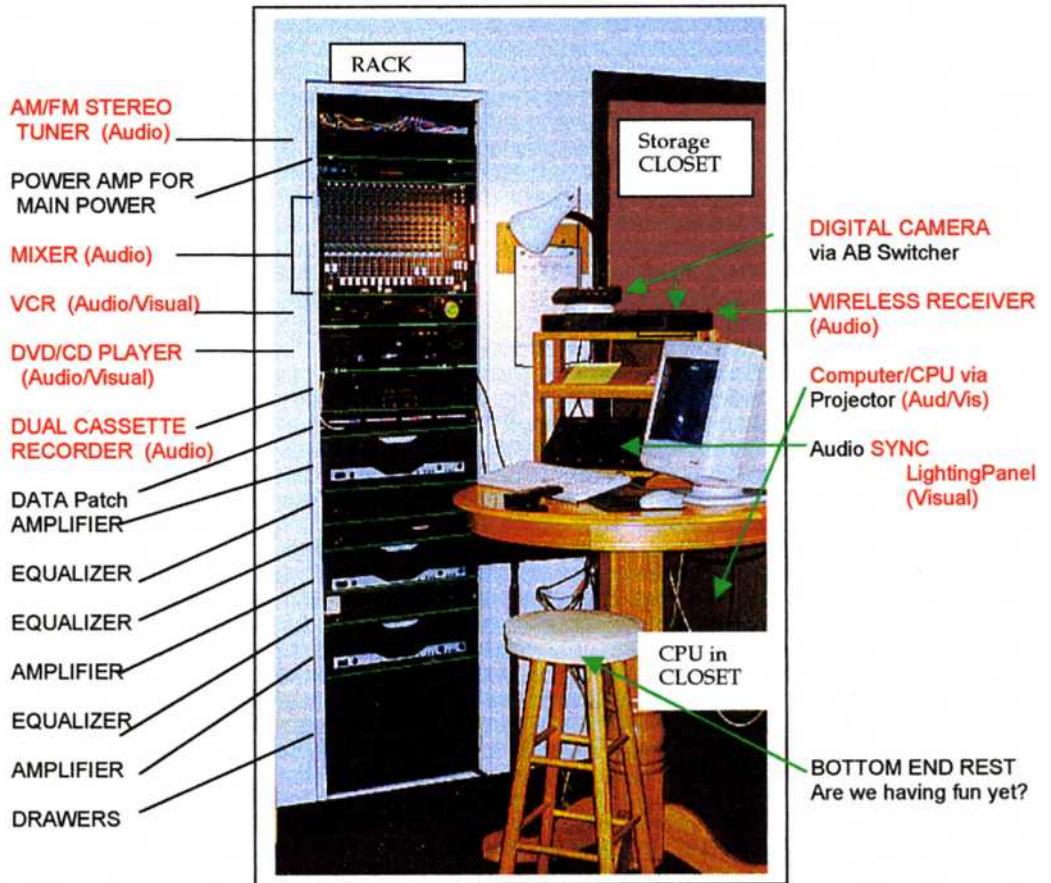
# Name and locate all audio and visual sources in and around the rack.

Unit 2  
KEY  
Mentor Discussion Items

When in the Belmont Room, each team member will be able to accurately locate and audibly name each audio and visual source in the rack, or used on the stage.

### Student Exercise 2.1 & 2.2

Touch and name and identify the SIX audio and FIVE visual sources in and around the rack. State whether the equipment is capable of: audio, visual or both.





## MENTOR DISCUSSION 2.1 & 2.2

- ❖ **Which sources do you feel you know how to operate well enough to teach someone else?**

*Feed back from this question will help you determine the pace of training when you get to individual equipment operation .*

Make a mental note: *The less experienced student should demonstrate aptitude on that piece of equipment without the partners help*

- ❖ **What other examples of media can you name for any of the sources you mentioned?**

{i.e. Cassette Tape (dual cassette recorder),  
Video Cassette tape (VCR),  
MP3 files recorded on a CD (DVD player, Computer),  
Floppy Disc or Zip (Computer),  
Flash Disk, (Digital Camera),  
Hard drive (computer).}

## MOTIVATION for the learner to see the relevancy of training

- ❖ **Which of these visual reinforcements have helped you to better understand a sermon, a school lecture, or a concept?**  
Personal response.
- ❖ **Can you think of an example you've seen to illustrate how these audio reinforcements can be used to support the high school program ministry?**  
(Music sets the mood depending on style, tempo. The lights help the audience to focus on the stage. The slides put questions in print during games and to help the audience members remember main points)
- ❖ **Have you ever been to Son Life or Son City when the sound or visual effects have distracted you from the message?**

*If they can't remember a time suggest:*

- Would you be distracted if the slides that were shown on the wall had nothing to do with the topic talked about in the message? (maybe the wrong slide group was played)
- Or, if during a song, the vocalists microphone *Screeeeched*...because it had gone into feedback?

## Lead into 2.3

- ❖ **Name one piece of equipment set up at the front of this room which also might be considered an audio source?** Any of the instruments or microphones

### **COMMONLY USED ABBREVIATIONS** on the Program Sheets:

A **Program sheet** is the list of chronological instructions given by the program director to the A/V team.

**Air 1:** Internet radio station (web site: [www.air1.com](http://www.air1.com))

**Mic:** Microphone (you get to choose WHICH microphone based on your knowledge of the system & conditions)

**Vprojector:** Video Projector

**PP or PP-Projector:** PowerPoint Slide Show in the day's specified program folder

**"SL 03.18.02 CD - track 1"**: SL=Son Life custom CD (gold & marked), 03.18.02=that night's date, the track 1 has the song.

**CD:** Compact Disk (play in the DVD player)

**Program Sheet location:** D:\My Documents\Son Life\March 17 18 The date will be listed with month then Sun & Mon date

As of Spring 2002 there are **3 basic formats for the Sunday Morning ministry:** *full band, a concert of praise, and crews (small group).*

As of Spring 2002 there are **3 basic formats for the Monday Evening ministry:** *Candlelight praise and prayer, Challenge/game night, and crews (small group)*

- Sometimes there is a skit, sometimes there isn't. Somebody usually gives a message, but the length is different. A saxophone may be played on one band morning, and a flute may be added another night.
- The A/V team member needs to read through and thoroughly understand what is being requested prior to set up to be able to **cue** (*prepare media or equipment to be heard or seen at the appropriate time*). If a piece of equipment or instructions are not specified in the set up section, but seems to call for it during an event, your best guess could be wrong. Use the set up time to clarify questions with the program coordinator, adult leaders who have provided visuals, or the band.

## **KNOWLEDGE BUILDER** Lesson 2.5

### **Scenario**

"Gender War - PP...Matt" is specified in the event column about 5 minutes into the program. You look at the PowerPoint slides in that night's computer folder, but have no clue whether "Matt" is giving a talk or whether Gender War is a game. There are no additional sheets attached for further explanation.

You have three options:

1. You can "wing it," and pray for divine intervention.
2. You can wait for Matt to come see you prior to the program and if he doesn't you can always say it's his fault...  
Or, if you choose to practice clarification:
3. You can go find your program director or Matt and ask him or her to talk you through the segment. At that time, you also might want to ask whether Matt is planning to use the microphone that is already on the platform, or whether he will need a different one.

ROOM 206

## THE BELMONT ROOM A/V HOUSE SYSTEM

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ARLINGTON HEIGHTS EVANGELICAL FREE CHURCH

2002-3



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STUDENT GUIDE



## Unit 1 – Expectation Agreement

My mentor's name is: \_\_\_\_\_

Contact Information: \_\_\_\_\_

My 1<sup>st</sup> training date is \_\_\_\_\_

My 2<sup>nd</sup> training date is \_\_\_\_\_

My 3<sup>rd</sup> training date is \_\_\_\_\_

My 4<sup>th</sup> training date is \_\_\_\_\_

My 5<sup>th</sup> training date is \_\_\_\_\_

**On-going notes about the training:** (use the back side of this sheet if you run out of room)

Exercises or units I really liked and WHY:

Exercises or units I didn't like and WHY:



**Unit 2 – Lesson 1 & 2**  
**Name and locate all audio and visual sources in and around the rack.**

**KNOWLEDGE BUILDER** Lesson 2.1 and 2.2

**Exercise 2.1 and 2.2**

Walk over to the Rack Station in the Belmont Room.  
Touch, name and identify the six audio and five visual sources in and around the rack.  
State outloud, whether the equipment is capable of: audio, visual or both.



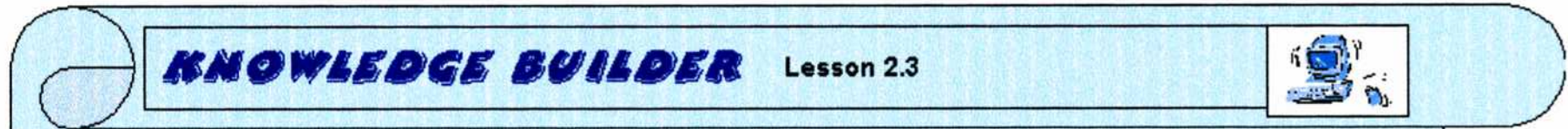
**MENTOR DISCUSSION**

NOTES:



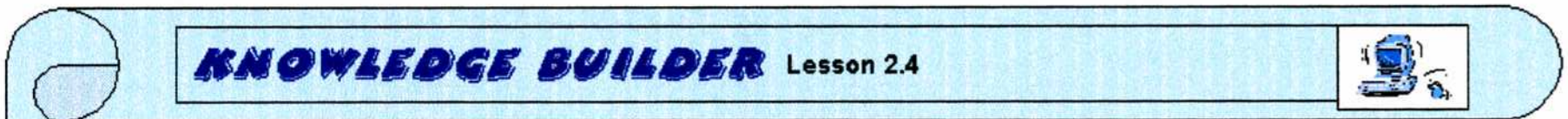
## Unit 2 , Lesson 3 and 4

**Locate, touch and correctly name each of the instruments and each type of microphone.**



### Exercise 2.3

Look at the stage. Touch and correctly name the band instruments mentioned above.



### Exercise 2.4

Retrieve all of the microphones from the Storage Closet.  
Touch and correctly name each vocal microphone.  
Identify which of the microphone stands is the "boom" stand.



## JOB AIDE – Unit 2



ACCOUSTIC GUITAR



BASS GUITAR



ELECTRIC GUITAR



KEYBOARD



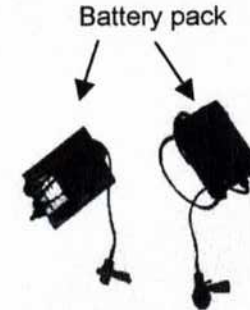
SM58



GARTH



HANDHELD



LAPEL



BOOM




Team member name: \_\_\_\_\_

Team member name: \_\_\_\_\_

## Instructor Performance Check Sheet

<b>Date:</b> _____			
<b>UNIT 1: Trainer Self-Assessment (individual assessment)</b> <b>Has your trainee:</b>			<b>Comment</b>
1. written in the days and times he/she is available to train and serve?	YES	NO	
2. written who his/her team partner will be?	YES	NO	
3. signed the agreement?	YES	NO	
<b>Has your trainee written in and have been able to say out loud:</b>			
4. the name of their training mentor?	YES	NO	
5. how they are expected to contact their mentor?	YES	NO	
6. the date and time of their first training session?	YES	NO	
<b>Date:</b> _____			
<b>PRE-TEST MASTERY QUESTIONS for UNIT 2 EXEMPTION (individual assessment)</b> Point to and name 5 visual, 5 audio, 6 instrument and 3 different microphone sources mounted in the rack or used on stage.  Point to 5 of the Program sheet abbreviations on the 2.5 A,B,C examples and define them.  Name the 4 types of microphones and identify which would be best for singing and which microphones would be best for talking.  Draw a cardioid pick-up pattern and explain what it means to an A/V operator?			<b>Comment</b>
YES	NO		
<b>Date:</b> _____ *•			
<b>2.1</b> <b>Locate, touch and then verbally name 5 visual sources: (Team members alternate answers)</b>			<b>Comment</b>
1. Computer Display and/or CPU	YES	NO	
2. VCR	YES	NO	
3. DVD Player	YES	NO	
4. Digital Camera	YES	NO	
5. Audio SYNC - Lighting panel	YES	NO	
<b>2.2</b> <b>Locate, touch and then verbally name 5 audio sources: (Team members alternate answers)</b>			<b>Comment</b>
1. AM/FM Tuner	YES	NO	
2. CD/DVD Player	YES	NO	
3. Cassette Deck (Tape 2)	YES	NO	
4. Computer Audio	YES	NO	
5. VCR Audio	YES	NO	

<p><b>2.3</b>  <b>Locate, touch and then verbally name 6 audio sources on stage. (Team members alternate answers)</b></p> <ol style="list-style-type: none"> <li>1. Bass Guitar</li> <li>2. Acoustical Guitar</li> <li>3. Lead Guitar</li> <li>4. Keyboard</li> <li>5. Drums</li> <li>6. Microphone(s) / Vocalist</li> </ol> <p>Instruments sometimes present:  Other: Saxophone, flute</p>	<p>YES  YES  YES  YES  YES  YES</p>	<p>NO  NO  NO  NO  NO  NO</p>		<p><b>Comment</b></p>
<p><b>2.4</b>  <b>Pick up each of the 4 types microphones and say what they are best used for (singing or talking): (Team members alternate answers)</b></p> <ol style="list-style-type: none"> <li>7. SM58  Singing or Voice</li> <li>8. Lapel  Voice Only</li> <li>9. Garth Mic  Singing or Voice</li> <li>10. Hand Held Wireless  Singing or Voice</li> </ol>	<p>YES  YES  YES  YES  YES  YES</p>	<p>NO  NO  NO  NO  NO  NO</p>		<p><b>Comment</b></p>
<p><b>2.4</b>  <b>Lay any of the microphones on a white sheet of paper and draw a cartoid pick-up pattern and</b></p>  <p><b>explain the significance. (1 team member draw – other explain what it means)</b></p>	<p>YES</p>	<p>NO</p>		<p><b>Comment</b></p>
<p><b>2.5</b>  <i>Have the Program Sheets available.</i>  <b>Name 7 differences between Program Sheets A-B &amp; C. Answers should include at least 3 Equipment, 2 Event and 1 Program format examples. (Team members alternate answers)</b></p> <ul style="list-style-type: none"> <li>❖ 3 equipment</li> <li>❖ 2 Event</li> <li>❖ 1 Program</li> <li>❖ remaining 2 examples given are satisfactory</li> </ul>	<p>YES  YES  YES  YES</p>	<p>NO  NO  NO  NO</p>		<p><b>Comment</b></p>

**2.5**

**(Team members alternate answers)**

*Have the Program Sheets available.*

**Point to the 5 Program Abbreviations you learned in the Knowledge Builder and tell me what they tell you as an A/V operator.**

- 1. Air 1: [www.air1.com](http://www.air1.com) Internet radio
- 2. Mic: Microphone
- 3. Vprojector: Video Projector
- 4. PP or PP-Projector: PowerPoint Pres.
- 5. SL 03.18.02 CD – track 1: Son Life  
Custom CD

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO

**Comment**

## **TROUBLESHOOTING and Technical Support**

### **ISSUE**

There is a hum, buzz or other noise coming through the speakers.

### **CAUSE 1**

A coiled cable is picking up a non-audio signal and transmitting it through your system. The concentration of a coiled cable only helps the cable pick up hum more efficiently.

### **SOLUTION 1**

Uncoil the cable in its entirety and then find a place to stow the excess.

### **CAUSE 2**

There is an unbalanced line that has not been isolated and converted to a balanced line. (If you brought something from your home audio system, this could be the culprit. Due to the expected short cable runs of home audio – they are usually unbalanced systems.

### **SOLUTION 2**

Use either a *Isolation Transformer* adapter or a *direct box* to convert the high impedance of the unbalanced line to the low level impedance of the console.

(pic) of an actual transformer adapter here

### **CAUSE 3**

The Isolation Transformer needs to be cleaned with special electronic cleaner.

### **SOLUTION 3**

The cleaner is in the bottom drawer of the rack. If you haven't been shown how to clean an electronic component. Ask, or read the directions on the can.

### **CAUSE 4**

The hum is caused by ground loop noise currents.

### **SOLUTION 4**

If the signal ground connects two units, but is also connected via the ground in the line through the rack rails, it causes the current to circle from one unit's ground out to a second unit and back again to the first. (hence the name – “ground loop”)

But... if it hasn't buzzed before now, chances are that unless someone has altered the wiring, or added equipment since the system has last been used, try the Solutions given

for Cause 2 & 3. If you know or have heard that someone has been adding or changing patch cords or wires... find them and tell them about the hum that wasn't there before. If you don't know ... let the person in charge of the Monday night or the Sunday morning program 1) know what you have tried to do to troubleshoot, 2) what your results were, and then know you've done your best you can do with the knowledge you have.

---

## **ISSUE**

Scratchy noises are heard when the faders are used;  
Or, there are signal dropouts as the channel fader slides up or down.

## **CAUSE 1**

Airborne crud has landed on the track (the strip behind the slot) the slider is on.  
Humidity has caused dust and etcetera to stick and dry on the track.

## **SOLUTION 1**

“Exercise” the fader(s) by running the slider(s) up and down the full length of the track at least once a week or so.

**DO NOT** spray an electronic cleaner into the track!

---

## **ISSUE**

The overall level is too quiet or too loud with a fader near UNITY.  
(the “U” marking on the fader channel)

## **CAUSE 1**

The level setting procedure was not done before the sound check.

## **SOLUTION 1**

Perform the “Level Setting Procedure”