Lighting Console
Show Operator’s Manual

Chapter 1: Headset How-to and protocol.
1. Voice switch.
2. Volume dial.
3. Channel switch.
4. Head set plug.
5. Call light.

The Clear-Com system is a simple and effective way to communicate with those backstage, in the green room, in the dressing rooms, and in the booth. A box similar to this can be found in the Stage Manager’s console Stage Right of the wings, in the green room, and in the girl’s dressing room. There are three consoles in the booth and outlets placed around the stage area.
Operation of the clear com system is simple. On wall mounted outlets, a small silver switch (1) allows for open microphone (middle position, “Mic”), Voice mute (top position, “Off”), and a call position that flashes a light on all headsets (bottom position, “Call”). During a show, your switch should be set to the “Off position” unless speaking. Because of our proximity to the KRTU radio tower, open mic allows for too much radio interference—primarily jazz over the headset.

Your channel switch (3) should be set to A unless otherwise notified.

When speaking into the microphone, speak normally. There is no need to shout. If you cannot hear others through the headset, try adjusting your volume (2). **ALWAYS TEST YOUR HEADSET before the start of every show to insure both voice and listen functions are working.** Announce your presence when you get on headset and tell people when you’re leaving.

Headset protocol is also simple. When your stage manager calls “ready” for a cue, respond with “Ready,” to let him/her know you’ve received the instruction. A typical cue should be called thus:

SM: “Lights Cue 1, ready.”
You: “Ready”
SM: “Cue 1 Go”
You: Press the go button.

The phrasing may change a bit, but this gives you a general idea of how things should work.
Chapter 2: Getting to know the board (Or as Willy Wonka says, “Button, Button, where is the Button?”)
Essential parts:

1. Function keypad
2. Number keypad
3. Screen keypad
4. Power Switch
5. Grand masters
6. Submasters
7. Wheel
8. Trackball
9. Dials
10. Disk drive
11. Go Button
12. Keyboard
13. Stop/Back Button

This is the lightboard. Scary huh? Never fear, it’s just a big computer with some fun switches and knobs on it. Hey, this thing runs on a Pentium Processor. It can’t be that bad, right?

The components:

1. Function keypad
Here you’ll find the following commonly used buttons:

- **Text** (allows you to input text from the keyboard)
- **Time** (allows you to set a fade time for each cue)
- **Goto** (allows you to jump to another cue without pressing the go button)
- **Q Only/Track** (allows you to tell the board to apply this to all cues or only one cue)
- **Wait** (allows you to create a follow cue)

2. **Number Keypad, 7. Wheel, 8. Trackball, 9. Dials**
These are the commonly used buttons on this keypad:

@ (Allows you to place a channel @ a dimmer or bring a channel up to a certain percentage [Ch 9 @ 50 *])
+ (Allows you to bring up multiple channels. 41 + 42 On *)
**Dim** (Allows you to bring up unpatched lights individually)
**Sub** (Allows you to program the submasters or call them up)
**On** (turns on a light to 75%. Ie: Ch 9 On *)
* (The equivalent of the Enter button of a computer. Follows every programming command. Ie: Ch 9 @ 50 *)
Thru (Allows you to bring up a bank of lights. Ie: Ch 9 – Ch 22 On *)
**Cue** (Used for programming cues or jumping to cues.)

**Wheel** (can be used to fade a light up to desired level without using keypad)

**Trackball** (can be used to adjust the position of moving lights. It’s also the equivalent of your mouse in some screens)

**Dials** (used primarily to adjust the settings of the Technobeams)

Important buttons you'll find here are:

**Archive** (this where you'll go to save)

**Live** (allows you to view various screens of what’s currently up and not)

**Patch** (allows you to patch dimmers to channels)

**Pre-view** (allows you to see the live screen, but not change anything on stage)

**Report** (where you’ll go to turn the board off)

**Power Switch** (turns the board on and off [after shut-down sequence])

**Grand-masters** (will fade all lights at once. We rarely use this, but if no lights come on, make sure both sliders are up.)

**Disk Drive** (You can save shows to disk here.)
**Go Button** (Used in the run of the show. Go will advance to the next cue.)
**Submasters** (bring up banks of lights when pre-programmed.)
**Stop/Back Button** (Stops the progress of a cue. Hitting while in a cue or stopped will cause board to jump back a cue.)

12. **Keyboard**
   Used primarily to write text for each cue or name a show.

**Chapter 3: Turning the board off. And On. And Saving the Show.**

**To Turn the board on:**
Press the power button. Wait for the board to boot up, just like any other computer.

**To Save the Show:**
Press **Archive** on the Screen keypad. Directly above the Number keypad are five soft keys. The first key should have “Save show” written above it. Press this button. The board will beep and the monitor will ask if you want to save. Press the * key to save. If you don’t want to save after all, press clear on the Number keypad.
To Turn the board off:

Press **Report** on the Screen keypad. Directly above the Number keypad are five soft keys. The second key should have “Shut down” written above it. Press this button. Now the same key will read “Exit”. Press again, wait for the boot up screen to appear on the monitor. Once this screen is up (it’s blue with geometric shapes), press the power button.

Chapter 4: The Basics of Programming:

Adjusting lights:

There are several ways to adjust a light’s level. When in technical rehearsal, you may be asked to do this quite a bit. Normally, the lighting designer will tell you to adjust the light he/she wants to a certain level. i.e.: Channel 49 at 50%. The lighting designer normally speaks in board syntax, so all you have to type is: “49 @ 50 *” Simple, right?

Now there may be some times that the lighting designer wants you to bring the light up a bit at a time. To do this you have to select the light and bring it up by wheel. You select a light by typing the channel [49] followed by an asterisk. 49* will grab the light, but nothing will happen until you tell the board to do something. If the light is an I-Cue, you can use the track ball to move the light at this time.

Programming a Cue:

To program a cue, make sure the lights are all set where the lighting designer wants them. The syntax for recording a cue is as follows:

Record Cue [insert number of cue here] *

Record is found on the function keypad.

Cue is found on the number keypad.

Numbers and Asterisk are found on the number keypad.

So to set light 49 @ 50%, and record it as Cue 3, we type:

Record Cue 3 *
**Recording a Timed Cue:**

So that’s a simple cue. The standard time for a cue is 5 seconds. Looking at the monitor, we’ll see that Cue 3 recorded at a 5 second fade. But what if we want to change the time to 25 seconds? If the cue is already programmed, we simply type

```
Cue 3 Time 25 *
```

Cue is found on the number keypad.
Time is found on the function keypad.

If the cue has yet to be programmed, you can program the cue and time at once. The syntax is:

```
Record Cue 3 Time 25 *
```

**Recording a Waited Cue:**

Okay. Now what if we want to link a cue to the next one in the sequence (meaning the next cue will start without your pressing the Go Button). This is where “Wait” comes in. On other boards, this may be referred to as a Follow Cue. The syntax for this is just like the syntax for a timed cue.

```
Cue 3 Wait 25 *
```

The Wait button is found on the function keyboard.

If you’re programming the entire thing at once, though, the syntax may look like this:

```
Record Cue 3 Wait 25 *
```

Or like this:

```
Record Cue 3 Time 25 Wait 25 *
```

**Adding Text:**

To add text to a Cue (so you can remember what it is or where it goes), one must use the QWERTY keyboard. Syntax will appear like this:

```
Cue 3 Text Whee Lights! *
```

The Text button is found on the function keypad.
The text is found on the QWERTY keyboard.
Whee Lights! will appear as the notes beside the cue.

**Note:** If the board is set up to track (your lighting designer will tell you if it is), then you should substitute the Cue button for the Q Only button, found on the function keyboard. The board setup varies from show to show, so check to see if it is set up to track first.

These are the basics of programming. You may be asked to do other things on the keyboard. Just remember that your lighting designer will direct you in programming more complex cues.

**Remember to save your work often!**
Chapter 5: I-Cue’s

An I-Cue is a moving light used in many of our productions here at Trinity. The light is partially-automated. You can adjust the placement of the I-Cue by using the Trackball. To adjust the I-Cue is simple. Simply select the light you want (I-Cues appear on the monitor in White, rather than blue). For this scenario, let’s say that the I-Cue we’re working with is # 117 (this is a common place for the I-Cue’s to sit).

Select the I-Cue the normal way.

117 *

You can now use the track ball to adjust the I-Cue’s position. Under the I-Cue will be four numbers. Take note of the second and fourth numbers. WRITE THEM DOWN. Now that you have adjusted the I-Cue’s position, you must place adjust the position for the cue just before and after (unless the light is supposed to be seen moving across the stage). Otherwise the I-Cue will drift and be very noticeable to the audience. You adjust the position not by using the trackball, but by returning to the Number Keypad. For this example, we will say that the position is 50, 85

Go to the previous Cue. Type the following.

117.3 @ 50 *

117.4 @ 85*

Adjust nothing else. This will give the I-Cue a full cue to get in place so that it will not drift.
Do the same for the cue ahead of the original one you programmed.

Chapter 6: Submasters

Submasters are rarely used in the run of a show, but this tutorial may be useful for future reference.
Submasters allow you to bring up a bank of lights as one, rather than bringing up individual lights one by one. This is useful for events such as talent shows or orchestra concerts. The lights that normally get put into submasters tend to be color washes and cyclorama lights.

To program a submaster:

Bring up all the lights you want on that slider. Rather than turning them on (1 Thru 5 On *), bring them up to full (1 Thru 5 @ 99 *). You can program them into the Submaster with the following syntax:

Record Sub 11 * (any of the 24 subs will do, I have simply chosen a number at random).

Sub can be found on the function keypad.

A green light should appear above the submaster you have just programmed.

You can now use the slider to bring that bank of lights up or down.

Chapter 7: Show Operation

Now you have the basics of programming the light board. You will likely be making adjustments to the lights for the majority of tech week. By preview (at the latest) you will be running the show all the way through under the direction of your stage manager. Remember your headset protocol from Chapter 1? You’re going to use it here.

SM: “Lights Cue 1, ready.”
You: “Ready”
SM: “Cue 1 Go”
You: Press the go button.
When the Stage manager says to Go, you press Go. That’s it. Simple, huh? Now if for some reason you’re trigger happy and press the Go button accidently, you can stop the progress of the cue by pressing Stop/Back. Pressing this button a second time will take you back to the previous Cue. This button takes you back only if the Cue has already been stopped or completed.

At the end of every technical rehearsal, save the show so the changes remain.
At the end of every rehearsal show, remember to shut down the board.

That’s it! Now you’re ready to operate!